

Energy as a corporate security measure: Australian experiences and insights

Ms. Nicola Watkinson

Senior Trade & Investment Commissioner, South Asia
Australian Trade Commission

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Australian Government
Australian Trade Commission



There are 2 fundamental ways in which energy impacts corporate security

Supply of energy

Cost of energy

Reducing energy consumption reduces costs and improves profit margins

Focus today on delivering savings from industrial and commercial energy efficiency

Presentation

Australia's Energy Usage Pattern

Australian Energy Efficiency Policies

Helping Businesses to Reduce Energy Costs

Industry case studies – What are the Savings

Lessons from Australia's experience



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Australian Energy Efficiency Policies

Industrial

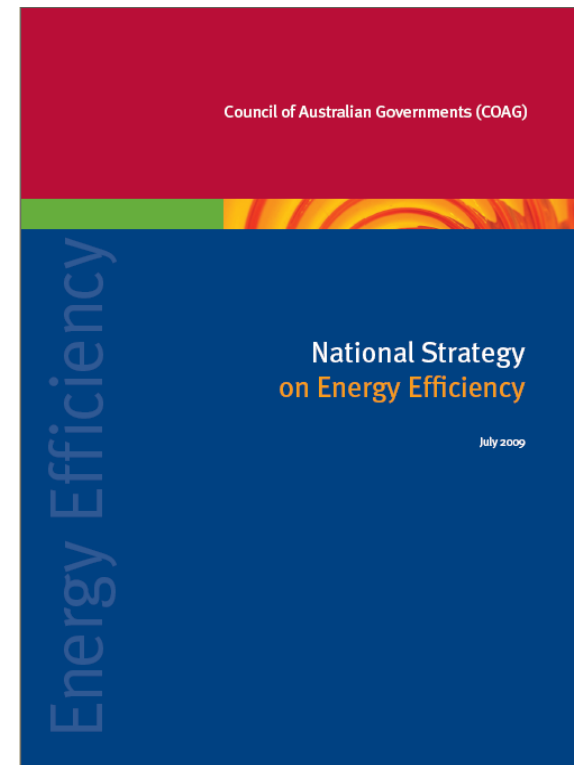
- Energy Efficiency Opportunities Program

Commercial

- Building rating standards
- Mandatory disclosure

Funding Support

- Clean Technology Investment Program
- Clean Energy Finance Corporation



Energy Efficiency Opportunities (EEO) Program

- Program for corporations using > 0.5 PJ of energy per year
- Assessment of energy use and identification of opportunities to improve energy use; payback period < 4 years
- No Targets, Implementation Not Mandatory
 - adoption of opportunities encouraged through provision of high quality information to decision makers, and through reporting to the Board and Public
- Includes industry and power generation
 - Over 300 companies covering over 60% of Australia's total energy use

Industry Case Studies

OneSteel- Use of alternative fuel in Steel production

Initiatives: Partial substitution of coke with polymers including rubber as alternative carbon injectant to produce foaming slag in Electric Arc Furnace

Key Benefits:

- *Reduction in electricity consumption of 2-3 %. Equates to around 11.5 -12 kWh per billet tonne.*
- *Reduced cost of injectant by 20-35%*
- *Lowered overall injectant usage per heat by 12%*

Other benefits includes, reduced electrode wear, reduced oxygen consumption, increased refractory life and reduced materials handling system maintenance costs

Mushroom Exchange

Initiatives:

Replacement of old compressors with high-efficiency Turbocor compressors

Air handling units- changed from direct expansion type to chilled water type

Key Benefits:

Reduced site energy consumption by 307,000 kWh per year, abating around 455 tonnes of carbon per annum

Building Rating Standards

In Australia, two rating tools are in common use:

- **GREEN STAR RATING-** the design rating tool
 - Evaluates design of the building at conceptual stage, during construction and “as built stages”
- **NABERS GREEN RATING** (National Australian Built Environment Rating System) - performance rating tool
 - Measures ongoing energy use based on actual data
 - 4 Tools covering Energy, Water, Waste and Indoor Environment

Industry Case Studies

Stockland Head Office, Sydney

Initiatives: *Trigeneration system of size 772 kW installed. The system also supplies 412kW of peak heating and 475kW of peak cooling*

The plant is set up to operate in grid parallel-import and operates automatically during the peak and shoulder demand periods

Key Benefits:

- *Reduced dependency on grid for peak demand*
- *80% Overall Efficiency when compared to grid electricity*
- *4.5 star NABERS Base Building- 5 star NABERS & 6 star Green Star Tenancy*
- *Estimated savings of up to 2,000 tonnes of CO2 per annum*

Lessons from Australian Experience

- Understand the benefits to the bottom line.
- Use measuring tools to understand where savings can be made.
- Opportunity for big energy savings for relatively low outlay
- Jump before you are pushed
- Learn from other's experience - take advantage of Australia's systems for helping companies reduce energy, save money and improve corporate security.

Who we are

- The Australian Trade Commission (Austrade) is the Australian Government's trade and investment development agency
- Austrade helps companies around the world to source technology and solutions from Australia.

We put you in touch with quality Australian suppliers and help you to build profitable commercial relationships.

Thank you
Nicola.watkinson@austrade.gov.au
www.austrade.gov.au
Twitter: @AustradeIndia