

INDUSTRY GREENHOUSE PROGRAM KEY OUTCOMES



EPA's Industry Greenhouse Program was conducted over a 5 year period from 2002 to 2007, with most improvement actions occurring from 2004 onwards.

Some of the final achievements of the Industry Greenhouse Program will include:

- **1.23 million tonnes of Greenhouse Gas reductions per year** (Equivalent to taking 286,000 cars off the road permanently)
- **\$38.2 million in annual energy cost savings to business**
- **20 months average payback period on investment costs, equivalent to 60% return on investment**

EPA's Industry Greenhouse Program (IGP) is Australia's first mandatory greenhouse and energy efficiency program for industry, and one of the first worldwide. Through the innovative use of regulation, the program is delivering significant economic and environmental outcomes.

These outcomes demonstrate the real benefits to be obtained from energy efficiency actions. Through these measures business will be better prepared for the 'low carbon economy', equipped with first-hand understanding of the means to reduce carbon emissions.

The IGP commenced in 2002 as a key component of the Victorian Greenhouse Strategy, and was a mandatory requirement for all EPA licence holders. Large energy users or greenhouse gas emitters were required to undertake an energy audit and implement improvement actions with

'By taking a team approach you can tap into considerable knowledge and experience to come up with smart, very cost effective ideas. They not only have environmental benefits - they help the company's bottom line and often have OH&S and other benefits.... To stay profitable you have to keep looking for opportunities to improve.'

Graham Church, CEO,
Alpine MDF

'We are looking for more opportunities to improve our environmental performance. Through cleaner production processes we hope to replicate the achievements we have made at Geelong South at our other manufacturing sites.'

Tim Maishman, Group Operations Manager, Godfrey Hirst

a payback period of three years or less. Smaller users were encouraged to identify excessive energy use and implement reductions where practicable.

Many actions were found to pay for themselves in less than a year, with a third having a payback period of six months or less and delivering annual cost savings of \$18 million. This illustrates the significant potential to be found from capturing 'low hanging fruit'.

The overall energy use reductions obtained from the IGP equate to just over one year's growth in demand for electricity in Victoria, and about three years for gas. This demonstrates that energy efficiency measures can provide a real benefit to the State in combating increasing energy demand.

Industry feedback about the program confirmed its value in ensuring that identified cost effective projects were implemented, and in helping industry to improve its energy management practices.



EREP Consultation

Draft Regulations, Guidelines and the Regulatory Impact Statement for the EREP program will be released for public comment during September 2007, with public consultation sessions to be held over a four week period.

EPA is actively seeking input from all stakeholders in support of this new regulatory development.

For more information go to www.epa.vic.gov.au/bus/erep

Environment Resource Efficiency Plans - building on the success of the Industry Greenhouse Program

The Industry Greenhouse Program has highlighted the potential for businesses to save money while reducing the environmental impact of their energy use and the associated greenhouse gas emissions. There are further benefits to be gained from integrating resource efficiency considerations, and EPA is now developing a program that will help industry achieve these savings.

The Environment & Resource Efficiency Plans (EREP) program aims to build on the success of the Industry Greenhouse Program by helping industry to reap the benefits of assessing energy, water and waste collectively. The EREP program will focus strongly on identifying and pursuing financially viable actions for resource use efficiency and waste reduction.

Under the program, Victoria's largest industrial and commercial users of energy and water will be required to assess energy, water and waste at relevant sites and identify and implement cost-effective opportunities for reductions. The EREP program will not be confined to EPA licensed sites, because other large energy and water users also stand to make considerable savings from this process.

EPA will also offer a voluntary program for smaller resource users, helping them to achieve the benefits of improved resource efficiency.

Energy saving tips

Energy use has a significant impact on productivity, profitability and greenhouse gas emissions.

Some of the actions implemented with success in the IGP included the following:

- Installing variable speed drives (VSDs) on pumps and other equipment.
- Optimising boiler performance with regular maintenance and tuning and considering insulation, fixing steam leaks and installing economisers.
- Optimising compressed air systems through fixing air leaks and optimising operating pressures.
- Installing energy efficient lighting, using motion and daylight sensors and removing unnecessary lights.
- Ensuring that hot water systems are insulated and running at optimal temperature.
- Exploring heat recovery systems in industrial processes, such as collecting condensate for use as boiler feedwater, or using waste heat for space heating.
- Optimising heating, ventilation and air conditioning (HVAC) systems by adjusting thermostats to suit the weather (26 °C in summer and 18 °C in winter) and ensuring that systems are switched off out of hours and on public holidays.
- Regularly reviewing plant equipment, Upgrading equipment can often improve productivity and deliver energy savings.

Further information

For more information on this program or to read the complete report

'Delivering business benefits from energy efficiency' (EPA Publication 1165) visit www.epa.vic.gov.au/greenhouse