



Sustainable Energy Development Office Government of Western Australia

HIGHLIGHTS AND ACHIEVEMENTS 2004/2005

National Framework for Energy Efficiency

The Ministerial Council on Energy announced a major national program last year – the National Framework for Energy Efficiency (NFEET). The Sustainable Energy Development Office has participated in all stages of the development of NFEET. The Western Australian Government, along with other Australian Governments, agreed in December 2004 to implement Stage One of NFEET within three years.

The scheme's overall objective is to improve Australia's energy efficiency, productivity and the environment. The framework's comprehensive package of energy efficiency initiatives encompasses the residential, commercial, government and industrial sectors. With an allocated expenditure of around \$33 million over three years, the various initiatives have the potential to save 50PJ of energy a year by 2015.

Major milestones in Stage One of the National Framework for Energy Efficiency scheme include the development of the Energy Allstars website that identifies high efficiency appliances and equipment. Also a building star-rating program, called *Accurate*, where new homes and those with renovations are assessed for their energy efficiency.

NFEET covers programs where it has been agreed there is a benefit from national coordination.

Nine sub-groups have been established to implement the initiatives of Stage One of NFEET.

The Sustainable Energy Development Office has representatives on all of these groups.

As implementation of Stage One continues, the NFEET Steering Committee will investigate further options for increasing energy efficiency.

Solar Water Heater Scheme

The Sustainable Energy Development Office administers and promotes Western Australia's State funded Solar Water Heater Subsidy scheme. Rebates totalling \$1.3m were provided for solar water heaters on 2,736 WA homes in 2004/05. A new solar water heater scheme was introduced on 1 June 2005. The new scheme targets gas-boosted solar water heaters, as these systems have the lowest greenhouse emissions of all common hot water systems.

Renewable Energy

A Renewable Energy Handbook is being developed by the Sustainable Energy Development Office. The handbook will guide applicants of renewable energy projects through the approval process, assist local governments in assessing proposals and provide assistance to people seeking to provide input into the process.

Energy Smart Business

The Sustainable Energy Development Office, through its representation on the National Appliance and Equipment Energy Efficiency Committee, assisted the Ministerial Council on Energy introduce minimum energy efficiency standards that apply to the sale of household type air conditioners, fluorescent lamps, refrigerated food display cabinets and electricity supply system transformers. In addition, existing requirements for refrigerators and freezers were made more stringent. The Committee also started work on ten-year strategies to reduce lighting, water heating and gas equipment energy consumption.

Energy Smart Community

The Sustainable Energy Development Office continued its close involvement with local government during the year. These initiatives included participation in the street lighting project and promoting and hosting community seminars in council offices. The street lighting project investigating methods of improving street lighting energy efficiency in Western Australia continued, and a technical and institutional report was released. Lighting technologies are being monitored in the Town of Mosman Park, City of Subiaco and the City of Swan. The project will continue for another year in partnership with the Western Australian Local Government Association and Western Power Corporation.

The Sustainable Energy Development Office continues to contribute to improving energy efficiency in new homes. Western Australia was the first State to participate in the national trials of the second generation HERS software known as *AccuRate*. Completion of the trials during 2005 would see *AccuRate* being adopted for use in Western Australia in 2006 for new homes and additions and alterations to existing homes.

The *Reach for the Stars* program, promoting high energy star-rated electrical and gas appliances, was continued throughout Western Australia. The Sustainable Energy Development Office provided training and promotional material to 135 stores in the metropolitan, South West, Wheatbelt, South Coast, North West, Goldfields and Esperance regions. More than 440 retail staff were trained and updated on current developments.

Community seminars continued in the Perth metropolitan area. These were held at the Subiaco Sustainable Demonstration Home, Mundaring and Wanneroo. Approximately 120 people attended the seminars.

Energy Smart Business

The Sustainable Energy Development Office progressed measures to improve the energy efficiency of electrical appliances and equipment, through its representation on the National Appliance and Equipment Energy Efficiency Committee.

These measures include the star-rating labelling program for whitegoods that allows consumers to consider energy efficiency when making a purchase; Minimum Energy Performance Standards which prohibit the sale of poor performing models of selected equipment types; and a national strategy to reduce equipment electrical standby power consumption (the power consumed by equipment while waiting to perform its primary function).

The Australian Building Greenhouse Rating program is part of a broader national program that the Sustainable Energy Development Office administers in Western Australia and is a software tool for rating the energy and related greenhouse performance of office buildings. The program is supported by the Property Council of Australia. Twenty five ratings were performed in 2004/05 and there are now twenty accredited assessors in Western Australia.

During the year, the Department of Housing and Works, with the assistance of the Sustainable Energy Development Office, released a revised version of its Office Accommodation Policies that incorporates mandatory requirements for Australian Building Greenhouse Rating assessments and sets minimum levels of performance for government office leases.

During the year, the Sustainable Energy Development Office provided advice in relation to:

- The Productivity Commission Inquiry into the Economic and Environmental Potential of Energy Efficiency
- The Commonwealth Government's Solar Cities program
- Planning issues for a number of proposed renewable energy projects based on the use of biomass.
- The State Greenhouse Strategy, including providing advice on energy related matters and other technical issues.
- An interjurisdictional working group looking at options for a multi state renewable energy target above that required under the Commonwealth's Mandatory Renewable Energy Target.
- The Legislative Assembly Economic and Industry Standing Committee Inquiry into Energy Efficiency and Renewable Energy.

- The Energy Sector Working Group for the State of the Environment Report.
- The Department of Premier and Cabinet on coal fired power stations, their greenhouse gas emissions and developments in technology.
- Geosequestration of CO₂ for the Western Australian Government submission to the Regulatory Impact Statement released for comment by the Commonwealth Department of Industry, Tourism and Resources.
- An issues paper to guide a strategic review of the national Green Power Scheme.
- A strategy for Government to purchase 5% of its electricity from renewable energy sources.
- A Department of Planning and Infrastructure proposal on the development of a sustainability scorecard for residential development.
- Mandatory Renewable Energy Target issues such as the price of RECs, Western Power's RECs procurement strategy and related stakeholder concerns.
- A number of strategies for managing commercial, industrial and household energy use and related greenhouse gas emissions.
- The accuracy and applicability of the greenhouse coefficient for electricity use for Western Australia.

Renewable Remote Power Generation Program

Rebates totalling \$5.9m were provided through the Renewable Remote Power Generation Program for installing 600kW wind turbines at Hopetoun, Rottnest Island and Bremer Bay and for 275 small renewable energy based power and water pumping systems in regional areas of Western Australia. The Renewable Remote Power Generation Program is a Commonwealth Government initiative that is implemented by the Sustainable Energy Development Office in Western Australia.

Regional Energy Efficiency Pilot Project

This project involved a six month trial of various energy saving initiatives in Exmouth and Meekatharra. As part of the project free compact fluorescent lamps were provided for 250 homes and businesses, subsidies were provided for high efficiency appliances and insulation in 37 homes and energy audits were carried out for 20 businesses. The pilot project was conducted in conjunction with the Shires of Exmouth and Meekatharra and was well received by the residents of both towns.

Seminars

Regional community seminars were held in Carnarvon, Kalgoorlie, Bunbury and Albany. More than 170 people attended the series and 800 information kits were distributed to interested stakeholders.

Renewable Remote Power Generation Program

Following negotiations with the Commonwealth, the State has achieved changes to the Renewable Remote Power Generation Program. Rebates can now be provided for fringe-of-grid renewable energy systems and energy efficiency projects off-grid. New sub-programs targeting these areas will be introduced in 2005/06. Outcomes of the Regional Energy Efficiency Pilot project will assist the development of a broader program targeting energy efficiency in all off-grid areas.

Energy Smart Government

Participating State government agencies achieved a reduction in energy consumption of 4.6% in 2003/2004. The combined data for 61 of the 62 agencies participating in the program showed a 6.4% reduction in energy consumption, which exceeded the 6% target of 2004/05.

Overall, participating agencies achieved the following savings in 2003/2004 relative to the baseline:

- Energy consumption reduced by 4.6% to 2,683,898GJ
- Energy costs reduced by 3.3% to \$76.1 million
- Greenhouse gas emissions reduced by 3.6% to 509,502 tonnes.

As part of the Energy Smart Government program, facilitation grants of \$350,000 were approved to assist agencies with the identification and implementation of energy saving projects and initiatives. Facilitation grants were available for agencies to identify or specify energy saving opportunities. All available funding in 2004/05 was allocated to 29 projects.

During the year over \$1 million of capital advance funding was approved. This represents a good mix of projects that will act as an example to other agencies. A review of completed capital advance projects was initiated during the year and will quantify the actual savings resulting from these projects.

An Energy Smart Trade Expo was held in May 2005 and provided an excellent networking opportunity to bring government agencies and the sustainable energy industry together. A survey of the delegates reflected a high level of satisfaction with the Expo and 85% of those surveyed indicated that the Expo increased their knowledge of sustainable energy practices and technologies.

During the year a survey of energy management practices in government agencies was undertaken. The objective of the survey was to provide the Sustainable Energy Development Office with information that could be used to enhance the operation and delivery of the Energy Smart Government initiative. It provided valuable information to indicate agencies' progress in adopting the principles of the Energy Smart Government policy.

Energy Smart Line

During 2004/2005, approximately 4,500 calls were received through the Energy Smart Line telephone advisory service. The Sustainable Energy Development Office's range of brochures is distributed through the service and also through many local government and community organisations.

Energy Smart Directory

The Energy Smart Directory is a website database providing access to sustainable energy products and services. It connects leading energy product suppliers with organisations and individuals looking for ways to manage their energy consumption and greenhouse emissions. The Directory increased in popularity during the year and now has more than 300 suppliers listed and an average of around 2000 – 3000 direct website hits each month.

The Sustainable Energy Development Office and the Department of Energy, Utilities and Sustainability (NSW) have collaborated to develop an Energy Smart Toolbox that helps businesses to reduce their energy consumption. The Energy Smart Toolbox brings together a wealth of information, knowledge and resources designed to improve energy efficiency and energy management.

Energy Smart Public Communication

The Sustainable Energy Development Office continues to implement its communication and marketing strategy to accelerate change in the way Western Australians perceive and use energy. The strategy is aimed at encouraging and assisting industry, government agencies and communities to operate in ways that are economically, environmentally and socially sustainable.