

ENERGY EFFICIENCY PROGRAMS – E2

Eco-efficiency resources for the food processing industry

Government support for energy efficiency

The Queensland Government's ClimateSmart 2050 strategy aims to progress the State towards the national goal of reducing greenhouse gas emissions to 60 per cent of the 2000 level by 2050. Mechanisms identified include investment in clean, low-emissions technology, renewable power generation and clean coal technologies. Food processing facilities will be required to become more energy efficient in order to meet these targets. There are several energy efficiency programs being run by the State and Commonwealth Governments to assist companies in reducing their energy use.

ecoBiz

ecoBiz is a Queensland Government program that provides assistance to companies to become more eco-efficient through energy, water, resource and waste efficiency. More information can be found in the *General overview (G1)* fact sheet.

Smart Energy Savings Program

The Smart Energy Savings Program, implemented through the *Clean Energy Bill 2008*, is part of the ClimateSmart 2050 strategy. In the transition to a national Carbon Pollution Reduction Scheme (refer to the *Greenhouse gas emissions (E3)* factsheet) this program requires Queensland's medium to large users to participate in a five-year process consisting of an energy conservation audit, action plan, public commitment and ongoing monitoring and reporting. The program will commence in July 2009 with compulsory participation for energy users as outlined in the table below.

The initial phases of the program will only address electricity and process natural gas. Other energy consuming processes such as those associated with transport may be incorporated at a later date.

Baseline year	Energy use on one site
July 2009/June 2010	100-500TJ or 27.8-138.8 GWh
July 2010/June 2011	30-100TJ or 8.3-27.8 GWh
July 2014/June 2015	10-30TJ or 2.8-8.3 GWh

Companies using less energy than listed above can still join the program and develop a voluntary energy efficiency plan that will save money and resources.

For more information visit: Department of Mines and Energy, Smart Energy Savings Program www.dme.qld.gov.au/Energy/smart_energy_savings_program_.cfm



Smart Energy Savings Fund

The Smart Energy Savings Fund, also part of the Climate Smart 2050 strategy, provides funding to assist Queensland businesses to invest in commercial energy saving projects. The Smart Energy Savings Fund provides grants and secured concessional loans to fund projects that reduce energy use; funding is allocated through competitive funding rounds. A secondary outcome for Queensland is to reduce energy peak demand and total energy consumption.

For more information visit: Department of Mines and Energy, Smart Energy Savings Fund, www.dme.qld.gov.au/Energy/smart_energy_savings_fund_.cfm

Greenhouse Challenge Plus

The Greenhouse Challenge Plus is a program to assist companies to achieve energy efficiency by providing information, networking support, and assistance from Government. The networking support of sharing information between companies, workshops and independent verification of action plans can help companies in decision making. It can be used as a promotional tool with companies who have achieved under the program listed on the Australian Department of Environment, Water, Heritage and the Arts website.

Participation also allows the Australian Department of Environment, Water, Heritage and the Arts to promote the achievements of industry by keeping track of greenhouse gas reductions and energy efficiencies.

For more information visit: Greenhouse Challenge Plus, www.environment.gov.au/settlements/challenge

Greenhouse Friendly

The Greenhouse Friendly program offered by the Australian Department of Climate Change allows certification of products and services that have fully offset all their associated greenhouse gas emissions. This process begins with the independent verification of the carbon emissions relating to a product or service. Offsetting must be done through Greenhouse Friendly approved abatement projects.

The products or services can use the Greenhouse Friendly trademark to allow better public recognition through marketing, letting consumers know they are purchasing carbon neutral goods and services.

For more information visit: Greenhouse Friendly, www.climatechange.gov.au/greenhousefriendly

Energy Efficiency Opportunities (EEO)

Companies using over 0.5PJ (500TJ) of energy every year are required to participate in an Australian Department of Resources, Energy and Tourism program to audit their energy consumption and improve their energy efficiency. It includes approximately 250 energy intensive companies in Australia. Outcomes of the energy assessment will be reported publicly through this system.

Whilst it is unlikely that many Queensland food processing companies will fall under the EEO banner it is possible this framework could be extended to lower energy users. The *National Greenhouse and Energy Reporting Act 2007*, provides a single framework for reporting on greenhouse gas emissions and abatement actions.

Starting from 1 July 2008 the initial thresholds for mandatory reporting are 500TJ for corporations and 100TJ for individual facilities. Lower thresholds for corporate groups will be phased in by 2010-2011. The final threshold in energy terms will be 200TJ.¹

For more information visit Energy Efficiency Opportunities, www.energyefficiencyopportunities.gov.au

National Greenhouse and Energy Reporting, www.climatechange.gov.au/reporting/legislation

¹ Department of Environment and Water Resources, October 2007, National Greenhouse and Energy Reporting Act 2007 Fact sheet, www.climatechange.gov.au/reporting/publications/pubs/nger-fs.pdf



Auditing tools

There are many businesses that provide energy auditing services to manufacturing companies. Useful information including several tool kits is available on the internet. Due to the requirements for upcoming energy and greenhouse report schemes all energy audits should be based on the Australian/New Zealand Standard AS/NZS 3598:2000: Energy Audits.²

Some tools that are available free of charge include:

- The Australian Department of the Environment, Water, Heritage and the Arts provides energy auditing tools through the Greenhouse Challenge Plus program. For more information visit: www.environment.gov.au/settlements/challenge/members/energyaudittools.html
- The Australian Department of Climate Change hosts OSCAR, an online energy, waste and greenhouse gas recording and reporting tool for use by several programs including EEO and Greenhouse Challenge Plus. For more information visit: www.climatechange.gov.au/oscar

International tools that may be of use to food processors but may not meet Australian Standards include:

- The RETScreen International, Clean Energy Decision Support Centre, hosted by Natural Resources Canada, has developed a free software tool that can assist companies in making decisions about the economic value of renewable energy products. For more information visit: www.retscreen.net/ang
- The Process Heating Assessment and Survey Tool by the United States Department of Energy, Energy Efficiency and Renewable Energy Office assists businesses in identifying opportunities for saving energy. For more information visit: www1.eere.energy.gov/industry/bestpractices/software.html

This series of fact sheets provides examples and suggestions to the modern food processor on how to achieve both economic and environmental benefits from eco-efficiency. Visit the project website www.ecoefficiency.com.au for more ideas and case studies.

² Australian and International Standards On-line Shop. www.saiglobal.com

The eco-efficiency for the Queensland food processing industry project is an initiative of the Department of Tourism, Regional Development and Industry and the Environmental Protection Agency with technical information provided by UniQuest through the UNEP Working Group for Cleaner Production.