

Upgrade commercial refrigeration equipment

Commercial refrigeration is a substantial energy user, yet often little consideration is given to its energy efficiency, operating costs or environmental impact.¹ The energy costs of refrigeration plant can be reduced by around 40% through adoption of best energy efficient equipment and techniques.

Supermarkets and other food retailers often have open refrigeration units for ease of customer access. Enclosing refrigeration units with glass doors, which customers can easily open, can reduce refrigeration loads by as much as 68% according to laboratory testing.² This can save significant amounts of energy as around half of the energy usage in a supermarket is for refrigeration.

For more information

[Technology report: Industrial refrigeration and chilled glycol and water applications technology report 2011](http://www.environment.nsw.gov.au/resources/business/110302-industrial-refrigeration-tech-rpt.pdf) *(Opens in a new window)*
(<http://www.environment.nsw.gov.au/resources/business/110302-industrial-refrigeration-tech-rpt.pdf>)

NSW Office of Environment and Heritage [PDF 2.0MB](#)
(<http://www.environment.nsw.gov.au/resources/business/110302-industrial-refrigeration-tech-rpt.pdf>) [Website](#)
(<http://www.environment.nsw.gov.au/sustainbus/energyeffrefrig.htm>)

A technology guide produced by the NSW Government outlines 15 energy-saving technologies which can contribute to more energy efficient commercial refrigeration. While many of these measures require capital outlays, case studies indicate the payback period is often less than three years.

Footnotes

1. NSW Government (2011) [Technology Report Industrial refrigeration and chilled glycol and water applications](http://www.environment.nsw.gov.au/sustainbus/energyeffrefrig.htm) (<http://www.environment.nsw.gov.au/sustainbus/energyeffrefrig.htm>)
2. Walker, D.H., Faramarzi, R.T. and Baxter, V.D. (2003) [Investigation of Energy-Efficient Supermarkets Display Cases](http://www.ornl.gov/~webworks/cppr/y2001/rpt/122084.pdf) (<http://www.ornl.gov/~webworks/cppr/y2001/rpt/122084.pdf>), 21st International Congress of Refrigeration, Washington DC, USA. *(Opens in a new window)* PDF 22.4 MB

eex.gov.au is managed by the Australian Government Department of Industry and Science
(<http://www.industry.gov.au>)