

Energy Efficiency for Small Business Program Case Study

Dale Glass Industries

Dale-Glass Industries

Dale-Glass Industries (DGI) was founded in 1974 by Cecil Dale and Joseph Glass. The company began production in an old boat shed in Balmain, Sydney. Now DGI operates from four locations in the three eastern Australian states.

DGI Sydney in Silverwater is the main distribution centre and stock includes both structural and decorative Glulam (glue-laminated) products.



In addition it also has specialised joinery and finishing facilities allowing for full fabrication of DGI Glulam products for both domestic and commercial applications.

Industry

Wood products & manufacturing

Sustainability Drivers

For business owner Joe Glass, aligning cost savings with environmental savings makes good business sense. “Anything we can do to reduce our environmental impacts whilst improving the efficiencies and productivity of our business makes for a logical choice”. He saw the Energy Efficiency for Small Business Program as a good opportunity to understand the electricity profile of the business and identify what was to reduce energy and save costs.

Assessing Energy Usage

The energy efficiency assessment revealed annual electricity costs of \$14,000 and annual Greenhouse Gas emissions of approximately 92 tonnes.

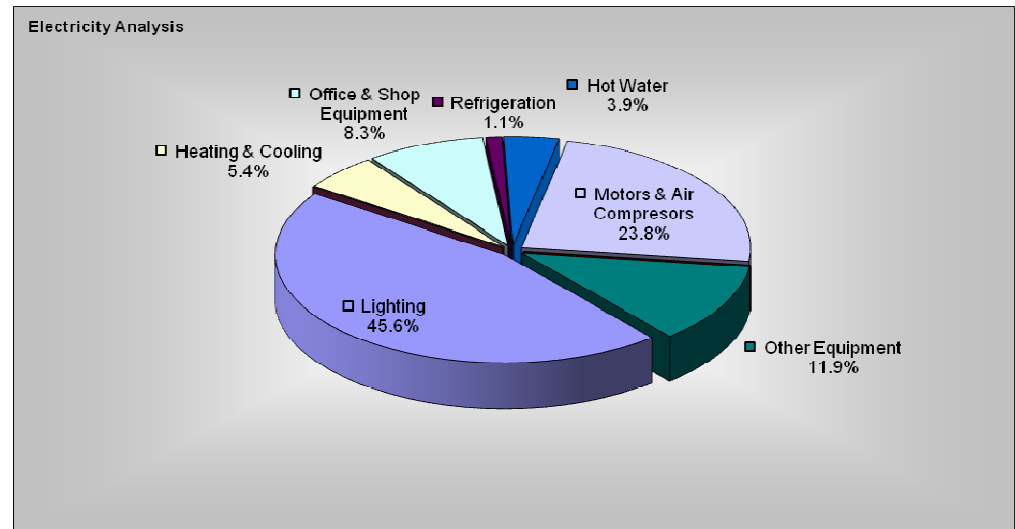


Figure 1: Energy profile for DGI

The largest consumer of electricity was lighting, followed by the compressor and air extraction unit.



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Energy Efficiency Action Plan recommendations

The assessment identified a wide range of energy savings actions.

Implementing the Recommendations

Essentially all of the recommendations were implemented at an approximate cost of \$11,500. DGI will receive \$4750 in rebates, bringing the cost down to \$6750.

Description	Estimated Cost	Payback (years)
Replace 50W halogens with 11W Compact fluorescent - 30 in Entrance, stairwell	\$779	2.0
Re-locate workbench light switch & split circuit - Over rear work-bench	\$308	2.2
Replace T12 fluorescents with New T8 tubes - 46 throughout office & workshop areas	\$1,610	7.9
Replace Incandescent light fittings with IP rated fitting & Compact fluorescent globes - 7 in Bathroom, kitchen, shower	\$770	4.3
Install Skylight Roofing in warehouse/workshop - 50 sqm	\$4,073	4.3
Replace 400w mercury vapour high bays with 300w Metal halide high bays - 12 in Machinery area	\$3,960	4.5
Install Roof Air Ventilators - 6 in warehouse	\$1,500	10.1
	\$13,000	4.5

Results & Achievements

By implementing the actions, DGI will save around \$2800 and over 18 tonnes of CO₂^e per year. The energy savings will repay the total investment after rebate in approximately 2.4 years.

Operations Manager for DGI, Sujata Suriya spoke of the benefits of the skylight roofing and new high bay lights installed in the warehouse/workshop... *“the clear roofing has provided the workers with a more natural and satisfying work-place, made better use of the space and the new lights have provided brighter work-areas with less light fittings”.*

Joe Glass says *“all parties have benefitted from the program – we have saved money and helped the environment, our employees are more satisfied and other people involved in the program – trades people and assessors - have benefitted as well.”*



Figure 2: New skylights, vents & lights over DGI warehouse