

MEDIA RELEASE

October, 2008

IMPROVED STUDENT PERFORMANCE WITH NEW ENERGY EFFICIENT DAYLIGHTING TECHNOLOGY

While the Commonwealth Government's National Solar Schools Program (NSSP) enables schools to improve energy efficiency and decrease energy costs, by allocating some, or all, of their grant to

increasing natural light in classrooms, schools can also improve academic performance by up to 18 percent,[1] increase student concentration and decrease absenteeism at the same time.

The Solatube Daylighting Device (TDD) is an innovative natural lighting system that produces four times more light than similar products; it can dramatically reduce reliance on artificial lighting and in turn decrease energy costs. The compact, modular design of the device, combined with dimming capabilities and lighting controls make it an ideal choice for learning environments.

Tubular daylighting devices and other daylighting systems have previously been difficult to retrofit, without excessive cost or effort; however, a single Solatube daylighting device can be installed in approximately an hour, while its adjustable tubing and angle adaptors allow it to be installed around any obstructions while retaining optimal lighting performance.

By using effective daylighting strategies, in combination with lighting controls and dimmer systems, schools can reduce or eliminate the need for artificial lighting during the school day. The Solatube Daylighting System is fully controllable with dimming capabilities that allow the level of natural lighting to be adjusted on demand from 100 percent down to 2 percent to accommodate activities such as watching movies or presentations.

With most schools spending more money on energy than books and supplies, effective daylighting can significantly lower school building energy consumption, allowing the corresponding financial savings to be invested into improving educational facilities.

According to the Environment Minister, the Hon. Peter Garrett, almost 1400 schools across the country have already signed up for the \$480 million Program, which allows primary and secondary schools around Australia to apply for grants of up to \$50,000 to install solar and other renewable power systems, including solar hot water systems, energy efficient lighting, insulation and rainwater tanks. The Program replaces the Green Vouchers for Schools Program and provides schools with greater freedom to choose from a wider range of energy efficient technologies.



As a growing amount of research from around the globe points out the benefits of natural light on human health and well-being, using the NESP to fund installation of the Solatube Daylighting System can also provide many benefits beyond improved energy efficiency and decreased energy costs. Studies undertaken in classrooms with increased natural light report benefits such as: reduced poor behaviour and health, faster test completion times, improved test scores and fewer absentee days.

Artificial light is not a substitute for natural light and can actually impact negatively on well-being. Research indicates that electric generated light can result in a low level type of sensory deprivation that leads to depression, irritability and impairment of organised thinking,[1] while a lack of natural light can have a “jet lag” effect on students.[2]

For more than 20 years Solatube Australia has combined traditional craftsmanship with the latest in innovative design and engineering to offer solar lighting solutions. Now with the launch of the Brighten Up series, Solatube’s Commercial Division is set to revolutionise the future of solar lighting in Australia with improved built in energy efficient benefits.

Engineered for maximum performance, the Brighten Up series is an innovative daylighting system providing controllable, consistent and comfortable daylighting suitable for residential, retail or commercial application. The system combines Solatube Commercial’s patented LightTracker™ Reflector and Raybender® 3000 Technology to capture light through a UV filtering dome and redirect low angle light.

Installation is simple and requires no structural changes; a single daylighting device can be installed in approximately one hour. Factory preassembled parts speed up installation compared to conventional lighting by as much as fifty percent. The device provides natural light to any environment; from small spaces that are low on natural light such as bathrooms, corridors, laundries and staffrooms to large scale industrial and commercial structures.

Unlike traditional skylights, which are quite inflexible in terms of where they can be installed, the Brighten Up series features adjustable tubing with angle adaptors allowing the device to be installed around any obstructions, while still retaining maximum lighting performance.

The series has already proved successful in the United States where Solatube International has won the approval of government and environmental agencies; including the non-profit National Fenestration Rating Council, which has certified eight Solatube products, including the Brighten Up series, with the prestigious Energy Star rating.

In most commercial environments, including offices, warehouse and retail stores, lighting accounts for more than 40% of annual utility costs. Energy consumption can be reduced by as much as 97% using the Brighten Up series which is designed to deliver optimum daylight while minimising heat gain during the summer and heat loss during the winter. Sunlight is a vastly inexpensive light source compared to electricity and as well as decreasing artificial lighting costs and helping to meet stringent energy regulations, it offers exposure to the many health benefits associated with natural light.

Extensive research conducted in the United States in retail environments demonstrates increases in employee productivity and significant sales increases of up to 40% in stores daylighted by skylights when compared to those without skylights.¹ Natural light ensures products, particularly clothing and fresh produce, are portrayed in the best possible light, whereas artificial light can result in colours being misrepresented. Educational facilities also report improved student performance² and decreased behavioural problems in rooms featuring natural light sources.³

The Designer Touches range provides a selection of trim styles, diffusers and effect lenses, allowing the system to be customised to match the aesthetics of any environment. Optional lighting and ventilation add-ons, including a daylight dimmer, take the daylighting system to the next level and give consumers complete control over light levels throughout the day into the night.

For further information contact Solatube on 13 16 19 or visit www.solatube.com.au

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⁴[1] Heschong Mahone Group 'Daylighting in Schools' report 1999 (www.h-m-g.com); students in classrooms with most daylight found to have 7%-18% higher scores compared to those in rooms with the least.

⁵[2] Business First of Columbus, March 24, 2000.

⁶[3] National Post, September 8, 2001.

¹ Heschong Mahone Group for Pacific Gas & Electricity Company (www.h-m-g.com)

² Heschong Mahone Group for Pacific Gas & Electricity Company (www.h-m-g.com)

³ International Journal of Biosocial Research