

## Suppliers invest in green energy

By Adelle Larmour



Sudbury mining suppliers are attempting to reduce their carbon footprint with the help of the sun.

André Ruest, general manager of Sudbury-based B & D Manufacturing, a mining services and fabricating business, said the company decided to invest in green technology when it built a new 47,000-square foot facility in 2007.

A forward-thinker, Ruest acted on the advice of Harvard Farrant of Enairgy Consulting Services and purchased SolarWalls for three sides of his building to help save on heating costs.

Designed by Toronto-based Conserval Engineering Inc., SolarWall is a dark-coloured aluminum siding wall set 8-inches from the outside wall of the building. A series of small perforations captures ambient air or heat loss from the building. While the sun heats the outer wall, the air warms and rises to a ventilation system, which distributes the heated air throughout the building. It supplements natural gas in the shop and baseboard electric heat in the offices.

“Without SolarWall, a ventilation system would take cold air from outside and heat it up through a conventional furnace,” Ruest said. “The air here is already heated when it gets to the ventilation system.

If it is at the right temperature, it just gets blown into the building. If it requires further heat, a conventional system will heat it some more, but at a lower cost because the air has already been heated.”

Conversely, the same warm air can be exhausted to the outside during the summer months, keeping the building cooler.

SolarWall systems can displace between 20 and 50 per cent of energy consumption, according to Conserval’s website. A government press release stated the annual natural gas consumption at B&D Manufacturing will be reduced by 31,825 cubic metres, resulting in a cost savings of more than \$11,000 per year.

“The simplicity of the system makes so much sense,” said Ruest.

B & D received \$56,775 from the Northern Ontario Heritage Fund Corporation through the Northern Energy Program, which helped offset the more than \$250,000 investment. Payback is projected in five to seven years.

### Savings

Since Ruest’s building was newly constructed, he doesn’t have before and after heating bills to document savings. However, current heating costs are similar if not less than what he paid in his former 20,000-square foot location, less than half the size of the company’s current building. As well, the Conserval team is working with B & D to set up a monitoring system that will measure the air temperature and pinpoint additional energy savings.

Other initiatives that have helped save money and reduce consumption are no-flush urinals, motion-sensing, high-efficiency fluorescent lighting and a 400-gallon holding tank that catches rain water from the roof for flushing toilets.

Another Sudbury-mining supplier who wants to make a difference is Peter Cirelli, vice president of Canun International, a pneumatic rock drill company. He literally saw the writing on the wall after reading a book about

the seven steps to sustainability. At the same time, Brad Wright, a friend of the family, had just launched a new renewable energy company called 3eSolutions.

Now, Cirelli is the proud owner of a Cansolair four-by-eight-foot unit on the south side of his office building. The unit acts as a supplementary heat source for 500 square feet of electrically heated office space, part of a larger 4,000-square foot facility.

“I’ve always been interested in the environment,” Cirelli said. After reading the book, he decided to try to lessen his own ecological footprint.

Manufactured in Newfoundland, the Cansolair units are made up of 240 black-painted pop cans. A 30-watt fan draws air from inside the building and distributes it through the cans to create a vortex. With the sun’s heat, warm air is redistributed into the building. The panel will produce up to 10,000 BTUs of heat and can reduce heating costs by up to 50 per cent. The payback is about 11 per cent annually.

Wright started the business with mining engineer Gary Poxleitner, both of whom discovered a shared passion for green energy. The company sells solar hot water heating and air heating (Cansolair) units, as well as solar panels that generate electricity.

“Solar energy is a different way of thinking of how you are using energy,” Wright said, adding that the mining industry could benefit greatly from renewable energy. “If it makes sense on a small scale, it should make sense on a large scale.”

Besides saving money, it will also give the end user a greener image, making it a win-win for the environment and the mining supplier.