

Rainbow District School Board Builds First Green School in Northern Ontario



Rainbow District School Board made history in 2007 with the opening of the new Valley View Public School, the first Green School in Northern Ontario. Built in partnership with Ameresco Canada, the new Valley View Public School offers a comfortable, safe and healthy learning environment for students. The facility is built with green technology and incorporates energy renewable resources, which have a positive impact on the environment in both the short- and long-term.

“Valley View Public School, Rainbow District School Board’s first new school in 40 years, is a model for sustainable development as a high performance green school,” says Board Chair Judy Hunda. “This school is a shining example of Rainbow District School Board’s commitment to sustainability. We are putting sound environmental practices in place to support global thinking at a local level. Our focus is on sustainability for now and for the future.”

“Our green school is serving as a unique teaching tool for students and staff,” adds Director of Education Jean Hanson. “We have created a superior

learning environment in a durable and efficient facility, where we are promoting environmental stewardship among the leaders of tomorrow.”

Rainbow District School Board was recognized provincially for its outstanding commitment to energy conservation. The Board received a Certificate of Recognition for Energy Conservation from Peter Love, Chief Energy Conservation Officer of Ontario, at a special ceremony at the new Valley View Public School in November 2007.

“Schools are more than bricks and mortar. They are special places where students learn life lessons as well as reading, writing and math,” said Peter Love. “Rainbow District School Board has taken a leadership role by teaching students about conserving our valuable resources. These are lessons that students will keep forever, and share with family and friends... contributing to a culture of conservation in Ontario.”

Over the past six years, Rainbow District School Board has undertaken a number of environmental

initiatives with positive results. Provincial recognition of these efforts is a tribute to the Board’s administrators, custodians, teachers and students who have made energy conservation a priority in their schools and have taken leadership in transferring this knowledge to their homes and communities. It is also a tribute to the Board’s environmental partners, including Ameresco Canada and the Dearness Environmental Society.

The new school incorporates national Go Green environmental certification principles, which take into account industry best practices, including resource consumption, waste management, building materials, interior environment and occupant awareness. These elements create a healthier, more energy-efficient building for students and staff.

Compared to new conventional schools, Valley View Public School has enhanced lighting, thermal comfort and air quality in the 65,000 square foot facility. This new school reduces operating expenses, protects the natural environment and improves the health and productivity of students and staff, while reducing energy consumption.

The facility's new north/south orientation provides a learning environment filled with natural light and takes advantage of passive solar heating during the winter months and shades the sun in the summer. National studies show that daylight keeps children alert and enhances productiveness. When rooms are not in use, occupancy sensors automatically shut lights off, resulting in significant energy savings.

Classrooms are heated using efficient radiant floor heating. Specially ventilated air is delivered to classrooms using displacement ventilation concepts, which delivers 100% fresh air to classrooms minimizing airborne pollutants leading to a cleaner healthier classroom environment.

A natural bio-filter septic system has been constructed to reclaim up to 70% of the consumed waste water. A number of additional sustainable features are incorporated into the building such as the use of building products with recycled content. For example, the school's retro-plated concrete floors were constructed using reclaimed and recycled glass materials.

To enhance the classroom environment and experience, the latest Information Technology systems have been installed along with state of the art "Smart Boards" that benefits both the teachers and students.

The new facility is expected to operate at half the energy cost of a typical school and CO₂ emissions will significantly be reduced. The Rainbow District School Board staff and management team have emphasized their commitment and responsibility to the environment and to the community.

Mario Iusi, President of Ameresco Canada, says: "Ameresco is pleased to work in partnership with Rainbow District School Board to help build a quality and efficient facility that will set the standard for new schools being built in the province."

Ameresco Canada is a leader in providing asset management and accommodation planning, facility renewal, energy management and renewable energy solutions to its customers. With numerous offices throughout the country, Ameresco Canada has more than 30 years of experience in the K-12 education market in Canada, and has completed more than 150 projects and generated over \$450 million in facility-related savings.

To learn more about this project and Ameresco Canada, please contact:

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“Green” Sustainability Components of Valley View Public School

- **Ground Source Heat Pump System**
- **Displacement Ventilation System**
- **Retro-plated Concrete Flooring**
- **R5 Windows and Passive Solar**
- **High Wall/Roof Insulation**
- **Bio-filter Septic System**
- **High Efficiency Lighting/Daylighting**
- **IT – Smart Building Infrastructure**
- **“No Touch” Washrooms**