



Wind Turbine Powers Classrooms

An alternative energy source is providing power to classrooms at an Edmonton Catholic School and was unveiled and demonstrated by students this afternoon. St. Mary Elementary has a Wind Turbine on the roof of their school and it supplies power to two Grade 4 classrooms daily. The Wind Turbine was installed late last year and provides power to electric pencil sharpeners, printers and/or LED lights in the two classes.

The project began two years ago when the Grade 4 students were studying 'Waste in the World' in Science and 'Alberta' in Social Studies and were very concerned with the global dependence on fossil fuels as our main energy source. Students researched clean and renewable energy alternatives and in 2007 the school applied for and received a \$10,000 grant from BP Energy* for this project and the turbine was installed in November of 2008.

Energy from the wind turbine is harvested, and in a system that runs separately from the school grid into two classrooms, students can use this power to operate appliances and computer accessories with the power of the wind. Students take ownership and responsibility for checking meters in the classrooms to see if the battery system is sufficiently charged, and if it isn't, they know that a trip to the "wind shed" is necessary to charge up the turbine. By checking the voltage and amperage available they determine when they can use the classroom printer for small or large print jobs. This, of course, depends on how strongly the wind has been blowing.

"This has been a wonderful journey for the students," said St. Mary Grade 4 teacher Patti Fleger, who was also instrumental in the success of this project. "Students were committed to providing alternative energy and through discussions and even trips to Wind Farms in Southern Alberta, students discovered a clean, viable and renewable energy source that they are proud of and want to share," Fleger added.

In addition to the BP Energy grant, the school community also donated hours of expertise from parents who are Engineers, Architects or Environment specialists. The District also contributed the time for Facilities Services staff to install the equipment.

"This project is a perfect example of students who are inspired by learning and take the steps to turn an idea into reality," said Joan Carr, Superintendent of Edmonton Catholic Schools. "We would not have been successful without the grant from BP Energy and the dedication and commitment of teachers, staff and the school community," Carr went on to say.

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*The A+ for Energy education program gives Alberta's K-12 teachers a chance to get creative in how they teach about energy. The program, developed and funded by BP Canada Energy Company, awards \$5,000 and \$10,000 grants to teachers who submit innovative proposals to bring energy and energy conservation to life in their classrooms.