Concordia University integrates combination of solar heat and power technology into its' new building

January 15 2009

A new type of solar technology that combines solar heat and power technology has been developed at Montreal's Concordia University and is being integrated into the university's new business school. This innovative technology is a first step in the development of the next generation of buildings that not only produce energy for their own use, but generate enough power to provide it to the electricity network.

People travelling in Quartier Concordia along Ste. Catherine street or De Maisonneuve boulevard in Montreal can now look up and see a demonstration of innovative Canadian technology conceived at Concordia University: solar panels covering the top two floors of one facade of an institutional building - the new John Molson School of Business (JMSB). This world-first demonstration of this type of combined solar heat and power technology integrated into a non-residential building is also the largest solar-electric installation in Quebec.

Covering approximately 300 square metres, the solar panels will generate electricity for the building and heat fresh air during the heating season. Integrating a combination of solar heat and power in a commercial building is a first step in the development of the next generation of buildings that not only produce energy for their own use, but generate enough power to provide it to the electricity network, thereby transforming buildings from passive consumers of electricity to net

energy producers.

"The construction of the new JMSB Building provided our researchers with an opportunity to integrate state of the art innovative solar technology, developed right here at Concordia, into a building which will set new standards for construction," said Judith Woodsworth, Concordia President and Vice-Chancellor.

This innovative technology was designed by the Canadian Solar Buildings Research Network (CSBRN), led by Dr. Andreas Athienitis and housed at Concordia University. The development of this new technology was funded by Natural Resources Canada's CanmetENERGY, with significant contributions made by the Agence de l'efficacité énergétique as well as three industrial partners: Conserval Engineering, suppliers of the Solarwall ®; Day4Energy, suppliers of the photovoltaic panels; and Sustainable Energy Technologies, supplier of the electronic components converting the solar electricity for use by the building.

"Our Government is committed to increasing the supply of clean, renewable energy for Canadians," said the Honourable Lisa Raitt, Minister of Natural Resources. "Investing in projects like this one at Concordia is helping us do just that."Construction of the new JMSB building will be completed next summer, with classes starting in the building in September, 2009. When it begins operation, the public will be able to consult an energy display in the lobby to view the real-time energy captured by the sun and used by the building.

Source: Concordia University

its' new building (2009, January 15) retrieved 19 April 2024 from https://phys.org/news/2009-01-concordia-university-combination-solar-power.html