

Nazko Valley Elementary School & Community Centre – Quesnel, BC

Background

The Nazko Valley Elementary School & Community Centre was retrofitted with a biomass heating system to take advantage of lower fuel costs and carbon credits from reduced greenhouse gas emissions.

The Viessmann Solution

A fully containerized Pyrot wood-fired boiler system was commissioned to provide space heating for the 17,000-square-foot building.

Installation Details

A heated biomass system enclosure – complete with a Pyrot KRT-300 boiler, piping, pumps, mixing valve and storage tank – was installed in only two days. A pellet silo with a capacity of 47 tonnes and an automated feed system ensure a consistent fuel supply for the boiler.

The Pyrot is equipped with the industry-leading control and safety devices to ensure reliable and safe operation. Its advanced combustion process, triplepass heat exchanger and modulating output control enable the boiler to achieve an efficiency of 85% while maintaining low emission levels. An automatic deashing system minimizes maintenance, and a web interface allows remote system monitoring.

The Results

The 100% biomass heated facility uses locallysourced wood fuel (generated from timber destroyed by the pine beetle), displacing approximately 86,400 litres of propane and 130 tonnes of CO_2 emissions every year.

Project Details

Project Year	2009
Equipment	Pyrot KRT-300 Vitocontrol-C Custom Control Panel
Rated Output	1025 MBH / 300 kW
Contractors	Ventek Energy Systems Inc., Quesnel, BC

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The new biomass heating system displaces approximately 130 tonnes of CO₂ annually



A containerized system with Pyrot KRT-300 boiler, peripheral equipment and pellet silo simplified the two-day installation process

