



Project: Excellence Peterbilt, phase #1
Laval, QC,



Founded in 1967 by Gabriel Lussier, the Society's activities were initially centered on used & recycled trucks parts, and renovated parts. Lussier's Group enjoyed, during the last 50 years, an incredible growth. The visionary competence of his founder made his Group adaptive to its client's growing needs. Doing so, Lussier's Group diversified his activities to include Truck Dealership, under the highly reputed Peterbilt's banner. The construction, in 2007, of Laval's dealership includes 1 100 m² in office space and a 1 780 m² service area. The entire building is heated and cooled via geothermal energy.

Building's thermal loads are about 150 tons (527 kW) in cooling and 210 tons (738 kW) in heating. At the time, Peterbilt pioneered the industry by being the first in Quebec to install a Regent-Eco air exchanger system. A 7.64 l/s (28 000 cfm) fresh airflow is being pre-treated by two large HRV, independently feeding the office and services areas.

The office space is provided with a network of sixteen heat pumps ensuring heating and cooling capabilities, year-round.

The geothermal field counts no less than 40 wells, totalizing over 6 kilometers of vertical drilling.

The garage is entirely heated with radiant floor. Even the service pits are radiant floor heated. Furthermore, it is one of the first air-conditioned truck service center in eastern Canada thanks to cooling coils. Summertime comfort in the service area was a client's requirement.

The control system is entirely centralised via BAS and is user friendly for the owner.

Globally, this state-of-the-art system allows Lussier's Group to save 1 600 MWh per year. Geo-Energie was the engineering firm in charge of every electro-mechanical design aspects of this unique project.

Central heat pumps



Geothermal field



Mechanical room

