



Partnering to develop **district heating networks** in Canada

District heating networks were created out of a resolve to produce energy via a central system in order to promote efficiency, improve management and cut costs. This type of heating network involves connecting several buildings—regardless of their purpose—to a single thermal power plant. Underground pipes are installed to carry hot water intended for domestic use and radiators to the entire complex, which could be made up of only a few buildings or be as extensive as a city.

These systems adapt perfectly to the Canadian context given that they are frequently combined with biomass boilers. The fuel (for example, wood chips and

pellets) comes from a widely available, renewable resource that is CO₂ neutral and presents very few environmental risks, and as a result its use is becoming more and more common.

Already widely used in Europe, these networks are becoming increasingly popular in North America. In fact, they are installed in the “La Cité Verte” sustainable community in Quebec City and in all the new buildings in the Southeast False Creek neighbourhood in Vancouver, including the Olympic Village.

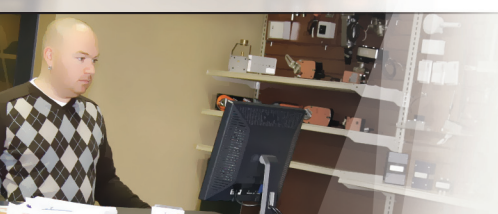
In a bid to offer its clients the most recent innovations in the field of building automation, Regulvar has closely followed the progress made in recent years in district heating, in particular with regard to how to ensure its control and automation. Regulvar recently partnered with Austrian firm Aqotec, which has been designing networks, sub-stations and energy measurement systems since 1999. Aqotec has developed solid expertise in designing and monitoring thermal power plants and large temperature differential networks (ΔT 40 °C). What's more, its portfolio includes over 200 similar projects, and its solutions have significantly contributed to reducing the size of the infrastructures installed.

As the exclusive distributor in Quebec, Ontario and the Maritimes, Regulvar will provide real estate owners with methods for obtaining this innovative energy distribution system and benefiting from Aqotec technologies.

Source • Marc Dugré, Eng., President
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Did you know?

Regulvar has three counters where clients can obtain the parts and advice they need.



The Anne-Hébert school: positive results with regard to energy savings



Since 1980, the Anne-Hébert school, located in Quebec City, has welcomed its regular clients from the neighbourhood as well as students from the Greater Quebec City Area with a moderate, severe or profound intellectual disability.

The Commission scolaire de la Capitale wanted to reduce the building's energy consumption. Therméca, the engineering firm chosen to do so, focused its strategy around closely monitoring the load and hired Regular to provide the automatic control system for the heating, ventilation and air conditioning installations.

The solutions implemented have taken many forms:

- ★ Addition of four storage heaters with a capacity of 320 kWh for preheating, the glycol loop of the heating coils in the ventilation systems, and the domestic hot water heat exchanger.
- ★ Addition of two variable-speed drives (15 HP, 50 HP) for the fans in the main ventilation system.
- ★ The temperature control for each room is centralized with wireless and battery-less thermostats and wireless triac relays.
- ★ Addition of a kilowatt reader on the building's main power supply in order to cut off the power from the storage heaters and the peripheral electric baseboard heaters.

This system used 10 Delta Controls programmable controllers, 12 bidirectional RUBI gateways, 30 communication antennas, 182 self-powered wireless space thermostats and 165 wireless triac relays.

This project was considered a success given that due to the measures implemented, the school was not only able to improve the comfort of students and staff, but it also succeeded in reducing its energy consumption by nearly 30%.

Source • **Michel Cochrane**, Branch Manager, Quebec city
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La Macaza penitentiary

Security at the touch of a finger

La Macaza medium-security penitentiary, which opened in 1978, has approximately 250 inmates. For operations to run smoothly in this type of environment, a reliable and adequate access control system is clearly necessary. For that reason, Management recently decided to update certain devices and Regular was hired to modernize the monitoring station governing the main entrances and the parking barriers.

Although Regular's products are already present in many provincial and federal prisons, this is the first time the Company has worked with La Macaza penitentiary. It is also a first from a technological perspective, given that IP cameras will be directly integrated in the Orcaview software and the process interface system will be a touch screen.

Therefore, the guard will be able to view two screens containing real-time images from the surveillance cameras, communicate with visitors, verify the condition of the doors, and control when they are opened and closed, all at the touch of a finger. The programmable system can be equipped with visual or audible alarms that will warn staff when a door is malfunctioning or poorly closed, for example. The device's high reliability is assured by the redundancy of a mechanical system.

The appeal of this project resides in the fact that it demonstrates the possibility of integrating the most recent access control technologies into a single nerve centre, thereby opening the way to future solutions while keeping the doors securely locked.

Source • **Luc Boily**
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UPCOMING TRAINING

Laval (french):
ORCAVIEW 3.33
 intermediate level
 february 7•8

ORCAVIEW 3.33
 advanced level
 february 9•10

GCL + PROGRAMMING
 february 14•15•16

CREATION OF GRAPHIC INTERFACE
 february 23•24 to be confirmed

Ottawa (english):
ORCAVIEW 3.33
 intermediate level
 february 28 • march 1

ORCAVIEW 3.33
 advanced level
 march 2•3

GCL + PROGRAMMING
 march 7•8•9

CREATION OF GRAPHIC INTERFACE
 Depending on enrollment

For more information,
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