



Case study 3

Apartment Building



Cristal Controls' energy management systems allow you to control the electric demand of the building in order to decrease peaks and thus to reduce mensual electricity fees.

Apartment building owners often support various costs such as the apartments and common rooms' heating and electricity fees, the maintenance of the building and building land, emergency repairs, and can even provide security services. Although apartment rents are often adjusted consequently, the fact remains that the smaller the costs, the more profitable the business. Cristal Controls' energy management systems allow you to control the electric demand of the building in order to decrease peaks and thus to reduce mensual electricity fees.

Cristal Controls' energy management systems work with ultra precise thermostats, linked together using a control network. In opposition to autonomous thermostats, which have no communications capabilities, Cristal Controls' systems are designed to function with peak demand management systems and to proceed to automatic temperature setback. Moreover, the system reacts to the changes in outdoor temperature : when it is higher than a certain point, heating is not allowed. It is also possible to stop the heating of a particular area if a window or door remained opened. Cristal Controls LS-2000 system, with its networked thermostats, allows energy savings to up to 12%, whereas a traditional system with standard thermostats brings savings of only 5%. Those numerous advantages justify without a doubt the investment in a networked system. Many owners have realized that by putting Cristal Controls in charge of their building's energy management, they could achieve enormous savings.

Case Study : *Manoir Laval*, Laval, Québec

Manoir Laval's managers chose Cristal Controls' LS-2000 energy management system during the building's design. This new 20 stories residential complex comprises 1224 thermostat control points. Thanks to their advanced networking capabilities, Cristal Controls' thermostats were subdivided in 92 subnets according to the characteristics of the room they would control. Each thermostat controls a 750W to 2250W load, which can be shedded according to the real time building consumption and other defined settings. The system also allows to decrease the temperature settings at night or in case of unoccupancy in order to maximise energy savings. The system can be accessed with Web pages by using Internet Explorer.



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Energy management was one of the priorities of Manoir Laval's owners since the beginning of the project, in order to effectively plan and control energy costs. Energy management is beneficial for:

- tenants, who always enjoy adequate room temperature.
- employees, whose tasks are simplified by the automation of temperature setup.
- managers, who are given the power to reduce energy costs and who constantly have access to the system's reports through its user-friendly and practical Web interface.