

Sufficient Capacity for Future Needs at Centre de Santé et de Services Sociaux D'Arthabaska et de L'érable

Case Study: Health Center

Benefits of SMARTD:

- Improved Energy Efficiency
- Improved Energy Savings
- Lower Operating Costs
- Lower Maintenance Costs
- Reduced Noise Levels
- Ozone Friendly R134a Refrigerant

Situation:

The existing chiller plant at the Hôtel-Dieu D'Arthabaska was more than 30 years old. It consisted of a single 120 ton low pressure Carrier chiller. It was serving a number of air handling units and departments, including magnetic resonance imaging, radiology, pediatric, and the kitchen. The hospital had been planning to replace the chiller for some time, and besides the fact that the existing chiller was old and energy inefficient, it also used CFC 11, which was being phased out. There was also a capacity limitation, which would have an impact on the future cooling load.

Direct Energy's sales representatives made a presentation to the hospital's Technical Management team on the benefits of installing a SMARTD chiller. The presentation and evaluation included technical and financial requirements. The hospital made the decision to purchase a 270 ton SMARTD chiller, which consisted of three 90 ton compressors. The main goals were to ensure sufficient capacity for future needs, low maintenance costs, and benefits from energy savings.

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Solution:

Since installation and start-up in May 2007, a complete cooling season has passed. At the same time, the hospital is converting three storeys, and approximately 20,000 square feet, of the same building into administrative office space. This has required the installation of five new rooftop units, equaling 35 tons of cooling, lighting, computers, photocopiers and other equipment. There has been no change total energy billing compared to the previous year, even with the added energy demand. The SMARTD chiller has proven to be that much more energy efficient than the previous chiller. As a result, the savings in energy costs during this period have been considerable.

The hospital's Technical Management team and staff are very pleased with the SMARTD chiller's low maintenance requirements and low noise level. They have also found it very easy to operate the onboard touch screen, which transfers information through the BacNet interface to the building's automation system.

The customer is pleased with their choice of the SMARTD chiller. They are also very satisfied with the effort put in by Direct Energy to ensure that the equipment and service met all of their expectations.



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