

Hot times in Whistler

The Resort Community of Whistler, B.C. installed energy saving hybrid heating systems in area hotels and reduced costs and cut greenhouse gas emissions by 14%.

The company:

The Resort Community of Whistler, B.C., is the largest ski resort in North America, offering year round activities, and will soon be hosting the 2010 Winter Olympics.

The challenge:

The hotel owners wanted to maintain a high level of guest experience at their 5 star property while reducing energy costs and greenhouse gas emissions.

The strategy:

The hotel owners installed a Sempa Hybrid Heating System from Sempa Power Systems that automatically load balances fossil fuel sources with electricity consumption to reduce energy costs, decrease greenhouse gas (GHG) emissions and increase efficiencies.

The results:

To date, the results in the Whistler Resort community have resulted in a net energy cost savings exceeding \$1 million annually, removing 2,360 tonnes of GHG emissions, which is enough energy savings to power 284 single family homes for a full year.

The Resort Community of Whistler, B.C., the largest ski resort in North America offering year round activities, will soon be hosting the 2010 Winter Olympics. In preparation for the games, numerous infrastructure projects were identified to ensure a secure Olympics.

In 2003, the Resort Municipality of Whistler (RMOW) recognized the need to improve energy efficiency and reduce emissions output in the community of more than 9,500 dwelling units. Commercial hotels and Whistler-Blackcomb mountain operations were facing significant energy costs with the tanked propane supply system and high infrastructure costs for proposed alternatives.



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The Four Seasons Resort & Spa, Whistler, B.C. is one of North America's top year-round mountain resorts. The hotel features 300 rooms, an award-winning spa and easy access to downhill skiing.

Sempa Power Systems offered a commercial alternative, using proven technology. The company has expanded installations into most of the major Whistler hotels, including the Westin, Four Seasons, Delta, and Lodging Ovations properties in advance of the 2010 Winter Olympics.

Sempa systems are now installed in the Telus Whistler Conference Centre and all the large on-mountain day lodge complexes on both Whistler and Blackcomb Mountains. Large and small hotels, convention and hospitality complexes are all experiencing significant annual savings averaging 28% energy cost savings, a 39% reduction in GHG emissions, and a 13% reduction in energy consumption.

Retrofit installations are generally completed without any disruption to daily operations, and typically completed within 60 days from start of work. System operation is automated and savings generated in complete transparency, without disrupting the guest experience. Only nominal adjustments to daily operational practices are required.

The Sempa Hybrid Heating system is a patent pending solution that automatically load balances fossil fuel sources with electricity consumption to reduce energy costs, decrease GHG emissions and increase efficiencies.

The system uses real time intelligent controls to track and manage heating demand and chooses between heating fuels

to keep you operating on the lowest-cost energy source. It automatically determines the best time to switch from natural gas or propane to electricity, and also chooses the optimal time for switching back. The same system can also heat other building amenities such as swimming pools and hot tubs during off-peak periods, then shift over again and coast on modest amounts of natural gas or propane for the rest of the day.

Sempa's Whistler clients are monitored online in real time and analysis of empirical data compares actual consumption to the historical baseline average. Definitive results on both energy (gJ) and GHG emission reductions are calculated and complement the large financial savings from the Sempa EMP programs. To date, the results in the Whistler

Resort community are:

- net energy cost savings exceeding \$1 million annually;
- reduction of over 2,360 tonnes of GHG emissions to date; and
- energy savings exceeding 23,613 gJ to date;

Since the first installation, the Sempa GHG reductions are equivalent to taking 407 Honda Accord sedans off the road that would have driven almost 9.8 Million kilometers.

Energy savings have been enough to power 284 single family homes for a full year (CMHC).

Reducing its GHG footprint

The completion of Sempa Hybrid Heating systems on both Whistler and Blackcomb Mountain Daylodges in late 2006 and the addition of several other major installations currently underway will increase savings in all three categories of energy cost, GHG emissions, and energy consumption in the community.

When fully commissioned, the Whistler commercial sector GHG emissions footprint will shrink by almost 14% — well on the way to meeting the 15% target for the 2010 Olympic Games.

For information contact: www.sempapower.com. ■



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The Sempa Hybrid Heating system installed at the Whistler Cascade Lodge Hotel in Whistler, B.C.

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