Case History
Jasper National Park, Canada

Where:
Columbia Icefield, Jasper National Park, Canada

What:
Two 500 kW Rental Power units operating in a dual configuration for prime power, and a third 500 kW unit for standby power

Purpose:
Provide prime and standby power at a unique resort in the Canadian wilderness

Primary choice factors:
Containerized Rental Power units offered high reliability and fuel efficiency, and also complied with the strict policies prohibiting permanent structures in a national park

Hotel in the Canadian Rockies powered by Rental Power units from Cummins Power Generation

JASPER NATIONAL PARK, CANADA – Located in the remote Canadian Rockies between Banff and Jasper National Parks, the Columbia Icefield spans more than 130 square miles and offers spectacular scenery for over one million tourists each summer. Ranging in thickness from 300 to over 1,100 feet, the icefield receives more than 23 feet of snow each winter and feeds eight major glaciers. Brewster Transportation Canada has been escorting tourists to the Columbia Icefield for more than 100 years. To provide electricity for its 32 room tourist hotel and cluster of 100 staff apartments during the summer travel season, Brewster relies on three 500 kW Rental Power units from Cummins Power Generation Inc.

From April through October, Brewster hosts groups of tourists and transports them out to see the icefield and nearby glaciers using immense SnoCoaches. In this remote setting there is no utility grid, and all electrical power for the hotel and apartments must be generated on site.
System failure prompts new solution

“Several years ago, our old generating system went down and we didn’t have power for three days,” says Denis Vandal, general manager of the Columbia Icefield Glacier Experience. “When you only have six months to serve visitors and you’re in a remote setting, losing power is intolerable,” he says. That failure prompted Brewster to look at a new on-site generating system, and that’s when they contacted Cummins Power Generation.

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Windle Hickey of Cummins Western Canada, the distributor for Cummins Power Generation in that region, worked with the Brewster team to find a solution that would generate prime power. The challenge was heightened because the Columbia Icefield is located inside Jasper National Park, where covenants prohibited the erection of any new, permanent structures to house the generators. In addition, the difficult terrain meant that the power generating solution would have to continue using an electrical distribution system that was installed many years earlier.

Rental Power was the answer

The Rental Power units in weatherproof containers were a perfect fit for the application. “We were prohibited from building permanent structures for the generators, so mobile rental power was a good option,” Hickey says. “Because the generators are enclosed in winterized containers, we have the option of removing them during the winter or leaving them in place.”

No interference with wilderness experience

Two of the three 500 kW diesel Rental Power units are located two kilometers (1.2 miles) from the main hotel building. The two generator sets operate in a dual-prime configuration with only one generator running at a time. This allows regular maintenance and a sharing of hours between the two units. Because the Rental Power units are located two kilometers away and housed in sound-attenuated containers, no generator noise interferes with the tourists’ wilderness experience. The power is boosted through a transformer to 4160 volts to allow efficient transmission of the power over the distribution line to the hotel. At the hotel, the voltage is stepped down to 600 volts for some applications and also down to 240/120 volts for appliances and lighting.

To eliminate the possibility of a total power failure, a third 500 kW Rental Power unit is used as a standby power system. That unit is also enclosed in a winterized container and is located adjacent to the hotel.

Vandal credits the team from Cummins Western Canada for quickly sizing up the challenge and delivering the prime and standby power solution that also met the highly restrictive national park covenants.

For more information about Rental Power or other energy solutions, contact your local Cummins Power Generation distributor or visit www.cumminspower.com/rental.