CASE STUDY

# A Sustainable Microgrid at Fisherman's Landing

**WHERE**

Fisherman's Landing Marina
British Columbia, Canada

**SUPPLY**

Cummins PowerCommand® paralleling masterless controls, Simplisync™ switchgear, PCC3300 and three Cummins diesel generator sets

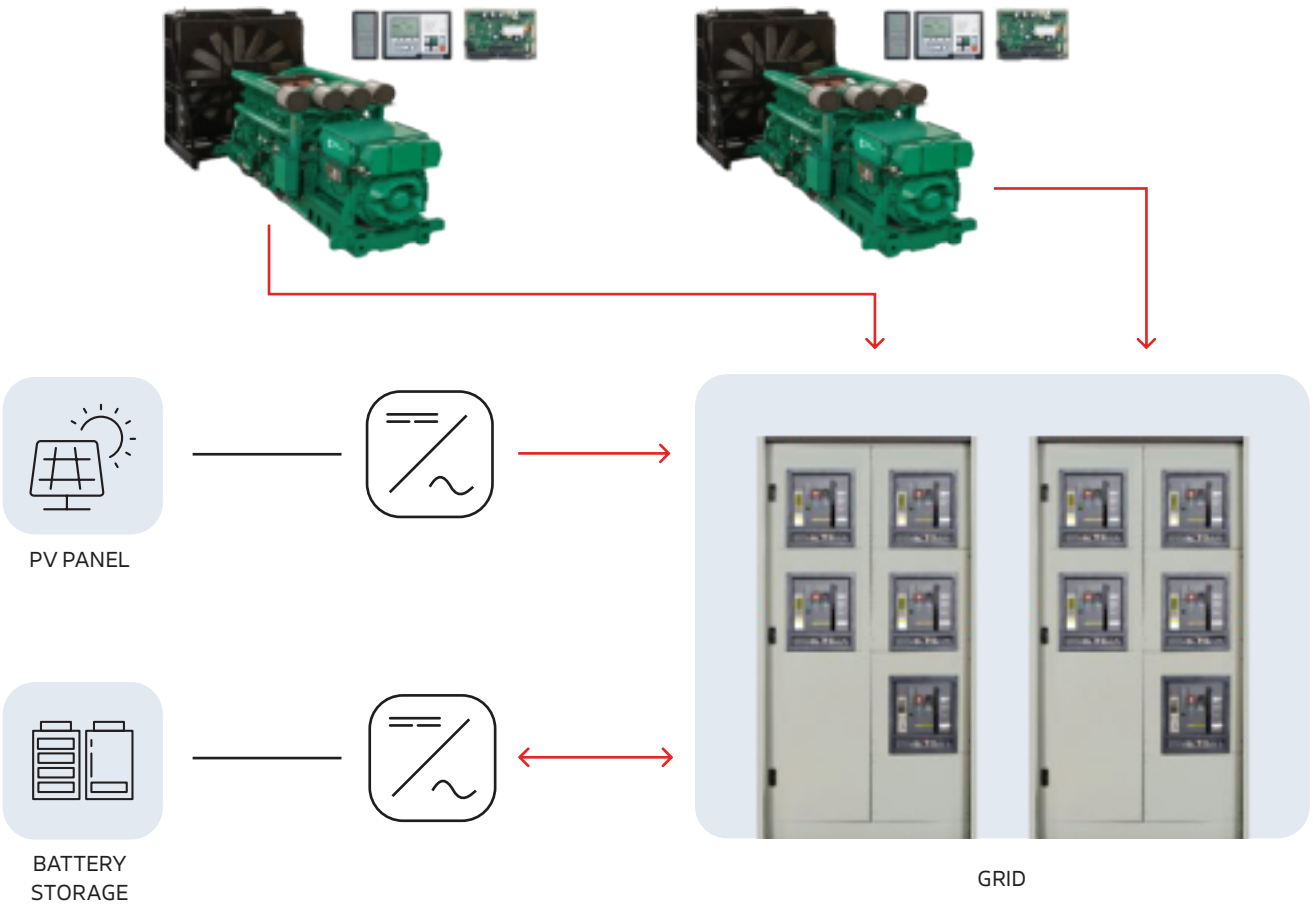
## Since installation the project has operated at 100% uptime without fail

How do you solve for a prime power in a remote location when the site load has a wide range of kW demands?

This was the case for the remote marina of Fisherman's Landing on the shores of Desolation Sound, British Columbia. With increased seasonal capacity occurring as large yachts arrive from destinations throughout the Pacific Ocean seeking harbor and a source of shore power, the marina would see a load demand range between 5 and 500 kW. With yacht berths in need of shore power connections ranging from single 120V 30A to 480V 100A at the stern, and another connection of equal rating at the bow, step loading was a significant consideration and necessary incorporation for the design.

Working with Cummins Power Generation Sales Director for Western Canada, Ian Lindquist, Hakai Energy Solutions located in British Columbia designed a modern microgrid solution to not only impact the year-round operating costs of the marina, but also to increase maximum efficiency by allowing the system to run completely on renewable energy when the system was not at peak capacity.

Using Cummins PowerCommand® 3300 paralleling control and PowerCommand® Simplisync™ switchgear, Hakai's design centered around a simplified paralleling control with an integrated masterless load demand. Hakai also included three of Cummins diesel generator sets and Cummins PowerCommand® paralleling masterless controls, subsidized by a large solar array of 48 x 385W BiFacial solar PV modules with a 118 kWh LFP lithium battery energy storage system to balance energy sources and assist with surge response, allowing the client to shut off all diesel generator sets during lower demand periods.



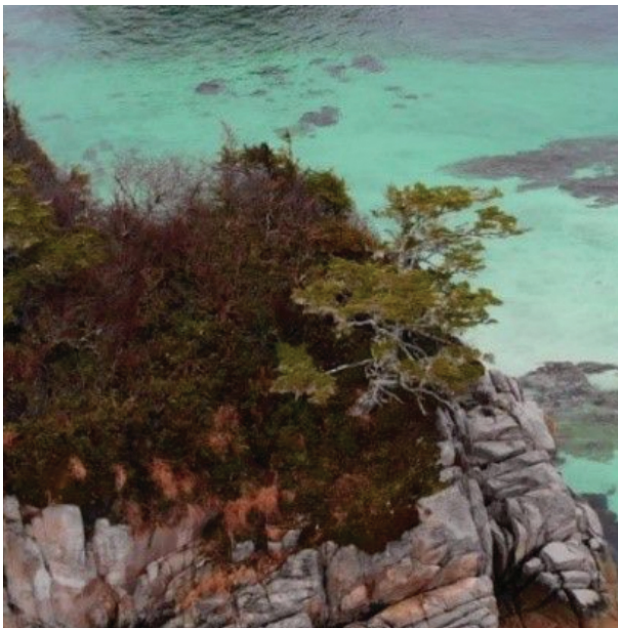

**"From the design and specification to final commissioning, the execution of the project was seamless and was handled professionally by Cummins sales and service team, making the commission completely trouble-free. After installation the system was successfully tested and commissioned without any technical issues. In two days, the marina was running and has remained in operation without disruption or failure for over two years."**

**IAN LINDQUIST**

*Power Generation Sales Director*
*Cummins Inc.*

With Cummins paralleling units, the site can also plan for future generator set expansion that would require little site changes. Cummins generator sets and switchgear are standard products, not engineered to order, resulting in a quick drawing submittal release and faster manufacturing.

This single integrator approach is ideal for remote power locations where reliability and serviceability are a priority. In this instance, Cummins Power Generation microgrid power solutions resulted in a lower fuel utilization, lower emissions, and longer intervals between needed service, all for a cost savings for the marina.



The marina is now able to offer an experience for yacht owners seeking power and fuel services in a remote location without port congestion. Captains have the pleasure of being able to shut down their onboard diesel plants, saving fuel and allowing for service and maintenance, while their passengers enjoy a quiet ambient experience in the wilderness. Since installation the project has operated at 100% uptime without fail.

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