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### Firm fills green rail niche

#### Railpower's hybrid locomotive meets new U.S. emissions standards

#### Jonathan Graham

After years of research, North Vancouver's **Railpower Technologies Corp.** (P: TSX Venture) is targeting U.S. rail lines with its environmental technology.

The company designs and builds hybrid locomotives that combine **Isuzu** diesel engines with battery power, which they say reduces emissions by nearly 90 per cent. This meets the **U.S. Environmental Protection Agency's** new tier-two restrictions on locomotive emissions that take effect in 2005. Railpower also says its offering reduces fuel usage by at least 30 per cent.

Its "Green Goat," a smaller "switcher" locomotive designed for railyard work, is being tested by **Pacific Harbor Line Inc.** in Los Angeles. The big test, though, is what **Union Pacific Railroad**, one of the largest in North America, thinks of the Goat following its recently completed year-long trial. Railpower estimates Union Pacific is considering replacing 300 to 500 of its smaller trains in the next five years.

Union Pacific used a prototype Green Goat in its Roseville yard near Sacramento, California and at its Chicago facilities for cold-weather testing. Trials were completed last month. Union Pacific will not say what its position is until analysis is completed in the fall.

However, Railpower vice-president **Simon Clarke** said preliminary indications are promising. "They like the technology, they've seen the core technology work, and we're now at the next stage of discussion."

Railpower is shifting from being a research company into a production firm as it readies itself to take orders on its train model. The company recently raised \$3.2 million through a private placement. Clarke said the money would mostly be for the production of two 2,000-horsepower Green Goats and two 1,000-horsepower "Green Kids."

Railpower says nearly all the diesel engine's power comes from batteries. "Our Green Goat uses less power to do its daily work than the conventional engine uses idling," said **Nigel Horsely**, Railpower's co-founder and board member. Railpower also has about \$2.5 million in cash reserves, which Clarke said will be vital as the company moves forward.

Its trains are produced at **Southern Railway of British Columbia Ltd.** in New Westminster, but Clarke said the company is looking into other options. This could include a relocation to low-cost areas such as Mexico or having each client's engineers build the trains themselves with Railpower blueprints. Railpower takes older switcher trains and overhauls them, a common practice in train construction. "Essentially, the people we use do an assembly job rather than a manufacturing one," explained Clarke.

The cost for rebuilds are \$650,000 for the Goat and \$450,000 for the Kid. That's significantly below the US\$1.1 million that Railpower says most diesel electric switching trains cost. Railpower is in the enviable position of being alone in its market. As railways look to make locomotives compliant with the new EPA rules, major train manufacturers like **General Electric** and **General Motors** are focused on larger mainline locomotives, leaving the niche of smaller switcher trains alone.

"We're not trying to take on GE and GM in [their] own game," Clarke said. "The switcher market is a billion-dollar market in its own right."

"[Railpower has] got a unique product," said Pacific Harbor president **Andrew Fox**. "We're definitely very excited to have the opportunity to test it and see what it can do."

**Tony Hatch**, an independent New York-based transportation analyst, has begun examining Railpower's technology. "On the face of it, their product seems to serve a need," Hatch said. But until orders start coming in, he warned that train companies might look at other ways to replace their switcher fleets.

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