

## RailPower's Green Goats champing to go

Environmentally friendly engines proving big hit

By Mark Lowey

Business Edge

A Vancouver company that builds environmentally friendly railway locomotives in Calgary is winning substantial funding and praise for its "little engine that can."

RailPower Technologies Corp. has recently been promised more than \$24 million US from an \$80-million Texas program aimed at reducing industrial air pollution in that state.

The Texas Emissions Reduction Program will support the purchase by the private sector of more than 25 of RailPower's Green Goat diesel-battery hybrid locomotives, the company says.

"This is a tremendous endorsement of our technology," said RailPower president and CEO Jim Maier.



Photos courtesy of RailPower Technologies Inc.

"They've provided a wonderful launch market to get going and to get customers taking the product," he added in an interview.

The so-called switcher locomotives – smaller than the ones used on mainline tracks to haul long freight or passenger trains – are used in switching yards to shuttle railway cars to and from trains.

California is also providing funding, under its Carl Moyer emissions-reduction technology program, to help companies buy RailPower's Green Goat and smaller Green Kid locomotives.

The company says its locomotives reduce polluting nitrogen oxides and dangerous particulate matter by 80 to 90 per cent, compared with conventional switcher locomotives with similar horsepower.

A RailPower Technologies' Green Goat diesel-battery hybrid switcher locomotive trundles down the tracks.

RailPower's locomotives also cut diesel fuel consumption and greenhouse gases by 50 to 80 per cent, according to the company.

The locomotives, built by Alstom Canada Inc. at the former Canadian Pacific Railway shops in Ogden in southeast Calgary, are remanufactured from old, comparably inefficient and polluting switcher locomotives.

The new hybrids feature small diesel-fuelled generators and large banks of recyclable lead-acid batteries that store the power used in shuttling railway cars around.

"I believe it is the future," said Vancouver-based CP Rail mechanical specialist Ken Perry of the next-generation locomotive technology.

Perry said CP Rail tested a prototype of the Green Goat for about two months of active service at switching yards in Vancouver, Calgary and during the winter in Moose Jaw, Sask.

The Green Goat performed better than conventional switcher locomotives, he said. "It pulled better. It pulled faster. And it did it for half the fuel."

It also operated in "close to silence" compared with a noisy, strictly diesel-powered locomotive, Perry said.

The Goat's rebuilt open cab provides safer, unrestricted visibility as opposed to the narrow range of field found in cabs in conventional yard switchers, he added.

CP Rail hopes to purchase some of the Green Goats as soon as Transport Canada comes through with incentive funding similar to that offered in the Texas and California emission-reduction programs, Perry said.

Maier said there is regulatory and public pressure in the U.S. to reduce air pollution in ports, while accommodating ever-increasing cargo shipments.

The Green Goat and the Green Kid are both ideally suited to shuttle freight from offloading ships to railway terminals, he said.

Earlier this year, IDC Distribution Services Ltd. signed a letter of intent to buy a Green Kid to shuttle port cargo at its suburban Vancouver rail facility on the Fraser River.

RailPower's philosophy has been to provide railways with a switcher locomotive that can do the job while saving companies money and, as a bonus, improve the environment, Maier said.

Alstom's Calgary shop currently has five Green Goats being built on the remanufacturing assembly line.



Future is bright for RailPower, says president Jim Maier.

The product is built at a cost savings to railways, using a strengthened undercarriage of an old switcher locomotive. Added on top of this platform are the new modular components: The open-view cab, control system, batteries, generating set and air compressor used for braking.

Maier said the Green Goat and Green Kid use much less diesel fuel and emit far less pollution than old locomotives because everything in the new hybrids – including the traction motors that run the wheels – is powered by the batteries. The small generator is used only to recharge the batteries.

RailPower plans to exhibit its locomotive technology at a major railway show in Chicago next month.

The company expects to announce its first Green Goat sale in Canada in the very near future, Maier said.

Web watch:

[www.railpower.com](http://www.railpower.com)

(Mark Lowey can be reached at [mark@businessedge.ca](mailto:mark@businessedge.ca))