



## A new and bigger role for hybrid power?

Hybrid locomotives that use storage batteries to power traction motors have been making inroads into North American freight rail operations for light-duty switching and terminal operations. Units like the RailPower Technologies 2,000- and 1,500-hp Green Goats offer significant fuel savings and emissions reductions.

GE Transportation Rail says it's taking the concept a step further with development of a hybrid road locomotive: a full-

bore, 4,400-hp road diesel-electric. The control system takes electricity produced by the traction motors during dynamic braking and channels it into a bank of lead-free rechargeable batteries. The resulting stored energy can be used by the crew "on demand" for traction power. It is said to provide up to a 2,000-hp boost, reducing fuel consumption by as much as 15% and emissions by as much as 50% (compared to GE's current Evolution locomotives).

**TRAINS**

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## More Goats for BNSF

**B**NSF Railway will be acquiring the first four "cabless" RailPower Green Goats, to be delivered later this year for operations in Texas. They are being bought under the Texas Emissions Reduction Program (TERP), a state endeavor that assists in funding environmentally friend-

lier equipment. KCS and UP are also acquiring Goats through TERP.

The four BNSF Texas Goats are to be set up for remote control operation via belt packs and will be cabless in name only, it being easier for the builder to keep to the original design and not install most of the cab equipment for on-board operation, including seats. BNSF has a standard Green Goat at its locomotive facility in Commerce, Calif., a Los Angeles suburb, under a five-year lease.

Separately, BNSF says that its latest orders of GE Evolution series locomotives will come equipped with forward-facing video cameras to help provide information on grade-crossing and train-pedestrian accidents. Besides the 180 new units, BNSF plans to retrofit cameras on 170 older units by the end of this year.

Mounted inside the windshield of the cab in a fixed position, the camera is intended to capture the view ahead as seen by the engineer. It will not provide a view of any activity inside the cab. Installation will include a microphone outside the cab to record sounds such as the horn and bell. Synchronized with the locomotive event recorder, the camera will provide color video at 15 frames per second and be able to record at least 70 hours of information. BNSF had tested cameras on six GE locomotives in 2004.