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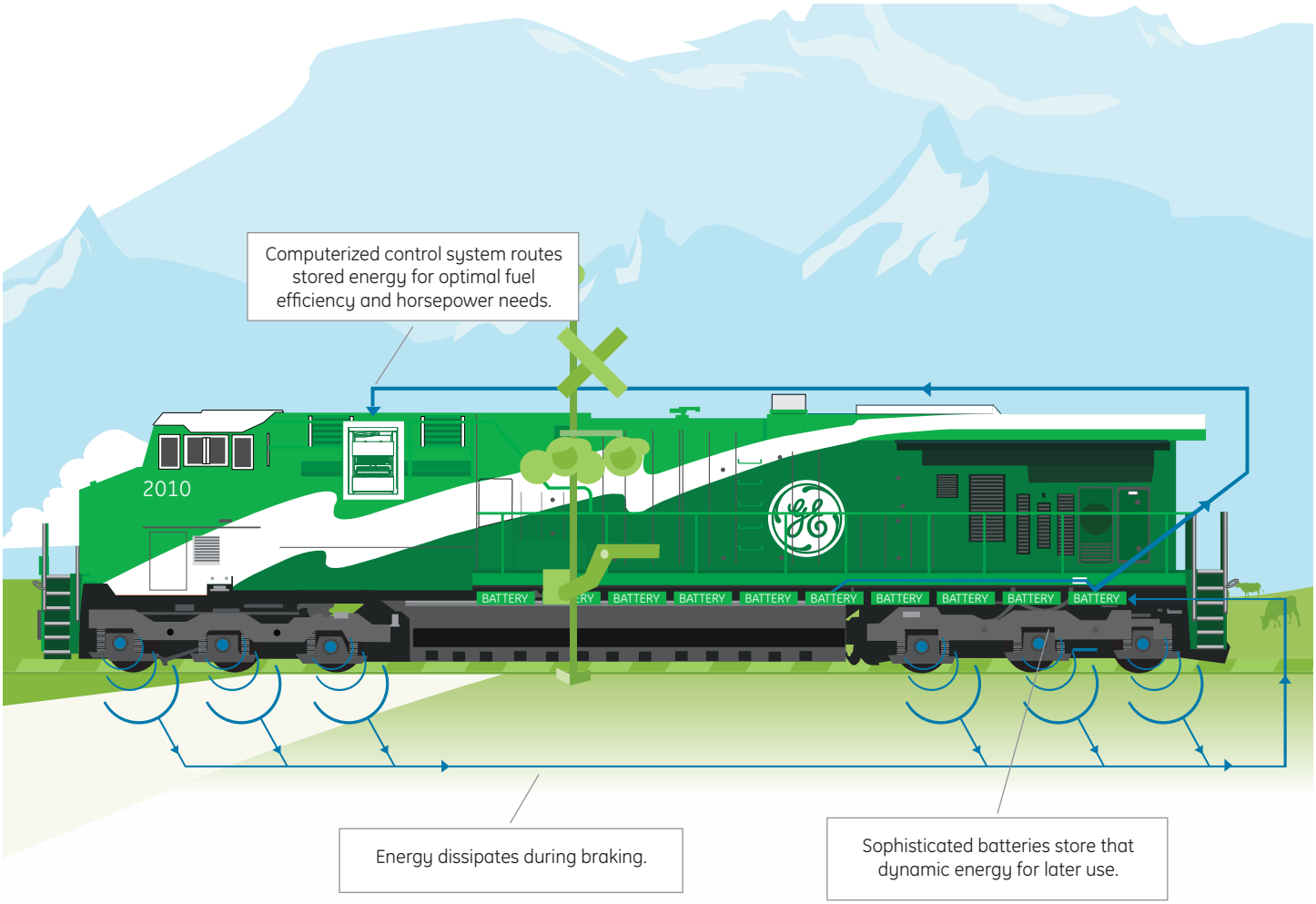
Hybrid locomotive

The future of rail is just around the bend.

How do you make a 4,400 horsepower locomotive more environmentally conscious? With pure ecomagination.

GE engineers are designing a Hybrid diesel-electric locomotive that will capture the energy dissipated during braking and store it in a series of sophisticated batteries. That stored energy can be used by the crew on demand—reducing fuel consumption by as much as 15 percent and emissions by as much as 50 percent compared to most of the freight locomotives in use today. In addition to environmental advantages, a hybrid will operate more efficiently in higher altitudes and up steep inclines.



imagination at work

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Hybrid locomotive

The future of rail is just around the bend.

More information about the hybrid locomotive

GE engineers are developing a hybrid locomotive with the goal of creating the cleanest, most fuel-efficient high-horsepower diesel locomotive ever built.

The energy dissipated in braking a 207-ton locomotive during the course of one year is enough to power 160 households for that year. The hybrid locomotive will capture that dynamic energy and use it to produce more horsepower and reduce emissions and fuel use.

GE's hybrid locomotive's lead-free rechargeable batteries will be able to provide superior performance by allowing operators to draw an additional 2000 horsepower when needed.

Compared to a locomotive manufactured in 2004 (meeting the U.S. Environmental Protection Agency's Tier 1 emission requirements for railroad locomotives), GE's hybrid locomotive is being designed to reduce carbon dioxide emissions over its lifetime as much as taking 2,600 cars off the road for a year.

GE's hybrid locomotive is being designed to emit half as much nitrogen oxide as locomotives built 20 years ago.

Replacing every locomotive in North America manufactured before 2001 with GE's hybrid technology would, in a year, cut nitrogen oxide emissions as much as removing one third of all cars from U.S. roads.

If every locomotive in North America could operate as efficiently as GE's hybrid locomotive is being designed to operate, railroads could achieve a fuel-cost savings of $425 million dollars each year.

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