

Customer Success Story: Intelligent Mobile Power Distribution System

Market Served

Federal Government – Department of Defense



Eaton's Intelligent Mobile Power Distribution System helps military reduce fuel consumption while increasing troop safety

Location:

Worldwide –
Forward Operating Bases

Segment:

Government

Problem:

The high cost of safe and reliable access to fuel in combat situations has led the U.S. Army to consider energy alternatives and resource management strategies.

Solution:

Eaton developed the Intelligent Mobile Power Distribution System, a reliable, energy efficient system to help manage generator output.

Results:

In a field test at a U.S. military base, fuel consumption at the base was reduced by more than 30 percent.

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The success of Army missions and the security of our soldiers are dependent on reliable access to energy and water.

Brett Haines, director of operations

Background

Military success and security in combat situations depends in part on safe and reliable access to fuel, which can come with a high price tag. Considering the "fully burdened" price of fuel for forward operating bases, or the actual cost of buying, moving and protecting a gallon of petroleum, the costs of supplying battlefield generators with fuel has increased dramatically.

"The success of Army missions and the security of our soldiers are dependent on reliable access to energy and water," said Katherine Hammack, assistant secretary of the Army, Installations, Energy and Environment, during a panel at the Association of the United States Army annual meeting.

This dependence, and the threat it faces in military zones, has led the U.S. Army to consider both energy alternatives and resource management strategies.

Challenge

Eaton® was challenged to help the U.S. military reduce demand for energy on the battlefield, thus reducing the amount of fuel needed, and the fully burdened price of fueling Forward Operating Bases (FOBs).

Power surety is also a top priority in mission critical environments. The guarantee of continuous power for force support is paramount to troop safety and keeping FOBs operating around the clock.



Intelligent Mobile Power Distribution System

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Powering Business Worldwide

Solution

Eaton developed the Intelligent Mobile Power Distribution System, a reliable, energy efficient system to help manage generator output. By transforming an independently operating system of generators into a demand managed microgrid, Intelligent Mobile Power Distribution System provides power only where and when it is needed, instead of employing all generators at all times.

The system also provides FOBs with critically needed power surety by utilizing intelligent load management technology to prevent grid collapse in the event of generator fault. If one generator were to fail, the Intelligent Mobile Power Distribution System prevents a stoppage of energy flow by shifting demand onto supporting generators, thereby providing a constant, safe supply of power.

Results

In a field test of the Intelligent Mobile Power Distribution System at a U.S. military base, the installation was able to become self-sufficient through the demand managed microgrid that transformed independently operating generators and reduced fuel consumption at the base by more than 30 percent. In the future, this same demand managed system can be seamlessly integrated and enhanced on the installation with optional renewable energy resources such as: solar, biomass, and energy storage.

About Eaton

Eaton is a power management company with 2013 sales of \$22.0 billion. Eaton provides energy-efficient solutions that help our customers effectively manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably.

Eaton has approximately 101,000 employees and sells products to customers in more than 175 countries. For more information, visit www.eaton.com and www.eaton.com/govt.



Intelligent Mobile Power Distribution System

Learn more about the Intelligent Mobile Power Distribution System at Eaton.com/govt

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