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**REVOLUTIONARY POWER GRID OPTIMIZATION PLATFORM TARGETS
ENERGY SYSTEM CHALLENGES AND INEFFICIENCIES**

Optimal Technologies Gives the Grid a Brain: Makes Power Grid Smarter, More Reliable and Environmentally Responsible with Official Release of its AEMPFAST Platform

RALEIGH, N.C., May 20, 2008 – [Optimal Technologies International Inc.](#), the leading developer of technologies to optimize power grid systems and advanced building automation platforms, today announced the commercial release of AEMPFAST, an analytical, planning and operational platform that provides unprecedented visibility over an entire utility network to maximize power generation, transmission and distribution. AEMPFAST has the potential to completely eradicate blackouts, significantly reduce costs for energy producers and end-users, create more reliable and efficient power, and lower greenhouse gas emissions.

AEMPFAST (Advanced Energy Management Power Flow Analysis System Technology) features proprietary Resource Sensitivity Index (RSI) technology, which measures the performance and reliability of every single location in the power grid to prioritize and optimally manage all its resources. AEMPFAST gives power providers a clear view of potential problems – erratic power, no power, poor power quality – and a clear view of the solutions – rerouting power to maximize efficiency without impacting the end-user’s experience. This type of fundamental system-wide visibility and analysis has never been made available to energy companies and utilities until today.

“At Optimal, our goal is to make energy production and transmission more efficient, less expensive and more conducive to our long-term global energy needs. The current grid system has no central operating system, no brain to connect the nerves and parts that continue to be added. It must be optimized to meet 21st century energy requirements and address our growing environmental challenges,” said Optimal Founder and CEO Roland Schoettle. “AEMPFAST makes the grid smart by showing in detail all parts of energy usage and providing actionable recommendations on how to deliver positive change at the system level. The result is maximized efficiency within our existing power networks.”

AEMPFAST enables higher net values of efficiency for every single asset in the grid – from generators to homes, down to light bulbs and outlets. In numerous tests during its many-year development period, AEMPFAST has proven its ability to improve an existing network’s energy capacity by at least 10 percent, without installation of new hardware or significant capital investment. AEMPFAST also:

- Minimizes congestion on the power grid by identifying and ranking critical points;
- Identifies the most effective placement of new power sources to maximize their benefits, including renewable energy systems such as wind and solar;

- Minimizes active and reactive power transmission losses simultaneously;
- Increases a system's load serving capability, voltage profile and stability; and
- Optimizes load management and demand response capabilities of a given network.

Optimal has conducted research, development projects and pre-commercial test projects for, among others, the California Independent System Operator, California Energy Commission Public Interest Energy Research Program, Sacramento Municipal Utility District (SMUD), and on projects using the Silicon Valley Power, Southern California Edison Company and PG&E transmission and distribution systems, all involving AEMPFAST tests against other applications. Optimal's customer projects and research results include the following:

- SMUD is currently using the planning capabilities of AEMPFAST to consider the most optimal site locations for distributed and renewable energy resources and reactive power sources. SMUD Transmission Planning is leveraging AEMPFAST's unique capabilities to improve their ability to address new energy reliability mandates required by the government.
- Optimal contracted with the California Independent System Operator to analyze the Bay Area blackout of 2000 and determined that with AEMPFAST the event could have been avoided altogether.
- The East Coast blackout of 2003 was determined to be the result of reactive power deficiency in the transmission system. Through extensive testing, Optimal determined that AEMPFAST would have prevented such a blackout due to its unique ability to evaluate and optimize both active and reactive power.

“There's a drastic need for change in the power industry in order to meet the world's increasing need for energy and avoid further damaging our planet and wasting resources,” said Winston Hickox, former secretary of the California EPA and a member of Optimal's board of directors. “We need to address the problem at the source, the grid system, and with Optimal's technology we have the ability to inexpensively increase the capacity of our existing resources without adding any new infrastructure or power plants.”

The launch of Optimal's AEMPFAST product comes shortly after a \$25M investment in the company by Goldman Sachs International. Optimal Technologies is using the funds to accelerate its growth, expand its market presence and build on its mission to enable utilities, businesses and consumers to analyze and manage energy networks from production to output for complete optimization and efficiency. The company recently opened new U.S. headquarters in [Downtown Raleigh, North Carolina](#).

Optimal's SUREFAST technology, due to be released later this year, addresses the consumer-side of energy optimization with a platform that enables complete analysis of and control over energy usage, and all interior building operations, including demand response, within a home or office from a single control panel.

About Optimal Technologies

[Optimal Technologies](#) develops solutions to help power utilities, businesses and consumers maximize their energy efficiency and minimize their carbon footprint. The company's mission is to enable a more efficient, reliable and environmentally responsible electric power grid. Optimal's unique products and services have the potential to create unprecedented industry, economic, environmental and consumer benefits worldwide. Optimal is a privately held company financed by Goldman Sachs International.

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