



# OptiGrid™

Stored Energy Solutions

*Customizable, cost-effective and comprehensive  
capacity optimization systems from EnerSys®*





## *Capacity optimization is critical*

Power disturbances are a major cost and concern for today's utilities and industries as they struggle to cope with growing demand, an aging infrastructure and the challenges of incorporating renewable resources. In fact, over the past 20 years, blackouts have increased 124%. Frequent and potentially destructive disturbances from power grids are also resulting in voltage sags, brownouts, over voltage conditions and power outages.<sup>†</sup>

Stabilizing your power grid means preparing for voltage regulation, frequency regulation, ramp control and peak shaving. Increasingly, utilities are discovering significant benefits through the integration of large battery systems into their power grid architecture. That's why EnerSys® is proud to offer OptiGrid™ Stored Energy Solutions—a flexible, turnkey, utility-scale capacity optimization system.

### *World-class solutions from a worldwide leader*

EnerSys is the global leader in stored energy solutions for industrial applications. For over 100 years, EnerSys and its predecessor companies have been manufacturers of industrial batteries. With our financial strength, large volume production capabilities and proven product portfolio, we are uniquely qualified to supply you with the most complete, competitive and diversified line of capacity optimization solutions from a single source.

Headquartered in the U.S. in Pennsylvania, with regional headquarters in Europe and Asia, EnerSys employs over 9,000 people and operates over 30 manufacturing and assembly facilities worldwide, with a presence in 29 countries. This vast infrastructure positions EnerSys at the forefront of both manufacturing capabilities and new product development. We also leverage the knowledge and experience our global network to solve your capacity optimization challenges.

<sup>†</sup>CNN Tech: U.S. electricity blackouts skyrocketing, October 15, 2010  
<http://www.cnn.com/2010/TECH/innovation/08/09/smart.grid/index.html>

### **An unmatched array of battery chemistries**

To ensure you get the precise chemistries you need, OptiGrid Stored Energy Solutions can be customized with one—or a combination of proven EnerSys chemistries, including:

- Tubular technology
- Nickel zinc
- Nickel cadmium
- Lithium Ion
- Flat plate flooded
- Flat plate VRLA  
(Valve Regulated Lead Acid)
- TPPL (Thin Plate Pure Lead)



***Depend on the power of***



EnerSys® OptiGrid™ Stored Energy Solutions is a complete, packaged solution that combines the right battery chemistry, power conditioning system, monitoring system, shelter and installation, as well as full service and engineering to best match your technical and economic requirements.

### ***What OptiGrid™ Stored Energy Solutions by EnerSys® can do for you***

Designed to help manage grid-level storage needs and meet Federal Energy Regulatory Commission rules, OptiGrid Stored Energy Solutions enables users to improve power quality and efficiency, moderate peak demand and effectively integrate energy from renewable resources.

The system can respond to demand response signals from utilities by injecting active power into the grid from stored energy. It maintains uninterrupted power during power outages, utilizes solar to sustain load during daylight hours, and features cutting-edge inverter technology to improve reliability.

Storing power close to the load also relieves strain on the transmission and distribution infrastructure, reducing losses that come from delivering power over congested and thermally limited lines during peak demand times. This provides the opportunity for customers to participate in ancillary utility markets by providing or absorbing power.

### ***Service, support and financial flexibility***

As an end-to-end solution, EnerSys does more than just provide the products you need to optimize capacity. Our experienced experts will evaluate your facility's needs, recommend the best storage technology and provide a turnkey installation. We also are able to offer unique financing options that include leasing through the EnerSys Financial Solutions<sup>SM</sup> Group.



***optigrid.enersys.com***

### **The ultimate in power and safety**

Developed by experienced specialists in battery technology, OptiGrid Stored Energy Solutions offer the optimal combination of both power and safety:

- Improve power quality and efficiency
- Moderate peak demand
- Integrate energy from renewable sources
- Monitors every cell
- Strategically placed disconnects within the DC side of the system





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

**EnerSys World Headquarters**

2366 Bernville Road  
Reading, PA 19605  
USA  
Tel: +1-610-208-1991  
+1-800-538-3627

**EnerSys EMEA**

EH Europe GmbH  
Löwenstrasse 32  
8001 Zürich, Switzerland  
Tel: +41 (0) 44 215 74 10

**EnerSys Asia**

152 Beach Road  
Gateway East Building #11-03  
Singapore 189721  
Tel: +65 6508 1780

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