# Energy Storage





Landis+Gyr's Energy Storage solutions enable utility customers to dramatically improve grid operation and stay ahead of changes on the rapidly evolving power grid.

Landis |Gyr<sup>+</sup>

manage energy better

### **Utilities and Energy Storage**

#### Landis+Gyr Helps Solve Pressing Needs with Build-for-Purpose Energy Storage Systems

With a proven reputation for listening to customers, understanding their complex challenges and helping them develop smart grid solutions that are reliable, versatile and Future Ready<sup>™</sup>, Landis+Gyr is ready to help you navigate the energy storage landscape. Landis+Gyr brings years of experience and a holistic approach to energy storage solutions that ensure your project delivers value to your business.

Landis+Gyr provides products and services across every aspect of Energy Storage project scoping, development and operation.



#### Application Analysis

Every project begins with a 360° view of the problem and an assessment of the technology available to solve it.



#### **Solution Design**

Taking safety, total cost of ownership, performance and project economics into account, the right technology is hand picked for the given application.



#### Deployment

Projects are delivered on-time, on budget and on specification. More than 60 certified project managers and deployment experience of over 62 MWh/32 MWh of storage projects.



#### Service

Systems are monitored 24/7 from our operations center to maximize asset performance and uptime.

## The Landis+Gyr Difference

Implementing successful energy storage solutions requires a partner with know-how, technology independence and strong financial backing. Landis+Gyr is a partner that delivers a:

- Comprehensive solution suite that enables the best solution for any given problem
- Bankable warranty
- "Cradle-to-grave" support built on 100+ years of utility service experience
- Expert integration of low total cost of ownership solutions



## **Energy Storage to Address Your Grid Challenges**

Landis+Gyr is a smart grid solution provider that helps distribution utilities increase reliability, extend asset life, and engage customers by removing the challenges associated with integration distributed generation resources. Energy storage is one solution that addresses a wide variety of utility challenges. Landis+Gyr designs, delivers, and maintains energy storage solutions that help utilities **increase power quality, deploy capital more efficiently, extend the life of critical infrastructure, and extract the value of distributed generation.** Everything we do is aimed at creating the best electric grid possible.

Cooperative, municipal and investor owned utilities can all reap the benefits energy storage solutions offer.

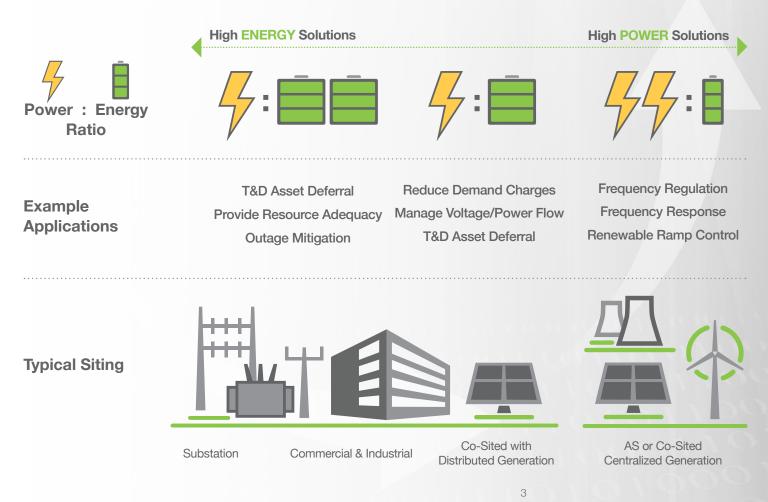
#### **Energy Storage Benefits**

- Defer system upgrades
- Reduce demand charges
- Manage voltage/power flow
- Mitigate outages
- Improve grid stability
- Provide resource adequacy



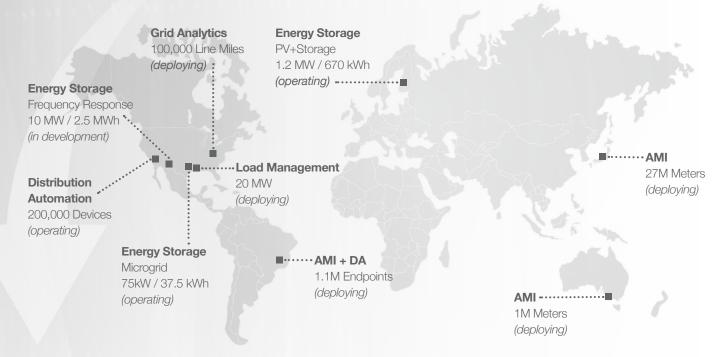
## The Storage Solution Line-Up

Landis+Gyr offers a comprehensive line of fully integrated and engineered energy storage solutions with bankable performance warranties. We work with leading OEMs to provide the "right" technology for the job without a technology bias.



## Proven Delivery—Complex Smart Grid and Energy Storage Solutions with Global Reach and Local Expertise

Landis+Gyr has delivered some of the world's most complex Smart Grid projects on 6 continents. Building upon this technical and project experience, Landis+Gyr will address your energy storage needs by delivering projects on-time, on-spec and on-budget.



## Landis+Gyr's Energy Storage Experience

Helsinki Finland 1.2 MW / 670 kWh (operating) Tucson, AZ USA 10 MW / 2.5 MWh AC (in development–Mar '17) San Antonio, TX USA 75 kW / 37.5 kWh AC (operating)



The turnkey AC battery storage system with 5-year performance warranty will be integrated into a utility-owned microgrid, testing the interoperability of multiple technologies. Cincinnati, OH USA 2 MW/ 800 kWh AC (operating)



24/7 system monitoring services are provided to Toshiba and Duke Energy for the system performing frequency regulation in the PJM market.



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A turnkey AC battery storage system with 4-year service agreement is helping Helen Electricity Network and Fingrid to optimally dispatch PV energy to the grid on a daily basis.



The DC battery block with 10-year performance warranty provided to E.ON will support Tucson Electric Power in managing grid stability in the context of high penetrations of PV.

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