

xStorage Buildings

Eaton Nissan energy storage systems for buildings



EATON

Powering Business Worldwide



Energy storage for Buildings: designed and built for sustainability and resilience

The world of commercial and industrial buildings is being challenged by

- Rising electricity costs and complexity
- More distributed energy resources
- Greater adoption of demand response programs
- Increasing complexity of building energy management systems
- The need for resiliency and power quality

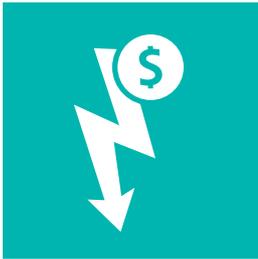


Eaton Nissan xStorage Buildings
selects the right power sources
according to the load, the grid
constraints and the availability
of renewable energy.

This system allows end users to
store energy once produced so that
it can be used on demand to power
the business or to participate in
demand response programs selling
energy back to the grid.



Benefits



Save money on electricity and operational expenses

- Manage load shifting/ demand
- Generate self-consumption of PV
- Enable peak shaving
- Maximize feed-in tariff opportunities to sell power back to the grid
- Ensure regulatory compliance



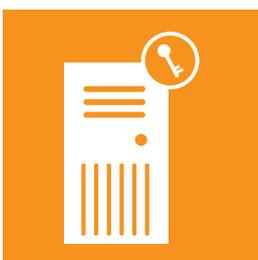
Optimize use of renewable energy

- Maximize consumption of onsite generation, primarily solar energy



Maintain power when the grid is down

- Ensure backup power supply in case of natural disasters
- Protect equipment from damage during blackouts
- Reduce time of restart



Safe technology

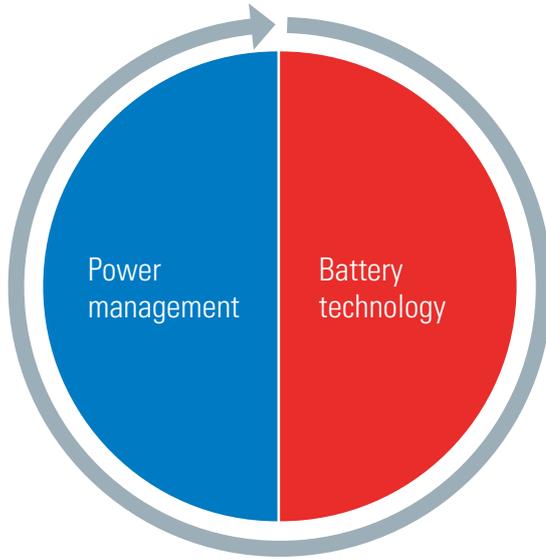
- Industrialised, tested and configured to deliver high levels of quality, reliability and performance
- Eaton as a 100-year power management company and Uninterruptible Power Supply (UPS) leader brings a depth of experience that is unmatched by most storage players
- Nissan is the leader in Electric Vehicles and as such is a proven, high volume, maker of reliable Li-Ion batteries that meet the high safety standards of the automotive market



Customer service

- Supported by a network of over 1,000 distributors, working with qualified installers in 77 countries

xStorage Buildings systems have been developed by two leaders in areas critical to Energy Storage



Leader in both electrical energy for buildings and in power electronics with **a depth of experience** unmatched by most storage players

Leader in Electric Vehicles and a proven, high volume, maker of reliable Li-Ion batteries **for 15 years**

Making energy storage simple for you

Minimized risk



- Two global brands with strong financials
- A strong heritage of success
- Technology leadership

Customized solution



- Scalable and customizable solutions
- A portfolio of solutions from 10 kWh to several MWh

Global support

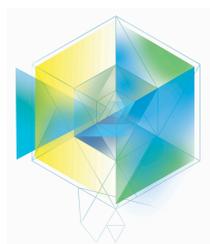


- Over 24,000 employees in more than 40 countries in EMEA
- A network of over 1,000 distributors working with qualified installers in 77 countries

Technical overview

Storage capacity	<ul style="list-style-type: none"> • From 24 kWh to several MWh when using strings of 5 battery packs • Battery pack capacity: <ul style="list-style-type: none"> • 4,2 kWh - Second life batteries • 6 kWh - New batteries • 7,5 – 9,6 kWh - New batteries available end of 2017
Output	230/400V, 3~ + N
Power	From 20kW to several MW
Installation	<ul style="list-style-type: none"> • Fits in 19 inch standard racks (EIA-310-E) • Up to 10 battery packs per 42U rack
Operating temperature	5°C – 40°C
Battery life	~10 years - Estimate based on 1 daily full cycle usage
Efficiency	Online (on utility grid): >96% Battery mode: >95%
UPS features	Up to 97% efficiency in double conversion >99% efficiency with Energy Saver System Compact footprint

Smart and
clean power.
Made simple.



ENERGY STORAGE

eaton.com/energystorage