

Afaceri mai sigure prin eficiență energetică", Craiova, 22 mai 2019



Power Quality

CATALIN CRIVINEANU– Partner Account Manager



Powering Business Worldwide

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UITAȚI-VĂ ÎMPREJUR!

Tot ceea ce atingem,
facem, sau
trăim în lumea noastră
modernă este posibil
datorită energiei.





Eaton – prezenta semnificativa in Romania



Vanzari:

EATON ELECTRIC SRL –

fondata in Decembrie 1997 (sub
denumirea de Moeller Electric)



Productie:

EATON ELECTROPRODUCTIE –
fondata in 2002; localizata langa Baia
Mare (Sarbi + Busag)

COOPER INDUSTRIES ROMANIA –
localizata langa Arad

3 phase UPS

91PS / 93PS

8- 40 kW

Efficiency > 96%

Modular and compact design

ESS, HS, ABM, Internal bat.

Hot swap/scale

Cloud and Virtualization ready



Premium (Modular)

Powering Business Worldwide

93PM

30- 500 kW

Efficiency up to 97%

Modular and compact design

ESS, HS, ABM, Internal bat.

High end software & security



9395P

250-1200 kW

Efficiency > 96%

Modular and compact design

ESS /VMMS/HS

Distributed and Centralized topologies



93E

15-80 kVA

15, 20;30; 40, 60, 80 kVA @ pf 0,9

Efficiency up to 94%

Internal batteries

HS/ABM

Eco mode: 98%

Parall units

General purpose



93E

100-200 kVA

100,120, 160, 200 @ pf 0.9

Efficiency up to 94%

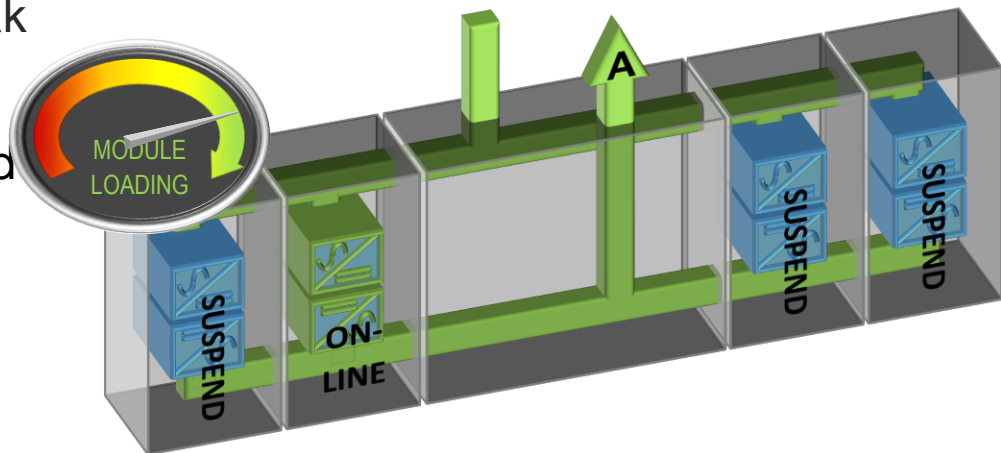
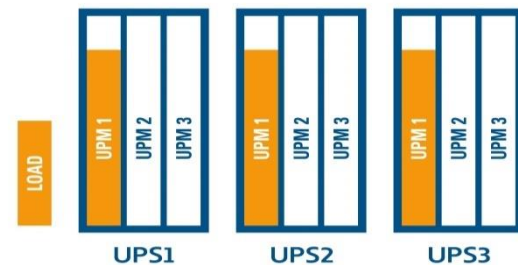
High Efficiency mode →98.5%

ABM & Hot Synch up to 4 units

LCD

Energy Saving Technologies - VMMS

- Variable Module Management System (VMMS) brings up efficiency and optimizes the load levels of power modules by suspending extra UPS capacity
- Optimised for 50% load level peak efficiency/module
- All control logic is active, suspended modules are synchronised all the time and ready to go online when required



Energy Saver System (ESS) – 99%

The year
ESS became
available

2009



Amount of UPS
capacity in kVA
using ESS mode

879,000 kVA



Energy
saved
every day

>348,000 kWh



Number of UPS
units operating
in ESS mode

>1,500



Resulting overall
availability of UPS
units in ESS mode

>99.999%



Overall
reduced CO₂
emissions

95,000,000 kg



Number of sites
using ESS

>150



Total time
of ESS
operation

>23 million hours



Overall energy
saved by units

214 GWh



EATON

Powering Business Worldwide

A partnership of environmental excellence



By partnering with **Nissan** amongst others, we provide energy storage solutions in the full range of energy capacity.

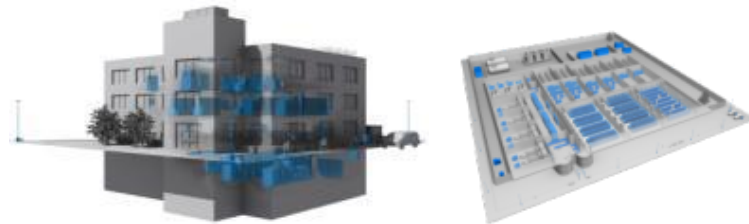
RESIDENTIAL



COMMERCIAL



INDUSTRIAL

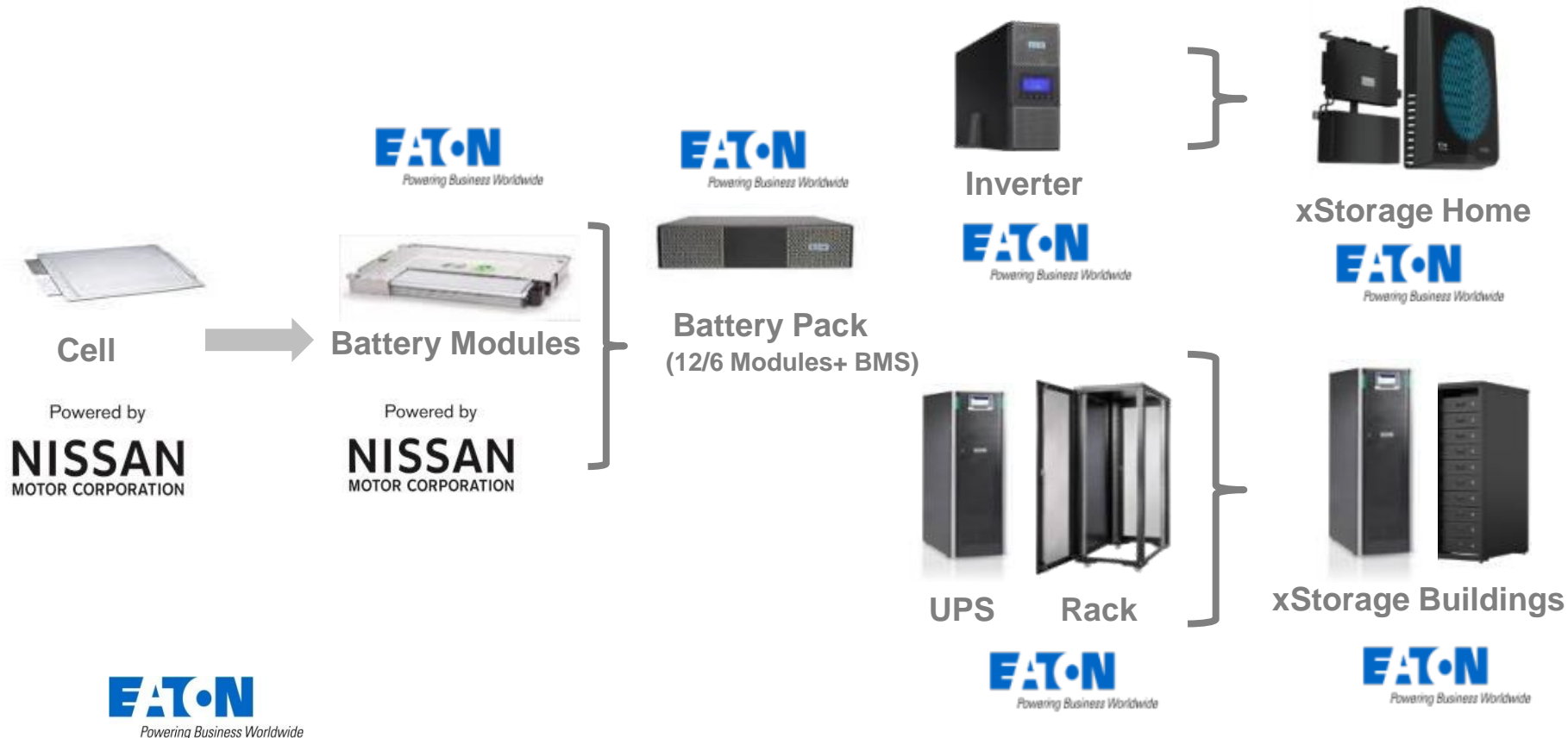


Expertise - Reach - Dependability - Diversity - Footprint - Portfolio

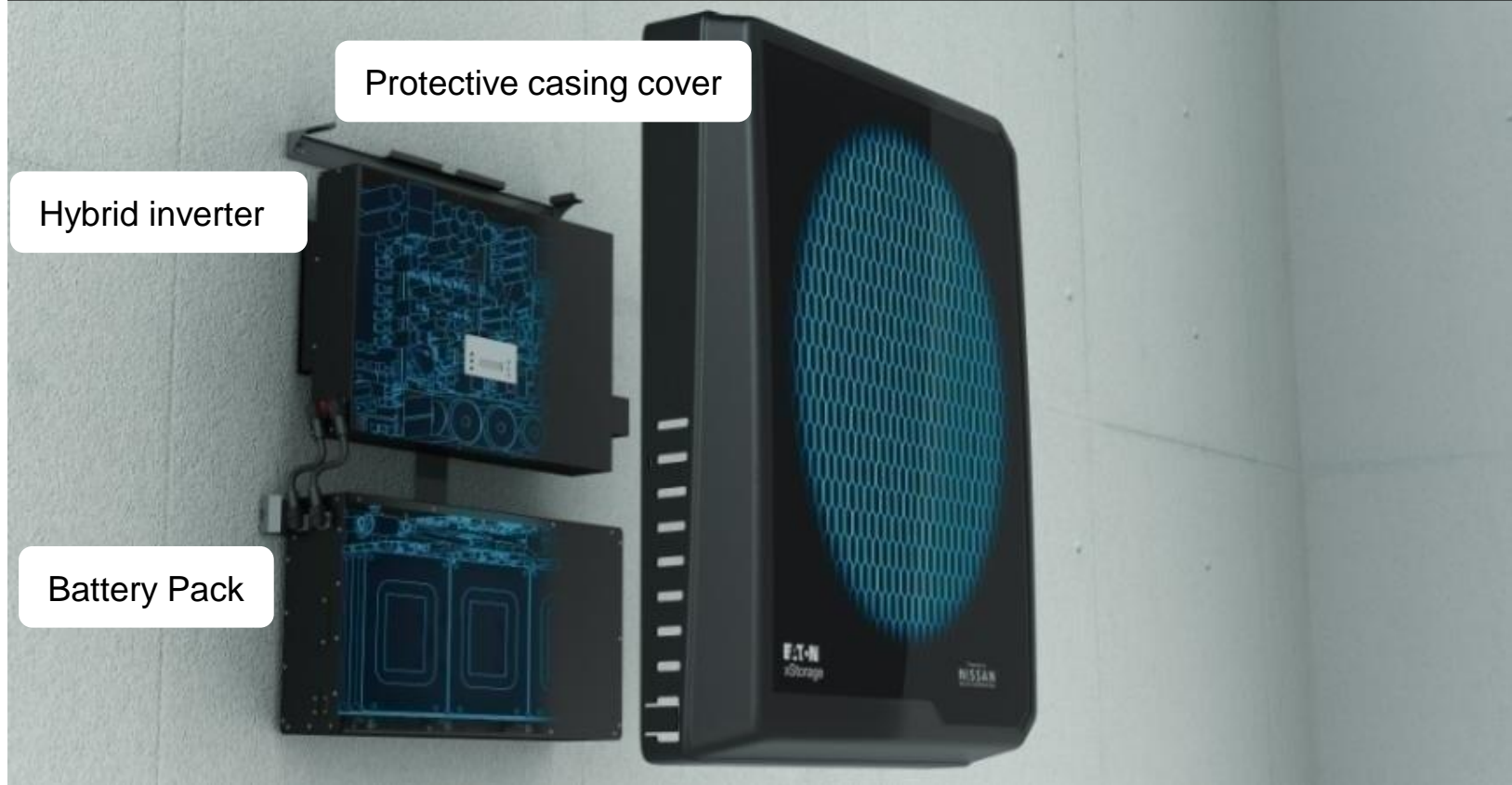
Eaton can partner with you to help you achieve substantial benefits.



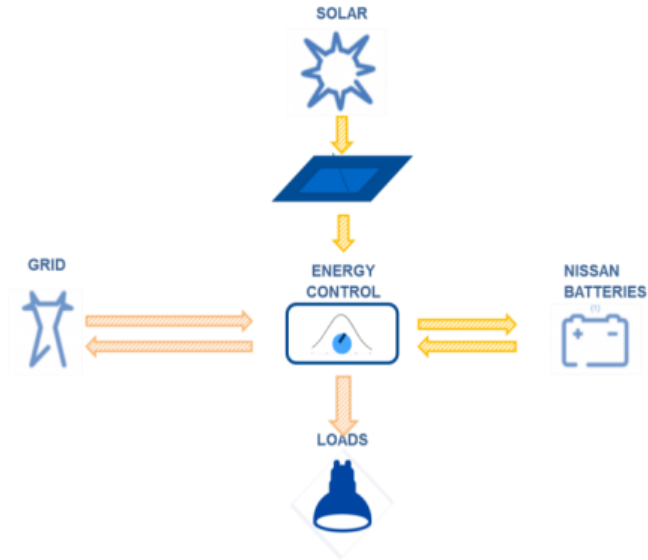
Eaton with Nissan Technology Partnership



The xStorage Home system



Customer Installation of Eaton Nissan energy storage solution for Buildings with EV battery pack



NISSAN

We have been selected...

Amsterdam Arena project



During matches, sporting fixtures, or concerts, a stadium or an arena's demand for electricity typically ramps by several megawatts over a matter of hours, in order to power large loads like lighting, catering and broadcasting equipment.

Many stadiums operate large events with their critical load supported by generators.

Eaton's Energy Storage System is designed to

- reduce the use of generators and provide clean and dependable energy on event day.
- support reduced energy costs by minimizing peak demand charges
- improve network stability
- reduce infrastructure costs while providing critical system power requirements

Future scenarios & Trends

UPS as a reserve

Reserves are needed to supplement mandatory frequency regulation to correct deviations in grid frequency and supply-demand balance caused by forecast inaccuracy and faults



<http://www2.nationalgrid.com/uk/services/balancing-services/frequency-response/>



Future scenarios & Trends

UPS as a reserve

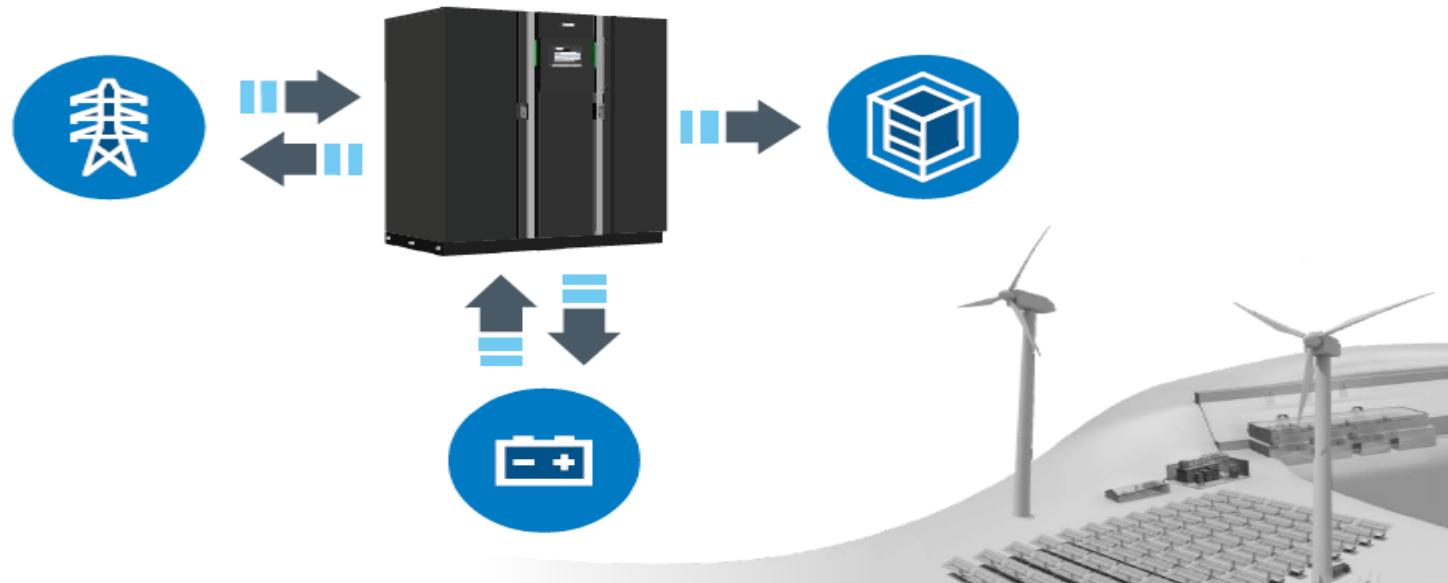
The frequency in the grid can be controlled by increasing/decreasing production or consumption to/from the grid.



Future scenarios & Trends

UPS as a reserve

UPS with batteries are a great reserve in providing an impact to production or consumption to/from the grid.



Future scenarios & Trends

UPS as a reserve – Data Center Contribution

UPS-as-a-Reserve enables a data center to increase its competitiveness by turning its necessary investments into a revenue stream:

- Value of **1 MW** in the market has been approx. **50 k€**; paid for availability, possibly for use as well

Data center has control of their energy, choosing how much capacity to offer, when, and at what price.



BRACE YOURSELF!



EATON IS COMING!

Feel free to email your questions to:
CatalinCrivineanu@Eaton.com