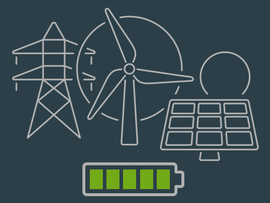
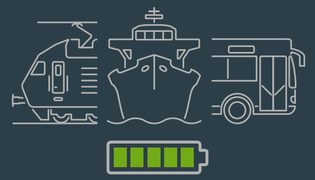
Leclanché
Energy Storage Solutions



STATIONARY SOLUTIONS



e-TRANSPORT SOLUTIONS

SPECIALTY BATTERY SYSTEMS

Extraordinary General Shareholder Meeting

Yverdon-les-Bains, Switzerland

11 December 2018

Recap: AGM June 2018

Double revenue in 2018 and 2019

CHF 40-50m

in 2018, CHF 110m in 2019

Increase corporate funding

CHF 100-125m

targeted by the end of 2018

EBITDA positive

by 2020, 50% loss reduction in 2018

Strengthen profit drivers

Enhance customer trust through completion of 100MWh projects in Operation in 2018

Increase revenue mix towards higher margin eTransport and Specialty Battery Systems

Reduce cost through access to Gigawatthours-scale procurement in the planned JVs

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Financial Outlook given during the AGM in June 2018

Double revenue

year-over-year

CHF 110M in 2019

EBITDA

50% loss reduction year-over-year as a % of the Revenue

Breakeven in the year 2020

Increase Corporate funding to CHF 100 million to CHF 125 million

Update on 11 December 2018

Revenue at record level for more than a decade!

- On track to double revenue in 2018 and 2019
- 50% reduction in EBITDA loss as % of the revenue, excluding one-off charges, over 2017
- Strong Order book underpins the expected breakeven in 2020: *eTransport business requiring >1 million Cells for more than USD 25 million Revenue in 2019; and >3 million Cells for more than USD 100 million Revenue in 2020*
- Secured CHF75 million from FEFAM[1], the largest shareholder
- Further capital raise discussions with strategic investors, including consideration of a Rights Issue

[1] **FEFAM means:**
AM INVESTMENT SCA, SICAV-SIF - Liquid Assets Sub-Fund, together with FINEXIS EQUITY FUND - Renewable Energy Sub-Fund, FINEXIS EQUITY FUND - Multi Asset Strategy Sub-Fund, FINEXIS EQUITY FUND – E Money Strategies Sub-Fund (also called Energy Storage Invest) and, all these funds being in aggregate the main shareholder of Leclanché, hereunder referred to as "FEFAM".

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"Strengthen Profit Drivers"
Outlook given during
June 2018 AGM

Enhance customer trust through completion of 100MWh projects in Operation in 2018.

Increase revenue mix towards higher margin eTransport and Specialty Battery Systems

Reduce cost through access to Gigawatthours-scale procurement in the planned JVs

Update on 11 December 2018

- On track to achieve this key operational milestone
- Projects commissioned include: *Graciosa, Portugal; Monarch, NRStor, Toronto; Ellwood, Canadian Solar, Ottawa; Cremzow 1, Enel Green Power, Berlin; Marengo SGEM, Chicago; SWB, Bremen, Almelo 1, S4Energy, Netherlands. Projects in testing / final completion: Basin 1 & Basin 2 Maple Leaf, Toronto, Cremzow 2, Enel Green Power, Berlin*
- Breakthrough in the eMarine Business: *Purchase Orders from Kongsberg and Damen exceed 45MWh / > € 23 million*
- Master Supply Agreement with Sun Mobility now in the Commercial phase: *Purchase Order received to supply of Modules for 20 Electric Bus Packs to Ashok Leyland*
- The Joint Venture with Exide Industries Limited, the largest battery manufacturer in India, is now formed. *Significant license fee payment to Leclanché (in millions of USD)*

nexcharge
Exide Leclanché Energy

Leclanché
Energy Storage Solutions

Strong profit drivers

Master Supply Agreements with recurring annual deliveries

Specialized Battery Systems for Fleet Commercial Vehicles based on 100% Leclanché Technologies

Energy Storage Solutions for Smart Charging Infrastructure

e-TRANSPORT SOLUTIONS

EXIDE

KONGSBERG

DAMEN

eFerry
connecting blue and green

ASHOK LEYLAND

ŠKODA

Leclanché
Energy Storage Solutions

Kongsberg, Norway

https://www.youtube.com/watch?v=tFH595gytSE

DAMEN, The Netherlands / Canada

e-TRANSPORT
SOLUTIONS

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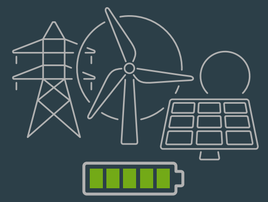
Strong profit drivers

- **PV Integration in Distribution grid**: EPFL/ Romande Energy, Switzerland
- **Micro-grid** integrating wind and solar, with Diesel gen set as backup, in Island mode: Graciolica, Graciosa, Portugal
- **Commercial and Industrial Customer**: NRStor Monarch, Ontario Canada
- **Utility Grid-tied** Frequency Regulation and Ancillary Services: Ellwood, Canadian Solar; Cremzow, Berlin Germany; Marengo, Chicago USA; Basin 1&2, Toronto Canada; SWB, Germany; S4Eenrgy, Netherlands

Milestone of 100MWh projects to be completed in 2018

Wide range of Software and Controls delivered

Acquired Energy Management Software from ID Inc., USA



STATIONARY SOLUTIONS

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Cremzow 1 & 2 Projects

Germany

Project:	**Cremzow 1 / Cremzow 2**
Location:	**Berlin, Germany**
Size:	**22 MW / 34 MWh**
Application:	**Grid Ancillary Services**
Status:	**Construction Complete / In Testing**
COD Cremzow 1:	**May-2018 (3.1 MWh)**
COD Cremzow 2:	**Jan-2019 (31.5 MWh)**
Scope:	**Turn-key EPC Contract**
Controls:	**Third-Party – Greensmith**

Cremzow 1 COD:
June 2018

Cremzow 2 COD:
Dec-2018 / Jan-2019

https://bau.camera/leclanche/

STATIONARY
SOLUTIONS

enel Green Power

ENERTRAG

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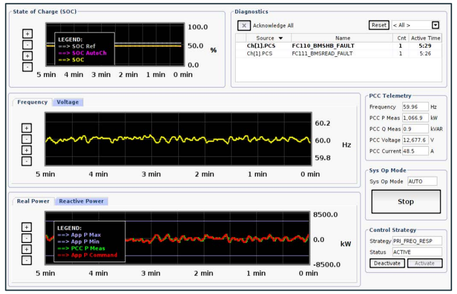
NRStor Monarch Project

Canada

COD: Aug-2018

Project:	**NRStor C&I - Monarch**
Location:	**Toronto, Canada**
Size:	**2.0 MW / 4.9 MWh**
Application:	**Peak Charge Reduction (Global Adjustment)**
Status:	**In Operations**
COD:	**3Q/2018**
Scope:	**Turn-key EPC Contract**
Controls:	**Leclanche EMS / Leclanche Fleet Mgmt System**



Standardized 1.0 MW / 2.5 MWh 40' ISO Container (FLEX)

STATIONARY SOLUTIONS

OAKVILLE HYDRO

ieso

NRSTOR INC

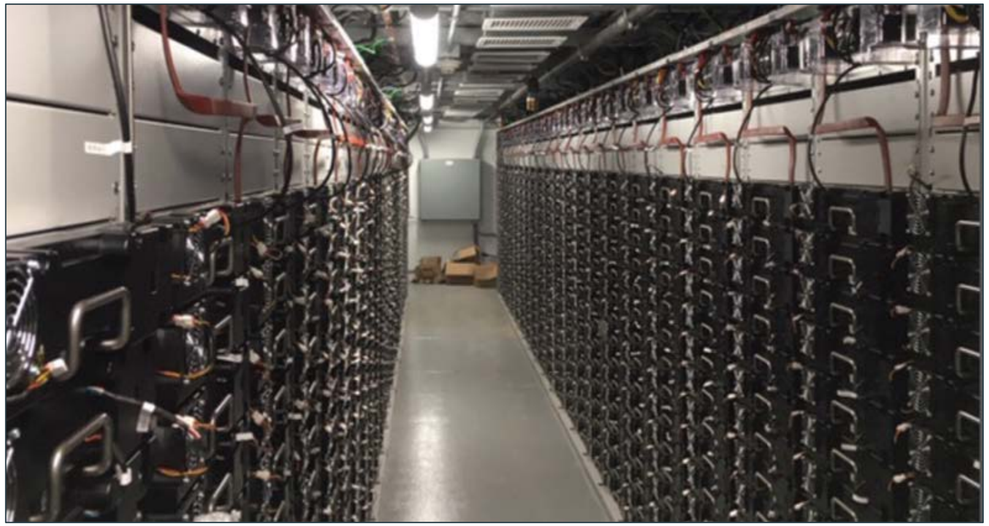
Leclanché
Energy Storage Solutions

Marengo Project

USA

COD: Nov-2018

Project:	Marengo Project
Location:	Chicago, Illinois USA
Size:	20 MW / 19.5 MWh
Application:	Grid Frequency Regulation (RegD)
Status:	In Operations
COD:	Q4 2018
Scope:	Turn-key EPC Contract
Controls:	Third-Party – Greensmith



STATIONARY SOLUTIONS

pjm

SGEM
Owner & Operator of Energy Storage Assets

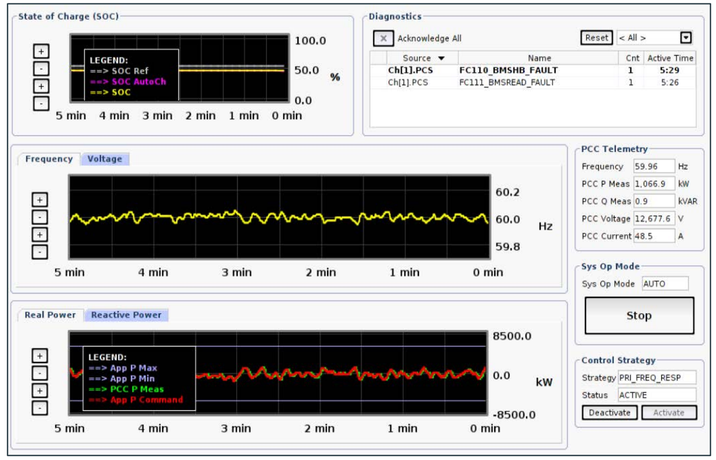
Leclanché
Energy Storage Solutions

CS Ellwood

Canada

COD: Dec-2018

Project:	**Ellwood Project**
Location:	**Ottawa, Canada**
Size:	**2 MW / 5 MWh**
Application:	**Grid Ancillary Services**
Status:	**Leclanche Installation Complete**
COD:	**Q4 2018**
Scope:	**Battery System & Control Systems**
Controls:	**Leclanche EMS**



STATIONARY SOLUTIONS

ieso

CanadianSolar

Leclanché
Energy Storage Solutions

IESO Basin 1 & 2 Projects

Germany

COD: Dec-2018 / Jan-2019

Project:	**Basin 1 / Basin 2**
Location:	**Toronto, Canada**
Size:	**27.6 MW / 12.0 MWh**
Application:	**Grid Ancillary Services**
Status:	**Construction Complete / In Testing**
COD:	**Phase 1: Q1/2019**
Scope:	**Turn-key EPC Contract**
Controls:	**Third-Party – Greensmith**

STATIONARY SOLUTIONS

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SWB Project, 15 MWh

Bremen, Germany

Commission
Approved

STATIONARY
SOLUTIONS

swb

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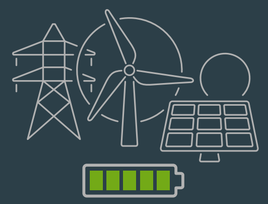
World class solution from world class partners



Graciolica, 3.2MWh

Azores, Portugal

Leclanché Energy Storage Solutions

EDA Electricidade dos Açores

ENERCON ENERGIE FÜR DIE WELT

ABB

A WÄRTSILÄ COMPANY Greensmith

SMA

HOWARDSCOTT

TRACTEBEL ENGIE

WÄRTSILÄ

dte

Graciólica

"Na rede eléctrica da Graciosa já corre 20% de energia verde. E quando projecto da Graciólica estiver integralmente concluído, a Graciosa será a única ilha do mundo com 70% de energia renovável."

"Graciosa's electricity grid already runs 20% green energy. And when Graciólica's project is fully completed, Graciosa will be the only island in the world with 70% renewable energy."

Correio dos Açores,

25 de Agosto de 2018

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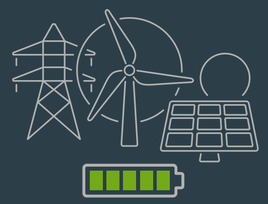
Graciolica project status



STATIONARY SOLUTIONS

Graciólica

".....Leclanché worked impressively to deliver the BESS before the end of 2015 which enabled, along with other key investments, us to secure a EUR 5m non-refundable subsidy. An extension for completing the project was obtained until the end of 2016. Leclanché commissioned the BESS during 2016 however other parts of the hybrid renewable power plant remained incomplete including the EMS that was being delivered by Younicos (formally as sub-suppliers to Leclanché)..... At the end of 2017 Leclanche took the difficult decision (with the support of Graciolica Lda) to terminate Younicos EMS sub-supply agreement. We engaged Greensmith directly to provide the EMS and engaged Tractabel as project managers...

We obtained a further extension from our client and off-take partner (the local utility EDA) to complete the project by the end of 2018. We invested in excess of an additional EUR 4m (on top of the EUR 25m already invested) to replace the EMS, inverters, transformers and related civil works. We greatly appreciate Leclanche's approach during the last 12 months where there has been significant support required and given to successfully complete the project.

We have been in full testing and commissioning phase since September this year. Final tests are under way and scheduled to complete on 19 December where after the plant will enter into commercial operations under the 20+5 year power purchase agreement between ourselves and EDA...."

Dom Hughes

Director, Graciolica Lda

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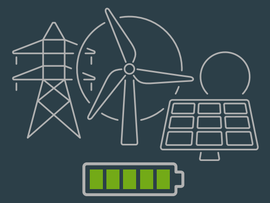


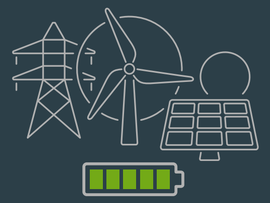
STATIONARY SOLUTIONS

e-TRANSPORT SOLUTIONS

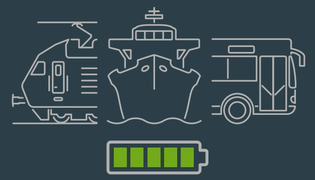
SPECIALTY BATTERY SYSTEMS

Production capacity expansion, led by strong market demand in eTransport and Robotics Business

Leclanché
Energy Storage Solutions



STATIONARY SOLUTIONS



e-TRANSPORT SOLUTIONS

SPECIALTY BATTERY SYSTEMS

Delivery volumes of acquired and pipeline projects for 2019

Projects 2019		
	kWh	cells
eMarine		
Kongsberg	22,528	129,536
Others	2,304	13,248
eTransport light		
Sun Mobility	10,000	100,000
Others	46,000	460,000
eTransport commercial		
Sun Mobility	36,000	207,000
Others	2,000	11,500
Stationary	20,000	115,000
Total requirements	138,832	1,036,284

18% Purchase Orders

33% Master Supply Agreements, with committed annual volumes

49% Pipeline including, a world renowned Auto OEM

Full capacity in Willstätt, in a 5-shifts continuous operation:

1 million Cells

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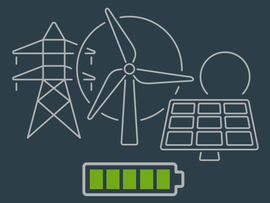

STATIONARY SOLUTIONS

e-TRANSPORT SOLUTIONS

SPECIALTY BATTERY SYSTEMS

Delivery volumes of acquired and pipeline projects for 2020

Projects 2020		
	kWh	cells
eMarine		
Kongsberg	15,054	80,515
Others	-	-
eTransport light		
Sun Mobility	41,000	392,917
Others	138,000	1,380,000
eTransport commercial		
Sun Mobility	50,000	267,442
Others	7,700	44,275
Stationary	120,000	690,000
Total requirements	371,754	2,855,149

4% Purchase Orders

25% Master Supply Agreements, with committed annual volumes

71% Pipeline including, a world renowned Auto OEM

Committed funding required by March 2019 to confirm the pipeline

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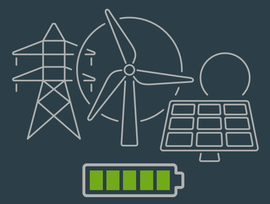

STATIONARY SOLUTIONS

e-TRANSPORT SOLUTIONS

SPECIALTY BATTERY SYSTEMS

Cell Production Capacity increase: combined volumes to reach more than 2 GWh/year by 2022

Capacity output increase for 2020 in Willstätt factory

- Target to triple current factory capacity to 3 million cells per year
- Investment estimated at € 25 million
- Use existing structure to expand production line
- Additional engineers with automotive cell production background hired
- Finalize the engineering study and selection of partners by April 2019
- Implementation time from engineering freeze is 12 to 15 month

Capacity output increase for 2021-2022 in Indian JV

- Start from greenfield site
- Install a 3 million cell per year line by 2021
- JV to free start of project by April 2019
- Implementation time from engineering freeze is 18 to 24 month
- Option to double installed production capacity, to bring total site capacity to approximately 1,5 GWh/year

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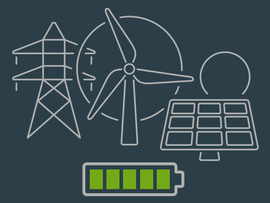


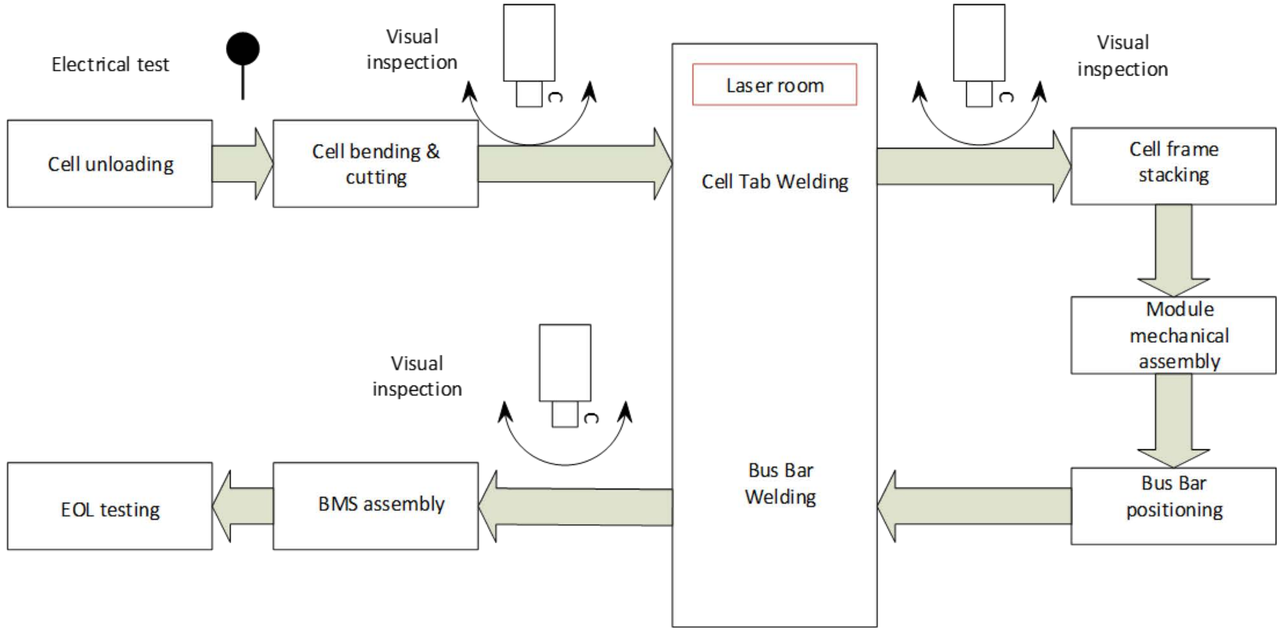
STATIONARY SOLUTIONS

e-TRANSPORT SOLUTIONS

SPECIALTY BATTERY SYSTEMS

Transport Module Production Capacity increase in Yverdon

Engineering review with machine manufacturer ongoing and to be completed by February 2019



- Automated processes
- High throughput
- Automotive standard inline quality control
- Designed for continuous manufacturing
- Components designed for costs and volume manufacturing.
- Prepared for factory 4.0 standards
- Reduction of manufacturing costs
- Improvement of product reliability

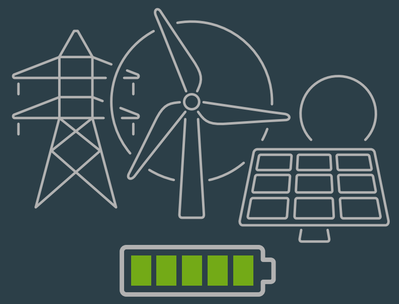
Increase the production capacity by a factor 3 to 4
Estimated cost for line is 4 M€ (costs for laser is 1M€), this is to be refined with manufacturer in the coming weeks.
Estimated time for implementation:

Phase 1 (partial automation):	8 months
Phase 2 (full automation):	12 months

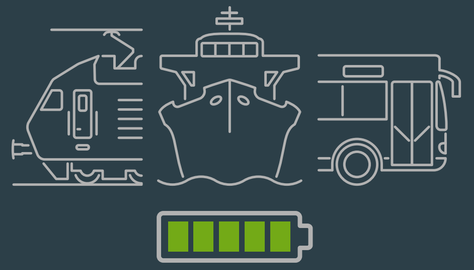
Leclanché

Energy Storage Solutions

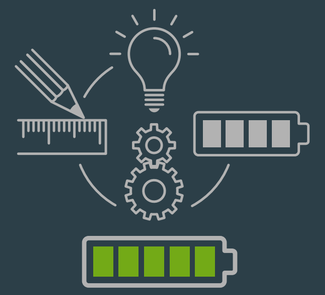
Thank you



STATIONARY SOLUTIONS



e-TRANSPORT SOLUTIONS



SPECIALTY BATTERY SYSTEMS