

# Leclanché

FY18 results

## Goal of doubling installed base achieved

Management achieved its goal of delivering a cumulative total of 100MWh of operational projects by the end of 2018, thus doubling the installed base and revenues in the space of a year. Near-term growth is underpinned by e-transport programmes, with CHF42m of the CHF60m order book for this sector. We reinstate our estimates and indicative valuation, which is CHF2.16/share.

Year end	Revenue (CHFm)	EBITDA (CHFm)	PBT* (CHFm)	EPS* (CHFc)	DPS (CHFc)	P/E (x)
12/17	18.0	(31.1)	(37.8)	(68.3)	0.0	N/A
12/18	48.7	(36.9)	(47.8)	(61.5)	0.0	N/A
12/19e	89.2	(25.9)	(29.5)	(22.8)**	0.0	N/A
12/20e	141.5	(11.3)	(15.1)	(10.7)**	0.0	N/A

Note: \*PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments. \*\*On number of shares following conversion of outstanding convertible debt to equity.

## FY18 revenue growth driven by stationary projects

Group FY18 revenues (including other income) more than doubled to CHF48.7m. Access to finance enabled the company to execute the pipeline of contracts already received, delivering over 50MWh of capacity, primarily for utility-scale projects. Stripping out exceptional costs and share-based payments, EBITDA losses widened by CHF5.8m to CHF36.9m as Leclanché added more than 90 staff during FY18, primarily to support future growth in its e-transport business. Management continued with its financing programme, which resulted in debt reaching CHF42.9m at the end of FY18, all of which is now owned by majority holder FEFAM. Since the period end FEFAM has agreed to convert the CHF36.0m convertible element to equity and extend the remaining loans to end FY20. Golden Partner is to provide a CHF35.0m non-convertible working capital facility. Management still needs to raise an additional CHF40.0m by end June to fund capacity expansion.

## E-transport driving future growth

The order book at the start of FY19 was more than CHF60m, CHF42m of which relates to land and marine based e-transport projects for delivery in FY19 and 2020. This partly underpins our forecasts, although achieving the revenue growth shown in our model will require the company to successfully complete trial projects with Skoda and Sun Mobility and proceed to volume deliveries and secure further firm contracts for large-scale stationary projects.

## Valuation: Indicative valuation of CHF2.16/share

Our valuation is based on a DCF calculation, taking the growth rate adopted in our estimates and applying a terminal growth rate of 3% and WACC of 10.0%, as set out in our June [note](#), since both the technology and Leclanché's ability to execute on large projects are proven. This gives an indicative valuation of CHF2.16/share (previously CHF2.33/share).

## Alternative energy

18 April 2019

Price **CHF1.99**

Market cap **CHF233m**

Net debt (CHFm) at end December 2018 (including CHF36.6m convertible loans) 34.5

Shares in issue 117.1m

Free float 31.5%

Code LECN

Primary exchange SIX

Secondary exchange N/A

## Share price performance



% 1m 3m 12m

Abs 6.7 6.2 (3.2)

Rel (local) 4.0 (2.5) (9.3)

52-week high/low CHF2.2 CHF1.5

## Business description

Leclanché is a fully vertically integrated energy storage solution provider. It delivers a wide range of energy storage solutions for homes, small offices, large industries and electricity grids, as well as hybridisation for mass transport systems such as bus fleets and ferries.

## Next events

AGM 9 May 2019

## Analyst

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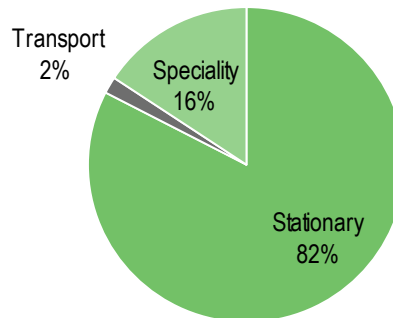
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## Segmental analysis

Exhibit 1: FY18 revenues by business unit



Source: Company data

### Stationary business unit

While the ramp-up in growth in large-scale energy storage systems was held back by working capital constraints during FY17, the successful sourcing of finance (see below) meant this was no longer an issue during FY18. Segmental revenues were CHF36.2m compared with CHF3.1m in FY17, as the company delivered on several major projects and comprised 82% of the group total if CHF4.3m from the sale of IP to the JV (see below) is excluded. These included a 34.8MWh battery energy storage plant in Cremzow, Germany, a 15MWh project for SWB in Bremen, Germany and a 19.5MWh project in Marengo, US. Segmental EBITDA losses widened from CHF6.6m to CHF12.4m. There was a big increase in personnel costs as the business unit worked on multiple large projects in parallel.

Battery energy storage systems are increasingly being seen as a key enabler in the further deployment of wind and solar power, smoothing out the differences between supply, which is inherently variable, and demand. Navigant predicts that revenues from energy storage for renewables integration will grow from around \$1bn in 2017 to almost \$23bn by 2026. Noting the relatively low proportion of firm contracts relating to Stationary projects, we reduce our delivery estimate for FY19 from 100MWh to 80MWh and our FY20 delivery estimate from 150MWh to 140MWh. This level assumes that the company will secure additional firm contracts in a timely fashion. (See Exhibit 2 for a summary of the changes to revenue estimates for each business unit.)

### E-transport business unit

Segmental revenue doubled to CHF0.8m as the company worked on the test phases of programmes for electric bus battery packs with Sun Mobility in India and Skoda Electric in Europe. Segmental EBITDA losses narrowed by CHF0.5m to CHF3.6m despite staffing levels being raised ahead of volume deliveries in FY19 and FY20. These are for battery rack systems for 12 ships and offshore rigs totalling more than 50MWh for Kongsberg Maritime, as well as the Sun Mobility and Skoda Electric projects for land-based deployments.

Adoption of electric powered vehicles is being driven by the introduction of regulations reducing emissions of carbon dioxides and particulates. Navigant Research predicts that advanced battery energy capacity for automotive applications will increase from 125GWh in 2017 to 568GWh in 2026. Leclanché's order book for this segment was over 75MWh (CHF42m) at the start of FY19, most of which relates to marine programmes. We modify our estimates to include the marine

orders, which were not in the previous model, while pushing commencement of volume deliveries to Skoda out to FY20 because the test phase is taking longer to complete than we previously expected. Management anticipates that once it moves into the commercial phase, the Skoda Electric agreement will require deliveries of c 100MWh energy storage over a four-year period. Leclanché is also conducting trials with Sun Mobility. Management estimates the Sun Mobility programme will require annual volumes of 90–150MWh from FY20 onwards. It expects to announce the results of both of these test programmes later this quarter. The company has begun development projects for commercial vehicle customers, presenting upside to our estimates.

In 2018 Leclanché formed a JV in India with Exide Industries. The JV, Nexcharge, is to build lithium-ion batteries and commercialise energy storage systems for India's electric vehicle market. Exide Industries holds a 75% stake, Leclanché 25%. Management expects the Nexcharge manufacturing facility in India to be operational by end H119 and then to increase capacity during FY20 and FY21 to reach three million cells per year, equivalent to c 1.5GWh/year.

## **Speciality business unit**

This business unit was formed in early 2018 by combining the activities previously designated 'commercial and industrial battery systems' and 'energy efficiency solutions'. Segmental revenues fell by CHF1.3m to CHF6.9m while EBITDA losses widened by CHF0.7m to CHF2.3m. Sales of household back-up powerpack for use with solar installations were discontinued following withdrawal of the subsidy in Vaud canton. Sales of third-party products were deliberately scaled back as the company focused on a few key accounts. We cut our FY19 and FY20 segmental revenues to reflect both these points. Management notes that it is making good progress with regards to automated material handling power systems for a French customer.

## **Group revenue growth driven by utility-scale generation**

Group FY18 revenues (including other income) more than doubled to CHF48.7m, flattered by a CHF3.7m share of sale of IP rights to the JV with Exide. Raw materials and consumables used remained close to revenue levels, as the battery facility in Germany was operating at very low levels of utilisation and using surplus capacity for development work on higher-efficiency cells, resulting in high levels of scrap material. Personnel costs grew by 20% year-on-year, reflecting the recruitment of over 90 people (now around 200 staff) in production, R&D, project management and energy storage system design. This investment is necessary to support increased cell and module output volumes for the large projects on which Leclanché is working and to carry out engineering, procurement and construction activities for some of these projects. Other operating expenses rose by 19% year-on-year, inflated by higher consultancy and legal costs. Stripping out exceptional costs and share-based payments, EBITDA losses widened by CHF5.8m to CHF36.9m. Adjusted losses before tax widened by considerably more, by CHF10.0m to CHF47.8m, reflecting CHF5.1m additional finance costs on convertible loans and a CHF2.4m increase in interest expenses.

## **Financing programme continues**

Management continued with its financing programme, resulting in majority holder FEFAM providing CHF60.5m additional finance in the form of convertible loan notes (of which CHF51.7m was drawn down at end FY18) and CHF3.0m as a new bridge loan extending to end March 2020, converting CHF54.7m debt to equity, acquiring all the remaining debt held by third parties and extending the maturity of the debt to end March 2020. (FEFAM is 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 and FINEXIS EQUITY FUND – EMoney Strategies Sub-Fund, also called Energy Storage Invest). This process was highly dilutive, resulting in the

number of shares increasing from 69.7m at end FY17 to 117.1m at end FY18 and giving FEFAM a 64.3% shareholding.

Net debt increased from CHF21.7m (including CHF24.9m convertible loans and CHF3.5m non-convertible) at end FY17 to CHF34.5m (including CHF36.6m convertible loans and CHF6.4m non-convertible) at end FY18. Working capital rose by CHF11.9m, reflecting the strong revenue growth combined with inventory build-up associated with a major stationary contract that is scheduled for early FY19. The CHF14.2m shown as “investment activities” in our Financial Summary table comprises CHF3.6m capex, an estimated CHF1.5m to acquire energy management software, CHF6.6m loans to the Special Purpose Vehicle (SPV) funding the utility scale stationary storage project in Canada, CHF2.0m investment in the JV in India and an estimated CHF0.5m capitalised R&D. The capex was invested in the R&D facility, production capacity in Germany ahead of volume ramp-up in FY19 and completion of the module assembly line in Switzerland.

Since the period end FEFAM has agreed to convert all the convertible loans it holds to equity, to extend the remaining loans to end FY20 and provide a CHF35.0m non-convertible working capital facility. Management notes that this will increase the number of shares in issue by 23.4m to 140.4m and raise FEFAM’s holding to 70.2%. Although management stated in September that it had sufficient funding to fully finance the company through to FY20, when it expects to reach EBITDA breakeven, it now estimates that it needs to raise an additional CHF40.0m to fund capacity expansion, CHF10m of this expansion has been committed. If this funding is not secured, management will outsource some of the production steps, enabling revenue growth at the rate shown in our estimates, but adversely impacting margin.

FEFAM has also agreed to provide up to CHF50.0m convertible debt for M&A and joint venture projects. At end FY18 CHF11.6m had been drawn down for investment in Nexcharge, of which CHF7.6m has been converted into equity.

## Revisions to estimates

Exhibit 2 shows the changes in revenues both at business segment and group level.

Exhibit 2: Revisions to estimates							
	FY18		FY19		FY20		% change
	Actual	New	Old	% change	New	Old	
Stationary revenues (CHFm)	36.2	54.0	67.5	-20.0%	94.5	101.3	-6.7%
Transport revenues (CHFm)	0.7	25.2	16.9	49.1%	31.7	17.9	77.5%
Speciality revenues (CHFm)	6.9	10.0	15.2	-34.3%	10.0	16.2	-38.2%
Group revenues (CHFm)	48.7	89.2	99.6	-10.5%	141.5	135.3	4.6%
Group EBITDA (CHFm)	(36.9)	(25.9)	(9.4)	175.6%	(11.3)	0.1	-8972.5%
Group PBT (CHFm)	(47.8)	(29.5)	(16.6)	77.8%	(15.1)	(7.2)	108.0%
EPS (CHF)	(0.6)	(0.2)	(0.2)	11.1%	(0.1)	(0.1)	19.5%
Net debt at year end (CHFm)	34.5	35.7	82.8	-56.9%	59.4	97.3	-38.9%

Source: Company data, Edison Investment Research

We revise our estimates to reflect:

- Lower-than-expected order book for stationary projects.
- Delays in moving to volume production for Skoda, which is more than offset by the contracts for marine transport.
- Cessation of activity in household back-up power segment.
- Focus of battery distribution business on key accounts.
- Further licence/royalty fees of up to CHF13.5m from JV treated as upside to our FY19 estimates.

- Personnel numbers almost doubling during FY18 to support anticipated e-transport activity, then stabilising during FY19 as the company prepares to deliver CHF200m annual revenues.
- Conversion of outstanding CHF35.9m convertible debt to equity.
- Provision of CHF35m working capital facility.
- Higher capex in FY19 (CHF15.0m vs CHF5.5m) as some investment in capacity was postponed from FY18 to FY19. Together with the capacity at Nexcharge, this will give capacity of over 2GWh/year by the end of 2020, supporting anticipated output of 400k cells in 2019 and 900k cells 2020 for e-transport and materials handling applications. Cells for stationary applications do not use a proprietary technology and may be supplied by third parties if additional volumes of cells are required.
- We treat repayment of the loan to the Canadian SPV as an estimated CHF8m upside to cashflow because this is contingent on the SPV selling the energy storage asset in a timely fashion.
- In line with our policy, we treat the CHF40m funding gap identified by management as satisfied by long-term debt.

## Valuation

<b>Exhibit 3: DCF analysis, CHF per share</b>													
		Low case				Base case				High case			
CHF/share		Discount rate				Discount rate				Discount rate			
		1.85	9.0%	10.0%	13.0%	9.0%	10.0%	13.0%	9.0%	10.0%	13.0%		
Terminal growth	1.0%	1.76	1.44	0.80	2.07	1.71	1.01	2.91	2.44	1.53			
	2.0%	2.01	1.62	0.88	2.34	1.91	1.09	3.26	2.70	1.64			
	3.0%	2.34	1.85	0.98	2.70	2.16	1.20	3.72	3.02	1.77			
	4.0%	2.80	2.15	1.09	3.21	2.49	1.32	4.37	3.45	1.94			
	5.0%	3.49	2.58	1.24	3.96	2.96	1.48	5.35	4.06	2.14			

Source: Edison Investment Research

Because Leclanché's transition from traditional battery manufacturer to vertically integrated battery energy storage system provider has not yet generated operating profits, the use of peer-based multiples is limited as a valuation methodology. Moreover, although management has good visibility of projects totalling over 1GWh of capacity, there is still significant uncertainty on how quickly projects will secure funding (from third parties). Given this level of uncertainty, we present a scenario analysis with the base case adopting the rate of revenue growth and costs as shown in our estimates from 2018 to 2020. Using this as our basis, we model potential revenues rising with a CAGR of 27% between 2019 and 2028, assuming a substantial proportion of battery cell manufacture from FY20 onwards will be carried out by local partners for projects in China or India, thus reducing capex. Applying a terminal growth rate of 3% and WACC of 10%, (both unchanged since our June note), our base case gives an indicative valuation of CHF2.16/share (previously CHF2.33/share).

Clearly there is no certainty the individual projects contributing towards the revenue growth adopted in our valuation will progress as expected. However, we note that the technology being deployed is proven and Leclanché has already demonstrated it can deliver on large projects. While there remains a risk that individual projects may not come to fruition, there is rising demand for battery energy storage for both stationary grid-related and e-transport applications, with very few companies able to offer the complete offer of battery modules, energy management software and engineering, procurement and construction services that Leclanché can. This puts it in a good place to win work on alternative projects.

The current share price suggests the market is assuming a slightly slower growth rate than that adopted in our estimates. Our reverse DCF calculation generates an indicative value similar to the current share price when revenues are scaled back by 3% across the forecast period. This indicates the potential for modest share price appreciation as Leclanché demonstrates it is able to convert the existing pipeline and achieve the growth rate shown in our estimates. Giving some view of what might happen to valuation if revenue growth is faster than the rate assumed in our base case, our 'high' case shows that scaling up revenues by 10% gives an indicative value of CHF3.02/share.

**Exhibit 4: Financial summary**

	CHFm	2017	2018	2019e	2020e
Year-end Dec					
<b>PROFIT &amp; LOSS</b>					
Revenue		18.0	48.7	89.2	141.5
Cost of Sales		(15.7)	(45.7)	(62.8)	(99.2)
Gross Profit		2.3	3.0	26.4	42.4
EBITDA		(31.1)	(36.9)	(25.9)	(11.3)
Operating Profit (before amort. and except.)		(35.3)	(39.9)	(29.2)	(14.6)
Amortisation of acquired intangibles		0.0	0.0	0.0	0.0
Share-based payments		(0.7)	(0.8)	(0.8)	(0.8)
Exceptionals		(0.1)	(1.3)	0.0	0.0
Operating Profit		(36.1)	(42.1)	(30.0)	(15.4)
Net Interest		(2.5)	(8.0)	(0.3)	(0.5)
Profit Before Tax (norm)		(37.8)	(47.8)	(29.5)	(15.1)
Profit Before Tax (FRS 3)		(38.5)	(50.0)	(30.3)	(15.9)
Tax		0.1	(0.7)	0.0	0.0
Profit After Tax (norm)		(37.7)	(48.6)	(29.5)	(15.1)
Profit After Tax (FRS 3)		(38.5)	(50.7)	(30.3)	(15.9)
Minority interest		0.0	0.0	0.0	0.0
Net income (norm)		(37.7)	(48.6)	(29.5)	(15.1)
Net income (FRS 3)		(38.5)	(50.7)	(30.3)	(15.9)
Average Number of Shares Outstanding (m)		55.3	79.0	129.1	140.4
EPS - normalised (CHFc)		(68.3)	(61.5)	(22.8)	(10.7)
EPS - normalised fully diluted (CHFc)		(68.3)	(61.5)	(22.7)	(10.7)
EPS - FRS 3 (CHFc)		(69.6)	(64.2)	(23.4)	(11.3)
Dividend per share (CHFc)		0.0	0.0	0.0	0.0
<b>BALANCE SHEET</b>					
Fixed Assets		16.6	25.1	37.3	40.0
Intangible Assets		4.5	5.6	4.7	3.8
Tangible Assets and Deferred tax assets		12.1	19.5	32.6	36.2
Current Assets		52.1	62.2	97.0	88.2
Stocks		12.7	19.9	17.1	27.1
Debtors		32.8	33.9	34.2	38.8
Cash		6.6	8.4	45.7	22.3
Current Liabilities		(35.7)	(20.2)	(16.1)	(24.7)
Creditors including tax, social security and provisions		(20.6)	(14.8)	(16.0)	(24.6)
Short term borrowings		(15.1)	(5.4)	(0.1)	(0.1)
Long Term Liabilities		(22.1)	(48.7)	(92.4)	(92.8)
Long term borrowings		(13.3)	(37.5)	(81.3)	(81.7)
Retirement benefit obligation		(8.5)	(10.8)	(10.8)	(10.8)
Other long term liabilities		(0.4)	(0.4)	(0.4)	(0.4)
Net Assets		11.0	18.4	25.7	10.6
Minority interest		0.0	0.0	0.0	0.0
Shareholders equity		11.0	18.4	25.7	10.6
<b>CASH FLOW</b>					
Operating Cash Flow		(44.6)	(47.9)	(22.2)	(17.3)
Net Interest		(0.1)	(2.2)	(0.1)	(0.1)
Tax		0.0	(0.1)	0.0	0.0
Investment activities		(6.6)	(14.2)	(15.5)	(6.0)
Acquisitions/disposals		0.0	0.0	0.0	0.0
Equity financing and other financing activities		6.5	0.0	0.0	0.0
Dividends		0.0	0.0	0.0	0.0
Net Cash Flow		(44.7)	(64.4)	(37.8)	(23.4)
Opening net debt/(cash)		17.8	19.5	34.5	35.7
HP finance leases initiated		0.0	0.0	0.0	0.0
Other		(43.0)	(49.4)	(36.6)	0.4
Closing net debt/(cash)		19.5	34.5	35.7	59.4

Source: Company accounts, Edison Investment Research

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