

# Ballard Power Systems

## Decarbonising heavy-duty mobility

The European Commission's 'Fit for 55' package and the US Department of Energy's Earthshot programme, which were both announced this summer, identify the use of hydrogen as an energy source as key to achieving carbon dioxide emissions reductions in hard-to-abate sectors. Ballard is well placed to benefit from greater hydrogen adoption since it has already commercialised its fuel cell technology, and the c 3,500 buses and trucks powered by its fuel cells have driven over 100m kilometres between them. Importantly, Ballard is focused on heavy- and medium-duty motive applications including bus, truck, rail and marine, where fuel cells are a compelling zero-emission option because of range and refuelling times.

### Increasing penetration of bus and truck markets

Over three-quarters of Ballard's revenues are attributable to the heavy-duty transportation sector. Around half of these are from sales of fuel cell modules to companies such as Weichai Ballard, Wrightbus, Solaris, New Flyer and Van Hool to power buses and trucks in China, the UK, the Netherlands, Germany and California. The other half are attributable to customer development programmes including ongoing work with the Weichai Ballard JV, Siemens and Audi.

### Initiatives underpinning future growth

Ballard is increasing its investment in the design and development of new fuel cell stacks and modules, while working on reducing the costs of existing products. Its new FCmove-HD+ high-power density fuel cell stack for buses and trucks is more than 40% more compact and over 30% lighter than its previous 100kW module and has 50% fewer component parts, resulting in an estimated 40% improvement in total lifecycle cost, encouraging adoption. The company continues to form strategic partnerships with leading companies in key target markets and verticals. For example, it is working with electric vehicle integrator QUANTRON, on fuel cell electric trucks for initial delivery in the second half of 2022, and with smart battery experts Forsee Power on fully integrated solutions combining a fuel cell and a battery system for heavy-duty mobility applications.

### Still to reach cash break-even

Ballard is not yet profitable or cash generative. Total H121 revenues were US\$42.6m, generating a US\$33.6m adjusted EBITDA loss. Free cash outflow (including capex and investment in the JV) totalled US\$48.0m, offset by a deal offering in February raising US\$527m at US\$37.0/share.

#### Consensus estimates

Year end	Revenue (US\$m)	EBIT (US\$m)	PBT (US\$m)	EPS (US\$)	DPS (US\$)	P/E (x)
12/19	105.7	(25.4)	(35.3)	(0.15)	0.00	N/A
12/20	103.9	(39.8)	(49.3)	(0.20)	0.00	N/A
12/21e	105.2	(69.1)	(71.9)	(0.25)	0.00	N/A
12/22e	147.1	(63.9)	(60.4)	(0.21)	0.00	N/A

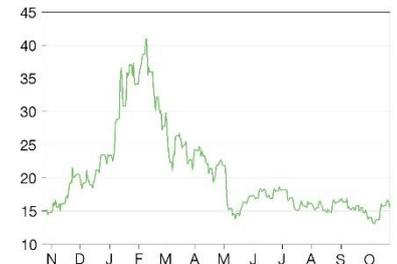
Source: Refinitiv

#### Alternative energy

25 October 2021

**Price** **US\$15.63**  
**Market cap** **US\$4,651m**

#### Share price graph



#### Share details

Code	BLDP
Listing	Toronto, Nasdaq
Shares in issue	297.6m
Net cash at end June 2021	US\$1,243.0m

#### Business description

Ballard Power Systems develops and manufactures proton exchange membrane fuel cells, which are used to provide electric power for buses, commercial trucks, trains, marine vessels and forklift trucks. It is headquartered in Canada, with operations in Denmark and an office in China. It also has a 49% stake in a JV with Weichai Power (SEHK:2388) in China. Weichai holds a 15.5% interest in Ballard.

#### Bull

- Governments are incorporating hydrogen roadmaps as part of decarbonisation strategies.
- Fuel cells have range advantages over batteries for heavy- and medium-duty motive applications.
- Weichai JV is lower-risk model for addressing bus and commercial vehicle markets in China.

#### Bear

- Heavy investment in battery electric vehicles by other companies supporting cost reductions.
- Reliant on a relatively small number of programmes and customers.
- Ballard not yet at cash break-even.

#### Analyst

Anne Margaret Crow +44 (0)20 3077 5700

[industrials@edisongroup.com](mailto:industrials@edisongroup.com)

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Frankfurt +49 (0)69 78 8076 960

Schumannstrasse 34b

60325 Frankfurt

Germany

London +44 (0)20 3077 5700

280 High Holborn

London, WC1V 7EE

United Kingdom

New York +1 646 653 7026

1185 Avenue of the Americas

3rd Floor, New York, NY 10036

United States of America

Sydney +61 (0)2 8249 8342

Level 4, Office 1205

95 Pitt Street, Sydney

NSW 2000, Australia