

**BALLARD<sup>®</sup>**

Backup  
Power

Electrolyzer

H<sub>2</sub> Storage

Power to change  
the world<sup>®</sup>

H<sub>2</sub> Station



# Ballard in numbers



**Global**  
company

Celebrating

**40** years

1979-2019



BLPD

**Publicly**

Listed  
Company



**Vertically  
integrated**

value chain

**5 million**

MEA products  
produced

Produced

**>1,200**

heavy duty power  
modules



**500MW**

of fuel cell  
products shipped



**>30,000hrs**

in real life  
bus operation



**>14 million**

kilometers of  
vehicle experience

**650**

People



**2,000**

Patents &  
Applications

Ballard Power Systems Inc., is a world leader in the development, manufacture, sale and servicing of Proton Exchange Membrane (PEM) hydrogen fuel cells. We offer a complete range of proven commercial power products from stacks to complete fuel cell systems as well as engineering services.

**Ballard strategy** is based on 2 growth platforms



## Power Products

To meet the power needs of our customers through delivery of high value, zero emissions fuel cell products that deliver lasting performances and attractive costs.

## Technology Solutions

To help our customers solve difficult technology challenges or address new business and market opportunities with specialized engineering services and access to our IP.



At Ballard, we enable fuel cell electric mobility with our power products and technology solutions for a number of markets and applications.

We collaborate with industry partners to develop ecosystem and drive cost reduction.

”

*Ballard innovative fuel cell products and solutions contribute to clean air and emission reduction powering the hydrogen society!* ”

> 100  
buses in  
service



### TRANSIT BUS

Fuel cells improve performances of electric buses with extended range performance, quick refilling, auxiliary power source and compact & scalable refueling infrastructure.

> 300  
trucks on  
the road



### TRUCK

Fuel cell electric trucks deliver zero emission vehicles to fleet operators with no compromise on range, payload and asset utilization compared to batteries.

4 train  
projects on  
track



### RAIL

Hydrail enables GHG emission reduction without significant investment in complex electrification infrastructure.

3 ships  
in develop-  
ment



### MARINE

Scalable and distributed power solution for auxiliary or propulsion loads for zero emission ships using high energy density hydrogen fuel.

>12,000  
forklifts in  
warehouses



### MATERIAL HANDLING

Fuel cells improve productivity of forklifts with longer run time and faster refilling.

multi-mil-  
lion \$ stack  
development  
program



### AUTOMOBILE

Fuel cells deliver extended range and more on-road time for high utilization vehicles.

multiple  
test  
platforms



### UAV

Fuel cell power solutions extend duration and reliability of commercial UAVs to reduce the cost of inspection, measurement and delivery missions.

> 2,000  
systems  
deployed
















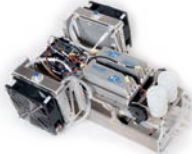



### CRITICAL INFRASTRUCTURE

Fuel cells guarantee critical infrastructure site availability with reliable, modular and low maintenance power backup solutions.

# Vertically integrated value chain

from component design to complete fuel cell system integration and services

<b>MEAs and bi-polar plates</b>	 		<ul style="list-style-type: none"> <li>» MEA designed to specific applications</li> <li>» High performance carbon bi-polar plates</li> </ul>
<b>Fuel Cell Stacks</b>	<p>4 kW to 26 kW</p>  <p>Liquid cooled stacks</p>  <p><b>FCvelocity-9SSL</b></p>	<p>400 W to 3 kW</p>  <p>Air cooled stacks</p>  <p><b>FCgen-1020ACS</b></p>	<p>4 kW to 50 kW</p>  <p>Liquid cooled stacks</p>  <p><b>FCgen-LCS</b></p>
<b>Fuel Cell Modules</b>	<p>30 kW</p>   <p><b>FCveloCity-MD</b></p>	<p>60 kW, 85 kW &amp; 100 kW</p>   <p><b>FCveloCity-HD</b></p>	<p>100 kW, 200 kW</p>   <p><b>FCveloCity-XD</b></p>
<b>Fuel Cell Systems</b>	<p>2 kW to 50 kW</p>  <ul style="list-style-type: none"> <li>» Modular solution</li> <li>» Indoor (rack-mountable) &amp; outdoor use</li> </ul>  <p><b>FCgen-H2PM</b></p>		<p>600 W to 1200 W</p>   <p><b>FCair</b></p>
<b>Customer services</b>	 <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; background-color: #92d050;">Training</div> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; background-color: #92d050;">Commissioning</div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; background-color: #92d050;">Engineering services</div> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; background-color: #92d050;">Application engineering</div> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; background-color: #92d050;">After-sales service packages</div> </div>		



We deliver fuel cell power for a sustainable planet

CONNECT WITH  
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