

BALLARD®

PUTTING FUEL CELLS TO WORK

NASDAQ:BLDP • TSX:BLD

Progress in FCH Deployment in Europe and the World

John Sheridan, President & CEO

November 13, 2013

- **Global leader in clean energy PEM fuel cell products ... design, manufacturing & deployment**
 - ~2,400 → Telecom Backup Power systems ... *9MW's of power*
 - >4,000 → Material Handling stacks in Plug Power GenDrive™ systems
... *10M hours of runtime*
 - 180 → Bus power modules ... *more than 4M miles of revenue service*
- **355 employees**
 - HQ in Vancouver, Canada
 - Product Engineering in Vancouver, USA
& Denmark
 - Manufacturing in Vancouver & Mexico



Ballard HQ facility – Vancouver, B.C., Canada

- Proven product performance



- Years of investment & trials
- Reduced product costs

- Increased market awareness



- Commercial value propositions
- Environmental benefits

- Improved financial performance



- Product profitability:
Hydrogenics, Fuel Cell
Energy & Ballard

- Increasing 'buy-in' from global players



I N D U S T R Y T I P P I N G P O I N T

- **Growth underpinned by two distinct needs:**
 1. Regular outages in regions with unreliable grids
 2. Emergency power in crisis situations
- **Future growth driven by:**
 - Need for extended duration run-time backup power
 - Comprehensive product portfolio
 - Strong channel partners
 - New geographies, including China



Ballard ElectraGen™-ME fuel cell system installed by Nokia Solutions and Networks (NSN) at test site in Japan

Key End-Customers



Ballard Channel Partners - Sample	No. Systems Shipped to Partners
Cascadian (Asia)	500
NSN (Japan)	350
Inala Technologies (S.Africa)	300
Azure Hydrogen (China)	170
Motorola (Europe)	150
Precision Power & Air (CALA)	145
TOTAL	~2,400

- **Plug Power has driven market adoption by leveraging productivity improvements in distribution centres**
 - Channel partner holds 85% share of N/American fuel cell powered forklift market
- **Future growth driven by:**
 - Continued penetration of N/American market
 - Expansion into EU market



Ballard FCvelocity®-9SSL
Fuel Cell Stack



Ballard FCgen®-1020ACS
Fuel Cell Stack



Plug Power GenDrive® systems –
powered by Ballard fuel cell stacks –
are available for all classes of lift truck

Plug Power End-Customers - <i>Sample</i>	No. GenDrive's® Deployed with End-Customer*	No. Sites*
Sysco	680	6
Walmart	500	3
P&G	340	4
Mercedes Benz	195	2
Kroger	161	1
TOTAL	>4,000	44

* Results reported by Plug Power

Channel Partner



- Customers leveraging Ballard expertise to advance fuel cell development efforts
- Underpinned by 4-year contract with Volkswagen AG → C\$60-100M value
 - Fuel cell product design, testing & system integration for current VW fuel cell system & development of next-generation system
- Future growth driven by:
 - Auto & non-auto opportunities



Ballard development and test facility at Vancouver, B.C. headquarters

Key Customers

VOLKSWAGEN
AKTIENGESELLSCHAFT



- **Important market, supported by Government policy & funding initiatives**
- **Europe**
 - Ballard expects to power 40 of the 50 buses operating in Europe by 2014
 - JTI leadership & funding support
- **North America**
 - Whistler, BC
 - CaFCP Bus Roadmap released in March – calling for 40 vehicles at 2 sites in California
- **China**
 - Ballard contract with Azure Hydrogen for license to assemble bus modules in China; fuel cell stacks provided exclusively by Ballard

Key Customers



BAE SYSTEMS



Van Hool bus equipped with Ballard fuel cell power module

Van Hool & Ballard Collaboration

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- Van Hool & Ballard working closely to advance fuel cell bus commercialization
- Future fuel cell bus design will integrate Ballard next-gen FCvelocity™-HD7 fuel cell module into Van Hool platforms
- Van Hool & Ballard will also explore opportunities beyond Europe, including the US



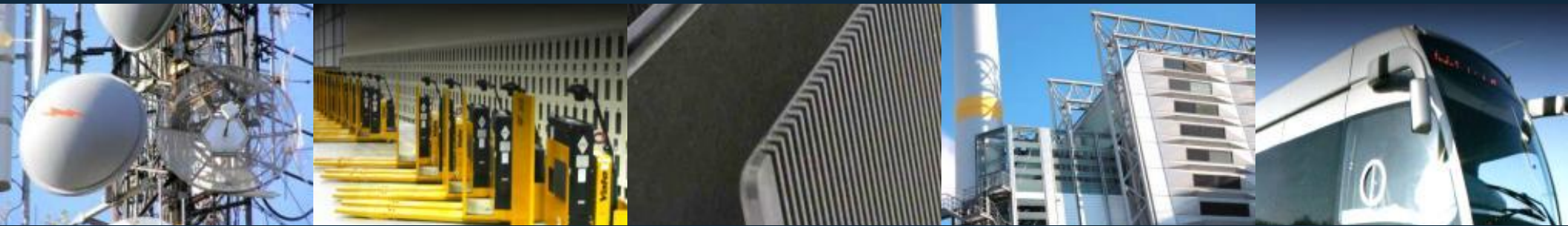
Van Hool bus equipped with Ballard fuel cell power module in Oslo



Van Hool & Ballard Presented with "Ecology Award" at Kortrijk Busworld Europe Event

- **More than 150 projects & 430 industry and research organizations have benefited from funding**
- **JTI has proven the right tool to:**
 - Coordinate objectives
 - Pool resources
 - Advance technology
- **Results to date include:**
 - Technical advancements in materials performance, durability, and cost reduction for energy & transportation applications
 - Early market introduction of forklift and backup power applications





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THANK YOU

