

# OPT

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## OCEAN POWER TECHNOLOGIES



***24<sup>th</sup> Annual Roth Capital Conference***  
***March 14, 2012***

# Forward-Looking Statements

In addition to historical information, this presentation contains forward-looking statements that are based on assumptions made by management regarding future circumstances over which the company may have little or no control and involve risks, uncertainties and other factors that may cause actual results to be materially different from any future results expressed or implied by such forward-looking statements. These factors include, among others, the following: future financial performance indicating expected cash flow, the ability to reduce costs and improve operational efficiencies, revenue growth and increased sales volume, or success in key markets, our ability to enter into relationships with partners and other third parties, delivery and deployment of PowerBuoys®, increasing the power output of our PowerBuoys and hiring new key employees and expected costs of our PowerBuoy product, and building strong long-lasting customer relationships. Many of these risks are discussed in our recent filings with the Securities and Exchange Commission.

# Investment Highlights

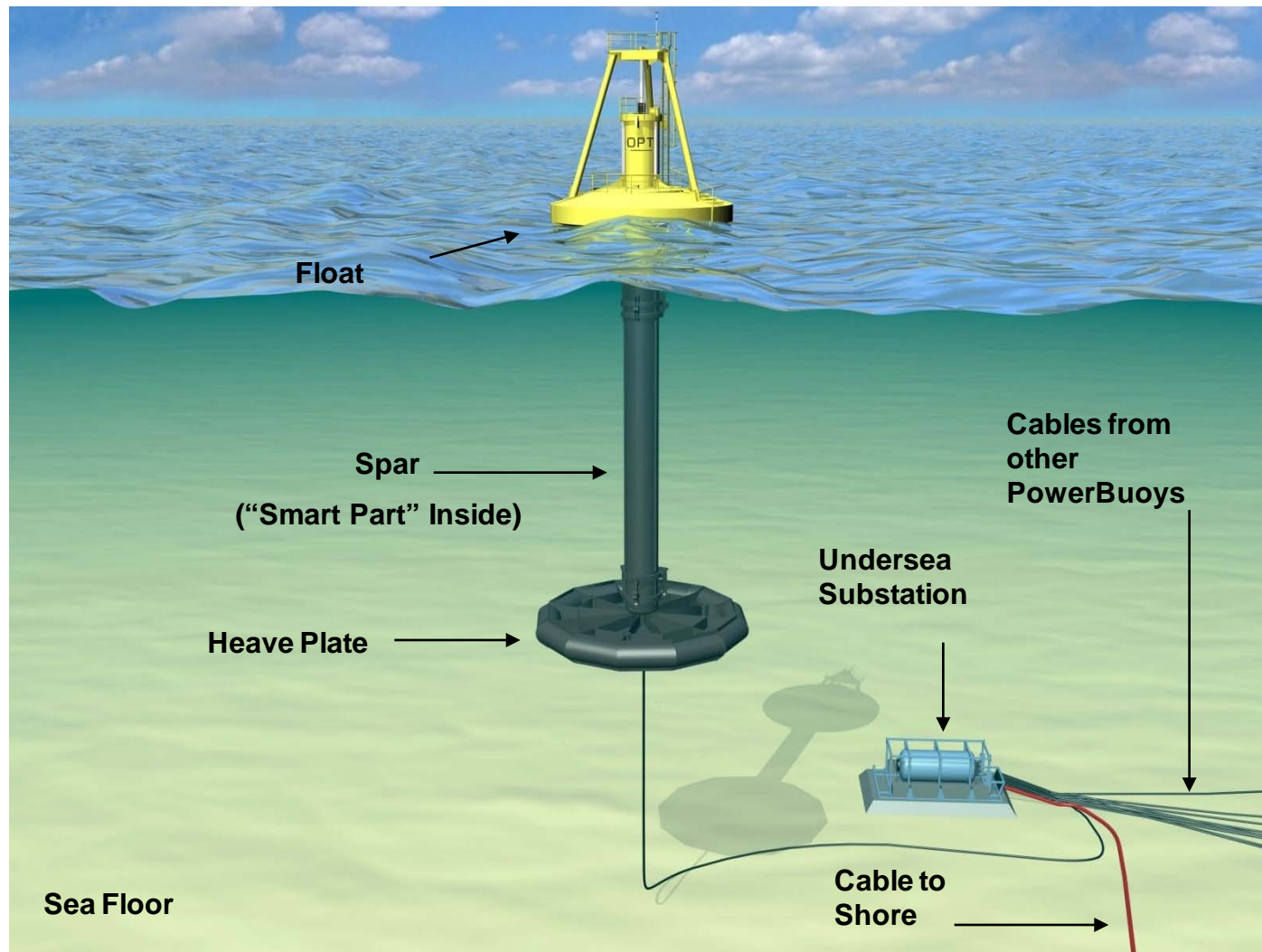
- Leading developer of turnkey ocean wave power production systems focused on:
  - \$50 billion renewable segment of the \$150 billion utility market
  - \$10 billion autonomous (non-grid) power delivery market
- Developing utility PowerBuoy projects in North America, Europe, Japan and Australia
- Marketing autonomous PowerBuoy for multiple applications
- Strong partnerships in place: U.S. Navy, U.S. DOE, Lockheed Martin, PNGC Power, Mitsui (Japan), Iberdrola (Spain)
- Extensive in-ocean product performance, including successfully withstanding hurricanes and winter storms
- Solid balance sheet – foundation for growth



# Company Overview

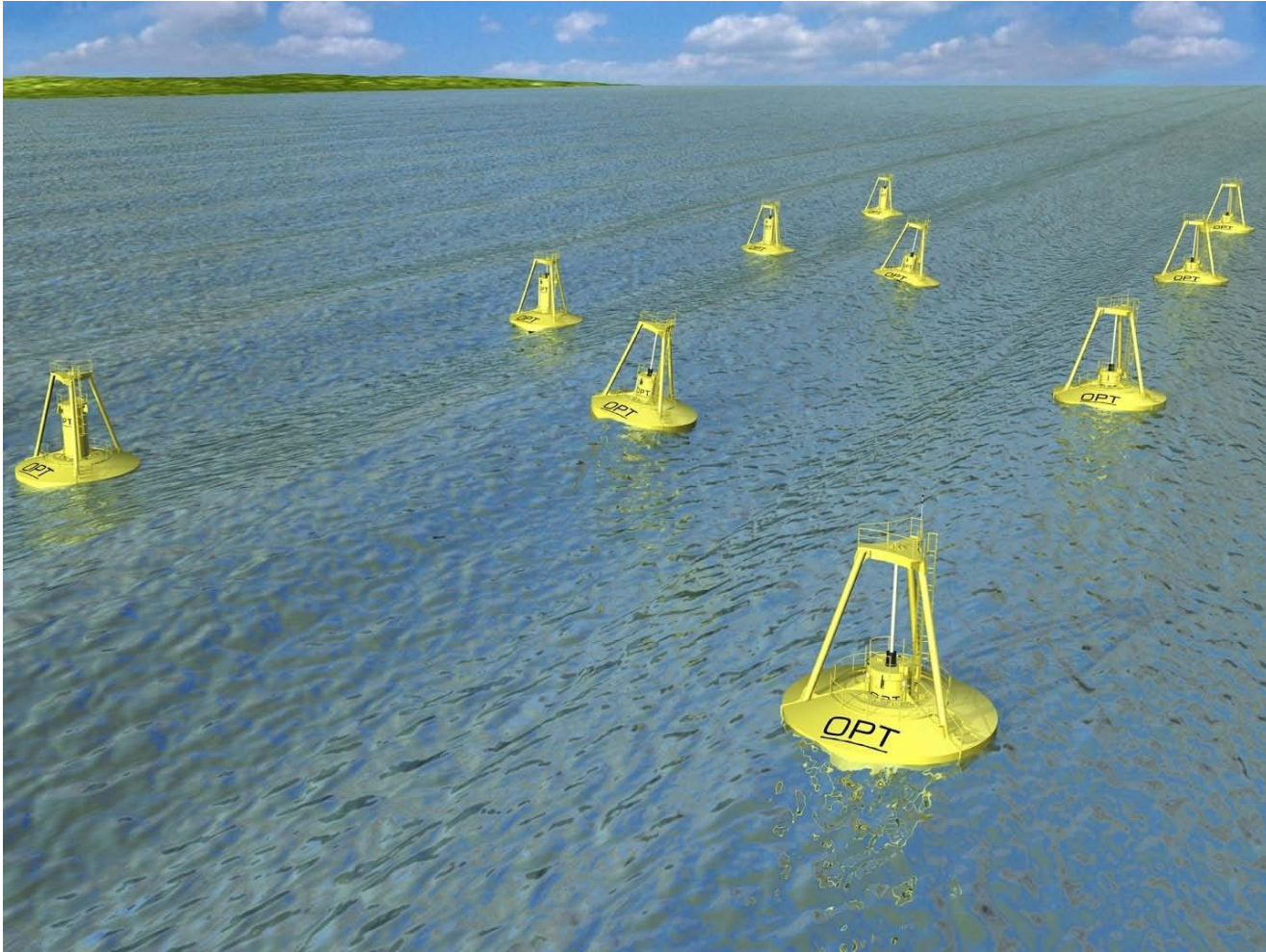
<b>Commenced Operations:</b>	1994
<b>Incorporation:</b>	Delaware, USA
<b>Operating Locations:</b>	Pennington, NJ, USA and Warwick, UK
<b>Total Employees:</b>	50
<b>Intellectual Property:</b>	64 US patents issued or pending
<b>Cash and Investments:</b>	\$37.8 million (as of January 31, 2012)
<b>Public Listing:</b>	Nasdaq (OPTT)

# PowerBuoy and Undersea Substation





# Wave Power Station



# Business Strategy

- Sell equipment and service contracts, rather than energy\*
- Concentrate on North America, Europe, Australia, Japan
  - Target high energy cost and/or high subsidy regions of the world
- Accelerate revenue streams from autonomous PowerBuoy systems and marine energy infrastructure products and services
- Increase utility PowerBuoy system output from 150kW to 500kW and grow production volumes to improve economics
- Collaborate with other organizations
  - “Smart part” built at OPT’s facilities; outsource steel work and balance of plant\*
  - Form partnerships with potential customers with strategic interest in OPT
    - Leverage combined expertise
    - Financial risk sharing
    - Maximize customer funding of technology development\*

\* *Serves to reduce ongoing capital needs*

# Competitive Advantages

## TECHNOLOGY

- Wave energy is the most concentrated form of renewable energy, predictable, close to population centers with a small “footprint”
- Electronic “tuning” capability optimizes power in dynamic wave conditions
- PowerBuoy sends grid-ready electrical power to shore, not pumped water
- Power take-off is direct drive, not hydraulics-based
- Demonstrated robustness in hurricanes, winter storms, tsunamis
- PowerBuoy produces power efficiently regardless of direction of incoming waves



# Competitive Advantages

## PRODUCT POSITIONING

- Same PowerBuoy technology provides power for autonomous deep-sea applications and for grid-connected utility markets
- PowerBuoy open architecture can use different PTO's; undersea substation pod serves all energy devices

## MARKET PRESENCE

- Strong partners: Mitsui (Japan), Lockheed (US), US Navy, PNGC Power (US), Iberdrola (Spain)  
US Department of Energy
- Third party commercial validation: environmental assessments, grid connection, PB150
- Strong capital base, cash balances – foundation for growth



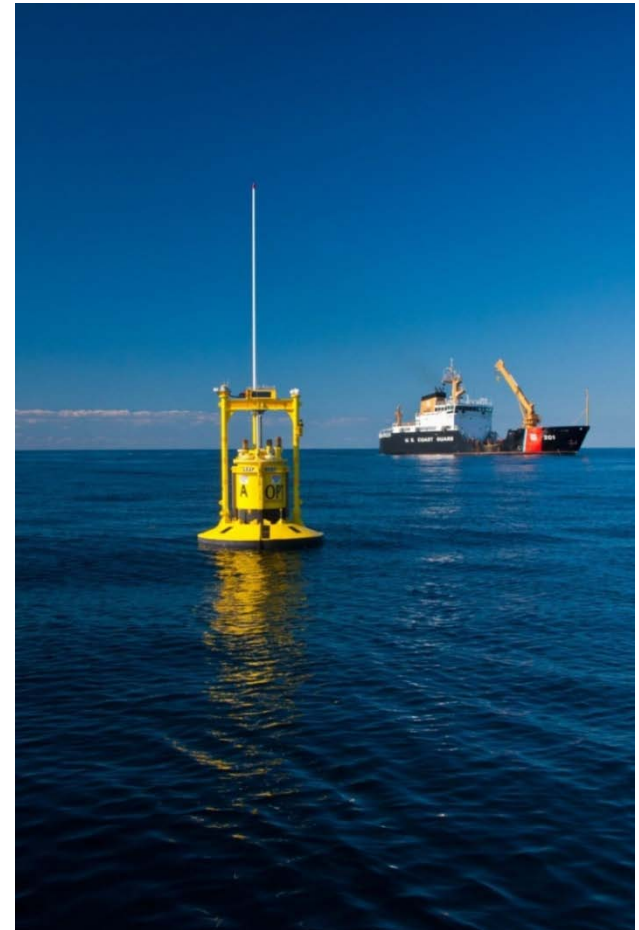
# Third Party Commercial Validation

***OPT's technology has received more testing & validation by independent parties than any other wave energy company***

- Certification by Lloyd's Register of PB150 structure and mooring system
- Independent Environmental Assessments in Hawaii under direction of US Navy, and by US DoE for Reedsport, Oregon, project; both resulted in "Finding of No Significant Impact" – highest rating
- Grid connection certified by Intertek (IEEE and UL standards)
- PowerBuoys insured by Lloyd's syndicates for nearly 15 years for property loss and third party liability
- US DoE has assessed PowerBuoy PB150 as highest-rated wave energy system for commercial readiness (TRL 7-8)

# LEAP PowerBuoy off New Jersey Coast

- Three months of ocean operations off coastline of New Jersey
- Supplied continuous electrical power in excess of 400W throughout entire deployment, exceeding project specifications of payload power delivery of 150W
- Produced peak electrical power of 1,500W
- Provided power during extended periods of zero wave activity
- Survived and performed well during Hurricane Irene
- Operated on a fully autonomous basis implementing the requisite power management and self-protection functions without need for any human intervention



LEAP PowerBuoy  
Deployed by US Coast Guard

# Scotland PB150

- Ocean trials conducted in 2011
- Achieved average electrical power of 45 kilowatts at wave heights as low as 2 meters, exceeding expectations
- Power take-off system performed well
- Capacity factor higher than generally seen in other renewables, such as wind and solar
- Seeking commercial partner or customer for next phase



# Oregon Update

## PB150 – Reedsport, Oregon

- Testing of advanced PTO and control system nearly complete
- Soon to begin full buoy integration, followed by additional testing
- PB150 expected to be deployed in 2012
- Lockheed Martin a strong partner



# WavePort Project – Spain

## WavePort PB40

- An initiative of the European Union's Seventh Framework Programme for research and innovation
- OPT working with European consortium under €2.2 million (\$3.0 million) award for an advanced energy conversion system
- System will incorporate a new wave prediction model
- PB40 to be installed at an existing mooring site off Santoña, Spain





# Australia and Japan

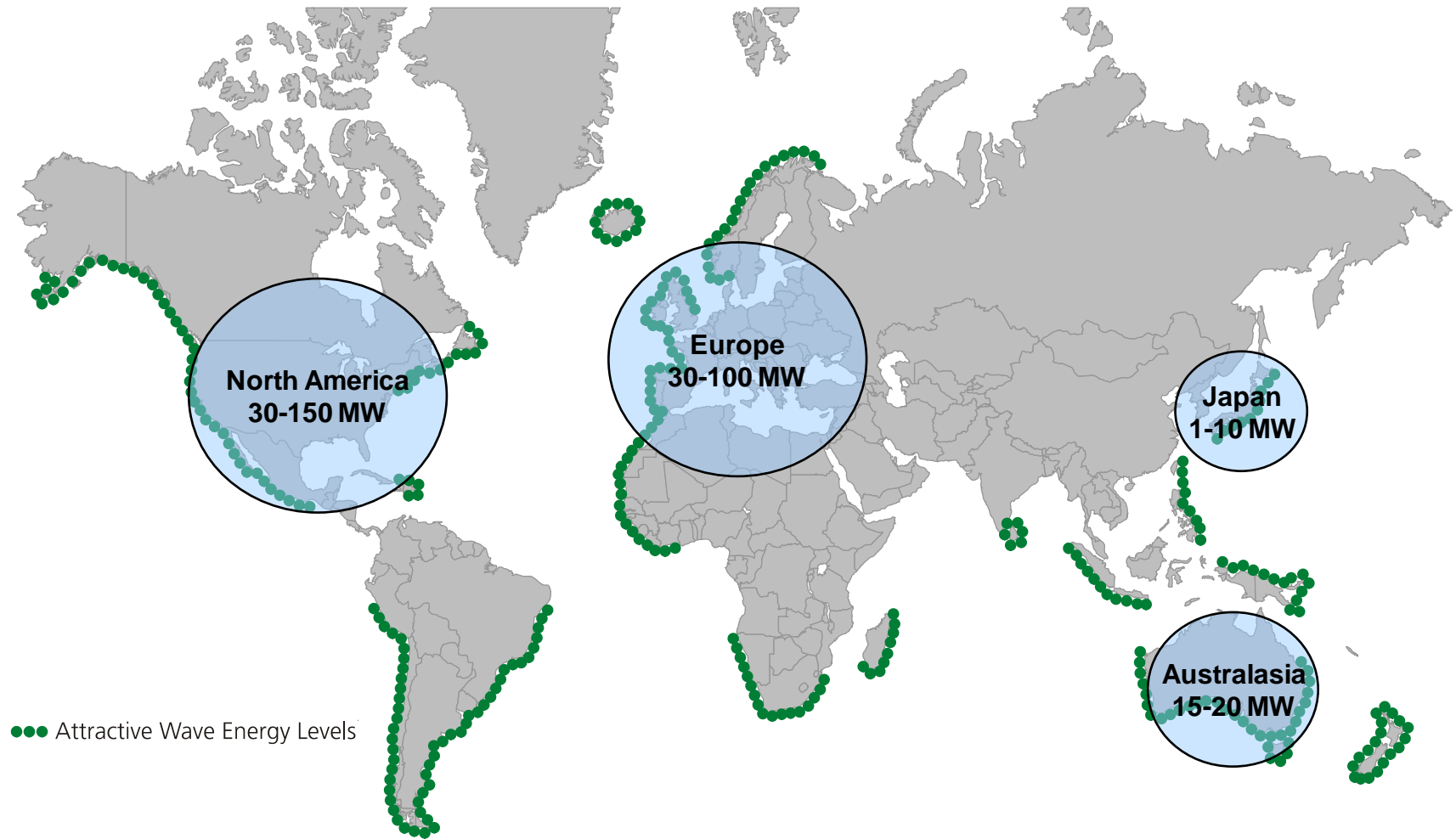
## Australia

- Goal is 19MW power station off Victoria
- Began process of selecting site for ocean testing
- Commenced permitting process
- Evaluating options and strategies to expedite project financing

## Japan

- Continued steady progress with Mitsui Engineering and Shipbuilding
- Increasing interest post-Fukushima
- Expect developments in calendar 2012, working towards longer-term goal of scalable power station of 10MW+

# Ongoing Utility Marketing Initiatives



- Target sales price in production volumes is \$4 million/MW (higher initially)

# Attractive Utility Customer Cost Dynamics

	Renewables					Fossil Fuel	
	OPT Wave Power (a)	Solar PV	Solar Thermal	Biomass	Wind (b)	Natural Gas	Coal
Capital Cost \$ million per MW	<b>\$3.9</b>	\$2.5 – 4.5	\$5 – 6.5	\$3 - 4	\$1.3 – 5.0	\$1.0 – 1.3	\$3.0 – 8.4
Energy Cost ¢ per kWh	<b>15¢</b>	9 - 19¢	12 - 20¢	9 - 14¢	5 – 24¢	7 – 10¢	7.0 – 15.2¢

## Reduction in capital and energy costs can be derived from:

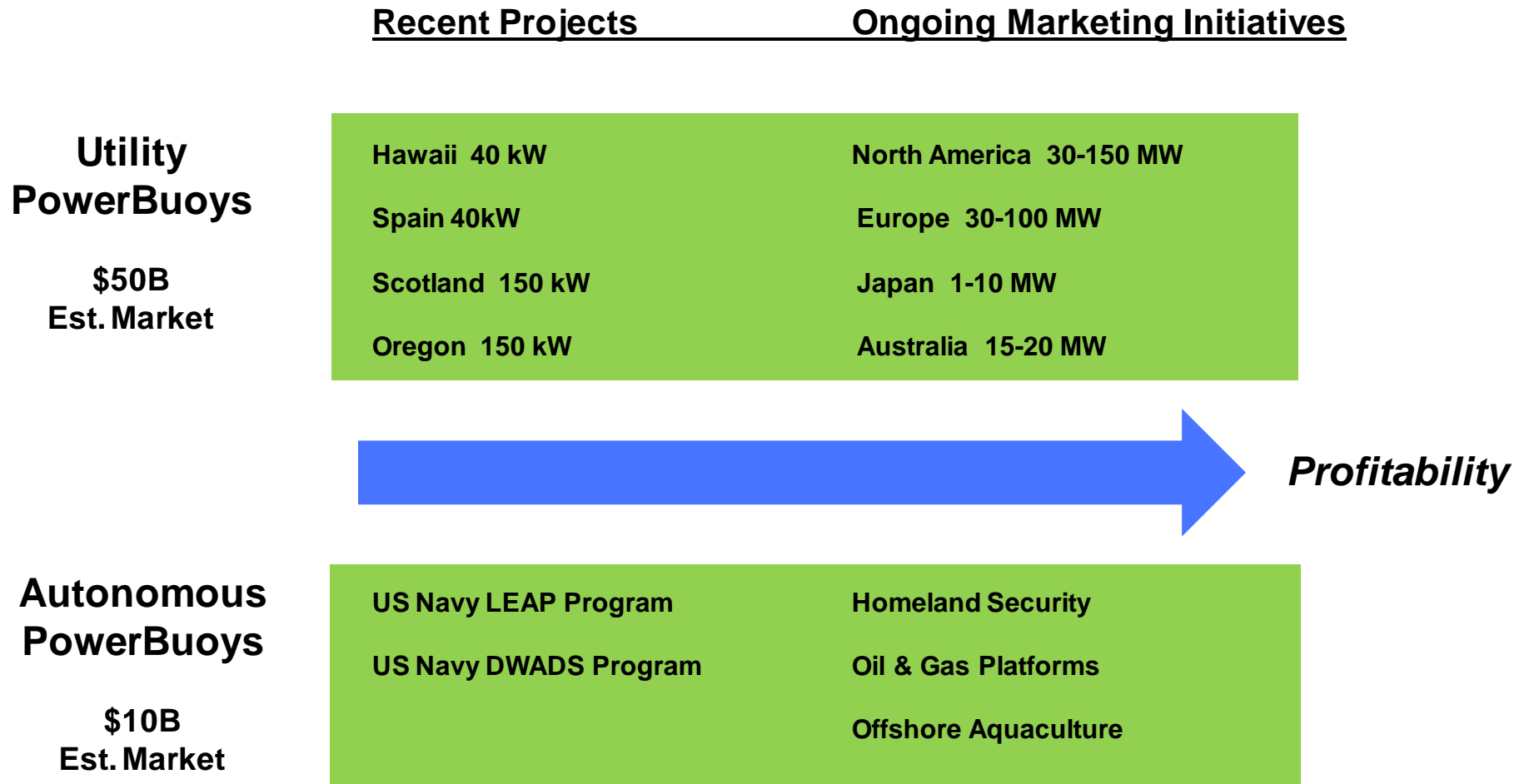
- Tax Credit monetization – e.g. US Production and Investment Tax Credits, Oregon Energy Tax Credit
- Green tags, renewable obligation certificates, carbon credits
- Grants, subsidies, tariffs – e.g. UK Electricity Market Reform initiatives, Portugal feed-in tariffs

- (a) Company cost targets based on production levels of 400 PowerBuoys per year  
 (b) Includes offshore and onshore wind

### Sources:

- *Levelized Cost of Energy Analysis – Version 5.0, Lazard, August 2011*
- *Energy Information Administration, Annual Energy Outlook 2011, December 2010, DOE/EIA – 0383 (2010)*

# Multiple Paths to Profitability



# Strong Leadership Team

## ■ **Charles F. Dunleavy** – Chief Executive Officer

- Key role in expanding OPT's operations in Europe, North America, Australia and Japan
- Instrumental in raising over \$150 million in equity capital for OPT in US and Europe

## ■ **Dr. Philip R. Hart** – Chief Technology Officer

- Significant experience in marine technology and subsea engineering projects
- Led multi-discipline engineering teams on various offshore programs, including Global Marine, Racal

## ■ **Michael G. Kelly** – VP Operations

- 30 years experience in marine industry, including Tyco, ATT, US Navy
- Management of international commercial and technical teams

## ■ **Brian M. Posner** – Chief Financial Officer

- 27 years experience in public and private companies
- Served on audit staff of PriceWaterhouseCoopers LLP

## ■ **Timothy Stiven** – Managing Director of OPT Ltd

- Significant experience in marine engineering and sustainable energy
- Previously with QuinetiQ and served as Marine Engineer Officer in Royal Navy

## ■ **Dr. George W. Taylor** – Executive Vice Chairman

- Internationally recognized wave energy expert
- Key to building OPT's business, technology portfolio and strategy



# Recent OPT Achievements

- Completed two-year deployment of Hawaii PowerBuoy – first grid-connected wave energy device in US
- Deployed PB150 PowerBuoy off Scotland with strong operational data, and progress made on construction of Oregon PB150
- Received Lloyd's Register Certification of PB150 PowerBuoy design
- Signed ground-breaking agreement with 14 different stakeholders in our utility-scale Oregon project
- Expanded relationships with Mitsui and Lockheed
- Commenced development of PB500, with customer funding
- Strong operating results of LEAP autonomous PowerBuoy deployment for US Navy
- Launched new technology initiative under WavePort project in Spain



# Near-Term Activity and Goals

- **PB150 for Reedsport, Oregon**
  - Finalize unit for water deployment
  
- **Advanced energy conversion system for WavePort project in Spain**
  - Report progress towards system design & development
  
- **Business Development Initiatives**
  - North America
  - Australia
  - Japan
  - Europe

# For More Information

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**Or visit our website:**

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