Ocean Power Technologies, Inc. Form 10-K July 14, 2009

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

#### Form 10-K

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934** 

For the fiscal year ended April 30, 2009

or

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission File Number 001-33417

**Delaware** 

22-2535818

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

# 1590 REED ROAD PENNINGTON, NJ 08534

(Address of principal executive offices, including zip code)

Registrant s telephone number, including area code: (609) 730-0400

Securities registered pursuant to Section 12(b) of the Act:

**Title of Each Class** 

Name of Exchange on Which Registered

Common Stock, par value \$0.001

The Nasdaq Global Market

# Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No b

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No b

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes b No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. b

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o

Accelerated filer b

Non-accelerated filer o

Smaller reporting company o

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No b

The aggregate market value of the common stock of the registrant held by non-affiliates as of October 31, 2008, the last business day of the registrant s most recently completed second fiscal quarter, was \$50.8 million based on the closing sale price of the of the registrant s common stock on that date as reported on the Nasdaq Global Market.

The number of shares outstanding of the registrant s common stock as of June 30, 2009 was 10,210,354.

# DOCUMENTS INCORPORATED BY REFERENCE

**Document** 

Part of the Form 10-K into Which Incorporated

Proxy Statement for the registrant s 2009 Annual Meeting of Stockholders

III

# OCEAN POWER TECHNOLOGIES, INC.

# INDEX TO REPORT ON FORM 10-K

		Page
	PART I	
Item 1:	Business	4
Item 1A:	Risk Factors	22
Item 1B:	Unresolved Staff Comments	38
Item 2:	Properties Properties	38
Item 3:	Legal Proceedings	38
<u>Item 4:</u>	Submission of Matters to a Vote of Security Holders	38
	PART II	
Item 5:	Market for Registrant s Common Equity, Related Stockholder Matters and Issuer	
<u>1011 5.</u>	Purchases of Equity Securities	39
Item 6:	Selected Financial Data	40
Item 7:	Management s Discussion and Analysis of Financial Condition and Results of Operations	41
Item 7A:	Quantitative and Qualitative Disclosures About Market Risk	54
Item 8:	Financial Statements and Supplementary Data	55
Item 9:	Changes in and Disagreements With Accountants on Accounting and Financial	33
<u>10111 9.</u>	Disclosure	55
Item 9A:	Controls and Procedures	55
Item 9B:	Other Information	55
<u>Itciii 9D.</u>	Other information	33
	PART III	
<u>Item 10:</u>	Directors, Executive Officers and Corporate Governance	56
<u>Item 11:</u>	Executive Compensation	56
<u>Item 12:</u>	Security Ownership of Certain Beneficial Owners and Management and Related	
	Stockholder Matters	56
<u>Item 13:</u>	Certain Relationships and Related Transactions, and Director Independence	56
<u>Item 14:</u>	Principal Accountant Fees and Services	56
	PART IV	
<u>Item 15:</u>	Exhibits and Financial Statement Schedules	56
EX-23.1: CONSEN	NT OF KPMG LLP	
EX-31.1: CERTIF	ICATION	
EX-31.2: CERTIF	ICATION	
EX-32.1: CERTIF	ICATION	
EX-32.2: CERTIF	ICATION	
<u>EX-21.1</u>		
EX-23.1		
EX-31.1 EX-31.2		
EX-31.2 EX-32.1		
EX-32.2		

PowerBuoy® is a registered trademark of Ocean Power Technologies, Inc. The Ocean Power Technologies logo, CellBuoytm, Talk on Watertm and Making Waves in Powersm are trademarks or service marks of Ocean Power Technologies, Inc. All other trademarks appearing in this annual report are the property of their respective holders.

#### **Table of Contents**

#### **Special Note Regarding Forward-Looking Statements**

We have made statements in this Annual Report on Form 10-K (the Annual Report ) in, among other sections, Item 1 Risk Factors. Item 3 Legal Proceedings, and Item 7 Management s Discussion and Analys Business. Item 1A Financial Condition and Results of Operations that are forward-looking statements. Forward-looking statements convey our current expectations or forecasts of future events. Forward-looking statements include statements regarding our future financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations. The words may, continue, estimate, intend, believe. projec anticipate and similar expressions may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking.

Any or all of our forward-looking statements in this Annual Report may turn out to be inaccurate. We have based these forward-looking statements on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. They may be affected by inaccurate assumptions we might make or unknown risks and uncertainties, including the risks, uncertainties and assumptions described in Item 1A Risk Factors. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this report may not occur as contemplated, and actual results could differ materially from those anticipated or implied by the forward-looking statements.

You should not unduly rely on these forward-looking statements, which speak only as of the date of this filing. Unless required by law, we undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise.

3

#### PART I

# ITEM 1. BUSINESS

#### Overview

We develop and are commercializing proprietary systems that generate electricity by harnessing the renewable energy of ocean waves. The energy in ocean waves is predictable, and electricity from wave energy can be produced on a consistent basis at numerous sites located near major population centers worldwide. Wave energy is an emerging segment of the renewable energy market. Based on our proprietary technology, considerable ocean experience, existing products and expanding commercial relationships, we believe we are the leading wave energy company.

We currently offer two products as part of our line of PowerBuoy<sup>®</sup> systems: a utility PowerBuoy system and an autonomous PowerBuoy system. Our PowerBuoy system is based on modular, ocean-going buoys, which we have been ocean testing for over a decade. The rising and falling of the waves moves the buoy-like structure creating mechanical energy that our proprietary technologies convert into electricity. We have tested and developed wave power generation and control technology using proven equipment and processes in novel applications. Our two products are designed for the following applications:

Our utility PowerBuoy system is capable of supplying electricity to a local or regional electric power grid. Our wave power stations will be comprised of a single PowerBuoy system or an integrated array of PowerBuoy systems, plus the remaining components required to deliver electricity to a power grid. We intend to sell our utility PowerBuoy system to utilities and other electrical power producers seeking to add electricity generated by wave energy to their existing electricity supply. In July 2007, our PowerBuoy interface with the electrical utility power grid was certified as compliant with international standards. An independent laboratory provided testing and evaluation services to certify that our systems comply with designated national and international standards. The PowerBuoy grid interface will bear the Electrical Testing Laboratories (ETL) listing mark, and can be connected to the utility grid.

Our autonomous PowerBuoy system is designed to generate power for use independent of the power grid in remote locations. There are a variety of potential applications for this system, including sonar and radar surveillance, tsunami warning, oceanographic data collection, offshore platforms and offshore aquaculture.

Our product development and engineering efforts are focused on increasing the peak-rated output of our utility PowerBuoy system from the current 40 kiloWatt (kW), and, to a lesser extent, researching and developing new products, product applications and complementary technologies. We believe that, by increasing the maximum related output of our utility PowerBuoy system, we will be able to decrease the cost per kW of our PowerBuoy system and the cost per kiloWatt hour of the energy generated. We expect that our first 150kW PowerBuoy will be constructed and ready for deployment by the end of 2009, and the design of our 500kW PowerBuoy will be completed in mid-2011. We have made substantial progress in the design, analysis and commencement of fabrication of what we believe to be the first utility-grade underwater substation, or pod, for wave power. The pod serves as the point at which energy generated by multiple PowerBuoys is aggregated and the voltage is increased, prior to transmission ashore and being fed into the power grid. The required switching and protection circuits for the individual PowerBuoys are also included in the pod.

In addition, we are focusing on expanding our key commercial opportunities for both the utility and the autonomous PowerBuoy systems. We currently have commercial relationships with the following:

Iberdrola S.A., or Iberdrola, which is a large electric utility company located in Spain and one of the largest renewable energy producers in the world, Total S.A., or Total, which is one of the world slargest oil and gas companies, and two Spanish governmental agencies, for the first phase of the construction of a wave power station off the coast of Santoña, Spain.

The United States Navy, to develop and build wave power systems at the US Marine Corps Base in Hawaii.

The Scottish Government, to develop a 150kW PowerBuoy for deployment at the Orkney Islands European Marine Energy Center.

4

Pacific Northwest Generating Cooperative (PNGC Power) and the US Department of Energy, both of which are providing funding toward the fabrication and ocean installation of a 150kW PowerBuoy near Reedsport, Oregon.

The United States Navy, to provide PowerBuoy technology to a unique program for ocean data gathering. Under this program, the Navy will conduct an ocean test of an advanced design of our autonomous PowerBuoy as the power source for the Navy s Deep Water Active Detection System.

As part of our marketing efforts, we use demonstration wave power stations to establish the feasibility of wave power generation. In addition to the demonstration PowerBuoy system that we have operated off the coast of New Jersey, we are also planning to develop and operate two additional demonstration wave power stations, with one to be located off the coast of Reedsport, Oregon and the other to be located near Cornwall, England. We plan to generate revenue from the demonstration wave power stations off Cornwall and Reedsport by selling electricity to utilities.

We were incorporated under the laws of the State of New Jersey in April 1984 and began commercial operations in 1994. On April 23, 2007, we reincorporated in Delaware. Our principal executive offices are located at 1590 Reed Road, Pennington, New Jersey 08534, and our telephone number is (609) 730-0400. Our website address is <a href="https://www.oceanpowertechnologies.com">www.oceanpowertechnologies.com</a>. We make available free of charge on our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after such material is filed electronically with the Securities and Exchange Commission, or SEC. The information on our website is not a part of this Annual Report. Our common stock has been listed on the AIM market of the London Stock Exchange plc since October 2003 and on the NASDAQ Global Market since April 24, 2007, the date on which we commenced our initial public offering in the United States.

#### **Our Market**

Global demand for electric power is expected to increase from 14.8 trillion kiloWatt hours in 2003 to 30.1 trillion kiloWatt hours by 2030, according to the Energy Information Administration, or the EIA. To meet this demand, the International Energy Agency, or the IEA, estimates that investments in new generating capacity will exceed \$4 trillion in the period from 2003 to 2030, of which \$1.6 trillion will be for new renewable energy generation equipment.

According to the IEA, fossil fuels such as coal, oil and natural gas generated over 60% of the world s electricity in 2002. However, a variety of factors are contributing to the increasing development of renewable energy systems that capture energy from replenishable natural resources, including ocean waves, flowing water, wind and sunlight, and convert it into electricity.

*Rising cost of fossil fuels.* Although subject to short-term fluctuations, the cost of fossil fuel used to generate electricity has been generally rising and is likely to continue to rise in the future.

Dependence on energy from foreign sources. Many countries, including the United States, Japan and much of Europe, depend on foreign resources for a majority of their domestic energy needs. Concerns over political and economic instability in some of the leading energy producing regions of the world are encouraging consuming countries to diversify their sources of energy.

*Environmental concerns*. Environmental concerns regarding the by-products of fossil fuels have led many countries and several US states to agree to reduce emissions of carbon dioxide and other gases associated with the use of fossil fuels and to adopt policies promoting the development of cleaner technologies.

Government incentives. Many countries have adopted policies to provide incentives for the development and use of renewable energy sources, such as subsidies to encourage the commercialization of renewable energy power generation.

*Infrastructure constraints*. In many parts of the world, the existing electricity infrastructure is insufficient to meet projected, and in some places existing, demand. Expansion of generating capacity from existing energy sources is frequently hindered by significant regulatory, political and economic constraints.

5

As a result of these and other factors, the EIA projects that grid-connected renewable generating capacity will continue to grow over the next 25 years.

### Wave Energy

The energy in ocean waves is a form of renewable energy that can be harnessed to generate electricity. Ocean waves are created when wind moves across the ocean surface. The interaction between the wind and the ocean surface causes energy to be exchanged. At first, small waves occur on the ocean surface. As this process continues, the waves become larger and the distance between the tops of the waves becomes longer. The size of the waves, and the amount of energy contained in the waves, depends on the wind speed, the time the wind blows over the waves and the distance covered. The rising and falling of the waves move our PowerBuoy system creating mechanical energy that our proprietary technologies convert into usable electricity.

There are a variety of benefits to using wave energy for electricity generation.

Scalability within a small site area. Due to the tremendous energy in ocean waves, wave power stations with high capacity 50 MegaWatts (MW) and above can be installed in a relatively small area. We estimate that, upon completion of the development of our 500kW PowerBuoy system, we would be able to construct a wave power station that would occupy approximately one-tenth of the ocean surface occupied by an offshore wind power station of equivalent capacity.

*Predictability.* The supply of electricity from wave energy can be forecasted in advance. The amount of energy a wave hundreds of miles away will have when it arrives at a wave power station days later can be calculated based on satellite images and meteorological data with a high degree of accuracy. Power producers can use this information to develop sourcing plans to meet their short-term electricity needs.

Constant source of energy. The annual flow of waves at specific sites can be relatively constant. Based on our studies and analysis of our target sites, we believe our wave power stations will be able to produce usable electricity for approximately 90% of all hours during a year.

Close to population centers. The proximity of wave energy resources to large population areas means that power transmission infrastructure is often already in place and may be utilized for wave energy generation projects.

There are currently several approaches, in different stages of development, for capturing wave energy and converting it into electricity. Methods for generating electricity from wave energy can be divided into two general categories: onshore systems and offshore systems. Our PowerBuoy system is an offshore system. Offshore systems are typically located one to five miles offshore and in water depths of between 100 and 200 feet. The system can be above, on or below the ocean surface. Many offshore systems utilize a floatation device to harness wave energy. The heaving or pitching of the floatation device due to the force of the waves creates mechanical energy, which is converted into electricity by various technologies. Onshore systems are located at the edge of the shore, often on a sea cliff or a breakwater, and typically must concentrate the wave energy first before using it to drive an electrical generator. Although maintenance costs of onshore systems may be less than those associated with offshore systems, there are a variety of disadvantages with these systems. As waves approach the shore, the energy in the waves decreases; therefore, onshore wave power stations do not take full advantage of the amount of energy that waves in deeper water produce. In addition, there are a limited number of suitable sites for onshore systems and there are environmental and possible aesthetic issues with these wave power stations due to their size and location on the seashore.

# **Our Products**

We offer two types of PowerBuoy systems: our utility PowerBuoy system, which is designed to supply electricity to a local or regional electric power grid, and our autonomous PowerBuoy system, which is designed to

6

#### **Table of Contents**

generate power for use independent of the power grid in remote locations. Both products use the same PowerBuoy technology.

Pictured below is our 40kW PowerBuoy system at our facilities in New Jersey, which was installed in the ocean off the coast of New Jersey.

Our PowerBuoy system consists of a floating buoy-like device that is loosely moored to the seabed so that it can freely move up and down in response to the rising and falling of the waves, as well as a power take-off device, an electrical generator, a power electronics system and our control system, all of which are sealed in the unit.

The power take-off device converts the mechanical stroking created by the movement of the unit caused by ocean waves into rotational mechanical energy, which, in turn, drives the electrical generator. The power electronics system then conditions the output from the generator into usable electricity. The operation of the PowerBuoy system is controlled by our customized control system.

The control system uses sophisticated sensors and an onboard computer to continuously monitor the PowerBuoy subsystems as well as the height, frequency and shape of the waves interacting with the PowerBuoy system. The control system collects data from the sensors and uses proprietary algorithms to electronically adjust the performance of the PowerBuoy system in real-time and on a wave-by-wave basis. By making these electrical adjustments automatically, the PowerBuoy system is able to maximize the amount of usable electricity generated from each wave. We believe that this ability to optimize the performance of the PowerBuoy system in real-time is a significant advantage of our product.

In the event of storm waves larger than 23 feet, the control system for the PB150 automatically locks down the PowerBuoy system and electricity generation is suspended. When the wave heights return to a normal operating range of 23 feet or less, the control system automatically unlocks the PowerBuoy system and electricity generation and transmission recommence. This safety feature prevents the PowerBuoy system from being damaged by the increased amount of energy in storm waves.

Our 40kW PowerBuoy system has a maximum diameter of 12 feet near the surface, and is 52 feet long, with approximately 13 feet of the PowerBuoy system protruding above the surface of the ocean. Larger PowerBuoy systems will be longer and have a larger diameter. For example, our 150kW PowerBuoy system is expected to have a maximum diameter of approximately 36 feet and be approximately 135 feet long with approximately 30 feet protruding above the ocean surface.

#### Utility PowerBuoy System

The utility PowerBuoy system is designed to transmit electricity to shore by an underwater power cable, which would then be connected to a power grid. Our utility PowerBuoy system presently has a capacity of 40kW. The utility PowerBuoy system is designed to be positioned in water with a depth of 100 to 200 feet, which can usually be found one to five miles offshore. This depth allows the system to capture meaningful amounts of energy from the waves, since decreasing water depth depletes the energy in the waves.

7

#### **Table of Contents**

The mooring system for keeping a utility PowerBuoy system in position connects it by lines to three floats that, in turn, are connected by lines to three anchors. This is a well-established mooring system, referred to as three-point mooring, which we have improved upon with various techniques that reduce cost and deployment time.

We refer to the entire utility power generation system at one location as a wave power station, which can either be comprised of a single PowerBuoy system or an integrated array of PowerBuoy systems connected to an underwater cable to transmit the electricity to shore. Our system is designed to be scalable, as multiple PowerBuoy units can be integrated to create a wave power station with a larger output capacity. An array of PowerBuoy systems would typically be arranged in three staggered rows parallel to the incoming wave front to form a long rectangle. This staggered arrangement would maximize the level of wave energy that the wave power station can capture.

We are also exploring the use of our utility PowerBuoy systems for applications that include generating electricity for desalination of water, hydrogen production, water treatment and natural resource processing. In these instances, the power generated by the utility PowerBuoy system would bypass the grid and be delivered directly to the point of electricity consumption for these special applications.

Status of Utility PowerBuoy Systems

We expect that our first 150kW PowerBuoy will be ready for deployment by the end of 2009, and the design of our 500kW PowerBuoy will be completed in mid-2011.

In addition, we have made substantial progress in the design, analysis and commencement of fabrication of what we believe to be the first utility-grade underwater substation, or pod, for wave power. The pod serves as the point at which energy generated by multiple PowerBuoys is aggregated and the voltage is increased, prior to transmission ashore and being fed into the power grid. The required switching and protection circuits for the individual PowerBuoys are also included in the pod. Construction of our first commercial pod is now in progress, in connection with our wave power project located off the coast of Santoña, Spain.

Our PowerBuoy interface with the electrical utility power grid has been certified as compliant with international standards. An independent laboratory provided testing and evaluation services to certify that our systems comply with designated national and international standards. The PowerBuoy grid interface bears the ETL listing mark, and can be connected to the utility grid.

### Autonomous PowerBuoy System

The autonomous PowerBuoy system is based on similar technology to the utility PowerBuoy system, but is designed for electricity generation of relatively low amounts of power for use independent of the power grid in remote locations. The autonomous PowerBuoy system currently has a maximum rated output ranging from 300 Watts to 40kW, depending on the application. Our autonomous PowerBuoy system is designed to operate anywhere in the ocean and in any depth of water.

We expect that autonomous PowerBuoy systems will generally be suitable for use on a stand-alone basis for providing power for specific applications in deep ocean conditions.

Status of Autonomous PowerBuoy Systems

We have received several contracts from the US Navy to provide our PowerBuoy technology to a unique program for ocean data gathering. Under this program, the Navy has conducted an ocean test of our autonomous PowerBuoy as the power source for the Navy s Deep Water Active Detection System and we have received a contract for the next phase

of work under this program. This new contract is for ocean testing by the Navy of an advanced version of the autonomous PowerBuoy for the Navy s operational requirements.

# **Our Competitive Advantages**

We believe that our technology for generating electricity from wave energy and our commercial relationships give us several potential competitive advantages in the renewable energy market.

8

*Our PowerBuoy system uses an ocean-tested technology to generate electricity.* 

We have been conducting ocean tests for over a decade in order to demonstrate the viability of our technology. We initiated our first ocean installation in 1997 and have had several deployments of our systems for testing and operation since then, the longest of which has had continuous operation of 12 months. Our PowerBuoy systems have survived several hurricanes and winter storms while installed in the ocean.

Our PowerBuoy system s grid connection has been certified.

In July 2007, we announced that our PowerBuoy grid connection system had been certified as compliant with designated national and international standards. This qualifies our technology for integration into utility grid systems.

Our PowerBuoy system design is efficient in harnessing wave energy.

Our PowerBuoy system is designed to efficiently convert wave energy into electricity by using onboard sensors to detect actual wave conditions and then to automatically adjust, or tune the performance of the generator using our proprietary electrical and electronics-based control systems in response to that information.

One measure of the efficiency of an electric power generation system is load factor. The load factor is the percent of kiloWatt hours produced by a system in a given period as compared to the maximum kiloWatt hours that could be produced by the system in that period. A high load factor indicates a high degree of utilization of the capacity of the system and provides a means to compare the effectiveness of different energy sources. Since we have not yet operated a complete wave power station, we do not have a measured load factor. However, based on our research and analysis, we believe the design load factor for a PowerBuoy wave power station located at most of our targeted sites would be favorably positioned in the range of 30% to 45%, as compared to other renewable energy services.

Numerous potential sites for our wave power stations are located near major population centers worldwide.

Our systems are designed to work in sites with average annual wave energy of at least 20kW per meter of wave front, which can be found in many coastal locations around the world. In particular, we are currently targeting the west coast of North America, the west coast of Europe, the coasts of Australia and the east coast of Japan. These potential sites not only have appropriate natural resources for harnessing wave energy, but they are also located near large population centers with significant and increasing electricity requirements and access to existing power transmission infrastructure.

We have significant commercial relationships.

Our current projects with Iberdrola, PNGC Power, the Scottish Government, and the US Department of Energy provide us with an initial opportunity to sell our wave power stations for utility applications. By collaborating with leaders in renewable energy development, we believe we are able to accelerate both our in-house knowledge of the utility power generation market and our reputation as a credible renewable energy equipment supplier. If these projects are successful, we intend to leverage our experiences with our projects to add wave power stations, new customers and complementary revenue streams from operations and maintenance contracts.

With the funding from the US Navy, we have been able to refine our PowerBuoy system while simultaneously preparing for commercial deployment to address a particular customer need. We believe that the successful

deployment of our PowerBuoy systems for the US Navy will significantly enhance market visibility.

Our PowerBuoy system has the potential to offer a cost competitive renewable energy power generation solution.

Our product development and engineering efforts are focused on increasing the maximum rated output of the design of our utility PowerBuoy system from the current 40kW. Assuming we are able to reach manufacturing levels of at least 300 units of 500kW PowerBuoy systems per year, we believe, based upon our

9

research and analysis, that the economies of scale we would have with our fabricators would allow us to offer a renewable electricity solution that competes with other existing renewables in key markets. We expect to complete the design of our 500kW PowerBuoy in mid-2011.

Prior to achieving full production levels of the 500kW PowerBuoy system, if we achieve economies of scale for our 150kW PowerBuoy systems, we expect to be able to offer a renewable electricity solution that competes with the price of electricity in certain local markets where the current retail price of electricity is relatively high or where sufficient subsidies are available.

Our systems are environmentally benign and aesthetically non-intrusive.

We believe that our PowerBuoy system does not present significant risks to marine life and does not emit significant levels of pollutants. In connection with our project at the US Marine Corps Base in Hawaii, our customer, the US Navy, obtained an independent environmental assessment of our PowerBuoy system prior to installation, as required by the National Environmental Policy Act. This assessment resulted in a Finding of No Significant Impact, the highest such level of approval. Although our project for the US Navy only contemplates an array of up to six PowerBuoy systems in Hawaii, we believe that PowerBuoy systems deployed in other geographic locations, including larger PowerBuoy systems under development and multiple-system wave power stations, would have minimal environmental impact due to the physical similarities with the tested system.

Since our PowerBuoy systems are typically located one to five miles offshore, PowerBuoy wave power stations are usually not visible from the shore. Visual impact is often cited as one of the reasons that many communities have opposed plans to develop power stations, in particular wind power stations. Our PowerBuoy system has the distinct advantage of having only a minimal visual profile. Only a small portion of the unit is visible at close range, with the bulk of the unit hidden below the water.

# **Customers/Projects**

The table below shows the percentage of our revenue we derived from significant customers for the periods indicated:

Customer	Fiscal 2009	Fiscal 2008	Fiscal 2007
US Navy	67%	58%	54%
Iberdrola and Total	18%	31%	35%
Scottish Government	8%	10%	4%
US Department of Energy	4%		

We expect an increasing proportion of our future revenues to be contributed by commercial customers.

Our potential customer base for our utility PowerBuoy systems consists of public utilities, independent power producers and other governmental entities and agencies. Our potential customer base for our autonomous PowerBuoy systems consists of different public and private entities who use electricity in and near the ocean. Our efforts to identify new customers are concentrated on four geographic markets: the west coast of North America, the west coast of Europe, the coasts of Australia and the east coast of Japan. Our efforts to identify new customers are currently led and coordinated by our Executive Chairman and our Vice President of Business Development and Marketing. We also use consultants and other personnel to assist us in locating potential customers.

# Spain Project

In July 2004, we entered into a development agreement, which we refer to as the Spain development agreement, with Iberdrola Energias Renovables II, S.A. (Iberdrola Energias), an affiliate of Iberdrola, Sociedad para el Desarrollo Regional de Cantabria, S.A., or SODERCAN, which is the industrial development agency of the Spanish region of Cantabria, and Instituto para la Diversificacion y Ahorro de la Energia, S.A., or IDAE, a Spanish government agency dedicated to energy conservation and diversification efforts, to jointly study the possibility of developing a wave power station off the coast of Santoña located in the Cantabria region in northern Spain. Total

10

#### **Table of Contents**

Eolica S.A., an affiliate of Total, joined the development agreement in June 2005. In January 2006, we completed the assessment phase of the project, which included an assessment of wave energy resources at the site, a feasibility analysis for deployment at the site, a determination of capacity and design, and an estimation of investments needed for the project as well as anticipated costs for operation, maintenance and repairs. Expenses associated with this phase were shared among the parties to the agreement based on agreed upon percentages.

In July 2006, Iberdrola Energias Marinas de Cantabria, S.A., or Iberdrola Cantabria, was formed for the purpose of constructing and operating a wave power station off the coast of Santoña, Spain. Iberdrola Energias is the largest shareholder of Iberdrola Cantabria. Total Eolica, SODERCAN, IDAE and we each have minority ownership positions. Funding is shared among the parties to the agreement based on agreed upon percentages that reflect the parties anticipated ownership interest in the wave power station. We own 10% of Iberdrola Cantabria.

In July 2006, we entered into an agreement for the first phase of the construction of a wave power station off the coast of Santoña, Spain, with our customer, Iberdrola Cantabria. We refer to this agreement as the Spain construction agreement. Iberdrola Cantabria was formed by affiliates of Iberdrola and Total, two Spanish governmental agencies and us for the purpose of constructing and operating a wave power station off the coast of Spain. Under the Spain construction agreement, we agreed to manufacture and deploy by no later than December 31, 2009 one 40kW PowerBuoy system and the ocean-based substation and infrastructure required to connect nine additional 150kW PowerBuoy systems that together are contemplated to constitute a 1.39MW wave power station. In February 2008, the Spain construction agreement was amended to provide for the current phase of the construction of the 1.39MW wave power station to include the manufacture and deployment of one 40kW PowerBuoy system plus the fabrication of the underwater power transmission cable and underwater substation for all ten PowerBuoy systems. The terms of the installation of the underwater transmission cable and underwater substation will be separately negotiated, and, if so agreed, are expected to provide for additional funding for the installation work.

The initial PB40 PowerBuoy system for this project was deployed in September 2008. After a short testing period, the buoy was removed from the water for work on improvements to the power take-off and control systems. We are currently in discussions with Iberdrola Cantabria regarding the nature and costs of these improvements and their effects on plans for the redeployment of the buoy and the next phases of the project. Because the amended Spain construction agreement does not cover the terms for deployment of the underwater transmission cable and substation and the manufacture and deployment of the nine additional PowerBuoy units, we will need to enter into a subsequent contract with Iberdrola Cantabria before we complete these elements of construction of the full wave power station. In addition, if we and Iberdrola Cantabria decide not to redeploy the PB40 PowerBuoy, the total contract value for the current phase of the contract may be reduced. If we are unable to successfully meet the terms of the Spain construction agreement, or if we are not able to successfully negotiate a subsequent contract or contracts with Iberdrola Cantabria for the manufacture and deployment of the nine additional PowerBuoy units, or if Iberdrola Cantabria were to terminate the Spain construction agreement for any of these reasons, we may lose a component of our current and anticipated revenue stream. If we are unable to agree to the necessary contract modifications, Iberdrola Cantabria will have the right to terminate the agreement if the first phase of construction is not completed by December 31, 2009 for reasons attributable to us, or if we interrupt our services for more than 180 days and do not resume within a 30-day period, or for a serious and repeated breach of a major obligation that is not cured within a 30-day period after we receive notice of the breach. In addition, we have made guarantees to Iberdrola Cantabria associated with the current phase of construction in respect of the quality, repair and replacement of the 40kW PowerBuoy system and ocean-based substation and the level of power output of the 40kW PowerBuoy system. If we are found to be in default of our obligations under the Spain construction agreement, Iberdrola Cantabria will have the right to seek reimbursement for direct damages only, limited to amounts specified in the contract.

Under the terms of the agreement, our revenues are limited to reimbursement for our construction costs without any mark-up. In addition, we are required to bear the first 0.5 million of any cost overruns and to absorb certain other costs

as set forth in the agreement. We have recognized an anticipated loss of \$4.2 million under this contract. Our estimates of the project s costs may increase in the future, and we may elect to incur the additional costs and continue the project, to seek other suppliers for the materials or services related to the cost increases or to terminate the agreement. Any of such outcomes may have a material adverse effect on our financial condition and

11

#### **Table of Contents**

results of operations. The anticipated loss of \$4.2 million under the Spain construction agreement includes costs incurred to date and our current estimate of other amounts we may be required to bear under the agreement and reflects our estimate of potential reductions in milestone amounts billable under the current phase of the agreement.

Pictured below are views of our 40kW-rated PowerBuoy system during tow-out to the deployment site off Santoña, Spain, and after deployment.

We are paid under the Spain construction agreement as we complete certain milestones for a total potential payment for the current phase of construction of approximately 2.7 million. As of April 30, 2009, we had recognized revenue of approximately \$2.9 million and an anticipated loss of \$4.2 million under the Spain construction agreement. The anticipated loss at completion of the contract also reflects our decision made in the fourth quarter of fiscal year 2008 to absorb \$1.9 million of additional costs of the project beyond our obligation for the initial cost overruns and certain other costs as set forth in the agreement. This decision was based on the progress of the project to date, the benefits to be derived from a successful initial project and the prospect of incremental contract value to be received in connection with additional work under this contract.

# Scotland Project

In 2007, we received a \$1.8 million contract from the Scottish Executive for the construction of a 150kW grid-connected PowerBuoy system at the European Marine Energy Centre (EMEC) in Orkney, Scotland. EMEC is a test facility for marine energy technologies, for which the Scottish Government has built the infrastructure for grid connection. In 2008, we signed a Berth Agreement with EMEC. This agreement provides for the deployment and operation of PowerBuoys as well as their connection to the wave energy berth—s dedicated 2MW subsea cable already installed and connected to the Scottish grid. The Berth Agreement also enables us to sell power to the grid up to the 2MW capacity limit. The design phase of the buoy has been completed and construction is underway, we have completed the mechanical elements of the power-take-off system, and we have awarded the steel fabrication contract for the PowerBuoy structure. We expect the buoy to be ready for deployment by the end of 2009. As of April 30, 2009, we have recognized \$0.9 million in revenue associated with this project.

### US Navy

Since September 2001, we have entered into a series of contracts with the United States Office of Naval Research for the development and construction of wave power systems at the Marine Corps Base in Oahu, Hawaii. In September 2007, we received \$1.9 million of additional funding under this program, plus another \$1.4 million in early 2009. Under the contract for the current phase of the project, which was entered into in September 2005 and expires in December 2009, we are reimbursed for costs and paid a fixed fee for total potential revenue of \$5.5 million. In November 2008, we deployed a 40kW rated PowerBuoy at the Marine Corps Base. After an initial testing period during which the power produced was in accord with our predictive models, the buoy was removed from the water for maintenance and upgrade. The PowerBuoy is expected to be re-deployed during the summer of 2009.

12

#### **Table of Contents**

Pictured below are views of our 40kW-rated PowerBuoy system being lowered into the ocean in Oahu, and after deployment.

In June 2007, we received a \$1.7 million contract from the US Navy to provide our PowerBuoy technology to a unique program for ocean data gathering. Under this first 18-month program, the Navy conducted in October 2008 an ocean test of our autonomous PowerBuoy as the power source for the Navy s Deep Water Active Detection System. Following that ocean test, we received a new \$3.0 million contract for participation in the second phase of the program, for the building of an advanced version of our autonomous PowerBuoy for the Navy s operational requirements. In addition, we will support the Navy s ocean test procedures in the areas of mooring design, at sea operations and deployment.

### Reedsport, Oregon Project

In February 2007, the US Federal Energy Regulatory Commission (FERC) granted us a preliminary permit to evaluate the feasibility of a location off the coast of Reedsport, Oregon for the proposed construction and operation of a wave power station with an anticipated maximum rated output of 50MW, of which up to the first 2MW would be a demonstration wave power station. In February 2007, we signed a cooperative agreement with PNGC Power, an Oregon-based electric power cooperative, as our utility partner for the development of a wave power station. In July 2007, we filed a Pre-Application Document and Notice of Intent with FERC for the Reedsport project, which provides notice of our intent to seek a license for the Reedsport wave park and information regarding the project. We believe this was the first Pre-Application Document and Notice of Intent filed by a wave power company, and is an important step in the full licensing process for the Reedsport project. We will need additional authorization from FERC to sell electric power generated from the Reedsport wave power station into the wholesale or retail markets.

In August 2007, we announced the award of a \$0.5 million contract from PNGC Power, providing funding toward the fabrication and installation of a 150kW PowerBuoy system for the Reedsport project. In October 2008, we received a \$2.0 million award from the US Department of Energy (DOE) in support of the project. The DOE grant will be used to help fund the fabrication and factory testing of the first PowerBuoy to be installed at the Reedsport site. This is the first award for the building of ocean wave energy systems by the DOE, and we believe it is indicative of the growing recognition and support of wave energy in the US federal and state governments. As of April 30, 2009, we have recognized \$0.1 million in revenue associated with this project.

We continue to make progress on the overall permitting and licensing process while working extensively with interested stakeholder groups at local, county, state and federal agency levels.

#### Other Projects

In February 2006, we received approval from the South West of England Regional Development Agency (SWRDA) to install a 5MW demonstration wave power station off the coast of Cornwall, England as part of SWRDA s Wave Hub project, a planned offshore facility for demonstrating and testing wave energy generation devices. SWRDA has obtained the necessary permits for this Wave Hub project, and the project has been approved

13

for over £30 million of funding for construction of the Wave Hub infrastructure. SWRDA currently is implementing the tender process for the design and construction of such infrastructure, and expects it to be installed in 2010. We are in the planning and development stage for our part of the project.

In December 2008, we announced a Joint Development Agreement with Leighton Contractors Pty. Ltd. for the development of wave power projects off the east and south coasts of Australia. Over the past 50 years, Leighton has played an active role in building Australia s ports and marine facilities, transportation infrastructure, and energy projects including projects within the wind and offshore oil and gas sectors. Under the terms of the agreement, Ocean Power Technologies (Australasia) Pty. Ltd., our subsidiary based in Australia, will identify potential project sites and assess their commercial prospects, under contract from Leighton. Upon identification of projects to be developed, Leighton would obtain approvals, negotiate power purchase agreements, structure project financing, and oversee project delivery and operation of the power stations. If these projects are undertaken, Ocean Power Technologies (Australasia) would sell the PowerBuoy wave power stations to special purpose companies formed by Leighton for the projects.

Since October 2005, we have operated a demonstration PowerBuoy system off the coast of New Jersey, which allows us to continuously monitor the system and evaluate its performance in actual wave conditions. Periodically, the buoy is removed from the ocean for maintenance, testing and upgrades, and is redeployed. The buoy was deployed continuously for 12 months between October 2005 and October 2006, and survived hurricane-generated storm waves during this period and in a later period of ocean deployment. We have conducted extensive diagnostic tests on the system, providing us with information about the effects of ocean deployments that will help us implement improvements in future PowerBuoy systems. This system was not designed to supply electricity to the power grid, but rather to provide us with operational data and marketing opportunities. We were partially funded, which funds we recognized as revenue, for the construction of this PowerBuoy system by the New Jersey Board of Public Utilities. We do not anticipate any additional funding or recognizing any additional revenue in connection with this project.

### **Backlog**

Our contract backlog consists of the aggregate anticipated revenue remaining to be earned at a given time from the uncompleted portions of our existing customer contracts. As of April 30, 2009, our contract backlog was \$7.5 million as compared to \$5.5 million as of April 30, 2008. We anticipate that a majority of our backlog will be recognized as revenue over the next 12 months.

The amount of contract backlog is not necessarily indicative of future revenue because modifications to or terminations of present contracts and production delays can provide additional revenue or reduce anticipated revenue. A substantial majority of our revenue is recognized using the percentage-of-completion method, and changes in estimates from time to time may have a significant effect on revenue and backlog. Our backlog is also typically subject to large variations from time to time due to the timing of new awards.

### **Our Business Strategy**

Our goal is to strengthen our leadership in developing wave energy technologies and commercializing wave power stations and related services. In order to achieve this goal, we are pursuing the following business strategies:

Sell turn-key power stations and operating and maintenance contracts. Our fundamental business plan is to sell turn-key power stations, rather than to take on the capital requirements of building and owning power stations and selling the energy generated. In addition, in order to create recurring revenue streams, we seek to sell operating and maintenance (O&M) contracts over the life-cycle of the plants.

Outsource most of the plant construction and deployment. We outsource all metal fabrication, anchoring, mooring, cabling supply and deployment in order to minimize our capital requirements as we scale up production volumes. The high value-added smart part of the system is assembled and tested at our facilities and shipped to project sites for integration into the PowerBuoys.