Ocean Power Technologies, Inc.
Form 10-K
July 14, 2011

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K

þ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended April 30, 2011

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 þ

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 þ

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 þ 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. þ

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 þ	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

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

The aggregate market value of the common stock of the registrant held by non-affiliates as of October 31, 2010, the last business day of the registrant s most recently completed second fiscal quarter, was $63.5 million based on the closing sale price 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, 2011 was 10,402,722.

DOCUMENTS INCORPORATED BY REFERENCE

Document	Part of the Form 10-K into Which Incorporated
Proxy Statement for the registrant s 2011 Annual Meeting of Stockholders	III

OCEAN POWER TECHNOLOGIES, INC.

INDEX TO REPORT ON FORM 10-K

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 Business, Item 1A Risk Factors, Item 3 Legal Proceedings, and Item 7 Management s Discussion and Analys 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, plan, will, 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.

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 a leading wave energy company. Our latest PB150 PowerBuoy has been certified by the Lloyd s Register Group, Intertek has certified our grid connection system, and an independent environmental assessment of the PB40 PowerBuoy in Hawaii has resulted in the highest rating.

We currently offer two products as part of our line of PowerBuoy® 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 nearly fifteen years. 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 and have deployed and maintained our systems in the ocean. The PowerBuoy technology has the unique, patented capability to electronically tune itself automatically as wave characteristics change. This enables the PowerBuoy to optimize its efficiency and resulting power output in dynamic ocean wave conditions. Our two PowerBuoy 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. Intertek, an independent laboratory, provided testing and evaluation services to certify that our grid connection systems comply with designated national and international standards. The PowerBuoy grid interface bears the Electrical Testing Laboratories (ETL) listing mark, and can be connected to the utility grid. In September 2010, working in conjunction with the US Navy and Hawaii Electric Company, our 40 kilowatt (kW)-rated PowerBuoy, located at Marine Corps Base Hawaii, became the first-ever grid connected wave energy device in the United States. In January 2011, our utility scale PB150 structure and mooring system achieved independent certification from Lloyd s Register. This certification confirms that the PB150 design complies with certain international standards promulgated for floating offshore installations. The Lloyd s Register process included detailed design analysis and appraisals, addressing the PB150 s structure, hydrodynamics, mooring and anchoring.

Our autonomous PowerBuoy system is designed to generate power for use independent of the power grid in remote locations. We believe there are a variety of potential applications for this system, including homeland security, off-shore oil and gas platforms, aquaculture and ocean -based communication and data gathering such as for tsunami warnings.

Our product development and engineering efforts currently are focused on increasing the reliability and peak-rated output of our utility PowerBuoy system to 150kW, and, to a lesser extent increasing the peak rated output of the system to 500kW. In addition, we are researching and developing new products, product applications and complementary technologies. We believe that by increasing the maximum rated 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 to market our undersea substation pod (USP) and undersea power connection infrastructure services to other companies in the marine energy sector. We completed the successful in-ocean trials of our USP in

2009. The USP, based on our proprietary design, has been developed to facilitate the collection, networking and transforming of power and data generated by multiple offshore energy devices. The USP has been built as an open platform, and can provide connectivity for the PowerBuoy as well as offshore energy systems developed by other companies. The required switching and protection circuits for the individual PowerBuoys are also included in the USP.

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:

The United States Navy:

To develop and build wave power systems at the US Marine Corps base in Hawaii.

To provide our PowerBuoy wave conversion system to the Navy s Littoral Expeditionary Autonomous PowerBuoy (LEAP) Program.

To provide PowerBuoy technology to a unique program for ocean data gathering. Under this program, we have built an autonomous PowerBuoy as the power source for the Navy s Deep Water Active Detection System.

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

The Scottish Government, to develop a 150kW PowerBuoy ,which was deployed off the coast of Invergordon, Scotland in April 2011.

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. (Total), which is one of the world s largest 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 US Department of Energy (DOE) and the UK Government s Technology Strategy Board (TSB) to help fund the scale-up of the power output per PowerBuoy from the current level of 150kW to 500kW.

Mitsui Engineering and Shipbuilding, with which we are working to develop a wave power project in Japan.

Leighton Contractors, a major Australian construction and infrastructure company, for the development of a wave power station in Victoria, Australia.

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 *www.oceanpowertechnologies.com.* 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 was listed on the AIM market of the London Stock Exchange plc in October 2003. We voluntarily delisted our common shares from the AIM market effective January 14, 2011. Our common stock has been listed 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 18.8 trillion kilowatt hours in 2007 to 35.2 trillion kilowatt hours by 2035, according to the Energy Information Administration s Annual Energy Outlook 2010 (AEO 2010). To meet this demand, the International Energy Agency, or the IEA, estimates that investments in new generating capacity will be $6.8 trillion in the period from 2007 to 2030, of which new renewable energy generation equipment is expected to account for approximately half of the total projected investment in electricity generation.

According to the AEO 2010, fossil fuels such as coal, oil and natural gas generated over 67% of the world s electricity in 2007. 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, tides, 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 fossil fuel producing regions of the world are encouraging consuming countries to diversify their sources of energy.

Environmental concerns. Environmental concerns regarding the contamination, pollution and by-products from 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.

As a result of these and other factors, the AEO 2010 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 less of the ocean surface than an offshore wind power station of equivalent capacity.

Predictability. The supply of electricity from wave energy can be forecasted several days 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 large population areas to large bodies of water 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 and nearshore systems are often located on a shore cliff or a breakwater, or a short distance at sea from the shore line, 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 to these systems. As waves approach the shore, the energy in the waves decreases; onshore and nearshore wave power stations, therefore, 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 and nearshore systems and there are environmental and possible aesthetic issues with these wave power stations due to their size and location at or near 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 generate power for use independent of the power grid in remote locations. Both products use the same PowerBuoy technology.

Pictured below is our 150kW-rated PowerBuoy system installed during fiscal year 2011 and in operation off Invergordon, Scotland:

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 grid-ready 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 PowerBuoy 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 150kW PowerBuoy system has a maximum diameter of 36 feet near the surface, and is 135 feet long, with approximately 30 feet of the PowerBuoy system protruding above the surface of the ocean. At anticipated deployment distances, generally the system has minimal visability from the shore.

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 current utility PowerBuoy systems presently being marketed to customers have rated capacities of 40kW and 150kW. 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.

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 by our USP 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 likely be configured 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 system 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 System

Ocean trials of our first 150kW PowerBuoy commenced in April 2011. These ocean trials are being conducted at a site approximately 33 nautical miles from Invergordon, off Scotland s northeast coast. Since deployment for preliminary tests, our 150kW rated PowerBuoy has produced power in excess of our expectations of performance. A second PB150 is now under construction and is expected to be ready for deployment off the coast of Reedsport, Oregon in late 2011, with deployment timing principally dependent on weather conditions. Our utility scale PB150 structure and mooring system achieved independent certification from Lloyd s Register.

We completed the successful in-ocean trials of our USP in October 2009. The USP, based on our proprietary design, has been developed to facilitate the collection, networking and transforming of power and data generated by multiple offshore energy devices. The USP has been built as an open platform, and can provide connectivity for the PowerBuoy as well as other offshore energy systems developed by other companies.

The following is a picture of the USP being lowered into the water for ocean trials:

In September 2010, working in conjunction with the US Navy, our 40kW-rated PowerBuoy located at Marine Corps Base Hawaii became the first-ever grid connected wave energy device in the United States.

We have also initiated product development efforts in connection with our 500kW PowerBuoy. Concept development of the PB500 s major subsystems is in progress, and wave tank testing of models has been completed.

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 deep-ocean locations. The autonomous PowerBuoy range of products has rated output from 300 Watts to 40kW, depending on the application. In addition, the PB150 may be utilized in an autonomous mode. Our autonomous PowerBuoy system is designed to operate anywhere in the ocean and in any depth of water.

We believe there are a variety of potential applications for this system, including homeland security, off-shore oil and gas platforms, aquaculture and ocean -based communication and data gathering such as for tsunami warnings.

Status of Autonomous PowerBuoy System

We received a contract from the US Navy to provide our PowerBuoy to the Navy s Littoral Expeditionary Autonomous PowerBuoy (LEAP) program. The LEAP program has been established to enhance the US Navy s anti-terrorism and force protection capability by providing persistent power at sea for port maritime surveillance in near coast, harbor, and offshore areas. In September 2010, the US Navy appropriated $2.6 million in additional funding to us for the second stage of this program. During the first stage of the LEAP program, we successfully completed delivery of the design and on-land testing of a new power take-off system for the autonomous LEAP PowerBuoy. In the second stage of the program, which is now in progress, we will build and ocean-test a LEAP PowerBuoy structure, incorporating that new power take-off system, off the coast of New Jersey. Deployment of this PowerBuoy is expected to take place in the second half of calendar year 2011.

We also 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 substantially completed work under a contract 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.

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

We have been conducting ocean tests for nearly 15 years 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. Our grid-connected Hawaii system has been operating since December 2009. Subsequent to its installation in Hawaii, our 40kW-rated PowerBuoy has produced power consistent with our predictive models for the incoming wave conditions. Since its deployment off the coast of Scotland in April 2011 for preliminary tests, our 150kW-rated PowerBuoy has produced power in excess of our expectations of performance. Our PowerBuoy systems have endured hurricanes, winter storms and tsunami-driven waves while installed in the ocean.

Our PowerBuoy system s grid connection has been certified and one of our PowerBuoys has been connected to a grid.

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. In September 2010, our PowerBuoy located at the US Marine Corps Base in Hawaii became the first-ever grid-connected wave energy device in the United States.

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 capacity factor. The capacity factor is the percent of kilowatt hours produced by a specific system in a given period as compared to the maximum kilowatt hours that could be produced by the system in that period. A high capacity 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. Based on our research and analysis, and in-ocean experience to date, we believe the design capacity factor for a PowerBuoy wave power station located at many of our targeted sites would be favorably positioned in the range of 30% to 45%.

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 access to existing power transmission infrastructure and significant and increasing electricity requirements.

We have significant commercial relationships.

Our current projects with PNGC Power, the US Department of Energy, the US Navy, Mitsui Engineering and Shipbuilding, the Scottish Government, and the UK Government s Technology Strategy Board (TSB), 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 system 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 and reliability of the design of our utility PowerBuoy system. Currently we are marketing PowerBuoys rated at 40kW and 150kW. Assuming we are able to reach significant manufacturing volume levels of our 500kW PowerBuoy systems per year, we believe, based upon our 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 renewable energy systems and, in certain cases, with existing fossil fuel systems in key markets.

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-buoy 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:

	Years Ended April 30,		
	2011	**2010**	**2009**
US Navy	52%	80%	67%
US Department of Energy	28%	9%	4%
Iberdrola Cantabria	(4)%	4%	15%
UK Government s Technical Strategy Board	14%		

During fiscal 2011, we reduced revenue by approximately $0.2 million due to a change in estimated revenue to be recognized in connection with the Spain construction agreement.

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 that 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. We also use consultants and other personnel to assist us in locating potential customers.

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. Under the contract for the current phase of the project, which was entered into in September 2005 and will expire in September 2011, we are reimbursed for costs and paid a fixed fee, and over this period had been awarded contracts for total potential revenue of $6.1 million. The current PowerBuoy now in operation at the Marine Corps base was deployed in December 2009 and connected to the grid in September 2010. This PowerBuoy has produced power consistent with our predictive models. We expect to continue operation of this grid-connected PowerBuoy for the foreseeable future.

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 data gathering in the ocean. Under this 18-month program, the US Navy conducted an ocean test in October 2008 of our autonomous PowerBuoy as the power source for the Navy s Deep Water Active Detection System. In October 2008, we received a $3.0 million contract from the US Navy to expand the program and ocean-test an advanced version of our autonomous PowerBuoy. We have substantially completed performance under this contract.

In September 2009, we received $2.4 million from the US Navy for the first stage of a contract to provide our PowerBuoy to the Navy s LEAP program. In September 2010, the US Navy awarded $2.6 million in additional funding to us for the second stage of this program. The LEAP program is being developed to enhance the US Navy s anti-terrorism and force protection capability by providing persistent power at sea for port maritime surveillance in the near coast, harbor, piers and offshore areas. This contract expires in September 2011, and we expect it to be extended.

Reedsport, Oregon Project

We are evaluating the feasibility of a location off the coast of Reedsport, Oregon for the proposed construction and operation of a wave power station with a total potential maximum rated output of up to 50MW, of which the first 1.5 MW 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 a utility partner for the development of the wave power station. In July 2007, we filed a Pre-Application Document and Notice of Intent with the US Federal Energy Regulatory Commission (FERC) for the Reedsport project, which provides notice of our intent to seek a license for the Reedsport power station and information regarding the project. In February 2010, we filed with FERC a full application to build, deploy and connect to the grid a 10-PowerBuoy array (1.5 MW). In March 2011, FERC granted us a second preliminary permit to continue to evaluate the feasibility of the Reedsport project. We believe these filings were the first Pre-Application Document, Notice of Intent, and full License Application 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 DOE in support of the project. This DOE grant is being used to help fund the fabrication and factory testing of the first PowerBuoy to be installed at the Reedsport site. This was the first award for the building of ocean wave energy systems by the DOE. In September 2010, we announced the award of another grant from the DOE of $2.4 million. This award will be used for final assembly, deployment and ocean trials of the first PowerBuoy. We believe these grants are indicative of the growing recognition and support of wave energy in the US federal and state governments.

This PowerBuoy is expected to be ready for deployment by the end of 2011, with deployment timing principally dependent on weather conditions.

The following photographs show manufacturing activity associated with our PB150 PowerBuoy being built in Oregon:

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. In August 2010, we announced a Settlement Agreement with 11 federal and state agencies and three non-governmental stakeholders. This first-ever wave energy settlement agreement was reached after extensive technical, policy, and legal discussions regarding appropriate prevention, mitigation and enhancement measures, and study requirements. It covers a broad array of resource areas including aquatic resources, water quality, recreation, public safety, crabbing and fishing, terrestrial resources and cultural resources. The Settlement Agreement includes an innovative Adaptive Management Plan that will be used to identify and implement environmental studies that may be required, and to provide a blueprint for the application of this new information as the wave power station develops.

Next Generation PB500 PowerBuoy

In April 2010, we received a $1.5 million award from the DOE for the development of our next generation 500kW PowerBuoy wave power system, the PB500. In the fiscal year ended April 30, 2011, we received awards of an additional $4.7 million for development of the PB500, $2.4 million from the DOE and $2.3 million from the UK Government s Technology Strategy Board. We intend to use proceeds from these grants to help fund the scale-up of the power output per PowerBuoy from the current level of 150kW to 500kW. In addition, the technology development effort will focus on increasing the power extraction efficiency and reliability. Concept design of the PB500 major subsystems is in progress, and wave tank testing of the models has been completed.

Scotland Project

In 2007, we received a $1.8 million contract from the Scottish Executive toward the construction and testing of a 150kW grid-connected PowerBuoy system. We are now conducting ocean trials of the buoy at a site

approximately 33 nautical miles from Invergordon, off Scotland s northeast coast. Since its deployment off the coast of Scotland in April 2011 for preliminary tests, our 150kW rated PowerBuoy has produced power in excess of our expectations of performance. We are seeking a customer for the commercial utilization of the buoy after the ocean trial phase is completed, including its deployment at various potential sites.

The following pictures show manufacturing and deployment activity in Scotland associated with our PB150 PowerBuoy:

Spain

In July 2006, after exploratory studies were conducted, 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 Renovables II, S.A. (Iberdrola Energias), an affiliate of Iberdrola, is the largest shareholder of Iberdrola Cantabria. Minority shareholders include us, Sociedad para el Desarrollo Regional de Cantabria, S.A., or SODERCAN, which is the industrial development agency of the Spanish region of Cantabria, Total Eolica, an affiliate of Total S.A., and Instituto para la Diversificacion y Ahorro de la Energia, S.A., (IDAE), a Spanish government agency dedicated to energy conservation and diversification efforts. Funding is shared among the shareholders 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 with our customer, Iberdrola Cantabria. In January 2007, the parties entered into a corresponding operations and maintenance agreement. Under the Spain construction agreement, we agreed to manufacture and deploy one 40kW PowerBuoy system and the ocean-based substation and infrastructure required to connect nine additional 150kW PowerBuoy systems by December 31, 2009. The terms of the construction of the nine additional PowerBuoy units and the installation of the underwater transmission cable and underwater substation pod were not covered by the Spain construction agreement and were to be separately agreed upon.

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. If no modification to the Spain construction agreement is agreed to by the parties, the customer may, subject to certain conditions in the agreement, terminate the agreement without the obligation to make further milestone payments and, potentially, collect reimbursement for direct damages, limited as specified in the Spain construction agreement, for the failure of the PowerBuoy to meet certain performance thresholds. While we do not expect the termination of the Spain construction agreement or potential liability for damages to materially adversely affect our financial condition, the new Santoña project does represent a portion of our anticipated revenue stream. If we are unable to successfully meet the terms of the existing Spain construction agreement, if Iberdrola Cantabria were to terminate the agreement, or if we are not able to successfully negotiate a subsequent contract or contracts with Iberdrola Cantabria, we may lose that revenue stream.

In November 2010, we agreed to negotiate with Iberdrola Cantabria with the goal of cancelling the remaining obligations between the parties under the Spain construction and operations and maintenance agreements, transferring ownership of the equipment manufactured or purchased by us under the construction agreement to Iberdrola Cantabria, and having Iberdrola Cantabria pay certain amounts due to us. We further agreed to work toward a new project with Iberdrola Cantabria. Under this new project, we would provide project management of the installation and connection of the sub-sea cable and underwater substation pod at Santoña. In addition, we would provide a proposal to perform maintenance on the assets transferred to Iberdrola Cantabria. Negotiations are underway for such efforts.

In March 2010, we announced the award of 2.2 million under the European Commission s Seventh Framework Programme (FP7) by the European Commission s Directorate responsible for new and renewable sources of energy, energy efficiency and innovation. This grant is part of a total award of 4.5 million to a consortium of companies, including us, to deliver a PowerBuoy wave energy device under a project entitled WavePort, with an innovative wave prediction capability and a wave-by-wave tuning system. It is anticipated that the PowerBuoy will be deployed at the Santoña site in Spain.

Other Projects

In February 2006, we received approval from the UK Government s Technology Strategy Board (TSB) to install a demonstration wave power station off the coast of Cornwall, England as part of TSB s Wave Hub project, a planned offshore facility for demonstrating and testing wave energy generation devices. TSB has obtained the necessary permits for this Wave Hub project, and the project received over £40 million of funding for construction of the Wave Hub infrastructure, which was completed during 2010. We are in the planning and development stage for our part of the project, and we are seeking funding for the deployment of our PowerBuoy systems at this site.

In October 2008, we signed an exclusive agreement with a consortium of three Japanese companies to develop a demonstration wave power station in Japan. The Japanese consortium comprises Idemitsu Kosan Co., Mitsui Engineering & Shipbuilding Co. (MES), and Japan Wind Development Co. We are presently working with MES to identify prospective sites for the wave power station. In 2011, we signed a $220,000 contract with MES to develop a new mooring system for our PowerBuoy. We also worked with MES to conduct certain development engineering in connection with the project, and to perform tests at MES s wave tank facilities.

In December 2008, we announced a Joint Development Agreement with Leighton Contractors Pty. Ltd. (Leighton) 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. In 2009, Leighton formed Victorian Wave Partners Pty. Ltd. (VWP), a special purpose company for the development of a 19MW power wave power project off the coast of Victoria, Australia. In November 2009, we announced that VWP was awarded an A$66.46 million grant from the Federal Government of Australia for the 19MW wave power project. The grant is conditional on the Funding Deed which sets out the terms of the grant, including funding milestones. Victorian Wave Partners is currently seeking the significant additional funding required to enable the completion of the 19MW wave power station.

Over the period October 2005 to December 2009, we operated, at intervals, a demonstration PowerBuoy system off the coast of New Jersey, which allowed contin