

QUANTUM
TECHNOLOGIES

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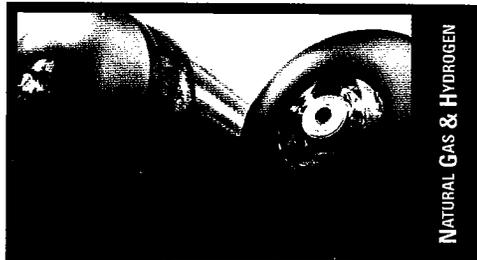


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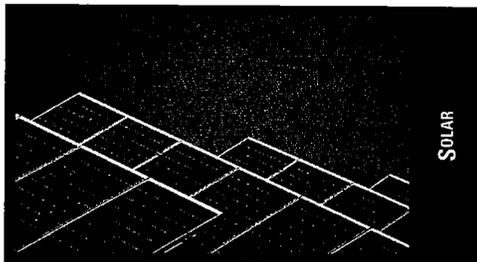
POWERING A SUSTAINABLE FUTURE



AUTOMOTIVE



NATURAL GAS & HYDROGEN



SOLAR



WIND

2011 Annual Report

Dear Stockholders:

In Fiscal 2011, we experienced new and promising developments in the CleanTech sector as we continued to execute on our business strategies in energy and mobility to meet the needs of our customers - to protect, sustain, and enhance energy resources for the future and protect the environment today. We achieved significant milestones on our strategic initiatives and business plans in spite of the uncertain economic climate during this period. In recognition of our impactful contributions to the CleanTech sector, we were honored as Orange County's CleanTech 2010 Company of the Year.

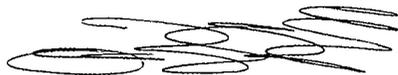
The CleanTech sector has emerged as a growth-leader against a turbulent economic backdrop. Clean energy has clearly become a driving force for economic recovery, with approximately \$100 billion of the \$787 billion stimulus package channeled to CleanTech investments and enterprises. The addressable market for utility-scale renewable energy projects in the United States has expanded exponentially with many states passing laws that mandate up to 33% of electricity to be generated from renewable sources. The interest in electrification of mobility intensified as a means of reducing air pollution and improving sustainability of energy resources. Meanwhile, volatile oil prices and historically low natural gas prices have led to a renewed growth in market demand for natural gas vehicles and our products.

In Fiscal 2011, we experienced significant growth in the mobility side of our business; particularly, electric and hybrid electric, fuel cell, and natural gas. On the electric and hybrid electric side, Fisker Automotive, which we co-founded, advanced into the production phase for its groundbreaking plug-in electric Karma sports sedan, which incorporates the innovative plug-in hybrid powertrain that we developed. We signed a definitive Supply Agreement with Fisker Automotive to supply key components and control systems for the plug-in hybrid powertrain system that is being incorporated into the Karma. In addition, we continue to provide substantial engineering services to Fisker Automotive in relation to the Karma. We also introduced a plug-in electric hybrid version of the Ford F-150 to nationwide corporate fleets, designed to meet their sustainability goals. Soon after its introduction, we received initial orders from Dow Chemical and Florida Power and Light.

Our hydrogen programs are expanding as well. During fiscal 2011, we were awarded a \$10 million hydrogen system development program from General Motors - the largest single award we have ever received for hydrogen system development - demonstrating the OEM's renewed interest in fuel cell vehicles, which are now targeted for mass commercialization by 2015. On the natural gas side, we received a number of orders for our lightweight natural gas vehicle fuel systems, one of the lightestweight systems in the industry.

In the coming year, we plan to further expand our interests in renewable energy thus allowing us to benefit from the ongoing adaptation of renewable energy by consumers, industries, and utilities. Interest in such technologies continues to be driven by progressive energy policies, financial incentives, and corporate sustainability goals.

On behalf of the company, I thank our employees, directors, and stockholders for their continued support and I look forward to an exciting Fiscal 2012.



Alan P. Niedzwiecki
President & CEO

QUANTUM TECHNOLOGIES

Form 10-K

U.S. 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, 2011 OR

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

For the transition period from

to

Commission File No.: 0-49629

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

33-0933072
(IRS Employer
Identification Number)

17872 Cartwright Road, Irvine, CA 92614
(Address of principal executive offices, including zip code)

(949) 399-4500

(Registrant's telephone number, including area code)

Not Applicable

(Former name, former address and former fiscal year, if changed since last report)

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

None

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

Common Stock, \$0.02 par value per share

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

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

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 No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to rule 405 of the Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or such shorter period that the registrant was required to submit and post such files). Yes No

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.

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company (as defined in Exchange Act Rule 12b-2).

Large accelerated filer Accelerated filer Non-accelerated filer 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 No

The aggregate market value of the common stock held by non-affiliates of the Registrant as of October 31, 2010 was approximately \$85.0 million, based upon the closing sale price of the Registrant's common stock on such date, as reported on the Nasdaq Global Market. Shares of Common stock held by each executive officer and director and each person owning more than 10% of the outstanding common stock of the Registrant have been excluded in that such persons may be deemed to be affiliates of the Registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Number of shares outstanding of each of the issuer's classes of common stock as of June 17, 2011: 14,603,973 shares of common stock, \$.02 par value per share, and 49,998 shares of Series B common stock, \$.02 par value per share.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

TABLE OF CONTENTS

PART I

Item 1	Business	1
Item 1A	Risk Factors	23
Item 1B	Unresolved Staff Comments	38
Item 2	Properties	38
Item 3	Legal Proceedings	39
Item 4	Reserved	39

PART II

Item 5	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	40
Item 6	Selected Financial Data	41
Item 7	Management's Discussion and Analysis of Financial Condition and Results of Operations	43
Item 7A	Quantitative and Qualitative Disclosures About Market Risk	65
Item 8	Financial Statements and Supplementary Data	65
Item 9	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	65
Item 9A	Controls and Procedures	65
Item 9B	Other Information	68

PART III

Item 10	Directors, Executive Officers and Corporate Governance	69
Item 11	Executive Compensation	69
Item 12	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	69
Item 13	Certain Relationships and Related Transactions, and Director Independence	69
Item 14	Principal Accounting Fees and Services	69

PART IV

Item 15	Exhibits and Financial Statement Schedules	70
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FORWARD-LOOKING STATEMENTS

All statements included in this Annual Report on Form 10-K and any documents incorporated herein by reference, other than statements of historical fact, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended. Examples of forward-looking statements include, but are not limited to, statements regarding our expectation that we will be able to raise a sufficient level of debt or equity capital to repay our debt and fund our operations, our belief that our current operating plan will allow us to achieve profitability, our expectations of future revenue, expenses, gross margin and operating profit (loss), the level of growth in the hybrid, plug-in hybrid and fuel cell and alternative fuel industries, when our *Q-Drive* powertrain architecture and other products and technologies will be commercialized, our plans to develop new lower cost technologies, if and when Fisker Automotive, Inc. will go to high volume production, the number of vehicles that Fisker Automotive expects to sell, our belief that we will be a supplier to Fisker Automotive on a long-term basis, our expectation of liquidity requirements to fund our operations and debt, our intentions to commission a solar manufacturing facility in southern California, our expectation that the US, state and local governments will continue to support the advancement of alternative fuel and renewable energy technologies through loans, grants and tax credits, our belief that we have a competitive advantage over our competitors, our intentions to support the growth of our subsidiary, Schneider Power, Inc., and our German affiliate, Asola, our intentions to establish joint development programs and strategic alliances with leaders in the alternative energy industry, our relationship with General Motors and the impact such relationship will have on our ability to develop our products, the impact that new accounting pronouncements will have on our financial statements, and the effect that an adverse result in Asola's dispute with its solar cell supplier would have on our financial statements.

Forward-looking statements generally can generally be identified by words such as "may," "could," "will," "should," "assume," "expect," "anticipate," "plan," "intend," "believe," "predict," "estimate," "forecast," "outlook," "potential," or "continue," or the negative of these terms, and other comparable terminology. Although we believe the expectations and intentions reflected in our forward-looking statements are reasonable, we cannot assure you that these expectations and intentions will prove to be correct. Various risks and other factors, including those identified in this report under the "Risk Factors" section and those included in our other public filings that are incorporated herein by reference, could cause actual results, and actual events that occur, to differ materially from those contemplated by the forward looking statements.

Many of the risk factors are beyond our ability to control or predict. You should not unduly rely on any of our forward-looking statements. These statements are made only as of the date of this Annual Report. Except as required by law, we are not obligated to publicly release any revisions to these forward-looking statements to reflect future events or developments. All subsequent written and oral forward-looking statements attributable to us and persons acting on our behalf are qualified in their entirety by the cautionary statements contained in this section and elsewhere in this Annual Report.

PART I

Item 1. Business.

Unless the context otherwise requires, “we,” “our,” “us,” “Quantum” and similar expressions refers to Quantum Fuel Systems Technologies Worldwide, Inc. and its subsidiaries. We are a United States public company listed on NASDAQ with our corporate offices located in Irvine, California.

Background

We were incorporated in the state of Delaware in October 2000 as a wholly-owned subsidiary of IMPCO Technologies, Inc (IMPCO). We spun off from IMPCO and became a separate company on July 23, 2002.

Our consolidated financial statements include the accounts of Quantum Fuel Systems Technologies Worldwide, Inc., our wholly owned subsidiary, Schneider Power, and our majority-owned subsidiary, Quantum Solar Energy, Inc. (Quantum Solar).

On April 16, 2010, we completed the acquisition of Schneider Power, an alternative energy company with a portfolio of clean electricity generation development projects and land positions in prospective wind and solar power areas in North America and the Caribbean.

On August 27, 2008, start-up activities were initiated in Quantum Solar to develop a solar panel distribution and manufacturing operation in Irvine, California. We currently own 85.0% of Quantum Solar and the remaining 15.0% is owned by the majority shareholder of our affiliate, Asola Advanced and Automotive Solar Systems GmbH (Asola). Manufacturing operations have not yet commenced for Quantum Solar.

We also hold ownership interests in certain unconsolidated active businesses that are accounted for either under the equity or cost methods of accounting. These interests include: (i) a 24.9% interest in Asola Quantum Solarpower AG (AQS), (ii) a 25% interest in Shigan Quantum Technologies PVT LTD (Shigan Quantum), (iii) a 22% interest in Power Control and Design, Inc. (PCD), (iv) a 24.9% interest in Asola and (v) a less than 1% interest in Fisker Automotive, Inc. (Fisker Automotive).

Overview

We are a fully integrated alternative energy company and a leader in the development and production of advanced clean propulsion systems and renewable energy generation systems and services.

We classify our business operations into three reporting segments: Electric Drive & Fuel Systems, Renewable Energy and Corporate. The Corporate segment consists of general and administrative expenses incurred at the corporate level that are not directly attributable to the Electric Drive & Fuel Systems or Renewable Energy business segments. The Corporate segment also includes activities of our anticipated future operating segments. Certain financial information related to each of our reporting segments can be found in the financial statements that are included in this Annual Report.

Our customer base includes automotive Original Equipment Manufacturers (OEMs), military and governmental agencies, aerospace, and other strategic alliance partners.

Electric Drive & Fuel Systems Segment

We provide hybrid drivetrain and advanced fuel system design and technology, powertrain engineering, electronic control and software strategies, system integration, manufacturing and assembly of propulsion systems and sub-systems for a variety of automotive and transportation applications including plug-in hybrid electric, hybrid electric, range extended plug-in electric, fuel cell and other alternative fuel vehicles.

Our products, technologies and engineering services are designed to meet the growing demand for improved fuel economy, less or lower dependency on crude and foreign oil, and a reduction in harmful emissions. We supply our design services, hybrid electric drive systems and packaged fuel systems for alternative fuel vehicles primarily to OEM customers for use by consumers and for commercial and government fleets. Since 1997, we have sold approximately 20,000 systems for alternative fuel vehicles, primarily to General Motors.

We have developed a series of range extended plug-in hybrid electric drive (PHEV) systems. We are integrating a plug-in hybrid drive system, which we refer to as *Q-Drive*, into Fisker Automotive, Inc.'s (Fisker Automotive) first production vehicle, the Fisker Karma, with production anticipated to ramp up in the second half of the 2011 calendar year. Our *Q-Drive* system is a specifically designed PHEV powertrain architecture. Our *Q-Drive* was designed to improve vehicle fuel economy and performance, leverage existing gas refueling infrastructure, and utilize home-based battery recharging.

We have also developed *F-Drive*, a "2nd Generation" version of our PHEV drive system that is specifically directed at lower-cost light duty fleet/commercial customer vehicles, including mid-size cars and pickup trucks, to significantly advance PHEVs and the average fuel economy in the near term

Renewable Energy Segment

Through our wholly-owned subsidiary, Schneider Power, Inc. (Schneider Power), we are also a licensed electricity generator, developer and builder of renewable electricity generation facilities. Schneider Power develops, builds, owns and operates wind electricity generation facilities and is planning similar development of solar power generating facilities. Schneider Power has a portfolio in excess of one gigawatt (1,000 MW) of wind and solar energy projects in various stages of development throughout North America and the Caribbean.

We currently generate electrical power from wind turbines operating in Ontario, Canada under a long term Power Purchase Agreement with a Canadian-based renewable energy reseller. The predictable nature of the wind resource, the demonstrated reliability of the turbines, the low cost of operations including zero cost of fuel, and the long term fixed rate financing structure that supports the Ontario wind farm operations all contribute to a highly predictable and consistent cash flow stream from these operations. As we continue to grow the capacity of our wind and solar power generation asset base, we expect the steady financial return aspect of this business segment to remain in place.

Business Operations and Products and Services

Electric Drive and Fuel System Segment

We provide hybrid drivetrain and advanced fuel system design, powertrain engineering, electronic control and software strategies, system integration, manufacturing and assembly of propulsion systems and sub-systems for a variety of automotive applications including hybrid electric vehicles (HEV), electric vehicles (EV), plug-in hybrid electric vehicles, fuel cell electric vehicles (FCEV), and other alternative fuel vehicles. We also design, engineer and manufacture hybrid and fuel cell concept vehicles and hydrogen refueling systems primarily for use in the transportation, aerospace, and military industries. Our proprietary plug-in hybrid drive system technology can be packaged utilizing different designs, technologies and subsystems. Our drive systems include complete systems or sub-systems and components and are designed to improve vehicle fuel economy and performance, leverage existing gas station infrastructure, and utilize home-based battery recharging.

We have developed our *Q-Drive* hybrid system for the Fisker Karma platform. We also have other derivative drive systems within our family of hybrid drives, including a new advanced all-wheel-drive diesel hybrid electric powertrain that we refer to as "*Q-Force*" and our proprietary "*F-Drive*" propulsion system specifically engineered for a plug-in electric hybrid version of the Ford F-150 pickup truck, one of the highest volume selling fleet vehicles in America. The *F-Drive* system provides a unique combination of low operating costs through substantially increased fuel efficiency, reliability, low maintenance cost, emission reduction benefits and extended range capability. Ideal for fleet vehicle driving characteristics, the F-150 PHEV is

designed to have a 35 mile electric-only range, shifting to hybrid electric mode thereafter for a total range of approximately 400 miles. We are partnering with The Dow Chemical Company to launch a plug-in hybrid electric F-150 truck incorporating our proprietary *F-Drive* propulsion system specifically designed for the Ford F-150 pickup truck, one of the highest volume selling fleet vehicles in America.

Our packaged fuel systems are comprised of high pressure composite tanks, injection, regulation, monitoring, and electronics and control systems to improve efficiency, enhance power output, and reduce pollutant emissions from hybrids, plug-in hybrids, internal combustion engines and hydrogen fuel cell vehicles.

We supply our hybrid electric drive systems and packaged fuel systems for alternative fuel vehicles to OEM customers for use by consumers and for commercial and government fleets. We believe a commercial market is developing for our *Q-Drive* system due to Fisker Automotive's production launch of the Fisker Karma vehicle platform. We believe this is the first step to market introduction and will demonstrate the technical feasibility and fuel economy advantages of PHEV technology.

We are also engineering and developing a "2nd Generation" scaled version of our hybrid drive system that is specifically directed at lower-cost light duty vehicles, including mid-size cars and pickup trucks, to significantly advance PHEVs and the average fuel economy in the near term. In May 2011, we announced the receipt of a grant from the California Energy Commission for product and technology development for innovative plug-in hybrid electric systems that are expected to accelerate the adoption of PHEVs through improved operational efficiencies and reduced cost. The grant will be applied towards product validation and to set up a pilot production line to accelerate launching of the new hybrid electric products developed by our product engineering and commercialization team.

We also provide our hybrid electric propulsion systems, gaseous hydrogen fuel systems and refueling products for fuel cell applications to major OEMs and other customers through funded research and development contracts and on a prototype basis. These hydrogen fuel cell systems and hydrogen refueling products are not currently manufactured in high volumes and will require additional product and application development. We expect initial commercialization for our hydrogen and fuel cell vehicle products to begin in the 2013-2015 time frame followed by scaled market adoption in the second half of this decade.

The current market for our hybrid drive systems and packaged fuel systems for PHEVs, electric, fuel cell electric vehicles and hydrogen hybrid electric vehicle applications is the emerging world market for passenger, fleet, industrial and military vehicles. We plan to continue the development of our hybrid drive systems and hydrogen vehicle and refueling technologies to meet market opportunities. Working with OEMs, we are focusing our enabling technology marketing efforts on North America, Europe and Asia-Pacific.

Our Electric Drive and Fuel Systems products, technologies and services include:

Products:

- *Electronic vehicle control systems and software*—our proprietary software is the heart of its hybrid systems and the key enabler of its high efficiency operation. The company has OEM level software incorporating torque security features per ISO26262 in a Spice Level 2 compliant package. These control systems monitor and optimize electrical control strategies and/or gaseous fuel flow to drive systems to meet manufacturers' and government hybrid electric, fuel cell, or engine requirements. The hybrid control software systems optimize the operation of all hybrid and PHEV subsystems including the engine, generator, motor, inverters, battery system, power converters, and charger to maximize fuel economy while minimizing emissions.
- *Lithium ion and advanced battery control systems*—we work with leading energy storage system manufacturers to provide state of the art battery systems tailored to each drive system application. These energy storage systems include high energy and power lithium cells, battery management

systems, thermal control systems, state of charge/health and control algorithms, integrated into complete battery packs developed for automotive applications.

- *Inverters and Motors*—we provide customization of inverters and a variety of motors as an integral subsystem to our drive systems. The inverters are very efficient and compact devices which have been specified and/or designed by us. Our drive systems use primarily Interior Permanent Magnet motors due to their substantially higher efficiency, especially at low speeds. For products not available off-the-shelf, we will have them contract manufactured to meet product or customer specifications.
- *Engine/Generator and Fuel Cell Power*—we provide power generating systems for use as a prime-mover or range extender. We optimize engines to operate at high efficiency and with low emissions on conventional or alternative fuels. We develop specifications and contracts production of customized generators to maximize vehicle efficiency. We also have experience integrating fuel cells and hydrogen storage and supply systems into vehicle applications.
- *Fuel storage*—advanced composite, ultra-lightweight tanks that provide cost-effective storage of hydrogen or natural gas at pressures to 15,000 psi (1000 bar).
- *Fuel delivery*—pressure regulators, fuel injectors, flow control valves, and other components designed to control the pressure, flow and metering of gaseous fuels
- *Accessories*—we also provide accessories such as DC-DC converters, DC-AC inverters, electric air conditioning systems, power steering pumps, etc with its complete hybrid drive systems. We specify and have the components contract manufactured to meet its high quality, high efficiency requirements.

Services:

- *Vehicle Design and Prototype Vehicle Builds.* We design complete concept and low-volume production vehicles to demonstrate hybrid, plug-in hybrid, and fuel cell vehicle architecture. We also provide complete vehicle builds on a concept and prototype basis.
- *Systems Integration.* We integrate our advanced hybrid drive systems with battery systems, advanced fuel storage, fuel delivery, engines, electric motors, inverters, generators, and electronic vehicle control components into hybrid and PHEVs, hydrogen fueled vehicles, fuel cell vehicle applications, as well as hydrogen refueling products. We also employ rapid prototyping techniques, which accelerate the iterative design process and result in a more accurate design.
- *Testing and Validation.* To increase the likelihood of high success rates at the system level, we perform component, subsystem and system testing and validation. The company has test equipment (shaker tables, temperature chambers, salt spray booths, roller and engine dynamometers, etc) to test and validate most automotive devices. These procedures must satisfy our own internal requirements, customer-specific requirements and industry standards. If no suitable procedures exist, we generate requirements for the customer.
- *Certification and Compliance.* Our regulatory and certification engineers endeavor to implement the latest emissions and safety regulations in efforts to ensure the proper certification and ongoing compliance of our products and our business. We certify complete vehicles in our CARB and EPA certified test lab.
- *Production Engineering and Manufacturing Process Development.* We provide complete production engineering and manufacturing process development for our limited volume production process as a tier-one OEM automotive supplier and for certain military applications.
- *Vehicle Level Assembly.* We develop and manage the assembly process for integration of our systems into end products at our facilities or at our customers' facilities for low to high volume applications. We also build complete concept vehicles.
- *Training.* We develop comprehensive technical training for customers that sell and service our products as well as for those that use our products.

- *Service and Warranty.* We have extensive capabilities in developing service procedures, diagnostics, tools, and complete repair/maintenance programs for OEMs. We also provide technical support over the telephone or at customer sites to resolve technical issues.

Renewable Energy Segment

Through our wholly-owned subsidiary, Schneider Power, we are a licensed electricity generator, developer and builder of renewable electricity generation facilities. We currently own and operate a 1.6 megawatt (MW) wind farm in Ontario, Canada. In addition, we have a portfolio of wind and solar farm projects in North America and the Caribbean with potential capacity in excess of one gigawatt (1,000 MW) that are in various stages of development. We have capabilities to completely engineer, develop, construct and commission a renewable energy farm.

We currently generate electrical power from wind turbines operating in Ontario, Canada under a long term Power Purchase Agreement with a Canadian-based renewable energy reseller. The predictable nature of the wind resource, the demonstrated reliability of the turbines, the low cost of operations including zero cost of fuel, and the long term fixed rate financing structure that supports the Ontario wind farm operations all contribute to a highly predictable and consistent cash flow stream from these operations. As we continue to grow the capacity of our wind and solar power generation asset base, we expect the steady financial return aspect of this business segment to remain in place.

Development of wind and solar farm projects involves several sequential stages of completion and advancement before the project becomes operational. These stages will generally include the feasibility study of the project, negotiating land easements, securing grid interconnections on the subject project, performing environmental studies, entering a power purchase agreement, arranging for construction financing, managing the construction, and commissioning the project. These stages will generally include:

- *Feasibility Studies*—studies are first conducted to obtain sufficient data to validate the energy capacity of a prospective project;
- *Land Easements*—for land parcels that we do not control, we must negotiate with local landowners to obtain easements to allow for the development of a wind and/or solar project on their properties;
- *Grid Interconnections*—applications are submitted to the local regulated utility distributor to obtain approval for grid interconnections on the subject project;
- *Environmental Studies*—assessments and feasibility studies are completed and submitted to federal, provincial and municipal governments to obtain permits for construction and commissioning of the project;
- *Power Purchase Agreements (PPAs)*—PPAs are negotiated and secured with the local regulated utility or government power agency and establish rates to be paid for power generated by our projects and the term of the agreement (generally 20 years);
- *Construction Financing*—installation of the project infrastructure and systems requires significant capital outlays that is financed with equity capital, project debt (typically non-recourse) or a combination thereof;
- *Commissioning*—upon completion of the construction phase, standard electrical tests are performed and adjustments are made to the wind turbines and/or solar panel arrays to validate the safe and efficient operation of the installed systems.

Wind and solar energy project returns depend mainly on the following factors: energy prices, transmission costs, wind and solar resources, wind turbine and solar module costs, construction costs, financing cost and availability of government incentives. In applying our strategy, we take into account the combination of all of these factors and focus on margins, return on invested capital and value creation as opposed solely to project size. Some of our projects, while having high construction costs, still offer attractive returns because of favorable wind

and solar resources or higher energy prices. Additionally, in many cases, smaller, more profitable projects can create as much absolute value as do larger, lower-returning projects. We assess the profitability of each project by evaluating its net present value.

An energy project may be financed with all equity or a combination of equity and debt. Due to the capital requirements for these projects, Schneider Power has historically entered into strategic relationships to provide for project financing. Schneider Power will evaluate its project portfolio and assess sale, joint venture or own-account alternatives on a project-by-project basis once certain milestones are achieved. If Schneider Power decides to enter into strategic relationships to provide for project equity and/or debt financing on certain of its projects, we anticipate that a typical strategic relationship would be structured in one of two ways, (i) Schneider Power would transfer a majority interest to a strategic partner for a development fee while retaining a minority carried interest in the project; or, alternatively, (ii) Schneider Power would transfer a partial interest to a strategic partner for a development fee while retaining a pro rata interest in the project. We would anticipate that Schneider Power and the strategic partner would also enter into a development agreement pursuant to which Schneider Power would provide development services for the project in addition to receiving a development fee.

In addition to energy sales on our existing wind electricity generation facilities and future wind and solar energy facilities that we are currently developing, we anticipate generating revenues and cash flows through the sale of ownership interests in our renewable energy projects and through development and construction services for renewable energy projects owned by third parties.

Industry Overview and Recent Developments

Hybrid and Plug-in Hybrid Electric Vehicle Industry

The electrification of transportation via electric vehicles, hybrid technology, and plug-in hybrid vehicles offers a technological option to address increasing worldwide energy costs, the long-term availability of petroleum reserves and environmental concerns. Hybrid electric vehicles use both an electric motor and an internal combustion engine to propel the vehicle. A hybrid is designed to capture energy that is normally lost through braking and coasting to recharge the batteries (regenerative braking), which in turn powers the electric motor without the need for plugging in. There is already a variety of hybrid electric vehicles available to consumers today and the hybrid vehicle market is growing. Cities across the country are already benefiting from the use of hybrid electric buses in their communities. Advantages of hybrid electric vehicles include: reduced fuel consumption and tailpipe emissions, optimized fuel efficiency and performance, lower fuel costs, and they are able to use the existing gas station infrastructure. The main challenges include the limited availability of components (batteries, powertrains, power electronics) and the higher initial cost. Even with these challenges, the demand for hybrid electric vehicles has continued to increase. J.D. Powers & Associates reports that hybrid electric vehicle sales are expected to represent 7% of the total car market in 2015. In addition, the U.S. Military has mandated a 5% per annum reduction in its internal fuel usage and is seeking fuel-efficient applications/vehicles to meet this mandate. In May 2009, the Obama administration announced new Corporate Average Fuel Economy (CAFE) standards mandating automakers to increase the average fuel economy of their U.S. vehicle fleets to 35.5 miles per gallon (mpg) by 2016, accelerating the previous timeline for compliance by four years to 2016 from 2020. The accelerated timeframe provides further clarity to automakers to accelerate development of hybrid/electric vehicle platforms. Further, President Obama's administration announced in May 2011 that by the end of December 2015 all new light duty vehicles leased or purchased by government agencies must be alternative fueled vehicles, such as hybrid or electric, compressed natural gas or biofuel. The timeline is part of the Obama's administration plan to cut US oil imports by a third by 2025 and put a million advanced vehicles on the road by 2015.

Recent advances in batteries and other components have resulted in the emergence of PHEVs. As with other hybrids, a PHEV vehicle has the ability to run on either electricity or a small internal combustion engine that drives a generator to produce electricity. PHEVs have a larger battery than the batteries used in conventional electric hybrids and they can be recharged by plugging into an appropriate outlet. Recharged vehicles are

designed to provide 20-60 miles of all electric, zero emission range without engine power. PHEVs are currently being tested in prototype form and we anticipate will soon be available for sale. Advantages of plug-in hybrids include: reduced fuel consumption and tailpipe emissions, optimized fuel efficiency and performance, recovered energy from regenerative braking, unchanged gas station infrastructure, grid connection potential, "home based" battery recharging at a fraction of the cost of petroleum equivalent, pure zero emission capability, even lower fueling costs compared to battery sustaining hybrids, and possible use in secondary markets for used batteries and reduced waste. Our hybrid control software systems optimize the operation of all hybrid and PHEV subsystems including the engine, generator, motor, inverters, battery system, power converters, and charger to maximize fuel economy while minimizing emissions. But, challenges still remain, including cost and complexity of two powertrains, limited supplier base and component availability (batteries, powertrains, power electronics), higher initial cost, cost of batteries and battery replacement, unproven technologies and added vehicle weight. Advanced battery technologies and systems, specifically lithium-ion batteries, are considered to be the key enabling technology for the commercial viability of PHEVs. Such advanced battery technologies are currently under development but are not yet available on a commercial basis.

At the 2009 North American International Auto Show in Detroit, Michigan, Fisker Automotive showcased its first production plug-in hybrid sports sedan, the Fisker Karma, and a plug-in hybrid hardtop convertible concept vehicle, the Fisker Karma S. Both of these vehicles incorporated our *Q-Drive* hybrid electric vehicle architecture. We have been providing drive train development and vehicle integration services to Fisker Automotive for their Fisker Karma vehicle since November 2007. We have completed the final development phase which includes system validation, certification and other pre-production development activities.

On April 29, 2010, we executed a long-term production supply agreement with Fisker Automotive which, as later amended on November 8, 2010, sets forth the definitive terms pursuant to which we are the exclusive supplier of certain key sub-systems and control systems included in the *Q-Drive* powertrain system for the Fisker Karma production vehicle and we will also receive a royalty for each Fisker Karma vehicle sold that incorporates our *Q-Drive* technology (the "Fisker Production Agreement"). The Fisker Production Agreement covers the program life of the vehicle platform and outlines minimum volumes of 45,000 vehicles over this period. Under the terms of the licensing and supply arrangement, we, subject to our ability to meet Fisker Automotive's performance, cost and delivery requirements, will be the exclusive supplier of the following components and subsystems for the Fisker Karma: (i) the hybrid controller and hybrid control software, (ii) the on-board charger, (iii) the DC-DC converter, and (iv) the solar roof. The purchase price for these components and subsystems on a per vehicle basis (which includes a service fee, license and royalty fee) starts at approximately \$4,100 for the first 6,500 vehicles and gradually decreases based on volume to a floor of approximately \$3,200 once 30,000 units have been purchased. The Fisker Production Agreement also provides us with "preferred supplier status" for future Fisker Automotive vehicle programs, provided we can meet Fisker Automotive's performance, cost and delivery requirements.

Our first-generation *Q-Drive* system evolved over several years of innovation and development. Our *Q-Drive* system takes full advantage of the performance potential of electric drive systems while achieving high fuel mileage and low emissions through its integrated PHEV design. Benefits of our *Q-Drive* system include optimized fuel efficiency and superior performance, unchanged gas station infrastructure, and convenient battery recharging with any 110-volt outlet, or 220/240-volt fast-charging.

In addition to providing incentives to businesses to advance the development of hybrid and electric vehicles, the U.S. government has provided and is expected to continue to provide incentives to taxpayers to purchase and place in service qualified hybrid vehicles through the use of tax credits.

Advanced batteries, capable of meeting standards for durability, performance, and weight, are a key technology for plug-in hybrid electric vehicles and other electric vehicles. The DOE reported that they plan to provide assistance to construct or upgrade battery manufacturing, component, and recycling plants for lithium-ion and other advanced batteries, as well as for production factories for electric drive vehicle power

electronics. These grants are expected to help lower the cost of battery packs, batteries, and electric propulsion systems, enabling manufacturers to establish a thriving domestic electric vehicle industry. These advanced battery factories will also support battery manufacturing for consumer products, as well as military and utility applications. The DOE has also pledged to support demonstration, evaluation, and education projects to help develop the market for advanced electric drive vehicles.

Additionally, California and other states are providing grants to support alternative fuel vehicle technology to assist in the commercialization of plug-in hybrid electric vehicles and other electric vehicles. In May 2011 we announced the receipt of a grant by the California Energy Commission for product and technology development for innovative plug-in hybrid electric systems. Our Electric Drive & Fuel Systems business segment will use the proceeds to assist in the development of certain components for our next generation of hybrid drive system.

Other recent hybrid and electric vehicle programs include:

In May and June 2011, we announced that we received orders from The Dow Chemical Company and Florida Power & Light totaling in excess of \$14.0 million for our F-150 PHEVs powered by our *F-Drive* hybrid system. Delivery of the F-150 PHEVs will occur over a three year period beginning in the calendar fourth quarter of 2011.

In February 2010, we announced that we were selected by the US Postal Service (USPS) to produce an advanced electric postal delivery vehicle based on the widely used Long Life Vehicle (LLV) platform. We were competitively selected, along with 4 other companies, for participation in a one year demonstration and validation program to be conducted by the USPS in Washington DC. A successful demonstration in the nation's capital could pave the way to broad adoption of battery electric vehicles in the USPS fleet. Electrification of the 142,000-strong LLV segment of the postal delivery fleet, the largest civilian fleet in the country, will help to reduce emissions across the country and reduce dependence on foreign petroleum while supporting the continued development of the US EV industry. In October 2010, we delivered a demonstration vehicle to USPS that is currently under test and evaluation.

In November 2009, we announced that we had designed, developed and shipped diesel electric hybrid vehicles to the U.S. Army—Tank Automotive Research Development and Engineering Center (TARDEC). We developed the Clandestine Extended Range Vehicle (CERV) for TARDEC, which is a hybrid electric vehicle targeted for quick-paced special operations-type missions involving reconnaissance, surveillance, and targeting. The CERV design incorporates our *Q-Force* architecture, which is a new advanced all-wheel-drive diesel electric hybrid powertrain.

In October 2008, we announced that we had designed, developed and shipped a new generation of hybrid electric vehicles incorporating hydrogen internal combustion engines to TARDEC for deployment at the Selfridge Air National Guard Base (SANGB). This deployment is part of a larger test and demonstration program involving TARDEC joint service partners around the country, in support of the US Army's 21st Century Base Initiative. The hydrogen-powered vehicles will reduce emissions and provide an opportunity to verify and utilize the existing hydrogen refueling infrastructure.

In March 2007, we were awarded a contract with California's South Coast Air Quality Management District (AQMD) to develop and demonstrate PHEVs. Under this program, we are currently developing, manufacturing, and deploying 20 Ford Escape PHEVs for demonstration in Southern California. Under the program, we are utilizing our OEM system engineering and vehicle integration methodologies in the development of a plug-in hybrid version of the 2010 Ford Escape Hybrid. The PHEV system is based on integrating a lithium-ion battery pack and management system. In January 2011, we completed the shipment of all 20 vehicles.

Fuel Cell and Hydrogen/Compressed Gas Vehicle Industry

The fuel cell and hydrogen vehicle industry also offers a technological option to address increasing worldwide energy costs, the long-term availability of petroleum reserves and environmental concerns. Fuel cell and hydrogen-based internal combustion engine vehicles have emerged as a potential alternative to existing conventional internal combustion engine vehicles because of their higher efficiency, reduced noise and lower tailpipe emissions. Fuel cell industry participants are currently targeting the transportation and hydrogen refueling infrastructure markets. We believe that our fuel cell and hydrogen-based enabling products of fuel storage, fuel delivery and battery and electronic control systems along with our vehicle-level system integration experience can be effectively applied in these markets.

A fuel cell is an electrochemical device that produces electricity by combining hydrogen with oxygen from the air. This electrochemical reaction occurs silently and without combustion, with useable heat and water as the only by-products. The system can use as its base fuel either pure hydrogen or hydrogen derived from hydrocarbon fuels, such as methanol, natural gas or petroleum, using a device called a reformer. A reformer breaks down hydrocarbon fuels using heat and a catalytic process. Regardless of the fuel used to provide hydrogen, the fuel cell system will require on-board hydrogen storage, fuel delivery and electronic controls. We believe that the keys to optimizing the performance of a fuel cell are proper metering and delivery of hydrogen fuel and air to its fuel cell stacks and efficient storage of the fuel to maximize its total operation time; an area that we have expertise in.

There are now over 100 hydrogen-refueling stations worldwide, with essentially all the stations dispensing compressed hydrogen. Certain states have established statewide initiatives to encourage the implementation of hydrogen and fuel cells which include California, Colorado, Florida, Illinois, Michigan, New Mexico, New York and Ohio.

Other examples of fuel cell and hydrogen demonstration programs include the California Fuel Cell Partnership, California Stationary Fuel Cell Collaborative, Compressed Hydrogen Infrastructure Program, Clean Energy Partnership in Berlin, Controlled Hydrogen Fleet & Infrastructure Demonstration and Validation Project, Fuel Cell Bus Club, Japan Hydrogen & Fuel Cell Demonstration Project, Hydrogen Highway Network in California, BC Hydrogen Highway in British Columbia, AQMD Test Fleet, Hi Way Initiative, Ruhr-Alps-Milan Hydrogen Supply Chain Integrated Project, Hydrogen Corridor in Canada, Norwegian HyNor Project, Illinois Hydrogen Highway, The Northern H in the Upper Midwest, Singapore's Initiative in Energy Technology, and Iceland's SMART-H₂ project.

Fuel cell and hydrogen-powered hybrid vehicles are being designed to provide clean, quiet power for a variety of applications in transportation, fleet, industrial and military vehicles. The commercialization of fuel cells in all of these markets will require cost reductions for the entire system, including the fuel cell stack, fuel system, balance-of-plant, and assembly.

Many OEMs, including BMW, Daimler, Ford, General Motors, Honda, Hyundai, Nissan, and Toyota Motor Corporation have unveiled prototypes of fuel cell vehicles. Although the number of years required before mass production of fuel cell vehicles will be available to the public cannot be reasonably predicted due to the required advances necessary to reduce the costs of the technology and the cost of developing the required infrastructure, many automotive OEMs have each announced their intentions to sell fuel cell vehicles to the public starting in the second half of this decade.

In February 2011, we were awarded a \$10.0 million development and validation program by General Motors for hydrogen storage. The next generation hydrogen storage vessels developed and validated under this program build upon our proprietary ultra lightweight composite technology and assembly processes that save substantial weight while maximizing the fuel storage capacity. In April 2008, we completed shipments of our first generation packaged hydrogen fuel systems to General Motors in support of their Equinox fuel cell vehicle program that consists of a fleet of approximately 100 vehicles and we continue to provide funded service support to General Motors under this program.

Commercialization of fuel cell electric vehicles is dependent upon a number of factors, including overall cost reduction of the system and a hydrogen-refueling infrastructure. These technologies will require across-the-board cost reductions for the entire system, including the fuel cell stack, fuel system, balance-of-plant, and assembly. Safety is a primary objective when dealing with highly compressed gases. The fuel storage systems are rigorously tested as individual components and as part of the fuel system on the vehicle. Safety considerations apply to the fuel system as a whole, including the tank, regulator and fuel lines, all of which need to comply with applicable safety standards. Our operations are ISO/TS 16949 certified and we have performed extensive testing of our fuel storage components and systems which comply with applicable safety standards, including standards developed by the European Integrated Hydrogen Project (EIHP). Additionally, to ensure widespread commercialization, the fuel storage and delivery systems need to provide adequate range, be of acceptable size and shape, and perform similarly to conventionally fueled vehicles without unacceptably high cost.

Although the commercialization of fuel cell vehicles has not developed as quickly as previously anticipated due to the emergence of hybrid and plug-in hybrid electric vehicle technologies, it is still widely believed to be one of many solutions for medium and long distance clean vehicle or low emission driving. We believe interim steps will continue to be taken by governments to expand the initial refueling infrastructure including mobile refueling units, compact stationary refueling units and bulk transport trailers. In addition, we expect the efforts by OEM's to advance the development of fuel cell vehicle platforms that can be commercialized within this decade to continue in preparation for a number of vehicle releases in the middle of this decade.

During fiscal 2011, we received over \$3.0 million in purchase orders for natural gas storage systems for bus and heavy duty application. We have also recently introduced a compressed natural gas cylinder technology capable of allowing Class A trucks to travel 1,000 miles before refueling. We began shipments during fiscal 2011 and expect expansion of natural gas vehicle applications in the US market.

In May 2007, we announced that we had signed an agreement for the marketing, sales and distribution in India of our alternative fuel vehicle products and systems for natural gas, blends of natural gas and hydrogen, and liquid propane gas. In March 2009, we announced that we were awarded a contract to upgrade Volvo-Eicher Commercial Vehicles Ltd.'s (Volvo's) four and six cylinder engine platforms, using our gaseous fuel injection systems and powertrain engineering expertise, to meet certain new stringent emissions regulations in India that came into effect beginning April 2010. We believe that India holds one of the highest natural gas vehicle growth potentials in the world and we intend to continue to pursue opportunities to expand our business in this market. This strategic alliance led to our equity investment in Shigan Quantum in September 2009.

Fuel Storage Systems for Aerospace Industry

In November 2009, we were awarded a contract to supply carbon fiber composite hydrogen and oxygen storage vessels for Lockheed Martin's Space Systems' development of ISIS (Integrated Sensor in the Structure) airship powered by a Regenerative Fuel Cell (RFC). ISIS is a large stratospheric airship, carrying an integral radar sensor that can detect small valuable targets from a distance of several hundreds of kilometers away. The ISIS uses solar rays during daylight hours to generate renewable electricity that electrolyzes water to generate hydrogen and oxygen to run the RFC at night. In May 2010, we announced that we were awarded an additional contract to supply critical hydrogen metering systems for the ISIS program. Lockheed Martin will build the prototype airship for the U.S. Defense Advanced Research Projects Agency (DARPA) under their \$400 million military contract. We have completed the production bid phase and are well positioned to be the preferred supplier for any future storage systems under this program.

Renewable Energy Generation and Development Industry

Demand for electricity has dramatically increased as our society has become more technologically driven, and we expect this trend to continue. Significant new capacity for the generation of electricity will be required to meet this anticipated demand, particularly as vehicular transportation shifts in part from internal combustion

propulsion to electric and hybrid electric propulsion systems. According to the DOE's Energy Information Administration (EIA), nearly half of all electricity in the United States produced in 2008 was generated by coal, which is the largest source of carbon dioxide in the atmosphere. Other major sources of electricity in 2008 were nuclear (20%) and renewable energy sources (9%).

Most of the world's main energy sources are still based on the consumption of non-renewable resources such as coal, petroleum, natural gas and uranium. Although renewable energy resources today represent a relatively small amount of the energy produced, wind and solar energy farms are growing rapidly in market share. We believe wind and solar energy growth in North America is being driven primarily by:

- decreasing costs in the supply chain and continued improvements in wind and solar technologies;
- public concern about environmental issues, including climate change;
- favorable federal, state and provincial policies regarding climate change and renewable energy, exemplified by state RPS programs and the ARRA in the US and the Green Energy Act in Ontario, that support the development of renewable energy;
- increasing obstacles for the construction of conventional power plants; and
- public concern over continued North American dependence on foreign energy imports.

We intend to leverage our portfolio of existing wind and solar projects, along with strategic relationships developed by Schneider Power to increase our footprint in renewable energy generation and development.

Business Strategy

Our business strategy is to commercialize our advanced vehicle products and technologies and leverage these products into future vehicle production programs. We plan to increase our participation in hybrid, plug-in hybrid and hydrogen vehicle programs and enhance our leadership position as a tier-one automotive supplier of advanced propulsion systems, alternative fuel systems, powertrain engineering, and system integration services. We also plan to use our existing renewable energy and development platform to expand our ownership of energy producing projects and enhance our involvement in renewable energy.

Our strategy includes the following:

Commercialize Our Proprietary Hybrid Vehicle Propulsion Systems and Sub-Systems

We are commercializing and supplying our production-ready *Q-Drive*[™] propulsion system to Fisker Automotive for the Fisker Karma vehicle. At the end of fiscal 2011, we began shipments of our hybrid propulsion system and subsystems for assembly into the initial Fisker Karma production release vehicles. We delivered our initial *Q-Drive* system to Fisker Automotive and integrated these systems into the first Fisker Karma sports sedan production vehicle and into the Fisker Karma S convertible concept vehicle that were first showcased at the Detroit auto show in January 2008 and 2009, respectively. Since 2007, we have performed substantial development work on our hybrid vehicle propulsion system for incorporation into the Fisker Automotive line of PHEVs. We have completed pre-production development activities and continue to support Fisker during the production phase. We expect the Karma line of vehicles to continue over the next five to six years.

We intend to commercialize newly developed variations of our proprietary hybrid vehicle propulsion systems and subsystems into production programs with other automotive OEMs, utilities and fleets, military programs and other customer groups such as the postal service. We have produced several prototype vehicles with derivative hybrid drive systems for customer evaluation. Additionally, we plan to commercialize certain proprietary hybrid drive subsystems including hardware and software controls, electronics and inverter systems by selling these subsystems to automotive OEMs, large heavy-duty vehicle manufactures, integrators, and other providers of hybrid vehicle technologies.

During fiscal 2011 we developed and produced, under a funded US Postal Service (USPS) program, an advanced battery electric postal delivery vehicle based on the widely used Long Life Vehicle (LLV) platform. A successful demonstration and validation of this vehicle could pave the way to broad adoption of battery electric vehicles in the USPS fleet, the largest civilian fleet in the country.

We have also delivered a hybrid powered light-duty all-terrain vehicle and several hybrid vehicles, including a diesel hybrid version of our military special operations vehicle containing a battery dominant, series hybrid electric propulsion system, to the U.S. Army for evaluation. We have also developed and deployed 20 Ford Escape PHEVs for demonstration in Southern California under a contract with California's South Coast Air Quality Management District (AQMD). Under this contract, we are utilizing our OEM system engineering and vehicle integration methodologies to develop a plug-in hybrid version of the Ford Escape Hybrid. We believe that significant opportunities for growth exist in the market for hybrids, PHEVs, battery electric and hydrogen-powered hybrids. Based on the anticipated market size and projected growth rate for hybrid vehicles across the globe, we have prioritized our business development efforts in North America, Asia-Pacific and Europe. We believe our innovative hybrid control strategies, hardware, software and technologies can be effectively and efficiently leveraged into these growing market opportunities.

Increase Our Participation in the Hybrid and Plug-in Hybrid OEM Vehicle Markets by Advancing and Introducing New Lower-Cost Technology and Securing Customer and Government Funding and Commercialization Partnerships

We intend to focus our product development efforts on advancing our hybrid propulsion systems and technologies to further improve performance, reduce cost and support broader commercialization. We plan to continue to develop and refine our hybrid drive systems and subsystems to capture new customers in a growing hybrid vehicle market. We have established and plan to expand joint development programs and partnerships with automotive OEMs, the major lithium ion battery producers, commercial fleets, and other industry leaders in these markets and secure outside funding to support these programs. We are currently working with the Department of Energy, the California Energy Commission and other government agencies in advancing hybrid and hydrogen technologies and developing new applications and solutions.

We plan to leverage our hybrid drivetrain technology and systems integration capabilities to continue to advance our hybrid control systems, motor control software and propulsion system control strategies. We expect to continue to expand our customer base and commercialization partnerships in our efforts to further develop advanced and lower cost hybrid drive system component parts and secure customer funding and partnerships to make these advancements.

We are partnering with The Dow Chemical Company to launch a plug-in hybrid electric F-150 truck incorporating our proprietary *F-Drive* propulsion system specifically engineered for the Ford F-150 pickup truck, one of the highest volume selling fleet vehicles in America. Quantum's research and product development group designed the system to meet the demanding truck applications of America's largest fleet operators and to provide a mission-ready solution to meet President Barack Obama's goal of converting the Federal government's vehicle fleet to hybrids, electric vehicles and other alternative-fuel vehicles.

We recently announced the receipt of a grant by the California Energy Commission for product and technology development for innovative plug-in hybrid electric systems that are expected to accelerate the mass adoption of PHEVs through improved operational efficiencies and reduced cost. The grant will be applied towards product validation and to set up a pilot production line to accelerate launching of the new hybrid electric products developed by our product engineering and commercialization team. We plan to integrate these technologies and software systems with re-designed drive-train components to provide lower-cost drivetrain systems.

Advance and Commercialize Next Generation Packaged Fuel Systems and Re-Fueling Units for Hydrogen, Fuel Cell, and Alternative Fuel Vehicles

We plan to continue to leverage our advanced fuel systems, and other alternative vehicle technologies to assist OEMs in advancing the commercialization of hydrogen, fuel cell and other alternative fuel and specialized vehicle applications. We intend to apply our expanded vehicle-level design, powertrain engineering, vehicle electronics and system integration expertise to emerging OEM and fleet vehicle programs to capture full scale production opportunities.

During fiscal 2011 we were awarded a \$10.0 million development and validation program by General Motors for hydrogen storage. The hydrogen storage vessels developed and validated under this program will build upon our proprietary ultra lightweight composite technology and assembly processes that save substantial mass while maximizing the fuel storage capacity. We believe there are significant opportunities to work with other OEMs on hydrogen programs and other advanced alternative vehicle systems as these customers target some level of hydrogen vehicle commercialization during the second half of this decade. Also during fiscal 2011, we experienced a re-emergence of natural gas vehicle programs in the United States and we intend to continue to pursue these expanding opportunities by providing our proprietary alternative vehicle fuel systems and storage technologies.

We plan to leverage our storage, metering and control technologies, and integration capabilities to capitalize on the need for mobile and stationary hydrogen refueling units. We believe there are expanding opportunities to provide the initial refueling products such as mobile refueling units, compact stationary refueling units, and hydrogen storage for bulk transport trailers. Since 2008, we have delivered several operational stationary hydrogen refueling units located in the City of Rochester, New York under contracts with General Motors and the New York State Energy Research and Development Authority (NYSERDA). In 2009, one of our stationary hydrogen refueling units opened to the public at JFK Airport in New York. In January 2011 we delivered to California State Los Angeles Campus a new, uniquely designed stand alone "retail-like" and user-friendly hydrogen dispenser, coupled with our standard hydrogen gas chiller unit for use in the campus' new hydrogen re-fueling station. We plan to continue seeking out opportunities to add hydrogen refueling infrastructure to further advance the transition to and adoption of alternative fuels.

Expand Our Renewable Energy Development and Production Platform

We intend to expand our footprint in renewable energy projects by developing, constructing and owning various wind and solar projects in North America and the Caribbean that we have in our existing project pipeline and to continue prospecting for future renewable energy sites. We have in excess of 1 gigawatt of projects in our project pipeline that we plan to further assess for feasibility, secure funding and target for development and/or sale of the project.

We also expect to continue to support the growth and expansion of Asola, which opened a state-of-the-art facility in Erfurt, Germany in May 2009 which tripled its capacity to 45 MW. We expect Asola to continue to grow and expand in Europe, Asia and Canada. Asola has signed letters of intent for the formation of joint ventures with alliance partners in certain locations for the production and distribution of mono and polycrystalline silicon solar modules with initial capacities of 30 MW. Asola is also in the process of forming a strategic relationship in Canada to begin production of "local content" solar panels for the Ontario, Canada market place.

On March 14, 2011, we amended a non-binding Letter of Intent with Asola's majority owner, ConSolTec GmbH (ConSolTec) that we originally executed on August 24, 2010, which sets forth terms related to a proposed transaction pursuant to which we and ConSolTec would establish a newly formed holding company, with us as the controlling equity holder, to create a solar panel manufacturing, distribution and sales entity to service global markets (the "Asola LOI"). The assets of the new entity would include Asola and Quantum Solar as wholly-owned subsidiaries. Under the proposed terms of the Asola LOI, the transaction is contingent upon several

conditions including our ability to raise a certain level of capital in order to provide compensation to ConSolTec and to provide sufficient equity capital to the new entity to enable the entity's expansion into additional global markets. The Asola LOI, as amended, contemplated a transaction completion date of June 30, 2011. We are currently seeking an extension of time to complete the transactions contemplated by the Asola LOI.

Prior to the execution of the Asola LOI, we provided Asola and ConSolTec with written notice on December 28, 2009, that we were exercising our right to increase our ownership interest in Asola to 32.66% in exchange for payment of 0.1 million euro. The transaction to increase our ownership interest by 7.76% has not yet been completed and we have reserved our right to withdraw the exercise pending the outcome of the Asola LOI.

We, through our subsidiary Quantum Solar, Inc., intend to use Asola's expertise, technologies and know-how to enter the solar panel manufacturing industry in the United States and Canada. Our plan is for Quantum Solar to operate a solar panel manufacturing facility in Southern California. We recently were awarded a \$4.4 million low interest loan under the California Energy Commission's (CEC) Clean Energy Business Financing Program. Our ability to access the CEC loan is contingent on us providing a certain amount of matching funds. If and when we are able to provide the matching funds, we intend to use these proceeds from the CEC loan to assist in the start up of Quantum Solar's panel manufacturing operation. Through Quantum Solar, we also plan to assess strategic opportunities in solar panel distribution and integration.

Leverage Our Hydrogen Storage Systems into Broader Energy Storage Applications

We plan to utilize our full array of storage technologies, developed for automotive and refueling applications, in broader applications within the energy industry. The storage of energy is becoming more important with the emergence of renewable energies and the concept of distributed energy. We believe our industry-leading hydrogen storage systems can enhance the availability of intermittent renewable resources, like wind and solar by providing cost effective storage options. Our advanced storage technologies provide energy users with the ability to store and utilize energy on demand.

Strategic Relationships

We evaluate on an ongoing basis the benefits of joint ventures, acquisitions and strategic alliances with our customers and other parties to strengthen our global business position and to expand our business operations. We have focused our strategic alliances on expanding our market opportunities and advancing the development of our technologies.

Fisker Automotive

On August 7, 2007, we co-founded Fisker Automotive, Inc. (Fisker Automotive), a joint venture with Fisker Coachbuild, LLC, which was formed for the purpose of producing premium plug-in hybrid automobiles. We owned 6.2 million shares of Fisker Automotive's common stock as April 30, 2011, which represents less than 1% of the issued and outstanding shares of Fisker Automotive's capital stock.

Asola

On January 4, 2008, we acquired a 24.9% ownership interest in Asola, a solar module manufacturer located in Erfurt, Germany. Asola has been developing and manufacturing high-efficiency photovoltaic modules for a number of innovative applications, including automotive, residential, and commercial applications for over 20 years. Asola developed the solar roof panel that is incorporated into the Fisker Karma PHEV. Asola's current facility has an annual manufacturing capacity to produce 45 MW of solar panels. See discussion of Asola LOI under *Business Strategy* above.

Power Control and Design

On October 6, 2009, we acquired a 22% interest in Power Control and Design, Inc. ("PCD"). PCD designs and develops control software for use in motor control, solar-to-grid, wind-turbine, electric vehicle charges and power conversion products and applications for infrastructure, automotive, aerospace and industrial markets.

Shigan Quantum

On September 3, 2009, we acquired a 25% interest in Shigan Quantum Technologies PVT LTD ("Shigan Quantum"), a start-up company organized under India's Corporate Act. Shigan Quantum intends to manufacture and sell gaseous fuel injectors using the Company's technologies and variants thereof.

General Motors

In 2002, we entered into a ten-year strategic alliance with General Motors. We believe that our strategic alliance with General Motors will advance and commercialize, on a global basis, the integration of our gaseous storage and handling systems into fuel cell systems used in the transportation markets. Under the alliance, Quantum and General Motors have co-developed technologies that are designed to accelerate the commercialization of fuel cell applications. Additionally, General Motors will endorse Quantum as a recommended provider of hydrogen storage, hydrogen handling and associated electronic controls. This strategic alliance expands the relationship that has been in place between General Motors and Quantum since 1993, through which we provided packaged natural gas and propane fuel systems for General Motors' alternative fuel vehicle products.

Customers and Development Programs

A substantial portion of our revenue in fiscal 2011 related to system development and application engineering services provided to Fisker Automotive and General Motors. During fiscal year 2011, revenues from Fisker Automotive and General Motors comprised 56% and 13%, respectively, of our total consolidated revenue.

We have had prototype development projects or programs in our continuing operations with the following entities:

Adam Opel AG	Miljobil Grenland A/S
AeroVironment	Missle Defense Agency SBIR
Air Resources Board	NYSERDA
Alion Science and Technology	Proton Energy Systems, Inc.
American Wind Power & Hydrogen	Roush Performance Products
Ballard Power Systems	Saleen, Inc.
Daimler	Select Engineering Services
EDAG Inc.	Shell Hydrogen LLC
Energy Conversion Devices	South Coast Air Quality Management District
Fisker Automotive	Suzuki Motor Corporation
Ford Motor Company	The State University of New York—Buffalo
General Motors (Fuel Cell Activities)	Toyota Motor Corporation
General Motors Corporation	U.S. Army—National Automotive Center
General Motors of Canada, Limited	U.S. Army—Tank Automotive Research, Development and Engineering Center
Hyundai America Technical Center	U.S. Department of Energy
Hyundai Motor Company	VistOrka hf (Eco Energy Ltd.)
ISE Research	Volvo Eicher
Lawrence Livermore National Laboratory	Yamaha Motor Company
Lockheed Martin Space Systems	

We intend to establish similar relationships with other leading industry OEMs by using our systems integration capabilities and our leading technology position in hybrid propulsion drive systems, lithium ion battery control systems, electronic control systems, fuel storage, and fuel delivery.

In addition, Schneider Power has established relationships related to renewable energy farm development projects that they have fostered with renewable energy companies Energy Farming International and Greta Energy Inc over recent years.

Research and Product Development

We conduct research and product development in the following areas, with corresponding technical capabilities:

- *2nd Generation Q-Drive*—engineering and developing variants of the *Q-Drive* including a parallel drive for PHEV pickup trucks and a “2nd Generation” scaled version of the *Q-Drive* that is specifically directed at lower-cost light duty vehicles, including mid-size cars and trucks, to significantly advance PHEVs and the average fuel economy in the near term.
- *Vehicle Engineering and Build*—designing, engineering and building concept or early adoption type vehicles using hybrid electric drive system, vehicle and powertrain engineering, vehicle and system integration, and vehicle packaging.
- *Hybrid Control Systems and Control Strategies*—designing and optimizing control systems and strategies to maximize vehicle performance and range.

- *Lithium Ion and Advanced Battery Control Systems*—developing electronic control systems and software to maximize efficiency and energy storage in lithium ion battery applications.
- *Electronic Controls and Software Systems*—automotive hardware design and selection, engine modeling, calibration and software design for engine and emission controls.
- *Fuel Storage*—composite pressure vessel design and analysis, carbon fiber filament winding, and hydraulic, pneumatic, burst and fatigue testing. Evaluation, testing and integration capabilities for advanced hydrogen storage, including hydride, conformable and other emerging compressed and solid state storage.
- *Mechanical Design and Development*—pneumatics, kinematics, hydraulic components and systems, and advanced materials, structural, flow and thermal analysis.
- *Advanced Emissions Testing*—testing facility that utilizes California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) approved advanced technology to test Super Ultra Low Emission Vehicles. EPA/CARB certification testing, vehicle development testing including catalyst efficiency, diagnostics, calibration, engine durability testing, and engine mapping.
- *Advanced Products*—injectors, fuel management, fuel storage, and fuel supply for fuel cell power systems, mass flow sensors for natural gas flow measurement and “smart” sensors using microcontrollers and microprocessors.
- *Component and Subsystem Test Facilities*—extended vibration, shock loads and accelerations, extreme temperature exposure from -85° F to 392° F, thermal shock, cyclic corrosion, extended salt, fog, humidity and dryness cycling, severe acid and alkali corrosion, flow simulations, and pneumatic leak checks.
- *Concept Vehicle Development*—concept vehicle design and development using powertrain engineering, CAD engineering, and other vehicle development and tooling processes.

We believe we are uniquely positioned, based on our research and product development capabilities, as a Tier-1 automotive supplier in providing hybrid propulsion systems, vehicle-level design, powertrain engineering, power electronics and wheel motor interfacing, system integration, and manufacturing and assembly of packaged fuel systems for automotive applications including hybrids, PHEVs, hydrogen electric vehicles, electric only vehicles, fuel cell vehicles, other alternative fuel vehicles, and hydrogen refueling.

Our research and development activities include both customer-funded research and development and company-sponsored research and development that are further discussed in *Item 7. Management’s Discussion and Analysis of Financial Condition and Results from Operations*. We will continue to strategically invest in research and development over the next several years in order to advance our products for hybrid, hydrogen fuel cell and alternative fuel applications.

Automotive Industry and the Worldwide Economy

Our business is primarily related to hybrid, hydrogen and alternative fuel vehicle development programs and product sales, which vary directly with the program timing and production schedules of our OEM and other customers. The market for these vehicles is sensitive to general economic conditions, government agency and commercial fleet spending and consumer preferences. The rate at which our customers sell hybrid, hydrogen or alternative fuel vehicles depends on their marketing and distribution strategy, as well as company specific inventory and incentive programs. Any significant reduction or increase in production of these vehicles by our OEM customers may have a material effect on our business.

During calendar 2009, the U.S. and world economy and the automotive industry deteriorated significantly and measures implemented by the federal government to stabilize the domestic credit markets and the economy have not been realized to the extent expected. However, the automotive industry in particular received targeted

funding and bailouts from the federal government that have had a direct, positive impact on the Detroit-based automakers. Based on recent financial results reported by certain automakers and the repayment of some of these loans, the White House has indicated the industry is recovering at a pace few thought possible. The automotive industry may take years to fully recover and the level of uncertainty in the economy as a whole remains real, but we are experiencing a renewed sense of enthusiasm for advanced technology type vehicle programs from our OEM customers.

Competition

Electric Drive & Fuel Systems

A number of domestic and international automotive and industrial manufacturers are developing alternative clean power systems using lithium-ion batteries, hybrid systems, fuel cells or clean burning gaseous fuels in order to decrease fuel costs, lessen dependence on crude oil and reduce harmful emissions.

The demand for hybrid electric and plug-in hybrid electric vehicles has been increasing in response to consumer demand for vehicles that both meet performance expectations and are fuel efficient. Many of the major automotive OEMs (including General Motors, Ford, Toyota and Honda) have rolled out prototypes of electric and/or hybrid electric vehicles over the past year that will compete with us, via our association with our affiliate, Fisker Automotive. We believe our expertise with technologies employed on our hybrid propulsion systems together with our system integration experience offers a competitive advantage to OEM hybrid vehicle manufacturers.

We believe that our competitive advantage over current and potential future competitors is our software development, technology portfolio and integration expertise derived from many years of experience with advanced propulsion systems. Our current competitors, such as Magna, typically focus on individual components and our concentrated on providing parts and supplies for high volume vehicle programs; not low to mid-volume programs. We offer complete systems and subsystems based on our own control strategies and advanced technologies.

In the fuel cell and hydrogen industry, our expertise is in hydrogen fuel storage, fuel delivery, electronic and drive system controls, and system integration. We do not manufacture fuel cells or fuel reformers. We may face competition from companies providing components such as tanks, regulators or injectors. We may also face competition from traditional automotive component suppliers, such as Bosch, Delphi, Siemens, and Visteon, and from OEMs that develop fuel systems internally.

A critical element for hydrogen-based vehicles and OEM alternative fuel vehicles is fuel storage. Our major competitors for high-pressure gaseous storage cylinders include Dynetek Industries Ltd., Lincoln Composites and Structural Composites Inc.

Many of these potential competitors have been in business longer than us and have substantially greater financial, marketing and development resources than we have. We expect that we will face increased competition in the future as new competitors enter the market and advanced technologies become available. In addition, consolidation in our industry may also affect our ability to compete. Consolidation may strengthen our competitors' financial, technical and marketing resources and may provide greater access to customers. Consequently, these competitors may be able to develop greater resources for the development, promotion and sale of their products. We cannot assure you that we will be able to compete successfully with our existing or new competitors or that the competitive pressures will not materially and adversely affect our business, financial condition or results of operations.

Renewable Energy

In North America, large utility companies dominate the energy production industry, and coal continues to dominate as the primary resource for electricity production. Electricity generated from wind and solar energy faces competition from conventional resources such as nuclear, oil and natural gas and from renewable technologies such as hydro, geothermal and biomass. The advantages of conventional production of electricity are that:

- the technology and infrastructure already exist for the use of fossil fuels such as coal, oil and natural gas; and
- supply of most fossil fuels is plentiful and pricing is attractive on a levelized cost of energy basis, particularly for coal and natural gas.

However, energy produced by conventional resources also faces a number of challenges including:

- the inefficient atmospheric combustion of fossil fuels leads to the release of pollution into the atmosphere including carbon dioxide which is largely considered the primary cause of global warming;
- fossil fuels are non-renewable unsustainable resources which are expected to eventually decline in production and become exhausted with potentially negative consequences to societies that remain highly dependent on them.

In contrast, electricity generated from wind and solar energy:

- produces no water or air pollution that can contaminate the environment because there are no chemical processes involved in wind and solar power generation; therefore, there are no waste by-products such as carbon dioxide;
- does not contribute to global warming because it does not generate greenhouse gases; and
- benefit from zero-cost renewable fuel sources;

However, wind and solar energy producers also face certain obstacles including:

- wind strength and sunshine levels that are not consistent as they change throughout each day and season; producing intermittent flow of power as compared to conventional baseload sources;
- residents in communities where wind and solar farms exist may consider them an “eyesore” or possibly even a health risk; and
- wind farms, depending on their location, may negatively affect bird migration patterns and may pose a danger to bird and bats in certain time periods;

While we compete with owners of electrical generation assets, including owners of fossil fuel generation assets, we believe our primary competitors are developers and operators focused on renewable energy generation. Renewable energy sources, including wind, biomass, geothermal and solar, currently benefit from various governmental incentives such as feed-in tariffs, tax credits, cash grants and loan guarantees, RPS programs and associated RECs and accelerated tax depreciation. Many of these incentives are not available with respect to energy generated from fossil fuels. The wind and solar energy industry in North America has a range of developers, including large integrated independent power producers and established European producers, many of whom have greater financial and other resources than we do. While our pipeline spans several regions across North America, we have not achieved the scale of many of the larger wind energy producers.

In the wind and solar energy sectors, competition occurs primarily during the development stages of a project rather than during a project’s operational phase. As discussed in “Risk Factors,” wind and solar projects require certain natural conditions that are found in limited geographic areas and at particular sites. Projects must also interconnect to electricity transmission or distribution networks to deliver electricity. We compete with other developers for desirable sites and for the ability to connect to transmission or distribution networks. Depending

on the regulatory framework and market dynamics of a region, we may also face competition in bidding for long-term PPAs. Because the renewable energy industry in North America is at an early stage, we also compete with other renewable energy developers for personnel with requisite industry knowledge and experience.

Safety, Regulation, and Product Certification

The manufacture, distribution and sale of our products are subject to governmental regulations in the United States at the federal, state and local levels. The most extensive regulations are promulgated under the National Traffic and Motor Vehicle Safety Act, which, among other things, empowers the National Highway Traffic Safety Administration (NHTSA) to require a manufacturer to remedy certain "defects related to motor vehicle safety" or vehicles that fail to conform to all applicable federal motor vehicle safety standards.

Federal Motor Vehicle Safety Standards are promulgated by the NHTSA. Many of our products are affected by these standards. We engage various testing companies, which also perform testing for NHTSA, to test certain of our products. NHTSA can require automotive manufacturers to recall products. We have not experienced any material recalls.

Like other automotive OEMs and manufacturers of automotive component parts, we may be subject to claims that our products caused or contributed to damage or injury sustained in vehicle accidents or may be required to recall products deemed to contain defects related to motor vehicle safety. We believe that we are adequately insured for any claims. However, any such claims in excess of our insurance coverage or material product recall expenses could adversely affect our financial condition and results of operations. Promulgation of additional safety standards in the future could require us to incur additional testing and engineering expenses that could adversely affect our results of operations.

We must obtain emission compliance certification from the Environmental Protection Agency (EPA) to introduce vehicles or engines into commerce in the United States, and from the California Air Resources Board to introduce vehicles or engines into commerce in California. Certification requires that each vehicle or engine meet specific component, subsystem and vehicle-level durability, emission, evaporative, and idle tests. Both federal and state authorities have various environmental control standards relating to air, water and noise pollution that affect our business and operations.

Furthermore, we strive to meet stringent industry standards set by various regulatory bodies and industry practices, including the U.S. Department of Transportation and Federal Motor Vehicle Safety Standards, the National Fire Protection Association, TÜV, European Integrated Hydrogen Project, Kouatsugasu Hoan Kyokai, Underwriters Laboratories, and American Gas Association. Approvals enhance the acceptability of our products in the domestic marketplace. Many foreign countries also accept these agency approvals as satisfying the "approval for sale" requirements in their markets.

Our international sales are subject to foreign tariffs and taxes, changes in which are difficult to predict and which can adversely affect sales. Our products must also comply with government safety standards imposed in our foreign markets.

Backlog

As of April 30, 2011, our total backlog was \$40.9 million as compared to \$43.8 million as of April 30, 2010. Our backlog consists of product orders that we believe are firm plus revenue associated with development service programs under contract that has not yet been recognized under the percentage of completion method. We anticipate that a substantial portion of the current backlog will be completed by the end of fiscal 2012. Included in our current backlog is \$21.3 million for planned shipments of our *Q-Drive* system for the Fisker Karma vehicle that is scheduled to go into high volume production in the second half of calendar 2011. Any significant delays on behalf of Fisker Automotive could extend the time required to realize all revenues associated with the backlog.

Intellectual Property

The continued development and protection of our intellectual property is crucial to our future success. We rely primarily on patent and trade secret laws to protect our intellectual property rights. Although we recognize the importance of patent and trade secret laws and, when appropriate, seek the advantages and benefits these laws offer, we believe that our growth and future success will be more dependent on factors such as the knowledge, experience and expertise of our personnel, new product introductions, continued emphasis on research and development and creation of "know-how."

We do not know whether any patents will be issued from our patent applications or whether the scopes of our issued patents are sufficiently broad to protect our technologies or processes. Our patents may not provide us a competitive advantage. Competitors may successfully challenge the validity and/or scope of our patents and trademarks. We also rely on a combination of trademark, trade secret and other intellectual property laws and various contract rights to protect our proprietary rights. However, we do not believe our intellectual property rights provide significant protection from competition. We believe that establishing and maintaining strong strategic relationships with valued customers and OEMs are the most significant factors protecting us from new competitors.

In connection with our strategic alliance with General Motors, each party retains the ownership of its existing technology and jointly owns technology that is jointly created under the alliance. No jointly owned patents have been received or applied for under the alliance. Under the alliance, each party granted the other certain exclusive and/or nonexclusive licenses with respect to certain intellectual property developed by such party prior to and during the term of the alliance and also with respect to the jointly owned intellectual property. During the term of the alliance, we are subject to certain transfer restrictions with respect to the pledge, hypothecation, encumbrance, sale or licensing of certain intellectual property. Further, we are obligated to share with General Motors a portion of our revenues generated from the sale of our gaseous storage, handling and control products for fuel cell systems for both automotive and non-automotive applications. The revenue sharing payments continue for a period of 45 years. We do not expect the revenue sharing payments to begin until at least the 2012 fiscal year. Given the uncertainty of the amount of revenues we will generate from the sale of our gaseous storage, handling and control products in future years, we are unable to quantify the amount of revenue sharing payments we will be required to make to General Motors, if any.

Employees

As of June 15, 2011, we had 102 full-time employees and 10 part-time employees in our combined businesses. During peak production periods, we may increase our work force. Historically, the available labor force has been adequate to meet such periodic requirements. None of our employees are represented by a collective bargaining agreement. We consider our relations with our employees to be good.

Available Information

We make our Annual Reports on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K, and all amendments to these reports available free of charge on our corporate website as soon as reasonably practicable after such reports are filed with, or furnished to, the SEC. Our corporate website is located at www.gtwww.com. None of the information contained on our website is intended to be part of this report or incorporated by reference herein.

You may also read and copy materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington DC 20549. Information on the operation of the Public Reference Room is available by calling the SEC at 1-800-SEC-0330. The SEC maintains a web site that contains reports, proxy statements and other information we file with the SEC. The address of the SEC's web site is www.sec.gov.

Executive Officers

Our executive officers as of April 30, 2011 and their respective ages and positions were as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Alan P. Niedzwiecki	54	Chief Executive Officer; President; Director
Dale L. Rasmussen	61	Chairman of the Board of Directors
W. Brian Olson	47	Chief Financial Officer; Treasurer
David Mazaika	47	Chief Operating Officer
Kenneth R. Lombardo	45	Vice President-Legal; General Counsel and Corporate Secretary
Bradley J. Timon	48	Corporate Controller; Chief Accounting Officer

The following is a biographical summary of the experience of the executive officers:

Alan P. Niedzwiecki has served as President and as one of our directors since February 2002 and was appointed as Chief Executive Officer in August 2002. Mr. Niedzwiecki served as Chief Operating Officer from November 2001 until he was appointed as Chief Executive Officer in August 2002. From October 1999 to November 2001, Mr. Niedzwiecki served as Executive Director of Sales and Marketing. From February 1990 to October 1999, Mr. Niedzwiecki was President of NGV Corporation, an engineering and marketing/commercialization consulting company. Mr. Niedzwiecki has more than 25 years of experience in the alternative fuels industry in product and technology development and commercialization relating to mobile, stationary power generation and refueling infrastructure solutions. Mr. Niedzwiecki is a graduate of Southern Alberta Institute of Technology. Mr. Niedzwiecki has also served on the board of directors of Fisker Automotive from November 2007 until September 2010. Mr. Niedzwiecki brings to the Board his proven leadership experience and over 25 years of experience in the alternative fuels industry, in particular, in product and technology development and commercialization relating to mobile, stationary power generation and refueling infrastructure solutions.

Dale L. Rasmussen has served as a member of our board of directors since October 2000, and was appointed as Chairman of the Board in February 2002. On May 1, 2006, Mr. Rasmussen became a full-time employee of the Company. His responsibilities include acquisitions, joint ventures, strategic alliances and investor and shareholder relations. Mr. Rasmussen was the Senior Vice President and Secretary of IMPCO Technologies from 1989 through 2005, joining the Company in 1984 as Vice President of Finance and Administration and Corporate Secretary. Prior to joining IMPCO, Mr. Rasmussen was a commercial banker for twelve years at two banks and responsible for managing the bank's investment portfolio, branch and corporate development, and he also served as corporate secretary. Mr. Rasmussen is a graduate of Western Washington University; upon graduating he received the marketing student of the year award. Mr. Rasmussen is also a graduate of Pacific Coast Banking School, University of Washington. Mr. Rasmussen also served on the board of directors, as Chairman, of Fisker Automotive from November 2007 until January 2010. Mr. Rasmussen has served on our board of directors since 2000 and as our Chairman since 2002. Mr. Rasmussen brings to the Board his extensive experience in the alternative fuel and renewable energy industries, and banking and corporate finance.

W. Brian Olson has served as Chief Financial Officer and Treasurer since August 2002. From July 1999 to August 2002, Mr. Olson served as Treasurer, Vice President and Chief Financial Officer of IMPCO. He originally joined IMPCO in October 1994 and held various financial positions with IMPCO, including serving as Corporate Controller. Prior to joining IMPCO, Mr. Olson was with the public accounting firm of Ernst & Young LLP and its Kenneth Leventhal Group. Mr. Olson holds a Bachelor of Science degree in business and operations management from Western Illinois University and a Masters of Business Administration degree in finance and economic policy from the University of Southern California. Mr. Olson is a Certified Financial Manager and a Certified Management Accountant.

David M. Mazaika has served as Chief Operating Officer since December 2008. Prior to joining us, Mr. Mazaika served as Chairman and CEO for ISE Corporation, a company which he co-founded in 1994. Prior

to this, Mr. Mazaika was Vice President of Business Development for International Space Enterprises. From 1985 to 1993, Mr. Mazaika held senior positions with Convair and Space Systems Divisions of General Dynamics. Mr. Mazaika holds a Bachelor of Science in Electrical Engineering from Cornell University.

Kenneth R. Lombardo has served as Vice President and General Counsel since May 2005 and became Corporate Secretary in September 2005. From March 1996 to May 2005, Mr. Lombardo practiced law at Kerr, Russell and Weber, PLC in Detroit, Michigan, where he specialized in mergers and acquisitions, taxation, corporate and business law. Mr. Lombardo is also a certified public accountant with over six years of audit and tax experience with Deloitte & Touche. Mr. Lombardo received his law degree from Wayne State University Law School and a Bachelor of Science degree in Business Administration, with a major in Accounting, from Central Michigan University.

Bradley J. Timon has served as Corporate Controller and Chief Accounting Officer since April 2004. Prior to joining us, Mr. Timon worked as a financial consultant. From June 1998 to October 2001, Mr. Timon was with CORE, INC. serving as the Corporate Controller and then later as Acting Chief Financial Officer. Between September 1995 and May 1998, Mr. Timon served as a Controller for James Hardie Industries. Before entering private industry, Mr. Timon was with the public accounting firm KPMG from 1989 to 1995. Mr. Timon has a Bachelor of Arts degree in accounting from California State University, Fullerton and is a Certified Public Accountant.

Financial Information about Segments, Customer Concentrations and Geographic Areas

Additional information regarding our business segments, certain customer concentrations and geographic areas where we have revenues is contained in Notes 17 and 18 to our Consolidated Financial Statements in Part IV, Item 15(a)(1) of this 2011 Annual Report.

Item 1A. Risk Factors.

This Annual Report, including the Management's Discussion and Analysis of Financial Condition and Results of Operations, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934. We face a number of risks and uncertainties that could cause actual results or events to differ materially from those contained in any forward-looking statement. These risks and uncertainties should be considered in evaluating forward-looking statements and undue reliance should not be placed on these forward-looking statements, which apply only as of the date of this Annual Report. We undertake no obligation to release publicly the result of any revisions to these forward-looking statements that may be made to reflect events or circumstances in the future or to reflect the occurrence of unanticipated events. We discuss all known material risks to our business below. The risks and uncertainties described are not the only ones facing us. Additional risks and uncertainties may also adversely impair our business operations. If any of the following risks actually occur, our business, our financial condition or our results of operations would likely suffer significantly. In such case, the value of our common stock could decline and adversely affect our ability to raise additional capital.

RISKS RELATED TO LIQUIDITY AND CAPITAL RESOURCES

Although our financial statements have been prepared on a going concern basis, there can be no assurance that we will be able to continue as a going concern.

Our auditors have included an explanatory paragraph in their opinion that accompanies our audited consolidated financial statements as of and for the year ended April 30, 2011, indicating that our current liquidity position raises substantial doubt about our ability to continue as a going concern. If we are unable to improve our liquidity position we may not be able to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might result if we are unable to continue as a going concern and, therefore, be required to realize our assets and discharge our liabilities other than in the normal course of business which could cause investors to suffer the loss of all or a substantial portion of their investment.

We may not be able to refinance, extend or repay our substantial indebtedness owed to our senior secured lender, which would have a material adverse affect on our financial condition and ability to continue as a going concern.

We anticipate that we will need to raise a significant amount of debt or equity capital in the near future in order to repay certain obligations owed to our senior secured lender when they mature. As of June 15, 2011, the total amount owing to our senior secured lender was approximately \$15.5 million (the Senior Debt Amount), which includes approximately \$12.5 million of principal and interest due under three convertible promissory notes that are scheduled to mature on August 31, 2011, and a \$3.0 million term note (referred to in our consolidated financial statements and elsewhere in this Annual Report as the Consent Fee Note) that is potentially payable in cash upon demand beginning on August 1, 2011 if our stock is below \$10.00 at the time demand for payment is made. If we are unable to raise sufficient capital to repay these obligations at maturity and we are otherwise unable to extend the maturity dates or refinance these obligations, we would be in default. We cannot provide any assurances that we will be able to raise the necessary amount of capital to repay these obligations or that we will be able to extend the maturity dates or otherwise refinance these obligations. Upon a default, our senior secured lender would have the right to exercise its rights and remedies to collect, which would include foreclosing on our assets. Accordingly, a default would have a material adverse effect on our business and, if our senior secured lender exercises its rights and remedies, we would likely be forced to seek bankruptcy protection.

We may not be able to maintain compliance with NASDAQ's continued listing requirements.

Our common stock is listed on the Nasdaq Global Market. In order to maintain that listing, we must satisfy minimum financial and other requirements including, without limitation, a requirement that our closing bid price be at least \$1.00 per share. On February 8, 2011, we implemented a 1-for-20 reverse stock split in order to regain compliance with the \$1.00 closing bid price requirement. If we fail to continue to meet all applicable Nasdaq Global Market requirements in the future and Nasdaq determines to delist our common stock, the delisting could adversely affect the market liquidity of our common stock, our ability to obtain financing to repay debt and fund our operations.

We have a history of operating losses and negative cash flow and we anticipate that we will need to raise additional funds to finance operations.

We have a history of operating losses and negative cash flow. We have incurred recurring net losses, including net losses from operations of \$28.0 million, \$46.3 million and \$11.3 million in fiscal 2009, 2010 and 2011, respectively. We used \$16.9 million, \$14.7 million and \$13.6 million of cash for operating activities during fiscal 2009, 2010 and fiscal 2011, respectively.

We will need to raise additional capital to meet our expected cash needs. Our cash needs will depend on numerous factors, including our revenues, completion of our product development activities, our ability to commercialize our advanced propulsion and fuel systems, market acceptance of electric, plug-in electric and fuel cell vehicles, customer and market acceptance and use of our products, the development of an infrastructure to support electric, plug-in electric and fuel cell vehicles, increase in customer programs and product development, and our ability to reduce and control costs. We expect to devote substantial capital resources to fund expected losses, continue development programs, build out our portfolio of wind and solar energy farms, start up our planned solar module manufacturing plant, and meet our debt obligations. If we are unable to secure such additional financing, it will have a material adverse effect on our business and we may have to limit operations in a manner inconsistent with our development and commercialization plans. If additional funds are raised through the issuance of equity securities or convertible debt securities, it will be dilutive to our stockholders and could result in a decrease in our stock price.

We have funded our operations primarily with proceeds from public and private offerings of our common stock and secured and unsecured debt instruments. We cannot provide any assurances that we will be able to secure additional funding from public or private offerings on terms acceptable to us, if at all. Our inability to

achieve our current operating plan or raise capital to cover any potential shortfall would have a material adverse affect on our ability to meet our obligations as they become due without substantial disposition of assets or other similar actions outside the ordinary course of business. If we are not able to secure the additional funding we need, we would need to curtail our operations or take other action in order to continue to operate as a going concern.

Our history of operating losses and cash uses, our projections of the level of cash that will be required for our operations to reach profitability, the terms of the private placement transactions that we completed in the past, and the restricted availability of credit for emerging industries, may impair our ability to raise capital on terms that we consider reasonable and at the levels that we will require over the coming months. Our inability to raise sufficient capital as needed over the foreseeable future would have a material adverse effect on our ability to continue as a going concern.

Our stockholders are subject to significant dilution upon the occurrence of certain events which could result in a decrease in our stock price.

As of June 15, 2011, we had approximately 9.5 million shares of our common stock reserved or designated for future issuance upon the exercise of outstanding options and warrants, and conversion of outstanding convertible debt and bridge notes. Further, we may from time to time make an offer to our warrant holders to exchange their outstanding warrants for shares of our common stock, a fewer number of warrants with more favorable terms, or a combination thereof.

Included in the shares of common stock designated for future issuance discussed above are 1,334,906 shares that are subject to warrant contracts issued in October 2006 that are currently exercisable at \$2.92 per share (the "October 2006 Warrants"). The October 2006 Warrants contain a provision that, subject to certain exceptions, resets the exercise price of such warrants if at any time while such warrants are outstanding we sell or issue (or are deemed to sell or issue) shares of our common stock or rights, warrants, options or other securities or debt convertible, exercisable or exchangeable for shares of our common stock at a price below the then current exercise price per share for such warrants. In the event of future price resets, the number of shares of our common stock that are subject to such warrants increase so that the aggregate purchase price payable applicable to the exercise of the warrants after the reset of the exercise price is the same as the aggregate purchase price payable immediately prior to the reset. Any future resets to the exercise price of the October 2006 Warrants will have a further dilutive effect on our existing stockholders and could result in a decrease in our stock price.

Future sales of substantial amounts of our common stock into the public and the issuance of the shares reserved for future issuance, in payment of our term debt, and/or in exchange for outstanding warrants will be dilutive to our existing stockholders and could result in a decrease in our stock price.

The market price and trading volume of our common stock may be volatile.

The market price and trading volume of our common stock has been volatile. We expect that the market price of our common stock will continue to fluctuate significantly for many reasons, including in response to the risk factors described in this report or for reasons unrelated to our specific performance. In recent years, the stock market has experienced extreme price and volume fluctuations. This volatility has affected the market prices of securities issued by many companies for reasons unrelated to their operating performance and may adversely affect the market price and trading volume of our common stock. Prices for our common stock may also be influenced by the depth and liquidity of the market for our common stock, investor perceptions about us and our business, our future financial results, the absence of cash dividends on our common stock and general economic and market conditions. In the past, securities class action litigation has often been instituted against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs and could divert our management and other resources.

We may not be able to obtain waivers of potential defaults in the future from our lender if we do not meet future requirements associated with our amended credit facility and convertible promissory note.

We received waivers of defaults from our senior secured lender on March 12, 2009, January 16, 2008 and December 14, 2007 and we were operating under a Forbearance Agreement with our senior lender from January 3, 2011 through April 29, 2011 related to our non-compliance with certain required debt service payments and covenants. We cannot provide any assurance that our lender would provide us with a waiver should we not be in compliance in the future. A failure to maintain compliance along with our lender not agreeing to a waiver for the non-compliance would cause the outstanding borrowings to be in default and payable on demand which would have a material adverse effect on us and our ability to continue as a going concern.

We have a commitment to provide a guaranty to an affiliate's credit facility that could be called upon if the affiliate defaults on the credit facility in the future.

In connection with our acquisition of an ownership interest in our German solar affiliate, Asola, we committed to provide a 1.0 million euro guaranty to Asola's bank to support an increase in Asola's bank debt. To date, Asola's bank has not required us to put the guaranty in place. However, we cannot provide any assurance that we will not be required to put the guaranty in place in the future. If and when the guaranty is put in place, we could be called upon to repay the credit facility up to the limit of our guaranty if Asola were to default on its credit facility.

The change in value of our derivative liabilities could have a material effect on our financial results.

Included on our balance sheet at April 30, 2011 are derivative liabilities related to embedded features contained within certain warrant contracts. At each reporting period, we are required to determine the fair value of such derivatives and record the fair value adjustments as non-cash unrealized gains or losses. The share price of our common stock represents the primary underlying variable that impacts the value of the derivative instruments. Additional factors that impact the value of the derivative instruments include the volatility of our stock price, our credit rating, discount rates, and stated interest rates. Due to the volatile nature of our share price, we expect that we will recognize non-cash gains or losses on our derivative instruments each reporting period and that the amount of such gains or losses could be material.

Our financial condition may impair our ability to obtain credit terms with our suppliers.

Our automotive contracts typically provide us with payment terms of at least 30 days. However, our financial condition may make it difficult for us to continue to receive payment terms of at least 30 days or may result in one or more of our suppliers making demand for adequate assurance, which could include a demand for payment-in-advance. If we are unable to obtain reasonable payment terms or if any of our material suppliers were to successfully demand payment-in-advance, it could have a material adverse affect on our liquidity.

RISKS RELATED TO OUR BUSINESS

Risks Related to our Electric Drive & Fuel Systems Segment

Fisker Automotive represents a substantial portion of our existing and anticipated future revenues and these future revenues will depend on Fisker Automotive's success.

A large percentage of our revenue is typically derived from a small number of customers, in particular, Fisker Automotive, and we expect this trend to continue. During fiscal years 2009, 2010 and 2011, our revenues from Fisker Automotive comprised 59%, 46% and 56%, respectively, of our total revenues. We expect that our revenues from Fisker Automotive for fiscal year 2012 and the foreseeable future will continue to represent a substantial portion of our total revenues. If there is a significant unfavorable change in our agreements with

Fisker Automotive or if there are delays in the development and/or production schedule of the Fisker Karma vehicle platform or the number of Fisker Karma vehicles sold does not meet expectations, it would have a material adverse affect on our business operations and financial results.

Fisker Automotive's success and, in turn, our success and ability to reach profitability, is highly dependent on Fisker Automotive's ability to access the full amount of a \$528 million Department of Energy loan.

Our ability to achieve profitability is highly dependent on the success of Fisker Automotive. Fisker Automotive intends to use the proceeds of a Department of Energy loan ("DOE Loan") to complete the development, testing and tooling for its Karma vehicle platform and future vehicle platforms. Fisker Automotive's ability to access the DOE Loan is subject to a number of conditions and covenants. If Fisker Automotive is unable to satisfy the DOE Loan conditions or violates any of the DOE Loan covenants, it may not be able to access the full amount of the DOE Loan or obtain alternative sources of funding, which could have a material adverse effect on Fisker Automotive's ability to bring the Karma and other vehicle models to production. Failure or delays in bringing the Fisker Karma to production would have a material adverse effect on our business operations and financial results.

Our fuel cell vehicle development and production revenue depends on our relationship with General Motors and General Motors' commitment to and success with the commercialization of fuel cell vehicles.

General Motors has represented a significant portion of our historical revenues and although our relationship with General Motors under our strategic alliance continues, certain of our programs with General Motors have been delayed indefinitely and others have experienced funding restraints. Although we received a \$10.0 million fuel cell program award in fiscal year 2011 from General Motors and anticipate that revenue levels from General Motors will increase over the next couple of years compared to the revenues recorded in fiscal years 2009, 2010 and 2011, we cannot provide any assurances when, or if, the level of services and amount of revenues will attain the levels reached prior to fiscal year 2009.

Certain of our agreements with General Motors could impair our ability to grow our hydrogen fuel systems business.

On February 14, 2011, we and General Motors entered into an Agreement in Support of Development and an Access and Security Agreement in connection with a \$10.0 million development and validation program related to hydrogen storage vessels and systems for General Motors' fuel cell vehicles. The agreements provide General Motors with certain rights should an event of default under either of those agreements occur including, without limitation, (i) a security interest in and an option to purchase at orderly liquidation value any equipment and tooling owned by us and used in the development and/or production of the components that are the subject of the Agreement in Support of Development (the "Component Parts"), (ii) the right to access our premises and to use our equipment, tooling and employees for a period of up to 360 days in order to continue development or production, as the case may be; provided, however, General Motors shall be obligated to pay all actual costs related thereto, and (iii) a broad license to use our intellectual property embedded in or related to the deliverable being developed to make, have made, use, produce, manufacture, assemble, package, and distribute the Component Parts. If an event of default occurred and GM exercised any of such rights, it could have a material adverse effect on our fuel systems business.

Failure to secure financing for Quantum Solar could adversely affect our operating results.

We have a long-term lease agreement for our 88,000 square foot facility located in Irvine, California, which is currently underutilized. We intend for our subsidiary, Quantum Solar, to use that facility as a solar panel manufacturing facility. We intend to use the proceeds from the CEC loan to assist with funding the start-up of Quantum Solar. However, draw downs under the CEC loan are subject to certain conditions, namely, the investment by us of a specified amount of matching funds. We must raise sufficient matching funds and draw

down on the loan before March 31, 2012 or the loan commitment will terminate. If we are unable to secure sufficient capital to fund the commissioning of a solar manufacturing plant and Quantum Solar's operations, we will not be able to access the funds under the CEC loan and the cost associated with maintaining the Irvine facility will adversely affect our operations as long as it continues to be underutilized.

We have commitments under a corporate alliance agreement with General Motors that require us to spend up to \$4.0 million annually for research and development projects directed by General Motors.

Pursuant to our corporate alliance agreement with General Motors, we are required to spend up to \$4.0 million annually on joint research and development projects directed by General Motors over a ten-year term that commenced in July 2002. Although this commitment was waived or partially waived by General Motors for calendar years 2002 through 2010, we cannot provide any assurance that General Motors will continue to waive this commitment in whole or in part in the future. The annual commitment under our agreement with General Motors could be financially burdensome and may impact our ability to achieve profitability in the future.

We depend on third-party suppliers for the supply of materials and components for our products.

We depend on third-party suppliers for the supply of materials and components for our products. These companies may experience product development, resource and funding constraints that could impact their ability to supply components in a timely manner, if at all. Further, a prolonged downturn in the automotive industry could have a crippling effect on the automotive supplier chain which, in turn, could result in failures and disruptions in the supply of parts and components to us and materially affect our ability to meet our supply obligations to Fisker Automotive and other customers.

Our ability to design and manufacture powertrain and fuel systems for hybrid, hydrogen and fuel cell applications that can be integrated into new vehicle platforms will be critical to our business and our ability to successfully complete existing development programs.

We are currently developing and integrating advanced hybrid propulsion systems for production intent vehicles. These electric drive and fuel systems are being designed to meet strict design and packaging requirements of our customers. Customers for these systems require that these products meet either their strict design standards or OEM level standards that can vary by jurisdiction. Compliance with these requirements has resulted in increased development, manufacturing, warranty and administrative costs. A significant increase in these costs could adversely affect our business, results of operations and financial condition. If we fail to meet OEM or customer specifications on a timely basis, our existing or future relationships with our OEM and other customers may be harmed, which would have a material adverse effect on our business, results of operations and financial condition.

To be commercially viable, our products and systems generally must be integrated into products manufactured by OEMs. We can offer no assurance that OEMs will manufacture appropriate products or, if they do manufacture such products, that they will choose to use our hybrid and fuel cell products and systems. Any integration, design, manufacturing or marketing problems encountered by OEMs could adversely affect the market for our hybrid and fuel cell products and systems, and our business, results of operations and financial condition.

Our business depends on the growth of hybrid electric, hydrogen, and alternative fuel based vehicles.

Our future success depends on the continued expansion and commercialization of hybrid electric, hydrogen and alternative fuel based vehicles. The market for these types of vehicles and technologies is influenced by and our sales may be negatively impacted by a number of factors, including, without limitation, oil prices, battery durability improvements, levels of investment tax credits and regulation, capital formation, interest rates and consumer disposable income.

The development, growth and acceptance of alternative fuel based vehicles is highly dependent on macro-economic conditions, specifically oil prices and the overall health of the economy. We believe if and when oil prices fall, the general attention placed on the development of advanced technology vehicles diminishes. Similarly, we believe consumers are less willing to spend a “technology premium” when faced with economic uncertainty. The downturn in the world economy is placing a tremendous strain on the automotive industry, including slowing demand for vehicles and limiting funding for alternative fuel vehicle programs outside of governmental grant and loan programs.

Additionally, we cannot provide any assurances that the markets for hybrid electric vehicles and other alternative energy based vehicles will gain broad acceptance in any economic environment or, if they do, that they will result in increased sales of hybrid vehicles and our advanced fuel system products. Our business depends on auto manufacturers’ timing for pre-production development programs and commercial production. If there are delays in the advancement of OEM alternative fuel technologies or in our OEM customers’ internal plans for advanced vehicle commercialization, our financial results could be adversely affected.

A mass market for hydrogen products and systems may never develop or may take longer to develop than anticipated.

Fuel cell and hydrogen systems represent emerging technologies, and we do not know whether consumers will adopt these technologies on a large scale or whether OEMs will incorporate these technologies into their products. In particular, if a mass market fails to develop, or develops more slowly than anticipated, for hydrogen powered transportation applications, we may be unable to recover our expenditures to develop our fuel systems for hydrogen applications and may be unable to achieve or maintain profitability, any of which could negatively impact our business. Many factors that are beyond our control may have a negative effect on the development of a mass market for fuel cells and our fuel systems for hydrogen applications. These factors include the following:

- cost competitiveness and physical size of fuel cell systems and “balance of plant” components (e.g. fuel metering and regulation, bi-directional flow monitoring, sensors, etc.);
- availability, future costs and safety of hydrogen, natural gas and other potential fuel cell fuels;
- consumer acceptance of hydrogen or alternative fuel products;
- government funding and support for the development of hydrogen vehicles and hydrogen fuel infrastructure;
- the willingness of OEMs to replace current technology;
- consumer perceptions of hydrogen systems;
- regulatory requirements; and
- emergence of newer, breakthrough technologies and products within the automotive industry.

Evolving customer design requirements, product specifications and testing procedures could cause order delays or cancellations.

We have experienced delays in shipping our products in the past as a result of changing customer specifications and testing procedures. Due to the dynamic nature of hybrid and hydrogen fuel cell technology, changes in specifications are common and may result in delayed shipments, order cancellations or higher production costs. Evolving design requirements or product specifications may adversely affect our business or financial results.

We have limited experience manufacturing hybrid propulsion and fuel systems on a commercial basis.

We have limited experience manufacturing propulsion and fuel systems for hybrid, plug-in electric hybrid, fuel cell and hydrogen applications on a commercial basis. In order to produce propulsion systems for hybrid and fuel cell applications at affordable prices, we will have to produce hybrid and fuel cell drive systems through

high volume automated processes. We do not know whether we, or our suppliers, will be able to develop efficient, automated, low-cost manufacturing capability and processes that will enable us to meet the quality, price, engineering, design and production standards, or production volumes required to successfully mass market our propulsion systems for hybrid and fuel cell applications. Even if we, or our suppliers, are successful in developing our high volume manufacturing capability and processes, we do not know whether we will be able to do so in time to meet our product commercialization schedules or to satisfy the requirements of our customers. Our failure to develop such manufacturing processes and capabilities could have a material adverse effect on our business, results of operations and financial condition.

We may not meet our product development and commercialization milestones.

We have product development programs that are in the pre-commercial stage. The success of each product development program is highly dependent on our correct interpretation of commercial market requirements, and our translation of those requirements into applicable product specifications and appropriate development milestones. If we have misinterpreted market requirements, or if the requirements of the market change, we may develop a product that does not meet the cost and performance requirements for a successful commercial product. In addition, if we do not meet the required development milestones, our commercialization schedules could be delayed, which could result in potential purchasers of these products declining to purchase additional systems or choosing to purchase alternative technologies. Delayed commercialization schedules may also impact our cash flow, which could require increased funding.

We may be subject to warranty claims, and our provision for warranty costs may not be sufficient.

We may be subject to increased warranty claims as our products go to production due to longer warranty periods. In response to consumer demand, vehicle manufacturers have been providing, and may continue to provide, increasingly longer warranty periods for their products. As a consequence, these manufacturers require their suppliers, such as us, to provide correspondingly longer product warranties. As a result, we could incur substantially greater warranty claims in the future.

Our business may be subject to product liability claims or product recalls, which could be expensive and could result in a diversion of management's attention.

The automotive industry experiences significant product liability claims. As a supplier of products and systems to automotive OEMs, we face an inherent business risk of exposure to product liability claims in the event that our products, or the equipment into which our products are incorporated, malfunction and result in personal injury or death. We may be named in product liability claims even if there is no evidence that our systems or components caused the accidents. Product liability claims could result in significant losses as a result of expenses incurred in defending claims or the award of damages. The sale of systems and components for the transportation industry entails a high risk of these claims. In addition, we may be required to participate in recalls involving these systems if any of our systems prove to be defective, or we may voluntarily initiate a recall or make payments related to such claims as a result of various industry or business practices or the need to maintain good customer relationships. Our other products may also be subject to product liability claims or recalls. We cannot assure you that our product liability insurance will be sufficient to cover all product liability claims, that such claims will not exceed our insurance coverage limits or that such insurance will continue to be available on commercially reasonable terms, if at all. Any product liability claim brought against us could have a material adverse effect on our reputation and business.

Our business may become subject to future product certification regulations, which may impair our ability to market our products.

We must obtain product certification from governmental agencies, such as the U.S. Environmental Protection Agency and the California Air Resources Board, to sell certain of our products in the United States and internationally. A significant portion of our future sales will depend upon sales of fuel management products

that are certified to meet existing and future air quality and energy standards. We cannot assure you that our products will continue to meet these standards. The failure to comply with these certification requirements could result in the recall of our products or in civil or criminal penalties.

We anticipate that regulatory bodies will establish certification procedures and impose regulations on fuel cell enabling technologies, which may impair our ability to distribute, install and service these systems. Any new government regulation that affects our advanced fuel technologies, whether at the foreign, federal, state or local level, including any regulations relating to installation and servicing of these systems, may increase our costs and the price of our systems. As a result, these regulations may have a negative impact on our business, results of operations and financial condition.

Failure to comply with applicable environmental and other laws and regulations could adversely affect our business and harm our results of operations.

We use hazardous materials in our research and development and manufacturing processes, and as a result are subject to federal, state, local and foreign regulations governing the use, storage, handling and disposal of these materials and hazardous waste products that we generate. Although we believe that our procedures for using, handling, storing and disposing of hazardous materials comply with legally prescribed standards, we cannot completely eliminate the risk of contamination or injury resulting from hazardous materials and we may incur liability as a result of any such contamination or injury. In the event of an accident, including a discharge of hazardous materials into the environment, we could be held liable for damages or penalized with fines, and the liability could exceed our insurance and other resources. We have also incurred and may continue to incur expenses related to compliance with environmental laws. Such future expenses or liability could have a significant negative impact on our business, financial condition and results of operations. Further, we cannot assure you that the cost of complying with these laws and regulations will not materially increase in the future.

We are also subject to various other federal, state, local and foreign laws and regulations. Failure to comply with applicable laws and regulations, including new or revised safety or environmental standards, could give rise to significant liability and require us to incur substantial expenses and could materially harm our results of operations.

New technologies could render our existing products obsolete.

New developments in technology may negatively affect the development or sale of some or all of our products or make our products obsolete. A range of other technologies could compete with plug-in electric hybrid, fuel cell, hydrogen, hybrid or other technologies on which our automotive business is currently focused. Our success depends upon our ability to design, develop and market new or modified hybrid and fuel cell products and systems. Our inability to enhance existing products in a timely manner or to develop and introduce new products that incorporate new technologies, conform to increasingly stringent emission standards and performance requirements and achieve market acceptance in a timely manner could negatively impact our competitive position. New product development or modification is costly, involves significant research, development, time and expense and may not necessarily result in the successful commercialization of any new products.

Uniform codes and standards for hydrogen fuel cell vehicles and related hydrogen refueling infrastructure may not develop in a timely fashion.

Uniform codes and standards do not currently exist for fuel cell systems, fuel cell components or the use of hydrogen as a vehicle fuel. Establishment of appropriate codes and standards is a critical element to allow fuel cell system developers, fuel cell component developers and hydrogen storage and handling companies to develop products that will be accepted in the marketplace.

All fuels, including hydrogen, pose significant safety hazards, and hydrogen vehicles have not yet been widely used under “real-world” driving conditions. Ensuring that hydrogen fuel is safe to use by the car-driving public requires that appropriate codes and standards be established that will address certain characteristics of hydrogen and the safe handling of hydrogen fuels.

The development of fuel cell and hydrogen fuel applicable standards is being undertaken by numerous organizations, including the American National Standards Institute, the American Society of Mechanical Engineers, the European Integrated Hydrogen Project, the International Code Council, the International Standards Organization, the National Fire Protection Association, the National Hydrogen Association, the Society of Automotive Engineers, the Canadian Standards Association, the American National Standards Institute and the International Electrotechnical Commission. Given the number of organizations pursuing hydrogen and fuel cell codes and standards, it is not clear whether universally accepted codes and standards will result and, if so, when.

Although many organizations have identified as a significant priority the development of codes and standards, we cannot assure you that any resulting codes and standards would not materially affect our revenue or the commercialization of our products.

Risks Related to Our Renewable Energy Segment

Schneider Power’s success is highly dependent on its ability to obtain a substantial amount of capital in order to build and commission its renewable energy project pipeline.

Our wholly-owned subsidiary, Schneider Power, will need substantial capital in order to complete the development and construction of its wind and solar energy project pipeline. If Schneider Power is unable to obtain financing for its project pipeline, then it could result in significant delays in the development and construction of such projects or the sale or other disposition of such projects, which could have a material adverse effect on Schneider Power’s business, its ability to repay any intercompany loans made by us and our ability to realize the expected value we paid to acquire Schneider Power.

Schneider Power’s success is highly dependent on its ability to obtain permits, approvals, authorization, power purchase agreements and retain its land rights.

In order for Schneider Power to successfully develop and construct the wind and solar energy projects in its development pipeline it will need to obtain a number of various permits, approvals and authorizations from various federal, state, provincial and municipal governmental agencies and power purchase agreements with the respective governments or other third parties and must maintain its land access rights for such projects. We cannot provide any assurances that it will be able to obtain and maintain such permits, approvals, authorizations, agreements or land rights. Failure to obtain and maintain such permits, approvals, authorizations, agreements and land rights could result in significant delays or termination of the development projects, which could have a material adverse effect on Schneider Power’s business.

Development and construction of wind and solar energy projects is subject to a number of risks and uncertainties.

Development and construction of wind and solar electricity generation facilities is dependent on site assessment and the successful planning, installation and commissioning of clusters of wind turbines and solar module arrays, which includes foundation and interconnection structures. There is always the risk that a project will sustain delays and incur material cost overruns. In addition, wind and solar potential for a particular generation facility is based on historical data and weather patterns which may change significantly and have an adverse impact on future energy output and project profitability and cash flow for any given period.

Fluctuations in the Euro and Canadian dollar could have a material effect on Schneider Power's business and operations.

Schneider Power, a Canadian entity, purchases its wind turbines and a majority of its other capital equipment from foreign suppliers that transact in Euro and U.S. dollars and which have long lead times. Unfavorable fluctuations in the Euro and U.S. dollar versus the Canadian dollar could have a significant adverse effect on Schneider Power's financial results and could significantly increase the cost of capital equipment purchased from such foreign suppliers.

Decrease in demand or price for solar cells could have an adverse effect on our financial statements.

We, through our affiliate Asola, have entered into a long-term supply agreement under which we have agreed to purchase solar cells with a cumulative power of 77.5 mega watts (MW) through December 31, 2017 at pre-determined quantities that could cause us and Asola to hold larger than expected quantities of inventory on hand as a result of future decreased demand, and at pre-determined prices that could be above market rates in the future that could cause us and Asola to incur losses on the sale of products manufactured utilizing the solar cells. The spot trading prices for solar cell deliveries have decreased to levels that are currently below prices that we have secured for this applicable period under the long-term supply agreement. As a result, Asola demanded an adjustment to the stated pricing under the supply agreement in a fair and reasonable manner to account for the change in economic circumstances under a "loyalty clause" contained in the supply agreement. Asola's demand and the subsequent negotiations were not successful and the matter is now in litigation in Germany. We cannot provide any assurance that the matter will be resolved in Asola's favor. If the matter is resolved unfavorably to Asola and it is determined that a loss is probable on our remaining commitments to purchase the solar cells, we will be required to record a charge in the future for the difference between our remaining unconditional commitments and our estimated net realizable value and that charge could be material.

Other Risks Related to Our Business

Our credit agreement with our senior secured lender contains certain negative covenants that could restrict our ability to implement our business plan.

Pursuant to the terms of the credit agreement with our senior secured lender, we must first obtain the consent of our senior secured lender before entering into certain transactions or undertaking certain activities including, without limitation, incurring additional debt outside the ordinary course of business, acquiring the stock or assets of another business or entity, and selling or leasing our assets other than in the ordinary course of business. In connection with our acquisition of Schneider Power, our senior secured lender required us to pay a consent fee of \$3.0 million which we satisfied by our delivery of a promissory note which is described in our financial statements as the Consent Fee Term Note. In the event that our business plan contemplates transactions or activities that are prohibited under the credit agreement and our senior secured lender is unwilling to give its consent, then we will either have to pay our senior secured lender a fee in order to get its consent or, alternatively, revise our business plan.

Past acquisitions and any future acquisitions, equity investments, joint ventures, strategic alliances or other similar transactions may not be successful.

We have consummated and may continue to consummate acquisitions, equity investments, joint ventures and strategic alliances in order to provide increased capabilities to our existing products, supply new products and services or enhance our distribution channels. We expect to continue to make strategic acquisitions of and investments in other businesses that offer complementary products, services and technologies, augment our market segment coverage and geographic locations, or enhance our technological capabilities. We may also enter into strategic alliances or joint ventures to achieve these goals. If we fail to integrate acquired businesses successfully into our existing businesses, or incur unforeseen expenses in consummating future acquisitions or other investments, we could incur unanticipated expenses and losses.

Any transactions or relationships will be accompanied by the risks commonly encountered with those matters. Risks that could have a material adverse affect on our business, results of operations or financial condition include, without limitation:

- the difficulty of assimilating the operations and personnel of acquired businesses;
- the potential disruption of our ongoing business;
- the distraction of management from our business;
- the unexpected loss of customers of the acquired business;
- the potential inability of management to maximize our financial and strategic position as a result of an acquisition or investment;
- the potential for costs and delays in implementing, and the potential difficulty in maintaining, uniform standards, controls, procedures and policies, including the integration of different information systems;
- the impairment of relationships with employees and customers as a result of any integration of new management personnel;
- the risk of entering market segments in which we have no or limited direct prior experience and where competitors in such market segments have stronger market segment positions;
- the risk that there could be deficiencies in the internal controls of any acquired company or investments that could result in a material weakness in our overall internal controls taken as a whole;
- the potential loss of key employees of an acquired company;
- the potential dilution of earnings through acquisitions and options granted to employees of acquired companies or businesses; and
- the potential for shareholder lawsuits.

We currently face and will continue to face significant competition.

Our products face and will continue to face significant competition. New developments in technology may negatively affect the development or sale of some or all of our products or make our products uncompetitive or obsolete. Other companies, many of which have substantially greater resources, are currently engaged in the development of plug-in electric hybrid, hydrogen and electric hybrid propulsion products and technologies that are similar to, or may be competitive with, certain of our products and technologies.

Because the plug-in electric hybrid, fuel cell and hybrid propulsion technologies have the potential to replace existing power sources, competition for plug-in electric, fuel cell and hybrid products will come from current power technologies, from improvements to current power technologies and from new alternative power technologies. Increases in the market for alternative fueled vehicles may cause OEMs to find it advantageous to develop and produce their own hybrid propulsion or fuel management equipment rather than purchase the equipment from us. In addition, greater acceptance of plug-in electric hybrid, electric vehicles and alternative fuel engines or fuel cells may result in new competitors. Furthermore, there are competitors, including OEMs, working on developing other plug-in electric, fuel cell and hybrid vehicle technologies in our targeted markets. A large number of corporations, national laboratories and universities in the United States, Canada, Europe and Japan possess plug-in electric, fuel cell and hybrid vehicle technology and/or are actively engaged in the development and manufacture of plug-in electric, fuel cell and hybrid vehicles. Each of these competitors has the potential to capture market share in various markets, which would have a material adverse effect on our position in the industry and our business, results of operations and financial condition. Many of our competitors have greater financial, labor and other resources and a more diverse and developed customer base which give them significant competitive advantages.

We depend on our intellectual property, and our failure to protect that intellectual property could adversely affect our future growth and success.

Our failure to protect our existing intellectual property rights may result in the loss of exclusivity or the right to use our technologies. If we do not adequately ensure our freedom to use certain technology, we may have to pay others for rights to use their intellectual property, pay damages for infringement or misappropriation, and/or be enjoined from using such intellectual property.

We have not conducted formal evaluations to confirm that our technology and products do not or will not infringe upon the intellectual property rights of third parties. As a result, we cannot be certain that our technology and products do not or will not infringe upon the intellectual property rights of third parties. If infringement were to occur, our development, manufacturing, sales and distribution of such technology or products may be disrupted.

We rely on patent, trade secret, trademark and copyright law to protect our intellectual property. Our patent position is subject to complex factual and legal issues that may give rise to uncertainty as to the validity, scope and enforceability of a particular patent. Accordingly, we cannot assure you that any of the patents we have filed or other patents that third parties license to us will not be invalidated, circumvented, challenged, rendered unenforceable, or licensed to others or that any of our pending or future patent applications will be issued with the breadth of claim coverage we seek, if issued at all.

Effective patent, trademark, copyright and trade secret protection may be unavailable, limited or not applied for in certain foreign countries. For instance, it may be difficult for us to enforce certain of our intellectual property rights against third parties who may have inappropriately acquired interests in our intellectual property rights by filing unauthorized trademark applications in foreign countries to register our marks because of their familiarity with our business in the United States.

Some of our proprietary intellectual property is not protected by any patent or patent application, and, despite our precautions, it may be possible for third parties to obtain and use such intellectual property without authorization. We have generally sought to protect such proprietary intellectual property in part by confidentiality agreements and, if applicable, inventors' rights agreements with strategic partners and employees, although such agreements have not been put in place in every instance. We cannot guarantee that these agreements adequately protect our trade secrets and other intellectual property or proprietary rights. In addition, we cannot assure you that these agreements will not be breached, that we will have adequate remedies for any breach or that such persons or institutions will not assert rights to intellectual property arising out of these relationships. Furthermore, the steps we have taken and may take in the future may not prevent misappropriation of our solutions or technologies, particularly in respect of officers and employees who are no longer employed by us or in foreign countries where laws or law enforcement practices may not protect our proprietary rights as fully as in the United States.

Our failure to obtain or maintain the right to use certain intellectual property may negatively affect our business.

Our future success and competitive position depends in part upon our ability to obtain or maintain certain proprietary intellectual property used in our principal products. This may be achieved, in part, by prosecuting claims against others who we believe are infringing our rights and by defending claims of intellectual property infringement brought by others. While we are not currently engaged in any material intellectual property litigation, in the future we may commence lawsuits against others if we believe they have infringed our rights, or we may become subject to lawsuits alleging that we have infringed the intellectual property rights of others. For example, to the extent that we have previously incorporated third-party technology and/or know-how into certain products for which we do not have sufficient license rights, we could incur substantial litigation costs, be forced to pay substantial damages or royalties, or even be forced to cease sales in the event any owner of such technology or know-how were to challenge our subsequent sale of such products (and any progeny thereof). In

addition, to the extent that we discover or have discovered third-party patents that may be applicable to products or processes in development, we may need to take steps to avoid claims of possible infringement, including obtaining non-infringement or invalidity opinions and, when necessary, re-designing or re-engineering products. However, we cannot assure you that these precautions will allow us to successfully avoid infringement claims. Our involvement in intellectual property litigation could result in significant expense to us, adversely affect the development of sales of the challenged product or intellectual property and divert the efforts of our technical and management personnel, whether or not such litigation is resolved in our favor. In the event of an adverse outcome in any such litigation, we may, among other things, be required to:

- pay substantial damages;
- cease the development, manufacture, use, sale or importation of products that infringe upon other patented intellectual property;
- expend significant resources to develop or acquire non-infringing intellectual property;
- discontinue processes incorporating infringing technology; or
- obtain licenses to the infringing intellectual property.

We cannot assure you that we would be successful in any such development or acquisition or that any such licenses would be available upon reasonable terms, if at all. Any such development, acquisition or license could require the expenditure of substantial time and other resources and could have a material adverse effect on our business, results of operations and financial condition.

Our business could suffer if we fail to attract and maintain key personnel.

Our future depends, in part, on our ability to attract and retain key personnel, including engineers, technicians, machinists and management personnel. For example, our research and development efforts depend on hiring and retaining qualified engineers. Competition for highly skilled engineers is extremely intense, and we may experience difficulty in identifying and hiring qualified engineers in many areas of our business. Our future also depends on the continued contributions of our executive officers and other key management and technical personnel, each of whom would be difficult to replace. We do not maintain a key person life insurance policy on our chairman of the board, our chief executive officer, or our chief financial officer. The loss of the services of one or more of our senior executive officers or key personnel, or the inability to continue to attract qualified personnel, could delay product development cycles or otherwise materially harm our business, results of operations and financial condition.

Our insurance may not be sufficient.

We carry insurance that we consider adequate in regard to the nature of the covered risks and the costs of coverage. We are not fully insured against all possible risks, nor are all such risks insurable.

Changes in environmental policies could hurt the market for our products and our renewable energy projects.

The market for plug-in electric hybrid, fuel cell, hybrid and other forms of alternative fuel vehicles and equipment and the demand for our products are driven, to a significant degree, by local, state and federal regulations that relate to air quality, greenhouse gases and pollutants, and that require the purchase of motor vehicles and equipment operating on alternative fuels or fuel cells. Similarly, foreign governmental regulations also affect our international business. These laws and regulations may change, which could result in transportation or equipment manufacturers abandoning or delaying their interest in alternative fuel and fuel cell powered vehicles or equipment. In addition, a failure by authorities to enforce current domestic and foreign laws or to adopt additional environmental laws could limit the demand for our products.

Although many governments have identified as a significant priority the development of alternative energy sources, and fuel cells in particular, we cannot assure you that governments will not change their priorities or that any change they make would not materially affect our revenue or the development of our products.

Our renewable energy projects are also subject to a number of environmental laws, rules and policies related to noise, air, water, wildlife and other aspects of the environment and the surrounding habitat which must be adhered to in order to obtain the permits necessary to develop, construct and operate the projects. Any change in such laws, rules and policies could result in significant cost-overruns and delays or termination of such projects.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results, and current and potential stockholders may lose confidence in our financial reporting.

We are required by the SEC to establish and maintain adequate internal control over financial reporting that provides reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles. We are likewise required, on a quarterly basis, to evaluate the effectiveness of our internal controls and to disclose any changes and material weaknesses in those internal controls.

In our Annual Report on Form 10-K for the year ended April 30, 2009, we reported that we had a material weakness over the accounting for and disclosure of derivatives associated with debt and warrant instruments because we lacked the technical expertise and did not maintain adequate procedures to ensure that the accounting for derivative financial instruments was appropriate under U.S. generally accepted accounting principles (GAAP). Procedures related to identifying derivative instruments and disclosing derivative instruments at April 30, 2009 did not operate properly and this material weakness resulted in a restatement of our prior financial statements. Since April 30, 2009, we developed and implemented a remediation plan to address the identified material weakness as follows: (i) we increased our technical expertise of GAAP associated with accounting for derivative instruments and (ii) we enhanced internal procedures to better identify derivative financial instruments.

Although we believe that these efforts have strengthened our internal control over financial reporting and address the concern that gave rise to the material weakness as of April 30, 2009, we cannot be certain that our expanded knowledge and revised internal control practices will ensure that we maintain adequate internal control over our financial reporting in future periods. Any failure to maintain such internal controls could adversely impact our ability to report our financial results on a timely and accurate basis. If our financial statements are not accurate, investors may not have a complete understanding of our operations. Likewise, if our financial statements are not filed on a timely basis as required by the SEC and NASDAQ, we could face severe consequences from those authorities. In either case, there could result a material adverse affect on our business. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock.

Provisions of Delaware law and of our Certificate of Incorporation and Bylaws may make a takeover or change in control more difficult.

Provisions in our Certificate of Incorporation and Bylaws, and of Delaware corporate law, may make it difficult and expensive for a third party to pursue a tender offer, change in control or takeover attempt that our management and board of directors oppose. Public stockholders that might desire to participate in one of these transactions may not have an opportunity to do so. Our Certificate of Incorporation and Bylaws provide for the following:

- a staggered board of directors, which makes it difficult for stockholders to change the composition of the board of directors in any one year;

- the exclusive right of the board of directors to change the number of directors and fill vacancies on the board of directors, which could make it more difficult for a third party to obtain control of the board of directors;
- authorizing the issuance of preferred stock which can be created and issued by the board of directors without prior stockholder approval, commonly referred to as “blank check” preferred stock, with rights senior to those of our common stock, which could make it more difficult or expensive for a third party to obtain voting control of us;
- advance notice requirements for director nominations or other proposals at stockholder meetings;
- prohibiting stockholder action by written consent, which could delay a third party from pursuing an acquisition; and
- requiring the affirmative vote of holders of at least two-thirds of our outstanding voting stock to amend certain provisions in our Certificate of Incorporation and Bylaws, and requiring the affirmative vote of 80% of our outstanding voting stock to amend certain other provisions of our Certificate of Incorporation and Bylaws, which could make it more difficult for a third party to remove the provisions we have included to prevent or delay a change of control.

These anti-takeover provisions could substantially impede the ability of public stockholders to benefit from a change in control or to change our management and the board of directors.

Item 1B. Unresolved Staff Comments.

Not Applicable.

Item 2. Properties.

Our corporate headquarters is located in Irvine, California. The facility in Irvine is leased from Cartwright, LLC and another unrelated party (collectively referred to as “Cartwright LLC”). Our chief executive officer and an irrevocable trust established by our chairman of the board own 50% and 36.67%, respectively, of Cartwright, LLC. The remaining 13.33% of Cartwright, LLC is owned by an unrelated party.

Our facility in Lake Forest, California conducts the research and development for our *Q-Drive* hybrid electric propulsion system and other hybrid technologies, production of systems and technologies that enable the use of gaseous fuels in internal combustion engines and fuel cells, including hydrogen systems integration, validation and certification for concept, prototype and production vehicles. The center additionally conducts research and development of advanced fuel delivery and electronic control systems for light- and medium-duty OEM alternative fuel vehicles and for fuel cell applications, including transportation. Our facility in Toronto, Ontario houses the administrative offices of our wholly-owned subsidiary, Schneider Power.

As of June 15, 2011, we utilize manufacturing, research and development and general office facilities in the locations set forth below:

<u>Location</u>	<u>Approximate Square Footage</u>	<u>Owned or Leased</u>	<u>Lease Expiration Date</u>	<u>Principal Uses</u>
Irvine, California	88,000	Leased	10/31/15	Corporate offices
Lake Forest, California	156,000	Leased	5/31/15	Manufacturing, assembly, design, research and development, and testing
Toronto, Ontario	5,000	Leased	2/28/13	Administrative offices—Schneider Power, Inc.

We believe our facilities are presently adequate for our current core product manufacturing operations and OEM development programs and production; however, our existing facilities are currently underutilized. Specifically, our facilities in Lake Forest, California include a 60,000 light industrial building that is unoccupied and we only utilize approximately 20% of our available space in our Irvine, California facility for our corporate offices. We anticipate that the unoccupied portions of our facilities will either be fully utilized as we expand our operations in the hybrid vehicle and solar industries or sub-leased to third parties. If we require additional facilities, we believe we will be able to obtain suitable space on commercially reasonable terms.

Item 3. Legal Proceedings.

From time to time, we receive claims of and become subject to product liability, employment, intellectual property and other commercial litigation related to the conduct of our business. Such litigation, regardless of its merit or outcome, could be costly and time consuming and could divert our management and other key personnel from our business operations. The uncertainty of litigation increases the risks associated with it. In connection with such litigation, we may be subject to significant damages or equitable remedies relating to the operation of our business. Any such litigation may materially harm our business, results of operations and financial condition.

We are not currently a party to any material legal proceeding.

Item 4. Reserved.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Our common stock has been traded on the Nasdaq Global Market (f/k/a the Nasdaq National Market) under the symbol "QTWW" since July 23, 2002. Our Series B common stock is not publicly traded. The table below sets forth, for the periods indicated, the high and low daily sales prices for our common stock as reported on the Nasdaq Global Market:

	<u>High</u>	<u>Low</u>
Fiscal Year Ended April 30, 2010		
Quarter ended July 31, 2009	\$17.60	\$13.00
Quarter ended October 31, 2009	35.40	12.40
Quarter ended January 31, 2010	28.40	14.40
Quarter ended April 30, 2010	17.40	12.00
Fiscal Year Ended April 30, 2011		
Quarter ended July 31, 2010	\$15.00	\$ 9.40
Quarter ended October 31, 2010	12.60	7.60
Quarter ended January 31, 2011	12.40	8.40
Quarter ended April 30, 2011	9.20	2.56

On June 15, 2011, the last reported sale price for our common stock as reported by the Nasdaq Global Market was \$3.16 per share and there were approximately 826 holders of record of our common stock and one holder of record of our Series B common stock.

Dividend Policy

We have not paid any dividends in the past, and we do not anticipate paying any dividends on our common stock in the foreseeable future because we expect to retain our future earnings for use in the operation and expansion of our business. Our payment and amount of dividends, however, will be subject to the discretion of our board of directors and will depend, among other things, upon our results of operations, financial condition, cash requirements, future prospects, and other factors that may be considered relevant by our board of directors.

We did not repurchase any securities during the fourth quarter of fiscal 2011. Item 12 of Part III of this Annual Report on Form 10-K contains information concerning securities authorized for issuance under equity compensation plans.

Item 6. Selected Financial Data.

The following table summarizes certain historical financial information at the dates and for the periods indicated prepared in accordance with U.S. Generally Accepted Accounting Principles. The Consolidated Statement of Operations data for the years ended April 30, 2009, 2010 and 2011 and the Consolidated Balance Sheet data as of April 30, 2010 and 2009 have been derived from our audited consolidated financial statements included elsewhere in this Annual Report. The Consolidated Statement of Operations data for the years ended April 30, 2007 and 2008 and the Balance Sheet data as of April 30, 2007, 2008 and 2009 have been derived from audited financial statements not included in this Annual Report. Certain reclassifications have been made to amounts for fiscal years 2007 through 2010 to conform to the fiscal 2011 presentation. The selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements and notes thereto, which are included elsewhere in this Annual Report.

	Year Ended April 30,				
	2007	2008	2009	2010(3)	2011
	(all amounts in thousands, except per share amounts)				
Statement of Operations Data:					
Revenue:					
Net product sales	\$ 10,663	\$ 11,856	\$ 975	\$ 1,450	\$ 4,544
Contract revenue	7,016	14,641	22,283	8,155	15,730
Total revenue	<u>17,679</u>	<u>26,497</u>	<u>23,258</u>	<u>9,605</u>	<u>20,274</u>
Cost and expenses:					
Cost of product sales	9,484	10,016	2,288	1,573	3,693
Research and development	14,146	17,499	25,177	13,534	18,098
Selling, general and administrative	15,811	16,077	13,889	14,133	14,871
Amortization and impairment of long-lived assets	1,674	1,676	7,021	869	1,426
Operating loss	<u>(23,436)</u>	<u>(18,771)</u>	<u>(25,117)</u>	<u>(20,504)</u>	<u>(17,814)</u>
Interest expense, net	(16)	(2,557)	(3,691)	(2,415)	(3,368)
Fair value adjustments of derivatives	1,248	(611)	27,693	(10,574)	13,215
Loss on modification of debt and derivatives	—	—	(23,834)	(14,687)	(1,513)
Gain (loss) on settlement of debt and derivatives	(281)	—	(4,294)	822	(1,494)
Minority interest in losses of subsidiary	811	1,719	—	—	—
Equity in earnings (losses) of affiliates, net	—	335	(733)	1,089	(314)
Other income (expense), net	7	(27)	1,985	(19)	17
Income tax benefit (expense)	(2)	(2)	(2)	(6)	241
Loss from continuing operations	<u>(21,669)</u>	<u>(19,914)</u>	<u>(27,993)</u>	<u>(46,294)</u>	<u>(11,030)</u>
Loss from discontinued operations(1)	<u>(118,184)</u>	<u>(66,886)</u>	<u>—</u>	<u>—</u>	<u>—</u>
Net loss	<u><u>\$(139,853)</u></u>	<u><u>\$(86,800)</u></u>	<u><u>\$(27,993)</u></u>	<u><u>\$(46,294)</u></u>	<u><u>\$(11,030)</u></u>
Per share data—basic and diluted:					
Loss from continuing operations	\$ (7.03)	\$ (5.19)	\$ (6.08)	\$ (7.17)	\$ (1.14)
Loss from discontinued operations	(38.27)	(17.42)	—	—	—
Net Loss	<u><u>\$ (45.29)</u></u>	<u><u>\$ (22.60)</u></u>	<u><u>\$ (6.08)</u></u>	<u><u>\$ (7.17)</u></u>	<u><u>\$ (1.14)</u></u>
Weighted average number of shares outstanding—					
basic and diluted(2)	3,088	3,840	4,601	6,460	9,700

- (1) Consists of the operations of Tecstar Automotive Group, Inc. since the acquisition date of March 3, 2005. All of the historical activities of the Tecstar Automotive Group business segment have been classified as discontinued operations in connection with the disposal of the businesses on January 16, 2008.
- (2) See Note 15 of the notes to the consolidated financial statements included elsewhere in this Annual Report for an explanation of the method used to determine the number of shares used to compute the net loss per share.
- (3) Includes the operations of Schneider Power, Inc. since the acquisition date of April 16, 2010.

	April 30,				
	2007	2008	2009	2010(1)	2011
	(all amounts in thousands)				
Balance Sheet Data:					
Cash and cash equivalents	\$ 2,526	\$ 6,024	\$ 2,621	\$ 4,027	\$ 2,776
Working capital (deficit)	15,159	(14,317)	(24,434)	(11,177)	(22,137)
Total assets	167,543	68,786	59,883	73,018	71,970
Derivative instruments	3,340	16,409	15,198	19,216	4,378
Long-term debt, less current portion	22,311	29,941	18,540	21,134	203
Total equity	80,198	1,786	5,132	24,003	38,578

- (1) Includes the balances of Schneider Power, Inc (SPI). SPI was acquired on April 16, 2010.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our consolidated financial statements and notes to consolidated financial statements included elsewhere in this Annual Report. This discussion contains forward-looking statements, which generally include the plans and objectives of management for future operations, estimates or projections of future economic performance, and our current beliefs regarding revenues, profits and losses, capital resources and liquidity. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various risks and uncertainties, including those set forth under the "Risk Factors" section and elsewhere in this Annual Report.

Company Overview

We are a fully integrated alternative energy company and a leader in the development and production of advanced clean propulsion systems, and renewable energy generation systems and services. We believe that we are uniquely positioned to integrate advanced fuel system, electric drive, software control strategies and propulsion control system technologies for alternative fuel vehicles, in particular, plug-in electric hybrid, electric, fuel cell and hydrogen hybrid vehicles based on our years of experience in vehicle-level design, vehicle electronics, system control strategies and system integration.

Our Electric Drive & Fuel Systems business segment provides powertrain engineering, system integration, manufacturing and assembly of packaged fuel systems and propulsion control systems for vehicles and other applications including fuel cells, hybrids, plug-in hybrid electric, alternative fuels, and hydrogen refueling stations and systems. We also design, engineer and manufacture hybrid and fuel cell vehicles. Our customer base includes automotive Original Equipment Manufacturers (OEMs), fleets, military and governmental agencies, aerospace, and other strategic alliance partners.

Our portfolio of technologies and products include hybrid electric and plug-in hybrid electric powertrain systems, advanced battery control systems, electronic vehicle control systems and software, fuel storage and fuel delivery products and control systems for use in hybrid, electric, fuel cell, and other alternative fuel vehicles. We also design and manufacture computerized controls, regulators and automatic shut-off equipment, lightweight, high-pressure hydrogen and natural gas storage tanks using advanced composite technology and hydrogen refueling systems.

On April 16, 2010, we acquired Schneider Power Inc. (Schneider Power). Schneider Power is a licensed renewable electricity generator based in Toronto, Canada. Schneider Power develops, builds, owns and operates wind and solar electricity generation facilities. Schneider Power has a portfolio in excess of one gigawatt (1,000 MW) of wind and solar energy projects in various stages of development throughout North America and the Caribbean.

Financial Operations Overview

In managing our business, our management uses several financial and non-financial factors to analyze our performance. Financial factors include forecast to actual comparisons, analysis of revenue and cost trends, project costs and analysis, backlog of customer programs, and changes in levels of working capital. Non-financial factors include assessing the extent to which current programs are progressing in terms of timing and deliverables and the success to which our systems are interfacing with our customers' vehicle applications. We also assess the degree to which we secure additional programs or new programs from our current or new OEM customers and the level of government funding we receive for propulsion systems and storage solutions. We also evaluate the number of units shipped as part of current and new programs and evaluate the operations of our affiliates.

Non financial factors for the Renewable Energy business segment include wind study results, land ownership agreements, interconnections to the grid, power purchase agreements and other project metrics framing the underlying economics of a renewable energy farm.

We expense all research and development when incurred. Research and development expense includes both customer-funded research and development and company-sponsored research and development. Customer-funded research and development consists primarily of expenses associated with contract revenue. These expenses include application development costs we funded under customer contracts. We will continue to require significant research and development expenditures over the next several years in order to commercialize our products for hybrid, hydrogen fuel cell and alternative fuel applications.

We classify our business operations into three reporting segments: Electric Drive & Fuel Systems (formerly referred to as the Fuel Systems Segment), Renewable Energy (beginning April 16, 2010) and Corporate. The chief operating decision maker allocates resources and tracks performance by the reporting segments. We evaluate performance based on profit or loss from operations before interest and income taxes.

Electric Drive & Fuel Systems Segment

Our Electric Drive & Fuel Systems segment provides hybrid drivetrain and advanced fuel system design, powertrain engineering, electronic control and software strategies, system integration, manufacturing and assembly of propulsion systems and sub-systems for plug-in hybrid electric, hybrid electric, range extended plug-in electric, fuel cell and other alternative fuel vehicles.

Our products, technologies and engineering services are designed to meet the growing demand for better fuel economy, lower dependency on crude and foreign oil, and reduce harmful emissions. We supply our hybrid electric drive systems and packaged fuel systems for alternative fuel vehicles primarily to OEM customers for use by consumers and for commercial and government fleets. We also provide our products and systems directly to commercial and utility fleets and system integrators. Since 1997, we have sold approximately 20,000 systems for alternative fuel vehicles, primarily to General Motors.

We have completed the final stages of development of a range extended plug-in hybrid electric drive system, which we refer to as Q-Drive. We have developed the Q-Drive for Fisker Automotive, Inc. (Fisker Automotive) for incorporation into its first production vehicle, the Fisker Karma. We plan to continuously update our drive systems for future upgrades and design variants thereof for other vehicle models. Production of the Karma officially commenced in April 2011 and we are shipping components and software to support production builds for the Karma. Our Q-Drive system is comprised of or provides control software for a lithium-ion battery pack, an optimized generator, traction motor(s), transmission/transaxle, inverters, DC-DC converter, hybrid controller, and software and hardware control strategies and software subsystems designed to improve vehicle fuel economy and performance, leverage existing gas station infrastructure, and utilize home-based battery recharging.

We have also developed an F-Drive which is a parallel drive for plug-in hybrid electric vehicle (PHEV) pickup trucks and a "2nd Generation" scaled version of our plug-in hybrid electric drive system that is specifically directed at lower-cost light duty vehicles, including mid-size cars and trucks, to significantly advance PHEVs and the average fuel economy in the near term.

We also design, engineer and manufacture hybrid and fuel cell concept vehicles and hydrogen refueling systems for use in aerospace and military applications.

Our Electric Drive & Fuel Systems segment generates product revenues through the sale of hydrogen fuel storage, fuel delivery, and electronic control systems to OEMs, the installation of our systems into OEM vehicles, and the sale of transportable hydrogen refueling stations. Product revenues are also generated through the sale of compressed natural gas (CNG), propane (LPG), and hydrogen fuel storage, fuel delivery, and electronic control systems for internal combustion engine applications.

Our Electric Drive & Fuel Systems segment also generates contract revenue by providing engineering design and support to OEMs, primarily Fisker Automotive and General Motors, so that our advanced propulsion systems integrate and operate with the OEM's hybrid or fuel cell applications. Contract revenue is also generated from customers in the aerospace industry, military and other governmental entities and agencies, and other strategic alliance partners.

Renewable Energy

Our Renewable Energy segment consists solely of the business operations of Schneider Power, headquartered in Toronto, Ontario, Canada.

Schneider Power is an independent power producer, developer of renewable energy projects and provider of related development services and is a licensed electricity generator and wholesaler. Development of renewable energy projects involves several sequential stages of completion and advancement before a project becomes operational:

- Feasibility studies are performed to obtain sufficient data to validate the wind and/or solar energy capacity from a prospective project;
- Arrangements with local landowners are entered into to obtain easements to allow for the development of an energy farm on their properties;
- Applications are submitted to local utility providers to obtain approvals for grid interconnections;
- Environmental assessments and feasibility studies are completed and submitted to Federal, Provincial and Municipal governments to obtain permits for construction and commissioning; and
- Power Purchase Agreements ("PPAs") with a utility provider or power broker are secured as a project approaches the construction and operational stage.

Wind and solar energy project returns depend mainly on the following factors: energy prices, transmission costs, wind and solar resources, wind turbine and solar module costs, construction costs, financing cost and availability of government incentives. In applying our strategy, we take into account the combination of all of these factors and focus on margins, return on invested capital and value creation as opposed solely to project size. Most of our projects offer attractive returns because of favorable wind and solar resources and higher energy prices. Additionally, in many cases, smaller, more profitable projects can create as much absolute value as do larger, lower-returning projects. We assess the profitability of each project by evaluating its net present value.

An energy project may be financed with all equity or a combination of equity and debt. Due to Schneider Power's limited cash availability and the high cost of development and construction of a project, Schneider Power has historically entered into strategic relationships to provide for project financing.

In addition to energy sales on the existing wind electricity generation facility and future wind and solar energy facilities that Schneider Power is currently developing, this business segment anticipates generating revenues and cash flows through the sale of ownership interests in renewable energy projects and through development and construction services for renewable energy projects owned by third parties.

In February 2011, Schneider Power sold their interest in a 22 MW wind farm that was in an early development phase. Schneider Power received Canadian Dollar (CAD) 2.1 million in total sales proceeds in connection with the sale.

Corporate Segment

The Corporate segment consists of general and administrative expenses incurred at the corporate level that are not directly attributable to the Electric Drive & Fuel Systems or Renewable Energy reporting segments.

Corporate expenses consist primarily of personnel costs, share-based compensation costs and related general and administrative costs for executive, finance, legal, human resources, investor relations and our board of directors.

Included within the Corporate segment is Quantum Solar Energy, Inc. (Quantum Solar) based in Irvine, California which was formed for the purpose of producing and distributing mono and poly-crystalline silicon solar modules with an initial capacity of 45 MW. We currently own 85% of Quantum Solar and the remaining 15% is owned by ConSolTec GmbH, the majority shareholder of Asola. All activities of the consolidated subsidiary are included in our Corporate segment and to date principally consist of partial payments on long lead assembly equipment under construction for solar module production capability. Once Quantum Solar commences its manufacturing operations, we anticipate that we will report these activities under a new business segment separate from the Electric Drive & Fuel Systems, Renewable Energy and Corporate reporting segments.

In March 2011, we finalized a low interest loan of up to \$4.4 million with the California Energy Commission (CEC) under the CEC's Clean Energy Business Financing Program. Draw downs under the loan are subject to certain conditions, namely, the investment by us of a specified amount of matching funds. Any proceeds received under the CEC loan will be utilized to assist in the purchase of manufacturing equipment for the start up of Quantum Solar's module manufacturing operation.

On March 14, 2011, we amended a non-binding Letter of Intent with Asola's majority owner, ConSolTec GmbH (ConSolTec), that we originally executed on August 24, 2010, which sets forth terms related to a proposed transaction pursuant to which we and ConSolTec would establish a newly formed holding company, with us as the controlling equity holder, to create a solar panel manufacturing, distribution and sales entity to service global markets (the "Asola LOI"). The assets of the new entity would include Asola and Quantum Solar as wholly-owned subsidiaries. Under the proposed terms of the Asola LOI, the transaction is contingent upon several conditions including our ability to raise a certain level of capital in order to provide compensation to ConSolTec and to provide sufficient equity capital to the new entity to enable the entity's expansion into additional global markets. The Asola LOI, as amended, contemplated a transaction completion date of June 30, 2011; however, since that date was not met, we are currently seeking an extension of the arrangement.

Critical Accounting Policies and Estimates

The discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with US generally accepted accounting principles (US GAAP) and are included elsewhere in this report. We believe that the application of certain critical accounting policies, which are important to our financial position and results of operations, require significant judgments and estimates on the part of management. We evaluate our estimates on an ongoing basis. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Management considers an accounting estimate to be critical if:

- it requires assumptions to be made that were uncertain at the time the estimate was made; and
- changes in the estimate or different estimates that could have been selected could have a material impact on our results of operations or financial condition.

Our management has discussed the development and selection of these critical accounting policies and estimates with the audit committee of our board of directors, and the audit committee has reviewed the disclosure presented below relating to them. We believe the critical accounting policies described below affect the more significant judgments and estimates used in the preparation of our consolidated financial statements:

- We generally manufacture products based on specific orders from customers. Revenue is recognized on product sales upon shipment or when the earnings process is complete and collectibility is reasonably

assured. We include the costs of shipping and handling, when incurred, in cost of goods sold. In certain circumstances, customers pay one price for multiple products and services. For arrangements with multiple deliverables, revenue is recognized upon the delivery of the separate units based on their relative selling prices. Consideration from multiple element arrangements is allocated among the separate elements based on their relative fair values in accordance with Accounting Standards Update (ASU) No. 2009-13, "Revenue Recognition (Topic 605)—Multiple-Deliverable Revenue Arrangements."

- We generally recognize revenue and profit as work progresses on long-term, fixed price contracts for product application development using the percentage-of-completion method. Generally, we estimate percentage complete by determining cost incurred to date as a percentage of total estimated cost at completion. For certain other contracts, percentage complete is determined by measuring progress towards contract deliverables if it is determined that this methodology more closely tracks the realization of the earnings process. For contracts measured under the estimated cost approach, we believe we can generally make dependable estimates of the revenue and costs applicable to various stages of a contract. Recognized revenue and profit are subject to revisions as the contract progresses to completion. Our estimates of contract costs are based on expectations of engineering development time and materials and other support costs. These estimates can change based on unforeseen technology and integration issues, but known risk factors and contract challenges are generally allowed for in the initial scope and cost estimate of the program. Our historical final contract costs have usually approximated the initial estimates and any unforeseen changes in the estimates have not normally resulted in a material impact to financial results. Revisions in profit estimates are charged to income in the period in which the facts that give rise to the revision become known. For energy sales, we recognize revenues based on the terms of a power purchase agreement which outlines long-term pricing and escalation for the power produced by the renewable energy farm.
- We conduct a major portion of our business with a limited number of customers. For fiscal 2011 and for the foreseeable future, Fisker Automotive has represented and is expected to continue to represent, a significant portion of our revenues and accounts receivables. Credit is extended based upon an evaluation of each customer's financial condition, with terms consistent with those present throughout the industry. Typically, we do not require collateral from customers. We have recorded an allowance for uncollectible accounts receivable based on past experience and certain circumstances surrounding the composition of total accounts receivable. To the extent we increase this allowance, we must include an expense in the statement of operations. If commercial conditions differ from management's estimates, an additional write-off may be required.
- We provide for the estimated cost of product warranties at the time revenue is recognized based on past experience and expectations of future costs to be incurred. Our Electric Drive & Fuel Systems segment provides product warranties in certain circumstances depending on the platform and model year. For prototype components and systems that are not production intent, warranties are generally not provided. While we engage in product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers, our warranty obligation is affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. Should actual product failure rates, material usage or service delivery costs differ from our estimates, revisions to the estimated warranty liability would be required.
- We write down our inventory for estimated obsolescence or unmarketable inventory equal to the difference between the cost of inventory and the estimated market value based upon assumptions about future demand and market conditions. As part of our estimate, we rely upon future planned design configurations and projected alternative usage of certain components estimated by our engineering teams. We also consider estimated demand for service and warranty parts based on historical information. If actual usage rates or market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

- We account for our ownership interests in Asola, PCD and Shigan Quantum under the equity method of accounting in accordance with Accounting Standards Codification (ASC) Topic No. 323 “Investments—Equity Method and Joint Ventures” (ASC 323) as a result of our ability to exercise significant influence over the operating and financial policies of these affiliates. Under ASC 323, investments of this nature are recorded at original cost and adjusted periodically to recognize our proportionate share of the entity’s net income or losses after the date of investment. When net losses from an investment accounted for under the equity method exceed its carrying amount, the investment balance is reduced to zero and additional losses are not recorded. We resume accounting for the investment under the equity method when the entity subsequently reports net income and our share of that net income exceeds the share of net losses not recognized during the period the equity method was suspended. We account for our ownership interest in Fisker Automotive under the cost method of accounting in accordance with ASC Topic No. 325-20 “Cost Method Investments” (ASC 325-20). Under ASC 325-20, investments of this nature are initially recorded at cost. Income is recorded for dividends received that are distributed from net accumulated earnings of the investee subsequent to the date of investment. Dividends received in excess of earnings subsequent to the date of investment are considered a return of investment and are recorded as reductions in the cost of the investment. Investments are written down only when there is clear evidence that a decline in value that is other than temporary has occurred. Our foreign based affiliates have functional currencies other than the US Dollar. As such, translation adjustments may result from the process of translating our affiliates’ financial statements from their functional currency to US Dollars, which we account for in accordance with ASC Topic No. 830 “Foreign Currency Matters.”
- We periodically evaluate our long-lived assets for impairment, particularly intangible assets and goodwill relating to acquisitions. Goodwill is not amortized, but is evaluated periodically for any impairment in the carrying value. We review our long-lived assets, which include property and equipment, construction in process, intangible assets and goodwill, for impairment on an annual basis or whenever events or changes in circumstances indicate that the carrying value of such assets may not be recoverable. Factors we consider important which could trigger an impairment review include, but are not limited to, the following: significant underperformance relative to expected historical or projected future operating results; significant changes in the manner of our use of the acquired assets or the strategy for our overall business; significant negative industry or economic trends; and a significant decline in our stock price for a sustained period. Goodwill and long-lived asset impairment assessments are generally determined based on fair value techniques, including determining the estimated future discounted and undiscounted cash flows over the remaining useful life of the asset. Those models require estimates of future revenue, profits, capital expenditures and working capital for each reporting unit. We estimate these amounts by evaluating historical trends, the current state of the automotive industry and the economy, current budgets, and operating plans. Discounted cash flows are calculated using a discount rate determined by management to be commensurate with the risk inherent in the current business model. Determining the fair value of reporting units and goodwill includes significant judgment by management and different judgments could yield different results. Any resulting impairment loss could have a material impact on our financial condition and results of operations.
- We account for provisions contained within certain of our warrant contracts and the written put option contained within the Lender Commitment as derivative instrument liabilities in accordance with ASC Topic No. 815 “Derivatives and Hedging” (ASC 815). The share price of our common stock represents the underlying variable that gives rise to the value of the derivative instruments. Additional factors include the volatility of our stock price, our credit rating, discount rates, and stated interest rates. In accordance with ASC 815, the derivative instrument liabilities are recorded at fair value and marked to market each period. Changes in fair value of the derivatives each period resulting from a movement in the share price of our common stock or the passage of time are recognized as fair value adjustments of derivative instruments on our consolidated statements of operations as other income or expense. The fair value adjustments can have a material impact on our financial condition and results of operations.

- We evaluate whether modifications to and restructuring of existing debt instruments result in substantial changes as defined by ASC Topic No. 470, "Debt" (ASC 470). Significant management judgment is required and we use the assistance of independent valuation consultants to estimate the fair value of the original and amended debt instruments as part of our evaluation. Different judgments could yield different results. If we determine that a substantial change has occurred with respect to the modifications, we treat the transaction as an extinguishment of the original debt and recognize a gain or loss on the debt retirement. If we determine that our senior lender has for economic or legal reasons related to our financial condition, granted us a concession that our senior lender would not otherwise consider, we treat the modifications as a troubled debt restructuring and analyze whether a gain should be recorded in connection with the concession.
- We account for stock compensation expense under ASC Topic No. 718 "Compensation—Stock Compensation" (ASC 718). ASC 718 requires all share-based payments, including grants of stock options and restricted stock, to be recognized in our financial statements based on their respective grant date fair values. Under this standard, the fair value of each employee stock option is estimated on the date of grant using an option-pricing model that meets certain requirements. We currently use the Black-Scholes option-pricing model to estimate the fair value of our share-based payments. The Black-Scholes model meets the requirements of ASC 718 but the fair values generated by the model may not be indicative of the actual fair values of our share-based awards as it does not consider certain factors important to share-based awards, such as continued employment, periodic vesting requirements and limited transferability. The determination of the fair value of share-based payment awards utilizing the Black-Scholes model is affected by our stock price and a number of assumptions, including expected volatility, expected life, risk-free interest rate and expected dividends. We estimate the expected volatility and estimated life of our stock options at grant date based on historical data trended into the future. The risk-free interest rate assumption is the Constant Maturity Treasury rate on government securities with a remaining term equal to the expected term of the option. The dividend yield assumption is based on our history and expectation of dividend payouts. The fair value of our restricted stock is based on the fair market value of our common stock on the date of grant. Share-based compensation expense recognized in our financial statements is based on awards that are ultimately expected to vest. The amount of share-based compensation expense is reduced for estimated forfeitures based on historical experience. Forfeitures are required to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. We evaluate the assumptions used to value stock-based awards on a quarterly basis. If factors change and we employ different assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, we may be required to accelerate, increase or cancel any remaining unearned share-based compensation expense. To the extent that we grant additional equity securities to employees or we assume unvested securities in connection with any acquisitions, our share-based compensation expense will be increased by the additional unearned compensation resulting from those additional grants or acquisitions.
- As part of the process of preparing our consolidated financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. This process involves the estimation of our actual current tax exposure together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. Included in this assessment is the determination of the net operating loss carry-forward that has resulted from our cumulative net operating loss. These temporary differences result in an overall net deferred tax asset or liability position. We must assess the likelihood that our deferred tax assets will be recovered from future taxable income and to the extent that we believe that recovery is not likely, we must establish a valuation allowance. To the extent we establish a valuation allowance or change this allowance in a period, we generally include an expense or benefit within the tax provision in the consolidated statement of operations. Significant management judgment is required in determining our provision for income taxes, our deferred tax liabilities and our deferred tax assets, including any valuation allowance

recorded against our deferred tax assets. We have recorded a partial valuation allowance on our deferred tax assets due to uncertainties related to our ability to fully utilize these assets, primarily consisting of net operating losses and credits that may be carried forward before they expire, and that are subject to certain limitations. In the event that actual results differ from these estimates or we adjust these estimates in future periods, we may need to adjust the recorded valuation allowance, which could materially impact our financial position and results of operations.

New Accounting Pronouncements

See Note 2 to the accompanying Consolidated Financial Statements for information regarding recent accounting pronouncements adopted and issued.

Results of Operations

Years Ended April 30, 2010 and 2011

Total revenues and operating loss for our continuing business segments and gross profit (loss) on our product sales for the years ended April 30, 2010 and 2011 were as follows:

	<u>Year Ended April 30,</u>	
	<u>2010</u>	<u>2011</u>
Total Revenue		
Electric Drive & Fuel Systems	\$ 9,590,085	\$ 19,605,178
Renewable Energy	15,064	669,070
Corporate	—	—
Total	<u>\$ 9,605,149</u>	<u>\$ 20,274,248</u>
Operating Loss		
Electric Drive & Fuel Systems	\$(10,910,416)	\$ (5,689,421)
Renewable Energy	(76,904)	(2,873,876)
Corporate	(9,517,294)	(9,249,974)
Total	<u>\$(20,504,614)</u>	<u>\$(17,813,271)</u>
Product Gross Profit (Loss)		
Electric Drive & Fuel Systems:		
Net product sales	\$ 1,437,467	\$ 4,231,695
Cost of product sales	(1,559,546)	(3,592,623)
Product gross profit (loss)	<u>\$ (122,079)</u>	<u>\$ 639,072</u>
Renewable Energy:		
Net product sales	\$ 12,992	\$ 312,063
Cost of product sales	(13,834)	(100,203)
Product gross profit (loss)	<u>\$ (842)</u>	<u>\$ 211,860</u>

Electric Drive & Fuel Systems Segment

Overall segment revenues increased \$10.0 million, from \$9.6 million in fiscal 2010 to \$19.6 million in fiscal 2011. The increase in revenue in fiscal 2011 is primarily related to increased activities related to the Fisker Karma development program and initial product shipments to Fisker Automotive.

Fisker Automotive comprised 46% and 56%, General Motors comprised 12% and 13%, and U.S. Army—TARDEC comprised 11% and 1%, of the total Electric Drive & Fuel Systems segment revenue reported for the fiscal years ended April 30, 2010 and 2011, respectively. For fiscal 2012 and for the foreseeable

future, we anticipate that Fisker Automotive will continue to represent a significant portion of our overall Electric Drive & Fuel Systems segment revenues as we continue to ship components to and provide development services for Fisker Automotive.

Product revenue for the Electric Drive & Fuel Systems segment increased \$2.8 million, or 200%, from \$1.4 million in fiscal 2010 to \$4.2 million in fiscal 2011, due in part to the initial product shipments of our *Q-Drive* hybrid drive system for the Fisker Karma and increased shipments of high pressure fuel storage tanks for CNG applications. We expect product revenue to increase in fiscal 2012 due to Fisker Automotive's anticipated increase in production of the Fisker Karma in the second half of calendar 2011 and the launch of our F-150 PHEV program.

Contract revenue for the Electric Drive & Fuel Systems segment increased \$7.2 million, or 88%, from \$8.2 million in fiscal 2010, to \$15.4 million in fiscal 2011. Contract revenue is derived primarily from system development and application engineering of our products under customer funded contracts.

Cost of product sales for the Electric Drive & Fuel Systems segment increased \$2.0 million, or 125%, from \$1.6 million in fiscal 2010, to \$3.6 million in fiscal 2011, primarily as a result of increased product sales.

Gross profits on product sales for fiscal 2011 improved \$0.7 million, from a negative \$0.1 million in fiscal 2010, to a positive \$0.6 million in fiscal 2011. The improved gross margins are primarily due to higher revenues realized in fiscal 2011 that absorbed a fixed level of manufacturing overhead costs. We expect to realize improvement in our gross margins for fiscal 2012 as we anticipate increased shipments of *Q-Drive* components to Fisker Automotive.

Research and development expense associated with development contracts increased \$5.1 million, or 76%, from \$6.7 million in fiscal 2010, to \$11.8 million in fiscal 2011, which was mainly due to higher development program and pre-production activities in the current fiscal year related to the planned launch of the Fisker Karma.

Internally funded research and development expense for the Electric Drive & Fuel Systems segment decreased \$1.0 million, or 15%, from \$6.7 million in fiscal 2010, to \$5.7 million in fiscal 2011. Our internally funded research effort includes hybrid control strategies and proprietary software designed to precisely control hybrid propulsion and vehicle performance and hydrogen storage, injection and regulation programs. The decrease in internally funded research and development is mainly due to focusing our engineering resources on activities associated with the Fisker Karma program and other customer funded development contracts.

Selling, general and administrative expenses for the Electric Drive & Fuel Systems segment decreased \$0.4 million, or 9%, from \$4.6 million in fiscal 2010, to \$4.2 million in fiscal 2011, due in part to lower facility costs.

Amortization and impairment of long-lived assets was \$0.9 million in fiscal 2010 and zero in fiscal 2011. The amount recognized in fiscal 2010 related to a charge associated with the full impairment of our advances made to Advanced Lithium Power, Inc. (ALP), a former affiliate. In June 2010, certain secured creditors of ALP had a receiver appointed pursuant to the terms of a General Security Agreement and, as a result, ALP ceased operations. We recorded an impairment charge to write off the entire balance in fiscal 2010 of the non-current advances provided to ALP that were associated with undelivered products and services still owed to us.

Operating loss for the Electric Drive & Fuel Systems segment improved \$5.2 million, from a loss of \$10.9 million in fiscal 2010, to a loss of \$5.7 million in fiscal 2011, mainly as a result of higher revenues generated in the current year. We expect the operating loss to continue to improve in fiscal 2012 as a result of anticipated higher revenues related to the Fisker Karma program and the launch of our PHEV F-150 program.

Renewable Energy Segment

Our results of operations include the activities of Schneider Power for the period of time subsequent to our acquisition of Schneider Power on April 16, 2010. Schneider Power recognized \$0.3 million of revenue from energy sales related to its Providence Bay wind farm that is reported as part of net product revenues, \$0.4 million of revenue from construction management contract services and \$3.5 million of operating expenses during fiscal 2011. Included in operating costs in fiscal 2011 was a \$1.0 million impairment charge due to the abandonment of the Spring Bay wind farm construction project in early calendar 2011, and \$0.4 million of amortization expense relating to intangible assets associated with the renewable energy project portfolio identified in connection with the acquisition of Schneider Power.

Schneider Power's operating loss was \$2.9 million for the twelve months of fiscal 2011, as compared to an operating loss of \$0.1 million recognized in fiscal 2010 for the period from April 17, 2010 to April 30, 2010.

We expect Schneider Power's operating activities to increase in fiscal 2012 if we are able to obtain sufficient project debt and equity financing to enable continued development and construction of Schneider Power's portfolio of wind and solar farm projects.

Corporate Segment

Corporate expenses decreased \$0.3 million in fiscal 2011, from \$9.5 million in fiscal 2010 to \$9.2 million in fiscal 2011, due in part to significantly higher than usual levels of professional service fees incurred in fiscal 2010 in connection with our acquisition of Schneider Power and other administrative expenses. Corporate expenses reported for this segment reflect the general and administrative expenses that indirectly support our ongoing Electric Drive & Fuel Systems segment, our Renewable Energy segment, and any future operating segments. Corporate expenses consist primarily of personnel costs, share-based compensation costs and related general and administrative costs for executives, finance, legal, human resources, investor relations and our board of directors. Corporate expenses as a percentage of total consolidated revenues decreased to 46% for fiscal 2011, as compared to 99% for fiscal 2010, primarily due to higher revenues and lower costs realized in fiscal 2011. We expect Corporate expenses as a percentage of total consolidated revenues to further improve in fiscal 2012 as we anticipate that our consolidated revenues in fiscal 2012 will be proportionately higher than the increase in Corporate expenses over the next twelve months.

Non-Reporting Segment Results

Interest Expense. Interest expense, net of interest income, amounted to \$3.4 million in fiscal 2011, as compared to \$2.4 million recognized in fiscal 2010. Interest expense primarily relates to debt instruments payable to our senior lender. The increase in expense during fiscal 2011 is primarily related to higher effective interest rates incurred associated with the investor bridge term loans that were issued in October 2010 and the amortization of debt origination costs associated with new and amended debt instruments in fiscal 2011.

Fair Value Adjustments of Derivative Instruments. Derivative instruments at April 30, 2011, consisted of certain warrant contracts referred to in our financial statements as the October 2006 Warrants, the June 2007 Warrants, the August 2008 Warrants, the August 2009 Warrants, the September 2009 Warrants, and the "B" warrants issued on February 18, 2011. There was also derivative instruments associated with the embedded conversion features under the bridge notes modified in January 2011 that expired upon the maturity of the bridge notes on April 29, 2011 and a derivative instrument associated with the senior lender's written put option under a \$10.0 million lender commitment that was in effect during fiscal 2011 until the commitment was terminated in connection with the execution of a Forbearance Agreement and restructuring of debt with our senior lender that occurred on January 3, 2011. Fair value adjustments of derivative instruments, which represent non-cash unrealized gains or losses, amounted to a gain of \$13.2 million in fiscal 2011, compared to a loss of \$10.6 million in fiscal 2010. The share price of our common stock represents the primary underlying variable that impacts the value of the derivative instruments. Additional factors that impact the value of the derivative instruments include

the volatility of our stock price, our credit rating, and discount rates. The unrealized gain recognized in fiscal 2011 was primarily attributable to the decrease in our share price over the course of fiscal 2011 (\$14.00 at April 30, 2010 and \$2.58 at April 30, 2011) that materially decreased the fair value of the derivative instrument liabilities during the fiscal year. Due to the volatile nature of our share price, we expect that we will continue to recognize gains or losses on our derivative instruments each period and that the amount of such gains or losses could be material.

Loss on Modification of Debt and Derivative Instruments. We recognized losses on contractual modifications of our debt and derivative instruments issued to our senior lender amounting to \$14.7 million in fiscal 2010 and \$1.5 million in fiscal 2011. These contractual modifications, discussed further in Note 10 to the consolidated financial statements, are as follows:

- On July 10, 2009, we (i) modified the derivative feature embedded within Convertible Note I, (ii) replaced an existing term note (Term Note A) with a new convertible instrument (Convertible Note II), (iii) issued a new convertible instrument (Convertible Note III) in exchange for cash proceeds of \$3.0 million, and (iv) modified Term Note B. These modifications and exchanges resulted in an immediate charge of \$7.0 million in connection with the transactions.
- On August 3, 2009, we modified the \$10.0 million lender commitment to establish a fixed conversion price should the lender exercise its written put option and elect to make the investment in the form of a convertible note. Prior to the modification, the convertible note conversion price was variable. The fixed conversion price modification resulted in an immediate charge of \$2.6 million.
- On November 24, 2009, we recognized a total charge of \$5.1 million as a result of a series of transactions with our senior lender that was accounted for as an implied exchange of debt instrument. The significant components of the charge were as follows: (i) \$1.3 million resulting from amending the stated maturity dates on the three convertible notes held by our senior lender from August 31, 2010 to March 31, 2011 (which immediately increased the fair values of these debt instruments over their existing carrying values by \$1.3 million); (ii) \$0.4 million from amending the expiration date of the \$10.0 million lender commitment from August 31, 2010 to March 31, 2011; and (iii) \$3.5 million from the issuance of a new debt instrument (which we refer to in our SEC filings and financial statements as the "Consent Fee Term Note") to our senior lender in satisfaction of a fee we agreed to pay our senior lender in order to obtain the senior lender's consent, as required by our credit agreement, in connection with our acquisition of Schneider Power.
- On January 3, 2011, we and our senior lender executed a Forbearance Agreement and restructured certain of our debt instruments. In connection with the debt restructure, the three convertible notes held by our senior lender were modified to extend the maturity dates from July 31, 2011 to August 31, 2011, and the fixed conversion price in each convertible note was reduced from \$14.20 to \$9.80; the \$10 million lender commitment was terminated; the senior lender provided us with a new \$5.0 million non-revolving line of credit; and we issued a warrant to the senior lender entitling it to purchase up to 277,777 shares of our common stock at a fixed exercise price of \$9.00 per share. We concluded that the modifications to the convertible note debt instruments were substantial and represented an implied exchange of those debt instruments for new debt instruments. A net loss of \$0.5 million on extinguishment of the convertible note debt instruments and the derivative instrument associated with the \$10 million lender commitment was recognized in connection with the debt restructure.
- On January 18, 2011, we and each of the holders of the bridge notes that we issued in October 2010 (2010 Bridge Notes) entered into an agreement pursuant to which the principal and interest repayment terms and the maturity date of the 2010 Bridge Notes were amended and we issued warrants to the holders of the 2010 Bridge Notes entitling them to purchase up to 131,902 shares of our common stock at a fixed exercise price of \$9.20. We concluded that the modifications to the 2010 Bridge Notes were substantial and represented an implied exchange of the existing 2010 Bridge Notes for new 2010 Bridge Notes. A net loss on extinguishment of \$1.0 million was recognized as a result of the implied exchange.

Loss on Settlement of Debt and Derivative Instruments. During fiscal 2010 and 2011, we settled a total of \$20.5 million and \$5.8 million, respectively, of principal due under our debt obligations, and in fiscal 2010 and fiscal 2011, we also extinguished \$10.5 million and \$0.2 million, respectively, of derivative liabilities associated with certain of our debt obligations owed to our senior lender, by the issuance of shares of our common stock. As a result of these in-kind settlements and related extinguishments, we recognized a gain of \$0.8 million in fiscal 2010 and a loss of \$1.5 million in fiscal 2011. Included in the loss for fiscal 2011 was a charge of \$1.6 million associated with the cancellation of \$2.0 million of principal due under a non-revolving line of credit with the senior lender in exchange for the issuance of shares of our common stock and warrants in connection with a private placement offering in which the senior lender participated as an investor that closed on February 18, 2011.

Equity in Earnings of Affiliates. During fiscal year 2011, we recognized losses of \$0.3 million, representing the net equity in earnings (losses) of our affiliates that we account for under the equity method of accounting. The loss in fiscal 2011 is primarily associated with the operating results of Asola, of which we recognized a loss of \$0.2 million (see table below) and the operating results of Shigan Quantum and PCD. In fiscal 2010, we recognized net earnings of \$1.1 million, primarily representing our equity share in earnings of Asola.

Our equity in net losses of Asola of \$0.2 million for fiscal 2011 differs from the 24.9% of \$1.3 million in net income of Asola that was reported for the twelve months ended April 30, 2011 under German GAAP. This difference is due to adjustments to equity in net earnings (losses) related to differences between German GAAP and US GAAP. Such differences are adjusted for in calculating our equity in losses under US GAAP for fiscal 2011 as follows:

	<u>Euros</u>	<u>US Dollars</u>
Net earnings of Asola reported under German GAAP for the twelve months ended April 30, 2011	€ 1,019,920	\$ 1,285,538
Adjust earnings (losses) in accordance with US GAAP:		
Foreign currency derivative contracts	(1,525,380)	(2,137,452)
Other	<u>(52,367)</u>	<u>(75,797)</u>
Net losses of Asola reported under US GAAP for the twelve months ended April 30, 2011	<u>(557,827)</u>	<u>(927,711)</u>
Quantum's share of net losses at 24.9% for the twelve months ended April 30, 2011	<u>(€138,899)</u>	<u>\$ (231,000)</u>

Our ownership in Fisker Automotive was also accounted for under the equity method from inception of the business through August 2010; however, we did not recognize any share of losses realized by Fisker Automotive through August 2010 as our net investment balance in the business at all times had been zero and we had no obligation to fund deficit balances of the business. Effective as of September 2010, we now account for our ownership share in Fisker Automotive under the cost method.

Income Taxes. In fiscal 2011, we recorded a net tax benefit of \$0.2 million that primarily resulted from undistributed earnings of our investment in Asola associated with foreign currency translation effects. As a result of our historical losses, we have generated significant net operating losses that we can carry forward to offset taxable earnings that we generate in the future. We expect that income taxes will be minor in fiscal 2012.

Years Ended April 30, 2009 and 2010

Total revenues and operating loss for our continuing business segments and gross loss on our product sales for the years ended April 30, 2009 and 2010 were as follows:

	Year Ended April 30,	
	2009	2010
Total Revenue		
Electric Drive & Fuel Systems	\$ 23,257,720	\$ 9,590,085
Renewable Energy	—	15,064
Corporate	—	—
Total	<u>\$ 23,257,720</u>	<u>\$ 9,605,149</u>
Operating Loss		
Electric Drive & Fuel Systems	\$(14,398,443)	\$(10,910,416)
Renewable Energy	—	(76,904)
Corporate	(10,718,785)	(9,517,294)
Total	<u>\$(25,117,228)</u>	<u>\$(20,504,614)</u>
Product Gross Loss		
Electric Drive & Fuel Systems:		
Net product sales	\$ 975,098	\$ 1,437,467
Cost of product sales	(2,288,237)	(1,559,546)
Product gross loss	<u>\$ (1,313,139)</u>	<u>\$ (122,079)</u>
Renewable Energy:		
Net product sales	\$ —	\$ 12,992
Cost of product sales	—	(13,834)
Product gross loss	<u>\$ —</u>	<u>\$ (842)</u>

Electric Drive & Fuel Systems Segment

Overall segment revenues decreased \$13.7 million, from \$23.3 million in fiscal 2009 to \$9.6 million in fiscal 2010. The decrease in revenue in fiscal 2010 is primarily related to delays at Fisker Automotive related to the Fisker Karma development program.

Fisker Automotive comprised 59% and 46%, General Motors comprised 13% and 12%, and U.S. Army—TARDEC comprised 13% and 11%, of the total Fuel Systems segment revenue reported for the fiscal years ended April 30, 2009 and 2010, respectively.

Product revenue for the Fuel Systems segment increased \$0.4 million, or 40%, from \$1.0 million in fiscal 2009 to \$1.4 million in fiscal 2010.

Contract revenue for the Electric Drive & Fuel Systems segment decreased \$14.1 million, or 63%, from \$22.3 million in fiscal 2009 to \$8.2 million in fiscal 2010. Contract revenue is derived primarily from system development and application engineering of our products under funded Fisker Automotive contracts, OEM contracts, and other funded contract work with the U.S. military and other government agencies. We began the third phase of the Fisker Karma development program in April 2009, which included services related to system validation, certification and other pre-production development activities. The significant decline in contract revenue in fiscal 2010 compared to fiscal 2009 was primarily due to program delays at Fisker Automotive due to their funding restraints. In September 2009, Fisker Automotive announced that they had received a conditional commitment from the U.S. Department of Energy (DOE) for \$528.0 million in low interest loans. However, the loan was not finalized and Fisker Automotive was unable to draw upon the loan until the spring of 2010. As a result, Fisker Automotive suspended much of its activities related to the Fisker Karma program including many of the activities covered under the phase three statement of work.

Cost of product sales for the Electric Drive & Fuel Systems segment decreased \$0.7 million, or 30%, from \$2.3 million in fiscal 2009 to \$1.6 million in fiscal 2010. This improvement was mainly due to lower levels of obsolescence inventory reserves in fiscal 2010 as compared to fiscal 2009. During fiscal 2009, we recognized higher than usual charges for inventory reserves in connection with the deterioration of the automotive industry and reduced turnover of our inventory of automotive component parts.

Gross profits on product sales for the Electric Drive & Fuel Systems segment improved \$1.2 million from a negative \$1.3 million in fiscal 2009 to a negative \$0.1 million in fiscal 2010. The negative gross margins were primarily due to unabsorbed manufacturing overhead costs.

Research and development expense associated with development contracts decreased \$10.2 million, or 60%, from \$16.9 million in fiscal 2009 to \$6.7 million in fiscal 2010. The decrease is primarily related to decreased levels of design and engineering services performed in connection with the Fisker Automotive Karma program during fiscal 2010 as a result of the program delays at Fisker Automotive.

Internally funded research and development expense for the Electric Drive & Fuel Systems segment decreased \$1.6 million, or 19%, from \$8.3 million in fiscal 2009 to \$6.7 million fiscal 2010. Our internally funded research effort shifted away from hydrogen storage, injection and regulation programs in fiscal 2010 and was more focused on solid-state components, hybrid control strategies and proprietary software designed to precisely control hybrid propulsion and vehicle performance. The reduction in fiscal 2010 was primarily due to personnel related cost reductions implemented during fiscal year 2010.

Selling, general and administrative expenses for the Electric Drive & Fuel Systems segment increased \$1.4 million, from \$3.2 million in fiscal 2009 to \$4.6 million in fiscal 2010. The increase during fiscal 2010 primarily related to a \$1.2 million non-recurring gain that was recognized during the second quarter of fiscal 2009 related to an insurance settlement associated with facility damages.

Amortization and impairment of long-lived assets in fiscal 2009 related to our strategic alliance agreement with General Motors in the amount of \$7.0 million. On January 31, 2009, the remaining unamortized balance of the intangible asset was written off in connection with an impairment analysis performed due to the deterioration of the automobile industry. As a result of the impairment, there has been no amortization expense recognized in this segment since January 31, 2009. In fiscal 2010, we recognized a charge of \$0.9 million associated with the full impairment of our advances made to ALP. In June 2010, certain secured creditors of ALP had a receiver appointed pursuant to the terms of a General Security Agreement between ALP and such secured creditors and as a result, ALP ceased operations. As a result, we recorded a charge to write off the entire balance of advances provided to ALP that were associated with undelivered products and services still owed to us.

Operating loss for the Electric Drive & Fuel Systems segment decreased \$3.5 million, from \$14.4 million in fiscal 2009 to \$10.9 million in fiscal 2010. The decrease in operating loss was primarily due to the amortization and impairment of the remaining unamortized intangible asset associated with General Motors that was written off in fiscal 2009, which amounted to charges of \$7.0 million incurred in fiscal 2009 and none in fiscal 2010. Excluding the effects of the amortization and impairment charges related to long-lived assets associated with General Motors in fiscal 2009 and ALP in fiscal 2010, the operating loss would have increased \$2.6 million during fiscal 2010 which is attributable to the lower revenues generated in fiscal 2010.

Renewable Energy Segment

Our results of operations for fiscal 2010 included the activities of our wholly owned subsidiary, Schneider Power, for the period of time subsequent to our acquisition (April 17, 2010 through April 30, 2010). During that two week period, Schneider Power recognized \$15 thousand of revenue from energy sales related to its Providence Bay Wind Farm and recognized operating expenses of \$0.1 million.

Corporate Segment

Corporate expenses decreased \$1.2 million in fiscal 2010 from \$10.7 million in fiscal 2009 to \$9.5 million in fiscal 2010. Corporate expenses reported for this segment reflect the general and administrative expenses that indirectly support our ongoing Electric Drive & Fuel Systems operating segment, our Renewable Energy segment and any future operating segments. Corporate expenses consist primarily of personnel costs, share-based compensation costs and related general and administrative costs for executive, finance, legal, human resources, investor relations and our board of directors. Corporate expenses as a percentage of total consolidated revenues increased to 99% in fiscal 2010 as compared to 46% in fiscal 2009, primarily due to lower revenues generated in fiscal 2010.

Non-Reporting Segment Results

Interest Expense. Interest expense, net of interest income, amounted to \$2.4 million in fiscal 2010 as compared to \$3.7 million recognized in fiscal 2009. Interest expense primarily related to debt instruments payable to our senior lender. The decline in expense during fiscal 2010 was primarily related to lower levels of outstanding debt.

Fair Value Adjustments of Derivative Instruments. Derivative instruments consisted of embedded features contained within our convertible notes, our Term Note B debt instrument, our Consent Fee Term Note, the written put option under the \$10.0 million Lender Commitment, and warrant contracts referred to in our financial statements as the October 2006 Warrants, the June 2007 Warrants, the August 2008 Warrants, the August 2009 Warrants and the September 2009 Warrants. Fair value adjustments of derivative instruments, which represent non-cash unrealized gains or losses, amounted to a loss of \$10.6 million in fiscal 2010, compared to a gain of \$27.7 million in fiscal 2009. The share price of our common stock represents the primary underlying variable that impacts the value of the derivative instruments. Additional factors that impact the value of the derivative instruments include the volatility of our stock price, our credit rating, discount rates, and stated interest rates. The unrealized gain recognized in fiscal 2009 was primarily attributable to the significant decrease in our share price over the course of fiscal 2009 (\$26.40 at April 30, 2008 and \$14.40 at April 30, 2009) that materially decreased the fair value of the derivative instrument liabilities year over year. The unrealized loss recognized in fiscal 2010 resulted in part from higher volatility rates of our share price at the end of fiscal 2010 as compared to the end of fiscal 2009 that has the effect, all other factors being equal, of increasing the value of the derivative instrument liabilities, and in part to the timing of certain debt conversions and debt principal demands on behalf of the senior lender near the midpoint of fiscal 2010 when our share price was higher (\$23.80 at October 31, 2009) than our share price at the end of fiscal 2010 (\$14.00 at April 30, 2010) which negated a portion of the offsetting effects of a lower share price at the end of the fiscal year with respect to the fair value calculations.

Loss on Modification of Debt and Derivative Instruments. We recognized losses on contractual modifications of our debt and derivative instruments issued to our senior lender amounting to \$23.8 million in fiscal 2009 and \$14.7 million in fiscal 2010, respectively. These contractual modifications, discussed further in Note 10 to the consolidated financial statements, are as follows:

- On May 30, 2008, certain modifications to the embedded derivative feature contained within Term Note B immediately increased the fair value of the derivative instrument by \$23.8 million.
- On July 10, 2009, the derivative features embedded within our existing and two new convertible note instruments issued on this date increased in fair value by \$7.0 million as a result of certain modifications that included setting the fixed conversion price on the debt to \$14.20 per share and pushing out the stated maturity dates on the outstanding balances.
- On August 3, 2009, we modified the \$10.0 million Lender Commitment by fixing the conversion price under the convertible note structure available to the senior lender under its written put option that previously had been a price that would equal the market price on the date the senior lender exercised the put option. This modification to set a fixed conversion price of \$14.20 per share prior to the exercise of the senior lender's put option resulted in an immediate charge of \$2.6 million.

- On November 24, 2009, we recognized a combined charge of \$5.1 million from the implied exchange of debt instruments in connection with obtaining our senior lender's consent of the proposed Schneider Power acquisition and for amendments to certain of the outstanding debt instruments with the senior lender. The significant components of the charge were as follows: (i) amended the stated maturity dates on our three convertible notes from August 31, 2010 to March 31, 2011 (which immediately increased the fair values of these debt instruments over their existing carrying values by \$1.3 million); (ii) extended the expiration date of the \$10.0 million Lender Commitment from August 31, 2010 to March 31, 2011 (which immediately increased the fair value of the senior lender's put option by \$0.4 million); and (iii) issued a new debt instrument in satisfaction of a fee negotiated with our senior lender to obtain the senior lender's consent (the "Consent Fee Term Note"), as required by our credit facilities, in connection with the planned acquisition of Schneider Power that had a fair value of \$3.5 million.

Loss on Settlement of Debt and Derivative Instruments. During fiscal 2009 and 2010 we settled a total of \$10.2 million and \$20.5 million of debt principal and extinguished \$4.2 million and \$10.5 million of derivative liabilities associated with our debt instruments with the issuance of shares of our common stock. As a result of these settlements and related extinguishments, we recognized a net loss of \$4.3 million in fiscal 2009 and a gain of \$0.8 million in fiscal 2010 that are described in more detail below:

- During fiscal 2009, \$10.2 million of principal was converted at the option of the holder under Convertible Note I on various dates throughout the period which we satisfied with the issuance of shares to the senior lender. The fair value of the embedded derivative instruments associated with the convertible notes was reduced on a proportional basis to the amount of debt principal converted by the holder. For example, if 10% of the outstanding debt principal just prior to the conversion was converted, we reduced the fair value of the derivative instrument on the conversion date by 10%. In connection with shares issued to settle debt principal conversions during fiscal 2009, the derivative instrument associated with Convertible Note I was reduced by \$4.2 million and a net loss on the settlement of the debt principal and derivative instruments of \$4.3 million, which represented the difference between the fair value of shares issued (\$18.7 million) and the settlement of the liabilities (\$10.2 million of debt principal and \$4.2 million of derivative instruments), was recognized.
- During fiscal 2009, \$0.5 million of the derivative instrument liabilities associated with the October 2006 Warrants were extinguished in connection with the exercise of warrants to purchase shares of our common stock. The difference between the fair value of the shares issued of \$0.4 million (net of the cash received upon exercise of the warrants) and the amount of derivative liabilities extinguished resulted in the recognition of a gain of \$0.1 million on the settlement of these derivative warrant liabilities.
- During fiscal 2010, \$6.9 million of principal was converted at the option of the holder under three convertible notes (\$0.51 million, \$1.03 million and \$1.37 million under Convertible Note I on September 23, 2009, October 13, 2009 and November 24, 2009, respectively; \$2.72 million under Convertible Note II on November 24, 2009, and \$1.23 million under Convertible Note III on November 24, 2009) which we satisfied with the issuance of common shares to the senior lender. In connection with shares issued to settle debt principal conversions during fiscal 2010, the derivative instruments associated with the three convertible notes were reduced by \$6.9 million and a net gain on the settlement of the debt principal and derivative instruments of \$1.4 million, which represented the difference between the fair value of shares issued (\$12.4 million) and the settlement of the liabilities (\$6.9 million of debt principal and \$6.9 million of derivative instruments), was recognized.
- During fiscal 2010, \$4.4 million of principal was repaid under Term Note B (\$3.9 million on November 24, 2009 and \$0.5 million on February 9, 2010) which we satisfied with the issuance of common shares to the senior lender. The fair value of the embedded derivative instrument associated with Term Note B was reduced on a proportional basis to the amount of debt principal settled in a manner consistent with the methodology used to extinguish derivative liabilities under the convertible

notes. Accordingly, the derivative instrument associated with Term Note B was reduced by \$3.6 million and a net loss on the settlement of the debt principal and derivative instrument of \$0.1 million, which represented the difference between the fair value of shares issued (\$8.1 million) and the settlement of the liabilities (\$4.4 million of debt principal and \$3.6 million of derivative instrument), was recognized.

- During fiscal 2010, \$9.2 million of debt was repaid under Term Note A and Term Note C (\$1.12 million under Term Note A on June 15, 2009; \$3.75 million, \$2.50 million and \$1.80 million under Term Note C on May 1, 2009, October 1, 2009 and November 2, 2009, respectively) which we satisfied with the issuance of common shares to the senior lender. The shares had a combined fair value of \$9.6 million on the settlement dates. The difference between the fair value of the shares issued and the reduction of the principal was recognized as a net loss on settlement of \$0.4 million.
- During fiscal 2010, \$1.6 million of the derivative instrument liabilities associated with the October 2006 Warrants were extinguished in connection with the exercise of warrants to purchase shares of our common stock. The fair value of the shares issued was also \$1.6 million; therefore, there was no gain or loss on the settlement of these derivative warrant liabilities.

Equity in Earnings of Affiliates. During fiscal year 2010, we recognized net earnings of \$1.1 million representing our equity share in earnings of our affiliate, Asola, that we account for under the equity method. For fiscal 2009, we recognized a net loss of \$0.7 million representing income of \$0.1 million for our share of Asola's earnings and charges of \$0.8 million for our share of ALP's losses. Our ownership in Fisker Automotive was also under the equity method of accounting during these fiscal periods; however, we did not recognize any losses realized by Fisker Automotive under the equity method as our net investment balance was zero and we have no obligation to fund deficit balances of the business. Our share of earnings or losses for the operating activities of PCD and Shigan Quantum, in which our equity interests were obtained in fiscal 2010, were not significant for the twelve month period ended April 30, 2010.

Other Income (Expense). We recorded other income of \$2.0 million during fiscal 2009 in connection with a life insurance settlement payment. No significant other income or expense was recognized during fiscal 2010.

Income Taxes. Our income tax expense is minor for both fiscal periods presented primarily as a result of our lack of earnings history. As a result of our historical losses, we have generated significant net operating losses that we can carry forward to offset taxable earnings that we generate in the future.

Liquidity and Capital Resources

Cash Flow Activities

Net cash used in operating activities during fiscal 2011 was \$13.6 million, as compared to net cash used of \$14.7 million during fiscal 2010. The cumulative impact of net changes in operating assets and liabilities during fiscal 2011 was a net increase of \$1.1 million as compared to a net increase of \$3.0 million in fiscal 2010. The net increase in operating assets and liabilities in fiscal 2011 is mainly related to an increase in accounts payable, deferred revenue and other accrued liabilities. Excluding the changes in operating assets and liabilities, the cash used in operations improved from a use of \$17.7 million in fiscal 2010 to a use of \$14.7 million in fiscal 2011. We expect that the level of cash required to be used for operations during fiscal 2012 will be less than the level of cash used during fiscal 2011 primarily due to anticipated higher revenues and improved operating performance.

Net cash used in investing activities during each of fiscal 2011 and fiscal 2010 was \$0.6 million. Cash used to acquire and develop property and equipment was \$1.8 million in fiscal 2011, as compared to \$0.4 million in fiscal 2010. Cash used in fiscal 2011 included \$1.2 million in costs to initiate construction of our Spring Bay wind farm that was scheduled to be operational in April 2011. However, project activities on the Spring Bay wind farm were suspended during the third quarter of fiscal 2011 due to a lack of sufficient capital to complete

the project and the project was abandoned. In fiscal 2011, we also completed the sale of the Grand Valley wind farm asset which generated a total of \$2.1 million in cash consideration during fiscal 2011 from the sale of the asset, of which \$0.9 million was distributed to the Grand Valley minority interest partners.

Net cash provided by financing activities during fiscal 2011 was \$12.9 million, as compared to \$16.8 million during fiscal 2010. Cash provided during fiscal 2011 consisted principally of (i) net proceeds of \$6.2 million from a private placement of common stock and warrants that was partially completed in April 2010 and finalized during the first quarter of fiscal 2011, (ii) net proceeds of \$3.4 million from a private placement of the 2010 Bridge Notes that was completed in October 2010, (iii) net proceeds of \$2.5 million received under a non-revolving line of credit with our senior lender established on January 3, 2011, and (iv) net proceeds of \$5.2 million from a private placement of common stock and warrants that was completed on February 18, 2011. During fiscal 2011, we made cumulative principal payments to the holders of the 2010 Bridge Notes of \$4.0 million and used a portion of the proceeds from the private placement completed on February 18, 2011, to repay \$0.5 million on the non-revolving line of credit.

Capital Resources

From our inception we have funded our operations and strategic investments primarily with proceeds from public and private offerings of our common stock and borrowings with financial institutions and our current senior lender. Since May 1, 2008, we have completed the following capital transactions:

- On May 30, 2008, we received \$7.5 million in proceeds from our senior lender under a term note that was set to mature on August 31, 2009 (Term Note C) and we initially secured a \$10.0 million unconditional commitment (Lender Commitment) from an affiliate of our senior lender that allowed us to draw on the commitment at our option and also allowed the senior lender to fund the commitment at the senior lender's option under certain defined structures. As discussed further below, the Lender Commitment was terminated in connection with the January 3, 2011 debt restructure that we executed with the senior lender before either party exercised its option under the arrangement.
- On August 25, 2008, we completed a registered direct offering of common stock and warrants that yielded gross proceeds of \$19.1 million. The net amount received by us from the transaction, after deducting placement agent fees and offering expenses, was approximately \$17.7 million. We allocated \$7.3 million of the net amount received from the transaction to the warrants that are classified as derivative instruments.
- On July 10, 2009, we and our senior lender agreed to a series of modifications to our credit facilities and incremental borrowings. In connection with the modifications, the amount of outstanding principal and unpaid interest on a term note (Term Note A) of \$6.6 million was replaced with a new convertible note in that amount issued to the senior lender (Convertible Note II) and we received an additional \$3.0 million in proceeds in exchange for a new convertible note issued to the senior lender (Convertible Note III).
- On September 4, 2009, we completed a private placement offering of common stock and warrants that raised cumulative gross proceeds of \$12.3 million from the sale of shares of our common stock. The net amount received by us, after deducting placement agent fees and offering expenses, was approximately \$10.8 million.
- On various dates from April 30, 2010 through July 26, 2010, we raised cumulative gross proceeds of \$10.9 million in connection with a private placement offering of common stock and warrants. The net amount received by us, after deducting placement agent fees and offering expenses, was \$9.3 million.
- On October 13, 2010 and October 19, 2010, we raised cumulative gross proceeds of \$4.0 million from the private placement sale of the 2010 Bridge Notes and warrants to certain accredited investors. The net amount received by us, after deducting placement agent fees and transaction expenses, was \$3.4 million. On December 31, 2010, a payment default occurred as we were unable to repay the principal

and interest on the December 31, 2010 maturity date. The payment default in the 2010 Bridge Notes caused contractual defaults on all of our debt obligations with our senior lender (which were all cured upon the final payoff of the 2010 Bridge Notes on April 29, 2011).

- On January 3, 2011, we and our senior lender entered into a series of transactions which restructured certain of our debt instruments, terminated the Lender Commitment, and provided us with a new \$5.0 million non-revolving line of credit (LOC). On January 10, 2011, we received proceeds of \$2.5 million under the LOC.
- On January 18, 2011, we and each of the holders of the 2010 Bridge Notes agreed to amend the scheduled principal repayment dates and revised the maturity date of the 2010 Bridge Notes to April 29, 2011.
- On February 18, 2011, we completed a private placement of common stock and warrants pursuant to which we raised cumulative gross proceeds of \$5.7 million. The net amount received by us, after deducting placement agent fees and offering expenses, was approximately \$5.1 million. Our senior lender participated in the private placement as an investor and subscribed for \$2.0 million of common stock units. The senior lender paid the subscription price by the cancellation of \$2.0 million of the outstanding borrowings under the LOC. In connection with the closing of the private placement, the remaining unused \$2.5 million under the LOC was terminated.
- On May 9, 2011 and May 19, 2011, we raised cumulative gross proceeds of \$1.5 million from a private placement sale of senior subordinated bridge notes (2011 Bridge Notes) and warrants to certain accredited investors. The net amount received by us, after deducting placement agent fees and transaction expenses, was \$1.4 million.
- On June 15, 2011, we completed a private placement offering of common stock and warrants pursuant to which we raised cumulative gross proceeds of \$7.5 million. The net amount received by us, after deducting placement agent fees and offering expenses, was approximately \$6.5 million.

Liquidity

Our historical operating results, capital resources and financial position, in combination with current projections and estimates, were considered in management's plan and intentions to fund our operations over a reasonable period of time which we define as the twelve month period ending as of April 30, 2012. For purposes of liquidity disclosures, we assess the likelihood that we have sufficient available working capital and other principal sources of liquidity to fund our operating activities and obligations as they become due and the likelihood that we will be able to maintain compliance with the required provisions contained within our debt instruments over the twelve month period. We have historically incurred operating losses and negative cash flows from operating activities. Although we expect to use a significant amount of cash in our operations over the next year for our operating activities and debt service, our current operating plan anticipates increased revenues and improved profit margins for the twelve month period, which we expect will reduce the levels of cash required for our operating activities as compared to historical levels of use.

Our principal source of liquidity as of June 15, 2011, after factoring in the private placement offering transaction that closed on that date, consisted of cash and cash equivalents of \$7.9 million.

As of June 15, 2011, we had \$18.6 million of outstanding debt obligations, consisting of \$12.5 million due under three convertible notes that mature on August 31, 2011, \$1.5 million due under the 2011 Bridge Notes that mature on September 30, 2011, \$3.0 million due under the Consent Fee Term Note that is payable on demand at any time after July 31, 2011, \$1.3 million related to a bank term loan that matures on April 3, 2012, and \$0.3 million of other obligations.

In order to have sufficient cash for our operations and debt service needs, we will need to either: (i) raise a significant amount of additional capital before August 31, 2011, (ii) refinance our senior indebtedness, or (iii) seek an extension of the maturity dates of our senior debt obligations.

We believe that our existing principal sources of liquidity will only be sufficient to fund our activities up through the maturity of the convertible notes currently scheduled to mature on August 31, 2011 as we do not currently have sufficient cash on hand to satisfy the remaining balance owed on the convertible notes. Our recurring negative cash flows and short-term debt service obligations combined with our existing sources of liquidity and other conditions raise substantial doubt about our ability to continue as a going concern.

The consolidated financial statements that are included in this report have been prepared assuming that we will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. These consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from uncertainty related to our ability to continue as a going concern.

In addition to our need to raise sufficient capital to cover our existing operations and debt service obligations in August 2011, we will also need to raise additional capital in order to complete the proposed Asola LOI transaction (see Note 6 to the Consolidated Financial Statements), complete the build out of our planned wind and solar development projects, complete the planned Quantum Solar manufacturing operation in Irvine, California, and to further develop future generations of our hybrid electric propulsion systems. Further, we will need to increase revenues and improve profit margins for our business to be sustainable over the long term. We do not plan to move forward with the proposed Asola LOI transaction, the build out of wind and solar development projects or the Quantum Solar manufacturing operation until we raise a level of additional capital to be able repay our debt obligations as they mature, fund one or more of these projects and maintain sufficient levels of working capital for our overall business.

Given our historical operating results and the difficult credit markets that currently exist, we do not expect that we will be able to refinance our senior indebtedness with a traditional commercial loan. Rather, we will need to seek an alternative loan arrangement such as a convertible debenture or other equity linked debt securities.

Although we will try to negotiate an extension of the applicable maturity dates with our senior lender and we have successfully extended the scheduled maturity dates on the debt obligations with our senior lender in the past on several occasions, we cannot provide any assurances that we will be able to further modify the current arrangements. We are also currently evaluating our options for raising additional capital in order to maintain sufficient liquidity to meet our obligations as they become due. The actual amount of capital that we will need to raise is highly dependent upon the levels of debt conversions by our convertible note lenders and our ability to further extend the scheduled maturity dates of our obligations.

If we are unable to raise sufficient capital to fund our working capital needs or repay our debt obligations as they mature or otherwise refinance those debt obligations or extend the maturity dates, it would have a material adverse affect on our business and our ability to continue as a going concern.

Contractual Obligations

The following table contains supplemental information regarding total contractual obligations as of April 30, 2011 (see Notes 6, 10 and 19 of the Notes to Consolidated Financial Statements).

Contractual Obligations	Payments due by Period				
	Total	Less Than One Year	1-3 Years	3-5 Years	More Than 5 Years
Operating Lease Obligations	\$ 12,509,850	\$ 2,825,104	\$ 8,940,281	\$ 744,465	\$ —
Long-Term Debt	18,734,080	18,530,762	158,369	44,949	—
Scheduled Interest Payments	373,357	373,357	—	—	—
Employment Agreements(1)	5,642,945	5,308,835	334,110	—	—
Purchase Obligations(2)	167,722,000	43,807,000	44,170,000	40,764,000	38,981,000
Total	<u>\$204,982,232</u>	<u>\$70,845,058</u>	<u>\$53,602,760</u>	<u>\$41,553,414</u>	<u>\$38,981,000</u>

- (1) Includes agreements in place as of May 1, 2011 and consists of the estimated minimum contractual obligations under the arrangements assuming a termination of employment without cause initiated by the Company and benefit continuation assuming a cost to the Company of 15% of base salaries. All agreements remain in place until terminated by either of the parties. For further information about the specific terms of the employment agreements with executive officers, see the text of the employment agreements, the filing dates of which are referenced as exhibits to this report.
- (2) Consists of our unconditional obligations to purchase solar cells from Asola and to provide our share of prepayments to Asola associated with a solar cell purchase arrangement (see *Off Balance Sheet Disclosures* below).

Research and Development Funding Commitment. Pursuant to our strategic alliance agreements with General Motors (which were assumed by General Motors LLC as part of the bankruptcy reorganization) we have committed to spend \$4.0 million annually for specific research and development projects directed by General Motors to speed the commercialization of our fuel cell related products. Since this commitment was waived or partially waived by General Motors for each of the calendar years 2002 through 2010, we anticipate that this commitment will be waived or partially waived in the future. During fiscal 2011, there were no directed research and development activities pursuant to the agreement.

Royalties. We are obligated to provide revenue sharing payments to General Motors based on a percentage of gross revenue derived from sales of applications developed under the strategic alliance agreement. The revenue sharing payments will equal 5% of applicable gross revenue through July 23, 2015, 4% for the ten-year period ending July 23, 2025, 3% for the ten-year period ending July 23, 2035, and 2% for the ten-year period ending July 23, 2045. On July 23, 2045, we will also be obligated to provide a final revenue sharing payment to General Motors equal to the present value of future revenue sharing payments that would otherwise be payable to General Motors on an annual basis assuming an income stream to General Motors of 2% of our gross revenues in perpetuity. As of April 30, 2011, no revenue sharing payments have been applicable.

Quantitative and Qualitative Disclosures About Market Risk

As of April 30, 2011, we are exposed to market risk from changes in our common stock pursuant to the terms of our derivative instrument liabilities associated with certain of our warrants issued in October 2006, June 2007, August 2008, August 2009, September 2009, and the "B" warrants issued on February 18, 2011. The share price of our common stock represents the underlying variable that primarily gives rise to the value of our derivative instruments. In accordance with US GAAP, the derivative instrument liabilities are recorded at fair value and marked to market each period. Changes in fair value of the derivatives each period resulting from a movement in the share price of our common stock or the passage of time are recognized as fair value adjustments of derivative instruments on our consolidated statements of operations as other income or expense. The change in fair values of our derivatives can have a material impact on our earnings or loss each period. For example, if our share price immediately increased 10% above the closing price of \$2.58 per share on April 30, 2011, the fair value of our derivative instruments would increase and a charge in the amount of \$0.3 million related to the increase in fair value of the derivatives would be recognized as follows:

<u>Derivative Financial Instrument:</u>	<u>Fair Value Reported at April 30, 2011</u>	<u>Effect of 10% Pro forma Share Price Increase</u>	<u>Pro forma Fair Value</u>
Warrant contracts issued in October 2006	\$3,292,000	\$ 87,000	\$3,379,000
Warrant contracts issued in June 2007	57,000	12,000	69,000
Warrant contracts issued in August 2008	521,000	81,000	602,000
Warrant contracts issued in Aug/Sept 2009	56,000	11,000	67,000
Warrant contracts issued in February 2011	452,000	68,000	520,000
	<u>\$4,378,000</u>	<u>\$259,000</u>	<u>\$4,637,000</u>

We are also exposed to risk from fluctuating currency exchange rates, primarily the US Dollar against the Euro Dollar and against the Canadian Dollar. On April 30, 2011, one euro was equal to 1.48 US Dollars and one Canadian dollar was equal to 1.05 US Dollars. Specifically, we are at risk that a future decline in the US Dollar against the euro will increase the amount that we will have to pay to satisfy requirements of our long-term supply agreement with Asola and other obligations that we enter into with European-based suppliers. We have a remaining commitment to purchase solar cells with a cumulative power of 77.5 MW and make prepayments through December 31, 2017 at a fixed price of 113.3 million euro, or US\$167.7 million, based on the currency exchange rate at April 30, 2011; a 10% decline in the US Dollar against the euro could require us to pay an additional US\$16.8 million over the course of the remaining agreement. We face transactional currency exposures that arise when our foreign subsidiaries and affiliates enter into transactions denominated in currencies other than their own local currency. We also face currency exposure that arises from translating the results of our Canadian and German operations to the US Dollar.

We are not exposed to market risk from changes in interest rates due to the fixed nature of interest rates associated with our debt instruments.

To date, we have not used any derivative financial instruments for the purpose of reducing our exposure to adverse fluctuations in interest rates but we have entered into currency exchange arrangements for the purpose of reducing our exposure to adverse changes in currency exchange rates. As of April 30, 2011, we had no outstanding contractual commitments to purchase foreign currency. Net foreign currency transaction gains or losses were not significant during fiscal 2011.

Off Balance Sheet Disclosures

Warrants with Exercise Price Resets

We issued warrants to investors in October 2006 and in August 2008 that contain contractual provisions which, subject to certain exceptions, reset the exercise price of such warrants if at any time while such warrants are outstanding, we sell or issues shares of our common stock or rights, warrants, options or other securities or debt convertible, exercisable or exchangeable for shares of our common stock. Since the initial issuance of these warrants, we have completed equity transactions through June 15, 2011 that resulted in the reset of the exercise price of the October 2006 Warrants and August 2008 Warrants to \$2.92 and \$38.60, respectively. As of June 15, 2011, the August 2008 Warrants have been reset to the lowest price allowable under the terms of the August 2008 Warrant so the reset provision is no longer applicable.

The October 2006 Warrants and August 2008 Warrants also contain a provision that increases the number of shares of common stock subject to such warrants if and when the exercise price is reset so that the aggregate purchase price payable applicable to the exercise of the warrants after the reset of the exercise price is the same as the aggregate purchase price payable immediately prior to the reset. As a result of the exercise price resets, the number of shares subject to the October 2006 Warrants and August 2008 Warrants increased to 1,334,906 and 1,398,964, respectively, as of June 15, 2011. Any resets to the exercise price of the October 2006 Warrants in the future will have an additional dilutive effect on our existing shareholders.

Warrant Classifications

We evaluate the warrants provided in connection with each of our private placement or public offerings in accordance with applicable accounting guidance and we have concluded that liability classification is appropriate for warrants issued in October 2006, June 2007, August 2008, August 2009, September 2009 and the "B" warrants issued in February 2011. We have further concluded that equity classification is appropriate for all the remaining warrants that were outstanding during the three year periods covered by these consolidated financial statements due to the fact that these warrants are considered to be indexed to our own stock, are required to be physically settled in shares of our common stock and there are no provisions that could require net-cash settlement.

The proceeds from transactions that gave rise to warrants have been allocated to the common stock or debt issued and the warrants based on their relative fair values. For those transactions in which proceeds were received in connection with the sale of common stock, we aggregate the values of those warrants that we do not classify as liabilities with the fair value of the stock issued as both of these types of instruments have been classified as permanent equity.

The classification as equity for certain of the warrants could change as a result of either future modifications to the existing terms of settlement or the issuance of new financial instruments by us that could be converted into an increased or unlimited number of shares. If a change in classification of certain warrants is required in the future, the warrants would be treated as derivatives, reclassified as liabilities on the balance sheet at their fair value, and marked to market each period, with the changes in fair values being recognized in the respective period's statement of operations.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

Information required by Item 305 of Regulation S-K relating to quantitative and qualitative disclosures about market risks appear under the heading "Quantitative and Qualitative Disclosures About Market Risk" in Item 7 of Part II hereof, and is incorporated herein by this reference.

Item 8. Financial Statements and Supplementary Data.

The information required by this item is contained in the consolidated financial statements listed in Item 15(a) of this Annual Report under the caption "Financial Statements" and appear beginning on page F-1 of this Annual Report.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures.

We have established disclosure controls and procedures to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to the officers who certify the Company's financial reports and to other members of senior management and the Board of Directors.

Based on their evaluation as of April 30, 2011, the Chief Executive Officer and Chief Financial Officer of the Company have concluded that the Company's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) were effective to ensure that the information required to be disclosed by the Company in the reports that it files or submits under the Securities Exchange Act of 1934 is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f).

Our internal control over financial reporting includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of our assets;
- Provide reasonable assurance that our transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles;

- Provide reasonable assurances that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements prepared for external purposes in accordance with generally accepted accounting principals. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of April 30, 2011, based on the framework in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

The scope of our assessment of and conclusion on the effectiveness of our internal controls over financial reporting included the internal controls of Schneider Power.

Based on our evaluation under the framework in *Internal Control—Integrated Framework*, management concluded that our internal control over financial reporting was effective as of April 30, 2011.

Independent Auditor's Evaluation of Internal Controls as of April 30, 2011

Ernst & Young LLP, our independent registered public accounting firm, audited the effectiveness of our internal controls over financial reporting and, based on that audit, issued their report which follows on the next page.

Changes in Internal Control Over Financial Reporting

Except as noted below, there have been no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

On April 16, 2010, we acquired Schneider Power. During fiscal 2011, we evaluated and completed our integration of Schneider Power's operations, policies and processes into our overall system of internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries

We have audited Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries' internal control over financial reporting as of April 30, 2011, based on criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries' management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries maintained, in all material respects, effective internal control over financial reporting as of April 30, 2011, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries as of April 30, 2011 and 2010, and the related consolidated statements of operations, equity, and cash flows for each of the three years in the period ended April 30, 2011 of Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries and our report dated July 1, 2011 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Orange County, California
July 1, 2011

Item 9B. Other Information.

On June 29, 2011, we entered into a Sublease Agreement (“Sublease Agreement”) with On The Edge Marketing for one of our facilities located in Lake Forest, California, consisting of approximately 62,000 sq. ft. (“Subleased Facility”). The term of the sublease commences on July 1, 2011 and expires on May 31, 2015. Except as set forth in the Sublease Agreement, the Sublease Agreement does not modify or limit the terms and conditions of the Lease Agreement, dated April 1, 2009, between us and Braden Court Associates (the “Master Lease”), or waive any rights or remedies that the landlord may have against us under the Master Lease including, without limitation, our obligation to pay the full amount of the rent due under the Master Lease. The monthly base rent under the Sublease Agreement is as follows:

July and August 2011	\$ 0
September through December 2011	\$13,026.30
January through June 2012	\$26,052.60
July 2012 through June 2013	\$26,858.99
July 2013 through June 2014	\$27,665.38
July 2014 through May 2015	\$28,471.77

Our remaining obligations under the Master Lease are \$2.2 million in excess of the base rents that we have a contractual right to receive under the Sublease Agreement. The description of the Sublease Agreement set forth herein is qualified in its entirety to the full terms of such agreement, a complete copy of which is being filed herewith as Exhibit 10.66 and is incorporated herein by reference.

PART III

Item 10. Directors, Executive Officer and Corporate Governance.

Information regarding our board of directors, audit committee, audit committee financial expert and code of ethics is set forth under the caption "Election of Directors," in our definitive Proxy Statement to be filed in connection with our fiscal 2011 Annual Meeting of Stockholders and such information is incorporated herein by reference. Information regarding Section 16(a) beneficial ownership compliance is set forth under the caption "Executive Compensation—Compliance with Section 16(a) of the Securities and Exchange Act" in our definitive Proxy Statement to be filed in connection with our fiscal 2011 Annual Meeting of Stockholders and such information is incorporated by reference. A list of our executive officers is included in Part I, Item 1 of this Report under the heading "Executive Officers."

We have adopted a Code of Business Conduct and Ethics that applies to each of our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our Code of Business Conduct and Ethics is posted on our website at www.qttw.com/about/corporate_governance/coc.php.

Item 11. Executive Compensation.

The information required by this item is set forth under the captions "Executive Compensation and Other Information" and "Election of Directors—Compensation of Directors" in our definitive Proxy Statement to be filed in connection with our fiscal 2011 Annual Meeting of Stockholders and such information is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item is set forth under the captions "Security Ownership of Certain Beneficial Owners and Management" and "Equity Compensation Plan Information" in our definitive Proxy Statement to be filed in connection with our fiscal 2011 Annual Meeting of Stockholders and such information is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions and director Independence.

The information required by this item is set forth under the captions "Certain Relationships and Related Transactions" and "Compensation Committee Interlocks and Insider Participation" in our definitive Proxy Statement to be filed in connection with our fiscal 2011 Annual Meeting of Stockholders and such information is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information required by this item is set forth under the caption "Ratification and Approval of the Appointment of Independent Accountants" in our definitive Proxy Statement to be filed in connection with our fiscal 2011 Annual Meeting of Stockholders and such information is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) The following documents are filed as part of this report:

(1) Financial Statements. See Consolidated Financial Statements beginning on page F-1.

(2) Financial Statement Schedules. See Schedule II, Valuation and Qualifying Accounts that follow the Consolidated Financial Statements.

All other schedules are omitted because the information is not applicable or is not material, or because the information is included in the consolidated financial statements or the notes thereto.

(3) Exhibits. The following exhibits are filed or incorporated by reference as a part of this report:

- 2.1 Arrangement Agreement by and among Quantum Fuel Systems Technologies Worldwide, Inc., 2224784 Ontario Inc., and Schneider Power Inc. dated November 24, 2009 (incorporated herein by reference to Exhibit 2.1 of Registrant's Current Report on Form 8-K filed on November 27, 2009).
- 3.1* Amended and Restated Certificate of Incorporation of the Registrant, dated March 3, 2005, together with all amendments thereto.
- 3.2 Amended and Restated Bylaws of the Registrant (incorporated herein by reference to Exhibit 3.2 of the Registrant's Annual Report on Form 10-K filed with the SEC on July 29, 2002)
- 4.1 Specimen Common Stock Certificate (incorporated herein by reference to Exhibit 4.1 of the Registrant's Registration Statement on Form 10 (File No. 000-49629), which was filed with the SEC on February 13, 2002).
- 4.2 Form of "A" Warrant issued by the Registrant to certain accredited investors on February 18, 2011 (incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K filed with the SEC on February 17, 2011).
- 4.3 Form of "B" Warrant issued by the Registrant to certain accredited investors on February 18, 2011 (incorporated herein by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K filed with the SEC on February 17, 2011).
- 4.4 Form of Warrant issued by the Registrant to certain accredited investors on January 18, 2011 (Incorporated herein by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K filed with the SEC on January 21, 2011).
- 4.5 Form of Warrant issued by the Registrant to WB QT, LLC on January 3, 2011 (incorporated herein by reference to Exhibit 4.1 of Registrant's Current Report on Form 8-K filed with the SEC on January 4, 2011).
- 4.6 Form of Warrant issued by the Registrant to certain accredited investors in connection with a private placement transaction that was completed in October 2010 (incorporated herein by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K filed with the SEC on October 19, 2010).
- 4.7 Form of Warrant issued by the Registrant to certain accredited investors in connection with a private placement transaction that was completed in July 2010 (incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K filed with the SEC on May 6, 2010).
- 4.8 Form of Concession Warrant, dated July 22, 2010, issued by the Registrant to its placement agent in connection with a private placement transaction that was completed in July 2010 (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on July 26, 2010).

- 4.9 Form of Retainer Warrant issued by the Registrant to its placement agent in connection with a private placement transaction that was completed in July 2010 (incorporated herein by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K filed with the SEC on May 6, 2010).
- 4.10 Form of Warrant issued to certain accredited investors on August 3, 2009 (incorporated herein by reference to Exhibit 10.2 of Registrant's Current Report on Form 8-K filed on August 7, 2009).
- 4.11 Form of Warrant issued to certain accredited investors on September 4, 2009 (incorporated herein by reference to Exhibit 10.2 of Registrant's Current Report on Form 8-K filed on September 11, 2009).
- 4.12 Form of Three Year Warrant issued by the Registrant to its placement agent for services performed in connection with a private placement (incorporated herein by reference to Exhibit 10.3 of Registrant's Current Report on Form 8-K filed on September 11, 2009).
- 4.13 Form of Retainer Warrant issued by the Registrant to its placement agent for services performed in connection with a private placement (incorporated herein by reference to Exhibit 10.4 of Registrant's Current Report on Form 8-K filed on September 11, 2009).
- 4.14 Warrant, dated August 19, 2008, issued by Registrant to Capital Ventures International in a registered offering (incorporated herein by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K/A filed with the SEC on August 21, 2008).
- 4.15 Form of "A" Warrant A issued to certain accredited investors in a private placement transaction that as completed in June 2007 (incorporated herein by reference to Exhibit 10.3 of Registrant's Current Report on Form 8-K filed with the SEC on June 26, 2007).
- 4.16 Form of "B" Warrant issued to certain accredited investors in a private placement transaction completed in June 2007 (incorporated herein by reference to Exhibit 10.5 of Registrant's Current Report on Form 8-K filed with the SEC on June 26, 2007).
- 4.17 Form of "A" Warrant issued to certain accredited investors in a private placement transaction completed in October 2006 (incorporated herein by reference to Exhibit 4.1.1 of the Registrant's Current Report on Form 8-K filed with the SEC on October 27, 2006).
- 4.18 Form of Additional Warrant dated October 27, 2006 issued to certain accredited investors in a private placement transaction completed in October 2006 (incorporated herein by reference to Exhibit 4.3.1 of the Registrant's Current Report on Form 8-K filed on October 27, 2006).
- 4.19 Form of Warrant issued to certain accredited investors in a private placement transaction completed in June 2006 (incorporated herein by reference to Exhibit 10.78 of the Registrant's Annual Report on Form 10-K filed with the SEC on July 28, 2006).
- 4.20 Fourth Amended and Restated Convertible Promissory Note (Convertible Note I) issued on April 30, 2010 (incorporated herein by reference to Exhibit 10.25 of the Registrant's Annual Report on Form 10-K filed on July 13, 2010).
- 4.21 Second Amended and Restated Convertible Promissory Note (Convertible Note II) issued on April 30, 2010 (incorporated herein by reference to Exhibit 10.26 of the Registrant's Annual Report on Form 10-K filed on July 13, 2010).
- 4.22 Second Amended and Restated Convertible Promissory Note (Convertible Note III) issued on April 30, 2010 (incorporated herein by reference to Exhibit 10.27 of the Registrant's Annual Report on Form 10-K filed on July 13, 2010).
- 4.23 Amended and Restated Term Note B Promissory Note, dated May 30, 2008, issued by the Registrant to WB QT, LLC (incorporated herein by reference to Exhibit 10.3 of the Registrant's Current Report on Form 8-K filed with the SEC on June 5, 2008)

- 4.24 Consent Fee Promissory Note, dated November 24, 2009, issued by the Registrant to WB QT, LLC (incorporated herein by reference to Exhibit 10.2 of the Registrant's Amended Current Report on Form 8-K/A filed with the SEC on December 4, 2009).
- 10.1 Quantum Fuel Systems Technologies Worldwide, Inc. Amended 2002 Stock Incentive Plan and Form of Award Agreement (incorporated herein by reference to Exhibit 10.7 of Registrant's Quarterly Report on Form 10-Q filed with the SEC on September 9, 2005).
- 10.2 Corporate Alliance Agreement, dated June 12, 2001, between the Registrant and General Motors Corporation (incorporated herein by reference to Exhibit 10.31 of the Registration Statement on Form S-3/A (File No. 333-63726) of IMPCO Technologies, Inc., which was filed with the SEC on July 9, 2001).
- 10.3 Master Technical Development Agreement, dated June 12, 2001, between the Registrant and General Motors Corporation (incorporated herein by reference to Exhibit 10.32 of the Registration Statement on Form S-3 (File No. 333-63726) of IMPCO Technologies, Inc., which was filed with the SEC on July 9, 2001).
- 10.4 First Amendment to Corporate Alliance Agreement, dated as of July 19, 2002, between the Registrant and General Motors Corporation (incorporated herein by reference to Exhibit 10.15 of the Registrant's Annual Report on Form 10-K filed with the SEC on July 29, 2002).
- 10.5 Form of Indemnification Agreement between the Registrant and each of its directors and executive officers (incorporated herein by reference to Exhibit 10.21 of the Registrant's Registration Statement on Form S-1 (File No. 333-101668) filed with the SEC on December 5, 2002).
- 10.6 Amended and Restated Employment Agreement, dated May 1, 2006, by and between Registrant and Alan P. Niedzwiecki (incorporated herein by reference to Exhibit 10.22(a) of the Registrant's Annual Report on Form 10-K filed with the SEC on July 28, 2006).
- 10.7 Employment Agreement, dated January 10, 2006, between the Registrant and W. Brian Olson (incorporated herein by reference to Exhibit 10.23(a) of the Registrant's Annual Report on Form 10-K filed with the SEC on July 28, 2006).
- 10.8 Employment Agreement, dated May 1, 2006, by and between the Registrant and Dale L. Rasmussen (incorporated herein by reference to Exhibit 10.25(a) of the Registrant's Annual Report on Form 10-K filed with the SEC on July 28, 2006).
- 10.9 Employment Agreement, effective May 1, 2006, by and between the Registrant and Bradley J. Timon (incorporated herein by reference to Exhibit 10.62 of the Registrant's Annual Report on Form 10-K for the fiscal year ended April 30, 2006 filed with the SEC on July 28, 2006).
- 10.10 Employment Agreement, dated July 12, 2005, by and between the Registrant and Kenneth R. Lombardo (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on July 18, 2005).
- 10.11 Form of Restricted Stock Award Agreement under the Quantum Fuel Systems Technologies Worldwide, Inc. 2002 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.4 of the Registrant's Current Report on Form 8-K that was filed with the SEC on May 5, 2005).
- 10.12 Credit Agreement dated January 31, 2007 (incorporated herein by reference to Exhibit 99 of the the Registrant's Current Report on Form 8-K filed with the SEC on February 6, 2007).
- 10.13 Guaranty dated January 31, 2007 (incorporated herein by reference to Exhibit 10.6 of the Registrant's Quarterly Report of Form 10-Q filed with the SEC on March 12, 2007).
- 10.14 Security Agreement dated January 31, 2007 (incorporated herein by reference to Exhibit 10.7 of the Registrant's Quarterly Report of Form 10-Q filed with the SEC on March 12, 2007).

- 10.15 Pledge Agreement dated January 31, 2007 (incorporated herein by reference to Exhibit 10.8 of the Registrant's Quarterly Report of Form 10-Q filed with the SEC on March 12, 2007).
- 10.16 First Amendment to Credit Agreement, dated September 13, 2007 (incorporated herein by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on December 17, 2007).
- 10.17 Second Amendment to Convertible Note Purchase Agreement, dated November 6, 2007 (incorporated herein by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 11, 2008).
- 10.18 Convertible Note Purchase Agreement, dated January 16, 2008, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 99.3 of the Registrant's Current Report on Form 8-K filed with the SEC on January 17, 2008).
- 10.19 Strict Foreclosure Agreement, dated January 16, 2008, between Tecstar Automotive Group, Inc. and WB Automotive Holdings, Inc. (incorporated herein by reference to Exhibit 10.8 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 11, 2008).
- 10.20 Agreement, dated January 4, 2008, between the Registrant and asola Advanced and Automotive Solar Systems GmbH (incorporated herein by reference to Exhibit 10.7 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 11, 2008).
- 10.21 Second Amendment to Credit Agreement, dated November 6, 2007 (incorporated herein by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 11, 2008).
- 10.22 First Amendment to Pledge Agreement, dated November 6, 2007 (incorporated herein by reference to Exhibit 10.4 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 11, 2008).
- 10.23 First Amendment to Security Agreement, dated November 6, 2007 (incorporated herein by reference to Exhibit 10.6 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 11, 2008).
- 10.24 Purchase of Contract Rights Agreement, dated November 7, 2007, between the Registrant and asola Advanced and Automotive Solar Systems GmbH (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on November 13, 2007).
- 10.25 Third Amendment to Credit Agreement, dated January 16, 2008, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 99.5 of the Registrant's Current Report on Form 8-K filed with the SEC on January 17, 2008).
- 10.26 Security Agreement, dated January 16, 2008, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 99.7 of the Registrant's Current Report on Form 8-K filed with the SEC on January 17, 2008).
- 10.27 Second Amendment to Security Agreement, dated January 16, 2008, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.14 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 11, 2008).
- 10.28 Lease Agreement, dated December 11, 2007, between the Registrant and Braden Court Associates (incorporated herein by reference to the Registrant's Current Report on Form 8-K filed with SEC on December 17, 2007).
- 10.29 Fourth Amendment to Credit Agreement, dated May 30, 2008, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on June 5, 2008).

- 10.30 Promissory Note, dated September 26, 2008, issued by asola Advanced and Automotive Solar Systems GmbH to Registrant (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on October 2, 2008).
- 10.31 Stock Pledge Agreement, dated September 26, 2008, between the Registrant and ConSolTec GmbH (incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K filed with the SEC on October 2, 2008).
- 10.32 Lease Agreement, with an effective date of November 1, 2008, between the Registrant and Cartwright Real Estate Holdings, LLC (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on November 17, 2008).
- 10.33 Fifth Amendment to Credit Agreement, dated March 12, 2009, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.2 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 12, 2009).
- 10.34 Waiver and Agreement, dated March 12, 2009, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.3 of the Registrant's Quarterly Report on Form 10-Q filed with the SEC on March 12, 2009).
- 10.35 Lease Agreement, with an effective date of April 1, 2009, between the Registrant and Braden Court Associates (incorporated herein by reference to Exhibit 10.13 of the Registrant's Annual Report on Form 10-K filed with the SEC on January 26, 2010).
- 10.36 First Lease Amendment, with an effective date of April 1, 2009, between the Registrant and Braden Court Associates (incorporated herein by reference to Exhibit 10.14 of the Registrant's Annual Report on Form 10-K filed with the SEC on January 26, 2010).
- 10.37 Sixth Amendment to Credit Agreement (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on May 28, 2009).
- 10.38 Seventh Amendment to Credit Agreement (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on July 14, 2009).
- 10.39 Form of Subscription Agreement (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on August 7, 2009).
- 10.40 Form of Subscription Agreement (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on September 11, 2009).
- 10.41 Agreement and Consent Dated November 24, 2009 (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on November 27, 2009).
- 10.42 Amendment to Convertible Notes dated November 24, 2009 (incorporated herein by reference to Exhibit 10.3 of Registrant's Current Report on Form 8-K filed on November 27, 2009).
- 10.43 Eighth Amendment to Credit Agreement (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on May 4, 2010).
- 10.44 Amendment to Convertible Note Purchase Agreement (incorporated herein by reference to Exhibit 10.2 of Registrant's Current Report on Form 8-K filed on May 4, 2010).
- 10.45 Form of Subscription Agreement (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed on May 6, 2010).
- 10.46 Financial Representative Agreement, dated March 16, 2010, between Registrant and J.P. Turner & Co., L.L.C. (incorporated herein by reference to Exhibit 10.31 of the Registrant's Annual Report on Form 10-K filed on July 13, 2010).

- 10.47 Agreement, dated July 8, 2010, between Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.32 of the Registrant's Annual Report on Form 10-K filed on July 13, 2010).
- 10.48 Subscription Agreement, dated July 26, 2010, between the Registrant and Osler, Hoskin & Harcourt LLP (incorporated herein by reference to Exhibit 10.6 of the Registrant's Quarterly Report on Form 10-Q filed on September 9, 2010).
- 10.49 Subscription Agreement, dated July 26, 2010, between the Registrant and Blue Ridge Consulting LLC (incorporated herein by reference to Exhibit 10.7 of the Registrant's Quarterly Report on Form 10-Q filed on September 9, 2010).
- 10.50 Form of Subscription Agreement between the Registrant and certain accredited investors in connection with a private placement transaction that was completed in July 2010 (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on May 6, 2010).
- 10.51 Form of Note and Warrant Purchase Agreement between the Registrant and certain accredited investors in connection with a private placement transaction that was completed in October 2010 (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on October 19, 2010).
- 10.52 Form of Note issued by the Registrant to certain accredited investors in connection with a private placement transaction that was completed in October 2010 (incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K filed with the SEC on October 19, 2010).
- 10.53† Amended and Restated Supply Agreement, dated November 8, 2010, between the Registrant and Fisker Automotive, Inc. (incorporated herein by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed with the SEC on November 11, 2010).
- 10.54 Fisker Automotive's General Terms and Conditions of Sale (incorporated herein by reference to Exhibit 10.2 of the Registrant's Current Report on Form 8-K filed with the SEC on November 11, 2010).
- 10.55 Ninth Amendment to Credit Agreement dated January 3, 2011 (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed with the SEC on January 4, 2011).
- 10.56 Non-Revolving Line of Credit Promissory Note dated January 3, 2011 (incorporated herein by reference to Exhibit 10.2 of Registrant's Current Report on Form 8-K filed with the SEC on January 4, 2011).
- 10.57 Forbearance Agreement, dated January 3, 2011, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.3 of Registrant's Current Report on Form 8-K filed with the SEC on January 4, 2011).
- 10.58 Amendment to Convertible Notes Agreement, dated January 3, 2011, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.4 of Registrant's Current Report on Form 8-K filed with the SEC on January 4, 2011).
- 10.59 Form of Amendment to Bridge Note Agreement, dated January 18, 2011, between the Registrant and each of the holders of promissory notes dated October 13, 2010 and October 19, 2010 (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed with the SEC on January 21, 2011)
- 10.60† Agreement in Support of Development, dated February 14, 2011, between the Registrant and General Motors Holdings LLC (incorporated herein by reference to Exhibit 10.63 of Registrant's Registration of Securities on Form S-1 filed with the SEC on March 4, 2011).

- 10.61 Access and Security Agreement, dated February 14, 2011, between the Registrant and General Motors Holdings LLC (incorporated herein by reference to Exhibit 10.64 of Registrant's Registration of Securities on Form S-1 filed with the SEC on March 4, 2011).
- 10.62 Form of Securities Purchase Agreement, dated February 16, 2011, between the Registrant and certain accredited investors (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed with the SEC on February 17, 2011).
- 10.63 Form of Registration Rights Agreement, dated February 16, 2011, between the Registrant and certain accredited investors (incorporated herein by reference to Exhibit 10.4 of Registrant's Current Report on Form 8-K filed with the SEC on February 17, 2011).
- 10.64 Agreement, dated February 16, 2011, between the Registrant and WB QT, LLC (incorporated herein by reference to Exhibit 10.67 of the Registrant's Registration of Securities on Form S-1 filed with the SEC on March 4, 2011).
- 10.65 Settlement Agreement with Mutual Releases, dated March 10, 2011 (incorporated herein by reference to Exhibit 10.1 of Registrant's Current Report on Form 8-K filed with the SEC on March 16, 2011).
- 10.66* Sublease Agreement between the Registrant and On The Edge Marketing, dated June 29, 2011.
- 21.1* Subsidiaries of the Registrant
- 23.1* Consent of Ernst & Young, LLP
- 24.1 Power of Attorney (included in signature page of this Annual Report)
- 31.1* Certification of the Chief Executive Officer of the Registrant pursuant to Exchange Act Rule 13a-14(a).
- 31.2* Certification of the Chief Financial Officer of the Registrant pursuant to Exchange Act Rule 13a-14(a).
- 32.1* Certification of the Chief Executive Officer of the Registrant furnished pursuant to Exchange Act Rule 13a-14(b) and 18 U.S.C. 1350.
- 32.2* Certification of the Chief Financial Officer of the Registrant furnished pursuant to Exchange Act Rule 13a-14(b) and 18 U.S.C. 1350.

* - Filed herewith

† - Certain portions of this Exhibit have been omitted and separately filed with the Securities and Exchange Commission pursuant to a request for confidential treatment.

INDEX TO FINANCIAL STATEMENTS

	<u>Page</u>
Report of Ernst & Young LLP, Independent Registered Public Accounting Firm for the fiscal years ended April 30, 2011, 2010 and 2009	F-1
Consolidated Balance Sheets	F-2
Consolidated Statements of Operations	F-3
Consolidated Statements of Changes in Equity	F-4
Consolidated Statements of Cash Flows	F-5
Notes to Consolidated Financial Statements	F-7

Financial Statement Schedule:

Schedule II—Valuation and Qualifying Accounts for the three fiscal years ended April 30, 2011

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries

We have audited the accompanying consolidated balance sheets of Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries as of April 30, 2011 and 2010, and the related consolidated statements of operations, equity, and cash flows for each of the three years in the period ended April 30, 2011. Our audits also included the financial statement schedule listed in the Index at Item 15(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries at April 30, 2011 and 2010, and the consolidated results of their operations and their cash flows for each of the three years in the period ended April 30, 2011, in conformity with U.S. generally accepted accounting principles.

The accompanying financial statements have been prepared assuming that Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries will continue as a going concern. As more fully described in Note 1 to the financial statements, Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries' recurring losses and negative cash flows combined with the Company's existing sources of liquidity and other conditions raise substantial doubt about its ability to continue as a going concern. Management's plans as to these matters also are described in Note 1. The April 30, 2011 financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries internal control over financial reporting as of April 30, 2011, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated July 1, 2011 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Orange County, California
July 1, 2011

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

	<u>April 30, 2010</u>	<u>April 30, 2011</u>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 4,026,882	\$ 2,776,074
Accounts receivable, net	2,833,137	5,765,926
Inventories, net	1,766,420	1,520,912
Prepays and other current assets	927,920	713,716
Total current assets	<u>9,554,359</u>	<u>10,776,628</u>
Property and equipment, net	8,096,787	7,422,182
Investment in and advances to affiliates	6,971,944	7,041,522
Asset held for sale	2,089,947	—
Intangible asset, net	8,575,518	8,613,644
Goodwill	32,858,914	33,063,008
Prepayments to affiliate	3,971,600	4,440,600
Deposits and other assets	899,058	612,463
Total assets	<u>\$ 73,018,127</u>	<u>\$ 71,970,047</u>
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	\$ 4,167,199	\$ 6,259,098
Accrued payroll obligations	1,353,709	1,300,647
Deferred revenue	200,562	359,031
Accrued warranties	89,754	47,653
Derivative instruments	12,547,000	4,322,000
Other accrued liabilities	1,853,468	2,094,786
Current portion of long-term debt	519,243	18,530,762
Total current liabilities	<u>20,730,935</u>	<u>32,913,977</u>
Long-term debt, net of current portion	21,133,928	203,318
Deferred income taxes	481,330	218,707
Derivative instruments	6,669,000	56,000
Commitments and contingencies (note 19)		
Equity:		
Stockholders' equity:		
Preferred stock, \$.001 par value; 20,000,000 shares authorized; none issued and outstanding at April 30, 2010 and April 30, 2011	—	—
Series B common stock, \$.02 par value; 100,000 shares authorized; 49,998 issued and outstanding at April 30, 2010 and April 30, 2011	1,000	1,000
Common stock, \$.02 par value; 19,900,000 shares authorized; 8,457,766 issued and outstanding at April 30, 2010 and 11,794,762 issued and outstanding at April 30, 2011	169,155	235,895
Additional paid-in-capital	395,709,444	420,907,771
Accumulated deficit	(372,016,566)	(383,046,971)
Accumulated other comprehensive income (loss)	(755,791)	480,350
Total stockholders' equity	<u>23,107,242</u>	<u>38,578,045</u>
Noncontrolling interests	895,692	—
Total equity	<u>24,002,934</u>	<u>38,578,045</u>
Total liabilities and equity	<u>\$ 73,018,127</u>	<u>\$ 71,970,047</u>

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended April 30,		
	2009	2010	2011
Revenue:			
Net product sales	\$ 975,098	\$ 1,450,459	\$ 4,543,758
Contract revenue	22,282,622	8,154,690	15,730,490
Total revenue	23,257,720	9,605,149	20,274,248
Costs and expenses:			
Cost of product sales	2,288,237	1,573,380	3,692,826
Research and development	25,177,261	13,533,987	18,098,079
Selling, general and administrative	13,888,843	14,133,154	14,870,721
Amortization and impairment of long-lived assets	7,020,607	869,242	1,425,893
Total costs and expenses	48,374,948	30,109,763	38,087,519
Operating loss	(25,117,228)	(20,504,614)	(17,813,271)
Interest expense, net	(3,690,855)	(2,415,082)	(3,367,610)
Fair value adjustments of derivative instruments, net	27,693,000	(10,574,000)	13,214,000
Loss on modification of debt and derivative instruments, net	(23,834,000)	(14,686,955)	(1,513,359)
Gain (loss) on settlement of debt and derivative instruments, net	(4,294,000)	822,239	(1,493,577)
Equity in earnings (losses) of affiliates, net	(733,000)	1,089,000	(314,301)
Other income (expense), net	1,985,031	(18,691)	17,212
Loss from operations before income tax expense	(27,991,052)	(46,288,103)	(11,270,906)
Income tax benefit (expense)	(1,600)	(6,224)	240,501
Net loss attributable to stockholders	<u>\$(27,992,652)</u>	<u>\$(46,294,327)</u>	<u>\$(11,030,405)</u>
Per share data—Net loss:			
Basic & diluted	\$ (6.08)	\$ (7.17)	\$ (1.14)
Weighted average shares outstanding:			
Basic & diluted	4,600,666	6,459,899	9,700,395

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

	Series B		Common Stock Amount	Additional Paid-In- Capital	Accumulated Deficit	Accumulated Comprehensive Income (loss)	Noncontrolling Interests	Total Equity	Comprehensive Income (loss)
	Common Stock Shares	Amount							
Balance at April 30, 2008	49,998	\$1,000	3,898,620	\$ 77,972	\$299,436,962	\$ (297,729,587)	\$ —	\$ 1,786,347	
Share-based compensation on stock option and restricted stock awards	—	—	(1,000)	(20)	1,944,244	—	—	1,944,224	
Issuance of common stock to investor	—	—	450,000	9,000	10,414,971	—	—	10,423,971	
Issuance of common stock in satisfaction of debt principal conversions	—	—	377,778	7,556	10,192,444	—	—	10,200,000	
Issuance of common stock in satisfaction of Make-Whole Amount provision associated with debt principal conversions	—	—	136,000	2,720	8,601,280	—	—	8,604,000	
Warrant exercises	—	—	20,000	400	931,600	—	—	932,000	
Comprehensive loss:									
Foreign currency translation	—	—	—	—	—	(765,586)	—	(765,586)	\$ (765,586)
Net loss	—	—	—	—	—	(27,992,652)	—	(27,992,652)	(27,992,652)
Total comprehensive loss	—	—	—	—	—	—	—	—	\$ (28,758,238)
Balance at April 30, 2009	49,998	\$1,000	4,881,398	\$ 97,628	\$331,521,501	\$ (325,722,239)	\$ —	\$ 5,132,304	
Share-based compensation on stock option and restricted stock awards	—	—	1,250	25	925,036	—	—	925,061	
Issuance of common stock to investors	—	—	1,334,999	26,700	12,363,550	—	—	12,390,250	
Issuance of common stock and warrants in connection with acquisition of Schneider Power, Inc.	—	—	840,551	16,811	11,919,909	—	—	11,936,720	
Noncontrolling interests associated with acquisition of Schneider Power, Inc.	—	—	—	—	—	—	897,881	897,881	
Issuance of common stock in satisfaction of debt and derivatives	—	—	1,344,396	26,888	30,116,551	—	—	30,143,439	
Issuance of common stock from cashless warrant exercises	—	—	54,922	1,098	1,559,902	—	—	1,561,000	
Option exercise	—	—	250	5	3,995	—	—	4,000	
Reclass of derivative instruments from liabilities to equity	—	—	—	—	7,299,000	—	—	7,299,000	
Comprehensive loss:									
Foreign currency translation	—	—	—	—	—	9,795	—	9,795	\$ 7,606
Net loss	—	—	—	—	—	(46,294,327)	(2,189)	(46,294,327)	(46,294,327)
Total comprehensive loss	—	—	—	—	—	—	—	—	(46,286,721)
Add: comprehensive loss attributable to noncontrolling interests	—	—	—	—	—	—	—	—	2,189
Comprehensive loss attributable to stockholders	—	—	—	—	—	—	—	—	\$ (46,284,532)
Balance at April 30, 2010	49,998	\$1,000	8,457,766	\$169,155	\$395,709,444	\$ (372,016,566)	\$ 895,692	\$ 24,002,934	
Share-based compensation on stock option and restricted stock awards	—	—	96,929	1,938	1,178,374	—	—	1,180,312	
Issuance of common stock to investors	—	—	1,781,330	35,627	10,852,342	—	—	10,887,969	
Issuance of common stock in satisfaction of legal settlement	—	—	108,000	2,160	467,640	—	—	469,800	
Issuance of common stock in satisfaction of debt and derivatives	—	—	1,212,283	24,246	6,738,554	—	—	6,762,800	
Issuance of common stock and warrants in connection with modifications to debt	—	—	83,000	1,660	5,362,526	—	—	5,364,186	
Issuance of common stock for legal and consulting services	—	—	55,454	1,109	598,891	—	—	600,000	
Distributions to noncontrolling interests associated with Schneider Power, Inc.	—	—	—	—	—	—	(899,370)	(899,370)	
Comprehensive loss:									
Foreign currency translation	—	—	—	—	—	1,236,141	—	1,239,819	\$ 1,239,819
Net loss	—	—	—	—	—	(11,030,405)	3,678	(11,030,405)	(11,030,405)
Total comprehensive loss	—	—	—	—	—	—	—	—	(9,790,586)
Less: comprehensive gain attributable to noncontrolling interests	—	—	—	—	—	—	—	—	(3,678)
Comprehensive loss attributable to stockholders	—	—	—	—	—	—	—	—	\$ (9,794,264)
Balance at April 30, 2011	49,998	\$1,000	11,794,762	\$235,895	\$420,907,771	\$ (383,046,971)	\$ —	\$ 38,578,045	

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended April 30,		
	2009	2010	2011
Cash flows from operating activities:			
Net loss	\$(27,992,652)	\$(46,294,327)	\$(11,030,405)
Adjustments to reconcile net loss from operations to cash used in operating activities:			
Depreciation on property and equipment	1,819,469	1,268,492	1,277,335
Amortization and impairment of long-lived assets	7,020,607	869,242	1,425,893
Share-based compensation charges	1,944,224	925,061	1,180,312
Fair value adjustments of derivative instruments	(27,693,000)	10,574,000	(13,214,000)
Loss on modification of debt and derivative instruments	23,834,000	14,686,955	1,513,359
Loss (gain) on settlement of debt and derivative instruments	4,294,000	(822,239)	1,493,577
Provision for inventory obsolescence	1,294,945	618,357	154,879
Interest on debt obligations	1,159,793	1,497,294	2,569,564
Equity in earnings or losses of affiliates	733,000	(1,089,000)	314,301
Other non-cash items	(12,686)	—	(389,749)
Changes in operating assets and liabilities:			
Accounts receivable	4,342,833	2,532,202	(2,928,490)
Prepayments to affiliates	(4,657,850)	—	—
Inventories	1,634,572	666,176	90,629
Other assets	162,651	439,638	851,700
Accounts payable	63,928	(90,570)	2,731,753
Deferred revenue and other accrued liabilities	(4,826,510)	(516,866)	383,890
Net cash used in operating activities	<u>(16,878,676)</u>	<u>(14,735,585)</u>	<u>(13,575,452)</u>
Cash flows from investing activities:			
Purchases and development of property and equipment	(4,820,315)	(445,821)	(1,751,582)
Proceeds from sale of asset held for sale	—	—	2,093,737
Loan provided to Schneider Power, Inc. prior to close of acquisition	—	(600,000)	—
Cash acquired upon close of acquisition of Schneider Power, Inc.	—	596,053	—
Payments to non-controlling interests	—	—	(897,316)
Investment in and advances to affiliate	(4,863,000)	(165,000)	(34,664)
Other	(55,462)	—	—
Net cash used in investing activities	<u>(9,738,777)</u>	<u>(614,768)</u>	<u>(589,825)</u>
Cash flows from financing activities:			
Proceeds from issuance of common stock and warrants, net of transaction fees	17,713,971	13,785,250	11,434,963
Proceeds from exercise of warrants and options	600,000	4,000	—
Borrowings on term notes, net of issuance costs	7,500,000	3,000,000	3,378,601
Borrowings on non-revolving line of credit	—	—	2,500,000
Borrowings on capital leases and other financing	114,776	21,610	304,706
Payments on term notes	(2,400,000)	(2,816)	(4,114,074)
Payments on non-revolving line of credit	—	—	(500,000)
Payments on capital leases and other financing	(313,794)	(50,658)	(152,718)
Net cash provided by financing activities	<u>23,214,953</u>	<u>16,757,386</u>	<u>12,851,478</u>
Net effect of exchange rate changes on cash	—	(1,366)	62,991
Net increase (decrease) in cash and cash equivalents	(3,402,500)	1,405,667	(1,250,808)
Cash and cash equivalents at beginning of year	6,023,715	2,621,215	4,026,882
Cash and cash equivalents at end of year	<u>\$ 2,621,215</u>	<u>\$ 4,026,882</u>	<u>\$ 2,776,074</u>

Continued on following page

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)

	Year Ended April 30,		
	2009	2010	2011
Supplemental schedule of non-cash investing and financing activities of continuing operations:			
Exercise of warrants classified as derivative instruments:			
Decrease in derivative instruments associated with warrants ..	\$ 480,000	\$ 1,597,000	\$ —
Increase in additional paid-in-capital	(480,000)	(1,561,000)	—
Decrease in accumulated deficit	—	(36,000)	—
Record initial value of embedded derivative instruments associated with debt and warrant issuances:			
Increase in long-term debt	—	(2,251,000)	—
Increase in derivative instrument liability	—	(1,240,000)	(1,011,000)
Decrease in additional paid-in-capital	—	—	642,000
Increase in accumulated deficit	—	3,491,000	369,000
Conversion of debt to equity:			
Decrease in debt principal and interest	10,200,000	20,486,458	5,750,000
Decrease in debt discount	—	(79,780)	—
Decrease in derivative instruments associated with debt obligations	4,162,000	10,523,000	—
Increase (decrease) in accumulated deficit	4,442,000	(786,239)	(80,234)
Increase in common stock and additional paid-in-capital	(18,804,000)	(30,143,439)	(5,669,766)
Settlement of legal reserve through issuance of stock:			
Reduction in other accrued liabilities	—	—	550,000
Decrease in accumulated deficit	—	—	(80,200)
Increase in common stock and additional paid-in-capital	—	—	(469,800)
Reclass of derivative instruments from liability to equity:			
Decrease in derivative instrument liability	—	7,299,000	—
Increase in additional paid-in-capital	—	(7,299,000)	—
Acquisition of Schneider Power, Inc.:			
Fair value of tangible assets acquired	—	5,942,254	—
Goodwill and intangibles	—	11,077,925	—
Fair value of liabilities assumed	—	(4,185,578)	—
Noncontrolling interests	—	(897,881)	—
Increase in common stock and additional paid-in-capital	—	(11,936,720)	—
Supplemental disclosure information of continuing operations:			
Cash paid during the year for:			
Interest	\$ (2,740,729)	\$ (609,292)	\$(1,059,801)
Income taxes	(1,600)	(3,125)	(7,768)

See accompanying notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

April 30, 2011

1. Background and Basis of Presentation

Background

Quantum Fuel Systems Technologies Worldwide, Inc. and Subsidiaries (collectively referred to as “Quantum,” “we,” “our” or “us”) is a fully integrated alternative energy company—a leader in the development and production of advanced clean propulsion systems, and renewable energy generation systems and services.

We believe that we are uniquely positioned to provide advanced fuel system, electric drive, software control strategies and propulsion control system technologies for alternative fuel vehicles, in particular, plug-in electric hybrid, electric, fuel cell and hydrogen hybrid vehicles based on our years of experience in vehicle-level design, system and component software development, vehicle electronics, system control strategies and system integration.

We provide powertrain design and engineering, system integration, manufacturing and assembly of components and packaged systems for electric, hybrid-electric, plug-in hybrid-electric, range extended plug-in electric, alternative fuel, and hydrogen vehicles, including refueling and recharging stations and systems. We are also an independent power producer and developer of renewable energy projects and provider of related services.

Our portfolio of technologies and products include hybrid electric and plug-in hybrid electric powertrain systems, advanced battery control systems, proprietary vehicle control systems and software, fuel storage and fuel delivery products and control systems for use in hybrid, fuel cell, and other alternative fuel vehicles. Our proprietary control systems and software is integrated into base vehicle components such as inverters, chargers, battery systems and converters to provide customized hybrid drive-train technologies and systems. We also design and manufacture computerized controls, regulators and automatic shut-off equipment, lightweight, high-pressure hydrogen and natural gas storage tanks using advanced composite technology and hydrogen refueling systems capable of storage at up to 10,000 psi.

Our customer base includes automotive Original Equipment Manufacturers (OEMs), military and governmental agencies, aerospace, and other strategic alliance partners.

We were incorporated in the state of Delaware in October 2000 as Quantum Fuel Systems Technologies Worldwide, Inc., a wholly-owned subsidiary of IMPCO Technologies, Inc (IMPCO). We spun off from IMPCO and became a separate company on July 23, 2002.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles (GAAP). The consolidated financial statements include the accounts of Quantum Fuel Systems Technologies Worldwide, Inc., our wholly owned subsidiary, Schneider Power, Inc (SPI), and our majority-owned subsidiary, Quantum Solar Energy, Inc. (Quantum Solar).

On April 16, 2010, we completed the acquisition of SPI, an alternative energy company with a portfolio of clean electricity generation development projects and land positions in prospective wind and solar power areas in North America and the Caribbean.

On August 27, 2008, start-up activities were initiated in Quantum Solar to develop a solar panel distribution and manufacturing operation in Irvine, California. We currently own 85.0% of Quantum Solar and the remaining 15.0% is owned by the majority shareholder of our affiliate, Asola Advanced and Automotive Solar Systems GmbH (Asola). Manufacturing operations have not yet commenced for Quantum Solar.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

We also hold ownership interests in certain unconsolidated active businesses that are accounted for either under the equity or cost methods of accounting. These interests include: (i) in December 2010 we and the majority shareholder of Asola formed Asola Quantum Solarpower AG (AQS) to serve as a holding company for certain divisions of Asola's business, (ii) on September 3, 2009, we acquired an ownership interest in Shigan Quantum Technologies PVT LTD (Shigan Quantum), a start-up manufacturer of fuel injectors based in New Delhi, India, (iii) on October 6, 2009, we acquired an ownership interest in Power Control and Design, Inc. (PCD), a power control electronics software developer based in Newbury Park, California, (iv) on January 4, 2008, we acquired an ownership interest in Asola, a solar module manufacturer located in Erfurt, Germany, and (v) on August 7, 2007, we co-founded Fisker Automotive, Inc. (Fisker Automotive) with Fisker Coachbuild, LLC, which was formed for the purpose of producing premium plug-in hybrid automobiles. Our equity ownership in Fisker Automotive was less than 1% at April 30, 2011 and we currently account for our investment in Fisker Automotive under the cost method of accounting. See Note 6 for further discussion of these businesses.

We also have an ownership interest in Advanced Lithium Power, Inc. (ALP) that we obtained on March 3, 2006. ALP ceased operations in June 2010 upon the appointment of a receiver. Our remaining investment in ALP was fully written off as of April 30, 2010.

All significant intercompany accounts and transactions have been eliminated in consolidation. Certain reclassifications have been made to fiscal year 2009 and 2010 amounts to conform to the fiscal year 2011 presentation.

In preparing the consolidated financial statements, we have evaluated subsequent events. For purposes of these consolidated financial statements, subsequent events are those events that occurred after the balance sheet date but before the consolidated financial statements are issued or available to be issued.

Reverse Stock Split

On February 8, 2011, we implemented a reverse stock split pursuant to which all of the issued and outstanding shares of our common stock at the close of business on such date were combined and reconstituted as a smaller number of shares of common stock in a ratio of 1 share of common stock for every 20 shares of common stock. Fractional shares were paid in cash. Our authorized shares of common stock were reduced proportionately from 400.0 million to 20.0 million. The reverse stock split did not affect our 20.0 million shares of authorized preferred stock. The accompanying consolidated financial statements and footnotes have been retroactively adjusted to reflect the effects of the reverse stock split. The reverse split did not affect the amount of equity we have or affect our market capitalization.

Capital Resources

From our inception we have funded our operations and strategic investments primarily with proceeds from public and private offerings of our common stock and borrowings with financial institutions and our current senior lender. Since May 1, 2008, we have completed the following capital transactions:

- On May 30, 2008, we received \$7.5 million in proceeds from our senior lender under a term note that was set to mature on August 31, 2009 (Term Note C) and we initially secured a \$10.0 million unconditional commitment (Lender Commitment) from an affiliate of our senior lender that allowed us to draw on the commitment at our option and also allowed the senior lender to fund the commitment at the senior lender's option under certain defined structures. As discussed further below, the Lender Commitment was terminated in connection with the January 3, 2011 debt restructure that we executed with the senior lender before either party exercised its option under the arrangement.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

- On August 25, 2008, we completed a registered direct offering of common stock and warrants that yielded gross proceeds of \$19.1 million. The net amount received by us from the transaction, after deducting placement agent fees and offering expenses, was approximately \$17.7 million. We allocated \$7.3 million of the net amount received from the transaction to the warrants that are classified as derivative instruments.
- On July 10, 2009, we and our senior lender agreed to a series of modifications to our credit facilities and incremental borrowings. In connection with the modifications, the amount of outstanding principal and unpaid interest on a term note (Term Note A) of \$6.6 million was replaced with a new convertible note in that amount issued to the senior lender (Convertible Note II) and we received an additional \$3.0 million in proceeds in exchange for a new convertible note issued to the senior lender (Convertible Note III).
- On September 4, 2009, we completed a private placement offering of common stock and warrants that raised cumulative gross proceeds of \$12.3 million from the sale of shares of our common stock. The net amount received by us, after deducting placement agent fees and offering expenses, was approximately \$10.8 million.
- On various dates from April 30, 2010 through July 26, 2010, we raised cumulative gross proceeds of \$10.9 million in connection with a private placement offering of common stock and warrants. The net amount received by us, after deducting placement agent fees and offering expenses, was \$9.3 million.
- On October 13, 2010 and October 19, 2010, we raised cumulative gross proceeds of \$4.0 million from the private placement sale of the 2010 Bridge Notes and warrants to certain accredited investors. The net amount received by us, after deducting placement agent fees and transaction expenses, was \$3.4 million. On December 31, 2010, a payment default occurred as we were unable to repay the principal and interest on the December 31, 2010 maturity date. The payment default in the 2010 Bridge Notes caused contractual defaults on all of our debt obligations with our senior lender (which were all cured upon the final payoff of the 2010 Bridge Notes on April 29, 2011).
- On January 3, 2011, we and our senior lender entered into a series of transactions which restructured certain of our debt instruments, terminated the Lender Commitment, and provided us with a new \$5.0 million non-revolving line of credit (LOC). On January 10, 2011, we received proceeds of \$2.5 million under the LOC.
- On January 18, 2011, we and each of the holders of the 2010 Bridge Notes agreed to amend the scheduled principal repayment dates and revised the maturity date of the 2010 Bridge Notes to April 29, 2011.
- On February 18, 2011, we completed a private placement of common stock and warrants pursuant to which we raised cumulative gross proceeds of \$5.7 million. The net amount received by us, after deducting placement agent fees and offering expenses, was approximately \$5.1 million. Our senior lender participated in the private placement as an investor and subscribed for \$2.0 million of common stock units. The senior lender paid the subscription price by the cancellation of \$2.0 million of the outstanding borrowings under the LOC. In connection with the closing of the private placement, the remaining unused \$2.5 million under the LOC was terminated.
- On May 9, 2011 and May 19, 2011, we raised cumulative gross proceeds of \$1.5 million from a private placement sale of senior subordinated bridge notes (2011 Bridge Notes) and warrants to certain accredited investors. The net amount received by us, after deducting placement agent fees and transaction expenses, was \$1.4 million.
- On June 15, 2011, we completed a private placement offering of common stock and warrants pursuant to which we raised cumulative gross proceeds of \$7.5 million. The net amount received by us, after deducting placement agent fees and offering expenses, was approximately \$6.5 million.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Liquidity

Our historical operating results, capital resources and financial position, in combination with current projections and estimates, were considered in management's plan and intentions to fund our operations over a reasonable period of time which we define as the twelve month period ending as of April 30, 2012. For purposes of liquidity disclosures, we assess the likelihood that we have sufficient available working capital and other principal sources of liquidity to fund our operating activities and obligations as they become due and the likelihood that we will be able to maintain compliance with the required provisions contained within our debt instruments over the twelve month period. We have historically incurred operating losses and negative cash flows from operating activities. Although we expect to use a significant amount of cash in our operations over the next year for our operating activities and debt service, our current operating plan anticipates increased revenues and improved profit margins for the twelve month period, which we expect will reduce the levels of cash required for our operating activities as compared to historical levels of use.

Our principal source of liquidity as of June 15, 2011, after factoring in the private placement offering transaction that closed on that date, consisted of cash and cash equivalents of \$7.9 million.

As of June 15, 2011, we had \$18.6 million of outstanding debt obligations, consisting of \$12.5 million due under three convertible notes that mature on August 31, 2011, \$1.5 million due under the 2011 Bridge Notes that mature on September 30, 2011, \$3.0 million due under the Consent Fee Term Note that is payable on demand at any time after July 31, 2011, \$1.3 million related to a bank term loan that matures on April 3, 2012, and \$0.3 million of other obligations.

In order to have sufficient cash for our operations and debt service needs, we will need to either: (i) raise a significant amount of additional capital before August 31, 2011, (ii) refinance our senior indebtedness, or (iii) seek an extension of the maturity dates of our senior debt obligations.

We believe that our existing principal sources of liquidity will only be sufficient to fund our activities up through the maturity of the convertible notes currently scheduled to mature on August 31, 2011 as we do not currently have sufficient cash on hand to satisfy the remaining balance owed on the convertible notes. Our recurring negative cash flows and short-term debt service obligations combined with our existing sources of liquidity and other conditions raise substantial doubt about our ability to continue as a going concern.

The consolidated financial statements that are included in this report have been prepared assuming that we will continue as a going concern, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. These consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from uncertainty related to our ability to continue as a going concern.

In addition to our need to raise sufficient capital to cover our existing operations and debt service obligations in August 2011, we will also need to raise additional capital in order to complete the proposed Asola LOI transaction (see Note 6), complete the build out of our planned wind and solar development projects, complete the planned Quantum Solar manufacturing operation in Irvine, California, and to further develop future generations of our hybrid electric propulsion systems. Further, we will need to increase revenues and improve profit margins for our business to be sustainable over the long term. We do not plan to move forward with the proposed Asola LOI transaction, the build out of wind and solar development projects or the Quantum Solar manufacturing operation until we raise a level of additional capital to be able repay our debt obligations as they mature, fund one or more of these projects and maintain sufficient levels of working capital for our overall business.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Given our historical operating results and the difficult credit markets that currently exist, we do not expect that we will be able to refinance our senior indebtedness with a traditional commercial loan. Rather, we will need to seek an alternative loan arrangement such as a convertible debenture or other equity linked debt securities.

Although we will try to negotiate an extension of the applicable maturity dates with our senior lender and we have successfully extended the scheduled maturity dates on the debt obligations with our senior lender in the past on several occasions, we cannot provide any assurances that we will be able to further modify the current arrangements. We are also currently evaluating our options for raising additional capital in order to maintain sufficient liquidity to meet our obligations as they become due. The actual amount of capital that we will need to raise is highly dependent upon the levels of debt conversions by our convertible note lenders and our ability to further extend the scheduled maturity dates of our obligations.

If we are unable to raise sufficient capital to fund our working capital needs or repay our debt obligations as they mature or otherwise refinance those debt obligations or extend the maturity dates, it would have a material adverse effect on our business and our ability to continue as a going concern.

2. Summary of Significant Accounting Policies

Use of Estimates in the Preparation of Consolidated Financial Statements

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. These estimates include assessing our levels of liquidity needs through April 30, 2012, collectability of accounts receivable, estimates of contract costs and percentage of completion, the use and recoverability of inventory, the carrying amounts and fair value of long-lived assets and goodwill, including estimates of future cash flows and market valuations associated with asset impairment evaluations, the fair value of derivatives associated with debt instruments and warrants, the realization of deferred taxes, useful lives for depreciation/ amortization periods of assets and provisions for warranty claims, among others. The markets for our products are characterized by competition, technological development and new product introduction, all of which could impact the future realizability of our assets. Actual results could differ materially from those estimates.

Foreign Currency Translations

The books and records of our wholly-owned subsidiary, SPI, and our affiliate, Asola, are maintained in functional currencies that differ from the United States (U.S.) dollar functional currency that is reported in the accompanying consolidated financial statements. SPI's functional currency is the Canadian dollar and Asola's functional currency is the Euro.

SPI's assets and liabilities and our investment in and advances to Asola are translated at rates of exchange in effect at the end of the reporting period. SPI's revenues and expenses and our equity in earnings or losses of Asola are translated at the average rates of exchange for the period. Foreign currency translation gains or losses are accumulated within other comprehensive income or loss as a separate component of stockholders' equity.

Foreign currency gains and losses (transactions denominated in a currency other than SPI's local currency) are included in selling, general and administrative expenses.

Revenue Recognition

We generally manufacture products based on specific orders from customers. Revenue is recognized when the earnings process is complete and collectability is reasonably assured, which for product sales is generally

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

upon shipment from our warehouse or shipment from warehouses of certain component suppliers that we have contractual relationships with. We include the costs of shipping and handling, when incurred, in cost of goods sold.

Contract revenue for customer funded research and development is principally recognized by the percentage of completion method. Generally, we estimate percentage complete by determining cost incurred to date as a percentage of total estimated cost at completion. For certain other contracts, percentage complete is determined by measuring progress towards contract deliverables if it is determined that this methodology more closely tracks the realization of the earnings process. For contracts measured under the estimated cost approach, we believe we can generally make dependable estimates of the revenue and costs applicable to various stages of a contract. Recognized revenue and profit are subject to revisions as the contract progresses to completion. Our estimates of contract costs are based on expectations of engineering development time and materials and other support costs. These estimates can change based on unforeseen technology and integration issues, but known risk factors and contract challenges are generally allowed for in the initial scope and cost estimate of the program. Revisions in profit estimates are charged to income in the period in which the facts that give rise to the revision become known.

In certain circumstances, customers pay one price for multiple products and services. For arrangements with multiple deliverables, revenue is recognized upon the delivery of the separate units based on their relative selling prices. Consideration from multiple element arrangements is allocated among the separate elements based on their relative fair values.

Effective with our acquisition of SPI on April 16, 2010, our revenues now include energy generation sales associated with a wind farm which are recognized at the time of generation and delivery to the purchasing utility provider as metered at the point of interconnection with the transmission system. The rate paid by the purchasing utility provider is established in the Power Purchase Agreement (PPA) executed between us and the utility provider.

Research and Development Costs

Research and development costs are charged to expense as incurred. Equipment used in research and development with alternative future uses is capitalized and only the current period depreciation is charged to research and development.

Cash and Cash Equivalents

All highly liquid investments with original maturities of three months or less when purchased are considered to be cash equivalents.

Cash Flow Presentation

We report cash flows under the indirect method.

Accounts Receivable

We sell to customers using credit terms customary in our industry. Credit is extended to customers based on an evaluation of the customer's financial condition, and when credit is extended, collateral is generally not required. Interest is not normally charged on receivables. We establish an allowance for potential losses on our accounts receivable based on historical loss experience and current economic conditions. Accounts receivable are charged off to the allowance when we determine that the account is uncollectible.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Inventories

Inventories are valued at the lower of cost or market. Cost is determined by the first-in, first-out (FIFO) method for all inventories. Market is determined by replacement cost for raw materials and parts and net realizable value for work-in-process and finished goods. Our business is subject to the risk of technological and design changes. We provide for obsolete or slow-moving inventory based on our analysis of inventory levels and future sales forecasts at the end of each accounting period.

Property and Equipment

Property and equipment are stated at historical cost less accumulated depreciation. Depreciation on property and equipment (other than land which is not depreciated) is computed by the straight-line method over the estimated useful lives of the assets. We are depreciating tooling, dies and molds over 5 years; plant machinery and equipment over 7 years; power generation machinery and equipment over 20 years; information systems and office equipment over periods of 3 to 7 years; and automobiles and trucks over 5 years. Amortization of leasehold improvements and equipment financed under borrowing facilities is provided using the straight-line method over the shorter of the assets' estimated useful lives or the lease terms.

Major renewals and improvements are capitalized and minor replacements, maintenance and repairs are charged to current operations as incurred. Upon retirement or disposal of assets, the cost and related accumulated depreciation are removed from the balance sheets and any gain or loss is reflected in the statements of operations.

Equity Method Investments

Investments in common stock of non-consolidated affiliates are accounted for under the equity method of accounting as a result of our ability to exercise significant influence over the operating and financial policies of our affiliates. The ability to exercise significant influence is due in part to the level of our equity holdings and/or through our representation on the board of directors for these affiliates. Under the equity method of accounting, investments of this nature are recorded at original cost and adjusted periodically to recognize our proportionate share of the investee's net income or losses after the date of investment. When net losses from an investment accounted for under the equity method exceed its carrying amount, the investment balance is reduced to zero and additional losses are not recorded. We resume accounting for the investment under the equity method when the affiliated entity subsequently reports net income and our share of that net income exceeds the share of net losses not recognized during the period the equity method was suspended. Investments are written down only when there is clear evidence that a decline in value that is other than temporary has occurred.

Goodwill and Other Intangible Assets

Acquisitions meeting business combinations criteria often give rise to goodwill. We utilize the services of valuation consultants to assist in allocating purchase price to acquired assets and liabilities assumed in connection with acquisition activities.

Goodwill represents the excess of purchase price over the fair value of net assets acquired in acquisitions and is allocated to our business segments. Goodwill is not amortized and is assessed annually for impairment (as of February 1) or whenever events or changes in circumstances indicate that the carrying value of such assets may not be recoverable.

We amortize specifically identified intangible assets using the straight-line method over the estimated useful lives of the assets. Impairment losses are recorded on long-lived assets used in operations when an indicator of

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

impairment (significant decrease in market value of an asset, significant change in extent or manner in which the asset is used or significant physical change to the asset) is present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount.

Warranty Costs

We follow the policy of accruing an estimated liability for warranties at the time the warranted products are sold. Warranty is provided with terms similar to those offered by the OEM to its customers, which generally ranges from one to five years. Estimates are based, in part, on historical experience.

Derivative Financial Instruments

We account for conversion features contained within certain of our debt instruments and exercise features of certain of our warrant contracts as derivative financial instruments as further discussed in Notes 10, 11 and 12.

The derivative financial instruments, which are classified as liabilities, are recorded at fair value and marked to market each period. Changes in fair value of the derivatives each period resulting from a movement in the share price of our common stock or the passage of time are recognized as fair value adjustments of derivative instruments on the consolidated statements of operations as other income or expense. Changes in fair value resulting from the modification to the terms of the derivative are recognized as a gain or loss on modification of derivative instruments on the consolidated statement of operations as other income or expense. We also use a two step approach to evaluate whether an equity-linked financial instrument (or embedded feature) is indexed to our own stock, including evaluating the instrument's contingent exercise and settlement provisions.

Certain derivative instruments are presented as current liabilities on the consolidated balance sheet if the terms allow the holder to either exercise warrants or to convert debt principal or demand principal repayments associated with derivative instruments within the current operating cycle. These derivative instruments are similar in nature to demand obligations because the settlement could require cash payment due to events that are outside of our control.

Income Taxes

The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Deferred tax assets and liabilities are determined based on the differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date (see Note 14).

We account for uncertainties in income tax law under a comprehensive model for the financial statement recognition, measurement, presentation and disclosure of uncertain tax positions taken or expected to be taken in income tax returns as prescribed by GAAP. Under GAAP, the tax effects of a position are recognized only if it is "more-likely-than-not" to be sustained by the taxing authority as of the reporting date. If the tax position is not considered "more-likely-than-not" to be sustained, then no benefits of the position are recognized.

Share-Based Compensation

We account for share-based compensation by recognizing the estimated fair value of stock options and similar equity instruments issued to our employees over the requisite vesting period as an expense. We use the Black-Scholes option-pricing formula and record compensation expense on a straight-line amortization basis over the requisite vesting period of the option grants or other stock-based awards.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Segment Information

We classify our continuing business operations into three segments: Fuel Systems, Renewable Energy and Corporate (see Note 17).

Comprehensive Income (Loss)

Other comprehensive income (loss) refers to revenues, expenses, gains and losses that under GAAP are included in comprehensive income (loss) but are excluded from net income or loss, as these amounts are recorded directly as an adjustment to stockholders' equity. The change in our accumulated other comprehensive loss for the periods presented is primarily associated with currency translation gains or losses.

Interest Expense

We recognize the amortization of deferred loan origination costs as interest expense under the effective interest method over the life of the arrangement.

Financial Instruments, Hedging Derivatives, and Concentration of Credit Risk

Financial instruments that we enter into consist principally of cash equivalents, trade receivables and payables, stock options and warrants, and long-term debt.

We may use derivative financial instruments for the purpose of reducing our exposure to adverse fluctuations in interest and foreign exchange rates. While these instruments could be subject to fluctuations in value, such fluctuations are generally offset by the value of the underlying exposures being reduced. We have not used any derivative financial instruments for the purpose of reducing our exposure to adverse fluctuations in interest rates but have entered into currency exchange arrangements for the purpose of reducing our exposure to adverse changes in currency exchange rates. We are not a party to leveraged derivatives for investment or speculative purposes.

We conduct a major portion of our business with a limited number of customers. Fisker Automotive and General Motors (including subsidiaries of General Motors) represent a significant portion of our outstanding accounts receivable as of April 30, 2011. A single senior secured lender, WB QT, LLC, or affiliates of the senior secured lender (the "senior lender"), principally hold the majority of our long-term debt obligations. See further discussion of accounts receivable and long term debt obligations at Notes 4 and 10, respectively.

Fair Values Measurements

We determine fair values of our assets and liabilities in accordance with the fair value measurements method under GAAP. We elected not to adopt the fair value option for any of our financial assets or liabilities that were not already accounted for under the fair value method prior to the adoption of the fair value measurements method. Based on certain qualifying events, we may elect to adopt the fair value option in the future for certain financial assets and liabilities. See further discussion of fair value measurements at Note 11.

Recent Accounting Pronouncements Adopted

Effective May 1, 2010, we adopted new guidance under Accounting Standards Codification (ASC) No. 810-10-05, "Consolidations-Variable Interest Entities." ASC 810-10-05 changes the approach to determining the primary beneficiary of a variable interest entity (VIE) and requires companies to more frequently assess whether they must consolidate VIEs. The adoption of this guidance did not have a material impact on our financial position or results of operations.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Effective May 1, 2010, we adopted new guidance under Accounting Standards Update (ASU) No. 2009-13, "Revenue Recognition (Topic 605)—Multiple-Deliverable Revenue Arrangements." ASU 2009-13 modifies two significant requirements that must be met for an entity to recognize revenue from the sale of multiple element arrangements. The first relates to the determination of when the individual deliverables included in a multiple element arrangement may be treated as separate units of accounting. The second change modifies the manner in which the transaction consideration is allocated across the separately identified deliverables. ASU 2009-13 eliminates the requirement that "objective and reliable evidence" of the fair value exists for the undelivered items in order for a delivered item to be treated as a separate unit of accounting. In addition it modifies the methodology used to allocate transaction consideration to each of the identified units of accounting. Under the previous guidance, if objective and reliable evidence of fair value existed for all of the units of accounting identified, the transaction consideration was allocated based on the relative fair values of the units of accounting. ASU 2009-13 modifies the manner in which the transaction consideration is allocated by requiring the arrangement consideration to be allocated at the inception of the arrangement to all deliverables based on their relative selling price. Under the relative selling price method, the selling price for each deliverable is determined using vendor specific objective evidence (VSOE) of selling price, if it exists; otherwise, selling price is determined based on third party evidence (TPE) of selling price. If neither exists, the vendor uses its best estimate of the selling price for that deliverable. Although ASU 2009-13 is only required to be adopted for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010, early adoption is permitted. The adoption of this guidance did not have a material impact on our financial position or results of operations.

3. Acquisition of Schneider Power, Inc.

On April 16, 2010 we completed our acquisition of Toronto, Ontario, Canada-based Schneider Power, Inc. (SPI) under the terms of a definitive Arrangement Agreement executed on November 24, 2009 (the "Arrangement Agreement") pursuant to which we acquired all of the outstanding shares of SPI in a stock-for-stock exchange. Effective upon the closing of the Arrangement Agreement, we now operate SPI as a wholly-owned subsidiary. SPI is a renewable energy company that develops and constructs electricity generation facilities. SPI also owns and operates a wind farm in Ontario, Canada and has a significant portfolio of renewable wind and solar energy projects in North America and the Caribbean in various stages of development. We report the operations of SPI in the Renewable Energy business segment (see Note 17).

In connection with the closing of the Arrangement Agreement, we issued a total of 840,551 shares of our common stock to SPI shareholders (representing 0.01195 of a Quantum common share for each SPI common share outstanding), which included 10,549 shares issued to holders of SPI in-the-money compensatory stock options at the time of closing. All outstanding SPI stock options and SPI warrants were cancelled effective upon the closing of the transaction. We provided the former SPI warrant holders with Quantum replacement warrants that allowed these warrant holders to purchase up to 102,822 shares of our common stock at exercise prices ranging from \$9.60 to \$48.20 per share which expired without being exercised through May 13, 2011. The closing of the Arrangement Agreement was accounted for as an acquisition of SPI by Quantum. The shares issued in connection with the Arrangement Agreement represented approximately 10% of our total shares outstanding on a post-transaction basis. Pursuant to the terms of the Arrangement Agreement, we appointed an individual nominated by SPI to fill a vacancy on our Board of Directors.

Consideration and Measurement of Goodwill

The total fair value of the consideration provided by us on the closing date was \$11.9 million and there is no further contingent consideration of other adjustments contemplated per the terms of the definitive business combination agreement. The fair value of the shares issued in connection with the acquisition was determined

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

based on the closing share price of our common stock (\$14.00 on April 16, 2010) on the date the transaction was completed. The fair value of the replacement warrants issued to former SPI warrant holders was based on option-pricing mathematical formulas generally referred to as “Black-Scholes” option-pricing models.

We finalized the fair values of the assets acquired and liabilities assumed in connection with the acquisition during the fourth quarter of fiscal 2011. During fiscal 2011, we revised our estimate of the fair value of certain liabilities assumed as part of the acquisition which resulted in an increase to goodwill of \$0.1 million above the amount of goodwill initially estimated as of April 16, 2010. Based upon the final analysis, we identified \$9.4 million of tangible and intangible assets at fair value as of the date of the closing, which was net of the fair value of liabilities assumed and non-controlling interests. As a result, we ascribed \$2.5 million of the consideration related to the transaction as goodwill in the Renewable Energy business segment representing the expected synergies and other intangible value that the SPI acquisition brought to our overall alternative energy business strategy (see Notes 8 and 17).

The components of the consideration paid is as follows:

Components of Consideration:

Quantum common shares issued and exchanged for SPI common shares	\$ 11,620,031
Quantum common shares issued to former SPI option holders	147,689
Quantum warrants issued to former SPI warrant holders	169,000
Total consideration	<u>\$ 11,936,720</u>

The fair value of the net assets acquired is as follows:

Fair Value of Business Acquired:

<i>Tangible assets acquired at fair value:</i>	
Cash and cash equivalents	\$ 596,053
Accounts receivable	45,373
Prepays and other current assets	608,060
Deposits and other assets	684,882
Property and equipment	1,912,829
Asset held for sale	2,095,057
Total tangible assets acquired	<u>5,942,254</u>
<i>Intangible assets acquired at fair value:</i>	
Renewable energy project assets	8,613,000
Goodwill ascribed to transaction	2,524,818
Total assets acquired	<u>17,080,072</u>
<i>Liabilities assumed at fair value:</i>	
Accounts payable	(1,273,568)
Accrued payroll obligations	(198,252)
Loan payable to Quantum	(624,510)
Other accrued liabilities	(357,529)
Long-term debt	(1,311,064)
Deferred income taxes	(480,548)
Total liabilities assumed	<u>(4,245,471)</u>
Non-controlling interests in SPI at fair value	<u>(897,881)</u>
Total liabilities assumed and non-controlling interests	<u>(5,143,352)</u>
Net assets acquired	<u>\$11,936,720</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Pro Forma Data

The operating results of SPI have been included in our consolidated financial statements from the date of the acquisition. The pro forma financial data set forth below gives effect to our acquisition of SPI as if the acquisition had been completed on May 1, 2008. The pro forma financial data includes adjustments to reflect an increase in operating expenses associated with intangible asset amortization (resulting from the identification of renewable energy project intangible assets in connection with the acquisition that were not previously recorded) and an increase in the number of shares used in per share calculation as a result of shares issued in connection with the transaction. The pro forma financial data excludes those adjustments made to the book value of SPI's tangible assets acquired and liabilities assumed based on their estimated fair value at the date of acquisition.

	Year Ended April 30, 2009		Year Ended April 30, 2010	
	As Reported	Pro Forma (unaudited)	As Reported	Pro Forma (unaudited)
Total revenue	\$ 23,257,720	\$ 23,503,371	\$ 9,605,149	\$ 12,510,917
Operating loss	\$(25,117,228)	\$(28,683,874)	\$(20,504,614)	\$(22,016,014)
Net loss attributable to stockholders	\$(27,992,652)	\$(30,942,608)	\$(46,294,327)	\$(47,566,254)
Net loss per share—basic and diluted	\$ (6.08)	\$ (5.69)	\$ (7.17)	\$ (6.54)
Number of shares—basic and diluted	4,600,666	5,441,218	6,459,899	7,268,210

The pro forma financial information is for informational purposes only and is not indicative of what the actual consolidated results of operations might have been had the transaction occurred on May 1, 2008. Included in the as reported and pro forma results for fiscal 2010 were non-recurring expenses related to the acquisition of \$0.7 million and \$1.4 million, respectively. The acquisition costs are reported in selling, general and administrative costs in the accompanying consolidated statement of operations.

Investment in Grand Valley

Included in the SPI assets acquired was \$2.1 million as of April 16, 2010 and April 30, 2010 related to a renewable energy project asset that we had classified as held for sale. This asset represented the fair value of SPI's investment in a wind farm project that is under development and that we refer to as the Grand Valley wind farm. We had recorded the asset at its fair value, less estimated cost to sell. As of the closing date of the Arrangement Agreement, management of SPI had committed to a plan to sell the asset and the asset was available for immediate sale in its present condition subject only to terms that are usual and customary for this type of sale. Actions to locate a buyer as of the acquisition date had been initiated and the sale of the asset was considered probable within twelve months.

During fiscal 2011, SPI executed an arrangement with a non-affiliated third party for the sale of the Grand Valley wind farm asset for \$2.1 million in cash. On February 1, 2011, we received the balance of the cash consideration and completed the sale of the asset. In connection with the sales transaction, we distributed \$0.9 million in cash to the minority interest partners associated with the asset. There was no residual gain or loss to be recognized on the disposal of the asset.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

4. Accounts Receivable

Net accounts receivable from non-affiliates consist of the following:

	<u>April 30, 2010</u>	<u>April 30, 2011</u>
Customer accounts billed	\$1,189,097	\$3,723,224
Customer accounts unbilled	1,716,149	2,219,453
Allowance for doubtful accounts	(72,109)	(176,751)
Accounts receivable, net	<u>\$2,833,137</u>	<u>\$5,765,926</u>

We assess the collectability of receivables associated with our customers on an ongoing basis and historically any losses have been within management's expectations.

5. Inventories

Inventories consist of the following:

	<u>April 30, 2010</u>	<u>April 30, 2011</u>
Materials and parts	\$ 3,670,420	\$ 3,669,267
Work-in-process	72,757	22,972
Finished goods	904,494	870,061
	4,647,671	4,562,300
Less: provision for obsolescence	(2,881,251)	(3,041,388)
Inventories, net	<u>\$ 1,766,420</u>	<u>\$ 1,520,912</u>

We maintain a significant provision for obsolescence reserves associated with specific hydrogen fuel system component parts and materials as we expect that future sales to General Motors and other OEMs of our automotive fuel system products utilizing hydrogen components will continue to be negatively impacted as a result of the unfavorable economic conditions that are still being experienced in the automotive industry.

6. Strategic Investments

Investment in Fisker Automotive

On August 7, 2007, we and Fisker Coachbuild, LLC, launched a new venture, Fisker Automotive, Inc. (Fisker Automotive), to produce premium plug-in hybrid automobiles. We initially owned 62.0% of Fisker Automotive; however, Fisker Automotive has since raised a level of capital that has resulted in the dilution of our direct ownership interest to less than 1% at April 30, 2011.

Fisker Automotive's first scheduled production vehicle, the Fisker Karma, a four door hybrid-electric premium sports sedan that incorporates our plug-in hybrid electric vehicle architecture known as *Q-Drive*, is expected to have initial deliveries beginning in calendar 2011.

On April 29, 2010, we executed a long-term production supply agreement with Fisker Automotive which, as later amended on November 8, 2010, sets forth the definitive terms pursuant to which we are the exclusive supplier of certain key sub-systems and control systems included in the *Q-Drive* powertrain system for the Fisker

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Karma production vehicle and we will also receive a royalty for each Fisker Karma vehicle sold that incorporates our *Q-Drive* technology (the “Fisker Production Agreement”). The Fisker Production Agreement covers the program life of the vehicle platform and outlines minimum volumes of 45,000 vehicles over this period.

We accounted for our investment in Fisker Automotive under the equity method of accounting from the date of our initial ownership interest through the first quarter of fiscal 2011. During the second quarter of fiscal 2011, we changed the method of accounting to the cost method as a result of changes in the composition of the Fisker Automotive board of directors and the dilution of our equity interest since the initial formation of the venture such that we no longer are considered to have significant influence over Fisker Automotive; however, under both of these methodologies, our investment in Fisker Automotive has been carried at zero for all periods presented.

During fiscal 2011, we continued to provide engineering services to support the Fisker Karma vehicle platform, including system validation, certification and other pre-production development activities, in addition to supplying certain prototype component parts for pre-production Fisker Karma vehicles along with initial shipments of production level component parts.

Investment in Affiliates

We account for our active affiliates, Asola, PCD, and Shigan Quantum under the equity method of accounting. The components of investment in and advances to affiliates is as follows:

	<u>April 30, 2010</u>	<u>April 30, 2011</u>
Quantum Affiliates:		
Asola	\$6,806,944	\$6,959,823
PCD	165,000	78,181
Shigan-Quantum	—	3,518
Investment in and advances to affiliates	<u>\$6,971,944</u>	<u>\$7,041,522</u>

Asola

On January 4, 2008, we acquired a 24.9% ownership interest in Asola Advanced and Automotive Solar Systems GmbH (Asola), a solar module manufacturer located in Erfurt, Germany. We also have an option to increase our ownership interest in Asola by an additional 7.76% in exchange for 0.1 million euro. We account for our equity interest in Asola under the equity method of accounting. Although Asola is a variable interest entity, we are not considered the primary beneficiary as defined under GAAP.

On March 14, 2011, we amended a non-binding Letter of Intent with Asola’s majority owner, ConSolTec GmbH (ConSolTec) that we originally executed on August 24, 2010, which sets forth terms related to a proposed transaction pursuant to which we and ConSolTec would establish a newly formed holding company, with us as the controlling equity holder, to create a solar panel manufacturing, distribution and sales entity to service global markets (the “Asola LOI”). The assets of the new entity would include Asola and Quantum Solar as wholly-owned subsidiaries. Under the proposed terms of the Asola LOI, the transaction is contingent upon several conditions including our ability to raise a certain level of capital in order to provide compensation to ConSolTec and to provide sufficient equity capital to the new entity to enable the entity’s expansion into additional global markets. The Asola LOI, as amended, contemplated a transaction completion date of June 30, 2011. We are currently seeking an extension of time to complete the transactions contemplated by the Asola LOI.

Prior to the execution of the Asola LOI, we provided Asola and ConSolTec with written notice on December 28, 2009, that we were exercising our right to increase our ownership interest in Asola to 32.66% in

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

exchange for payment of 0.1 million euro. The transaction to increase our ownership interest by 7.76% has not yet been completed and we have reserved our right to withdraw the exercise pending the outcome of the Asola LOI.

In December 2010, we acquired a 24.9% interest in Asola Quantum Solarpower AG (AQS) in exchange for a cash payment of 24,900 euro. AQS was established to serve as a holding company for certain divisions of Asola's current business and Asola's anticipated expansion. Our current ownership in AQS is equal to the current ownership interest we have in Asola and as such, we include AQS as part of our overall disclosures for our investments in and advances to Asola for reporting purposes.

The conversion rate of one euro to one US Dollar was 1.48 to 1.0 as of April 30, 2011 and 1.32 to 1.0 as of April 30, 2010. We account for our equity interest in Asola under the equity method of accounting. Although Asola is a variable interest entity, we are not considered the primary beneficiary.

Asola maintains its books and records on a calendar year basis and has reported annual financial results under German generally accepted accounting principles for calendar 2009 and 2010 (unaudited) and interim financial results for the first four months of calendar 2011 (unaudited) as follows:

	Year ended December 31, 2009		Year ended December 31, 2010	
	Euros	US Dollars	Euros	US Dollars
Current assets	€19,399,784	\$27,806,000	€17,659,666	\$ 23,557,000
Non-current assets	9,150,090	13,115,000	8,774,453	11,705,000
Current liabilities	10,258,769	14,704,000	7,638,813	10,190,000
Long-term liabilities	14,166,895	20,305,000	12,150,438	16,208,000
Product sales	38,682,329	54,882,000	72,758,598	100,670,000
Gross profit on product sales	8,467,542	12,014,000	13,290,398	18,389,000
Net income	1,429,501	2,028,000	2,505,522	3,467,000
			Four months ended April 30, 2011	
			Euros	US Dollars
Total assets			€30,596,766	\$45,289,000
Total liabilities			24,686,934	36,542,000
Product sales			16,030,094	22,555,000
Net loss			(803,934)	(1,131,000)

Our equity in net earnings of Asola was US\$0.1 million and US\$1.1 million for fiscal years 2009 and 2010, respectively, and our equity in net losses of Asola was US\$0.2 million for fiscal 2011. Our equity in net earnings or losses differs from the 24.9% of the net income (loss) shown in the tables above due to adjustments to equity in net earnings (losses) related to differences between German generally accepted accounting principles and US GAAP. Such differences are adjusted for in calculating our equity in earnings (losses) under US GAAP.

Asola Solar Cell Supply Agreement

Our affiliate, Asola, has a certain long-term solar cell supply agreement dated November 1, 2007 (Supply Agreement) with one of its suppliers of solar cells for Asola's solar module manufacturing operations. We have a related unconditional commitment under a November 2007 agreement with Asola to purchase one-half of the solar cells and to provide our share of prepayments totaling 4.5 million euro to Asola in connection the Supply Agreement. Our agreement to purchase one-half of Asola's rights and obligations under Asola's long-term Supply Agreement provides us with the rights to purchase 77.5 megawatts (MW) of solar cells.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

As of the date of these financial statements, we had provided Asola with 3.0 million euro for our share of prepayments under the Supply Agreement. The remaining 1.5 million euro was due on September 1, 2009 but, as discussed in more detail below, the Supply Agreement is currently in dispute. We have not purchased any solar cells under our agreement with Asola and we are still obligated to provide an additional 1.5 million Euro to Asola to satisfy our share of the September 1, 2009 prepayment required under the Supply Agreement. Asola has not initiated or threatened to take any action against us in connection with our obligations under our agreement with Asola.

Beginning in calendar 2009, the worldwide supply of solar cells increased and suppliers in the industry lowered prices for both the immediate delivery of solar cells and for longer term solar cell purchase arrangements. As a result of these price declines, the spot rates of solar cells for immediate delivery are significantly below the purchase prices that are specified under the Supply Agreement. The Supply Agreement includes a “loyalty clause” that states that if a provision of the Supply Agreement proves to be unreasonable for one of the parties to the agreement, then any such circumstance will be taken account of in a fair and reasonable way. Pursuant to the Supply Agreement, Asola was required to take delivery of solar cells with a combined power of 4.0 million watts in calendar 2009 and 10.0 million watts in calendar 2010. Asola has not taken delivery of these cells and has claimed that the “loyalty clause” requires that the supplier amend the prices specified under the Supply Agreement in a reasonable manner. The matter reached an impasse with the supplier and is currently working its way through the German legal system. In August 2010, a settlement and oral hearing was held which did not change our view that we do not have a loss contract that requires a charge to be recognized.

If Asola is unable to successfully modify its remaining commitments under the Supply Agreement, we may have to record a charge in the future equal to the sum of our prepayments made to date, plus the remaining unconditional commitments, less the estimated net realizable value of the solar cells to be acquired under our agreement with Asola. This amount cannot be reasonably estimated at this time based on the uncertainty with forecasting future market prices over the remaining period of the Supply Agreement. However, we currently believe that the range of a potential charge that we could be required to recognize would be limited to \$11.4 million, which amount represents the total of all solar cell prepayments and other advances made by us to Asola, plus our net investment in Asola at April 30, 2011. If we complete the transaction as contemplated under the Asola LOI, the amount of potential loss that we could be exposed to under the Supply Agreement would increase as a result of us acquiring an anticipated controlling equity ownership in Asola. Although we do not intend to purchase any cells from Asola or make the scheduled prepayment that was due to Asola in September 2009 in connection with the Supply Agreement until the contractual matter discussed above is resolved, our unconditional remaining obligations, including amounts in arrears and prior to any modifications discussed above, to purchase solar cells from Asola and provide our share of prepayments to Asola over the remaining life of the Supply Agreement (in euros and in US dollars based on the currency exchange rate as of April 30, 2011) is as follows:

	<u>Euros:</u>	<u>US Dollars:</u>
Eight months ended December 2011	€ 29,595,000	\$ 43,807,000
Twelve months ended December 2012	15,220,000	22,529,000
Twelve months ended December 2013	14,620,000	21,641,000
Twelve months ended December 2014	13,920,000	20,604,000
Twelve months ended December 2015	13,620,000	20,160,000
Twelve months ended December 2016	13,320,000	19,716,000
Twelve months ended December 2017	13,015,000	19,265,000
Total	<u>€113,310,000</u>	<u>\$167,722,000</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Secured Loan to Asola

We provided Asola with a loan in the amount of US\$2.2 million on September 26, 2008 for the purpose of assisting Asola in meeting its September 2008 prepayment obligation under the Supply Agreement. The loan is evidenced by a promissory note and is guaranteed by ConSolTec, which guaranty is secured by ConSolTec's pledge of all of its ownership interest in Quantum Solar. Per the stated terms of the note, the loan accrues interest at a 6.0% annualized rate and was set to mature upon the earlier of Asola's completion of a capital raise of at least 20.0 million euro or March 31, 2010. Although Asola has not repaid the loan in accordance with the stated terms and we do not expect repayment over the next twelve months, we still consider the outstanding balance to be fully collectible. As a result, we classify the loan in noncurrent assets as part of the investment in and advances to affiliate on the accompanying consolidated balance sheets at April 30, 2010 and April 30, 2011.

Rollforward of Investment In and Advances to Asola

We recorded our initial investment in Asola at cost and adjust the carrying amount of the investment to recognize advances we provide to Asola, the impacts of foreign currency translation, our investment in AQS, and our share of the earnings or losses of Asola (including AQS) after the date of acquiring the ownership interest. The activity and carrying balances for the three year period ended April 30, 2011 is as follows:

Investment In and Advances to Asola:

Balance at April 30, 2008	\$3,503,026
Advance provided in the form of note receivable, secured	2,196,250
Equity in earnings for fiscal year 2009	66,000
Foreign currency translation	<u>(230,536)</u>
Balance at April 30, 2009	\$5,534,740
Equity in earnings for fiscal year 2010	1,089,000
Foreign currency translation	49,614
Accrued interest on advance	133,590
Balance at April 30, 2010	<u>\$6,806,944</u>
Equity in earnings for fiscal year 2011	(231,000)
Foreign currency translation	371,518
Investment in Asola Quantum Solarpower AG (AQS)	34,664
Accrued interest on advance	142,749
Settlement of accrued interest on advance	<u>(165,052)</u>
Balance at April 30, 2011	<u><u>\$6,959,823</u></u>

Power Control and Design

On October 6, 2009, we acquired a 22% interest in Power Control and Design, Inc. (PCD) in exchange for a cash payment of \$165,000. PCD designs and develops control software for use in motor control, solar-to-grid, wind-turbine, electric vehicle charges and power conversion products and applications for infrastructure, automotive, aerospace and industrial markets. Our net equity in losses associated with PCD for fiscal 2010 and fiscal 2011 were zero and \$86,819 respectively, and our investment balance at April 30, 2011 was \$78,181.

Shigan Quantum

On September 3, 2009, we acquired a 25% interest in Shigan Quantum Technologies PVT LTD (Shigan Quantum), a start-up company organized under India's Corporate Act, in exchange for transferring certain of our intellectual property to the new entity. Shigan Quantum intends to manufacture and sell gaseous fuel injectors

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

using our technologies and variants thereof. We have not contributed any assets with a historical cost basis to the affiliate and have no obligation to fund deficit balances. Our net equity in earnings associated with Shigan Quantum for fiscal 2010 and fiscal 2011 were zero and \$4,000, respectively, and our investment balance at April 30, 2011 was \$3,518.

7. Property and Equipment

Property and equipment consist of the following:

	April 30,	
	2010	2011
Land	\$ 506,663	\$ 535,700
Tooling, dies and molds	3,043,520	3,145,703
Plant machinery and equipment	10,878,936	11,682,639
Power generation machinery and equipment	1,337,746	1,414,413
Information systems and office equipment	9,474,937	9,587,019
Automobiles and trucks	284,580	284,828
Leasehold improvements	5,385,115	5,385,115
Construction in progress	3,101,656	2,587,435
	<u>34,013,153</u>	<u>34,622,852</u>
Less accumulated depreciation and amortization	<u>(25,916,366)</u>	<u>(27,200,670)</u>
Net property and equipment	<u>\$ 8,096,787</u>	<u>\$ 7,422,182</u>

Total depreciation expense on property and equipment for fiscal years ended April 30, 2009, 2010 and 2011 was approximately \$1.8 million, \$1.3 million and \$1.3 million, respectively.

8. Goodwill, Intangibles and Other Long-lived Assets

Goodwill

A roll-forward of goodwill for continuing operations, by reportable segment, for the three years ended April 30, 2011 is as follows:

	Fuel Systems Segment	Renewable Energy Segment(1)	Totals
Goodwill balance as of April 30, 2008	\$30,400,000	\$ —	\$30,400,000
Change in carrying value during fiscal 2009	—	—	—
Goodwill balance as of April 30, 2009	30,400,000	—	30,400,000
Acquisition of SPI on April 16, 2010 (see Note 3)	—	2,464,925	2,464,925
Foreign currency translation at April 30, 2010	—	(6,011)	(6,011)
Goodwill balance as of April 30, 2010	<u>30,400,000</u>	<u>2,458,914</u>	<u>32,858,914</u>
Increase in estimated liabilities acquired in connection with acquisition (see Note 3)	—	59,893	59,893
Foreign currency translation at April 30, 2011	—	144,201	144,201
Goodwill balance as of April 30, 2011	<u>30,400,000</u>	<u>2,663,008</u>	<u>33,063,008</u>

(1) The Renewable Energy Segment was created upon the acquisition of SPI on April 16, 2010.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Intangibles

We amortize specifically identified intangible assets using the straight-line method over the estimated useful lives of the assets.

In connection with the acquisition of SPI, we identified \$8.6 million of project assets associated with SPI's renewable energy portfolio that we have classified as an intangible asset of the Renewable Energy reporting segment. The intangible asset is being amortized over its estimated useful life on a straight-line basis of 20 years. During fiscal 2011, we amortized the asset by \$0.4 million which was offset by an increase of \$0.4 million in connection with foreign currency translation. As of April 30, 2011, the net unamortized balance of the intangible asset was \$8.6 million.

The issuance of shares in calendar 2002 related to our strategic alliance with General Motors was recorded as an intangible asset at the estimated fair market value on the dates of issuance and was being amortized over the ten-year term of the strategic alliance agreement with General Motors until the remaining balance of \$5.8 million was written off in connection with an impairment assessment as of January 31, 2009.

Impairment of Long-lived Assets

During fiscal 2011 we capitalized \$1.2 million of construction related activities on the Spring Bay wind farm project that was scheduled to be operational in April 2011; however, project activities on the wind farm were suspended during the third quarter of fiscal 2011 due to a lack of sufficient capital to complete the project and the project was abandoned. As a result of the abandonment, we recognized a charge of \$1.0 million in fiscal 2011 in the Renewable Energy segment for the impairment of long-lived assets related to the project, of which \$0.8 million was associated with construction in progress. The impairment was based on construction related costs and fees incurred to date that were considered non-recoverable as a result of the abandonment of the project. The remaining balance of construction in progress associated with the Spring Bay wind farm project after the recognition of the impairment, amounting to \$0.4 million and which related to certain deposit payments made to the electrical transmission supplier, was recovered in the fourth quarter of fiscal 2011.

We believe that no other event or circumstance exists that would indicate a potential impairment of the carrying values of goodwill, intangible assets, or any other significant long-lived asset as of April 30, 2011.

9. Warranties

We offer a warranty for all of our alternative fuel products. The specific terms and conditions of those warranties vary depending on the platform and model year. Warranty is provided for under terms similar to those offered by the original equipment manufacturer (OEM) to its customers. We estimate the costs that may be incurred under our warranty provisions and record a liability in the amount of such costs at the time product revenue is recognized. Factors that affect our warranty liability include the number of units sold, historical and anticipated rates of warranty claims, and cost per claim.

We generally disclaim all warranties on our prototype hydrogen fuel storage systems. At our discretion or under certain programs, we may provide for the replacement cost or perform additional tests of prototype component parts subsequent to product delivery. We include an estimate of these types of arrangements as part of our warranty liability. We periodically assess the adequacy of our recorded warranty liabilities and adjust the amounts as necessary.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Changes in our product warranty liability for continuing operations are as follows (in thousands):

	<u>Balance at Beginning of Year</u>	<u>Warranties Issued</u>	<u>Settlements Made(1)</u>	<u>Changes in Liability for Pre-Existing Warranties</u>	<u>Balance at End of Year</u>
Fiscal 2009	\$666	\$ 20	\$(420)	\$(43)	\$223
Fiscal 2010	223	312	(474)	29	90
Fiscal 2011	90	56	(41)	(57)	48

(1) Consists of material and labor costs incurred to repair or replace products under warranty contracts.

10. Long-Term Debt

Long-term debt consists of the following:

	<u>April 30, 2010</u>	<u>April 30, 2011</u>
Obligations to Senior Lender:		
Convertible Note I: \$4,588,924 principal, \$173,499 accrued interest and \$263,608 of unamortized premium in April 2010; \$5,099,395 principal and \$159,268 accrued interest in April 2011	\$ 5,026,031	\$ 5,258,663
Convertible Note II: \$4,248,595 principal, \$160,632 accrued interest and \$244,057 of unamortized premium in April 2010; \$4,721,209 principal and \$147,459 accrued interest in April 2011	4,653,284	4,868,668
Convertible Note III: \$1,919,818 principal, \$72,585 accrued interest and \$110,282 of unamortized premium in April 2010; \$2,133,377 of principal and \$66,630 accrued interest in April 2011	2,102,685	2,200,007
Term Note B	5,558,684	1,808,684
Consent Fee Term Note: \$3,000,000 principal, less discount of \$132,000 in April 2010; \$3,000,000 principal in April 2011	2,868,000	3,000,000
Non-Revolving Line of Credit: originated in January 2011 and repaid / terminated in February 2011	—	—
Obligations to Other Creditors:		
Investor Bridge Term Loans: originated in October 2010 and matured in April 2011	—	—
Bank Term Loan	1,302,312	1,303,880
Other obligations	142,175	294,178
Long-term debt, current and non-current	21,653,171	18,734,080
Less current maturities for scheduled cash payments and net amortization of premiums & discount	(519,243)	(18,530,762)
Long-term debt, non-current	<u>\$21,133,928</u>	<u>\$ 203,318</u>

We have entered into various borrowing arrangements with our senior lender over the course of the three year period covered by these financial statements. These arrangements have been modified on several occasions throughout this period as discussed below in order to enhance our borrowing capacity and to minimize the level of cash required to service the outstanding obligations over a reasonable period of time.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Fiscal 2011

The following disclosures: (i) discuss the Forbearance Agreement that we executed with our senior lender on January 3, 2011 and that terminated on April 29, 2011; (ii) reflect the status of borrowing arrangements on an instrument by instrument basis as they existed at the beginning of fiscal 2011; and (iii) provide a summary of the significant modifications and payment activities related to the outstanding debt instruments during fiscal 2011.

Forbearance Agreement with Senior Lender

On December 31, 2010, we defaulted on the required repayment of the 2010 Bridge Loans, which in turn, caused contractual defaults on all of our senior secured obligations with our senior lender. Pursuant to the terms of the Convertible Notes, Term Note B and the Consent Fee Term Note, upon the occurrence of an event of default, our senior lender had the right to declare the entire amounts outstanding under these debt instruments immediately due and payable.

On January 3, 2011 and as a result of the defaults, we executed a Forbearance Agreement with our senior lender to which our senior lender agreed to forbear from accelerating the maturity dates for any portion of the senior secured obligations and from exercising any of its rights and remedies until April 30, 2011 (the “Forbearance Period”), subject to certain conditions, and we restructured our portfolio of debt instruments with our senior lender. The defaults under our agreements with our senior lender were cured and the Forbearance Agreement terminated in connection with us paying off the remaining principal and interest balance of the 2010 Bridge Notes (discussed below) on April 29, 2011.

In connection with the January 3, 2011 debt restructure, the Convertible Notes were modified to extend the maturity dates from July 31, 2011 to August 31, 2011 and the fixed conversion prices were reduced from \$14.20 to \$9.80; the unused Lender Commitment was terminated; the senior lender provided us with a new \$5.0 million non-revolving line of credit; and we issued warrants to the senior lender to purchase up to 277,777 shares of our common stock at a fixed exercise price of \$9.00.

We determined that the Forbearance Agreement and the restructure of the outstanding debt instruments that were all negotiated at the same time required that we assess the impact of the modifications and replacement instruments on the entire portfolio of debt instruments with our senior lender as a whole and the debt instruments on an individual basis. Although we determined that the lender did not provide a concession in connection with the transactions completed on January 3, 2011 and that the modifications to the existing debt portfolio as a whole was not substantial, we concluded on an individual basis that the modifications to the Convertible Notes (discussed further below) were substantial and represented an implied exchange of the existing convertible note instruments held by the senior lender with new convertible debt instruments. A net loss on extinguishment of \$0.5 million was recognized in connection with the January 3, 2011 transactions as follows:

Modification and replacement of Convertible Notes	\$ 1,392,149
Termination of Lender Commitment derivative	(2,635,000)
Issuance of warrants to senior lender attributable to instruments extinguished	1,320,570
Fee paid to senior lender attributable to instruments extinguished	38,499
Recognition of unamortized debt issuance costs on instruments extinguished	406,749
Loss on modification of debt and derivative instruments, net	<u>\$ 522,967</u>

The net loss on extinguishment is recorded as a component of “loss on modification of debt and derivative instruments, net” on the accompanying consolidated statements of operations for fiscal 2011.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Convertible Notes

We have three outstanding convertible promissory notes which we refer to as Convertible Note I (initially issued on January 31, 2007), Convertible Note II (initially issued on July 10, 2009), and Convertible Note III (initially issued on July 10, 2009). We refer to these three convertible notes collectively as the “Convertible Notes.” Each of the Convertible Notes has identical contractual terms for the remainder of the arrangements.

The significant contractual terms of the amended Convertible Notes as of April 30, 2010 were as follows: (i) annual fixed interest rates of 11.5% through August 31, 2010 (consisting of required minimum payments-in-kind (PIK) of 5.0% and cash or PIK options of 6.5%), declining to 9.5% thereafter as a result of scheduled decreases in the required minimum PIK from 5.0 % to 3.0%, (ii) scheduled semi-annual interest payment dates on January 1 and July 1 of each year until maturity and the principal under the notes cannot be prepaid in part or whole by us without consent of our senior lender, (iii) scheduled maturity dates of March 31, 2011, (iv) senior lender had the right to extend the scheduled maturity dates to August 31, 2013, subject to proper notice by March 15, 2011, and (v) outstanding principal under the Convertible Notes convertible into shares of our common stock at a fixed conversion price of \$14.20 per share at any time until maturity at the option of the senior lender.

Since the date that the Convertible Notes were modified on April 30, 2010, we have classified the value, if any, of the embedded conversion features of the notes as equity.

On July 8, 2010, the Convertible Notes and the Consent Fee Term Note (discussed below) were amended in exchange for a debt modification fee payable to the senior lender. We satisfied the debt modification fee with the issuance of 83,000 shares of our common stock to the senior lender that had a fair value of \$0.9 million on the modification date and recorded the fair value of the fee as a deferred asset. The Convertible Notes were revised to amend the stated maturity dates from March 31, 2011 to July 31, 2011. We determined that the amendments to the Convertible Notes on July 8, 2010 were not substantial and did not represent an implied exchange of debt instruments. However, we reduced the balances of the unamortized debt premiums under the Convertible Notes as of July 8, 2010 by approximately \$0.1 million, which equaled the immediate increase in fair value of the embedded conversion features under the Convertible Notes as a result of the modifications. The net balances of the debt premiums and the fair value of the debt modification fee allocated to the Convertible Notes were being amortized through the then scheduled maturity date of July 31, 2011 until the remaining unamortized balances were written off on January 3, 2011 in connection with further modifications to the Convertible Notes.

On January 3, 2011, in connection with the Forbearance Agreement discussed above, the following modifications were made to the convertible notes: (i) the maturity dates were changed from July 31, 2011 to August 31, 2011, (ii) the fixed conversion prices were reduced from \$14.20 to \$9.80, and (iii) the date that the senior lender had to provide proper notice to extend the scheduled maturity dates at its option to August 31, 2013, was changed from March 15, 2011 to April 15, 2011. We accounted for the modifications as an implied exchange of the existing debt instruments associated with the Convertible Notes with new debt instruments which resulted in a charge of \$1.4 million that is included as part of the net loss on extinguishment representing the difference between the carrying amount of the existing notes and the fair value of the modified notes at the time of extinguishment.

On July 1, 2010 and January 1, 2011, we elected to add the entire amount of accrued interest of \$0.6 million and \$0.6 million, respectively, to principal under the Convertible Notes that was payable on the scheduled semi-annual interest payment date in accordance with the PIK provisions contained within the notes.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Term Note B

As of April 30, 2010, and up until the time the note was fully repaid on June 2, 2011, the significant contractual terms of Term Note B that was initially issued on January 16, 2008 were as follows: (i) fixed interest rate of 6.5% payable monthly in arrears, (ii) scheduled maturity date of January 16, 2015, (iii) the note had no scheduled principal amortization payments before maturity; however, our senior lender with proper notice had the option to demand all or part of the principal amount due under the note at any time, (iv) the note could be repaid in cash or restricted shares at our option, subject to certain conditions, including that our share price must have been at least \$10.00 for five consecutive business days prior to the payment date; however, this specific condition was only applicable for principal demands made by the senior lender after January 16, 2012, (v) we had the right to make prepayments under the note beginning on January 16, 2012 (the "First Call Date"), and (vi) when demand for payment or a prepayment was made, the principal amount due under Term Note B was subject to upward adjustment based upon the volume weighted average price (VWAP) for our common stock for the five business days immediately prior to the repayment date (the "VWAP Price"). When demand for payment was made by the senior lender, the actual amount required to be paid in satisfaction of the amount so demanded was equal to the greater of (A) 1.0 and (B) 0.075 multiplied by the lesser of (x) the VWAP for our common stock for the five business days immediately prior to the repayment date and (y) \$70.00. We referred to the required formula as the Term Note B principal multiplier feature.

Beginning on January 19, 2011 and through the date of May 23, 2011, the senior lender made principal reduction demands that required us to pay the entire remaining principal balance of the note, totaling \$5.6 million, in separate demands ranging from \$0.3 million to \$0.5 million. The principal balance was reduced by a total of \$3.8 million in connection with demands made through April 30, 2011 and by \$1.8 million for demands made between May 12, 2011 and May 23, 2011. For each demand, we elected to use our shares to satisfy the principal demands. We issued a total of 1,217,221 shares to satisfy the principal repayment demands of which 817,805 shares were issued in fiscal 2011. The number of shares that we issued in connection with each demand was equal to the actual amount required to be paid divided by the VWAP Price, which ranged from \$3.05 to \$9.37 per share for each of the demands made. Based on the formula discussed above, the principal multiplier had no intrinsic value for any of the demands made by the senior lender as the amount payable would have only increased above the face value of the principal demanded if our VWAP Price would have been above \$13.20 per share. The payment of the principal demands in shares resulted in an overall gain of \$0.1 million in fiscal 2011, which represented the difference between the fair value of the shares delivered and the amount of principal settled.

Term Note B had characteristics of and acted consistent with the types of debt securities generally considered to be convertible debt instruments primarily as a result of the embedded principal multiplier feature which provided the senior lender with potential additional value for their investment in connection with increases in our share price in a manner consistent with conversion features under typical convertible note instruments. Further, the share settlement provisions and below market interest rate structure of Term Note B was consistent with convertible debt instruments. As such, we considered the note to be a convertible debt instrument in applying applicable accounting guidance. From the date that the note was last modified on April 30, 2010 through the date the remaining principal was repaid in connection with the last demand made on May 23, 2011, we classified the value, if any, of the embedded principal multiplier feature as a component of equity.

Consent Fee Term Note

The terms of our credit facilities with our senior lender required that we obtain the consent of our senior lender prior to entering into the Arrangement Agreement with SPI (see Note 2). On November 24, 2009, we and our senior lender executed a consent fee arrangement under which the senior lender agreed to give its consent to

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

the proposed business combination. The consent fee was \$3.0 million unless the business combination agreement was terminated in which case the consent fee would have automatically been reduced to \$1.5 million. The consent fee was paid by delivery of a promissory term note (the "Consent Fee Term Note") on November 24, 2009.

At April 30, 2010 the significant contractual terms of the Consent Fee Term Note were as follows: (i) note accrues interest at 0.0% per annum for the first full year and at 6.0% thereafter, (ii) scheduled maturity date of January 16, 2015, (iii) the note has no scheduled principal amortization payments before maturity; however, our senior lender with proper notice had the option to demand all or part of the principal amount due under the note beginning after July 1, 2010 if the VWAP for our common stock for the five business days preceding the date that a demand was made would have been above \$10.00 at the time of the demand, otherwise, the senior lender could not make demand until March 31, 2011, (iv) the note can be repaid in cash or restricted shares at our option, subject to certain conditions, including that our share price must be at least \$10.00 for five consecutive business days prior to the payment date; however, this specific condition is only applicable for principal demands made by the senior lender after March 31, 2011, (v) we have the right to make prepayments under the note beginning after January 16, 2012, and (vi) when demand for payment or a prepayment is made, the principal amount due under the Consent Fee Term Note is subject to upward adjustment based upon the VWAP for our common stock for the five business days immediately prior to the repayment date. When demand for payment is made by the senior lender or called by us, the actual amount required to be paid in satisfaction of the amount so demanded or called is equal to the greater of (a) the amount so demanded or called and (b) that amount determined by multiplying the principal amount so demanded or called by 0.04, with that product then multiplied by the lesser of (x) the VWAP Price and (y) \$50.00.

We refer to the required formula discussed above as the Consent Fee Term Note principal multiplier feature. If we elect to pay in stock, then the number of shares to be issued is equal to the actual amount required to be paid (determined in accordance with the above formula) divided by the VWAP Price. Based on the foregoing formula, the principal multiplier only increases the amount payable above the face value of the note (i.e. has "intrinsic value") when our VWAP Price is above \$25.00 per share.

Similar to Term Note B, the Consent Fee Term Note is also considered to be a convertible debt instrument in applying applicable accounting guidance. Since the date that the acquisition of SPI was completed on April 16, 2010, which resolved a contingency in the contractual terms of the original note, we classify the value, if any, of the embedded principal multiplier feature as equity.

A debt discount, initially recognized at \$0.5 million upon the issuance of the note in November 2009, was fully amortized through July 1, 2010 which was the first possible date that the senior lender could demand repayment of the note under the original terms of the note.

On July 8, 2010, the earliest date specified in the original Consent Fee Term Note that the senior lender could make a demand if our VWAP Price was below \$10.00 was amended from March 31, 2011 to July 31, 2011. We determined that there was no change in the fair value of the embedded principal multiplier as a result of the debt modification and determined that the amendment to the Consent Fee Term Note was not substantial and did not represent an implied exchange of debt instruments.

As of April 30, 2011, the minimum amount of principal that is payable through the maturity date under the principal multiplier feature is \$3.0 million and the maximum amount of principal that is potentially payable under the principal multiplier feature is \$6.0 million (assuming that the VWAP Price is at or above \$50.00). The principal multiplier feature under the note did not have any intrinsic value as of this date.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Non-Revolving Line of Credit

On January 3, 2011 and in connection with the execution of the Forbearance Agreement and the debt restructure with our senior lender, our senior lender agreed to provide us with a new \$5.0 million non-revolving line of credit (the "LOC"). The original terms under the LOC were as follows: (i) we could request advances on the line at any time prior to April 30, 2011; (ii) outstanding advances would not bear interest (unless an event of default occurs, in which case the interest rate would be 10% per annum); (iii) the LOC would mature on April 30, 2011; (iv) advances under the LOC were secured by substantially all of our assets; and (v) pursuant to the terms of the Forbearance Agreement, we were precluded from using the proceeds from the LOC to pay any portion of the principal and interest due under the Bridge Notes.

We received \$2.5 million in advances under the LOC on January 10, 2011. Our senior lender participated in the private placement that we completed on February 18, 2011 and purchased \$2.0 million of our securities. The senior lender's \$2.0 million of purchase price was satisfied by reducing, on a dollar-for-dollar basis, a portion of the balance due under the LOC. Concurrent with the closing of the February 2011 private placement, the LOC and our ability to request advances thereunder was terminated.

As a result of the senior lender's participation in the February 2011 private placement, a loss of \$1.6 million on settlement of debt and derivative instruments held by the senior lender was recognized as follows:

Fair value of shares issued to senior lender	\$ 2,355,034
Fair value of warrants classified as equity issued to senior lender	717,000
Fair value of warrants classified as derivatives issued to senior lender	379,000
Increase in fair value of warrants dated January 3, 2011 modified in connection with settlement ...	21,000
<u>Total consideration to senior lender</u>	<u>3,472,034</u>
Principal settled under Line of Credit	(2,000,000)
Fair value of warrants classified as derivatives cancelled	(157,000)
Debt discount and deferred debt issuance costs recognized	141,807
<u>Carrying value of debt and derivatives settled, net</u>	<u>(2,015,193)</u>
Transaction costs recognized in connection with settlements	154,752
<u>Loss on settlement of debt and derivative instruments, net</u>	<u>\$ 1,611,593</u>

On February 25, 2011, we used a portion of the cash proceeds received in the private placement to repay the remaining \$0.5 million balance under the LOC. A debt discount, initially recognized at \$0.3 million upon the execution of the LOC on January 3, 2011, was being amortized through the then scheduled maturity date of April 30, 2011 until the remaining unamortized balance was written off on February 25, 2011 in connection with the termination of the LOC.

2010 Investor Bridge Term Loans

On October 13, 2010 and October 19, 2010, we received total cumulative gross proceeds of \$4.0 million in connection with the closing of a private placement transaction with certain accredited investors in exchange for issuing senior subordinated bridge notes payable (collectively, the "2010 Bridge Notes") and warrants to the investors. The significant terms of the 2010 Bridge Notes on the origination dates were as follows: (i) scheduled maturity dates of December 31, 2010, (ii) interest at 15.0% per annum, payable in cash upon maturity, (iii) principal payable in cash and could not be prepaid, (iv) no conversion rights by note holders, and (v) notes were subordinate to outstanding obligations under debt instruments held by our senior lender.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

We incurred direct issuance costs of \$0.7 million in connection with the private placement transaction of which we allocated \$0.6 million to the 2010 Bridge Notes which was amortized to interest expense over the scheduled life of the notes of December 31, 2010 with the remaining \$0.1 million allocated to the warrants issued to the investors of the 2010 Bridge Notes (see Note 12). In addition, we recorded a debt discount on the origination date of the 2010 Bridge Notes equal to the fair value of the warrants issued with the 2010 Bridge Notes of \$0.2 million that was amortized through December 31, 2010.

On December 31, 2010, we defaulted in payment of certain principal and accrued interest due under the 2010 Bridge Notes (the “Bridge Notes Default”).

On January 18, 2011, we and each of the holders of the 2010 Bridge Notes entered into an amendment to the 2010 Bridge Notes, which cured the Bridge Notes Default. Pursuant to the terms of the amendments to the 2010 Bridge Notes which are dated January 12, 2011, we agreed to repay the principal and interest in three installments as follows: (i) 25% of the original principal amount was paid in cash upon execution of the amendments, (ii) 35% of the original principal was paid in cash on February 15, 2011, and (iii) the remaining principal and accrued interest in the amount of \$1.9 million was paid in cash on April 29, 2011. Although the holders of the 2010 Bridge Notes had the option to elect to receive the final payment in cash or shares of our common stock, none of the holders elected to receive shares. If a holder had elected to receive shares, the holder was entitled to receive a cash “make-whole” payment, which, when added to the value of the shares so received, would have equaled the full amount of the remaining outstanding principal and interest due to the holder on April 29, 2011. The holder’s option to receive the final principal and accrued interest payment in cash or shares was determined to be an embedded derivative instrument that should be bifurcated and separately accounted for as of the amendment date. The fair value of the conversion feature at January 18, 2011 was \$0.1 million (see Note 11).

In connection with the amendment to the 2010 Bridge Notes on January 18, 2011, we issued warrants to the bridge note holders, with an effective date of January 12, 2011, to purchase up to 131,902 shares of our common stock at a fixed exercise price of \$9.20, with a fair value of \$0.8 million, and we agreed to issue up to 22,500 shares of our common stock, with a fair value of \$0.2 million, to the placement agent for professional services in connection with the 2010 Bridge Note amendments.

We concluded from our analysis of the transactions completed on January 18, 2011 that amended the terms of the 2010 Bridge Notes, including the addition of a substantive conversion feature, and the issuance of warrants to the bridge note investors and the agreement to issue common shares to the placement agent that: (1) the bridge note holders did not provide a concession in connection with the transactions and (2) the modifications to the 2010 Bridge Notes were substantial and represented an implied exchange of the existing debt instruments held by the bridge note holders with new debt instruments. A loss on extinguishment of \$1.0 million was recognized in connection with the January 18, 2011 transactions as follows:

Modification and replacement of Bridge Notes	\$176,392
Issuance of warrants to bridge note holders	814,000
Loss on modification of debt and derivative instruments, net	<u>\$990,392</u>

The loss on extinguishment is recorded as a component of “loss on modification of debt and derivative instruments, net” on the accompanying consolidated statements of operations.

The portion of the debt issuance cost associated with the agreement to issue shares to the placement agent allocated to the debt component of the transactions, amounting to \$0.2 million, was deferred and was amortized over the life of the amended 2010 Bridge Notes that matured on April 29, 2011.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Bank Term Loan

In connection with our acquisition of SPI on April 16, 2010, we assumed a bank term loan that had an original principal amount of Canadian Dollar (CAD) 1.5 million upon its inception on April 3, 2007. The note accrues interest at a fixed rate of 7.0%; requires fixed payments of CAD 13,482 per month in cash through March 10, 2012, with the remaining principal amount of CAD 1.2 million due in cash on the maturity date of April 3, 2012. The loan is secured by power generation machinery and equipment and other assets of SPI's Providence Bay wind farm project. The conversion rate of one CAD to one US Dollar was 0.995 to 1.0 as of April 30, 2010 and 1.052 to 1.0 as of April 30, 2011.

Lender Commitment

On May 30, 2008, we secured a \$10.0 million commitment from an affiliate of our senior lender (the "Lender Commitment") that allowed us to draw on the commitment at our option and also allowed the senior lender to fund the commitment at the senior lender's option under certain defined structures. The Lender Commitment was terminated on January 3, 2011 in connection with the Forbearance Agreement and debt restructure discussed above. Neither party had exercised its option prior to the termination of the commitment.

Prior to the termination, the option for either party under the Lender Commitment, as modified on November 24, 2009, was set to expire on March 31, 2011. The terms of the amended Lender Commitment from November 24, 2009 until it was terminated on January 3, 2011 were as follows: (a) if we had drawn on the commitment, the senior lender had the right to make the investment as either: (i) a two year secured convertible note, the conversion price fixed at \$14.20 per share, with the coupon on the note equal to 18.0% or (ii) a senior secured straight note that redeemed in cash at 130% of face value after one year; (b) we had the right to only exercise up to \$2.5 million in any 30 day period and we were required to provide the senior lender with a five day notice period of our intent to draw on the commitment; (c) in exchange for extending the commitment, the senior lender had a "put" option to make a \$10.0 million investment that would have been structured as a non-interest bearing convertible note priced at 100.0% of par and redeemable at 120.0% of par two years after the funding date and the note under this structure would have converted into our common stock at a fixed conversion price of \$14.20 per share.

The written put option, which had allowed the senior lender to make a \$10.0 million cash payment to us in exchange for a debt instrument in the form of a convertible note, was considered to be a derivative instrument. Accordingly, the fair value of the instrument was recognized as a non-current derivative liability and marked to market each period (see Note 11) until it was terminated. We recognized a gain on extinguishment of the derivative instrument of \$2.6 million which represented the fair value of the lender's put option at the time the Lender Commitment was terminated.

Collateral and Covenants

Our obligations under the debt instruments with our senior lender and senior subordinated debt holders are secured by substantially all our assets. In addition, our obligations under the Bank Term Loan assumed on April 16, 2010 are secured by the assets of SPI. The defaults under our agreements with our senior lender were all cured and the Forbearance Agreement terminated in connection with us paying off the remaining principal and interest balance of the 2010 Bridge Notes on April 29, 2011. Further, we were in compliance with existing covenants and other requirements of the debt instruments with our senior lender and our bank lender as of April 30, 2011.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Debt Maturities

The table below shows scheduled maturities of our long-term debt for each of the following fiscal periods until maturity:

	Scheduled Payments
Twelve months ending April 30:	
2012	\$18,530,762
2013	78,932
2014	79,437
2015	44,949
	\$18,734,080

Long-Term Debt Activity in Prior Fiscal Periods

The following summarizes the impact of significant modifications and other activities related to the debt instruments covering fiscal 2010 and 2009.

Fiscal 2010

Convertible Note I

At April 30, 2009, the significant contractual terms of Convertible Note I were as follows: (i) annual interest rate of 11.5%, consisting of a required minimum payment-in-kind (PIK) of 5.0% and a cash or PIK option of 6.5%, which annual interest rate is reduced to 9.5% effective September 1, 2010, (ii) scheduled semi-annual interest payment dates on January 1 and July 1 of each year until maturity and the principal could not be prepaid in part or whole by us without consent of our senior lender (also referred to as the "holder"), (iii) scheduled maturity date of August 1, 2009, (iv) holder had the right to extend the scheduled maturity date, subject to proper notice by May 15, 2009, for an additional three years (if exercised, the required minimum PIK would have been thereafter lowered to 3.0%; thus reducing the annual interest rate to 9.5%), (v) outstanding principal under the note convertible into shares of our common stock at a fixed conversion price of \$27.00 per share at any time until maturity at the option of the holder, and (vi) for conversions prior to the maturity date, additional shares to be provided to the holder pursuant to a "Make-Whole Amount" provision, a feature available to the holder as an incentive to convert all or part of the balance due under the note prior to its maturity.

The contractual provisions of Convertible Note I, as originally issued and including all amendments through April 30, 2010, also required us to (1) cause the shares delivered upon conversion of principal due under the Convertible Note I to be duly listed for trading on the Nasdaq Global Market (or any successor trading market) concurrently with the issuance of such shares and (2) ensure that the holder may resell such shares pursuant to Rule 144 of the Securities Act (subject to any applicable holding period). We determined that compliance with these contractual requirements was not within our control (for the period January 16, 2008 through April 30, 2010). Therefore, under GAAP, we had to assume net cash settlement could have been required to satisfy the value of the conversion feature as we could not ensure that we would be in compliance with the provisions at the time of conversion by the holder. As a result, the embedded conversion feature was bifurcated by us, classified as a derivative liability measured at fair value and the liability was marked to market each period, with changes in fair value recognized in the respective period's statement of operations until the note was modified on April 30, 2010 at which time the embedded conversion feature no longer met the definition of a derivative and was reclassified from debt to equity (discussed below).

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

On July 10, 2009, Convertible Note I was amended in connection with debt modifications to other existing debt instruments with our senior lender and additional financing received from the senior lender. The significant amendments were: (i) the conversion price was reset from \$27.00 to \$14.20 per share; (ii) the “Make-Whole Amount” provision was eliminated, (iii) the scheduled maturity date was extended from August 1, 2009 to August 31, 2010; and (iv) the holder of Convertible Note I was given the right to extend the scheduled maturity date (the similar right in the existing note had expired in May 2009) for an additional three years. If exercised, the required minimum PIK would thereafter be lowered to 3.0%; thus reducing the annual interest rate to 9.5%.

The modifications executed on July 10, 2009 immediately increased the value of the embedded derivative feature under Convertible Note I by \$3.1 million which we recognized as a loss on modification of derivative instruments during fiscal 2010.

We determined that the amendments to Convertible Note I on July 10, 2009, in combination with modifications to other debt instruments that were negotiated together, were not substantial and did not represent an implied exchange of debt instruments. For purposes of this analysis, we excluded the impact that the modifications had on the embedded features accounted for as derivative instruments as the change in fair value of the derivative instruments resulting from the modifications was immediately recognized as a loss on modification of derivative instruments.

On November 24, 2009, Convertible Note I, together with Convertible Note II and Convertible Note III (discussed below), were amended to change the maturity dates from August 31, 2010 to March 31, 2011. All three of these convertible notes have the same remaining contractual terms and provisions. We determined that the amendments to the three convertible notes on November 24, 2009, in combination with the issuance of new debt (see “Consent Fee Term Note” discussed below) and modifications to other debt instruments that were negotiated together, represented an implied exchange of debt instruments. As a result, we recognized a combined loss on modification of debt and derivative instruments of \$5.1 million on November 24, 2009, of which \$1.3 million represented the amount associated with the implied exchange of the convertible notes.

On April 30, 2010 the three convertible notes and Term Note B were amended. The convertible notes were amended to clarify that we would not be obligated under any circumstances to settle the value of the embedded conversion features of the notes in cash and that the exercise of the holder’s conversion rights would be considered fully settled by the issuance of our shares (including “unregistered shares” and shares designated as “restricted”), regardless of any other characteristics of the shares. As a result of the modifications, the embedded conversion features no longer meet the definition of a derivative and the fair value of the conversion features were reclassified to equity effective as of the close of business on April 30, 2010 (see Note 11). We determined that the amendments to the three convertible notes and Term Note B on April 30, 2010 were not substantial and did not represent an implied exchange of debt instruments that would require extinguishment accounting on the modification date, nor did they change the fair value of the instruments by more than a nominal amount.

On July 8, 2010, the three outstanding convertible notes were further amended to revise the stated maturity dates from March 31, 2011 to July 31, 2011.

Term Note A / Convertible Note II

At April 30, 2009, the significant contractual terms of Term Note A (initially issued on January 31, 2007) were as follows: (i) fixed interest rate of 18.0% payable monthly in arrears, (ii) scheduled maturity date of February 28, 2010, (iii) principal installment payments of \$4.3 million due on May 15, 2009 and monthly installments of \$0.4 million, beginning on June 15, 2009 and thereafter, until the balance was paid in full, (iv) we

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

had the right to prepay all or part of the principal without penalty and had the option to repay the scheduled principal amounts or prepayments in cash or with shares of our common stock, subject to certain conditions, and (v) we had the right to defer scheduled payments for up to two months, subject to certain conditions.

Although we had the ability and the right to make any prepayments of principal or satisfy any scheduled principal installments in shares under Term Note A, we and our senior lender agreed to defer the scheduled May 15, 2009 principal installment payment and agreed to retime the installment payments and reduce the stated interest rate from 18.0% to 9.0%. Pursuant to an amendment executed on May 27, 2009, principal installments were revised to require monthly payments of \$1.0 million effective beginning on June 15, 2009 and thereafter, until the balance was paid in full and the change in the stated interest rate was made effective as of May 20, 2009. In addition, our right to prepay the note in shares was revised to thereafter require that any prepayments could only be made in cash and our existing right to defer scheduled installment payments for up to two months was eliminated. We determined that the amendments to Term Note A in May 2009 were not substantial and did not represent an implied exchange of debt instruments that would require extinguishment accounting on the modification dates.

On June 15, 2009 we issued 74,423 shares in satisfaction of a required payment of \$1.1 million under Term Note A (which included \$0.1 million of accrued interest).

On July 10, 2009 the outstanding principal balance and unpaid interest under Term Note A, amounting to \$6.6 million, was reduced to zero and replaced in that same amount with a new convertible debt instrument referred to as Convertible Note II. The stated terms of Convertible Note II are identical to the terms of Convertible Note I, as amended. The replacement of the remaining balance on Term Note A with a new convertible note was executed in connection with debt modifications to other existing debt instruments with our senior lender and additional financing received from the senior lender.

Consistent with the treatment of the embedded conversion feature under Convertible Note I, the embedded conversion feature under Convertible Note II was bifurcated and classified as a derivative liability upon the issuance of the note up until the time the note was modified on April 30, 2010. The fair value of the derivative liability upon issuance, amounting to \$2.9 million, was recognized by us as a loss on modification of derivative instruments during fiscal 2010.

Convertible Note III

On July 10, 2009, in connection with debt modifications to other existing debt instruments, we issued a new convertible note (Convertible Note III) to our senior lender and received proceeds of \$3.0 million. The stated terms of Convertible Note III are identical to the terms of Convertible Note I, as amended, except that the maturity date would have moved up to October 1, 2009 from August 31, 2010 if we were unable to raise at least \$5.0 million in an equity offering of our shares prior to October 1, 2009. We satisfied this requirement with the private placement offering transaction completed on September 4, 2009 (see Note 1) in which proceeds from the transaction exceeded this required amount.

Consistent with the treatment of the embedded conversion features under Convertible Notes I and II, the embedded conversion feature under Convertible Note III was bifurcated and classified as a derivative liability upon the issuance of the note up until the time the note was modified on April 30, 2010. The fair value of the derivative liability upon issuance, amounting to \$1.0 million (net of the implied discount on the host debt instrument of \$0.3 million), was recognized as a loss on modification of derivative instruments during the fiscal 2010.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Term Note B

At April 30, 2009, the significant contractual terms of Term Note B were as follows: (i) fixed interest rate of 6.5% payable monthly in arrears, (ii) scheduled maturity date of January 16, 2015, (iii) the note could be repaid in cash or shares at our option, subject to certain conditions, including that our share price must be at least \$10.00 for five consecutive business days prior to the payment date (iv) the note had no scheduled principal amortization payments before maturity; however, our senior lender with proper notice had the option to demand all or part of the principal amount due under the note beginning on January 16, 2010, and (v) we had the right to make prepayments under the note beginning on January 17, 2010 (the "First Call Date").

The terms of the required formula under the Term B principal multiplier feature were the same in fiscal 2010 as discussed for fiscal 2011 above.

On July 10, 2009, Term Note B was amended in conjunction with debt modifications to other existing debt instruments with our senior lender and additional financing received from the senior lender. The significant amendments were: (i) the requirement that our share price must be at least \$10.00 for five consecutive business days prior to the payment date in order for us to have the right to issue shares in satisfaction of principal payments was changed to eliminate that requirement for any demands made prior to January 16, 2012, (ii) the First Call Date was changed from January 17, 2010 to January 16, 2012 and (iii) our option to make prepayments in shares was limited to \$2.0 million in any ten business day period whereas there was no limit on share prepayments after the First Call Date prior to this most recent amendment.

We determined that the amendments to Term Note B on July 10, 2009 were not substantial and did not represent an implied exchange of debt instruments that would require extinguishment accounting on the modification date.

On November 24, 2009, our senior lender made demand for payment of \$3.9 million of principal due under Term Note B and we agreed to waive the provision of the note which prohibited the senior lender from making demand for payment prior to January 16, 2010. This modification to waive the provision in the note, in combination with the issuance of new debt (see "Consent Fee Term Note") and modifications to other debt instruments that were negotiated together; represented an implied exchange of debt instruments. We recognized a gain on the implied exchange of Term Note B in the amount of \$0.1 million on November 24, 2009.

In accordance with the multiplier feature contained in Term Note B, the actual amount required to be paid as a result of the November 24, 2009 demand for payment was equal to \$7.4 million which was determined by multiplying the \$3.9 million demanded by 0.075, with that product then multiplied by the lesser of (A) the 5 day volume-weighted average share price for the 5 business days immediately preceding the date demand for payment was made, and (B) \$70.00. For purposes of this calculation, we and our senior lender agreed to use \$25.00 as the 5 day VWAP. As permitted under Term Note B, we elected to pay the amount due under Term Note B using shares of our common stock and, as a result, issued 295,598 shares in satisfaction of the amount due. The fair value of the embedded derivative instrument associated with Term Note B was reduced on a proportional basis to the amount of debt principal settled in a manner consistent with the methodology used to extinguish derivative liabilities under the convertible notes discussed below. In connection with shares issued to settle the debt principal demand on November 24, 2009, the derivative instrument was reduced by \$3.4 million and a loss on the settlement of the debt principal and derivative instrument of \$0.2 million was recognized, which represented the difference between the fair value of shares issued (\$7.5 million) and the settlement of the liabilities (\$3.9 million of debt principal and \$3.4 million of derivative instrument).

On February 9, 2010, our senior lender demanded a principal reduction of \$0.5 million related to Term Note B as allowed under the terms of the note. We elected to use our common stock to satisfy the demand, which

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

amounted to 37,500 shares issued to the senior lender. In connection with shares issued to settle the debt demand, the derivative instrument was reduced by \$0.2 million and a gain on the settlement of the debt principal and derivative instrument of \$0.1 million was recognized, which represented the difference between the fair value of shares issued (\$0.6 million) and the settlement of the liabilities (\$0.5 million of debt principal and \$0.2 million of derivative instrument).

From the original issuance date of January 16, 2008 up until the time certain modifications were executed on April 30, 2010, Term Note B contained a contract provision that required us to deliver shares that may be resold pursuant to Rule 144 of the Securities Act (subject to any applicable holding period), if we elect to make the payment of the multiplier amount feature contained within the note using shares of our common stock. We determined that compliance with this contractual requirement was not within our control. Therefore, although we had the option to make principal payments in shares of our common stock, we had to assume net cash settlement could have been required to satisfy the value of the principal multiplier feature as we could not control whether we would be in compliance with the share settlement provisions at the time of repayment. As a result, the embedded principal multiplier feature was bifurcated, classified as a derivative liability measured at fair value and the liability was marked to market each period, with changes in fair value being recognized in the respective period's statement of operations. However, on April 30, 2010, the note was modified to clarify that we would not be obligated under any circumstances to settle the value of the embedded principal multiplier feature of the note in cash and that issuance of our shares (including "unregistered shares" and shares designated as "restricted") in payment of the multiplier feature value would fully settle the embedded feature, regardless of any other characteristics of the shares. As a result of the modifications, the embedded feature no longer met the definition of a derivative and the fair value of the embedded feature was reclassified to equity effective as of the close of business on April 30, 2010.

Term Note C

At April 30, 2009, the significant contractual terms of Term Note C (originally issued on May 30, 2008) were as follows: (i) fixed interest of 9.0% per annum, payable monthly in arrears, in cash or PIK at our option, (ii) monthly principal installments of \$1.25 million beginning on June 1, 2009 and thereafter, until the balance was paid in full, (iii) we had the right to defer scheduled payments for up to two months, subject to certain conditions, and (iv) we had the option to repay the scheduled principal reductions with shares of our common stock, subject to certain conditions, and the value of the shares delivered was determined based on the lower of: (a) 95% of the VWAP of our stock for the five business days prior to the payment date or (b) the closing share price on the day immediately preceding the payment due date.

The note was fully repaid in shares of our common stock in three installments as follows: (i) 274,122 shares were issued on May 1, 2009 in satisfaction of \$3.75 million of principal, (ii) 98,931 shares were issued on October 1, 2009 in satisfaction of \$2.5 million of principal, and (iii) 79,596 shares were issued on November 1, 2009 in satisfaction of \$1.8 million of principal (including \$0.55 million of unpaid interest added to principal under our PIK option).

Consent Fee Term Note

The terms of our credit facilities with our senior lender required that we obtain the consent of our senior lender prior to entering into the Arrangement Agreement with SPI. On November 24, 2009, we and our senior lender executed a consent fee arrangement under which the senior lender agreed to give its consent to the proposed business combination in exchange for a fee of \$3.0 million, which was paid by the delivery of a promissory term note (the "Consent Fee Term Note").

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The fair value of the note, including the embedded multiplier feature, was \$3.5 million on the date of issuance and was recognized as part of the loss on modification of debt and derivative instruments on November 24, 2009 in connection with the implied exchange of debt instruments discussed above under Convertible Note I. The debt discount, initially recognized at \$0.5 million, was amortized through July 1, 2010 which is the first possible date that the senior lender could demand repayment of the note.

Since the Consent Fee Term Note contained a contingent fee arrangement from the original issuance date up until the completion of the acquisition of SPI and the contingent fee amount was a variable other than those generally used to determine the fair value of a fixed-for-fixed forward or option on equity shares, the instrument was not considered to be indexed to our own stock and, therefore, the instrument could not be precluded from derivative instrument consideration until the contingency was resolved. As a result, the embedded principal multiplier feature under the Consent Fee Term Note was bifurcated, classified as a derivative liability and marked to market. The decrease in fair value of \$0.7 million for the period from inception of the note on November 24, 2009 through the date that the contingency was resolved on April 16, 2010 with the completion of our acquisition of SPI was recognized in the consolidated statement of operations as a fair value adjustment of derivative instruments (see Note 11). As a result of the resolution of the contingency, the embedded principal multiplier feature no longer met the definition of a derivative and the fair value of the embedded feature was reclassified to equity effective as of the close of business on April 16, 2010.

Lender Commitment

On May 30, 2008, we secured a \$10.0 million commitment from an affiliate of our senior lender (the "Lender Commitment") that allowed us to draw on the commitment at our option and also allowed the senior lender to fund the commitment at the senior lender's option under certain defined structures.

As of April 30, 2009, the option for either party under the commitment was set to expire on August 31, 2009 and consisted of the following terms: (a) should we choose to draw on the Lender Commitment, the senior lender had the right to make the investment under one of the following three investment structures: (i) receipt of our common stock at a 25.0% discount to market price with 100.0% warrant coverage at an exercise price equal to market price at the time of funding, (ii) a two year secured convertible note, the conversion price equal to a 10.0% discount to the market price and the coupon on the note equal to 12.0% payable in our common stock, and (iii) a senior secured straight note that redeems in cash at 120% of face value after one year; (b) in exchange for extending the commitment, we granted to the senior lender an option to make a \$10.0 million investment, which, if exercised, would have been structured as a non-interest bearing convertible note priced at 100.0% of par and redeemable at 120.0% of par two years after the funding date (the "put" option). The note under this put option structure would have been convertible into our common stock at a price equal to the market price.

On July 10, 2009, the commitment was amended. The significant amendments were as follows: (i) the expiration date of the commitment was extended one year from August 31, 2009 to August 31, 2010 and (ii) if we elected to exercise our option to borrow, the first of the three options that the senior lender could structure the note was eliminated and the terms of the other two options were modified.

On August 3, 2009, the commitment was further amended. The significant amendments were as follows: (i) our right to exercise our option to borrow up to \$10.0 million was restricted in part to only allow us to draw upon the commitment up to \$2.5 million within any 30 day period. The effect of the modification was that we could still borrow up to \$10.0 million; however, we would require four draw downs over a three month period to gain the entire proceeds from the commitment, and (ii) the conversion price under the convertible note structures of either the exercise of the borrowing by us or a put by the senior lender, was changed from "market price" to a

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

fixed conversion price of \$14.20 per share. The amendment to fix the conversion price of the convertible note structure under the potential senior lender put option resulted in the recognition of a loss on modification of the instrument of \$2.6 million.

On November 24, 2009, the expiration date of the commitment was amended from August 31, 2010 to March 31, 2011. The modifications executed on November 24, 2009 immediately increased the value of the embedded written put option under the Lender Commitment by \$0.4 million which we recognized as a loss on modification of derivative instruments during fiscal 2010 in connection with the implied exchange of debt instruments discussed above under Convertible Note I.

Recognition of Charges Associated with Debt Modifications

The following table summarizes the loss recognized during fiscal 2010 related to modifications of debt and derivative instruments:

<u>Debt Instrument</u>	<u>Description of Modification</u>	<u>Date of Modification</u>	<u>Gain (Charge) Recognized</u>
Convertible Notes	Amend terms of Convertible Note I	July 10, 2009	\$ (3,092,000)
Convertible Notes	Exchange Term Note A with Convertible Note II	July 10, 2009	(2,858,000)
Convertible Notes	Issuance of Convertible Note III	July 10, 2009	(1,019,000)
Lender Commitment	Amend terms of senior lender put option	August 3, 2009	(2,570,000)
Convertible Notes	Amend maturity dates for each of the three convertible notes	November 24, 2009	(1,272,000)
Term Note B	Amend terms of term note and write off unamortized debt issuance costs	November 24, 2009	54,045
Consent Fee Term Note	Issuance of new term note in connection with acquisition consent	November 24, 2009	(3,491,000)
Lender Commitment	Amend expiration date of funding commitment	November 24, 2009	(439,000)
			<u>\$(14,686,955)</u>

Conversions of Principal under Convertible Notes

During fiscal 2010, the senior lender converted a combined total of \$6.9 million of principal under the three convertible notes (\$0.51 million, \$1.03 million and \$1.37 million under Convertible Note I on September 23, 2009, October 13, 2009 and November 24, 2009, respectively; \$2.72 million under Convertible Note II on November 24, 2009; and \$1.23 million under Convertible Note III on November 24, 2009) which we satisfied with the issuance to the holder of a combined total of 484,221 shares. The fair value of the embedded derivative instruments associated with the convertible notes is reduced on a proportional basis to the amount of debt principal converted by the holder. For example, if 10% of the outstanding debt principal just prior to the conversion is converted, we reduce the fair value of the derivative instrument on the conversion date by 10%. In connection with shares issued to settle debt principal conversions during fiscal 2010, the derivative instruments were reduced by \$6.9 million and a net gain on the settlement of the debt principal and derivative instruments of \$1.4 million was recognized, which represented the difference between the fair value of shares issued (\$12.4 million) and the settlement of the liabilities (\$6.9 million of debt principal and \$6.9 million of derivative instruments).

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

During fiscal 2010, we elected to add the entire amount of accrued interest to principal under the three convertible notes that was payable on the scheduled semi-annual interest payment dates in accordance with the PIK provisions contained within the notes.

Shares in Lieu of Cash in Satisfaction of Principal under Term Note A and Term Note C

We issued shares in fiscal 2010 on various dates through November 1, 2009 to our senior lender in satisfaction of certain required principal obligations under Term Note A and Term Note C based on 95% of the VWAP of our common stock for the five business days prior to the applicable payment dates pursuant to the terms of the debt instruments. We considered Term Note A and Term Note C to be “stock-settleable” instruments as both instruments embodied unconditional obligations that we could settle by issuing a variable number of our shares and the value of the obligation was based on a fixed monetary amount that was known at inception. We performed a separate calculation each time we made a payment in shares under the term notes to determine whether the fair value of the shares provided was above or below the carrying value of the principal extinguished. To the extent that there was a difference, we recorded the amount immediately as a gain or loss on extinguishment of debt and the corresponding offset was recorded as additional paid-in-capital for the issued shares. The differences that were required to be recorded in fiscal 2010 for the shares, representing a net loss on settlement of the debt of \$0.4 million, is included as part of the loss on settlement of debt and derivative instruments on the consolidated statement of operations.

Fiscal 2009

On May 30, 2008, we amended Convertible Note I and Term Note B in connection with securing additional financing from our senior lender associated with Term Note C and the Lender Commitment.

The significant amendments to Convertible Note I included: (i) the “Make-Whole Amount” provision was added which provided the senior lender with an incentive to convert all or part of the balance due under the note prior to its maturity, (ii) an anti-dilution conversion price reset provision that was originally added on January 31, 2007 was eliminated, and (iii) the scheduled maturity date was extended from July 1, 2009 to August 1, 2009.

The significant amendments to Term Note B were: (i) the limit for the maximum amount of principal payable under the multiplier provision that was present upon issuance of the note was increased from \$37.5 million to \$52.5 million, (ii) a provision that allowed us to make prepayments under the note at any time was revised to restrict us from making prepayments under the note prior to January 17, 2010 (the “First Call Date”), and (iii) a provision that only required the multiplier formula to be factored into determining the amount of principal outstanding on the note upon a demand of payment by the senior lender was revised to require the multiplier formula to be factored into both prepayments by us and demands by the senior lender. Prior to the May 30, 2008 amendment, the derivative instrument representing the principal multiplier feature was not ascribed any fair value as a market place participant would have assumed that we would have avoided payment of the value attributable to the multiplier feature by exercising our option to prepay the note at its face value prior to January 16, 2010. However, after giving effect to the amendments that occurred on May 30, 2008, which eliminated our ability to avoid paying the value of the multiplier feature by prepaying the note, we could no longer avoid paying the value attributable to the multiplier feature by prepaying the note. Thus, the embedded derivative associated with the multiplier feature had a measurable fair value for all periods subsequent to the May 30, 2008 modifications.

The amendments to Convertible Note I and Term Note B resulted in an immediate increase in the value of the embedded conversion feature derivatives of \$23.8 million (substantially all related to Term Note B) that was recognized as a loss on modification of debt and derivative instruments in fiscal 2009.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

We determined that the amendments to Convertible Note I and Term Note B on May 30, 2008, in combination with the issuance of new debt and modifications to other debt instruments that were negotiated together, were not substantial and did not represent an implied exchange of debt instruments. For purposes of this analysis, we excluded the impact that the modifications had on the embedded features accounted for as derivative instruments under the guidance, as the change in fair value of the derivative instruments resulting from the modifications was immediately recognized as a loss on modification of debt.

During fiscal 2009, the holder requested conversions of \$10.2 million of debt principal under the provisions of Convertible Note I. In connection with the issuance of our common shares (which had a fair value of \$18.7 million on the settlement dates) in satisfaction of the principal converted and shares required pursuant to the Make-Whole Amount provision contained in the note, a portion of the derivative instrument liability associated with the conversion feature was also extinguished in the total amount of \$4.2 million. The Make-Whole Amount provision was available to the holder from May 30, 2008 through July 9, 2009 at which time it was eliminated in connection with further modifications to the note. The difference between the fair value of the shares issued (\$18.7 million) and the extinguishment of the liabilities (\$10.2 million of debt principal and \$4.2 million of derivative instruments) was recognized as a loss on settlement of \$4.3 million during fiscal 2009.

11. Derivative Instruments and Fair Value Measurements

We measure our financial assets and liabilities in accordance with Fair Value Measurements and Disclosures under GAAP, which maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. GAAP describes three different valuation techniques to be used in determining fair value for financial assets and liabilities: the market, income or cost approaches. The three valuation techniques are consistent with generally accepted valuation methodologies. The hierarchy which prioritizes the inputs used to measure fair value from market based assumptions to entity specific assumptions are as follows:

Level 1: Inputs based on quoted market prices for identical assets or liabilities in active markets at the measurement date.

Level 2: Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.

Level 3: Inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. The inputs are unobservable in the market and significant to the instrument's valuation.

We measure financial instruments that we consider to be derivatives at fair value on a recurring basis, which at April 30, 2011 consist of certain warrant contracts (see Note 12).

Prior to certain debt modifications executed on April 30, 2010, our three convertible notes and our Term Note B contained embedded conversion features that were also considered to be derivatives during the two year period ended April 30, 2010 included in the accompanying consolidated financial statements. In addition, the Consent Fee Term Note also contained an embedded conversion feature that was classified as a derivative liability until the fee contingency was resolved on April 16, 2010. As of the close of business on April 30, 2010, the fair value of the embedded conversion features under the three convertible notes, Term Note B and the Consent Fee Term Note were each reclassified to equity. See further discussion of these financial instruments and the change in classification of the embedded features during fiscal 2010 in Note 10. In addition, during fiscal 2011, the embedded conversion features under the 2010 Bridge Notes were accounted for as derivative liabilities from the period of their amendment on January 18, 2011 until the notes were repaid in cash on April 29, 2011.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Our derivative instruments are measured on their respective origination dates, at the end of each reporting period and at other points in time when necessary, such as modifications, using Level 3 inputs. We do not report any financial assets or liabilities that we measure using Level 1 or Level 2 inputs and there were no transfers in or out of Level 3 for all periods reported.

The derivatives and their respective fair values measured using Level 3 inputs as of April 30, 2010 and April 30, 2011 are as follows:

	April 30, 2010	April 30, 2011
Derivative instruments classified as current liabilities:		
Warrant contracts issued in October 2006	\$ 4,160,000	\$3,292,000
Warrant contracts issued in June 2007	4,100,000	57,000
Warrant contracts issued in August 2008	4,287,000	521,000
Warrant "B" contracts issued in February 2011	—	452,000
Embedded conversion features under Bridge Notes	—	—
	12,547,000	4,322,000
Derivative instruments classified as non-current liabilities:		
Written Put Option under \$10.0 million Lender Commitment	5,518,000	—
Warrant contracts issued in August & September 2009	1,151,000	56,000
	6,669,000	56,000
Total balance of derivative instruments	\$19,216,000	\$4,378,000

We determined the fair values of the derivative instrument liabilities associated with the written put option contained within the Lender Commitment and certain warrant contracts primarily based on option-pricing mathematical models generally referred to as "Black-Scholes" and "Monte Carlo" option-pricing models. These models determine the value of the derivative instruments based on complex mathematical formulas that assume that returns on our underlying stock are normally-distributed and that risk-free interest rates and stock volatilities will remain constant over the term of the contract. We used the Black-Scholes model to calculate the value of the June 2007 Warrants, the August 2009 Warrants, the September 2009 Warrants, and the "B" Warrants issued in February 2011. For the written put option contained within the Lender Commitment (extinguished on January 3, 2011) and the derivative warrant contracts that incorporate more complex terms, including exercise price reset provisions (the October 2006 Warrants and the August 2008 Warrants), we utilize the Monte Carlo model which is similar to the Black-Scholes model; however, the Monte Carlo model simulates several thousand possible (but random) price paths for the underlying value of the derivative instruments. These random price paths are then averaged to determine the value of the derivative instruments as of the reporting period date.

We determined the fair value of the embedded conversion features under the three convertible notes, Term Note B, the Consent Fee Term Note, and the 2010 Bridge Notes during the period of time that they were classified as derivatives primarily based on binomial probability distribution models that integrate multiple layers of logic at each node representing probability weighted stock price points and possible outcomes over time based on volatility and appropriate risk free rates. The end node values are then individually present valued back to the valuation date. Under a binomial probability distribution model, the closing market price of our common stock on the dates of measurement and the estimated discount rates and annual volatility rates used are the primary drivers of fair value in addition to the contractual terms of the financial instruments.

The derivative liabilities associated with the convertible notes represented the fair value of the notional amount of the embedded conversion features as of the assessment date, which is less than the overall fair values

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

of the embedded conversion features. The notional amount equaled the outstanding principal, including accrued interest that had been added to the principal balances as of the assessment date under the terms of the instruments' PIK provisions. Although the stated terms of the instruments required that a minimum portion of all future interest cost must be added to the principal under the PIK provisions (thereby increasing the overall value of the conversion features), under GAAP, a derivative instrument must have an existing notional amount to be considered a derivative. As such, the additional fair value of the minimum future interest PIK provisions were not considered in valuing the derivatives until the PIK was actually added to the outstanding principal balances.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The following table summarizes the changes in the fair value during the three years ended April 30, 2011 for the derivative instrument liabilities using Level 3 inputs:

	<u>Convertible Notes</u>	<u>Written Put Option</u>	<u>Term Note B</u>	<u>Consent Fee Term Note</u>	<u>Bridge Notes</u>	<u>Warrants</u>	<u>Total</u>
Balance at April 30, 2008	\$ 6,392,000	\$ —	\$ —	\$ —	\$ —	\$ 10,017,000	\$ 16,409,000
Origination of derivative instruments	—	—	—	—	—	7,290,000	7,290,000
Contract modifications recognized in earnings	—	—	23,834,000	—	—	—	23,834,000
Adjustments resulting from change in value of underlying asset and passage of time recognized in earnings	(1,925,000)	—	(20,341,000)	—	—	(5,427,000)	(27,693,000)
Settlements associated with debt conversions and warrant exercises	(4,162,000)	—	—	—	—	(480,000)	(4,642,000)
Balance at April 30, 2009	\$ 305,000	\$ —	\$ 3,493,000	\$ —	\$ —	\$ 11,400,000	\$ 15,198,000
Origination of derivative instruments	280,000	—	—	960,000	—	1,395,000	2,635,000
Origination of derivative instruments in connection with contract modifications recognized in earnings	3,877,000	—	—	—	—	—	3,877,000
Change to existing derivative instrument in connection with contract modifications recognized in earnings	3,342,000	3,009,000	—	—	—	—	6,351,000
Fair value adjustments resulting from change in value of underlying asset and passage of time recognized in earnings	3,710,000	2,509,000	2,522,000	(667,000)	—	2,500,000	10,574,000
Settlements associated with debt conversions and warrant exercises	(6,928,000)	—	(3,595,000)	—	—	(1,597,000)	(12,120,000)
Reclassification of instrument from debt to equity pursuant to contract modification	(4,586,000)	—	(2,420,000)	(293,000)	—	—	(7,299,000)
Balance at April 30, 2010	\$ —	\$ 5,518,000	\$ —	\$ —	\$ —	\$ 13,698,000	\$ 19,216,000
Origination of derivative instrument	—	—	—	—	147,000	—	147,000
Origination of derivative instruments, net of cancellations, in connection with contract modifications recognized in earnings	—	—	—	—	—	864,000	864,000
Fair value adjustments recognized in earnings	—	(2,883,000)	—	—	(147,000)	(10,184,000)	(13,214,000)
Termination of derivative instrument recognized in earnings	—	(2,635,000)	—	—	—	—	(2,635,000)
Balance at April 30, 2011	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 4,378,000	\$ 4,378,000

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The fair value of derivative instrument liabilities measured with Level 3 inputs are revalued quarterly. The assumptions used in the calculations under our binomial and/or option pricing models as of April 30, 2010 and April 30, 2011 were as follows:

	<u>Written Put Option</u>	<u>Bridge Notes</u>	<u>October '06 Warrants</u>	<u>June '07 Warrants</u>	<u>August '08 Warrants</u>	<u>Aug/Sept '09 Warrants</u>	<u>February '11 "B" Warrants</u>
April 30, 2010:							
Annual volatility(I)	89.3%	N/A	79.7%	77.4%	72.8%	77.4%-94.5%	N/A
Risk-free rate	1.5%	N/A	2.0%	2.4%	2.4%	1.2%-2.0%	N/A
Discount rate for cash payments	14.3%	N/A	N/A	N/A	N/A	N/A	N/A
Dividend rate	0.0%	N/A	0.0%	0.0%	0.0%	0.0%	N/A
Closing price of Quantum stock	\$14.00	N/A	\$14.00	\$14.00	\$14.00	\$14.00	N/A
Conversion / exercise price ..	\$14.20	N/A	\$11.00	\$41.80	\$62.60	\$17.00	N/A
April 30, 2011:							
Annual volatility(I)	N/A	N/A	86.2%	83.2%	79.2%	54.0%-85.6%	76.80%
Risk-free rate	N/A	N/A	1.0%	1.5%	1.5%	0.4%-1.0%	1.97%
Discount rate for cash payments	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dividend rate	N/A	N/A	0.0%	0.0%	0.0%	0.0%	0.0%
Closing price of Quantum stock	N/A	N/A	\$ 2.58	\$ 2.58	\$ 2.58	\$ 2.58	\$ 2.58
Conversion / exercise price ..	N/A	N/A	\$ 3.05	\$41.80	\$43.65	\$17.00	\$ 6.00

- (1) Annual volatility is based on the historical average of our identified peer group for a period consistent with the remaining term of the contract.

Fair Value Option

We have adopted ASC Topic No. 825 "Financial Instruments" (ASC 825), which allows an entity the irrevocable option to elect fair value for the initial and subsequent measurement for specified financial assets and liabilities on a contract-by-contract basis. We did not elect to adopt the fair value option for any of our financial assets or liabilities that were not already measured on a recurring basis. Based on certain qualifying events, we may elect to adopt the fair value option in the future for certain financial assets and liabilities.

We apply fair value techniques on a non-recurring basis associated with valuing potential impairment losses related to goodwill and other long-lived assets (see Note 8).

12. Stockholders' Equity

Reverse Stock Split

On February 8, 2011, we implemented a reverse stock split pursuant to which all of the issued and outstanding shares of our common stock at the close of business on such date were combined and reconstituted as a smaller number of shares of common stock in a ratio of 1 share of common stock for every 20 shares of common stock. Fractional shares were paid in cash. Our authorized shares of common stock were reduced proportionately from 400.0 million to 20.0 million. The reverse stock split did not affect our 20.0 million shares of authorized preferred stock. The consolidated financial statements and footnotes have been retroactively adjusted to reflect the effects of the reverse stock split for the period of time reported prior to the split. The reverse split did not affect the amount of equity we have or affect our market capitalization.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

As adjusted for the effects of the reverse split, our authorized stock consisted of 20,000,000 shares of preferred stock and 20,000,000 shares of common stock as of April 30, 2011. Of the 20,000,000 shares of common stock, 100,000 are designated as Series B common stock.

Increase in Authorized Shares

Subsequent to the most recent balance sheet date and pursuant to a Special Meeting of Stockholders held on May 10, 2011, our stockholders authorized an increase in the number of authorized shares of common stock from 20,000,000 to 50,000,000.

Common Stock

Holders of our common stock are entitled to one vote for each share on all matters voted on by stockholders. Holders of common stock do not have cumulative voting rights in the election of directors and have no subscription, redemption or conversion privileges. Subject to the preferences or other rights of any preferred stock that may be issued from time to time, holders of common stock will be entitled to participate ratably in dividends of our common stock as declared by the board of directors. Holders of common stock will be entitled to share ratably in all assets available for distribution to stockholders in the event of our liquidation or dissolution, subject to distribution of the preferential amount, if any, to be distributed to holders of preferred stock. No holder of our capital stock authorized at any such distribution date will have any preemptive right to subscribe for or purchase any of our securities of any class or kind.

Series B Common Stock

Shares of our Series B common stock, held entirely by General Motors, are not entitled to vote on any matters voted on by stockholders except as otherwise specifically required by law. In the event we issue additional shares of our common stock as a dividend or other distribution on our outstanding common stock, or a subdivision or combination of common stock into a smaller or greater number of shares, the number of shares of Series B common stock will be adjusted to that number of shares of Series B common stock that is equal to the percentage of all outstanding shares of all series of our common stock (excluding shares issued pursuant to a board-approved stock option or equity incentive plan) that the holders of Series B common stock held prior to such event. Upon the transfer of any of the outstanding shares of Series B common stock to any person or entity that is not controlled by or under common control with General Motors, the transferred shares of Series B common stock will convert into an equal number of shares of our common stock. Subject to the preferences or other rights of any preferred stock that may be issued from time to time, holders of our Series B common stock will be entitled to participate ratably in dividends on our common stock as declared by our board of directors. Holders of our Series B common stock will be entitled to share ratably in all assets available for distribution to stockholders in the event of our liquidation or dissolution, subject to distribution of the preferential amount, if any, to be distributed to holders of our preferred stock.

Preferred Stock

Our charter authorizes the board of directors, without any vote or action by the holders of our common stock, to issue up to 20,000,000 shares of preferred stock from time to time in one or more series. Our board of directors are authorized to determine the number of shares and designation of any series of preferred stock and the dividend rights, dividend rate, conversion rights and terms, voting rights (full or limited, if any), redemption rights and terms, liquidation preferences and sinking fund terms of any series of preferred stock. Issuances of preferred stock would be subject to the applicable rules of the Nasdaq Global Market or other organizations on

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

whose systems our stock may then be quoted or listed. Depending upon the terms of preferred stock established by our board of directors, any or all series of preferred stock could have preference over our common stock with respect to dividends and other distribution upon our potential liquidation. Issuance of any such shares with voting powers, or issuance of additional shares of our common stock, would dilute the voting power of our outstanding common stock. We have no present plans to issue any preferred stock.

Restricted Stock

We periodically issue restricted stock to our directors and executives as a form of equity-based compensation. The value of the shares, measured on the date of award based upon the closing price of our common stock, is recognized as compensation expense ratably over the vesting period, typically three years.

Warrants

In connection with a \$12.5 million private placement offering completed on June 29, 2006, investors received warrants to purchase 44,020 shares of our common stock at a fixed exercise price of \$78.80 per share to the investors (the "June 2006 Warrants"). The warrants can be exercised at any time and expire in June 2011.

In connection with a \$10.0 million private placement offering completed on October 27, 2006, investors received warrants to initially purchase 106,707 shares of our common stock at an initial exercise price of \$47.20 per share (the "October 2006 Warrants"). During fiscal 2010, we issued 54,922 shares upon the exercise of 95,805 warrants on a cashless basis by certain holders of the October 2006 Warrants. The remaining warrants are subject to reset as discussed below and can be exercised at any time and expire in April 2014.

In connection with a \$18.75 million private placement offering that was completed on June 22, 2007, investors received warrants to purchase 750,000 shares of our common stock at a fixed \$41.80 per share, which included 125,000 shares provided to the October 2006 investors in exchange for those investors waiving certain rights obtained in the October 2006 private placement (the "June 2007 Warrants"). In connection with the private placement offering that was closed in February 2011, certain of the investors holding 492,417 of the June 2007 Warrants agreed to cancel their warrants in exchange for new warrants dated February 18, 2011 (discussed below). The remaining June 2007 Warrants, totaling 257,583, can be exercised anytime and expire in December 2014.

In connection with a \$19.1 million registered direct offering completed on August 25, 2008, the investor received warrants to initially purchase 675,000 shares of our common stock at an initial exercise price of \$80.00 per share (the "August 2008 Warrants"). The warrants were subject to reset as discussed below and can be exercised at any time and expire in August 2015.

In connection with a \$12.3 million private placement offering completed in two rounds that closed on August 3, 2009 (the "August 2009 Warrants") and September 4, 2009 (the "September 2009 Warrants"), investors received warrants to purchase 100,481 shares of our common stock at a fixed exercise price of \$17.00 per share to the investors. The warrants became exercisable beginning in February 2010, of which 32,005 relate to the August 2009 Warrants and expire in August 2014 and 68,476 relate to the September 2009 Warrants and expire in September 2014. In connection with the transaction, the placement agent also received 51,197 warrants to purchase shares of our common stock at a fixed exercise price of \$17.00 per share that became exercisable beginning in March 2010, of which 36,197 expire in September 2012 and 15,000 expire in September 2014.

On April 16, 2010, in connection with the acquisition of SPI, we provided the former SPI warrant holders with Quantum replacement warrants that allowed these former SPI warrant holders to purchase up to 102,822 shares of our common stock at fixed exercise prices ranging from \$9.60 to \$48.20 per share (the "April 2010

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Replacement Warrants”). On August 21, 2010, 73,322 of the replacement warrants expired. The remaining replacement warrants at April 30, 2011 had a fixed exercise price of \$17.60 per share and expired on May 13, 2011. The fair value of the replacement warrants on the closing date was included as part of the consideration paid in connection with the acquisition (see Note 2).

In connection with a \$10.9 million private placement offering completed on various dates from April 2010 through July 2010 (the “Spring 2010 Warrants”), investors received warrants to purchase 197,217 shares of our common stock at a fixed exercise price of \$18.20 per share to the investors. The warrants became exercisable beginning in October 2010 and expire five years from the date they were issued (April 2015 thru July 2015). In connection with the transaction, the placement agent also received 121,859 in warrants to purchase shares of our common stock at a fixed exercise price of \$18.20 per share that became exercisable beginning in October 2010 of which 96,859 expire in July 2013 and 25,000 expire in May 2015. The net amount received by us from the transactions, after deducting placement agent fees and offering expenses, was approximately \$9.3 million (of which \$6.2 million was received in fiscal 2011).

On October 13, 2010 and October 19, 2010, in connection with the issuance of the 2010 Bridge Notes, investors received warrants to purchase 36,197 shares of our common stock at a fixed exercise price of \$13.40 per share (the “October 2010 Warrants”). The warrants expire five years from the date they were issued. We recorded a debt discount on the origination date of the 2010 Bridge Notes equal to the fair value of the October 2010 Warrants of \$0.2 million that was amortized over the scheduled life of the notes through December 31, 2010 (see Note 10).

On January 3, 2011, in connection with the execution of the Forbearance Agreement and restructure of the debt portfolio (see Note 10), our senior lender received warrants to purchase up to 277,777 shares of our common stock at a fixed exercise price of \$9.00 per share. The warrants had a fair value of \$1.6 million on the commitment date. We allocated \$1.3 million of the fair value to the instruments extinguished on January 3, 2011 and recognized the remaining amount of \$0.3 million as an implied debt discount on the LOC with our senior lender. In connection with the private placement offering that closed on February 18, 2011 in which the senior lender participated, the senior lender agreed not to exercise the warrants until after August 18, 2011 and the expiration date of the warrants was modified from January 3, 2014 to February 18, 2014.

On January 18, 2011, in connection with amendments to the 2010 Bridge Notes, the bridge investors received warrants to purchase up to 131,892 shares of our common stock at a fixed exercise price of \$9.20 per share. The warrants expire in January 2014 and had a fair value of \$0.8 million on the commitment date.

On February 18, 2011, in connection with a private placement offering that raised \$5.1 million in net proceeds, investors received “A” warrants and “B” warrants to purchase up to 562,131 and 292,533 shares of our common stock at a fixed exercise price of \$6.57 and \$6.00 per share, respectively. Our senior lender also participated in the private placement offering by reducing \$2.0 million of the outstanding principal balance under the LOC in exchange for receiving shares of our common stock and “A” warrants and “B” warrants to purchase up to 197,239 and 101,400 shares of our common stock at a fixed exercise price of \$6.57 and \$6.00 per share, respectively. The warrants become exercisable after six months and expire in February 2016. The “A” and “B” warrants had a fair value of \$2.8 million and \$1.5 million, respectively, on the commitment date associated with the closing of the private placement offering.

We evaluate the warrants provided in connection with each of our private placement or public offerings in accordance with applicable accounting guidance and we have concluded that liability classification is appropriate for warrants issued in October 2006, June 2007, August 2008, August 2009, September 2009 and the “B”

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

warrants issued in February 2011. We have further concluded that equity classification is appropriate for all the remaining warrants that were outstanding during the three year periods covered by these consolidated financial statements due to the fact that these warrants are considered to be indexed to our own stock, are required to be physically settled in shares of our common stock and there are no provisions that could require net-cash settlement.

The proceeds from transactions that gave rise to warrants have been allocated to the common stock or debt issued and the warrants based on their relative fair values. For those transactions in which proceeds were received in connection with the sale of common stock, we aggregate the values of those warrants that we do not classify as liabilities with the fair value of the stock issued as both of these types of instruments have been classified as permanent equity.

The classification as equity for certain of the warrants could change as a result of either future modifications to the existing terms of settlement or the issuance of new financial instruments by us that could be converted into an increased or unlimited number of shares. If a change in classification of certain warrants is required in the future, the warrants would be treated as derivatives, reclassified as liabilities on the balance sheet at their fair value, and marked to market each period, with the changes in fair values being recognized in the respective period's statement of operations.

The October 2006 Warrants, the June 2007 Warrants, the August 2008 Warrants and the "B" warrants issued in February 2011 contain contractual provisions that could potentially require us to net-cash settle the value of the remaining outstanding warrants in the event of a change in control or other fundamental change in Quantum in the future. Since the contractual provisions that could require us to net-cash settle the warrants are not within our control, equity classification is precluded. As such, we consider these warrants to be derivative instruments that are classified as current liabilities, recorded at fair value and marked to market each period, with the changes in fair values being recognized in the respective period's statement of operations.

Further, the August 2009 Warrants and the September 2009 Warrants contain cashless warrant exercise provisions whereby the settlement calculation may incorporate the book value per share of common stock if there is not a public market for the common stock. Under GAAP, if an instrument's settlement calculation incorporates variables other than those used to determine the fair value of a fixed-for-fixed forward or option on equity shares, the instrument would not be considered indexed to the entity's own stock and therefore would not be precluded from derivative instrument consideration. As such, we consider these warrants to be derivatives that are classified as non-current liabilities, recorded at fair value and marked to market each period, with the changes in fair values being recognized in the respective period's statement of operations.

The fair values of the derivative liabilities associated with warrant contracts as of April 30, 2010 and April 30, 2011, and a summary of the changes in the fair values of those derivative instruments during the three years ended April 30, 2011 are disclosed in Note 11.

The October 2006 Warrants and August 2008 Warrants contain contractual provisions which, subject to certain exceptions, reset the exercise price of such warrants if at any time while such warrants are outstanding, we sell or issues shares of our common stock or rights, warrants, options or other securities or debt convertible, exercisable or exchangeable for shares of our common stock. Since the initial issuance of these warrants, we have completed equity transactions through June 15, 2011 that resulted in the reset of the exercise price of the October 2006 Warrants and August 2008 Warrants to \$2.92 and \$38.60, respectively. As of June 15, 2011, the August 2008 Warrants have been reset to the lowest price allowable under the terms of the August 2008 Warrant so the reset provision is no longer applicable.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The October 2006 Warrants and August 2008 Warrants also contain a provision that increases the number of shares of common stock subject to such warrants if and when the exercise price is reset so that the aggregate purchase price payable applicable to the exercise of the warrants after the reset of the exercise price is the same as the aggregate purchase price payable immediately prior to the reset. As a result of the exercise price resets, the number of shares subject to the October 2006 Warrants and August 2008 Warrants increased to 1,334,906 and 1,398,964, respectively, as of June 15, 2011. Any resets to the exercise price of the October 2006 Warrants in the future will have an additional dilutive effect on our existing shareholders.

Warrant activity and warrants outstanding for the three year period ending April 30, 2011, and through the closing of the round of financing on June 15, 2011, reportable in the equivalent number of shares of our common stock that can be purchased upon exercise of the warrants, is as follows:

Warrants outstanding at April 30, 2008	983,050
Exercised	(20,000)
Issued—original number	<u>675,000</u>
Warrants outstanding at April 30, 2009	1,638,050
Issued—original number	320,456
Issued—additional number(1)	470,621
Exercised	<u>(95,805)</u>
Warrants outstanding at April 30, 2010	2,333,322
Issued—original number	1,852,440
Issued—additional number(1)	1,296,507
Expired	(73,322)
Canceled	<u>(492,573)</u>
Warrants outstanding at April 30, 2011	4,916,374
Issued—original number(2) (unaudited)	2,371,880
Issued—additional number(1) (unaudited)	218,252
Expired (unaudited)	<u>(29,500)</u>
Warrants outstanding at June 15, 2011 (unaudited)	<u><u>7,477,006</u></u>

- (1) Additional number of warrants issued is associated with reset provisions of the October 2006 Warrants and the August 2008 Warrants.
- (2) Warrants issued in connection with private placement transactions subsequent to the most recent balance sheet date through June 15, 2011 (see note 20).

Stock Incentive Plan

We have one stock option plan, the 2002 Stock Incentive Plan (the “Stock Incentive Plan”), which provides that options to purchase shares of our common stock and awards of restricted stock may be granted to directors, employees, associates and consultants. Options expire ten years after the date of grant or 30 days after termination of employment and generally vest ratably at the rate of 25% on each of the first four anniversaries of the grant date. New shares are issued to satisfy stock option exercises under the Stock Incentive Plan. Options awarded are granted with an exercise price equal to the market price of our stock at the date of grant. Restricted stock generally cliff vests on the third anniversary of the grant date.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Share-based Compensation

The share-based compensation expense related to stock options and restricted stock included in the accompanying consolidated statements of operations and in the financial information by reportable business segment in Note 17 for the three years ended April 30, 2011 is:

	<u>Electric Drive & Fuel Systems</u>	<u>Corporate</u>	<u>Renewable Energy</u>	<u>Total</u>
Year Ended April 30, 2009:				
Cost of product sales	\$103,597	\$ —	\$ —	\$ 103,597
Research and development	213,005	—	—	213,005
Selling, general and administrative	17,907	1,609,715	—	1,627,622
Total share-based compensation	<u>\$334,509</u>	<u>\$1,609,715</u>	<u>\$ —</u>	<u>\$1,944,224</u>
Year Ended April 30, 2010:				
Cost of product sales	\$ 17,950	\$ —	\$ —	\$ 17,950
Research and development	153,911	—	—	153,911
Selling, general and administrative	14,735	738,465	—	753,200
Total share-based compensation	<u>\$186,596</u>	<u>\$ 738,465</u>	<u>\$ —</u>	<u>\$ 925,061</u>
Year Ended April 30, 2011:				
Cost of product sales	\$ 30,013	\$ —	\$ —	\$ 30,013
Research and development	179,285	—	—	179,285
Selling, general and administrative	20,285	830,056	120,673	971,014
Total share-based compensation	<u>\$229,583</u>	<u>\$ 830,056</u>	<u>\$120,673</u>	<u>\$1,180,312</u>

Share-based compensation cost includes \$0.1 million, \$0.1 million and \$0.4 million related to restricted stock awards for the fiscal years ending 2009, 2010 and 2011, respectively.

The fair value of each share-based award is estimated on the grant date using the Black-Scholes option-pricing formula. Expected volatilities are based on the historical volatility of our stock price. The expected life of options granted is derived based on the historical life of our options. The risk-free rate for periods within the expected life of the option is based on the U.S. Treasury interest rates in effect at the time of grant.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Stock Options

Below is a summary of the options activity for the three-year period ending April 30, 2011:

	<u>Number of Shares</u>	<u>Weighted Average Exercise Price</u>	<u>Weighted Average Remaining Life (In Years)</u>	<u>Aggregate Intrinsic Value</u>
Options outstanding at April 30, 2008	298,435	\$66.60		
Granted(1)	150,684	\$24.20		
Exercised	—	\$ —		
Forfeited(2)	(63,604)	\$63.80		
Expired(3)	(148,587)	\$90.00		
Options outstanding at April 30, 2009	236,928	\$25.80		
Granted	2,500	\$15.00		
Exercised	(250)	\$16.00		
Forfeited	(7,271)	\$17.40		
Expired	(18,884)	\$76.00		
Options outstanding at April 30, 2010	213,023	\$21.60		
Granted	239,500	\$11.80		
Exercised	—	\$ —		
Forfeited	(27,412)	\$12.06		
Expired	(4,327)	\$80.65		
Options outstanding at April 30, 2011	420,784	\$16.04		
Vested and expected to vest at April 30, 2011	390,363	\$16.34	7.0	\$—
Options exercisable at April 30, 2009	139,006	\$31.20		
Options exercisable at April 30, 2010	154,897	\$23.00		
Options exercisable at April 30, 2011	180,828	\$20.79	4.7	\$—

(1) Includes 128,734 options granted pursuant to the stock option exchange program.

(2) Includes 46,587 non-vested options canceled pursuant to the stock option exchange program.

(3) Includes 148,253 vested options canceled pursuant to the stock option exchange program.

The aggregate intrinsic value in the table above is based on our closing stock price of \$2.58 per share as of the last business day of the fiscal year ended April 30, 2011, which amount would have been received by the optionees had all options been exercised on that date.

On November 17, 2008, we completed a value-for-value stock option exchange program which was approved by our stockholders on September 18, 2008. Pursuant to the option exchange, 194,841 eligible options were canceled and replaced with 128,734 replacement stock options. The exchange ratio was calculated such that the value of the replacement options would approximate the value of the canceled options, determined in accordance with the Black-Scholes option valuation model. We recognized the excess value of vested replacement options as compensation expense ratably over their respective vesting periods. The excess value was nominal.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The following table sets forth summarized information with respect to stock options outstanding and exercisable at April 30, 2011:

<u>Exercise Price Range</u>	<u>Outstanding</u>			<u>Exercisable</u>	
	<u>Number of Shares</u>	<u>Average Life Remaining</u>	<u>Average Price</u>	<u>Number of Shares</u>	<u>Average Price</u>
\$0.00 – \$12.60	212,500	9.32	\$ 11.79	—	\$ —
\$12.60 – \$25.20	206,909	4.93	20.04	179,803	20.46
\$25.20 – \$50.40	700	7.25	44.60	350	44.60
\$50.40 – \$100.80	650	0.78	96.80	650	96.80
\$100.80 – \$126.00	25	0.16	126.00	25	126.00
	<u>420,784</u>	7.15	\$ 16.04	<u>180,828</u>	\$ 20.79

A summary of the options activity of our non-vested options and changes during fiscal 2011 is as follows:

	<u>Number of Shares</u>	<u>Weighted-Average</u>		<u>Remaining Unrecognized Compensation Cost</u>
		<u>Grant-Date Fair Value</u>	<u>Remaining Years To Vest</u>	
Nonvested outstanding at April 30, 2010	58,126	\$18.60		
Granted	239,500	8.83		
Vested	(30,258)	21.38		
Forfeited	(27,412)	9.15		
Nonvested outstanding at April 30, 2011	<u>239,956</u>	<u>\$ 9.56</u>	<u>1.9</u>	<u>\$1,619,406</u>

A summary of the grant date fair value and intrinsic value information is as follows:

	<u>Year Ended April 30,</u>		
	<u>2009</u>	<u>2010</u>	<u>2011</u>
Weighted average grant date fair value per share	\$ 10.60	\$ 11.20	\$ 8.86
Intrinsic value of options exercised	n/a	\$ 2,250	n/a
Total fair value of options vested during the period	\$1,271,078	\$1,220,980	\$647,072

The fair value of options granted was estimated using the following weighted-average assumptions:

	<u>Year Ended April 30,</u>		
	<u>2009</u>	<u>2010</u>	<u>2011</u>
Dividend yield	0.0%	0.0%	0.0%
Expected life—years	5.8	6.2	6.2
Risk-free interest rate	2.3%	2.8%	2.0%
Expected volatility of common stock	91.0%	90.0%	89.4%

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Below is a summary of unvested restricted stock activity under the Stock Incentive Plan for the three years ended April 30, 2011:

	Unvested Shares of Restricted Stock
Unvested restricted stock outstanding at April 30, 2008	21,000
Forfeited in fiscal year 2009	(1,000)
Unvested restricted stock outstanding at April 30, 2009	20,000
Issued in fiscal year 2010	2,250
Unvested restricted stock outstanding at April 30, 2010	22,250
Issued in fiscal year 2011	96,929
Vested in fiscal year 2011	(25,430)
Unvested restricted stock outstanding at April 30, 2011	93,749

On May 1, 2010, an additional 253,733 shares of common stock became available for future grant under the Stock Incentive Plan pursuant to an “evergreen” provision contained in the Stock Incentive Plan. At April 30, 2011, there were 298,894 shares of common stock available for grant under the Stock Incentive Plan.

Shares Available

The number of undesignated shares available as of June 15, 2011, after factoring in the private placement offering transaction that occurred on June 15, 2011, is as follows (unaudited):

	Common Stock	Series B Common Stock	Preferred Stock
Shares authorized(1)	49,900,000	100,000	20,000,000
Less shares issued and outstanding at April 30, 2011	(11,794,762)	(49,998)	—
Less shares issued after April 30, 2011	(2,809,211)	—	—
Less shares designated as of June 15, 2011 for issuance under:			
Stock options	(420,784)	—	—
Warrants	(7,477,006)	—	—
Conversion of principal under convertible notes(2)	(1,298,151)	—	—
Professional fees	(17,500)	—	—
Total shares designated for future issuance	(9,213,441)	—	—
Undesignated shares available	26,082,586	50,002	20,000,000
Other instruments in which share settlement is at Company option:			
Principal repayment in shares under Consent Fee Term			
Note(3)	300,000	—	—

(1) Includes an additional 30,000,000 of common shares authorized by shareholders on May 10, 2011.

(2) Represents number of shares upon conversion of \$12.7 million of principal and interest maturing on August 31, 2011 under three convertible notes at a fixed conversion price of \$9.80 per share.

(3) Repayment of principal in shares is at our option, subject to certain conditions, including that our share price must be at least \$10.00 for five consecutive business days prior to the payment date; represents the number of shares necessary for repayment of our term debt assuming \$10.00 per share.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

13. Insurance Settlements

Property Damage Recovery

On September 22, 2007, a flood caused damages to our inventory, manufacturing equipment and a warehouse facility that was covered under existing insurance coverage. We received the insurance benefits in installments on various dates through November 2008. We recognized a non-recurring gain of \$1.2 million in fiscal year 2009 which is included as a reduction to selling, general and administrative expense on the consolidated statements of operations. The gain is primarily related to the difference between the insured values and carrying values of the damaged inventory and equipment. Proceeds on the settlement of \$1.5 million received in fiscal year 2009 are included in cash flows from operating activities on the consolidated statement of cash flows.

Life Insurance Proceeds

We recorded other income of \$2.0 million during fiscal 2009 in connection with a life insurance settlement payment that was received during November 2008. Insurance proceeds on the settlement are included in cash flows from operating activities on the consolidated statement of cash flows.

14. Income Taxes

The following table presents the principal reasons for the difference between the effective tax rate and the federal statutory income tax rate for continuing operations:

	<u>Year Ended April 30,</u>		
	<u>2009</u>	<u>2010</u>	<u>2011</u>
Income tax benefit at U.S. statutory rates	34.0%	34.0%	34.0%
State and local income taxes, net of federal benefit	8.1%	5.8%	5.8%
Amortization of intangible asset	(10.1)%	—	—
Derivative instruments and fair value measurements	4.4%	(19.0)%	36.1%
Share-based compensation	(1.7)%	(0.7)%	(2.1)%
Other	(0.2)%	(0.6)%	(1.1)%
Valuation allowance	(34.5)%	(19.5)%	(70.6)%
Effective tax rate	<u>0.0%</u>	<u>0.0%</u>	<u>2.1%</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

The following table presents the provision for income taxes for continuing operations on a separate tax return basis:

	Year Ended April 30,		
	2009	2010	2011
Current:			
State and local	\$ 1,600	\$ 4,268	\$ 6,500
Foreign	—	—	373,382
	<u>1,600</u>	<u>4,268</u>	<u>379,882</u>
Deferred:			
Federal	(4,248,000)	(4,611,933)	(6,975,162)
State and local	(810,000)	(663,751)	(1,141,855)
Foreign	—	(481,330)	(933,801)
	<u>(5,058,000)</u>	<u>(5,757,014)</u>	<u>(9,050,818)</u>
Less: Change in valuation allowance	5,058,000	5,758,970	8,430,435
Subtotal	<u>—</u>	<u>1,956</u>	<u>(620,383)</u>
Income tax expense (benefit)	<u>\$ 1,600</u>	<u>\$ 6,224</u>	<u>\$ (240,501)</u>

The components of deferred tax assets and liabilities are as follows:

	Year Ended April 30,	
	2010	2011
Deferred income tax assets:		
Accrued compensation	\$ 372,170	\$ 385,641
Accrued warranty	35,681	3,703
Inventory	1,147,729	1,211,519
Share-based compensation	2,226,817	2,295,609
Other	499,980	355,675
Tax credits	764,575	764,575
Derivative instruments	913,801	—
Net operating loss carryforwards	71,748,152	81,453,021
	<u>77,708,905</u>	<u>86,469,743</u>
Less: Valuation allowance	<u>(75,371,969)</u>	<u>(83,802,404)</u>
Total deferred income tax assets	<u>2,336,936</u>	<u>2,667,339</u>
Deferred income tax liabilities:		
Equipment and leasehold improvements	(417,121)	(397,857)
Other comprehensive income	—	(334,778)
Intangible asset	(2,401,145)	(2,153,411)
Net deferred tax liability	<u>\$ (481,330)</u>	<u>\$ (218,707)</u>

For our U.S. based businesses, we have a net deferred tax asset position primarily consisting of net operating loss carry forwards that are available to offset future taxable income. In accordance with GAAP, we have established a valuation allowance for our net deferred tax asset since it is unlikely that the asset will be fully realized based on our lack of earnings history and current evidence.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Our wholly-owned subsidiary, SPI, based in Canada, has certain deferred tax liabilities which cannot be offset by net operating loss carry forwards from the US businesses and represents the balance of the net deferred tax liability reported as of April 30, 2010 and April 30, 2011 on the accompanying consolidated balance sheet. Included in the net deferred tax liability at April 30, 2010 was a deferred amount of \$0.4 million consisting of the tax effected difference between the book value and tax basis of the Grand Valley wind farm asset that was sold in February 2011 (see Note 3). The deferred tax amount was reclassified as a current tax payable upon the completion of the asset sale and is included in other accrued liabilities in the accompanying consolidated balance sheet at April 30, 2011.

Undistributed earnings of Schneider Power at April 30, 2011 are considered to be indefinitely reinvested and, accordingly, no provisions for federal and state income taxes have been provided thereon. Upon distribution of those earnings in the form of dividends or otherwise, we would be subject to both U.S. income taxes (subject to an adjustment for foreign tax credits) and withholding taxes payable to various foreign countries. Determination of the amount of unrecognized deferred income tax liability related to these earnings is not practicable.

For the year ended April 30, 2011, \$0.1 million was recognized as an income tax expense attributable to operations and \$0.3 million was recognized as an income tax benefit attributable to other comprehensive income. Income tax expense reported for the years ended April 30, 2010 and 2009 was entirely attributable to operations.

Loss from operations before income taxes for the years ended April 30, 2011, 2010 and 2009 attributable to domestic operations was \$8.1 million, \$46.2 million, and \$28.0 million, respectively, and loss attributable to foreign operations was \$3.2 million, \$0.1 million, and zero, respectively.

At April 30, 2011, we had federal net operating loss carryforwards of approximately \$211 million available to offset future federal taxable income that expire between the years 2021 and 2030. We had state net operating loss carryforwards of approximately \$112 million available to offset future state taxable income that expire between the years 2014 and 2021.

We have no unrecognized tax benefits for uncertain tax positions as defined under GAAP for any of the periods presented. To the extent applicable in the future, interest and penalties related to income tax liabilities will be included in pre-tax income as interest expense and tax penalties.

At April 30, 2011, our U.S. federal tax returns related to fiscal years ended April 30, 2007 through April 30, 2011 remain open to examination by the tax authorities. However, we have consolidated or acquired net operating losses beginning in the tax year ended September 27, 1998 that would cause the statute of limitations to remain open for the year in which the net operating loss was incurred.

The U.S. tax laws contain provisions (Section 382 limitations) that limit the annual utilization of net operating loss and credit carryforwards upon the occurrence of certain events including a significant change in ownership interest. Generally, such limitations arise when the ownership of certain shareholders or public groups in the stock of a corporation change by more than 50 percentage points over a three-year period. We had incurred such an event in the past which limits the future use of our losses and may result in expiration of a portion of the losses before utilization. We may also have incurred such an event or events over recent years; however, we have not completed a current study to determine the extent of the limitations. Until a study is completed and the extent of the limitations is able to be determined, no amounts are being presented as an uncertain tax position.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

15. Earnings (Loss) Per Share

We compute net income (loss) per share by dividing the net income (loss) for the period by the weighted average number of common shares outstanding during the period. Diluted net income (loss) per share is computed by dividing the net income (loss) for the period by the weighted average number of common and common equivalent shares outstanding during the period. We consider common equivalent shares from the exercise of stock options, warrants and convertible debt payable in the instance where the shares are dilutive to our net income. The effects of stock options, warrants and convertible debt were anti-dilutive for all periods presented.

The following table sets forth the computation of basic and diluted loss per share:

	Year Ended April 30		
	2009	2010	2011
Numerators for basic and diluted loss per share data:			
Net loss attributable to stockholders	\$(27,992,652)	\$(46,294,327)	\$(11,030,405)
Denominator for basic and diluted loss per share data—weighted-average shares			
	4,600,666	6,459,899	9,700,395
Basic and diluted per share data:			
Net loss attributable to stockholders	\$ (6.08)	\$ (7.17)	\$ (1.14)

For the three fiscal years ending April 30, 2011 presented above, shares of common stock potentially issuable upon the exercise of options, warrants and convertible notes, in addition to shares potentially issuable in satisfaction of term note obligations were excluded in the computation of diluted per share data, as the effects would be anti-dilutive.

The following table sets forth the amount of shares excluded from the computation of diluted earnings per share, as to do so would have been anti-dilutive:

	As of April 30,		
	2009	2010	2011
Stock Options	236,928	213,023	420,784
Warrants	1,638,051	2,333,322	4,916,374
Convertible Notes	327,803	757,559	1,298,151
Term Notes	1,876,901	631,187	300,000
Lender Commitment	—	704,225	—
	<u>4,079,683</u>	<u>4,639,316</u>	<u>6,935,309</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

16. Quarterly Results of Operations (unaudited)

A summary of the unaudited quarterly results of operations follows (in thousands, except per share amounts):

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
Fiscal Year 2010				
Net product sales	\$ 188	\$ 425	\$ 475	\$ 362
Contract revenue	2,906	2,230	1,005	2,014
Total revenue	3,094	2,655	1,480	2,376
Cost of product sales	267	595	329	382
Gross profit (loss) on product sales	(79)	(170)	146	(20)
Research and development expense	3,795	3,509	2,946	3,284
Net income (loss)	(12,264)	(42,673)	14,143	(5,500)
Net income (loss) per share—basic	(2.34)	(7.00)	2.00	(0.74)
Net income (loss) per share—diluted	(2.34)	(7.00)	0.40	(0.74)
Weighted average shares outstanding:				
Basic	5,238	6,094	7,074	7,465
Diluted	5,238	6,094	8,627	7,465
	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
Fiscal Year 2011				
Net product sales	\$ 644	\$ 835	\$ 953	\$ 2,112
Contract revenue	2,916	3,050	3,653	6,111
Total revenue	3,560	3,885	4,606	8,223
Cost of product sales	559	878	754	1,502
Gross profit (loss) on product sales	85	(43)	199	610
Research and development expense	3,731	4,177	5,021	5,169
Net loss	(1,615)	(1,455)	(7,752)	(208)
Net loss per share—basic	(0.18)	(0.15)	(0.82)	(0.02)
Net loss per share—diluted	(0.18)	(0.15)	(0.82)	(0.02)
Weighted average shares outstanding:				
Basic	9,018	9,390	9,400	11,037
Diluted	9,018	9,390	9,400	11,037

17. Business Segments and Geographic Information

Business Segments

We classify our business operations into three reporting segments: Electric Drive & Fuel Systems, Renewable Energy (beginning April 16, 2010 with the acquisition of SPI) and Corporate.

The chief operating decision maker allocates resources and tracks performance by the reporting segments. We evaluate performance based on profit or loss from operations before interest and income taxes.

Electric Drive & Fuel Systems Segment

Our Electric Drive & Fuel Systems segment supplies advanced propulsion and fuel systems for alternative fuel vehicles to OEM customers for use by consumers and for commercial and government fleets. Since 1997, we

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

have sold approximately 20,000 fuel systems for alternative fuel vehicles. We also provide our propulsion systems and hydrogen storage products for hybrid and fuel cell applications to major OEMs and certain governmental agencies through funded research and development contracts and on a prototype and production intent basis. This segment's business operations primarily consist of design, integration and supply of electric drive and control system technologies and manufacture and supply of packaged fuel systems for use in hybrid, plug-in electric hybrid, hydrogen, fuel cell, and other alternative fuel vehicles.

Our Electric Drive & Fuel Systems segment generates product revenues through: (i) the sale of hybrid sub-systems and control systems included in the *Q-Drive* powertrain system for the Fisker Karma production vehicle, (ii) hydrogen and compressed natural gas (CNG) fuel storage, fuel delivery, and electronic control systems to OEMs, (iii) the installation of our systems into OEM vehicles, (iv) the sale of transportable hydrogen refueling stations, and (v) the sale of CNG, propane (LPG), and hydrogen fuel storage, fuel delivery, and electronic control systems for internal combustion engine applications.

Our Electric Drive & Fuel Systems segment generates contract revenue by providing engineering design and support to OEMs, primarily Fisker Automotive and General Motors, so that our advanced propulsion systems integrate and operate with the OEM's hybrid or fuel cell applications. Contract revenue is also generated from customers in the aerospace industry, military and other governmental entities and agencies, and other strategic alliance partners.

Renewable Energy Segment

Our Renewable Energy segment consists solely of the business operations of SPI. SPI, headquartered in Toronto, Ontario, Canada, is an independent power producer, developer of renewable energy projects and provider of related development services and is a licensed electricity generator and wholesaler. Our development of renewable energy projects involves several sequential stages of completion and advancement before a project becomes operational. Feasibility studies are conducted to obtain sufficient data to validate the wind and/or solar energy capacity from a prospective project. Easements are negotiated with local landowners to allow for the development of an energy farm on their properties. Applications are submitted to local utility providers to obtain approvals for grid interconnections, and environmental assessments and feasibility studies are completed and submitted to Federal, Provincial and Municipal governments to obtain permits for construction and commissioning. Finally, Power Purchase Agreements (PPAs) are secured with a utility provider or power broker as a project approaches the construction and operational stage.

Wind and solar energy project returns depend mainly on the following factors: energy prices, transmission costs, wind and solar resources, wind turbine and solar module costs, construction costs, financing cost and availability of government incentives. In applying our strategy, we take into account the combination of all of these factors and focus on margins, return on invested capital and value creation as opposed solely to project size. We assess the profitability of each project by evaluating its net present value.

In addition to energy sales on our existing wind electricity generation facility and future wind and solar energy facilities that we are currently developing, we anticipate generating revenues and cash flows through the sale of ownership interests in our renewable energy projects and through development and construction services for renewable energy projects owned by third parties.

Corporate Segment

The Corporate segment consists of general and administrative expenses incurred at the corporate level that are not directly attributable to the Electric Drive & Fuel Systems or Renewable Energy reporting segments.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Corporate expenses consist primarily of personnel costs, share-based compensation costs and related general and administrative costs for executive, finance, legal, human resources, investor relations and our board of directors.

All activities of Quantum Solar, which is still in the preliminary phase of its anticipated solar module manufacturing operation are included in our Corporate segment and to date principally consist of partial payments on long lead assembly equipment under construction for solar module production capability. Once Quantum Solar commences its manufacturing operations, we anticipate that we will report these activities under a new business segment separate from the Electric Drive & Fuel Systems, Renewable Energy and Corporate reporting segments.

Geographic Information

Our long-lived assets as of April 30, 2010 and April 30, 2011 are primarily based within facilities in Irvine and Lake Forest, California and on our wind farm located in Ontario, Canada. We also own land in Nova Scotia, Canada that we are developing as a renewable energy project. Our affiliate, Asola, is based in Erfurt, Germany.

Our revenue by country is as follows (in thousands):

	Year Ended April 30,		
	2009	2010	2011
	(in thousands)		
United States	\$20,589	\$8,753	\$15,344
Germany	2,577	557	2,470
Finland	—	—	1,392
Canada	—	87	904
India	—	176	130
France	—	—	21
China	—	—	13
Iceland	71	28	—
Japan	21	3	—
Other	—	1	—
Total	<u>\$23,258</u>	<u>\$9,605</u>	<u>\$20,274</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Financial Information by Business Segment

Selected financial information by business segment is as follows:

	Year Ended April 30,		
	2009	2010	2011
Total Revenue			
Electric Drive & Fuel Systems	\$ 23,257,720	\$ 9,590,085	\$ 19,605,178
Renewable Energy	—	15,064	669,070
Corporate	—	—	—
Total	<u>\$ 23,257,720</u>	<u>\$ 9,605,149</u>	<u>\$ 20,274,248</u>
Operating Loss			
Electric Drive & Fuel Systems	\$(14,398,443)	\$(10,910,416)	\$ (5,689,421)
Renewable Energy	—	(76,904)	(2,873,876)
Corporate	(10,718,785)	(9,517,294)	(9,249,974)
Total	<u>\$(25,117,228)</u>	<u>\$(20,504,614)</u>	<u>\$(17,813,271)</u>
Product Gross Profit (Loss)			
Electric Drive & Fuel Systems:			
Net product sales	\$ 975,098	\$ 1,437,467	\$ 4,231,695
Cost of product sales	(2,288,237)	(1,559,546)	(3,592,623)
Gross profit (loss)	<u>\$ (1,313,139)</u>	<u>\$ (122,079)</u>	<u>\$ 639,072</u>
Renewable Energy:			
Net product sales	\$ —	\$ 12,992	\$ 312,063
Cost of product sales	—	(13,834)	(100,203)
Gross profit	<u>\$ —</u>	<u>\$ (842)</u>	<u>\$ 211,860</u>
Capital Expenditures			
Electric Drive & Fuel Systems	\$ 2,663,315	\$ 337,821	\$ 269,056
Renewable Energy	—	—	1,482,526
Corporate	2,157,000	108,000	—
Total	<u>\$ 4,820,315</u>	<u>\$ 445,821</u>	<u>\$ 1,751,582</u>
Depreciation			
Electric Drive & Fuel Systems	\$ 1,808,469	\$ 1,219,405	\$ 1,147,070
Renewable Energy	—	13,087	96,375
Corporate	11,000	36,000	33,890
Total	<u>\$ 1,819,469</u>	<u>\$ 1,268,492</u>	<u>\$ 1,277,335</u>
Amortization and Impairment of Intangibles and Other Long-Lived Assets			
Electric Drive & Fuel Systems	\$ 7,020,607	\$ —	\$ —
Renewable Energy	—	869,242	1,425,893
Total	<u>\$ 7,020,607</u>	<u>\$ 869,242</u>	<u>\$ 1,425,893</u>

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Identifiable assets by reporting segment are as follows:

	April 30, 2010	April 30, 2011
Identifiable Assets		
Electric Drive & Fuel Systems	\$38,777,359	\$41,040,995
Renewable Energy—asset held for sale	2,089,947	—
Renewable Energy—all other assets	14,717,614	14,699,500
Corporate	17,433,207	16,229,552
	\$73,018,127	\$71,970,047

Research and development is expensed as incurred and is related to the operations of the Electric Drive & Fuel Systems and Renewable Energy business segments for each of the periods presented. Research and development expense includes both customer-funded research and development and internally-sponsored research and development. Customer-funded research and development consists primarily of expenses associated with contract revenue. These expenses include applications development costs in our Electric Drive & Fuel Systems business segment that are funded under customer contracts.

18. Revenue and Purchase Concentrations

Fisker Automotive comprised 59%, 46% and 56%, General Motors comprised 13%, 12% and 13%, and U.S. Army comprised 13%, 11% and 1%, of the total consolidated revenue reported for the fiscal years ended April 30, 2009, 2010 and 2011, respectively.

As of April 30, 2010 and 2011, Fisker Automotive's accounts receivable comprised 45% and 61%, and General Motors and affiliated companies' accounts receivable comprised 7% and 14%, of our total outstanding accounts receivable, respectively.

During fiscal years 2009, 2010 and 2011, respectively, purchases from one supplier constituted approximately 26%, 20% and 15% of net raw materials purchases. In fiscal year 2009, 2010 and 2011, ten suppliers accounted for approximately 80%, 75% and 70% of net raw materials purchases, respectively.

19. Commitments and Contingencies

Leases

We have certain non-cancelable operating leases for facilities and equipment. Future minimum lease commitments under non-cancelable operating leases at April 30, 2010 are as follows:

	Lease Obligation
Fiscal year 2012	\$ 2,825,104
Fiscal year 2013	2,892,760
Fiscal year 2014	2,978,936
Fiscal year 2015	3,068,585
Fiscal year 2016	744,465
Thereafter	—
Total minimum lease payments	\$12,509,850

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Total rental expense under the operating leases of continuing operations for fiscal years ended April 30, 2009, 2010 and 2011 was approximately \$1.7 million, \$2.8 million and \$2.9 million, respectively. These leases are non-cancelable and certain leases have renewal options and escalation clauses.

Our corporate headquarters is located in Irvine, California. The facility in Irvine is leased from Cartwright, LLC and another unrelated party (collectively referred to as "Cartwright LLC"). Our chief executive officer and an irrevocable trust established by our chairman of the board own 50% and 36.67%, respectively, of Cartwright, LLC. The remaining 13.33% of Cartwright, LLC is owned by an unrelated party. The lease has an effective date of November 1, 2008 and expires on October 31, 2015. We made cash payments to Cartwright LLC during fiscal years ended April 30, 2009, 2010 and 2011 in amounts totaling \$0.9 million, \$0.7 million and \$1.0 million, respectively.

Obligations under Solar Cell Supply Arrangement

We have obligations pursuant to an arrangement with Asola under which we agreed to purchase one-half of Asola's rights and obligations under a certain long-term solar cell supply agreement that Asola executed with one of its solar cell suppliers. Our arrangement with Asola and our obligations under the arrangement are more fully described in Note 6.

Contingencies

We and our affiliates are subject to various legal proceedings and claims which arise out of the normal course of our business. Management and our legal counsel periodically review the probable outcome of pending proceedings and the costs reasonably expected to be incurred. We accrue for these costs when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. In the opinion of management, any ultimate cost to us in excess of amounts accrued will not materially affect our consolidated financial position, results of operations or cash flows.

Compensation Plan

We sponsor a defined contribution plan (the "401K Plan") that is qualified under Internal Revenue Service Code Section 401(k). The 401K Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (ERISA).

Under the 401K Plan, all applicable employees who are at least age twenty-one or older are eligible to participate in the 401K Plan at the beginning of the next month after their first day of employment with us. Contributions to the 401K Plan are based on funding standards established by ERISA. Our matching contributions under the 401K Plan are discretionary and match elective salary deferrals up to 3% of compensation.

Contributions attributable to us for continuing operations approximated \$0.3 million, \$0.2 million and \$0.2 million for fiscal years ended April 30, 2009, 2010 and 2011, respectively.

Employment Agreements

We have entered into employment agreements with our Chief Executive Officer and other executive officers and senior managers which provide for annual base salary, other benefits and severance obligations. Our total obligation under the terms of these agreements is approximately \$5.6 million for those agreements that are in

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

place as of May 1, 2011. The total obligation consists of the estimated minimum contractual obligations under the arrangements assuming a termination of employment without cause initiated by us and benefit continuation to the employees assuming a cost to us of 15% of base salaries.

Strategic Alliance with General Motors

Pursuant to the strategic alliance with General Motors, we have committed to spend \$4.0 million annually for specific research and development projects directed by General Motors to speed the commercialization of our fuel cell related products. Since this commitment was waived or partially waived by General Motors for calendar years 2002 through 2010, we anticipate that this commitment will be waived or partially waived in the future. During fiscal 2011 there were no directed research and development activities pursuant to the strategic alliance.

The strategic alliance also requires us to pay royalties for products sold using certain technologies covered by the alliance as follows: Beginning July 24, 2005 for non-automotive applications and July 24, 2008 for automotive applications, we are obligated to provide revenue sharing payments to General Motors based on a percentage of gross revenue derived from sales of applications developed under the strategic alliance. The revenue sharing payments will equal 5% of applicable gross revenue through July 23, 2015, 4% for the ten-year period ending July 23, 2025, 3% for the ten-year period ending July 23, 2035, and 2% for the ten-year period ending July 23, 2045. On July 23, 2045, we will also be obligated to provide a final revenue sharing payment to General Motors equal to the present value of future revenue sharing payments that would otherwise be payable to General Motors on an annual basis assuming an income stream to General Motors of 2% of our gross revenues in perpetuity. No royalty expense was incurred under the arrangement for any of the periods presented in the financial statements.

20. Subsequent Events

On May 10, 2011, a Special Meeting of Stockholders was held. In connection with the special meeting, our stockholders authorized an increase in the number of authorized shares of our common stock from 20,000,000 to 50,000,000.

On various dates between May 12, 2011 and May 23, 2011, the senior lender made principal reduction demands under Term Note B that required us to pay \$1.8 million of principal remaining under the note, in separate demands ranging from \$0.3 million to \$0.5 million. For each demand, we elected to use our shares to satisfy the required principal reductions. We issued a total of 399,416 shares to satisfy these demands made subsequent to our most recent balance sheet date.

On May 9, 2011 and May 20, 2011, we entered into a bridge note and warrant purchase agreement with certain accredited investors, for the purchase and sale of senior subordinated promissory notes (the "2011 Bridge Notes") and warrants (the "2011 Bridge Warrants"). We received total gross proceeds of \$1.5 million and issued warrants entitling the investors to receive up to an aggregate of 168,768 shares of our common stock at a fixed exercise price of \$2.92 per share. We paid our placement agent a total cash fee of \$0.1 million. The notes have an annual interest rate of 15.0%. Principal and accrued interest is due and payable on September 30, 2011. The warrants expire in May 2014.

On June 15, 2011, we completed a private placement offering of common stock and warrants pursuant to which we raised cumulative gross proceeds of \$7.5 million from the sale of 2,409,795 shares of our common stock to investors at a price of \$3.12 per share. The investors received warrants entitling them to receive up to an aggregate of 1,445,862 shares of our common stock at a fixed exercise price of \$3.85 per share which expire in

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

June 2016. We paid our placement agent a total cash fee of \$0.9 million and issued warrants entitling the placement agent to receive up to an aggregate of 450,000 and 307,250 shares of our common stock at a fixed exercise price of \$3.12 and \$3.85 per share, respectively, which expire in June 2018.

On June 29, 2011, we entered into a sublease agreement with an unrelated third party for one of our facilities located in Lake Forest, California, consisting of approximately 62,000 square feet. The term of the sublease commences on July 1, 2011 and expires on May 31, 2015. Except as set forth in the sublease agreement, the sublease agreement does not modify or limit the terms and conditions of our existing lease agreement, dated April 1, 2009, between us and our landlord. The remaining obligations under our existing lease are \$2.2 million in excess of the base rents that we have a contractual right to receive under the sublease agreement.

On July 1, 2011, we entered into a private placement offering of common stock and warrants pursuant to which we expect to receive cumulative gross proceeds of \$2.2 million from the sale of 699,548 shares of our common stock to investors at a price of \$3.12 per share. The investors will receive warrants entitling them to receive up to an aggregate of 419,726 shares of our common stock at a fixed exercise price of \$3.85 per share which expire in July 2016. Upon receipt of the gross proceeds, we will pay our placement agent a total cash fee of \$0.2 million and will issue warrants entitling the placement agent to receive up to an aggregate of 89,207 shares of our common stock at a fixed exercise price of \$3.85 per share, respectively, which expire in July 2018.

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS

Valuation and qualifying accounts of our continuing operations are as follows:

<u>Account Description</u>	<u>Balance at Beginning of Year</u>	<u>Additions Charged (Credited) to Costs and Expenses</u>	<u>Deductions and Other Adjustments</u>	<u>Balance at End of Year</u>
Allowance for doubtful accounts for the year ended:				
April 30, 2009	\$ 606,961	\$ (80,922)	\$ (81,436)	\$ 444,603
April 30, 2010	444,603	9,316	(381,810)	72,109
April 30, 2011	72,109	131,791	(27,149)	176,751
Provision for obsolescence reserve for the year ended:				
April 30, 2009	\$1,055,548	\$1,294,945	\$ (85,225)	\$2,265,268
April 30, 2010	2,265,268	618,357	(2,374)	2,881,251
April 30, 2011	2,881,251	154,879	5,258	3,041,388
Warranty reserve for the year ended:				
April 30, 2009	\$ 665,606	\$ (22,823)	\$(419,290)	\$ 223,493
April 30, 2010	223,493	340,444	(474,183)	89,754
April 30, 2011	89,754	(1,071)	(41,030)	47,653

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: July 1, 2011

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

By: /s/ WILLIAM B. OLSON
William B. Olson, Chief Financial Officer and Treasurer
[Authorized Signatory and Principal Financial Officer]

Power of Attorney

Each director and officer of the Company whose signature appears below hereby appoints Alan P. Niedzwiecki and W. Brian Olson, and each of them individually, as his or her true and lawful attorney-in-fact and agent to sign in his name and behalf, in any and all capacities stated below, and to file this Annual Report with the Securities and Exchange Commission.

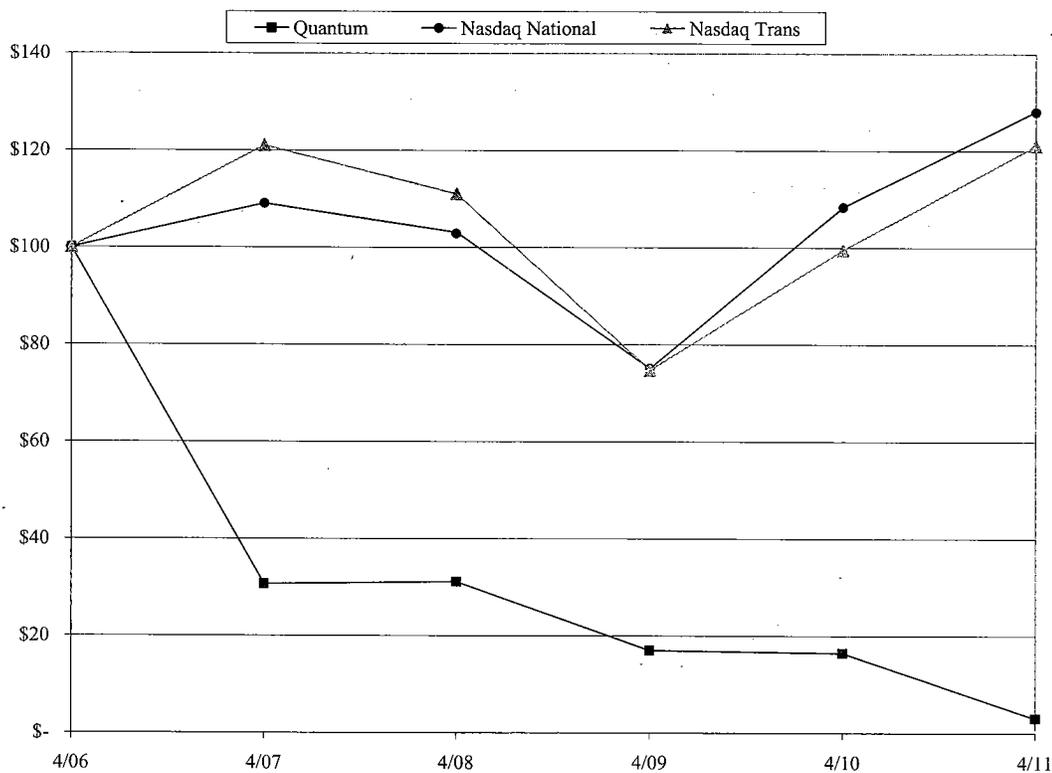
Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report has been signed below by the following persons on behalf of the Company in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u> /s/ ALAN P. NIEDZWIECKI </u> Alan P. Niedzwiecki	President, Chief Executive Officer and Director (Principal Executive Officer)	July 1, 2011
<u> /s/ W. BRIAN OLSON </u> W. Brian Olson	Chief Financial Officer and Treasurer (Principal Financial Officer)	July 1, 2011
<u> /s/ BRADLEY J. TIMON </u> Bradley J. Timon	Controller (Principal Accounting Officer)	July 1, 2011
<u> /s/ DALE L. RASMUSSEN </u> Dale L. Rasmussen	Chairman of the Board of Directors	July 1, 2011
<u> /s/ DAVID M. MAZAIKA </u> David M. Mazaika	Chief Operating Officer	July 1, 2011
<u> /s/ BRIAN A. RUNKEL </u> Brian A. Runkel	Director	July 1, 2011
<u> /s/ G. SCOTT SAMUELSEN </u> G. Scott Samuelsen	Director	July 1, 2011
<u> /s/ CARL E. SHEFFER </u> Carl E. Sheffer	Director	July 1, 2011
<u> /s/ PAUL GRUTZNER </u> Paul Grutzner	Director	July 1, 2011
<u> /s/ JONATHON LUNDY </u> Jonathon Lundy	Director	July 1, 2011

Five-Year Stock Performance Graph

The following information does not constitute soliciting material and should not be deemed filed or incorporated by reference into any other company filings under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent the company specifically incorporates the report herein.

The following performance graph compares the cumulative stockholder return on our common stock on an annual basis, assuming an initial investment of \$100, for the period beginning on April 30, 2006 and ending on April 30, 2011, with the cumulative total return of a broad market index (NASDAQ National Stock Market – CRSP Total Return Index) and an industry index (NASDAQ Transportation Stock Index) for the same period. We paid no dividends during the periods shown; the performance of the indexes is shown on a total return (dividend reinvestment) basis. The graph lines merely connect the prices on the dates indicated and do not reflect fluctuations between those dates. The comparisons in the graph below are based on historical data and are not intended to forecast the possible future performance of our common stock.



U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K/A
(Amendment No. 1)

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

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

For the transition period from

to

Commission File No.: 0-49629

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.
(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

33-0933072
(IRS Employer
Identification Number)

17872 Cartwright Road, Irvine, CA 92614
(Address of principal executive offices, including zip code)

(949) 399-4500

(Registrant's telephone number, including area code)

Not Applicable

(Former name, former address and former fiscal year, if changed since last report)

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

None

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

Common Stock, \$0.02 par value per share

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

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

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 No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to rule 405 of the Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or such shorter period that the registrant was required to submit and post such files). Yes No

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.

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company (as defined in Exchange Act Rule 12b-2).

Large accelerated filer Accelerated filer Non-accelerated filer 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 No

The aggregate market value of the common stock held by non-affiliates of the Registrant as of October 31, 2010 was approximately \$85.0 million, based upon the closing sale price of the Registrant's common stock on such date, as reported on the Nasdaq Global Market. Shares of Common stock held by each executive officer and director and each person owning more than 10% of the outstanding common stock of the Registrant have been excluded in that such persons may be deemed to be affiliates of the Registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Number of shares outstanding of each of the issuer's classes of common stock as of July 31, 2011: 15,591,054 shares of common stock, \$.02 par value per share, and 49,998 shares of Series B common stock, \$.02 par value per share.

DOCUMENTS INCORPORATED BY REFERENCE

None.

QUANTUM FUEL SYSTEMS TECHNOLOGIES WORLDWIDE, INC.

FORM 10-K/A

Explanatory Note

This Amendment No. 1 on Form 10-K/A amends the Annual Report on Form 10-K of Quantum Fuel Systems Technologies Worldwide, Inc., for the fiscal year ended April 30, 2011 as originally filed with the Securities and Exchange Commission (SEC) on July 5, 2011 (the "Original Filing"). This Form 10-K/A amends the Original Filing to replace in its entirety the information provided in Part III of the Original Filing, which is required to be filed within 120 days from our fiscal year end. In addition, this Form 10-K/A amends Item 15 of Part IV of the Original Filing to include new certifications by our Chief Executive Officer and Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002 as required by Rule 12b-15 under the Securities Exchange Act of 1934, as amended. Because this Form 10-K/A includes no financial statements, we are not including certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Except for the amendment described above, we have not modified or updated disclosures presented in the Original Filing in this Form 10-K/A. Accordingly, this Form 10-K/A does not reflect events occurring after the filing of the Original Filing or modify or update those disclosures affected by subsequent events. Information not affected by this amendment remains unchanged and reflects the disclosures made at the time the Original Filing was filed. Therefore, this Form 10-K/A should be read in conjunction with the Original Filing and any documents incorporated by reference therein and our filings made with the SEC subsequent to the Original Filing.

Unless the context otherwise requires, "the Company," "Quantum," "we," "our," "us" and similar expressions refers to Quantum Fuel Systems Technologies Worldwide, Inc. and its subsidiaries.

INDEX TO FORM 10-K/A

PART III

Item 10	Directors, Executive Officers and Corporate Governance	1
Item 11	Executive Compensation	4
Item 12	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	16
Item 13	Certain Relationships and Related Transactions, and Director Independence	19
Item 14	Principal Accounting Fees and Services	20

PART IV

Item 15	Exhibits and Financial Statement Schedules	21
Exhibit 31.1	Certification by the Chief Executive Officer	
Exhibit 31.2	Certification by the Chief Financial Officer	

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Directors

Our Amended and Restated Certificate of Incorporation, as amended ("Certificate of Incorporation"), gives our Board of Directors the authority to fix, from time to time, the size of our board; provided that, the number shall not be less than four nor more than eleven. The size of our board is currently fixed at seven members. In accordance with our Certificate of Incorporation and Amended and Restated Bylaws ("Bylaws"), the terms of office of our Board of Directors are divided into three classes as nearly equal in size as possible with staggered three-year terms: Class I, whose term will expire at the upcoming Annual Meeting for fiscal year 2011, Class II, whose term will expire at the annual meeting of stockholders for fiscal year 2012, and Class III, whose term will expire at the annual meeting of stockholders for fiscal year 2013. Our Class I directors are Paul E. Grutzner, Brian A. Runkel and Carl E. Sheffer, our Class II directors are G. Scott Samuelsen and Jonathan Lundy, and our Class III directors are Alan P. Niedzwiecki and Dale L. Rasmussen.

At each annual meeting of stockholders, the successors to the directors whose terms will then expire are elected to serve from the time of their election and qualification until the third annual meeting following their election or until their successors have been duly elected and qualified, or until their earlier resignation or removal. The classification of our Board of Directors could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from acquiring, control of our Company.

Pursuant to our strategic alliance with General Motors, LLC ("General Motors"), successor to General Motors Corporation, we agreed to nominate one individual designated by General Motors to our Board of Directors during the term of the strategic alliance. In addition, General Motors is also entitled to designate a non-voting "ex-officio" member of the Board of Directors during the term of our strategic alliance. The non-voting observer has no authority to exercise the powers of a director in the management of our company. As of the date of this Form 10-K/A, General Motors has not presented a director nominee for stockholder vote, nor has it designated a non-voting observer.

Below is the name, age, term of service, principal occupation and certain other pertinent information of our board members:

Directors Whose Terms Continue Until the Annual Meeting for Fiscal Year 2011

Paul E. Grutzner, age 46, has served as one of our directors since July 2005. Mr. Grutzner founded ClearPoint Financial, LP, an independent pension consulting firm in 2002, and currently serves as its Managing Partner. Prior to founding ClearPoint Financial, LP, Mr. Grutzner held positions consulting on retirement plans with RBC Dain Rauscher and CIBC Oppenheimer. He received a B.S. in Agricultural Economics and Sociology from the University of Wisconsin, Madison.

Brian A. Runkel, age 49, has served as one of our directors since July 2002. Since 1993, Mr. Runkel has served as President of Runkel Enterprises, an environmental consulting firm. Mr. Runkel also serves as Executive Director of the California Environmental Business Council, a non-profit trade and business association representing the California environmental technology and services industries. He received a B.A. in International Relations from George Washington University, and a J.D. from Harvard Law School.

Carl E. Sheffer, age 65, has served as one of our directors since March 2005. Mr. Sheffer is President of Sheffer Enterprises, LLC, a consulting organization focused on the automotive industry, and has over 35 years of experience in the automotive industry. Prior to forming Sheffer Enterprises, Mr. Sheffer was Vice President, OEM Relations, for the Specialty Equipment Market Association ("SEMA"). During his 8½ years with SEMA, Mr. Sheffer was responsible for all of the association's interactions with the original equipment manufacturers (OEMs), including trade show participation, technology transfer programs, new vehicle measuring sessions and

various dealer relations initiatives. Between 1972 and 1999, Mr. Sheffer held a variety of roles in human resources management, manufacturing, public relations and public policy for General Motors Corporation. Mr. Sheffer received a B.S. in business administration from Central Michigan University and a Master's degree from Oakland University.

Directors Whose Terms Continue Until the Annual Meeting for Fiscal Year 2012

G. Scott Samuelsen, age 68, has served as one of our directors since July 2002. Since 1970, Dr. Samuelsen has been a professor at the University of California, Irvine, and is today a Professor of Mechanical, Aerospace and Environmental Engineering, Henry Samueli Endowed Chair, and serves as the Director of the National Fuel Cell Research Center, the UCI Combustion Laboratory, and the Advanced Power and Energy Program. He also serves as a co-Chair of the California Stationary Fuel Cell Collaborative, and a Fellow of the American Society of Mechanical Engineers. Dr. Samuelsen received B.S., M.S. and Ph.D. degrees in Mechanical Engineering from the University of California, Berkeley.

Jonathan Lundy, age 48, was appointed to our Board of Directors on April 16, 2010 in connection with our acquisition of Schneider Power Inc. Upon closing of the acquisition, we agreed to appoint Mr. Lundy, who was nominated by Schneider Power, to our Board. Mr. Lundy is currently serving as Senior Vice President, General Counsel and Corporate Secretary of Atomic Energy Canada Limited, a full-service nuclear energy company that provides services to nuclear utilities around the world. Prior to joining Atomic Energy, Mr. Lundy was the Chief Executive Officer of Schneider Power where he also served on the board of directors and the audit and compensation committees. Mr. Lundy's prior experience includes seven years as an executive officer of Hydrogenics Corporation where he served as President-Power and Generation from 2004 through 2007 and as Vice President-Corporate Development and General Counsel from 2000 through 2004. Mr. Lundy also previously worked as a corporate and securities lawyer at each of Osler, Hoskin and Harcourt LLP and Heenan Blaikie LLP in Toronto, Canada. Mr. Lundy received a Bachelor of Arts and Bachelor of Laws from the University of Western Ontario.

Directors Whose Terms Continue Until the Annual Meeting for Fiscal Year 2013

Alan P. Niedzwiecki, age 54, has served as our President and on our Board of Directors since February 2002, and was appointed as our Chief Executive Officer in August 2002. Mr. Niedzwiecki served as our Chief Operating Officer from November 2001 until he was appointed as our Chief Executive Officer in August 2002. From October 1999 to November 2001, Mr. Niedzwiecki served as our Executive Director of Sales and Marketing. From February 1990 to October 1999, Mr. Niedzwiecki was President of NGV Corporation, an engineering and marketing/commercialization consulting company. Mr. Niedzwiecki has more than 25 years of experience in the alternative fuels industry in product and technology development and commercialization relating to mobile, stationary power generation and refueling infrastructure solutions. Mr. Niedzwiecki is a graduate of Southern Alberta Institute of Technology.

Dale L. Rasmussen, age 61, has served as a member of our Board of Directors since October 2000, and was appointed as Chairman of the Board in February 2002. On May 1, 2006, Mr. Rasmussen became a full-time employee of the Company. His areas of responsibility include acquisitions, joint ventures, strategic alliances and investor and stockholder relations. Mr. Rasmussen was the Senior Vice President and Secretary of IMPCO Technologies, Inc., a Delaware corporation, from 1989 through 2005. Prior to joining IMPCO, Mr. Rasmussen was a commercial banker for twelve years and was responsible for managing the bank's investment portfolio and branch and corporate development. Mr. Rasmussen is a graduate of Western Washington University and Pacific Coast Banking School, University of Washington.

Executive Officers

A list of our executive officers is included in Part I, Item 1 of the Original Filing under the heading "Executive Officers."

Corporate Governance

Board Independence

Nasdaq listing standards require that a majority of the members of a listed company's board of directors qualify as "independent," as defined under Nasdaq rules and as affirmatively determined by the board of directors. After review of all the relevant transactions or relationships between each director (and his family members) and the Company, senior management, and our independent auditors, our Board of Directors has affirmatively determined that at all times during the 2011 fiscal year at least four of the seven directors (Messrs. Grutzner, Runkel, Samuelsen and Sheffer) were independent directors within the meaning of applicable Nasdaq rules.

Committees of the Board of Directors

Audit Committee. The Corporation has a separately-designated standing Audit Committee of the Board of Directors established in accordance with Section 3(a)(58)(A) of the Exchange Act of 1934, as amended. During fiscal year 2011, the members of our Audit Committee were Messrs. Grutzner (Chair), Runkel and Samuelsen, each of whom is "independent" under applicable Nasdaq rules. During fiscal year 2011, there were seven meetings of the Audit Committee. The Audit Committee reviews our accounting and auditing procedures, reviews our audit and examination results and procedures and consults with our management and our independent auditors prior to the presentation of our financial statements to stockholders. The Audit Committee is directly responsible for the appointment, compensation and oversight of the independent auditors and reviews the independence of the independent auditors as a factor in making these determinations. The Audit Committee meets alone with our independent auditors and with management in separate executive sessions and grants our independent auditors free access to the Audit Committee at any time.

The Board of Directors has determined that each current member of the Audit Committee (i) meets the criteria for independence set forth in applicable SEC rules and regulations, including Rule 10A-3(b) under the Exchange Act, (ii) is an "independent" director as defined in applicable Nasdaq rules, including Rule 5605(a)(2) thereof, (iii) has not participated in the preparation of our financial statements at any time during the past three years, and (iv) is able to read and understand fundamental financial statements. The Board of Directors has determined that Paul E. Grutzner has the requisite financial sophistication required under Rule 5605(c)(2) of the Nasdaq Rules and has the requisite attributes of an "audit committee financial expert" in accordance with Item 407(d)(5) of Regulation S-K.

The Board of Directors has adopted a formal Audit Committee Charter, which is available on our website at www.qtwv.com under "Company-Corporate Governance-Corporate Governance Charters."

Compensation Committee. The current members of our Compensation Committee are Messrs. Grutzner, Runkel and Samuelsen (Chair), each of whom is "independent" under applicable Nasdaq rules. During fiscal year 2011, there were eight meetings of the Compensation Committee. The Compensation Committee reviews and makes recommendations to our Board of Directors concerning salaries and incentive compensation for our officers and employees, identifies performance measures for our executive officers, oversees the administration of our employee benefit plans and approves new plans. The Compensation Committee administers our 2002 Stock Incentive Plan.

The Board of Directors has adopted a formal Compensation Committee Charter, which is available on our website at www.qtwv.com under "Company-Corporate Governance-Corporate Governance Charters."

Nominating and Governance Committee. The members of our Nominating and Governance Committee are Messrs. Grutzner, Runkel (Chair) and Sheffer, each of whom is "independent" under applicable Nasdaq rules. During fiscal year 2011, there were two meetings of the Nominating and Governance Committee. The Nominating and Governance Committee is responsible for identifying and recommending qualified individuals to become members of our Board of Directors, determining the composition of the Board of Directors and its

committees, reviewing Board of Directors' compensation and benefits, reviewing our compliance with the applicable Nasdaq corporate governance listing standards, evaluating compliance with our code of ethics, and implementing processes for effective communication with our stockholders, including reviewing stockholder proposals properly submitted to us.

The Board of Directors has adopted a formal Nominating and Governance Committee Charter, which is available on our website at www.qfww.com under "Company-Corporate Governance-Corporate Governance Charters."

Code of Conduct

We have adopted a Code of Business Conduct and Ethics that applies to each of our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our Code of Business Conduct and Ethics is posted on our website at www.qfww.com under "Company-Corporate Governance-Code of Conduct." In addition, we will provide to any person a copy of our Code of Business Conduct and Ethics upon written request to:

Quantum Fuel Systems Technologies Worldwide, Inc.
Attn: Corporate Secretary
17872 Cartwright Road
Irvine, CA 92614

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), requires our directors, executive officers and persons who own more than 10% of our common stock to file with the SEC initial reports of ownership and reports of changes in ownership of our common stock and other equity securities. Executive officers, directors and greater than 10% stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) reports they file. To our knowledge, based solely on review of the copies of such reports furnished to us or advice that no filings were required, during fiscal year 2011 all directors, executive officers, and greater than 10% beneficial owners complied with the Section 16(a) filing requirements.

Item 11. Executive Compensation.

COMPENSATION DISCUSSION AND ANALYSIS

Overview

This discussion and analysis addresses the Company's and the Compensation Committee's compensation philosophy and the material elements of compensation packages for the Company's named executive officers. As used in this Proxy Statement, the term "named executive officers" means the Company's Chief Executive Officer, Chairman of the Board, Chief Financial Officer, Chief Operating Officer and Vice President-Legal.

Compensation Objectives and Philosophy

The objective of the Company's executive compensation program is to create long-term value for the Company's stockholders by offering a compensation package to the Company's named executive officers that is designed to (i) attract talented individuals with unique skill sets and experience in the renewable energy sector, (ii) incentivize and motivate those talented individuals to apply their unique skill sets at a superior level and in furtherance of the Company's strategic plan, (iii) reward those individuals for extraordinary contributions to the Company and major achievements, and (iv) retain those talented and motivated individuals to lead the Company's future development, growth and success.

The Compensation Committee believes that in order to achieve the Company's compensation objectives it is important to offer the named executive officers a compensation package that provides total compensation that is competitive to packages offered by other companies in the same or similar industries. To ensure competitiveness, the Compensation Committee considers benchmarking data, internet-based compensation information and resources, and, as needed, the advice of one or more compensation consultants. All compensation consultants are engaged directly by the Compensation Committee. In 2005, ECG Advisors, LLC prepared a compensation study which included benchmarking data of a select "peer" group consisting of the following comparable companies: Hydrogenics, FuelCell Energy, Ballard, Featherlite, Collins Industries, Miller Industries, R&B, Inc., TransPro, Inc. and Noble International. The Compensation Committee used the ECG Advisors, LLC report to establish the current compensation program. In October 2008, the Compensation Committee engaged Semler Brossy Consulting Group, LLC ("Semler Brossy") to provide updated benchmarking data with respect to the compensation package offered to the Company's Chief Executive Officer and to provide the Committee with advice on sound Committee governance practices. The report prepared by Semler Brossy included a select "peer" group consisting of the following comparable companies: PMFG, Inc., American Superconductor Corp., TASER International, Inc., Graham Corporation, Fuel Cell Energy, Inc., Evergreen Solar, Inc., Maxwell Technologies, Inc., Satcon Technology Corporation, Verenum Corporation, MOCON, Inc., Valence Technology, Inc., Plug Power, Inc., Syntroleum Corporation, and Ener1, Inc.

The primary elements of the compensation package provided to the named executive officers consists of a base salary, discretionary cash bonus, discretionary grant of equity awards under the Company's 2002 Stock Incentive Plan, employment-related benefits, and certain limited perquisites. On an annual basis, the Compensation Committee performs a review of the compensation package for each of the named executive officers and makes any adjustments or modifications that it deems reasonable and necessary in light of the Company's compensation philosophy and objectives. In performing its review, the Compensation Committee first receives a proposal from the Chief Executive Officer which sets forth the Chief Executive Officer's recommendations for the other named executive officers regarding (i) salary adjustments, (ii) the amount of discretionary cash bonus, if any, and (iii) the number of equity incentive awards, if any. The Compensation Committee then considers such recommendations along with various other objective and subjective factors, such as the named executive officer's individual performance and extraordinary contributions during the year, the Company's performance, stock performance, and the desire or need to ensure that the named executive officer remains in the Company's employ. The compensation package for the Chief Executive Officer is determined solely by the Compensation Committee. The Compensation Committee reviews each element of compensation separately and in the aggregate when making its decisions. In years when discretionary cash bonuses and equity awards are granted, the Compensation Committee also considers the Company's cash resources and short-term needs in determining the appropriate allocation between the awards. The Compensation Committee has reviewed the compensation policies and practices and concluded that they do not reward unreasonable risk or promote excessive risk-taking that is reasonably likely to have a material adverse effect on the Company.

Each of the named executive officers has an Employment Agreement with the Company, except for the Chief Operating Officer. The Compensation Committee establishes and approves all Employment Agreements and terms of employment based on input from the Chief Executive Officer, Chief Operating Officer, Chairman of the Board, and/or Vice President-Legal and the recommendations of outside compensation consultants as required and engaged by the Compensation Committee.

The Compensation Committee is currently working on establishing a performance based pay system that the Compensation Committee expects to implement during the 2012 fiscal year.

Components of Executive Compensation

Base Salary

The overall compensation package is weighted toward a high base salary. The Compensation Committee believes that a high base salary is necessary to attract individuals that possess the unique skill set needed for the

development and growth of a young company in an emerging industry, and to assure retention of that unique skill set and associated experience, relationships and competitive advantage. The base salaries of the executive officers are determined on the basis of each individual's responsibilities, qualifications, experience and extraordinary contributions to the Company during the preceding year, as well as the salary practices of the peer group and other companies with which the Company competes for executive talent.

The Compensation Committee reviews the base salaries of the Company's executive officers at least annually in accordance with the criteria set forth above. The weight that the Committee places on different factors may vary from individual to individual, and necessarily involves both objective (e.g., new contracts awarded during the fiscal year) and subjective (e.g., successful external relationships established) measurements of individual performance.

For fiscal year 2011, the named executive officers received the same base salary that they received in fiscal year 2010. The Compensation Committee based its decision not to increase the base salary of any named executive officers on the following factors: (i) the Chief Executive Officer recommended no increase in base salaries, (ii) the base salary provided to the named executive officers remains highly competitive, (iii) the financial performance of the Company, and (iv) the Company's need to manage its cost structure.

Discretionary Cash Bonus

Each executive officer is eligible to receive a discretionary cash bonus on an annual basis. Cash bonuses are awarded solely at the discretion of the Compensation Committee and are intended to reward outstanding efforts and contributions made during the applicable fiscal year. As a general policy, discretionary cash bonuses, if any, are awarded at or near the end of the fiscal year. However, on occasion the Compensation Committee may award a cash bonus during the course of the fiscal year to reward exemplary and outstanding performance on a particular transaction or project. The Compensation Committee makes its determination as to whether to grant a discretionary annual cash bonus based on the recommendations made by the Chief Executive Officer (for each of the other named executive officers) as well as various individual and Company performance factors such as (i) revenue and EBITDA for the fiscal year compared to prior year and budget, (ii) stock performance, (iii) the executive's individual performance during the year, (iv) extraordinary efforts made by an executive during the fiscal year, (v) major strategic accomplishments, (vi) the desire or need to retain the executive in the face of competition for executive talent in the industry, and (vii) the Company's liquidity.

Historically, discretionary cash bonuses have not been awarded on a regular basis. When granted, the amount of such cash bonuses has been in the range of 5% to 25% of the named executive officer's base salary. Based on the Compensation Committee's review of management's recommendation not to award a discretionary bonus to any named executive officer, as well as the Company's overall financial performance and liquidity position, no discretionary cash bonuses were awarded for the 2011 fiscal year.

Equity Awards

The Compensation Committee believes that an important component of the compensation paid to the Company's named executive officers should be derived from equity-based compensation. These awards take the form of stock options and, under certain circumstances, restricted stock. The Compensation Committee believes that stock appreciation and stock ownership in the Company are valuable incentives to executives, that the granting of equity-based awards serves to align their interests with the long-term interests of the stockholders as a whole, and that it encourages them to manage the Company in its best long-term interests without unreasonable risk-taking.

The Compensation Committee grants stock options to the Company's named executive officers under the Company's 2002 Stock Incentive Plan. The Committee generally makes such grants on an annual basis in connection with the Compensation Committee's annual review of the named executive officer's compensation package. In making its determination as to whether to grant an equity award, the Committee reviews the

recommendation made by the Chief Executive Officer (for each of the other named executive officers) as well as objective and subjective performance factors discussed in the *Discretionary Cash Bonus* section, plus the named executive officer's expected future contributions to the Company and the named executive officer's stock option grant history. However, the Compensation Committee does not give quantitative weight to any particular performance measure.

The Compensation Committee also approves grants of restricted stock under the 2002 Stock Incentive Plan to named executive officers on a selective basis. It bases its decision whether to grant restricted stock on whether the executive has made an extraordinary contribution to the Company's and stockholders' interests, and/or whether retaining the executive for at least the period of the restrictions is critical to the Company. Restricted stock awards may also be granted in lieu of a cash bonus when the Company's cash position and needs prohibit the payment of a cash bonus.

The Compensation Committee's policy is to price stock options at the closing price on the date of grant. The Committee's policy also treats any proposed re-pricing or exchange of stock options, including by amending outstanding options to lower their exercise price or by canceling any outstanding options and replacing them with new options, as a material amendment to the 2002 Stock Incentive Plan, thus, requiring stockholder approval under applicable laws, rules and regulations. The Compensation Committee's policy is also to require the option and stock awards to vest ratably over a period of time, typically four years for stock options and three years for restricted stock awards.

On August 2, 2010, the Compensation Committee granted to each of Messrs. Niedzwiecki, Rasmussen and Olson an award of 12,500 restricted shares and 12,500 options, an award to Mr. Lombardo of 8,750 restricted shares and 8,750 options, and an award to Mr. Mazaika of 7,500 restricted shares and 7,500 options related to fiscal year 2010. The restricted shares vest in full on August 2, 2013 and the options vest ratably over four years (25% per year). The Compensation Committee's decision to grant the discretionary equity awards was based on an in-depth and thorough review of the dedication, performance, and contributions made by these named executive officers throughout the year, the patience demonstrated in light of the absence of pay raises, bonuses or equity awards during the prior fiscal years, and retention of a thin and stretched staff during difficult and trying times. Most importantly to the Compensation Committee's decision, however, was the Committee's desire to retain and incentivize these named executive officers as the Company continues to evolve into a fully integrated renewable energy company with the launch of major wind and solar and plug-in electric vehicle initiatives, which are critical components of the Company's long-term business plan and vision. The estimated grant date fair value for the above awards is reflected in the Summary Compensation Table below.

Officer Benefits

The named executive officers receive a range of other benefits, including, but not limited to, participation in a 401(k) savings plan, health and dental coverage, Company-paid term life insurance, and standard and supplemental long-term disability coverage. The Company's focus with respect to benefits for each named executive officer is to provide or offer the individual adequate financial protection (i) against "catastrophes" that will interrupt his or her income, i.e. the executive's death or disability, or the illness or injury of the executive or his or her spouse or dependent children, and (ii) for the individual to afford to be able to retire; that is, to be able to stop working, after a career in the workforce, without suffering a significant decline in his or her standard of living. The Company expects the individual to share in the costs of providing certain of these protections, and intends that the individual's wealth accumulation from participating in the Company's stock plans will be a significant source of retirement income. From November 2007 through March 2010, the Company's named executive officers were also eligible to participate in a non-qualified deferred compensation plan. The plan was terminated in March 2010.

The Company also provides its named executive officers with severance benefits in the event of an involuntary termination of employment. A description of those severance benefits is described under the heading "Employment Agreements and Change-in-Control Arrangements."

Perquisites

The Company provides its named executive officers with a limited range of perquisites on a case-by-case basis that it believes is reasonable, competitive and business-justified. These perquisites may include, but are not limited to, a monthly car allowance, term life insurance, and memberships in clubs that are used for business purposes.

Employment Arrangements and Change-in-Control Arrangements

Alan P. Niedzwiecki serves as our President and Chief Executive Officer pursuant to an Amended and Restated Employment Agreement entered into on May 1, 2006, and continues until the earliest of either our or his termination of employment or his disability, death or retirement, as set forth in the agreement. The agreement provides for an annual base salary of \$725,000, subject to annual review. The agreement also provides Mr. Niedzwiecki with the following benefits: (i) the same fringe benefits that are generally made available to the Company's executive officers, (ii) term life insurance of at least \$1,000,000, (iii) supplemental long-term disability coverage, (iv) personal umbrella coverage of at least \$10,000,000, (v) four weeks paid vacation per year, (vi) the choice of the use of a company owned or leased vehicle or a car allowance of \$1,000 per month, and (vii) participation in each incentive compensation plan adopted by the Company. The agreement further provides for severance benefits upon Mr. Niedzwiecki's termination of employment by the Company without Cause (as defined in the agreement) or by Mr. Niedzwiecki for Good Reason (as defined in the agreement). The severance benefits include: (i) a lump sum cash payment equal to two times his base salary, (ii) continuation of medical benefits and term life insurance for two years or until Mr. Niedzwiecki obtains other employment with comparable benefits, (iii) accelerated vesting of all stock awards, and (iv) limited tax gross-up payments to the extent the aggregate severance benefits are subject to excise taxes imposed by Section 280G of the Internal Revenue Code.

Dale L. Rasmussen serves as our Chairman of the Board pursuant to an Employment Agreement entered into on May 1, 2006, and continues until the earliest of either our or his termination of employment or his disability, death or retirement, as set forth in the agreement. The agreement provides for an annual base salary of \$600,000, subject to annual review. The agreement also provides Mr. Rasmussen with the following benefits: (i) the same fringe benefits that are generally made available to the Company's executive officers, (ii) term life insurance of at least \$1,000,000, (iii) supplemental long-term disability coverage, (iv) personal umbrella coverage of at least \$10,000,000, (v) four weeks paid vacation per year, (vi) the choice of the use of a company owned or leased vehicle or a car allowance of \$1,000 per month, and (vii) participation in each incentive compensation plan adopted by the Company. The agreement further provides for severance benefits upon Mr. Rasmussen's termination of employment by the Company without Cause (as defined in the agreement) or by Mr. Rasmussen for Good Reason (as defined in the agreement). The severance benefits include: (i) a lump sum cash payment equal to two times his base salary, (ii) continuation of medical benefits and term life insurance for two years or until Mr. Rasmussen obtains other employment with comparable benefits, (iii) accelerated vesting of all stock awards, and (iv) limited tax gross-up payments to the extent the aggregate severance benefits are subject to excise taxes imposed by Section 280G of the Internal Revenue Code.

W. Brian Olson serves as our Chief Financial Officer pursuant to an Employment Agreement entered into on January 10, 2006, and continues until the earliest of either our or his termination of employment or his disability, death or retirement, as set forth in the agreement. The agreement provides for an annual base salary of \$450,000, subject to annual review. The agreement also provides Mr. Olson with the following benefits: (i) the same fringe benefits that are generally made available to the Company's executive officers, (ii) term life insurance of at least \$1,000,000, (iii) supplemental long-term disability coverage, (iv) four weeks paid vacation per year, (v) a car allowance of \$1,500 per month, and (vi) participation in each incentive compensation plan adopted by the Company. The agreement further provides for severance benefits upon Mr. Olson's termination of employment by the Company without Cause (as defined in the agreement) or by Mr. Olson for Good Reason (as defined in the agreement). The severance benefits include: (i) a lump sum cash payment equal to two times his base salary, (ii) continuation of medical benefits and term life insurance for two years or until Mr. Olson obtains

other employment with comparable benefits, (iii) accelerated vesting of all stock awards, and (iv) limited tax gross-up payments to the extent the aggregate severance benefits are subject to excise taxes imposed by Section 280G of the Internal Revenue Code.

David M. Mazaika serves as our Chief Operating Officer. We have not entered into a formal written agreement with Mr. Mazaika. Mr. Mazaika's current annual base salary is \$250,000 and is subject to annual review. Mr. Mazaika's terms of employment also include the following benefits: (i) the same fringe benefits that are generally made available to the Company's executive officers, (ii) company provided term life insurance of \$125,000, (iii) four weeks paid vacation per year, (iv) a car allowance of \$1,000 per month, and (v) participation in each incentive compensation plan adopted by the Company.

Kenneth R. Lombardo serves as our General Counsel, Vice President-Legal, and Corporate Secretary pursuant to an Employment Agreement effective as of July 1, 2005. Mr. Lombardo's current annual base salary is \$260,000 and is subject to annual review. The agreement also provides Mr. Lombardo with the following benefits: (i) the same fringe benefits that are generally made available to the Company's executive officers, (ii) term life insurance of at least \$1,000,000, (iii) supplemental long-term disability coverage, (iv) four weeks paid vacation per year, (v) a car allowance of \$700 per month, and (vi) participation in each incentive compensation plan adopted by the Company. The agreement further provides for severance benefits upon Mr. Lombardo's termination of employment by the Company without Cause (as defined in the agreement) or by Mr. Lombardo for Good Reason (as defined in the agreement). The severance benefits include: (i) a lump sum cash payment equal to two times his base salary, (ii) continuation of medical benefits and term life insurance for two years or until Mr. Lombardo obtains other employment with comparable benefits, (iii) accelerated vesting of all stock awards, and (iv) limited tax gross-up payments to the extent the aggregate severance benefits are subject to excise taxes imposed by Section 280G of the Internal Revenue Code.

A summary of the Company's potential severance and other post-termination obligations can be found in the Potential Payments Upon Termination or Change-In-Control below.

Policy Regarding Deductibility of Compensation

Section 162(m) of the Internal Revenue Code generally disallows an income tax deduction to public companies for compensation over \$1.0 million paid to the CEO or any of the Company's other four most highly compensated executive officers. Under Section 162(m), the Company may deduct compensation in excess of \$1 million if it qualifies as "performance-based compensation," as defined in Section 162(m). Stock options granted under the Company's 2002 Stock Incentive Plan will qualify as performance-based compensation and be exempt from the Section 162(m) deductibility limit if they are approved by the Compensation Committee and granted in compliance with the requirements of Section 162(m). The Committee believes that in certain circumstances factors other than tax deductibility take precedence when determining the forms and levels of executive compensation most appropriate and in the best interests of the Company and its stockholders. Given the Company's changing industry and business, as well as the competitive market for outstanding executives, the Compensation Committee believes that it is important for it to retain the flexibility to design compensation programs consistent with the Company's overall executive compensation program, even if some executive compensation is not fully deductible by the Company. Accordingly, the Compensation Committee may from time to time approve elements of compensation for certain officers that are not fully deductible by the Company, and reserves the right to do so in the future when appropriate.

Compensation Committee Interlocks and Insider Participation

Our Compensation Committee consists of Messrs. Samuelsen (Chair), Runkel and Grutzner. None of our executive officers serves as a director or member of the Compensation Committee or other board committee performing equivalent functions of another entity that has one or more executive officers serving on our Compensation Committee.

REPORT OF THE COMPENSATION COMMITTEE

The Compensation Committee has reviewed the Compensation Discussion and Analysis and discussed the Analysis with management. Based on its review and discussions with management, the Committee recommended to our Board of Directors that the Compensation Discussion and Analysis be included in this Proxy Statement. This report is provided by the following individual directors, who comprise the Compensation Committee.

G. Scott Samuelson, Chairman
Brian A. Runkel
Paul E. Grutzner

Summary Compensation Table

The following table sets forth information concerning the annual and long-term compensation for services rendered for fiscal years 2011, 2010 and 2009 for each individual who served as Chief Executive Officer during the last completed fiscal year, the Chief Financial Officer and the three other most highly compensated executive officers. These individuals are referred to in this Proxy Statement as the “named executive officers.”

Fiscal Year 2011 Summary Compensation Table(1)

Name and Principal Position	Fiscal Year	Salary	Bonus	Stock Awards(2)	Option Awards(3)	All Other Compensation	Total
Alan P. Niedzwiecki <i>President; Chief Executive Officer;</i> <i>Director</i>	2011	\$725,000	\$—	\$147,500	\$110,000	\$ 40,820(4)	\$1,023,320
	2010	\$725,000	\$—	\$ —	\$ —	\$ 40,861	\$ 765,861
	2009	\$725,000	\$—	\$ —	\$ —	\$ 40,203	\$ 765,203
Dale L. Rasmussen <i>Chairman of the Board</i>	2011	\$600,000	\$—	\$147,500	\$110,000	\$ 34,562(5)	\$ 892,062
	2010	\$600,000	\$—	\$ —	\$ —	\$ 34,307	\$ 634,307
	2009	\$600,000	\$—	\$ —	\$ —	\$ 34,992	\$ 634,992
W. Brian Olson <i>Chief Financial Officer, Treasurer</i>	2011	\$450,000	\$—	\$147,500	\$110,000	\$ 29,662(6)	\$ 737,162
	2010	\$450,000	\$—	\$ —	\$ —	\$ 30,216	\$ 480,216
	2009	\$450,000	\$—	\$ —	\$ —	\$106,890	\$ 556,890
Kenneth R. Lombardo <i>Vice President-Legal;</i> <i>and Corporate Secretary</i>	2011	\$260,000	\$—	\$103,250	\$ 77,000	\$ 18,737(7)	\$ 458,987
	2010	\$260,000	\$—	\$ —	\$ —	\$ 19,153	\$ 279,153
	2009	\$260,000	\$—	\$ —	\$ —	\$ 19,359	\$ 279,359
David M. Mazaika <i>Chief Operating Officer</i>	2011	\$250,000	\$—	\$ 88,500	\$ 66,000	\$ 19,350(8)	\$ 423,850
	2010	\$250,000	\$—	\$ —	\$ —	\$ 19,413	\$ 269,413

- (1) In accordance with the rules of the SEC, the compensation described in this table does not include various perquisites and other benefits received by a named officer which do not exceed \$10,000 in the aggregate.
- (2) Amounts listed in these columns represent the fair value of the stock award estimated on the grant date determined in accordance with generally accepted accounting principles.
- (3) Amounts listed in these columns represent the fair value of the award estimated on the grant date using the Black-Scholes option-pricing formula. Assumptions made for the purpose of computing these amounts are discussed in Note 12 of the accompanying Notes to Consolidated Financial Statements in this Annual Report.
- (4) All Other Compensation for Mr. Niedzwiecki in fiscal year 2011 consisted of auto allowance of \$12,000, life, long term disability and umbrella insurance premiums of \$21,470 and 401(k) match of \$7,350.
- (5) All Other Compensation for Mr. Rasmussen in fiscal year 2011 consisted of auto allowance of \$12,000, life and long-term disability insurance premiums of \$15,212, and 410(k) match of \$7,350.
- (6) All Other Compensation for Mr. Olson in fiscal year 2011 consisted of auto allowance of \$18,000, life and long term disability insurance premiums of \$4,312, and 401(k) match of \$7,350.
- (7) All Other Compensation for Mr. Lombardo in fiscal year 2011 consisted of auto allowance of \$8,400, life and long-term disability insurance premiums of \$2,987 and 401(k) match of \$7,350.
- (8) All Other Compensation for Mr. Mazaika in fiscal year 2011 consisted of auto allowance of \$12,000 and 401(k) match of \$7,350.

Grants of Plan-Based Awards During Fiscal Year 2011

The table below shows grants of Plan based awards during fiscal 2011 for each named executive officer:

<u>Name</u>	<u>Grant Date(1)</u>	<u>All Other Stock Awards: Number of Shares of Restricted Stock(2)</u>	<u>All Other Option Awards: Number of Securities Underlying Options(2)</u>	<u>Exercise Price of Option Awards Per Share(2)</u>	<u>Grant Date Fair Value of Stock and Option Awards</u>
Alan P. Niedzwiecki	8/2/2010	12,500	12,500	\$11.80	\$257,500
Dale L. Rasmussen	8/2/2010	12,500	12,500	\$11.80	\$257,500
W. Brian Olson	8/2/2010	12,500	12,500	\$11.80	\$257,500
Kenneth R. Lombardo	8/2/2010	8,750	8,750	\$11.80	\$180,250
David M. Mazaika	8/2/2010	7,500	7,500	\$11.80	\$154,500

- (1) There were no incentive plan awards granted to any of our named executive officers during fiscal 2011.
- (2) The table has been adjusted to reflect the effects of the 1-for- 20 reverse stock split implemented on February 8, 2011.

Outstanding Options and Equity Based Awards at Fiscal Year-End 2011(1)

The following table sets forth the equity awards outstanding as of April 30, 2011 for each of our named executive officers:

Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options Exercisable(2)	Number of Securities Underlying Unexercised Options Unexercisable(2)	Option Exercise Price(2)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested(2)	Market Value of Shares or Units of Stock that Have Not Vested(3)
Alan P. Niedzwiecki	750	—	\$22.60	12/14/2011	12,500	\$32,250
	4,286	—	\$22.60	7/25/2012		
	5,000	—	\$22.60	8/11/2013		
	4,545	—	\$22.60	3/15/2014		
	4,167	—	\$22.60	3/3/2015		
	5,469	—	\$22.60	7/12/2015		
	6,250	—	\$22.60	8/22/2016		
	5,625	1,875	\$16.00	3/14/2018		
	—	12,500	\$11.80	8/2/2020		
Dale L. Rasmussen	781	—	\$22.60	12/14/2011	12,500	\$32,250
	2,679	—	\$22.60	7/25/2012		
	3,571	—	\$22.60	8/11/2013		
	2,273	—	\$22.60	3/15/2014		
	4,167	—	\$22.60	3/3/2015		
	4,688	—	\$22.60	7/12/2015		
	6,250	—	\$22.60	8/22/2016		
	5,625	1,875	\$16.00	3/14/2018		
	—	12,500	\$11.80	8/2/2020		
W. Brian Olson	781	—	\$22.60	12/14/2011	12,500	\$32,250
	2,679	—	\$22.60	8/27/2012		
	3,571	—	\$22.60	8/11/2013		
	2,273	—	\$22.60	3/15/2014		
	3,472	—	\$22.60	3/3/2015		
	2,344	—	\$22.60	7/12/2015		
	5,208	—	\$22.60	8/22/2016		
	5,625	1,875	\$16.00	3/14/2018		
	—	12,500	\$11.80	8/2/2020		
Kenneth R. Lombardo	625	—	\$22.60	7/12/2015	8,750	\$22,575
	2,083	—	\$22.60	8/22/2016		
	3,750	1,250	\$16.00	3/14/2018		
	—	8,750	\$11.80	8/2/2020		
David M. Mazaika	3,750	3,750	\$20.40	1/6/2019	7,500	\$19,350
	—	7,500	\$11.80	8/2/2020		

- (1) All option and stock awards were awarded under our 2002 Stock Incentive Plan. Options vest over four years and stock awards vest over three years.
- (2) The table has been adjusted to reflect the effects of the 1-for-20 reverse stock split implemented on February 8, 2011.
- (3) The amounts in this column represent the fair value of the restricted stock as of April 30, 2011. The closing share price of our common stock was \$2.58 on that date.

Option Exercises and Restricted Stock Vested

There were no option exercises by our named executive officers during fiscal year 2011. On March 14, 2011, the following restricted stock awards vested:

<u>Name</u>	<u>Restricted Stock Vesting Date</u>	<u>Number of Shares Acquired on Vesting(#)(1)</u>	<u>Value Realized on Vesting\$(2)</u>
Alan P. Niedzwiecki	3/14/2011	5,000	\$22,150
Dale L. Rasmussen	3/14/2011	5,000	\$22,150
W. Brian Olson	3/14/2011	5,000	\$22,150

- (1) The table has been adjusted to reflect the effects of the 1-for- 20 reverse stock split implemented on February 8, 2011.
- (2) The value is equal to \$4.43, our closing stock price on March 14, 2011, multiplied by the number of shares that vested.

Potential Payments Upon Termination or Change-In-Control

The table below reflects the amount of compensation payable to each of the named executive officers pursuant to each officer's employment agreement in the event of our termination of employment without cause or the named executive officer's termination for "good reason" and upon termination of employment following a change in control. The amounts set forth in the table assume that such termination was effective on April 30, 2011.

<u>Name</u>	<u>Base Salary Component</u>	<u>Value of Employee Benefits(1)</u>	<u>Accelerated Vesting(2)</u>	<u>Total Potential Value</u>
Alan P. Niedzwiecki	\$1,450,000	\$21,646	\$32,250	\$1,503,896
Dale L. Rasmussen	\$1,200,000	\$58,194	\$32,250	\$1,290,444
W. Brian Olson	\$ 900,000	\$38,576	\$32,250	\$ 970,826
Kenneth R. Lombardo	\$ 520,000	\$50,164	\$22,575	\$ 592,739
David M. Mazaika(3)	\$ —	\$ —	\$ —	\$ —

- (1) The amount shown is based on life and health insurance premium rates at current plan elections and family coverage categories.
- (2) The amount shown consists of the assumed gain on the accelerated shares based on a market price of \$2.58 per share, the closing price of our common stock as reported on the Nasdaq on April 29, 2011, the last trading day in fiscal 2011.
- (3) Mr. Mazaika is not a party to a formal written agreement with us providing for any change-in-control compensation.

Nonqualified Deferred Compensation for 2011

Pursuant to a Nonqualified Deferred Compensation Plan (Deferred Compensation Plan), certain executives, including named executive officers, could defer all or a portion of their base salary and/or discretionary cash bonus. Deferral elections were made by eligible executives in April of each year for amounts to be earned in the following year. An executive could defer all or a portion of his base salary and/or discretionary cash bonus. We could also make contributions to executives under the Deferred Compensation Plan; however, there were no required matching payments. In fiscal year 2010, our Board of Directors approved the termination of the Deferred Compensation Plan due to lack of participation and the high cost of maintaining the plan and the plan assets were disbursed during fiscal year 2011. Activities in the Deferred Compensation Plan during fiscal year 2011 were as follows:

<u>Name</u>	<u>Executive Contributions in Fiscal 2011</u>	<u>Registrant Contributions in Fiscal 2011</u>	<u>Aggregate Earnings in Fiscal 2011</u>	<u>Aggregate Withdrawals/ Distributions in Fiscal 2011(1)</u>	<u>Aggregate Balance at April 30, 2011</u>
Alan P. Niedzwiecki	—	—	—	—	—
Dale L. Rasmussen	—	—	—	—	—
W. Brian Olson	—	—	—	\$67,509	—
Kenneth R. Lombardo	—	—	—	—	—
David M. Mazaika	—	—	—	—	—

(1) The full amount of the aggregate balance was reported in the Summary Compensation Table for fiscal year 2009.

Compensation of Directors

Board Membership and Board Meeting Fees

During fiscal year 2011, our non-employee directors were each paid \$30,000 for membership on our Board of Directors. Non-employee directors also received an attendance fee of \$2,500 for regularly scheduled quarterly meetings and an attendance fee ranging from \$1,000 to \$2,500 for special meetings, with the amount of the fee dependent on the length and nature of the special meeting. Non-employee directors were also reimbursed their reasonable travel-related expenses for meetings attended in person.

Committee Fees

Our non-employee directors receive a fee for serving on committees and attending committee meetings. For fiscal year 2011, the chairperson of our Audit Committee was paid an annual fee of \$20,000, the chairperson of our Compensation Committee was paid an annual fee of \$10,000, and the chairperson of our Nominating and Governance Committee was paid an annual fee of \$5,000. The non-chair members of our Audit Committee were paid an annual fee of \$5,000. Committee members also received \$1,000 for each committee meeting attended. If a non-employee director serves on more than one committee and attended multiple meetings of the same or different committees on the same day, the director received a single fee of \$1,000 for those meetings, or if the committee meeting is held on the same day as a board meeting, the director received only the applicable board meeting fee.

Stock Awards

Non-employee directors are eligible to participate in our 2002 Stock Incentive Plan. Non-employee directors are entitled to receive a one-time grant of stock options to purchase up to 1,000 shares of our common stock when first elected or appointed to serve on our Board of Directors, and an annual grant of stock options to purchase 1,000 shares of our common stock, unless waived. Additional stock option grants and restricted stock grants to directors are at the discretion of management and our Board of Directors. On August 2, 2010, all of our directors were

granted 1,250 shares of restricted stock which vest on August 2, 2013 and options to purchase up to 1,250 shares of our common stock (which includes the annual grant of 1,000 options) which vest ratably over four years. The estimated grant date fair value of the awards is reflected in the Director Compensation table below.

The table below sets forth the compensation paid to our directors (excluding directors that are also named executive officers) for fiscal year 2011.

<u>Name</u>	<u>Fees Earned or Paid in Cash</u>	<u>Stock Awards (1)(2)</u>	<u>Option Awards (2)(3)</u>	<u>Total</u>
Paul E. Grutzner	\$81,000	\$14,750	\$11,000	\$106,750
Brian A. Runkel	\$71,000	\$14,750	\$11,000	\$ 96,750
G. Scott Samuelsen	\$75,000	\$14,750	\$11,000	\$100,750
Carl E. Sheffer	\$46,000	\$14,750	\$11,000	\$ 71,750
Jonathan Lundy	\$46,233	\$14,750	\$11,000	\$ 71,983

- (1) Amounts listed in this column represent the fair value of the stock award determined on the August 2, 2010 grant date using the closing stock price on the grant date.
- (2) The table has been adjusted to reflect the effects of the 1-for- 20 reverse stock split implemented on February 8, 2011.
- (3) Amounts listed in this column represent the fair value of the option awards estimated on the grant date using Black-Scholes option-pricing formula. Assumptions made for the purpose of computing these amounts are discussed in Note 12 in the accompanying Notes to Consolidated Financial Statements.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth information about the beneficial ownership of each class of our securities as of July 31, 2011. It shows shares beneficially owned by each of the following:

- each person or group of affiliated persons known by us to beneficially own more than 5% of any class of our outstanding voting securities;
- each of our directors;
- each of our named executive officers; and
- all current directors and named executive officers as a group.

We have determined the beneficial ownership shown in this table in accordance with the rules of the SEC. Under those rules, if a person held options or warrants to purchase shares of our common stock that were currently exercisable or exercisable within 60 days of July 31, 2011, those shares are included only in that person's reported holdings and in the calculation of their percentage ownership of our common stock. As a result, the beneficial ownership percentage of any person as shown in this table does not necessarily reflect the person's actual ownership or voting power with respect to the number of shares of common stock actually outstanding on July 31, 2011. Except as otherwise provided herein, the percentage of beneficial ownership is based on 15,591,054 shares of common stock and does not reflect 49,998 shares of Series B nonvoting common stock that were outstanding on July 31, 2011. General Motors owns 100% of the outstanding shares of Series B common stock, which shares will convert on a one-for-one basis into shares of our common stock in the event General Motors transfers such shares to a person that is not controlled by, or under common control with, General Motors. To our knowledge, each person named in the table has sole voting and investment power over the shares listed by that person's name, except where we have shown otherwise in the footnotes or where community

property laws affect ownership rights. Except where we show otherwise, the address of each person in this table is: c/o Quantum Fuel Systems Technologies Worldwide, Inc., 17872 Cartwright Road, Irvine, California 92614.

<u>Name of Beneficial Owner</u>	<u>Shares</u>	<u>Percent</u>
<i>Greater than 5% Stockholders:</i>		
WB QT, LLC(1) 3033 Excelsior Blvd., Suite 300 Minneapolis, MN 55416	1,711,205	9.99%
Capital Ventures International(2) One Capital Place P.O. Box 1787 GT Grand Cayman, Cayman Islands British West Indies	1,398,164	8.23%
Heights Capital Management, Inc.(2) One Capital Place P.O. Box 1787 GT Grand Cayman, Cayman Islands British West Indies	1,398,164	8.23%
MOG Capital, LLC(3)	1,282,256	8.22%
<i>Named Executive Officers and Directors:</i>		
Dale L. Rasmussen(4)	51,625	*
Alan P. Niedzwiecki (5)	60,020	*
W. Brian Olson(6)	49,343	*
Kenneth R. Lombardo(7)	17,895	*
David M. Mazaika(8)	13,125	*
Brian A. Runkel(9)	7,824	*
G. Scott Samuelsen(10)	8,612	*
Carl E. Sheffer(11)	5,620	*
Paul E. Grutzner(12)	5,547	*
Jonathan Lundy(13)	2,754	*
All current directors and executive officers as a group (10 persons)(14)	222,355	1.43%

* Represents less than 1%.

- (1) Includes 1,538,129 shares beneficially owned that are issuable (i) upon conversion of principal due upon conversion of convertible notes held by WB QT, LLC, (ii) in payment of principal due under a promissory note held by WB QT that is payable upon demand which the Company has the right to pay using shares of its common stock if the Company's price per share is at least \$10.0 per share at the time the payment is due, and/or (iii) upon exercise of warrants, and excludes (x) 103,846 shares issuable upon exercise of a warrant because such warrant is not exercisable within 60 days of July 31, 2011 and (y) 636,438 shares of common stock in the aggregate issuable upon conversion of the convertible notes, in payment of the demand promissory note, and upon exercise of the warrants because such instruments are subject to limitations on exercise or conversion under which the holder thereof does not have the right to exercise such debt conversion or warrant exercise to the extent (but only to the extent) that such exercise would result in beneficial ownership by the holder thereof, together with its affiliates, of more than 4.9%, 4.99% or 9.99% (as applicable) of the common stock. Andrew J. Redleaf, in his capacity as the managing member of WB QT, LLC and Whitebox Advisors, LLC has sole voting control and investment discretion over the securities held by WB QT. Whitebox Advisors, LLC and Andrew J Redleaf disclaims beneficial ownership of these shares. This discussion is based on information received from WB QT, LLC as of August 2, 2011.

- (2) Includes 1,398,694 shares that are issuable upon exercise of warrants. Heights Capital Management, Inc. serves as investment manager to Capital Ventures International. Therefore, Heights Capital Management, Inc. and Capital Ventures International have joint voting and dispositive power with respect to the shares, such that each entity is deemed to beneficially own the entire 1,398,694 shares. Capital Ventures International and Heights Capital Management disclaim any beneficial ownership of any such shares, except for their pecuniary interest therein.
- (3) Excludes 769,354 shares that are issuable upon the exercise of a warrant because such warrant is not exercisable within 60 days of July 31, 2011. Jason Adler, in his capacity as managing member of MOG Capital, LLC has voting and dispositive power over the securities held by MOG Capital, LLC. Mr. Adler disclaims beneficial ownership of such securities.
- (4) Includes 12,500 shares of restricted stock that vests on August 2, 2013, and 33,159 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (5) Includes 12,500 shares of restricted stock that vests on August 2, 2013, and 39,217 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (6) Includes 12,500 shares of restricted stock that vests on August 2, 2013, and 29,078 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (7) Includes 8,750 shares of restricted stock that vests on August 2, 2013 and 8,645 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (8) Includes 7,500 shares of restricted stock that vests on August 2, 2013 and 5,625 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (9) Includes 1,250 shares of restricted stock that vests on August 2, 2013, and 5,524 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (10) Includes 1,250 shares of restricted stock that vests on August 2, 2013, and 5,702 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (11) Includes 1,250 shares of restricted stock that vests on August 2, 2013, and 3,264 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (12) Includes 1,250 shares of restricted stock that vests on August 2, 2013, and 2,797 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011.
- (13) Includes 1,250 shares of restricted stock that vests on August 2, 2013, 562 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011 and 472 shares owned by spouse.
- (14) Includes an aggregate of 60,000 shares of restricted stock, 133,573 shares issuable upon exercise of outstanding options that are currently exercisable or will become exercisable within 60 days after July 31, 2011 and 472 shares owned by Mr. Lundy's spouse. All shares of unvested restricted stock may be voted by the holders thereof at meetings of our stockholders.

Equity Compensation Plan Information

The following table sets forth information about shares of our Common Stock that may be issued upon exercise or vesting of options, warrants and other rights under all of our equity compensation plans as of April 30, 2011:

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights</u>	<u>Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights</u>	<u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans</u>
Equity Compensation Plans Approved by Security Holders	420,784	\$16.04	304,536(1)
Equity Compensation Plans Not Approved by Security Holders	—	—	—
Total	<u>420,784</u>	<u>\$16.04</u>	<u>304,536</u>

(1) Represents shares available for issuance under our 2002 Stock Incentive Plan as of April 30, 2011. The 2002 Stock Incentive Plan contains an evergreen formula pursuant to which on the first day of each fiscal year, the aggregate number of shares reserved for issuance under the 2002 Stock Incentive Plan will increase by a number of shares equal to 3% of the outstanding shares on the first day of such fiscal year or a lesser number of shares determined by the administrator of the plan. On May 1, 2011, an additional 353,843 shares became available under the Stock Incentive Plan pursuant to the evergreen provision.

Item 13. Certain Relationships and Related Transactions and Director Independence.

We have not adopted formal written policies and procedures for the review and approval of transactions with related parties. However, pursuant to our Audit Committee Charter, all related party transactions must first be reviewed and approved by the Audit Committee unless such transaction was already approved by another independent body of the Board of Directors. In its review and approval process, the Audit Committee considers various factors including the nature and extent of the conflict of interest, the materiality of the transaction amount, and whether the terms are reasonable and representative of an arm's length transaction with an unrelated third party.

We have entered into indemnification agreements with each of our directors and executive officers that provide the maximum indemnity available to directors and officers under Section 145 of the Delaware General Corporation Law and our charter, as well as certain additional procedural protections. We have also entered into employment and related agreements with certain of our executive officers, as described under "Executive Compensation—Employment Agreements and Change-in-Control Arrangements."

Our corporate headquarters is located in Irvine, California. The facility in Irvine is leased from Cartwright, LLC and another unrelated party (collectively referred to as "Cartwright LLC"). Our Chief Executive Officer and an irrevocable trust established by our Chairman of the Board own 50% and 36.67%, respectively, of Cartwright, LLC. The remaining 13.33% of Cartwright, LLC is owned by an unrelated party. The lease has an effective date of November 1, 2008 and expires on October 31, 2015. We made cash payments to Cartwright LLC during fiscal years ended April 30, 2009, 2010 and 2011 in amounts totaling \$0.9 million, \$0.7 million and \$1.0 million, respectively.

Our Board of Directors has affirmatively determined that at all times during the 2011 fiscal year at least four of the seven directors (Messrs. Grutzner, Runkel, Samuelsen and Sheffer) were independent directors within the meaning of applicable Nasdaq rules. See Item 10 above for additional information regarding our Board of Directors.

Item 14. Principal Accountant Fees and Services.

We incurred the following fees related to professional services provided by Ernst & Young LLP in connection with fiscal years 2011 and 2010:

Audit Fees

The aggregate fees billed by Ernst & Young LLP for professional services rendered for the audit of our annual financial statements for fiscal year 2011 and 2010, the audit of the effectiveness of internal control over financial reporting as required by Section 404 of the Sarbanes-Oxley Act of 2002 for the fiscal years 2011 and 2010, and for the review of the financial statements included in our Quarterly Reports on Form 10-Q for the fiscal years 2011 and 2010 were \$722,749 and \$776,754, respectively.

Audit-Related Fees

The aggregate fees billed by Ernst & Young, LLP for professional services rendered during fiscal years 2011 and 2010, other than services described above under "Audit Fees," were \$176,314 and \$417,358, respectively. Fiscal year 2011 fees related to Registration Statement review services and fiscal 2010 fees related to assessing the accounting treatment of derivative instruments in response to a comment letter received from the SEC, Registration Statement review services and services in connection with the Schneider Power Inc. Management Information Circular.

Tax Fees

Ernst & Young LLP billed us an aggregate of \$77,500 and \$42,800 for professional services rendered in fiscal year 2011 and 2010, respectively, for tax compliance, tax advice and tax planning.

All Other Fees

Ernst & Young LLP did not provide professional services in fiscal years 2011 and 2010 for any other related matters.

Pre-Approval of Services by Auditors

The Audit Committee of our Board of Directors has adopted a policy requiring that all services provided to us by our independent auditors be pre-approved by the Audit Committee. The policy pre-approves specific types of services that our independent auditors may provide us if the types of services do not exceed specified cost limits. Any type of service that is not clearly described in the policy, as well as any type of described service that would exceed the pre-approved cost limit set forth in the policy, must be explicitly approved by the Audit Committee prior to any engagement with respect to that type of service. The Audit Committee will review the pre-approval policy and establish fee limits annually, and may revise the list of pre-approved services from time to time.

Additionally, the Audit Committee delegated to its Chairman the authority to explicitly pre-approve engagements with our independent auditors, provided that any pre-approval decisions must be reported to the Audit Committee at its next scheduled meeting. If explicit pre-approval is required for any service, our Chief Financial Officer and our independent auditor must submit a joint request to the Audit Committee or its Chairman describing in detail the specific services proposed and the anticipated costs of those services, as well as a statement as to whether and why, in their view, providing those services will be consistent with the SEC's rules regarding auditor independence.

Item 15. Exhibits, Financial Statement Schedules.

- 31.1 Certification by the Chief Executive Officer of the Registrant pursuant to Exchange Act Rule 13a-14(a) filed herewith.
- 31.2 Certification by the Chief Financial Officer of the Registrant pursuant to Exchange Act Rule 13a-14(a) filed herewith.

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Corporate Information

Officers

Dale L. Rasmussen
Chairman of the Board

Alan P. Niedzwiecki
President & Chief Executive Officer

W. Brian Olson
Chief Financial Officer & Treasurer

David M. Mazaika
Chief Operating Officer

Kenneth R. Lombardo
Vice President-Legal, General Counsel & Corporate Secretary

Bradley J. Timon
Corporate Controller & Chief Accounting Officer

Corporate Counsel
Kerr, Russell and Weber, PLC

Independent Auditors
Haskell & White LLP

Transfer Agent and Registrar
BNY Mellon Shareowner Services
480 Washington Boulevard
Jersey City, NJ 07310-1900
1-800-832-8519

Quantum's Code of Business Conduct &
Ethics is available on our website
(www.qtw.com) under
"Company-Corporate Governance-Code of Ethics."

Directors

Dale L. Rasmussen
Chairman of the Board of Quantum Technologies

Alan P. Niedzwiecki
President & Chief Executive Officer of Quantum Technologies

Paul E. Grutzner
Founder & Managing Partner of ClearPoint Financial, LLC

Jonathan Lundy
*Senior Vice President & General Counsel of
Atomic Energy Canada Limited*

Brian A. Runkel
*President of Runkel Enterprises & Executive Director of the
California Environmental Business Council*

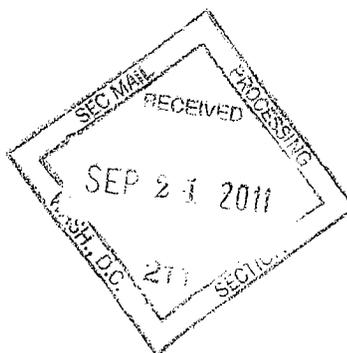
G. Scott Samuelsen
*Director of the National Fuel Cell Research Center &
Professor at the University of California, Irvine*

Carl E. Sheffer
President of Sheffer Enterprises, LLC

Annual Stockholders' Meeting

The annual meeting of stockholders will be held on
Thursday, October 27, 2011
at 1:30 p.m. PDT
at the
Hyatt Regency Irvine
17900 Jamboree Blvd
Irvine, CA 92614
(949) 975-1234

Some of the information in this Annual Report contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and are subject to the "safe harbor" created by those sections. These statements include words such as "may," "could," "will," "should," "assume," "expect," "anticipate," "plan," "intend," "believe," "predict," "estimate," "forecast," "outlook," "potential," or "continue," or the negative of these terms, and other comparable terminology. Various risks and other factors, including, without limitation, those identified in the "Risk Factors" section of the Form 10-K included in this Annual Report, could cause actual results, and actual events that occur, to differ materially from those contemplated by the forward-looking statements. You should not place any reliance on forward-looking statements.



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2011 Annual Report

QTWW.com
NASDAQ: QTWW