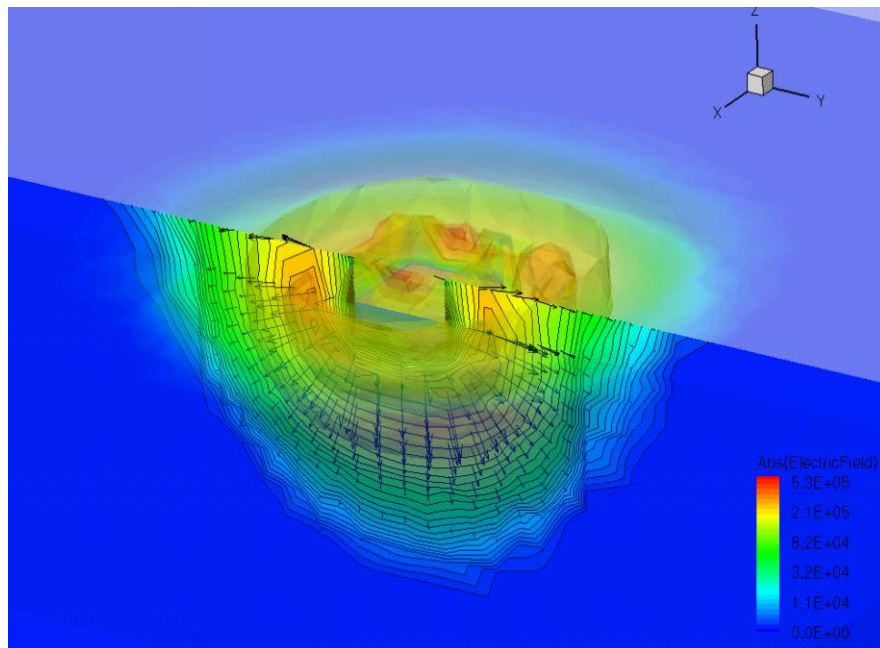


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# POWERSAFE TECHNOLOGY CORP. (PSFT)

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## AMPLIFICATION TECHNOLOGIES



3D field profile for a photodetector based on internal discrete amplification

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## **PowerSafe Technology Corp. (PSFT)**

PowerSafe Technology, thru our wholly owned subsidiary Amplification Technologies (ATI), ([www.ampti.net](http://www.ampti.net)) seeks to transform the field of low-level signal detection. ATI's patented platform semiconductor technology has the potential to offer unparalleled and far-reaching benefits to industries such as medical diagnostics, scientific instrumentation, surveillance/monitoring , and homeland security. The technology has been successfully used to develop extremely sensitive detectors of low levels of light and the company believes its detectors will be used in many existing applications as well as open up new markets. ATI's technology is patented to encompass detection of signals other than light, and could in principle be used to create highly sensitive biological, radiological, electrical, and chemical sensors. Over \$9 million has been invested in ATI to date. In addition, ATI has received over \$800,000 in government grants.

In April '10 ATI signed a contract with Lockheed Martin that will provide ATI funding to demonstrate the feasibility of certain improvements to its detectors. We strongly believe that we will successfully demonstrate feasibility resulting in a much more extensive program to develop and produce devices for Lockheed Martin. We are expecting similar projects with other entities that have evaluated our devices and are also optimistic that this project will lead to work with Lockheed Martin on additional projects.

In general, the introduction of semiconductor chips has revolutionized technology. One area of technology which to this day primarily uses vacuum tubes is highly sensitive photodetection. Sensitive photodetectors are essential components of numerous commercial products in markets such as medical imaging, scientific instrumentation and security/defense. ATI's scientists have invented and patented an extremely sensitive semiconductor technology that we believe has significant performance and cost advantages over traditional vacuum tube technology, and that is positioned as a next generation solid state technology for low level light detection.

ATI's platform semiconductor technology allows for amplification with very low noise of weak signals generally. Over time the technology has the potential to introduce transformational changes in a multitude of industries.

Initially ATI developed its technology on silicon, the semiconductor material generally used to detect visible light. In connection with of a NASA phase II SBIR grant, the company successfully extended its technology into the near infrared (NIR) spectrum, using an InGaAs/InP material, and developed the world's best performing high gain solid state photomultiplier for NIR wavelengths of 1000-1700 nm. In 2009, ATI began marketing and shipping NIR prototypes, and to a much lesser extent silicon based prototypes. The devices have generated considerable interest among both commercial and governmental entities. In January '10 we were awarded two additional NASA SBIR grants to extend our NIR technology even further. We believe that we will obtain yet more government funding this year to expand our work. We also anticipate completing a run of silicon devices in 4Q10 that will be commercial quality and have the potential to be market leaders in their space.

ATI has 26 full and part time personnel in the US and abroad including 10 PhDs. Its scientific team has done pioneering work, and has world leading expertise, in the field of sensors and photo-detectors.

We estimate that the current market for devices for detecting and amplifying very low levels of light exceeds \$300 million annually and is growing. Additionally, the market for night vision, which ATI may be able to participate in, is about \$1.5 billion annually. We expect that the availability of its detectors will expand existing markets and create new ones. As we move beyond light detection, we believe that the ultimate market that may be addressed by ATI's products is in the multi-billion dollar range.

A significant goal for ATI is developing a detector chip for PET medical imaging systems, due to the large cost of detectors in such systems. The world's leading PET system manufacturers are seeking solid state solutions to replace photomultiplier tubes in the next generation of scanners. ATI has successfully produced prototypes of such chips.



### **Intellectual Property**

ATI fully owns its intellectual property. In April 2005 it was issued its cornerstone patent, United States Patent # 6,885,827 titled "High sensitivity, high resolution detection of signals." Another patent, US #7,085,502, was granted in August 2006. ATI has filed one more patent application and plans to file additional patent applications to further protect its intellectual property. ATI has filed international patent applications as well and holds certain foreign patents.



### **Validation**

In addition to the Lockheed Martin contract, ATI has been awarded six US Government SBIR grants. We have also been working with a research group at a premier medical school, who have written that they feel the next run of our silicon devices will be suitable for the next generation high resolution, high performance PET detectors.



## Capitalization

9.1 million common shares outstanding (15.6 fully diluted)

	Face amount	offering pr	div rate	cv/exercise pr
pdf A	\$1.3MM		0%, 18 % after 4/11	\$1.67
pdf B	\$2.8MM	Par	2% PIK/mo	Non cv
pdf D	\$90K	87%	8%	\$0.75
pdf D1	\$434K	86%	8%	\$0.70
pdf D2	\$825K	88%	7%	\$0.575
Options (vested and unvested)	1.16MM			\$0.57-1.25
Warrants	1.33MM			\$0.50
Warrants	727K			\$0.75

Preferred A is junior to B. Preferred B is junior to D's. All D's are pari passu, are limited to \$4MM in aggregate, and have strong covenants.

Advances to and some obligations of the Company may be converted into convertible preferred and warrants of the Company.

A number of statements contained herein are forward-looking statements, which are inherently uncertain, as they are based on current expectations and assumptions concerning future events or future performance of PowerSafe and Amplification. Readers are cautioned not to place undue reliance on these forward-looking statements, which are only predictions and speak only as of the date hereof. In evaluating such statements, and in evaluating an investment in PowerSafe, prospective investors should review carefully various risks and uncertainties inherent herein and those set forth in PowerSafe's SEC filings and such other matters as are in such filings, which may be viewed at [www.sec.gov](http://www.sec.gov)