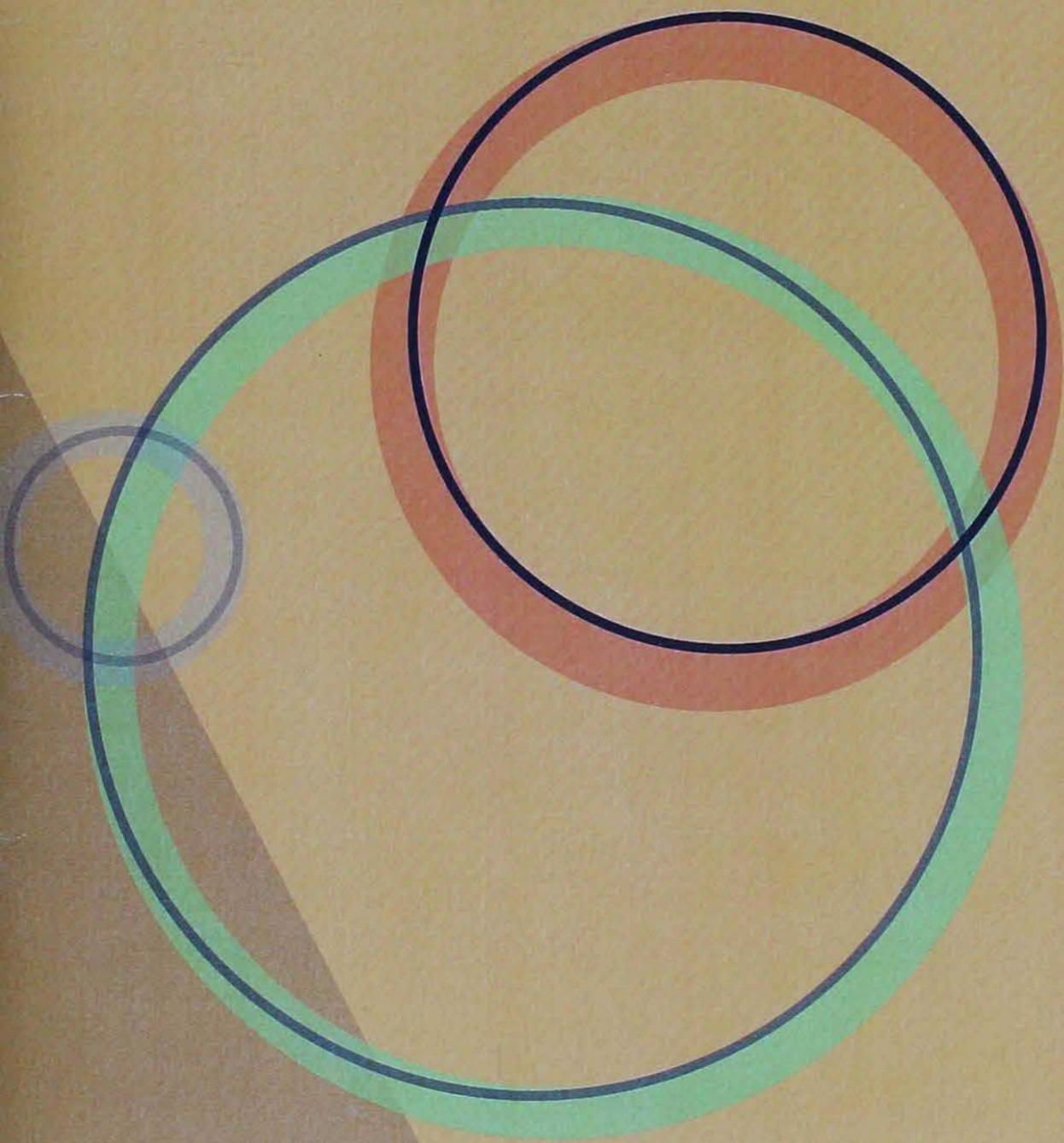




VENTURE ROUNDTABLE



***A Forum for  
Clean Technology Innovation  
April 26, 2007***

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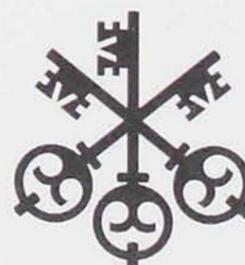
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# **C o n t e n t s**

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April 26, 2007

Welcome CONNECT Supporters and Friends:

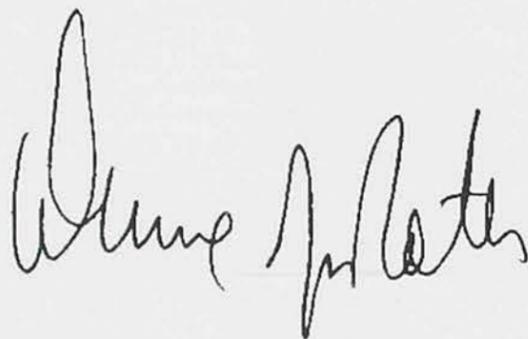
On behalf of CONNECT, I am pleased to welcome you to our first annual Clean Technology Venture Roundtable, which aims to introduce you to Southern California's cutting edge technologies leading the efforts to solve the environmental challenges we are all facing today.

Although we have done Venture Roundtables in the past, this is our first Clean Tech focused program, and considering the tremendous response we've received, we plan to make it a part of our regular rotation of high tech and life science focused Roundtables.

The six companies showcased today passed a rigorous screening process conducted by the Venture Roundtable Selection Committee. This committee, comprised of twenty San Diego business leaders and technology experts, volunteered their time to screen all applicants and provide coaching to the presenting companies in preparation for today's program. The time and expertise that these individuals contribute is crucial to the integrity and success of this program, and CONNECT thanks the committee members for their generosity and commitment.

We would also like to express our gratitude to our leading sponsor and host, Heller Ehrman LLP, and supporting sponsors, Avalon Capital Group, KPMG, SDG&E, San Diego Regional EDC, and UBS for supporting our efforts to promote the technologies poised to become the businesses of tomorrow. I hope you enjoy today's program and look forward to your participation in future CONNECT events.

Sincerely,



Duane J. Roth  
CEO, CONNECT

# Agenda

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**1:00 p.m. Welcome & Introduction**

**1:30 - 3:00 p.m. Company Presentations**

- Individual 12 Minute Presentation Followed by 12 Minute Q&A

1:30 p.m. Omnitek

2:00 p.m. Hadronex

2:30 p.m. RTI

**3:00 p.m. Break**

**3:00 - 4:45 p.m. Company Presentations**

- Individual 12 Minute Presentation Followed by 12 Minute Q&A

3:15 p.m. Assure Controls, Inc.

3:45 p.m. Flex Energy

4:15 p.m. M4 Engineering, Inc.

**4:45 p.m. Close of Program**

**5:00 p.m. Networking Reception**

**7:00 p.m. Close of Reception**

Agenda

# Clean Tech Committee

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Jason Anderson, Director, Economic Development, San Diego Regional EDC

Jim Corlett, Senior Technology Development Advisor, SDG&E

Nancy Davis, Senior Marketing Manager, Heller Ehrman LLP

John Denniston, COO, Kleiner Perkins Caufield & Byers

Michael Elconin, Tech Coast Angels

Jerry Foster, Co-Founder, Biorenewable Projects

Dave Fredrickson, Senior Manager - Audit, KPMG

Todd Glass, Shareholder, Heller Ehrman LLP

Josh Green, Partner, Mohr Davidow Ventures

Ken Hoffman, President, The Hoffman Company

Mike Kagnoff, Shareholder, Heller Ehrman LLP

Josh Lampl, EcoElectron Ventures

Glenn Mosier, Senior Vice President - Investments, UBS Financial Services Inc.

John Plavan, President, Plavan Petroleum, Inc.

Craig Ruiz, Principal Community Development Specialist, City of Chula Vista

Maurice Sabado, Vice President - Technology Solutions, SAIC

David Saltman, President & CEO, Open Energy Corporation

Jay Short, Founder, President & Chairman, E.O. Wilson Biodiversity Foundation

Denny Stone, Economic Development Manager, City of Chula Vista

Jim Waring, Deputy COO for Land Use & Economic Dev., City of San Diego

**A Special Expression of Gratitude to Josh Lampl, John Plavan, Joe Ritter, and David Saltman for their presentation coaching.**

Comm + Hel

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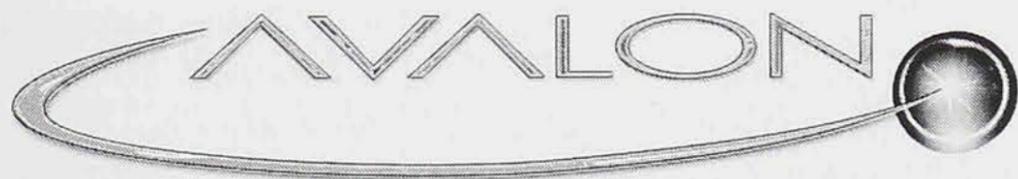
# Heller Ehrman LLP

Heller Ehrman Venture Law Group is one of the premier emerging technology practices in the country. Our Clean Technology Energy Group combines a unique set of legal skills to work with clients across the sectors of emerging company financing, energy industry regulatory proceedings, project development and finance, litigation, policymaking and other matters.

We combine senior-level counseling and extensive industry knowledge to help emerging technology companies grow and prosper. We work in partnership with clients to build and represent deal-intensive emerging growth companies, both public and private, as well as with the venture capital and investment banking firms that support them.

We provide emerging companies with focused business and legal advice from incorporation through venture financing, initial public offering, mergers, acquisitions and beyond. We concentrate on general corporate counseling, venture financing, public offerings, mergers and acquisitions, intellectual property, technology transactions, employment, executive compensation and tax. As a leader in structuring and negotiating venture capital financings, we possess strong relationships with leading U.S. institutional, seed and angel venture capital investors and play an active role in bringing together entrepreneurs and investors. Many of our attorneys have backgrounds in computer science, the life sciences, engineering, mathematics, market research, accounting and finance.

## *Supporting Sponsors*



Avalon Energy is building partnerships focused on developing lower cost sources of renewable energy. By establishing itself as an innovator in the renewable energy world, Avalon Energy plays a role in helping the world to reduce its dependency on fossil fuels. Avalon Energy is planning to make an immediate contribution to the nation's energy supply needs through biofuels projects in North America. Projects with a longer range focus, encompass a broader range of products that achieve our vision while providing benefits that work with a long term investment horizon. Investment strategies reflect our interest in partnering with those who can help us to bring low cost solutions to partnerships with a long term investment horizon. Avalon Energy is a part of privately held Avalon Capital Group and is based in La Jolla, CA.

Miller AA

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## *Supporting Sponsors [continued]*



KPMG's San Diego office includes more than 140 experienced professionals including 11 audit, tax, and advisory partners who serve numerous publicly and privately owned businesses throughout the Pacific Southwest. In addition to delivering audit, tax, and advisory services, our San Diego office also provides assistance in such areas as international tax; federal, state, and local tax services; audits of public and private companies, both internationally and domestically; mergers and acquisition services; internal audit services; IT risk management; corporate finance; and forensic services.

We serve a wide range of clients—from the smallest entrepreneurs to Fortune 500 companies—so our professionals have the type of experience necessary to provide high-quality client service. Our understanding of rapidly changing business practices and trends, combined with our deep knowledge of accounting and tax rules, allows us to assist our clients with current issues and future goals.



A  Sempra Energy utility<sup>SM</sup>

San Diego Gas & Electric is a regulated public utility that has been supplying safe and reliable natural gas and electric service to the San Diego region since 1881. SDG&E currently serves 3.4 million consumers through 1.4 million electric meters and 830,000 natural gas meters. The utility's service area spans 4,100 square miles and serves customers in more than 125 communities from Southern Orange County to the Mexican border. SDG&E is a regulated subsidiary of Sempra Energy (NYSE:SRE). Sempra Energy, based in San Diego, is a Fortune 500 energy services holding company. To learn more, go to [www.sdge.com](http://www.sdge.com).

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## Clean Tech Sponsors

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San Diego Regional Economic Development Corporation (EDC) strives to attract and retain companies in San Diego County. EDC works directly with these companies to assist in their relocation and expansion. Fueled by a diversified, technology-driven economy, San Diego is positioned to achieve sustained economic prosperity. And through a CEO-driven agenda, EDC supports the growth and expansion of these target industries in the region.

EDC is a 41-year-old private, nonprofit corporation. EDC works in partnership with, and receives significant funding from, the City of San Diego. Additional funding is provided by the San Diego Unified Port District, the City of Chula Vista, other cities in the region, and more than 200 private sector investors.

San Diego Regional EDC was recognized for its economic development efforts by CoreNet Global with an "Innovator's Award", in addition to an award from the U.S. Department of Commerce for "Excellence in Economic Development."



UBS

UBS is one of the world's leading financial firms, serving a discerning international client base. The firm is present in all major financial centers, with offices in more than 50 countries. UBS employs around 78,000 people. With more than 140 years of experience, UBS is the world's leading private client business with over \$2.3 trillion of assets under management.

In the United States, UBS has 310 branch offices. In La Jolla, the Mosier Financial Group, lead by Glenn Mosier, works with wealthy individual investors and local corporations.

# Presenting Companies

## Omnitek

Company or Organization Name: Omnitek Engineering, Corp.

Address: 1945 S. Rancho Santa Fe Rd., San Marcos CA 92078

Venture Roundtable Presenter: Werner Funk

Title: CEO

Phone: 760-591-0089

Email: Werner@omnitekcorp.com

Website: www.omnitekcorp.com

Industry/Sector: Automotive / Energy / Alternative Fuels / Pollution Control

Has a Company been Established? If so, when and what is the legal form: Yes, Corporation

Technology Readiness Level: Actual system, proven through successful fielded operations

Patents Awarded: No. 7,019,626 - Multi-fuel Engine Conversion System And Method

No. 6,374,816 - Apparatus And Method For Combustion Initiation

No. 6,615,810CIP - Apparatus And Method For Combustion Initiation

No. 7,065,958 - Emission Control System

Patents in Progress: Two Patent Applications are in progress

Amount of Capital Raised and Source: \$ 1,800,000

Current Investors: 45 Investors

Annual Revenue: \$ 800,000 - \$ 1,000,000

Number of Employees: 7 full time – and some outsourcing

### Company Overview:

Omnitek is engaged in the development, commercialization and application of state-of-the-art technologies for the transportation sector. The Company develops and sells new natural gas engines and is a leader in the development of advanced engine technologies and emissions control systems for internal combustion engines burning gasoline, diesel, natural gas (NG), liquefied petroleum gas (LPG) or hydrogen (H<sub>2</sub>). Using the Company's advanced electronic engine management system (EMS), a carbureted gasoline engine can easily be converted to electronic fuel injection (EFI). The EMS system can also be used to convert polluting diesel

engines, to engines using clean burning and inexpensive NG or LPG as fuel. The ability to cost effectively convert high-polluting engines to low-polluting engines, makes the Company's technology superior to the technologies of its competitors.

As a further enhancement of our CNG technology, Omnitek has developed a home refueling appliance to allow owners of CNG capable vehicles to fill their tanks at home.

## **Technology or Product Description:**

1.) Omnitek has developed technology solutions that can be used to retrofit/convert polluting diesel engines to utilize clean-burning natural gas.

2.) Omnitek is offering new dedicated natural gas engines to replace existing diesel burning engines.

Both solutions are highly cost efficient and both solutions are currently in the field and proving themselves to be excellent performers.

The savings in fuel costs to the users will pay for the technology in 12 to 18 month. The cleaner burning natural gas also reduces wear on the engines, maintenance costs and air pollution.

Early stage development of Natural Gas Home-Fueling appliance. Refuel at home and use the same gas that heats your house to refuel. Lower fuel costs, greater convenience, environmentally sound , and safe for any user.

## **Industry Overview:**

Diesel exhaust emissions are a major source of pollution in most urban centers around the world. Trucks, buses, generators and ships burn millions of gallons of diesel fuel daily. Many countries are looking to alternative fuels to reduce diesel exhaust emissions, especially in their urban centers. Furthermore, as the price of crude oil continues to increase, the use of alternative fuels becomes increasingly economical in those countries that are dependent on fuel imports to meet their energy needs.

Compressed natural gas (CNG), has emerged as a perfect solution to the problems of high oil prices and high exhaust emissions. Readily available in many countries from indigenous sources, it is inexpensive and clean burning. In many countries, the price of CNG is 1/3rd the price of diesel fuel. The current dramatic increase in world oil prices and the high-polluting nature of diesel engines favors the use of clean-burning, readily available and inexpensive natural gas.

Cost effectively converting existing high polluting diesel engines into clean burning natural gas engines has historically been problematic. Previously available technologies have been of poor quality and expensive.

The Omnitek technology is currently successfully being used to convert heavy-duty diesel engines to natural gas in the USA, India, Bangladesh, Thailand, China, Mexico and Myanmar. The Company's advanced engine management system has been successfully adapted to work with many different engine designs to meet both current and future emissions standards.

Refueling your vehicle at home using the same gas that heats your house is a reality. Fuelmaker of Canada has been selling these units for some time, but they are very expensive, and are tied to leasing a Honda in several states.

## **Competition:**

The Company believes that the products it has developed have many important advantages over the products of its competition, primarily superior performance, ease of use and lower cost.

### **Diesel-to-CNG Conversion Technology**

As of today, no direct competitors to the Omnitek Diesel-to-Natural Gas Conversion Technology for heavy-duty engines have emerged. The three competing systems found in the market place ("The Chinese System", "The Korean System" and "The Italian System") have virtually disappeared. Omnitek is currently supplying components to customers, which are used to "upgrade" engines that had previously been converted using components and outdated technology from above mentioned competitors.

### **Electronic Fuel Injection**

The competitors for the Company's electronic fuel injection system are the multi-national OE suppliers like Bosch, Siemens and Delphi. However, these systems are custom made for a specific engine and are very time consuming and expensive to program, and can only be programmed by the system manufacturer. The Omnitek system can be programmed quickly by any consumer, which allows for flexibility and a short time-to-market.

### **Natural Gas System**

There are few competitors to the Company's natural gas system. Suppliers like IMPCO, Bosch and Keihin mainly supply OE engine manufacturers and are not offering systems to convert diesel engines. The Company's system can be programmed by the consumer and can be used to convert gasoline or diesel engines to operate on natural gas.

There are numerous companies, such as IMPCO, BRC, Landirezzo, Tartarini, OMVL, Tomasetto, supplying natural gas components for use on cars and small trucks. These technologies have been on the market for many years and millions of vehicles have been converted worldwide using these technologies. However, this technology is not suitable for heavy-duty engines, and is not in direct competition with Omnitek's technology. At this time Omnitek is not planning to compete in the small engine market. We have in fact been approached by the largest of these companies to add our line to theirs.

### **New Natural Gas Engines**

Depending on size and power output, engines from Cummings, Volvo or Mercedes, cost between \$12,000 and \$34,000. The Omnitek natural gas engines range from \$6,000 to \$18,000. We strongly believe that the reliability of our technology, combined with our lower prices, makes our products extremely attractive to potential customers, furthermore, Cummings, Volvo or Mercedes will not participate in re-powering projects. They only supply engines to OE customers.

We believe that additional competitors will emerge as this market matures. Markets this large and with such a profit potential, will not go unnoticed.

## **Sustainable Advantage:**

Omnitek has developed superior products that are field proven, in the face of well funded competition that has been working towards the same goal for a substantial time period. Several OEM's have in fact abandoned their in-house development of CNG solutions for heavy duty vehicles, and are negotiating with Omnitek to be their OE supplier.

The Home Refueling market has not developed in the USA as the economics and political environment were not favorable. That has dramatically changed in favor of this product. Getting to market with a reasonably priced unit in a timely fashion will be critical in the success of this product.

## **Marketing Plan:**

Concentrating sales to large fleets where the economic advantage is greatest, or the regulatory incentive is highest.

## **Market Size:**

Globally, 50 Billion dollars annual.

Revenue Projections:

Year 1 \$ 9,000,000.00

Year 2 \$20,000,000.00

Year 3 \$30,000,000.00

Year 4 \$45,000,000.00

Year 5 \$67,000,000.00

## **Management Team:**

Werner Funk – Mr. Funk was born in Germany and has been a Director and the CEO from its formation in May of 2001. Mr. Funk has over 26 years experience in international business, manufacturing, engineering, marketing and internet commerce. He is responsible for management, marketing and new product design. His extensive knowledge of technology, marketing and international business has been largely responsible for the Company's growth and international market penetration. Mr. Funk was educated in Germany where he attended high school and vocational college for automotive technology, where he graduated with honors receiving a bachelor degree in automotive technology. While living in Germany, he worked for Mercedes-Benz and was assistant crew chief of a Porsche factory sponsored racing team. Mr. Funk moved to the United States in 1978. He started several successful businesses including Nology Engineering Inc., a California Corporation, which designs, manufactures and markets automotive products for the performance aftermarket, and PerformanceDepot.com, a Nevada Corporation, which is a leading internet based E-commerce site selling automotive performance parts. Mr. Funk is currently the CEO of Omnitek, Nology and PerformanceDepot.

Mr. Funk holds following patents:

US Patents:

No. 7,019,626 - Multi-fuel Engine Conversion System And Method

No. 6,374,816 - Apparatus And Method For Combustion Initiation

No. 6,615,810CIP - Apparatus And Method For Combustion Initiation

No. 7,065,958 - Emission Control System

Patent Pending Docket No. 30232-00010 - Vehicle Data Display System And Method

Japanese Patent:

No. 3,534,708 - Combustion Initiation Device And Method For Tuning A Combustion Initiation Device

Janice M. Quigley – Mrs. Quigley, has been CFO of the Company since 2003 and is responsible for the financial reporting and personnel management of the Company. Mrs. Quigley, a native of San Francisco, California, worked in the electronics industry for 27 years prior to relocating to San Diego in 1992. Ms. Quigley joined Advantage Lift Systems, Inc. (a manufacturer of heavy-duty vehicle hoists) in 1993 as controller. She was promoted to Chief Financial Officer in 1997 when the company acquired Globe Lifts (a manufacturer of light-duty vehicle hoists). She remained in this position until October of 2000 when the company was sold. Mrs. Quigley is also the CFO for Nology Engineering, Inc.

Pete Petersen – Mr. Petersen (VP of Engineering) holds a BS degree in Aeronautical Engineering from California Polytechnic State University, San Luis Obispo. He is an experienced engineering manager and development engineer, having spent 20 years in the field of development, testing and calibration of electronically controlled gaseous fuel injection and metering systems. He possesses intimate knowledge of fuel system and engine design, electronic engine control systems and CNG specific control algorithms, Mr. Petersen is uniquely qualified to participate in the development of alternate fuel systems.

Mr. Petersen is a founder of Pensare Inc. The company has worked primarily on the development of CNG fuel injection systems for both stationary and mobile applications. Pensare Inc. was awarded a project from Fairbanks Morse to develop the new electronic fuel system. The system was demonstrated and deemed successful as a new low emission benchmark was achieved for the family of engines. Pensare was acquired by Omnitek in November 2006.

From 1996 to 1999, Mr. Petersen was a Senior Engineer at Sturman Industries. His responsibilities included overseeing all mechanical engineering development programs for a variety of automotive customers. The main project was the development of a next generation diesel fuel system for Navistar International's highly successful Powerstroke engines used by Ford.

From 1993 to 1996, he was the President of Natural Gas Solutions, San Diego, where he was responsible for administration of engineering, manufacturing, and marketing. Engineering duties include CNG injector design, diesel injector design and development of a family of CNG fuel filters.

From 1991 to 1993, he was Director of Fuel System Development at Clean Air Partners, San Diego, where he was responsible for the development of a variety of CNG fueled vehicles and engines including dedicated and dual-fuel engines.

From 1986 to 1993, Mr. Petersen was Manager of Gas Fuel System Engineering at BKM Inc., San Diego, and was responsible for the design and development of CNG conversion kits for a variety of medium and heavy duty engines. BKM achieved TLEV and ULEV emissions levels on a medium duty engine developed for UPS.

Significant Related Accomplishments:

- Magnetic Analysis of Rapid Response Solenoid Valves.
- Development of electro-hydraulic, electro-pneumatic and direct acting electro-magnetic fuel injectors, diesel pilot injectors and rapid response actuators for a variety of customers.
- Development of a Dual Fuel Diesel Methane Engine, SAE paper No. 891652

- Optimized E.F.I. for Natural Gas Fueled Engines, SAE paper No. 911650
- Solenoid operated pressure balanced valve, patent # 5641148, co-inventor
- Mr. Petersen is listed as inventor or co-inventor on several invention disclosures (patents have yet to be applied for) relating to CNG engine control strategies.
- Developed a new generation of CNG fuel injectors for Alternative Fuel Systems , Canada (patents pending).

John Reed MD - Dr. Reed is a Director of Omnitek and is actively involved in project evaluation and the development of marketing concepts. His knowledge of engines and engine management systems, as well as his experience in Mergers and Acquisition activities, make an important contribution to Management.

He was graduated from the University of California and holds dual Bachelors of Science degrees in Microbiology and Immunology, as well as a Bachelors degree in Public Health. He received his Doctorate of Medicine from the University of California, San Diego.

#### Appointments/Achievements

1981-Founded Mutech and Immusine, two biotechnology companies that provided proprietary biological agents and custom monoclonal antibodies to the Biotech Industry. Dr. Reed was CFO until 1984, at which time he negotiated the sale of both companies to a multi-national pharmaceutical company, just prior to his graduating from college.

1984 Health Policy Analyst, Office of the Surgeon General, C. Everett Koop. Provided analysis of the impact of biotechnology advances on Public Health, and assisted the Office of Technology Assessment in creating guidelines for assessing emerging technologies.

1985-1986 Research Assistant, Research Institute of Scripp's Clinic. Developed monoclonal antibodies and did recombinant DNA studies for a WHO funded effort to produce a vaccine for Malaria.

1994-95 Head of Trauma and Burn Service, San Bernardino County Medical Center. Dr. Reed headed the department which has the largest catchment area of any trauma center in the USA, and has the highest average acuity scores in the nation.

1998-2000 Chief of Anesthesia, Scripp's Hospital.

# Hadronex

Company or Organization Name: Hadronex

Address: 381 Engel Street, Escondido, CA 92029

Venture Roundtable Presenter: Gregory M. Quist, Ph.D.

Title: Senior Partner

Phone: 760-291-1980

Email: gquist@cox.net

Website: www.hadronex.com

www.mysmartcover.com

Industry/Sector: Environmental monitoring, water system management

Has a Company been Established? If so, when and what is the legal form:

Established in February 2005. Hadronex is a LLC.

Technology Readiness Level: Actual system, proven through successful fielded operations

Patents Awarded: None

Patents in Progress: Four

Amount of Capital Raised and Source: None

Current Investors: Founders

Annual Revenue: Less than \$1 MM in CY 2006.

Number of Employees: 3 full-time staff (non-payroll), 6 part-time consultants

## Company Overview:

Founded in early 2005, Hadronex has developed and is selling the SmartCover™ sewer monitoring system, in response to the acute need for remote real-time continuous monitoring of sewer conditions. The SmartCover™ product has met with strong market acceptance and as of 3/31/07, has successfully stopped 27 sewer spills and detected seven illegal intrusions.

## Technology or Product Description:

The SmartCover™ is a general-purpose battery-powered, wireless sensor platform whose first application is the prevention of septic sewer overflows (SSO) through remote continuous real-time measurement of water level and intrusions into manholes. Built to customer specifications, the SmartCover™ is compact and able to withstand the highly corrosive and condensing sewer environment. The turn-key product consists of: hardware that mounts underneath a manhole cover or hatch; a wireless 2-way digital radio

## **Revenue Projections:**

Assuming investment in the company in order to capture growth potential, Hadronex projects revenues as follows: CY2007 \$1.5MM; CY2008 \$6.9MM; CY2009 \$16.6; CY2010 \$31.2MM; CY2011 \$61.6MM.

## **Management Team:**

The two founders and senior managers have extensive experience in water, technology development, intellectual property development and technical management. Specifically: David Drake, Senior Partner/Founder, CalTech EE, 9 years on the San Diego County Water Authority (SDCWA) Board of Directors, current director of the Rincon del Diablo MWD, technologist/manager at: the Jet Propulsion Laboratory, Oak Industries, DEC, SAIC. Drake holds four patents and has several pending. Gregory M. Quist, Ph.D., Senior Partner/Founder, Yale BS, UC Santa Barbara Ph.D. (physics), currently 10 years on SDCWA Board, 17 years on Rincon del Diablo MWD Board, technologist/manager at: Alcoa, McDonnell-Douglas, VP/Division manager at SAIC. Quist holds seven patents, and has several pending. Tim DeMarco, Purdue, BSME, in charge of national and international sales, has over 35 years of experience in the sales and service of high-value technical capital equipment at Solar Turbines, a subsidiary of Caterpillar. At Solar he managed a \$100 million worldwide dealer/packager program and led the International Power Generation Business Development effort.

## **Revenue Projections:**

Assuming investment in the company in order to capture growth potential, Hadronex projects revenues as follows: CY2007 \$1.5MM; CY2008 \$6.9MM; CY2009 \$16.6; CY2010 \$31.2MM; CY2011 \$61.6MM.

## **Management Team:**

The two founders and senior managers have extensive experience in water, technology development, intellectual property development and technical management. Specifically: David Drake, Senior Partner/Founder, CalTech EE, 9 years on the San Diego County Water Authority (SDCWA) Board of Directors, current director of the Rincon del Diablo MWD, technologist/manager at: the Jet Propulsion Laboratory, Oak Industries, DEC, SAIC. Drake holds four patents and has several pending. Gregory M. Quist, Ph.D., Senior Partner/Founder, Yale BS, UC Santa Barbara Ph.D. (physics), currently 10 years on SDCWA Board, 17 years on Rincon del Diablo MWD Board, technologist/manager at: Alcoa, McDonnell-Douglas, VP/Division manager at SAIC. Quist holds seven patents, and has several pending. Tim DeMarco, Purdue, BSME, in charge of national and international sales, has over 35 years of experience in the sales and service of high-value technical capital equipment at Solar Turbines, a subsidiary of Caterpillar. At Solar he managed a \$100 million worldwide dealer/packager program and led the International Power Generation Business Development effort.

# RTI

Company or Organization Name: RTI

Address: 10650 Treena Street, Suite 111, San Diego, CA 92131

Venture Roundtable Presenter: Jim Kelly

Title: Chairman & CEO

Phone: 858-922-5537 / 858-271-4552

Email: jkelly@rti-ww.com

Website: www.rti-ww.com

Industry/Sector: Renewable Materials

Has a Company been Established? If so, when and what is the legal form: Yes, established in 1994 as an S-Corp.

Technology Readiness Level: System prototype demonstration in an operational environment

Patents Awarded: None

Patents in Progress: Two

Amount of Capital Raised and Source: \$5.5 Million – Angel / Friends & Family / Founder Capital

\$17 Million Senior Debt (pending equity commitments)

Current Investors: Major Investors are

- Jim Kelly
- Danny Aderholt
- John Rodney

Annual Revenue: 0

## Company Overview:

Riverside Technologies, Inc. has developed clean, proprietary pyrolysis and post-pyrolysis processes that manufacture four commodity products: oil, gas, steel and the world's first green, carbon black substitute, SynBlack. SynBlack is an alternative, environmentally-responsible carbon black substitute, manufactured from waste tires and scrap rubber, both significant environmental hazards. Carbon black is an essential component of rubber and plastic commodities with multi-billion dollar global markets. RTI's proprietary pyrolysis process helps mitigate a major environmental hazard by recycling waste tires and scrap rubber (without burning them) and uses them as the primary raw material in the manufacturing process.

There are 300+ million scrap tires that are generated in the United States each year. This enormous environmental liability requires a viable solution. Currently, the largest applications for scrap tires include tire-derived fuel (TDF) and crumb rubber applications (such as rubberized asphalt). These applications are

capital-intensive and reliant on the receipt of disposal or tipping fees in order to be financially sustainable. TDF also requires the incineration of tires, resulting in the release of harmful emissions and the loss of valuable hydrocarbons. Several attempts have been made to find a more profitable control technology for scrap tires, many of which focused on recovering carbon black. However, none have successfully produced an economically sustainable, marketable carbon black product. In fact, many of these "tire deals" have been widely heralded at the outset as the solution to the global scrap tire problem, and touted to investors as hugely profitable. Their widely publicized failures have led to an entrenched resistance to the next "tire deal."

So what makes RTI different? The simple fact is that RTI is the first company to manufacture a green, marketable carbon black material that can be used in commercial rubber and plastic applications without compromising product quality.

## **Technology or Product Description:**

RTI's pyrolysis process recovers four products: SynBlack, oil, gas and steel.

### **SynBlack**

RTI's primary product is SynBlack, a "green" carbon black that can replace virgin carbon black in many industrial uses. Carbon black is the major reinforcing agent for rubber and accounts for between 30 and 45 percent, by weight, of nearly all rubber goods. Carbon black is also used as a colorant in various plastic applications.

### **Oil**

Oil produced in the pyrolysis process is collected as a middle distillate with properties similar to a highly aromatic light fuel oil. It is low in sulfur (0.8%), and there are also several potentially valuable petrochemical fractions that can be recovered by extraction. Other uses for the oil product are:

- Feedstock for further refinement
- BTU value as a primary or backup fuel source
- Extender oil for rubber and plastics

### **Gas**

Gas produced in the pyrolysis process is high-BTU fuel gas that is very similar to natural gas. Heating values are in the range of 1500 – 1800 BTU/scf. RTI's process yields enough fuel gas to satisfy a majority of the energy requirement of the process. The remaining gas is suitable for other on-site energy needs and for sale to industrial gas users.

### **Steel**

The steel originates from the belts and beads of the scrap tire material and is a high grade of carbon steel that will find a ready market in the scrap steel industry. The steel will be collected in roll-off containers and sold into the scrap market.

## **Industry Overview:**

The market for carbon black is generally segmented in three ways: tires, mechanical rubber goods, and non-rubber goods. More than 90% of carbon black is used as reinforcement in rubber products (tires and mechanical rubber goods). The mechanical rubber goods segment includes automotive belts, hoses, weather stripping, wiper blades, mud flaps, flooring, roofing, bed liners, and a host of other rubber applications. The non-rubber market is comprised primarily of printing inks and plastics. The tire segment is by far the largest market segment, with 66.1% global market share and 71.1% North American market share.

The market can be further segmented into "soft blacks" and "hard blacks" based on the hard or soft properties imposed by the final rubber, plastic or ink product requirements. Soft blacks comprise approximately 90% of the mechanical rubber and non-rubber good segments, and approximately 40% of the tire segment. This equates to 2.5 billion pounds per year in the North American Market and 10.8 billion pounds per year in the Global market.

### Trends by Application

The Global market for carbon black is expected to grow by 3.4% per year between 2006 and 2011, for a total increase of 17.2%, a slight decrease from prior period growth trends. Growth in the tire segment has steadily increased between 2.8% and 3% per year through 2006. This segment is expected to increase by 3% per year between 2006 and 2011, driven primarily by continued popularity of performance tires in developed regions and demand for truck and heavy equipment tires. The mechanical rubber goods segment experienced strong growth between 2001 and 2006 of approximately 5.2% per year. Growth was driven by the recovery of mechanical rubber goods consumption over the same period. Growth rates for this segment are expected to decline slightly between 2006 and 2011 to approximately 4% per year. The non-rubber segment, comprised primarily of plastics and printing inks, grew by approximately 3.5% per year through 2006. Growth in this segment is tied to developing markets in the Asia Pacific region, where demand for plastics has increased as these countries develop. Growth in the non-rubber segment is expected to decline slightly during the 2006-2011 period to 3.2% per year.

Rapid development of the automotive and tire industries is the primary driver of growth in the Asia/Pacific market. Demand in China is growing rapidly, where the market is projected to grow 23% between 2006 and 2011. The ongoing stagnation of the automotive and rubber industries in Western Europe and Japan has flattened demand for carbon black in these regions; however, demand in North America and the rest of Asia more than offsets this trend.

*Source: "World Carbon Black", The Freedonia Group, March 2003*

## **Competition:**

RTI's competition is carbon black manufacturers. In North America, these competitors include Cabot, Columbian Chemicals, Sid Richardson, Continental Carbon, Engineered Carbons, and Degussa.

## **Sustainable Advantage:**

### Price/Value Position

To gain rapid acceptance in all segments of the carbon black market, RTI will initially be positioned to compete on price/value. Mechanical rubber goods producers, tire manufacturers and plastics manufacturers face staggering increases in production and raw materials costs, intensifying the urgent need to find lower-cost alternatives to carbon black. All of RTI's products can be sold at a significant discount to competing products because RTI's production costs are substantially lower than those of competing manufacturers.

RTI gets paid for its raw materials and can maintain a price advantage over carbon black and still achieve gross margins in excess of 65%. Conversely, the primary raw materials used to make typical virgin carbon black are oil or gas – very expensive raw materials. Based on a \$60.00 per barrel West Texas Intermediate (WTI) Crude Oil price, the cost per pound to produce carbon black is estimated to be 33.75 cents. RTI's per-pound cost to produce SynBlack is 7.7 cents per pound. RTI's production costs are not tied to the price of oil because RTI does not use oil as a raw material. In fact, the price of WTI would have to drop to \$13.50 per barrel in order for carbon black's production costs to be comparable to RTI's.

Once market penetration has been achieved, RTI believes that its products will eventually be sold at a premium rather than a discount because of their "green" attributes.

#### First Mover / Disruptive Technology

RTI is the first company to manufacture a green, marketable carbon black substitute. SynBlack is the first viable recycled carbon material that can be used in commercial rubber applications without compromising product quality. Other efforts to convert scrap rubber into a useable carbon black substitute have failed due to inferior technology and insupportable product economics.

#### "Green" Position

Many industries, particularly the automotive industry, are facing increasing consumer and governmental pressure to use recycled materials in the production of vehicles and components. SynBlack provides these industries with an alternative carbon black substitute at a significant cost savings. RTI's process facilitates complete resource recovery, where all parts of the tire are recycled to produce SynBlack, oil, gas, and steel, eliminating environmentally detrimental waste, preventing hydrocarbon emissions and conserving and recycling the equivalent of millions of barrels of crude oil each year.

Virgin carbon black is manufactured through the incomplete combustion of oil or natural gas hydrocarbons in an oxygen-controlled environment, producing a carbon black "soot" residue. The manufacturing and material handling process is environmentally detrimental, discharging harmful hydrocarbons and particulates into the air, soil, and groundwater. Extreme environmental concerns related to emissions from typical carbon black manufacturers have prompted federal, state, and local governments to severely restrict permitting or construction of new carbon black manufacturing plants in the United States, limiting domestic growth and expansion of the industry.

RTI has received Air and Water Quality permits from the West Virginia Department of Environmental Protection. RTI can construct and operate plants in the United States and enter the market without the restrictions placed on other carbon black manufacturers due to environmental constraints.

As an added environmental benefit, RTI's proprietary post-pyrolysis process conserves and recycles two million barrels of crude oil per facility, per year, preventing emissions of approximately 15,000 pounds of hydrocarbons.

## **Marketing Plan:**

#### Target Market

RTI initially plans to target the "soft black" North American market with eight domestic manufacturing facilities constructed over a six year period. The "soft black" market in North America is approximately 2.5 billion pounds per year. At full capacity, with eight plants constructed and operating, RTI will produce approximately 372 million pounds of SynBlack each year. This represents a market share of approximately 15% of the North American soft black market, and just over 8% of the total North American carbon black

market and approximately 2% of the total global carbon black market.

RTI is currently investigating licensing opportunities in Asia and Europe, which would considerably increase the total available soft black market for SynBlack.

### Market Entry

RTI plans on taking a phased approach to entering the soft black segments of the North American mechanical rubber goods, tire, and non-rubber goods markets. RTI plans to first gain market share in the soft black segment of the North American mechanical rubber goods market, followed by capturing a share of the soft black segment of the North American tire market and the high margin plastics segment of the non-rubber soft black market.

The soft black segment of the mechanical rubber goods market is an attractive initial target because this market typically commands a price premium due to custom packaging requirements and lower volume orders. Additionally, the customer approval process in this segment of the market is three to six months, far shorter than approval lead times for tire and plastics manufacturers.

RTI's market entry strategy can be summarized as follows:

- Gain market share in soft black segment of North American mechanical rubber goods market;
- Sample and obtain approvals in the soft black segments of the tire and plastics markets;
- Grow share in all markets by obtaining approvals of new customers in all markets, and increasing quantities with existing customers;
- Enter international markets such as Europe and Asia via technology licensing or joint venture initiatives;
- Expand RTI's global presence.

### Market Size:

Carbon black is a commodity used in virtually all rubber and many plastic products. In 2006, the North American market consumed more than 4.5 billion pounds of carbon black per year, generating revenues of over a billion dollars. The global market for carbon black was projected to be more than 8.6 million metric tons (18.9 billion pounds) in 2006, growing to approximately 22 billion pounds by 2011 ("World Carbon Black", The Freedonia Group, March 2003).

SynBlack can be used in the "soft" series of carbon blacks, or approximately 56% of all market applications for carbon black.

### Revenue Projections:

RTI plans to roll out a total of eight SynBlack manufacturing facilities over a six year operating period. The first plant will be constructed in two phases in order to mitigate scale-up and operational risks. Cash flow from Phase I will fund Phase II equity requirements to double capacity of the first facility in the third year of operations. Subsequent plants will be financed through a combination of cash flow from existing plant operations and debt.

RTI's primary source of revenue will be SynBlack. Oil, steel and gas by-products will be sold to manufacturing

and energy industries, providing ancillary revenue streams for the company. A portion of the gas produced in the process will be used to generate energy for the plant. Each facility will produce over 400 barrels of oil per day, which has been deemed highly desirable as feedstock by potential customers and will be a significant revenue source for RTI.

At full capacity, each plant is projected to gross \$25 million in annual revenue (on average) and achieve EBITDA of \$17 million and Net Income of \$8.75 million. With eight plants operating at full capacity by year seven, annual financial projections exceed \$200 million in revenue, EBITDA of \$142 million and Net Income of \$72 million.

## **Management Team:**

RTI's management team is headed by Mr. Ken Hamby (President & COO), Mr. Jim Kelly, (Chairman & CEO), and Mr. Doug Augustine (Executive Vice President, Business Development). Brief biographies on each of these individuals are included below. RTI's founders are Mr. Jim Kelly, Mr. John Rodney and Mr. Danny Aderholt. Additional information on RTI's founding partners can be found on RTI's website at [www.rti-ww.com](http://www.rti-ww.com). RTI's Strategic Advisory Board includes the former head of the US Small Business Administration, Mr. Hector Barreto, and Mr. Jim Watson, CEO of TechSpace. Information on other Strategic Advisory Board Members can also be found on RTI's website.

### **Ken Hamby, President & COO**

Mr. Ken Hamby brings more than 30 years of executive management and engineering experience in the energy industry to RTI. Mr. Hamby began his career as an engineer at Fina Oil and Chemical Company. During his tenure at Fina, he directed the expansion of a \$63 Million ethyl benzene plant and managed the engineering and construction of a \$50 Million polystyrene production facility.

In 1987, Mr. Hamby joined Falcon Seaboard Resources where he managed the company's first cogeneration facility. Mr. Hamby launched Falcon Seaboard's operations and maintenance subsidiary in 1992 where he was responsible for a \$475 million asset portfolio and \$250 million in annual revenues. Mr. Hamby later served as Vice President of Business Development and directed acquisition initiatives for an oil recovery and environmental technology company. From this experience, Mr. Hamby developed a persistent interest in materials recovery and recycling, facilitating his involvement with RTI in 2000.

In his current role as COO of RTI, Mr. Hamby was instrumental in proof-of-concept activities for RTI's proprietary pyrolysis process. Under his direction, a pilot facility was constructed and operated, and successfully produced a marketable carbon black substitute. Mr. Hamby was largely responsible for overcoming the technical and economic barriers that have thwarted other like technologies from reaching commercial viability.

Mr. Hamby has a degree in Chemical Engineering and an MBA from the University of Texas at Austin.

### **Jim Kelly, Chairman & CEO**

Mr. Kelly is a lead investor and founding member of RTI, with more than 20 years of development, construction and executive management experience.

Mr. Kelly was a principal in Cobblestone Golf Group, where he was responsible for more than \$40 Million in construction projects annually, and was instrumental in helping to double the company's property portfolio prior to its sale for \$400 million in 1999.

Subsequently, Mr. Kelly founded Emerald Venture Group, Inc., a real estate development company that provides feasibility analysis, entitlement, design, and construction services to the golf, recreation, hospitality and residential sectors. Mr. Kelly's project portfolio includes over \$500 Million in current and completed development projects.

Mr. Kelly led the site selection and permitting initiatives for RTI's first planned commercial facility in Newell, West Virginia. Under his direction, RTI secured air and water quality permits for construction of the plant in a federal non-attainment zone, a significant accomplishment and blueprint for accelerating future site permitting initiatives.

As a significant investor in RTI, Mr. Kelly is leading the current effort to obtain middle-stage financing for construction of RTI's first commercial SynBlack production facility

**Doug Augustine, Executive Vice President – Business Development**

Mr. Doug Augustine brings more than 20 years of executive management experience to RTI. Mr. Augustine successfully raised seed and expansion capital, structured lucrative licensing contracts, and directed aggressive growth initiatives resulting in the sale, acquisition or IPO of several business concerns.

Early in his career, Mr. Augustine was involved in sports and event marketing, first as Chief Operating Officer of Conner Sports, where he was responsible for structuring and negotiating event sponsorship contracts for the 1988 America's Cup Regatta with several Fortune 500 companies. He founded Arlen Marketing in 1989, and was selected by AT&T, General Motors and Advent Strategic Marketing to support and integrate their marketing plans for the 1996 Atlanta Summer Olympics.

Mr. Augustine later served as Vice President and Managing Director of InterVu Inc., where he was instrumental in the company's successful IPO in 1997. The company was later sold to Akamai for more than \$2 billion. In 1999, Mr. Augustine founded Bidland Systems, Inc., a transaction-based application service provider. Mr. Augustine raised more than \$22.5 million in seed and early stage financing for the company.

Mr. Augustine joined Interpublic Sports & Entertainment Group (IPSEG), a division of the Interpublic Group of Companies as Chief Operating Officer in 2002. Mr. Augustine directed the sale, restructuring, workout, disposition and turn around of IPSEG's eight global operating companies with annual combined revenues in excess of \$700 million.

Mr. Augustine holds an undergraduate degree from the University of California, Berkeley, and a J.D. degree from the University of San Diego School of Law.

# Assure Controls, Inc.

Company or Organization Name: Assure Controls, Inc.

Address: 5900 La Place Court, #107, Carlsbad, California 92008

Venture Roundtable Presenter: Bryan Bjorndal

Title: CEO

Phone: 760-505-3000

Email: Bryan@assurecontrols.com

Website: www.assurecontrols.com

Industry/Sector: Water Testing-Toxicity Determination

Has a Company been Established? If so, when and what is the legal form:

Established in 2005 - a California "C" Corporation

Technology Readiness Level: Actual system, proven through successful fielded operations (We are selling product now)

Patents Awarded: Two patents awarded

Patents in Progress: Four patents filed with USPTO

Amount of Capital Raised and Source: 2005 Grant \$75k, 2006 Grant \$52k - both from the Center for Commercialization of Advanced Technology

Current Investors: 2006 \$750k Private Investors

Annual Revenue: Just introduced products December 2006

Number of Employees: 9 FTEs

## Company Overview:

Assure Controls manufactures and sells a portable automated testing system that is faster, more informative, and much less expensive than current methods for detecting toxicity levels in water and sediment. We provide rapid onsite detection of both inorganic and organic substances. The system consists of the QwikLite 200 instrument, software controls and statistical package, and single use proprietary test kits. The benefit is a faster measurement with greater sensitivity that is much easier to use, does not require an expensive laboratory, and has results that are automatically printed in a final report.

## Technology or Product Description:

Released in December 2006, Assure's "QwikLite 200 Testing System" is based on the exclusive commercial rights to technology developed over the last ten years, with nearly \$2.5 million in research funded by the Department of the Navy. Those efforts conclusively documented the relationship of naturally occurring

marine bioluminescence to various environmental conditions. The system uses very small optical and electrical sensors to determine the effects of potentially harmful substances.

## **Industry Overview:**

Contaminant testing is both a voluntary industry process for quality control as well as a mandated test for federal and state agencies. Voluntary water toxicity tests are done to test levels of known contaminants, and mandated tests are required by permits for any effluent discharge into public waters. As an example of the U.S. market situation, the Environmental Protection Agency (EPA) monitors the activities of 200,000 discharge permits in the U.S., each requiring contaminant testing. In developing nations, data from multiple independent sources illustrate tragic and unprecedented toxicity created by a lack of control on pollution, infrastructure and lack of enforcement. The worldwide estimate for contaminant testing exceeds \$1.0 billion annually.

## **Competition:**

The current alternatives are laboratory test procedures, not other instruments or product suppliers. Bioluminescence inhibition test data, as well as five scientific publications by the inventors, show superb correlation to lethal dose toxicity testing (the gold standard today). Plankton are much easier to use, more stable, and more sensitive than laboratory organisms used today. A few companies have bioluminescent bacteria products on the market now, but it is felt that their short life span (18 hours) is not applicable in standard toxicity test protocols.

## **Sustainable Advantage:**

The QwikLite200 Testing System has the best combination of customer attributes: accurate, faster, easier to use and less expensive. The system does not require expensive lab set-up, or highly trained personnel. Test results are printed or transmitted, and ready in half the time of the current methods. The system provides a new capability for customers that must today outsource this required test due to the expertise and facilities required. In developing countries, there are few, if any such laboratories.

## **Marketing Plan:**

There are two markets currently pursued by the Company:

China represents the largest emerging market in the world and is under tremendous pressure to address widely publicized environmental challenges. In the fall of 2006, Assure signed an exclusive distribution agreement with Asia Water Solutions Company, Ltd., headquartered in Hong Kong. Through their efforts and support, Assure participated in a scientific convention, held a press conference and product seminar, and exhibited the QwikLite 200 Testing System in Beijing, China. Since that conference, AWSC has completed a 120 page primary market research report, order systems and disposable kits from Assure, established reference and evaluation sites in almost a dozen prestigious universities or agencies of the People's Republic of China. With Assure's support and guidance, AWSC has established a laboratory and manufacturing capability to package and ship plankton from Hong Kong. Current efforts are aimed at achieving a "national standard" where QwikLite technology could be part of a nationwide testing and compliance system.

In the U.S., marketing, customer support and fulfillment are done by the company. Distribution partners will

be pursued by specific market or geography in order to increase sales. Assure manufactures the QwikLite 200 Testing System, the Results Reporting Software, and the proprietary disposable test kits. In mid-2006, the Company plans a U.S. product introduction into several market segments. The key milestone for easiest market adoption is the acknowledgement from the Environmental Protection Agency (EPA) that the species used in the QwikLite™ 200 Testing System is equal to or better than current approved species. The data already exists, an international standard on the technology has been issued, and in January 2007, the EPA listed QwikLite™ as one of their "Measurement and Monitoring Technologies for the 21st Century." The EPA does not approve products, they review and "allow" new scientific methods to be used in EPA required tests.

The Company believes that these two markets represent sizeable revenue and profit opportunities. Within two years QwikLite™ could be on its way to being the preferred onsite detection method for contaminants and toxicity levels.

### **Market Size:**

Globally, it is estimated that industrial users spend \$575 million annually to test effluent discharges for government compliance alone. The worldwide estimate for contaminant testing of all types and methods exceeds \$1.0 billion annually.

### **Revenue Projections:**

Total revenues of approximately \$1.2 million are forecasted for the first year, \$8.4 million and \$19.3 million in the second and third years respectively. Income by the fifth full year of commercialization should exceed \$40 million.

### **Management Team:**

Bryan Bjorndal is the Founder and CEO of Assure Controls, Incorporated. In January 2005, Mr. Bjorndal founded Assure Bioassay Controls, Inc. (now Assure Controls, Inc.). Mr. Bjorndal is the Principal Investigator in water toxicity/contaminant assessment grant awards 2004, 2005 and completed product development in 2005 under a technology transfer grant from the Center for Commercialization of Advanced Technology, funded by the Department of Defense with implications to Homeland Defense public health initiatives. The company received the "Gold Trophy-Best of Show, World's Best Technology Showcase 2005" an international competition of over four hundred entries. Mr. Bjorndal is the co-inventor of four new patents for the company's QwikLite™ 200 Testing System.

Mr. Bjorndal has senior level company management experience with prior responsibilities including engineering design, product development, manufacturing, quality assurance, facilities management, and biological laboratories in companies such as Hewlett-Packard, Puritan-Bennett, BioQ, and Genetronics. His extensive experience in the development and commercialization of technologies includes over 20 medical products through the complex FDA safety and effectiveness regulations. As a private consultant in 2001-2002, he was an advanced technology investigator for high throughput screening applications and molecular delivery techniques. From 1997- 2001, he was co-founder of BioQ, an internet applications start up.

B.S. Biology, Santa Clara University; Marine Biology Graduate Studies, U.C. Berkeley; and M.B.A. University of Oregon. Mr. Bjorndal also served as a Marine Researcher for the Bureau of Fisheries and Aquatic Resources, U.S. Peace Corps, Philippines.

Richard N. Snyder is an investor in Assure Controls, and has served as a director of our company since June 2006. Mr. Snyder has a distinguished business career and has been on the board of directors for Forgent Networks since 1997, where he is chairman, president and chief executive officer. Mr. Snyder served as founder and chief executive officer of Corum Cove Consulting, LLC, a consulting firm specializing in providing strategic guidance to high technology businesses.

From 1996 until 1997, Mr. Snyder was the senior vice president of World Wide Sales, Marketing, Service and Support of Compaq Computer Corp., a worldwide computer company. From 1995 until 1996, Mr. Snyder was the senior vice president and general manager of Dell Americas, a computer manufacturer and marketer. Prior to 1995, Mr. Snyder served as group general manager of the DeskJet Products Group of Hewlett Packard. He also serves as a director of Symmetricom, Inc., based in San Jose, California.

Frank H. Bjorndal is an investor in Assure Controls, and has served as a director of our company since June 2006. Mr. Frank Bjorndal is former chairman of the board of Aquatech International, and sole owner of Conely Company. Aquatech is a private, group membership society comprised of over 120 pool building professionals, and over 100 retail store operators. Conely Company is a private company supplying materials, supplies and specialty components for the water industry, municipalities, and pool construction.

Mr. Frank Bjorndal served Aquatech International for over a decade and created the organization's structure, bringing smaller providers together to enable each company to succeed individually. He served as the first president and served on the elected Board of Directors until elected chairman. Aquatech is comprised of some of the nation's best pool companies. Membership is by invitation only, and all members have passed stringent qualifications. The primary goal of Aquatech is customer satisfaction.

David Lapota , Chief Scientist - US Navy, Space and Naval Warfare Systems/San Diego. Dr. Lapota is one of the world's top scientists in the field of detecting contaminants. His work with bioluminescence measurements, ecology of luminescent plankton, toxicology, and aquaculture has spanned over twenty-five years. His fields of study include all water environments and would take pages to recount. The summary of experience and qualifications include:

- Patent holder and inventor on four technologies.
- Author of 34 scientific and technical publications.
- Field and research experience on 23 military or biological expeditions.

Dr. Lapota's involvement in professional organizations and societies include:

- American Geophysical Union (Ocean Sciences Member 1981- present) Washington, D.C.
- American Society of testing and Materials (Committee E47 - Biological Effects)
- The Oceanography Society (Charter member 1988) Washington, D.C.
- The Explorers Club, Fellow National (Elected 1989).
- SETAC (Society for Environmental Toxicology and Chemistry)
- Marine Technology Society, Maryland, 2004
- PACON International (Pacific Congress of Science), 2001
- California Aquaculture Association, 2004

Ph.D. Marine Biology, University of California, Santa Barbara

M.A. Geography, Environmental Program, Marine Biology, San Diego State University, B.S. Zoology, San Diego State University

Marci Weatherford is the Vice President of Assure Controls. Ms. Weatherford has more than 15 years of global solution, consultative sales and business development experience in multiple industries including: Life Sciences, Finance Services and Information Technology. Her main focus over the last 10 years has been around compliance and governance from a global perspective, helping companies like Deloitte Consulting and Sun Microsystems form the Center for Technology Governance and Compliance, working with various agencies like the U.S. FDA, the Ministry of Health Labour and Welfare in Japan and the Information Commissioner's Office in the UK; and assisting customers who strive to better understand the impact of governance and compliance on their technology assets, and how technology can be used to enhance their governance and compliance position.

Having brought more than a dozen products to market for companies like Sun Microsystems, Computer Sciences Corporation (CSC), BioQ, Pentech Energy Solutions and Advanced BioResearch Associates, Ms. Weatherford's experience in both start-ups and Fortune 500 companies spans from conception to end-of-life; from technology to services and local to global.

Ms. Weatherford holds a B.A. in Behavioral Sciences from Sonoma State University. She is a member of CONNECT, High Tech Marketing Alliance (HTMA), and Women in Technology International (WITI). She sits on the board of the Open Compliance and Ethics Group.

# FlexEnergy, Inc.

Company or Organization Name: FlexEnergy, Inc.

Address: 22922 Tiagua, Mission Viejo, CA 92692

Venture Roundtable Presenter: Edan Prabhu/Tom Smith

Title: Chairman and Founder/CEO

Phone: 973-768-7562

Email: tom.smith1@cox.net

Website: www.flexenergy.com

Industry/Sector: Renewable/Clean Tech

Has a Company been Established? If so, when and what is the legal form:

Yes, FlexEnergy is a C Corporation.

Technology Readiness Level: System prototype demonstration in an operational environment

Patents Awarded: One patent

Patents in Progress: The pre-eminent law firm of Fish & Richardson has been retained to help formulate patent strategy and execution

Amount of Capital Raised and Source: \$6,000,000 from the DOE, EPRI, GTI, NREL, CEC and private sources

Current Investors: Edan and Carol Prabhu, Tom Smith

Annual Revenue: FlexEnergy is a pre-revenue company

Number of Employees: Two full-time and four part-time

## Company Overview:

Over the last ten years, FlexEnergy has successfully developed the Flex-Microturbine, the first small power plant that can run on ultra-low Btu fuels. This capability gives the company access to negative to zero cost fuels, while generating valuable products such as electricity, greenhouse gas credits and NOx allowances.

## Technology or Product Description:

The Flex-Microturbine utilizes a catalytic combustion process in place of conventional combustion, enabling it to operate on ultra low Btu gases at temperatures that are too low for NOx creation.

## **Industry Overview:**

The most applicable industries that FlexEnergy will compete in are the renewable fuel to electricity and VOC destruction industries.

## **Competition:**

Presently there is no competition for electricity generation with gaseous fuel streams that have Btu content less than 350 Btu's per standard cubic feet. In the future, competition could come from established microturbine manufacturers.

## **Sustainable Advantage:**

FlexEnergy's sustainable advantage stems from its decade-long effort to successfully develop the Flex-Microturbine. In particular, only we have figured out how to successfully operate a microturbine utilizing a catalytic combustor. We plan to convert this knowledge into protected IP with the assistance of Fish & Richardson and form strategic relationships with the microturbine suppliers.

## **Marketing Plan:**

FlexEnergy intends to pursue a sequential marketing strategy. It will first focus on the thermal oxidizer or industrial waste market in California because of the high value proposition we offer customers in this segment. After unit costs drop and the product matures, we then intend to go after the large low Btu gas segments such as landfills, shut-in natural gas wells, coal mines and coal bed methane seams, as well as bio-based renewable organic sources such as wood gasifiers, swamps, dairies, and ethanol and biodiesel byproducts. Our business model starts with unit sales but will quickly morph into shared savings and own-and-operate business models.

## **Market Size:**

The thermal oxidizer segment is over a billion dollars worldwide. The low Btu gas segment is significantly larger, but until today, there has been no reason to quantify the size of this market.

## **Revenue Projections:**

FlexEnergy is in the process of preparing long-term revenue projections.

## **Management Team:**

FlexEnergy was founded by Edan Prabhu, who developed the Flex concept and has spearheaded the product development and raised the R&D funds. Mr. Prabhu has worked in the power industry for thirty years, responsible for solar, geothermal, biomass, fossil and nuclear power plants. In addition, Edan leads the development of interconnection standards for power plants in California.

Thomas R. Smith has recently taken the position of CEO of FlexEnergy. Prior to FlexEnergy, he served as CEO of Direct Drive Systems, where he raised \$15 million Series A equity for that promising industrial start-up company. After receiving his MBA at Harvard, Mr. Smith was a principal architect of the successful venture-backed independent power company, J. Makowski Co., which was sold to Bechtel and PG&E for \$300 million. Later, Mr. Smith held several senior executive roles at Public Service Enterprise Group, a Fortune 200 energy company, including President of PSEG Fossil and COO of PSEG Global.

# M4 Engineering

Company or Organization Name: M4 Engineering, Inc.

Address: 2161 Gundry Avenue

Signal Hill, CA

Venture Roundtable Presenter: Cory Arendt, Myles Baker

Title: President

Phone: 562-240-3963/562-305-3391

Email: coryarendt@yahoo.com

Website: N/A

Industry/Sector: Wind Energy

Has a Company been Established? If so, when and what is the legal form: M4 Engineering was founded in 2001 as an S Corp.

Technology Readiness Level: Component and/or breadboard validation in laboratory environment.

Patents Awarded: N/A

Patents in Progress: Lightweight Composite Truss Wind Turbine Blade, Filed March 2007

Amount of Capital Raised and Source (SBIR, Angel, VC's, Friends & Family, etc.):

\$70K, State of California

Current Investors: Founders

Annual Revenue: \$2M

Number of Employees: 12

## Company Overview:

M4 Engineering, Inc., is a high technology engineering consulting company focused on structural and aerodynamic design, analysis and fabrication, primarily focused on the aerospace and defense markets. Building on our aerospace & defense work, we have developed a revolutionary technology for the wind turbine industry.

## Technology or Product Description:

A revolutionary approach to the fabrication and assembly of large (>50 meter, > 5 Megawatt) wind turbine blades that reduces tooling cost, material cost, shipping cost and allows the production of more energy on existing turbines.

## **Industry Overview:**

Wind energy is becoming cost competitive with nuclear and fossil-fuel energy production as turbines become larger (5MW and larger). Large turbines require extremely large blades (>50 meters), which are difficult to manufacture and ship. Expansion in wind energy is restricted because there are not enough blades to install the desired turbines.

## **Competition:**

Current turbine producers include Vestas, Gamesa, Enercon, and GE Wind. Competition is blade production by turbine producers and 3rd party blade manufacturers.

## **Sustainable Advantage:**

Revolutionary fabrication approach allows 50% reduction in weight, 50% reduction in shipping cost, and reduction in fabrication labor and material cost. Approximately 40% reduction in delivered blade cost. Technology also allows use of larger blades, increasing energy production

## **Marketing Plan:**

Market directly to wind turbine installers and operators, as well as to OEM's such as GE Wind.

## **Market Size:**

Wind turbine installation is a \$12B annual business, growing to \$29B in 2014. Wind turbine blades represent over 14% of this market. With the exponential interest in wind energy, there is approximately \$200M gap between supply and demand in 2007.

## **Revenue Projections:**

\$18M per year in 2010, \$100M per year in 2013, \$250M per year in 2015.

## **Management Team:**

Dr. Myles Baker – CEO, M4 Engineering, Inc. Engineering & Management experience at Boeing Phantom Works, Mechanical & Aerospace Lecturer at UCLA and UCI. Expert in composite structures, aerodynamics and structural dynamics.

Mr. Cory Arendt – Production Director. Advanced composite manufacturing. Set up fabrication for 31 meter blades in southern California. Sales & Marketing for wind energy.

# Notes

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# Notes

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