

London-Israel Cleantech Conference



The sponsors:

ERM



Participating companies

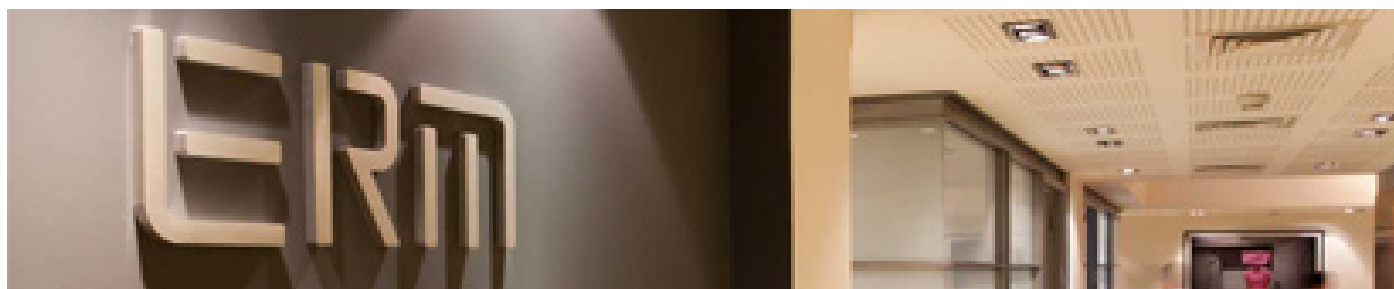


London-Israel Cleantech Conference

Agenda

- 9:30** Opening introduction and light refreshments
- 10:00** Company presentations
- 11:15** Coffee break
- 11:45** Company presentations
- 1:00** Lunch
- 1:30** One to one meetings

The sponsors



ERM

Epstein
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Epstein Rosenblum Maoz (ERM) is a leading international law firm operating out of Israel with unique expertise with respect to cleantech, energy and infrastructure.

Focus In order to adhere to the utmost professional standards of excellence, ERM focuses on those practice areas in relation to which our lawyers have developed in-depth experience and expertise, being corporate, finance and project-finance. ERM is constantly ranked as one of the top firms in Israel in such areas.

Excellence Our practice is founded on the excellence of its lawyers, who offer a unique combination of in-depth knowledge of the law, strong commercial sense and genuine understanding of the business needs of our clients. Such qualities enable us to meet and exceed its clients expectations time and again.

International With partners and associates who have worked at London «Magic Circle» and top US firms, as well as on the most complex Israeli transactions, ERM offers significant added-value to international clients operating in Israel, as well as to Israeli clients operating abroad.

ERM regularly advises leading Israeli and international companies, commercial and investment banks, private equity houses, venture capital, hedge funds and private investors, on some of their most challenging projects carried out in Israel and abroad in recent years.

Recognition Our lawyers exceptional international and local experience, as well as the quality of advice and service we offer our clients, are regularly recognised by leading international directories, such as Legal500, Chambers and Partners and Dan and Bradstreet.

If you would like additional information about our firm, please contact one of the attorneys listed below. You can also visit our website at www.erm-law.com, or call us at + 972 (3) 6061600 (fax + 972 (3) 6061601).

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British Gas is the biggest energy provider for consumers and businesses in the United Kingdom with over 16 millions homes and 25.7 million customer accounts. We are also the largest operator in the installation and maintenance of domestic heating and gas appliances in Britain. We are committed to providing the best value energy and the highest quality services expertise in the country. Our 2010 revenue was £12.7 billion with a £1,216 million operating profit. We also operate in the United States and Canada under the name Direct Energy where we have over 6 million customer relationships.

We have made a significant commitment to develop clean technology and renewable assets to help secure energy needs against a backdrop of growing concern about climate change and the cost of energy. We continue to invest in companies with products and services that help customers better understand and better reduce their energy consumption.

If you think you have an idea, product or service that we should know about, please email us on emergingtech@britishgas.co.uk.



N A B A R R O
CLARITY MATTERS

Nabarro LLP

Cleantech sector expertise

Our combination of cleantech sector specialists with fundraising expertise and strong established relationships with investors means we offer a complete service for cleantech companies. We are always commercial, practical and focused on delivering results for our clients.

Growing regulatory demands, climate change obligations and stakeholder pressures have created a range of market opportunities for cleantech companies, entrepreneurs and innovators. Nabarro has an experienced team of lawyers who can help you realise value and leverage these opportunities in a commercial and practical way. We have a thorough understanding of the regulatory environment and market factors affecting cleantech businesses with specialists in renewable energy and clean technology, low and zero carbon development, climate change and energy policy and regulation, emissions trading and sustainable infrastructure.

We also have an impressive track record of delivering investment into clean technology and renewable energy companies, both in the listed and private areas.

This combination of industry sector specialists with fundraising expertise and strong established relationships with investors, means we offer a complete service for cleantech companies.

We have advised on a wide range of fundraisings, flotations, joint ventures, mergers and acquisitions working with companies that include:

- Acta SpA
- AEA Technology plc
- Andes Energia
- Better Buildings Partnership Limited
- Broadview Energy
- Camco International Limited
- Carbon Trust
- Climate Change Capital Limited
- EcoSecurities Group Limited
- Energem Resources Inc
- Environmental Technologies Fund
- Green Biologies Limited
- KBC Peel Hunt Ltd
- Laing O'Rourke Energy
- London Climate Change Agency
- Microbial Solutions Limited
- Modern Water plc
- MSM Capital Partners, Inc
- Novera Energy Limited
- Numis Securities Limited
- Oriel Securities Limited
- Oxford Capital Partners
- Oxford Catalysts plc
- Perpetuum Limited
- Seymour Pierce Limited
- Thanet Offshore Wind Farm
- Ventus VCT

“Their shared passion to help close deals has resulted in some super human work schedules, but this has never proved an issue, indeed they are viewed by me and my co-shareholders as being very much our in house legal department, a credit well deserved.” EcoCentroGen

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WHEB Partners

Pioneers in European Clean Technology

Founded in 1995 as a specialist cleantech advisory firm, WHEB Partners comprises a team of 10 investment professionals in London and Munich. WHEB Partners manages £130 million in two clean technology focused private equity funds – the first was raised in 2004/5 and the second in 2008/9. WHEB Partners invests up to £10 million (or more with syndicate partners) in late-stage venture, growth capital and lower mid-market buyout cleantech deals, with a focus on Europe.

WHEB Partners has a unique combination of professionals with over 60 years of specialist experience in the commercialisation of clean technology, running businesses, venture and growth capital investment, mergers and acquisitions, corporate strategy and advising governments on policy both domestically and internationally.

We view cleantech as an investment theme that cuts across multiple industrial sectors:

- **Clean industrial processes**, chemical and advanced materials
- **Energy efficiency and storage**, including smart grid technologies and transport efficiency
- **Waste minimisation**, treatment and recycling
- **Water treatment**, conservation and usage efficiency
- Enabling and non-capital intensive technologies for clean and **renewable energy generation**

“WHEB has a no-nonsense approach and is the most value-added European investor we know.”

–*Kleiner Perkins
Caulfield & Byers*

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The Renewable Energy Association of Israel (REAI)

REAI was established in 2009 to promote the implementation of renewable energy electricity production in Israel and its main activities are lobbying and promoting implementation of renewable energy by the various authorities and ministries of Israel.

REAI is the main lobbying group for the renewable energy market in Israel and its activity is conducted in various branches of REAI which includes PV technology, CSP, Israeli technologies and Wind.

Market overview

The Israeli renewable energy market was formed in 2002 when a governmental decision set a national goal of 5% renewable energy electricity production to be reached by 2016. In 2009 the goals were changed and an operative governmental decision has set a goal of reaching 5% production of electricity from renewable sources by 2014 and 10% by 2020. Those goals were translated by the Ministry of National Infrastructures to an installed capacity goal of 2,760 MW by 2020.

Implementation begun by 2007 when the Ashalim tenders, for two large-scale CSP plants and a medium size PV plant, were introduced by Government. In 2008 the first regulative FIT frame work was introduced for small scale PV systems setting a quota of 50MW for residential consumers (systems up to 15KW/15MW quota) and commercial consumers (systems up to 50KW/35 MW quota).

In December 2009 the quota for small-scale commercial consumers was exhausted and in August 2010 a new quota of 120 MW was introduced alongside with an unlimited quota for residential consumers (limited to 2010).

In January 2010 a FIT regulative framework for medium-size installations, for rooftops and ground installations, was approved and a quota of 300 MW was introduced. The framework is license to produce electricity and a power purchase agreement to be signed with the Israeli Electric Company.

Large-scale plants regulative framework FIT, for CSP and PV, is expected to be introduced by the beginning of 2011 setting a quota of 500MW. A separate quota of 50 MW for medium size ground installations which will be governed by governmental tenders and a FIT regulative framework for Biomass systems are also expected in 2011. In the Arava southren part of Israel the local government is promoting a solar park where a 60MW power plant will be built, tender is expected for publication in the first quarter of 2011 and is expected to invite both CSP or PV participants. Should you require further information regarding REAI activities and the renewable energy market of Israel we will be happy to assist via e-mail info@renewable.org.il



Aviv consulting group

AVIV AMCG is a globally recognized, multi-disciplinary management consultancy with over 25 year's experience. By capitalizing on a reputation for quality, AVIV has grown from a small consultancy into the leading consultancy in Israel today. providing its clients with the tools and know-how they require for business success.

AVIV takes prides in the ability to understand client needs at a deep level which in turn drives a focus on results. The value of the approach is demonstrated by the longevity of client relationships ranging over government, industry and Fortune 500 companies.

Aviv Infrastructure and Environment, Aviv fastest growing unit, is combining traditional project management tools and processes with the ever-changing and specialist demands related with the management of to energy, water, waste and emissions into an integrated environmental management philosophy.

AVIV AMCG's can support Cleantech enterprises looking to expand into international markets. Combining specific needs met within expert framework our services include:

- Market Research - Market mapping, positioning and analysis, reviewing grants, legal and policy frameworks
- Commercial Planning - Building, reviewing revenue models, company formation, review agreements with commercial partners, identifying sales channels and contacts
- Strategic Partnerships - Introductions to existing client networks, development of new client networks
- Integrated Marketing - Development and execution of strategic marketing plans, preparation of marketing materials, delivery of branding activities and PR communications
- Account Management - Project management for operational delivery and initiation and development of new sales opportunities
- Environmental audits - meeting needs of international, government and municipal legislation, Environmental impact Assessments, Sustainability evaluation and tools
- Statutory planning and permitting assistance
- Plot and site location
- Project management and control
- PMO of construction and infrastructure projects

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Participating companies



Atlantium Technologies Ltd.

Founded: 2003
Initial Funding: Aurum Ventures MKI
Stage: Sales
Technology: Hydro-Optic™ system for UV Water Treatment

Background

The trend of decreasing reliance on chemicals and energy-intensive technologies is seen among water-dependent industries and municipalities worldwide and is complemented by an increasing interest in implementing environmentally-safe water disinfection methods.

Historically, water-dependent industries and municipalities have relied on chemicals such as chlorine and ozone or high energy-use processes such as pasteurization to treat water. In contrast, ultra violet (UV) light's natural disinfection properties provide an environmentally-friendly and energy efficient alternative that introduces no chemicals or disinfection by-products (DBPs).

Atlantium is at the forefront of UV technology development. Its field-proven solutions combine advanced hydraulic and optic principles, taking water disinfection to levels never before attained.

Technology

The core of Atlantium's solution is a quartz treatment chamber that acts as an effective light trap. The system's configuration enables UV light rays to bounce repeatedly from the tube wall and through the entire water volume. The result is that UV rays continue to spread and uniformly fill the entire tube to efficiently inactivate microbes and routinely achieve high levels of disinfection.

Atlantium's system, which is a patented invention, has been validated by third parties to meet the stringent requirements of the U.S. Environmental Protection Agency.

Markets

Atlantium has field-proven installations in food and beverage, dairy, aquaculture, pharmaceutical, aquariums and municipal applications all over the world.

Awards

Over the past years, Atlantium has received numerous awards that note the innovativeness of its technology and its potential to become a significant contribution to safe water disinfection. The most recent award, in December 2010, is Frost & Sullivan's Product Differentiation Excellence Award.

Ownership

Atlantium is a privately-held company; key investors are Aurum Ventures MKI and Elron Electric Industries (NASDAQ & TASE: ELRN).



AlertMe is the leading technology innovator in cloud-based Smart Home Services. We are dedicated to helping our partners deliver the benefits of the Smart Grid and Smart Home to consumers today. Combining our award-winning Platform, Home Hub, Home Area Network and innovative hardware and applications, we provide unprecedented insight that enables consumers to take control not only of their energy use, but also a myriad of devices and applications in the home. By doing so we can help them to become more efficient, save money, enjoy more control and enhance their comfort and peace of mind.

Our aim is to add value to our partners' business. Using the AlertMe Platform, we can help you develop customised services and applications based on secure, open and scalable standards that will easily integrate with your back office applications.

By delivering Smart Home Services and Applications to your customers and integrating our technology into your Smart proposition, customers can begin to see the benefit of Smart in their home even in advance of an AMI rollout. We believe that customers who can share the benefits up front are much more likely in the future to see Smart Meters and Smart Grid as a mutually beneficial proposition and be open to expanding their Smart Home features. This approach informs not only our consumer proposition but also the value we can bring to our partners in developing new services and applications both for and with you.

For more information view alertme.com or contact Jody Haskayne, Corporate Communications Director
jody.haskayne@alertme.com or +44 (207) 9939507

Ceres Power is committed to providing alternative energy solutions to address the global challenges of reducing emissions, increasing fuel efficiency and improving energy security, by utilising its unique fuel cell technology in products sold into the microgeneration market.

Ceres Power has developed a mass manufacturable technology platform: the Fuel Cell Module, using the company's patented solid oxide fuel cell (SOFC) technology and operating on mains natural gas or packaged fuels such as LPG. Ceres Power has built a high calibre team with experience in a range of industry sectors including engineering, power generation, oil and gas, automotive and materials.

Ceres Power has developed a mass manufacturable technology platform: the Fuel Cell Module, using the company's patented solid oxide fuel cell (SOFC) technology and operating on mains natural gas or packaged fuels, such as LPG.

The Fuel Cell Module will form the core of a range of distributed generation products designed to become the new standard for energy provision in millions of homes around the world and to be at the heart of low-carbon smart grids. Our core technology provides an excellent platform for the development of a range of closely related products for global applications including: Combined Heat and Power (CHP) products for new and existing homes, operating on mains natural gas or packaged fuels
Portable products providing back-up or prime power, as alternatives to generators and batteries, operating on packaged fuels such as LPG

Products providing auxiliary power in transport sectors including automotive, marine and aerospace

The benefits associated with this technology include reduced energy costs through efficient operation, together with reduced emissions compared with competing methods.

For more information view cerespower.com or contact Bob Flint, Commercial Director
bob.flint@cerespower.com or +44 (1403) 273463



Computerized Electricity Systems

CES is the developer and manufacturer of a comprehensive solution (hardware and software) for managing electricity. This secured, open interface platform enables a WIN-WIN alignment between the needs of Energy Suppliers, Facility Managers and Energy Consumers, helping all parties to lower their total energy usage and costs with one transceiver point.

The CES **Smart Electricity Panel** replaces the traditional electricity distribution panel. Accessible from any web browser, the panel enables remote manual control as well as automated response to network conditions. Equipped with two-way communication, the panel can receive commands from an authorized power supplier, so as to activate its advanced optimization and control features. By programming the Smart Panel's patented Smart Switches, customers can mitigate excess consumption and reduce costs substantially.

“...This panel is unlike any other technology available to home owners...”
The Electric Power Research Institute (EPRI)

The C.E.S. Smart Panel is designed as a mass market solution for SMB's, High End Residential and EV Charging facilities. It supports Smart Grid interoperability standards and enables and encourages consumer planning and savings.

The core technology of the Smart Panel is the innovative Hybrid Mechanical/Solid-State **Smart Switch**. This technology enables seamless switching of electrical circuits at "zero phase cross", thus repetitive switching cycles can be performed with minimal wear and tear. Energy flow through each Smart Switch is monitored and governed by the System's on-board CPU. CES Proprietary algorithms utilize these capabilities to protect and optimize the electricity performance on premises.

Key capabilities include: Built in **Class 1 meter, digital timers and safety features. Remote control; Alerts** on irregular events e.g. excessive consumptions and faults; **Seamless integration of renewable source and EV chargers;** and **Automatic phase balancing. Two-way communication** enables the panel to receive commands from an authorized power supplier. Utility companies can thus offer **smart grid features** today: **Guaranteed peak-load shedding** with minimal customer discomfort; Load Shifting using **Time-Of-Use** rates; Circuit activation based on **Energy Quotas and Price-Levels; Tie-to-Grid** solution for Roof-top PV systems. The Smart Panel continuously sends consumption and performance data to an external database. Authorized web applications can detect excessive consumption, suggest corrective actions and send optimization control commands to the panel.

CES Business model is based on three streams of income: (a) Equipment sales with targeted gross margin of 40%-50%; (b) Software license per panel for hosted environment services; (c) Revenue sharing from open API applications

CES Business status: Hundreds of panels already installed in several countries and multiple applications (SMB's, Residential, Institutions, Utilities, EV).

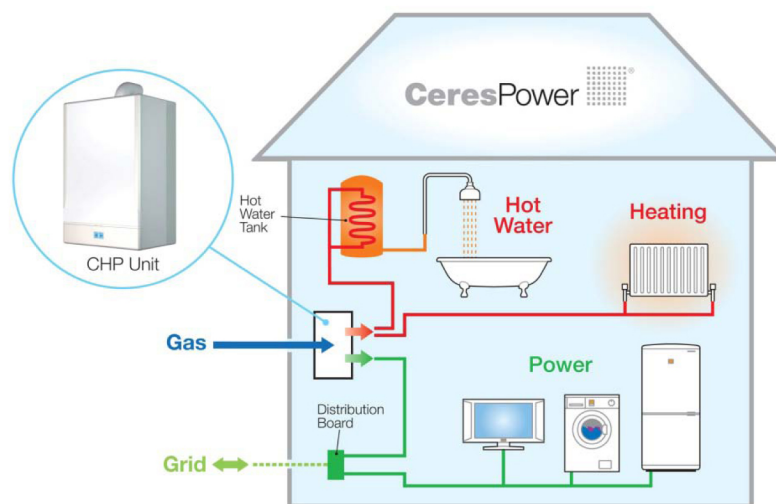
- **Israel:** Multiple successful DR trials performed with 100 customers of the IEC (Israel Electric Company). Launching with IEC public EV charging program in collaboration with GE. Hundreds of units to be installed in the first smart grid project.
- **Russia:** 3-year, \$10M contract signed for delivery of 5,000 units for residential and commercial applications.
- **South Africa:** An exclusive agreement (include exclusivity fees) with a market leader in the space. Multiple successful pilots in both residential and commercial applications. National launch in process.
- **Germany:** Initial installations at one of the top PV integrator in Europe.
- **North America:** Strong endorsement of the product by EPRI in late 2009. More than 70 installations in both commercial and residential applications. Representative Customers: Duke Energy, Southern Companies, GE (GRC), Hilton Hotels, Unilever, Wardrop, Milton Hydro, OPA, Pecan Street, ESCO Technologies, New Zero neighborhoods.

2011 projected sales based on current contracts are \$3 million. Expected break even in mid 2012.

The company is looking for \$5 million to increase sales & marketing in North America, to reduce manufacturing cost and to support working capital needs



Ceres Power enabling Low Carbon homes



Upgrade home gas boilers to Micro Combined Heat and Power and help consumers make their own low carbon energy

Ceres Power

- Ceres Power is a UK based AIM-quoted alternative energy company that has developed a small scale Combined Heat and Power (CHP) unit for residential applications. This 'micro-CHP' product uses fuel cells rather than Stirling or Internal Combustion engines, and therefore has very different and beneficial characteristics.
- The wall-mountable unit replaces a normal gas central heating boiler, generating all of the heating and hot water and the majority of the electricity needed by a typical home.
- Unlike centralised electricity generation, which wastes heat from power stations and loses further energy in the transmission & distribution system, the Ceres product maximises efficiency by generating electricity and heat in the home, right where it is needed.

Ceres Power products

Fuel cells use quiet, solid state electro-chemical technology to generate power with much higher efficiencies than engine-based micro-CHP designs. Ceres fuel cells have a very low heat-to-power ratio, maximising run time even during summertime and therefore maximising savings.

Ceres Power has established important partnerships with leading energy companies providing channels to market to millions of homes. In the UK, Ceres is partnered with British Gas, which will enable their customers to enjoy convenient, low carbon, cost-effective energy with environmentally friendly products.

Approximately 1.5m boilers are installed each year in the UK and it is forecast that residential CHP could take 30% of this market by 2015.

(SGBI 2006)



Preventive Leak Curing in Oil & Gas Pipelines

Contact: Peter Paz, CEO Curapipe POB 7284, Ashkelon, Israel. Cell: +972-54-4538462

The Investment Opportunity

The opportunity presented relates to the pipeline industry's aging assets where billions of dollars are invested each year for prevention and mitigation of leaks that occur due to corrosion.



The current procedures for repair of leaks in oil & gas pipelines occur only after a leak is large enough to be detected; by which time significant environmental and other collateral damage have already occurred. In 2006 the prestigious Pipeline Research Council International, Inc. sponsored a study that highlighted the large gap between what pipeline operators need in terms of leak detection (as low as 0.0001% of nominal pipeline flow, equivalent to a 1mm hole in a 32" diameter pipeline) and what the best leak-detection technologies can provide in terms of detecting small leaks (about 1% of nominal pipeline flow). Therefore the only way to address leaks when small was to develop a unique concept that would by-pass the need for leak detection, which Curapipe did where any number of leaks can be cured along a pipeline – without depending on prior detection of any of these leaks.

Curapipe's solution holds three important distinctions. It (a) is applied internally (as opposed to externally), (b) is inserted remotely through a pig launcher positioned upstream (see below, as opposed to excavating in-situ), and (c) does not require prior knowledge of the location of the leak.

Curapipe has successfully developed a breakthrough leak curing solution for pinhole leaks and cracks below the conventional (SCADA) leak detection threshold

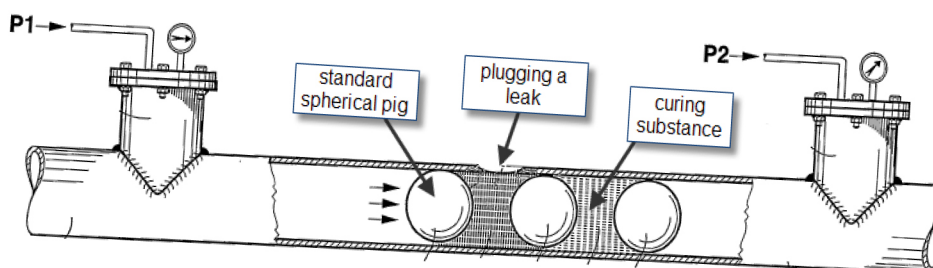
Curapipe's Curing Solution

Millions of gallons of crude oil are released from pipelines each year worldwide, causing irreparable environmental pollution. The indirect costs of these incidents can be enormous in high consequence areas adding to the direct cost of downtime and repair for the pipeline operator. By accessing the pipeline remotely via a standard pig launcher (see Curapipe's Curing Process below) Curapipe's solution can cure small leaks as they form and reduce the negative impact.



Curapipe's Curing Process

- a. Launch a standard pig train upstream of the leak.
- b. The train contains one or two "compartments" of viscous curing substances.
- c. The substances operating under pressure penetrate and plug the leak.
- d. Leak hardens and is cured.



- Technology Highlights**
- Highly innovative
 - Technological barrier
 - Applies standard pigging technology
 - Patent claims filed



Company Profile

Evida Power, Inc. is a venture-backed provider of energy solutions for the electric vehicle (EV) market, with a presence in Europe, China, the United States and Israel. Evida supports its mission to enable the proliferation of electric vehicles through the design, development and production of custom battery packs for the EV market. Evida is developing a complete EV fleet transformation solution, coupling battery pack design and production with full EV integration services. Focusing on the commercial fleet sector, Evida will enable fleet operators to seamlessly migrate to electric vehicles using today's technology, thereby enabling clients to enjoy the simultaneous benefits of zero tailpipe emissions and lower operating costs.

MARKET NEED

Our focus is on 3 areas of vital global importance:

- **Environment** – climate change, local pollution, energy efficiency
- **Energy Supply Security** – move towards energy independence
- **Costs** – reduce total vehicle ownership costs

OPPORTUNITY

Analysts estimate that by 2020, more than 20 percent of all new vehicles sold will be electric, leading to an EV battery market of up to \$60 billion. At present, companies operating large fleets of vehicles in urban areas are actively seeking solutions to decarbonise their transport.

TECHNOLOGY SOLUTIONS

Evida's power systems utilize lithium iron phosphate (LiFePo4) battery cells incorporated into custom-designed battery packs. Our packs are designed with complete CAN 2.0 integration, advanced quality management and safety features, and a fully integrated battery management system (BMS).

Recognizing the growing need for a robust solution that allows for seamless migration towards electric power, Evida is developing and integrating related alternative propulsion technologies, including vehicle charging stations, robotic and manual battery swapping devices and software systems to enable enhanced efficiency in vehicle operation.

EVIDA'S ACHIEVEMENTS

- Developed JV with fastest growing TS16949-accredited battery manufacturer
- Completed purpose-built modern production facility
- Closed largest EV battery supply deal in Europe
- Assembled management, quality and logistics team with unparalleled EV/automotive experience
- Built robust sales pipeline and partnerships

MANAGEMENT TEAM:

Evida's management team is comprised of a group of exceptional individuals whose backgrounds include long tenures in the automotive industry and unique electric vehicle expertise, coupled with international business and management experience:

Asher Bennett – CEO and Co-founder, experienced entrepreneur, former Israeli Navy submarine officer

Marc Bodner – Managing Director, global management experience, including IDT Corp, US \$1 billion telecoms

Trevor Power – COO, founding director of Modect, co-founder of vehicle retrofit company one80

Malcolm Powell – Chief Engineer & Co-founder, more than 20 years at Ford and Lotus, managed development program for Tesla Motors Roadster Program for 4+ years

Jonathan Shine – VP of Business Development & Co-founder, founder of UK-based Drivelectric, 10 years EV experience, industry thought leader

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Eternegy has developed a dual axis solar tracker that plays a revolutionary role in reducing BoS (Balance of System) costs

Investment Opportunity

Photovoltaic electricity production is a booming industry. Cost management and reliability are at the top of the industry agenda. Increases in electricity production are attainable through using more expensive PV modules, by locating them in sunnier climates and by using solar trackers to ensure that the panels constantly face the sun. Solar trackers are very popular as they can guarantee generation increases of 40% or more but they are also an expensive component of a solar field.

Solar trackers have been used in 85%+ of utility scale solar field installations larger than 1MW from 2009 to 2012..

Eternegy's Solution

The Eternegy solar tracker uses a radical new steel cable design inspired by kite-surfing and architecture to both support the tracker structure and to orient the PV panels.

The use of steel cables rather than the traditional approaches of actuators or cogs means that the Eternegy tracker is both lighter and stronger than competing designs. The design is so material efficient that it is price competitive with standard fixed installations.

Key benefits:

- 50% less steel and concrete
- More robust and rigid

Mast height 6m



Panel surface 100m²





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www.hclcleantech.com

Industry: Environment - intermediate products for manufacturing a large variety of bio-chemicals, biofuels, food and feeds

Year established: December 2007

Number of employees: 25

Main business: HCL CleanTech's pioneering technology builds on a proven industrial process, significantly improving the economics of converting lignocellulosic biomass into refined sugars, de-acidified lignin and tall oils through a series of separation and extraction processes. These products can later be fermented/converted to food, feed, bio-fuels and bio-products. The technology generates sugar yields of up to 98 percent of the theoretical sugars from any lignocellulosic material.

Status: A Demo plant is running at a piloting facility in Durham, NC, producing sugars, lignin and tall oils from pine tree. Parallel to this, HCL CleanTech is intensifying the R&D activities in Israel, supporting its NC Demo plant operations and further developing the extraction technologies for each of the products.

Go-to-market strategy: HCL CleanTech has demonstrated its technology on a lab scale and is currently at the final stages of running its demo plant in Durham, NC where scalability was proven. The engineering on the first small scale commercial plant has begun, the site selection process has begun and commissioning is expected by mid-2013. Conditional financing for the first large scale commercial plant is secured and commissioning of this plant is expected by 2015

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COMPANY OVERVIEW

***IQwind* is the innovator of a unique variable gearbox technology (*IQgear™*) that significantly reduces the cost of energy generated by existing and new wind turbines**

MARKET NEED

In 2009, the wind energy market grew by 31% to \$65B, yet it continues to confront the issue of efficiency losses resulting from the need to convert a variable wind energy source into constant electric grid frequency. Conventional variability solutions use power electronics which significantly increase the cost and weight of wind turbines. Moreover, the installed base of older turbines suffers from suboptimal efficiency inherent in the fixed-speed solutions.

THE OPPORTUNITY

IQwind's technology has the potential to significantly reduce the cost of energy (COE) of both the new and existing wind turbines:

1. Initially, ***IQwind*** will upgrade existing turbines by replacing malfunctioning regular gearboxes with the ***IQgearbox™*** retrofit solution. Such an upgrade will improve turbine energy production by up to 20% providing operators with a quick (1-2 years) return on their investment. The immediate annual market for this opportunity for the company is estimated at \$500M.
2. Subsequently, ***IQwind*** will partner to develop a superior ***IQturbine™*** design leveraging the ***IQgear™*** technology platform and its established market presence. Relative to existing best-in-class turbines, the ***IQturbine™*** will reduce the cost of energy (COE) by up to 20% -- a significant competitive edge in the wind energy market (\$65B 2009 annual opportunity).

TECHNOLOGY

The ***IQgearbox™*** product is based on the breakthrough ***IQgear™*** variable gear technology that elegantly converts variable wind energy to the constant frequency of the electrical grid with the highest possible efficiency and without the need for power electronics. The product is based on a strong patent portfolio, which has commercial application potential in other industries such as shipping, mining, and tidal power generation.

PRODUCT DEVELOPMENT

- ▶ 1MW ***IQgearbox™*** design concept has been reviewed and approved by the industry leaders.
- ▶ 750kW ***IQgearbox™*** for retrofits is under development to be completed, certified, and installed for first customers in 2012.
- ▶ 60kW scaled-down ***IQgearbox™*** prototype has been successfully validated and is being utilized for design fine-tuning.
- ▶ Preliminary design work on the ***IQturbine™*** to be finalized in 2013

PARTNERS

- ▶ Gear design partners – Ricardo and Romax – leading global providers of advanced drivetrain technology and product innovation.
- ▶ The Danish-based ***IQgearbox™*** retrofit integration team is led by Jasper Kjaer Hansen, former NM VP R&D.
- ▶ Strategic partnerships with gear manufacturers and marketing channels are being developed on a global basis. Several LOIs from potential manufacturers, such as Fairfield (US-based gear company with \$1 billion annual sales), retrofit channel partners in the US and Europe, and top-tier perspective customers, such as US utility Terra-Gen Power.

FOUNDERS

Gideon Ziegelman, Founder & CEO - Entrepreneur with vast experience in the alternative and wind energy industries. **Co-founded** a \$75 million alternative energy mutual fund and a startup focused on electricity storage solutions for the wind energy market. Holds an MBA from INSEAD, Fontainebleau, France and a BSc in electrical engineering from the Technion, Haifa, Israel.

Nimrod Eitan, Founder & CTO – Mechanical engineer with >30 years experience in product development and R&D management. Chief Engineer of a startup which matured into an international industrial and agricultural products manufacturer. Served as a Technical Manager in several companies in the United States and Israel. Holds a BSc in mechanical engineering from the Technion, Haifa, Israel.

INVESTORS

IQwind is funded by [Terra Venture Partners](#) and seeks to raise additional capital to complete the 750kW ***IQgearbox™*** product design phase and bring the product to market, as well as to fund the ***IQturbine™*** product design centered on ***IQgear™*** technology for the new turbine market.



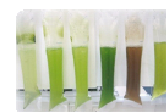
UniVerve Biofuel (UniVerve) develops a complete operation of microalgae-oil production as feedstock for the Biofuel industry. Microalgae oil was proven to be suitable for cars, air-crafts and ships and significant incentives for the use of microalgae-oil as feedstock for such fuels are already in place.

Univerve develops strain-specific formulas, which will enable it to establish microalgae-to-oil operations in various climatic conditions and for various oil purposes. A formula is a complete process that results in a desired product, in this case oil. **UniVerve**, which is in course of selecting suitable microalgae strains, signed a MOU with Weizmann Institute of Science for the development of high oil yielding strains. **UniVerve** invented, patented and constructed innovative growing systems that are expected to enhance biomass production as well as decrease both the acreage and the energy required for the process. Oil extraction in lab conditions has been achieved and outdoor production in the Company's growing systems, combined with a suitable harvesting technology, has begun. **UniVerve** is planning the construction of 150-200 m³ pilot, which will be fully operative in 2012 and where stable oil production from outdoor-grown **Univerve's** proprietary strains will take place. The completion of the 1st formula is expected by 2013 and an industrial pilot of 2000 m³, which will be the first step in the establishment of a commercial farm in Israel, is expected by 2014.

Univerve plans to team-up with engineering companies and establish microalgae-to-oil farms for 3rd parties on a Turn-key or BOT basis (target customers are biodiesel plants, feedstock suppliers, aviation companies, ground and naval transportation companies, Utilities and Oil & Gas companies). Such operations are expected to be highly profitable due to the income from the oil, other potential valuable biomass fractions and the remaining biomass itself, which is suitable for fish-meal and animal feed. The CAPEX of a microalgae-to-oil farm that can produce app. 140,000 bbl/year is estimated to be USD 111 M, its annual net profit is expected to reach USD 26 M, its pay-back period is expected to be 9 years and its IRR is expected to be 25%. **Univerve** plans to start establishing such operations by 2015 and its business model is to share its clients' income in return for the license to implement **UniVerve's** technology. The Israeli farm, in which **UniVerve** plans to be a partner, will be where development will continue and training of projects establishment teams will take place.

UniVerve is in course of discussions with several potential customers, who chose its technology and want to begin cooperating with the Company, assuming that until the preparations for a project are concluded, the complete formula would already be fully developed and ready for up-scaling.

UniVerve is financed by its founders with a minor participation of the Israeli Office of chief Scientist (OCS). The target of the current round of financing is USD 3 million, which will be used during 24 months to construct the pilot, finalize the development of the first formula and reach stable outdoor production on a small scale. The company plans to raise additional USD 7 million in its next and final round of financing, which is planned for 2013. The funds for the Israeli farm will be raised separately. According to the Company's growth plan, it is expected to reach positive cash-flow by 2016 and pay-back to its investors their investments in full by 2019 through dividends.





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Utilight – A Revolutionary Printing Technology for PV Solar Cells

Utilight is an innovative start-up company developing a novel and disruptive printing technology (PTP™ - Pattern Transfer Printing) for high-volume manufacturing of Photovoltaic (PV) Solar Cells. The PV industry growth is driven by the world's focused drive for affordable, clean and renewable energies. While the cost of photovoltaic PV cells has been steadily declining, it still remains one of the main barriers for wider adoption. Utilight's printing technology can provide over 30% reduction in manufacturing costs, a significant contribution towards grid parity.

An Experienced Team

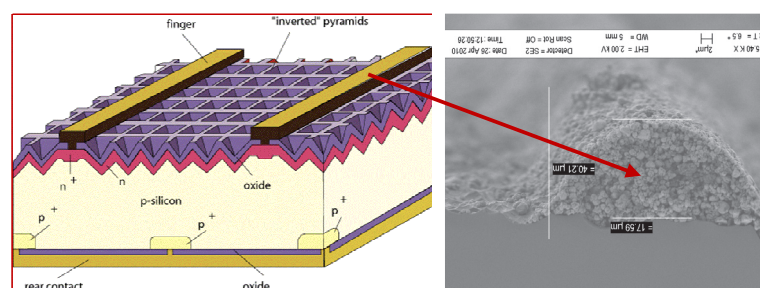
The company is led by an experienced team of successful second timers, combining creative innovations, technological knowledge in solar cell technology, in system development and processing, marketing and management expertise. The accumulated experience from Orbotech's PCB and assembly divisions (NASDAQ: ORBK), and Nova Measuring Instruments, an equipment manufacturer for the Semiconductor Industry (NASDAQ: NVMI), makes Utilight the ideal team to develop and market this revolutionary technology.

Utilight's Pattern Transfer Printing (PTP™) Technology

Utilight's PTP™ is set to become the standard metallization technology for PV manufacturing through the technological and marketing implementation of this non-contact, low-cost, fine-line printing technology.

Utilight's PTP is a novel, laser-induced printing technology, with non-contact deposition of high aspect ratio (≤ 1.0) thick patterns. The technology is suitable for narrow and thick lines (e.g. 20 μ wide, 15 μ high), and prints **standard** solar pastes for all PV metallization schemes. Narrow and thick lines improve efficiency by reduction of shadowing and by enabling back passivated cell designs while significantly reduce the material (Ag) use. Non-contact printing enables the use of thinner wafers, and accurately aligned metal deposition is ideal for higher efficiency PV cell designs such as SE (selective emitter). All this allows for significant reduction of manufacturing costs in terms of \$/Wp.

Utilight has filed applications for multiple patents for apparatus and methods, cell designs and manufacturing methods, to protect its IP. The company estimates its technology to be ready for beta testing in Q3 2012.



Utilight – answering the printing needs of the PV industry

Utilight's non-contact PTP technology can reduce the \$/Wp PV cell costs by more than 30%. This is achieved through a cell efficiency increase of up to 15% (more than 2% absolute) and



ERM



איגוד חברות אנרגיה
מתחדשת בישראל

