

# Israeli Company Descriptions

(partial list)

## **AQUAGRO FUND**

AquAgro Fund, L.P. is a venture capital fund focused on Israel's innovative water and agriculture technologies, as well as on other innovative clean technologies. The global problems relating to water, energy and food sustainability are growing steadily in gravity and magnitude and present a series of challenges to all of us. Along with these challenges come very big opportunities, which will give way to new cost effective and groundbreaking technologies that will provide solution to these very real problems.

#### ARROW ECOLOGY

The ArrowBio process in an integrated solution that receives unsorted municipal solid waste as an input. The process sorts, cleans and separates the recoverable materials and through hydro-mechanical and optimized bio-technological techniques, produces biogas (methane-natural gas) fertilizer and water.

#### **CEQUESTA**

Cequesta has pioneered innovative low-cost technologies for recycling water, including purifying grey water for apartment blocks, hotels, and sports centers. The company's solutions are projected to recover millions of gallons of water at substantial savings. The technology is non-biological, reliable, and easy to install and maintain. Cequesta is presently selling a full range of products for commercial and domestic applications.

# **CORIOLIS WIND**

Coriolis Wind is developing a revolutionary wind energy system, the WindScreen, which challenges many of the basic paradigms in the industry. It is a modular, multi-rotor system which allows for an optimized system configuration that best matches the target site's terrain and wind conditions while maximizing energy production. The modularity provides a scalable solution that is easier to transport, less complex to install and is well suited for a broad range of applications spanning from the mid-scale, distributed wind market to the large scale, utility wind market.

# **DUCOOL**

DuCool's systems cool, heat, dehumidify, disinfect and clean the air while providing concurrent and independent control of temperature and humidity. DuCool systems can be configured as a stand-alone solution or can be coupled with existing conventional systems to provide a superior hybrid application. Sample projects include:

# LEVIATHAN ENERGY

The Leviathan Energy group has two major innovations in a number of areas of renewable energy, including windy, hydro, and ocean. Three products are now on the market: the Wind Energizer improves the output of large wind turbines by at least 20-40 percent and represents a major advance in the wind market. Using similar aerodynamic techniques, Leviathan Energy has produced the Wind Lotus, a small vertical axis wind turbine that has set a world record for the lowest cut in speed and is much more cost-effective than its competitors. The Benkatina Hydroelectric Turbine is a turbine in a pipe that offers the potential of using excess pressure and flow in millions of miles of pipes around the world to produce energy.

#### **METROLIGHT**

Founded 1996, Metrolight provides energy efficient lighting solutions to commercial, industrial and municipal customers in more than 15 countries around the globe. Metrolight's technology for Smart Electronic Ballasts is at the forefront of the lighting industry providing integrated high quality and high power solutions for a wide range of lighting applications with rapid payback on investment. Metrolight distributes its products directly as well as through a large network of distributors, ESCOs, lighting maintenance companies, q project partners and lighting agents. The company is owned by a consortium of institutional investors. Key in-

vestors include Virgin Green Fund and Gemini Israel Funds.

#### POWER ELECTRONICS SYSTEMS

Power Electronics Systems (PES) is a leading global provider of energy-efficiency solutions. Leveraging decades of power electronics R&D, voltage control expertise and environmental concern, the company offers products for a range of lighting and electric motor applications as well as new products for the domestic and small business market, to be integrated with smart grid developments for improving grid performance, optimizing peak demand and increasing overall network reliability and efficiency. Built around proven core technology, the company's market-leading solutions not only enable customers to improve energy efficiency and cut costs, but also contribute to a greener environment.

## **PYTHAGORAS SOLAR**

Pythagoras Solar's 3-D optically enhanced PV platform combines optics with materials science and advanced simulation techniques to create scalable, adaptable and cost effective system architecture that accelerates grid competitiveness while empowering the solar industry to realize a post grid parity mass market. Pythagoras Solar's PV platform provides capital-efficient scalability and improved project returns, while enabling an entirely new range of adaptable and aesthetic solar applications. Founded in 2007, Pythagoras Solar has offices in California, Israel and China.

## SOLARIS SYNERGY

Solaris Synergy has developed the world's first concentrated photovoltaic system designed to float on water, leveraging the vast amount of solar energy latent in water surfaces. The company modular design concept is based on a unique, patent=pending evaporation cooling technology and supports power capacities ranging from several kilowatts to dozens of megawatts. The company's mission is to become a leading provider and operator of solar power stations that floats on water reservoirs. Solaris has assembled a core multi-disciplinary team with expertise in semiconductors, thermodynamics, mechanics and optics. The company has built a working prototype that demonstrates the scientific feasibility of its proprietary technology. It will install its first 50 kw pilot project by Q1 2010

## **SOLEL SOLAR SYSTEMS**

Solel Solar Systems provides clean, renewable and affordable solar energy. Its highly innovative and commercially proven solutions are the global standard for utility scale solar thermal power. Solel's SunField LP solar field offers a lifetime of "solar fuel." Its UVAC 2008 is the world's best - selling solar receiver. Nine power plants in California using Solel's technology have been operating successfully for more than 20 years, producing 350 mw of electricity. The company is currently building a 50 mw power plant in Spain. Solel partners with governments, utilities, and energy and engineering companies to build solar-powered power plants. In every location, its fully engineered solar field packages can fuel local job creation and economic growth, in addition to accelerating the vision of a greener planet.

# TransBioDiesel Ltd.

The conventional biodiesel production processes catalyzed by either alkaline or acid catalysts are characterized by numerous disadvantages, resulting in an inefficient overall lifecycle in terms of purity of final products (biodiesel and glycerol), producing environmental hazards and cost-inefficiency. TransBiodiesel Ltd. has patented a new technology using unique immobilized enzymes as an alternative for the conventional chemical-based catalysts for the production of biodiesel from different oils, including plant oils, animal fats and recycled greases. The developed enzymatic process for production of biodiesel has been approved as economically feasible and also competitive with the costs for the currently practiced conventional chemically-catalyzed production processes. Furthermore, the production process is benign for the environment and the by-product produced in the process, namely glycerol, can be used for food and pharmaceutical applications without excessive purification. The company is in the process of forming strategic alliances with worldwide-leading biodiesel producers.

#### VARIABLE WIND SOLUTIONS

Variable Wind Solutions develops innovative solutions that enhance the performance and reliability of wind turbines while reducing their cost and complexity. The patent-pending VRS voltage regulation solution turns AC generators into true variable speed machines similar to Permanent Magnet Generators (PMGs) but at lower cost, weight, and size, and without inverters. When used in small wind turbines, this eliminates the need for PMGs and inverters that are more expensive and reduce system efficiency. In large wind turbines, the technology can eliminate or greatly simplify the gearbox and other maintenance-intensive and expensive components. By applying the VRS technology to improve wind turbine output and efficiency in low, high, and variable-speed winds, and providing solutions that facilitate the connection of small wind turbines to the power grid, Variable Wind Solutions helps expand the range of locations where wind power can cost-effectively generate electricity.