

# NREL Industry Growth Forum

## One-on-One Networking Sessions

**Meeting Structure:** 10-minute one-on-one sessions

**Who:** Emerging clean energy startups and leading investors, strategic partners, and government agencies

**When:** Tuesday, November 3, 2015 from 9:00 am-12:00 pm

**Where:** NREL Industry Growth Forum, Grand Hyatt Denver, Denver, CO

**Website:** [www.industrygrowthforum.org](http://www.industrygrowthforum.org)

## 2015 One-on-One Networking Session Participants:

Access Venture Partners	Energy Foundry	New Energy Fund II, LP
Applied Ventures	Energy Technology Advisors	NREL Commercial Buildings Group
Aravaipa Venture Fund	EnerTech Capital	NREL Energy Systems Integration
Aster Capital	Factor (E) Ventures Ltd.	NREL National Wind Technology Center
Azure International	Flagship Ventures	NREL Strategic Energy Analysis Center
BASF Venture Capital	GXP Investments	NREL Technology Transfer Office
Black Coral Capital	Hamilton Clark Sustainable Capital	Pangaea Ventures
Bright Capital	Infield Capital	Prelude Ventures
Constellation Technology Ventures	Ingersoll Rand	Renewable Tech Ventures
Cottonwood Technology Fund	Innosphere	Robert Bosch Venture Capital
Cyclotron Road	JNC Corporation	SABIC Ventures
Delta Electronics Capital	Johnson Controls	Saint-Gobain External Venturing
DOE- Buildings Technology Office	Kilpatrick Townsend & Stockton	Silicon Valley Bank
Dresser-Rand Company	LG Innovation Ventures	Snowball Growth Capital, LLC
Earthrise Capital	MacKinnon, Bennett & Co.	Southern Cross Venture Partners
EDF, Inc.	Momus Strategy	The New York Angels
Enclave Capital	New Energy Capital, LLC	

## Participant Descriptions

### **Access Venture Partners**

David Gold, Managing Director

Access Venture Partners is an early stage venture capital fund focused on the Rocky Mountain Region but able to invest throughout North America. Within clean technologies, Access is focused on energy efficiency, energy management and waste reduction technologies. Access invests in companies with:

- Exceptional Management
- Demand-Pull in Large or Rapidly Emerging Markets
- Efficient Operations

- Fat Operating Margins

Investment Focus: Early stage technology companies – Access typically makes its initial investment as part of the first institutional round and often continues investing in subsequent rounds. In general, they look for high gross-margin businesses in large markets, not narrow niches.

Website: [www.accessvp.com](http://www.accessvp.com)

### **Applied Ventures**

Michael Stewart, Investment Associate

Applied Ventures, LLC is the venture capital fund of Applied Materials, Inc., (NASDAQ: AMAT), the global leader in Nano manufacturing technology solutions for the electronics industry with a broad portfolio of innovative equipment, service, and software products. Applied Ventures invests in early-stage technology companies that promise to deliver high growth and exceptional returns. Applied Ventures' charter is to profitably invest in companies that provide a window on technologies that advance or complement Applied Materials' core expertise. Their investments help develop technologies and markets that provide natural extensions to Applied Materials' core business and stimulate the growth of applications for semiconductors, displays, solar PV, and related products and services.

Investment Focus: Advanced materials, display technologies, Solar, Energy conversion & Storage, Process advancements, Solidstate lighting, and sustainability & conservation, including emission reduction, energy efficiency, water filtration, purification, and desalination. As of December 2011, more than 60% of Applied Ventures investments are in cleantech.

Website: [www.appliedmaterials.com/about/ventures](http://www.appliedmaterials.com/about/ventures)

### **Aravaipa Ventures**

Robert Fenwick Smith

Aravaipa Ventures is the first IMPACT TECHNOLOGY fund. We make impact investments in early stage efficiency technology in Colorado. We offer global environmental impact and Colorado social impact combined with the high potential financial returns of early stage technology investing.

Specifically our investment thesis is:

- IMPACT TECHNOLOGY: technologies that increase resource efficiency and thereby have a global environment impact.
- LOCAL COMPANIES: for close management and local social impact.
- GLOBAL IMPACT: technologies must have global potential.
- LOW-CAPITAL-INTENSIVE: for fundability and financial risk reduction.
- PRAGMATIC EARLY-STAGE: build companies, do not gamble on home-runs. We expect 80% of our companies to be successful.
- PATIENT: 15 year fund - vs. standard 7 year. Research shows that most companies need 10 years to break through.
- GOVERNANCE: through a real Investment Committee the Investors truly control the Managers.
- INVESTOR-MANAGEMENT ALIGNMENT: no annual management fee, only carry on investor profits. Also entrepreneurs swap shares to also become investors in the fund.

Website: [www.aravaipaventures.com](http://www.aravaipaventures.com)

## **Aster Capital**

Kevin Deenen, Senior Associate

We are passionate about supporting entrepreneurs to develop solutions leveraging breakthrough technologies or innovative business models.

Technology Focus Areas:

- Reliable Energy Supply
- Clean energy conversion
- Efficient use of energy
- Intelligent infrastructure
- Resources management
- Advanced materials
- Human comfort & security
- Clean transportation

Website: <http://aster.com/focus/>

## **Azure International**

Chris Raczkowski, Managing Director and Founding Partner

Azure International is a cleantech investment company which partners with small and medium sized energy technology companies to realize value growth in North America, Europe and China. Founded during 2003, Azure has a local and international team with a diverse background in engineering, marketing, manufacturing, and finance, most of whom are based full time in China. Azure has proven capability to invest in and accelerate the development of clean energy companies, and their track record includes portfolio companies that have achieved both significant commercial growth and shareholder value captured via trade sales or IPO. Azure is unique in that they invest only in companies where they act as a partner in China to add value by facilitating and/or managing China operations on an interim or long-term basis. Azure provides necessary expertise and execution capabilities in China to lead government relations, sourcing, and local partnership development-all with deep understanding of Chinese and international requirements. Azure is currently seeking new portfolio companies for investment and partnering in China. They also welcome co-investing with other financial investors.

Website: [www.azure-international.com/en/](http://www.azure-international.com/en/)

## **BASF Venture Capital**

Pulakesh Mukherjee, Investment Manager

BASF Venture Capital is the corporate venture capital company of BASF Group. BASF Venture Capital invests in start-up companies and venture capital funds worldwide. Their investments focus on innovative technologies with a high growth potential where chemistry plays an important role, as well as new materials and substances with significant market opportunities. They not only invest venture capital, but also support their investments through targeted interaction between BASF Group's worldwide know-how and research network and their portfolio companies. The over-riding objective of BASF Venture Capital's investment is to link the strategic and operational interests of BASF Group with innovative technologies of emerging businesses. Their preference is to get involved with financing in the early stages, after the creation of the company. Their investments typically comprise a minority interest-often in syndication with other venture capital funds.

Website: [www.basf-vc.de/index.php?id=1&L=1](http://www.basf-vc.de/index.php?id=1&L=1)

## **Black Coral Capital**

Nikhil Garg, Partner

At Black Coral Capital, we partner with and invest in top-tier management teams who are reinventing how people buy, sell and use "resource innovations" - the next wave of cost- advantaged, sustainable solutions for the world's ever-growing demand for energy, water, food and other key resources.

The last two decades have seen a remarkable wave of technological innovations around physical resource production. Alternative energy, energy efficiency, clean water, etc. technologies are now increasingly "ready for prime time". At Black Coral Capital, we focus instead on business model innovations -- new markets, new integrated solutions, new channels, new financial structures - which are finally unlocking the tremendous impact of these solutions. Utilizing a proprietary management team assessment methodology and a unique network within the family office and strategic communities, our approach is specifically designed to help high-execution teams achieve their growth potential.

Black Coral Capital is also a co-founder of the Cleantech Syndicate, a consortium of family offices investing in Cleantech. More information can be found at [http://cleantech- syndicate.com](http://cleantech-syndicate.com).

Website: [www.blackcoralcapital.com](http://www.blackcoralcapital.com)

## **Bright Capital**

Mark Austin, Venture Partner

Bright Capital is a venture capital fund that invests in a broad range of breakthrough and platform technology companies in the energy, cleantech, efficiency, water, advanced materials and nanotech sectors. Recent investments include solar PV, wind, green industrial biotech, alternative fuels, power transmission, power conversion, light emitting plasma, advanced building materials, energy storage, waste heat conversion, electric machines, and municipal & industrial water treatment. In addition to helping management grow their company, Bright Capital is often able to assist its portfolio companies to extend their partnerships, market and business reach, especially into Europe and CIS.

Investment Focus: Seed through later stage investment.

Website: [www.bright-capital.com](http://www.bright-capital.com)

## **Constellation Technology Ventures**

Rahul Bhalodia, Principal & Curtis Schickner, Analyst

Constellation Technology Ventures (CTV) is the venture investing organization within Exelon Corporation, the nation's leading competitive energy provider. CTV invests in companies representing innovative energy technologies and business models, building a portfolio that comprises a broad range of development stages and technology types. CTV catalyzes growth for its portfolio companies by providing equity capital, management expertise, and connectivity to the broad and diverse Exelon commercial enterprise.

<http://technologyventures.constellation.com/>

## **Cottonwood Technology Fund**

David Blivin, Managing Partner

Cottonwood Technology Fund (CTF) is an early-stage technology commercialization fund with offices in Santa Fe and Albuquerque, New Mexico, along with an affiliate fund now based in Enschede, Netherlands. CTF is focused on seed and pre-seed stage breakthrough science across diverse fields such as Energy, Advanced Materials, Healthcare and Communications. CTF works to provide capital and value-added services to tech commercialization opportunities representing disruptive approaches with strong market potential.

Website: [www.cottonwoodtechnologyfund.com](http://www.cottonwoodtechnologyfund.com)

### **Cyclotron Road**

Ilan Gur and Sebastien Lounis

Cyclotron Road is an innovation program for breakthrough energy technologies. Our goal is to help the most promising early stage innovators optimally position their technologies for impact at scale. We do this by selecting the best and most driven individuals to join the program, leveraging facilities and expertise at Lawrence Berkeley National Lab to move projects forward at minimal cost, and connecting innovators to appropriate public and private financing sources to deploy their technology. Throughout this process, we provide targeted support on critical technology and manufacturing challenges, and connections to a deep network of academics, engineers, entrepreneurs, and industry experts who serve as mentors, collaborators, and commercial partners.

Website: [cyclotronroad.org](http://cyclotronroad.org)

### **Delta Electronics Capital**

AJ Dye, Project Manager, Corporate Investment; Steve Shmania, Senior Manager

Delta Electronics Capital Company is the corporate investment arm of Delta Group. Delta Group is the world's leading provider of power management and thermal management solutions, as well as a major source for components, visual displays, industrial automation, networking products, and renewable energy solutions. As a global leader in power electronics, Delta's mission is, "To provide innovative, clean and efficient energy solutions for a better tomorrow." Delta Electronics Capital Company (DECC) invests strategically in companies and technologies with strong growth potential that are synergistic with Delta's core focus and direction.

Minority Investment Criteria Stage: Growth / Expansion Geography: Americas

Min. Investment Size: \$1mm

Areas of Interest: Energy efficiency, resource management, water, energy storage, software, medical devices.

Website: [www.deltaww.com](http://www.deltaww.com)

### **Department of Energy Building Technologies Office, Emerging Technologies Program**

Karma Sawyer, Technology Manager

The Emerging Technologies (ET) Program of the Building Technologies Office (BTO) supports applied research and development (R&D) for technologies and systems that contribute to cost-effective reductions in building energy consumption in the residential and commercial sectors. A portion of the ET budget provides support for the Department of Energy (DOE) national laboratories in five areas: solid-state lighting, heating, ventilation, and air conditioning (HVAC) (includes water heating and appliances), sensors & controls, windows & envelope, and modeling & tools. The remaining budget is distributed through competitive solicitations, including Funding Opportunity Announcements (FOAs) that allow all interested parties (corporations, universities, non-profits, as well as the national labs) to help advance technologies that lead to reduced primary energy consumption in buildings, the SBIR/STTR program, which provides competitively awarded grants to small businesses and individuals, and the Small Business Voucher pilot program, which drives next-generation technologies from small businesses to the market by easily enabling access to national lab expertise and tools.

Website: <http://energy.gov/eere/buildings/emerging-technologies>

### **Dresser-Rand Company**

Mark Kuzdzal, Director of Business Development & Harry Miller, Director of Emerging Technology

Dresser-Rand is among the largest global suppliers of custom engineered rotating equipment solutions for long-life, critical applications in the oil, gas, chemical, petrochemical, process, power, military, and other industries worldwide, including the environmental market space within energy infrastructure. These products—centrifugal and reciprocating gas compressors, gas and steam turbines, gas expanders, gas and diesel engines, and associated control panels—are used in oil and gas production, high pressure field injection and oil recovery, gas liquefaction, gas transmission, refinery processes, natural gas processing, petrochemical production, general industry (including paper, steel, sugar, and distributed power), and U.S. Navy applications. Dresser-Rand custom-engineered products are also used in other advanced applications in the environmental markets we serve and use renewable energy sources, reduce carbon footprint, and recover and/or increase energy efficiency. Our worldwide client base consists of oil and gas producers and distributors, state-owned oil and gas companies, and chemical and industrial companies. The company operates manufacturing facilities in the United States, France, United Kingdom, Spain, Germany, Norway, and India, and maintains a network of 49 service and support centers, including six engineering and R&D centers, covering more than 150 countries. Dresser-Rand has principal offices in Paris, France, and Houston, Texas, USA.

Website: [www.dresser-rand.com](http://www.dresser-rand.com)

### **Earthrise Capital**

James Logerfo, General Partner

Earthrise Capital Fund is a venture fund investing in emerging technologies for energy, power and water, primarily in North America. Areas of interest include lower-carbon energy sources; energy and materials efficiency improvement, cost-effective energy storage; and environmental technologies and services. The Earthrise team has decades of collective experience in energy and environmental technology investing.

<http://www.earthrisecapital.com>

### **EDF, Inc.**

Paul Breslow

The U.S. energy market is the largest in the world, and growing. Demand is also growing for clean energy and clean energy technologies that will help spur U.S. job creation while better protecting the environment. EDF can play a role in meeting this demand by offering abundant and reliable nuclear energy and other clean energy solutions. Our expertise in nuclear energy, solar power, and wind energy in 20 countries makes EDF a world leader in clean energy technologies and operations.

Website: [www.north-america.edf.com](http://www.north-america.edf.com)

### **Enclave Capital**

David Waserstein, Managing Director-Renewable Energy

Enclave is a unique international brokerage and capital markets advisory firm with broad distribution capabilities. We are on the ground in five continents with over 300 analysts covering more than 2000 companies operating in developed, emerging and frontier markets. Enclave strives for excellence in client relations and takes pride in how we do our business.

<http://www.enclavecapital.com>

### **Energy Foundry**

Jason Blumberg, CEO & Managing Director

Energy Foundry is a seed/early-stage impact venture capital fund that forges revolutionary energy, grid and cleantech companies. Our model is based on the belief that building successful energy tech companies

requires a unique approach. By coupling investment with the integrated support and expertise that an early stage energy-tech company needs to get through its critical path, we add value that goes beyond investment dollars. From proving grounds to a cross-functional advisor network, advice on government funding to foundational partnerships for operational growth, we support entrepreneurs to make what they do even better.

Website: <http://www.energyfoundry.com/>

### **Energy Technology Advisors**

Edward Beardsworth, Technical Director

Strategic advisor to corporate and investor clients, and mentor to startup companies. I assist my clients to source widely and choose wisely among new technology opportunities. Value for my clients comes through my extensive network of technology providers, investors, entrepreneurs, and scientists. I possess a deep, nuanced understanding of the complex energy and cleantech industry gained over my 30+ year career -- this long, continuous experience sets me apart from relative newcomers to the industry.

[www.ufto.com](http://www.ufto.com)

### **EnerTech Capital**

Bill Kingsley, Managing Director

EnerTech Capital invests in early to growth stage companies that offer products or services that dramatically improve the profitability of producing or consuming energy. Whether fuel or electricity, alternative or traditional, we help create companies that make energy more efficient, reliable, and cost-effective. Since our founding in 1996 we have managed approximately \$500 million and we have delivered nearly 30 exits. We are currently investing out of our fourth fund and have offices in Philadelphia, Toronto, Montreal, Menlo Park and Calgary.

Website: <http://www.enertechcapital.com/>

### **Factor (E) Ventures Ltd.**

Morgan DeFoort, CEO

Factor(E) Ventures is comprised of an accomplished team of energy scientists and business executives. The core staff has combined experience in more than 100 startups, has worked in energy for more than 75 years, has published nearly 300 scholarly works, and has been granted several dozen technology patents. We have been key team members, board members, and investors in start-ups, with transactional experience that includes technology licensing, IP, and distribution deals. Most importantly, we are technology optimists who believe that strong ideas can change the world when executed well.

Website: <http://www.factorventures.org>

### **Flagship Ventures**

Brian Baynes, Partner and Raffi Mardirosian, VenturLabs Principal

Realizing entrepreneurial innovation is the mission of Flagship Ventures. Founded in 2000, the firm has launched 30 companies while investing in another 50. Flagship manages \$1.4 billion in capital and is active in three principal sectors: therapeutics, health technologies, and sustainability. Flagship's current portfolio includes Acceleron (NASDAQ: XLRN), Agios (NASDAQ: AGIO), BIND Therapeutics (NASDAQ: BIND), Concert Pharmaceuticals (NASDAQ: CNCE), Eleven Biotherapeutics (NASDAQ: EBIO), T2 Biosystems (NASDAQ: T2OO), as well as several private companies: Editas Medicine, Joule Unlimited, Novomer, Oasys Water, Pronutria Biosciences, Red Rock Biofuels, Seres Therapeutics, Symbiota, and Moderna Therapeutics.

Website: [www.flagshipventures.com](http://www.flagshipventures.com)

## **GXP Investments- Great Plains Energy**

Dennis Odell and Clayton Reeves

GXP Investments ("GXPI") is the non-regulated investment affiliate of Great Plains Energy Incorporated. GXPI is led by a management team experienced in regulated and non-regulated energy solutions, investments, entrepreneurship and strategy; our team is focused on investments within the energy value chain that are adjacent to GXP's core utility operations.

Great Plains Energy Incorporated is the holding company of Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company, two of the leading regulated providers of electricity in the Midwest.

GXPI provides investment capital and strategic value to businesses within the energy value chain. As a strategic investor, our goal is to partner with early stage companies as they grow their business and expand their market share. We bring utility experience, contacts and capital to these partnerships in exchange for equity or debt instruments. We are focused on opportunities in the customer energy solutions and energy infrastructure industries, but are open to attractive investments outside of these sectors within the energy value chain. Other areas of focus include energy marketing, environmental remediation, infrastructure security and renewables services. We primarily target growth equity investments in revenue generating businesses that are primed for expansion and that can benefit from a well-capitalized, industry experienced, strategic partner.

<http://www.gxpinvestments.com/>

## **Hamilton Clark Sustainable Capital, Inc.**

Ross Crawford, Managing Director & John McKenna, Chairman & CEO

Hamilton Clark is a FINRA-member investment bank and a registered broker dealer with the SEC. We have been in business since 1990, focused solely on assisting energy technology and sustainable companies in private debt and equity placements, and merger and acquisition transactions. In addition, when the SEC clarifies its position regarding crowd funding, we intend to be a major focus in this market as it relates to sustainable companies. We have completed about 100 assignments with most of our transactions in the size range of \$5,000,000 to \$50,000,000. Recent transactions include representing SunOpta BioProcess in their merger with Mascoma, Corporation, and advisory assignments for Canergy, Edenspace, Phycal, Avello, Kuehnle, Frontline BioEnergy, Terrabon, Infinia, STM Power, and Solectria. We have offices in Washington, D.C. and Houston, Texas.

Transaction Focus: Private financings, M&A, corporate finance advisory, crowd funding.  
Deal size: \$5 to \$50 million.

Website: [www.hamiltonclark.com](http://www.hamiltonclark.com)

## **Infield Capital**

David Moll, Managing Director and Bill Perry, Venture Advisor

Whether you call it Clean Tech, Green Tech, Alternative or simply new, it's clear that change is afoot in the transportation industry. At Infield Capital, we are committed to fueling the early- stage companies that are driving that change. We have an emphasis on technologies aimed at rethinking the powertrain – those things between the “key and the wheel” that will reduce our reliance on oil and our emissions of greenhouse gases. This focuses particular interest on a range of technologies that include: next-generation internal combustion, stored energy, mobile energy transmission, new materials, nanotechnology and “lightweighting,” and alternative fuels and systems.

Website: [www.infieldcapital.com](http://www.infieldcapital.com)

### **Ingersoll Rand**

Vikas Patnaik and Leandre Adifon, VP System Engineering & Advanced Technology

Ingersoll Rand advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Thermo King® and Trane®—work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a global business committed to a world of sustainable progress and enduring results.

Website: [www.ingersollrand.com](http://www.ingersollrand.com)

### **Innosphere**

Rob Writz, Director of Energy & Advanced Materials

Innosphere is a 501(c)(3) non-profit corporation formed to accelerate the success of Colorado's high-impact scientific and technology startups and promote the development of a regional entrepreneurial ecosystem. Innosphere is headquartered in Fort Collins with offices in Denver at INDUSTRY, and in Golden at the National Renewable Energy Laboratory.

Innosphere's Access to Capital program assists Colorado startups to become investment ready and to understand the appropriate type of capital for the business and the entrepreneur's goals. This includes relationships with sources of capital as well as Innosphere's seed funds including working capital for pre-SBA lending and the Actuator early exit via acquisition program. In 2013 and 2014, Innosphere client companies raised over \$50 million in risk capital and created nearly 500 high wage jobs in Colorado.

Website: [www.innosphere.org](http://www.innosphere.org)

### **JNC Corporation**

Tauto Nakanishi, Manager North America

JNC Corporation, established in 1906 (formerly Chisso Corporation), is a \$2B Japanese chemical company with core competencies in discrete organics, polymers and silicones and polymer application technology including fibers, non-wovens and films. JNC has over 3,000 employees working in over 20 locations in 8 countries worldwide. JNC is a leading chemical and material provider to the display and electronic industries.

### **Johnson Controls**

Renee Clair, Strategy Manager

Johnson Controls is a global diversified technology and industrial leader serving customers in more than 150 countries. The company's 170,000 employees create quality products, services and solutions to optimize energy and operational efficiencies of buildings; lead-acid automotive batteries and advanced batteries for hybrid and electric vehicles; and interior systems for automobiles. Johnson Controls' commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat. Through its growth strategies and by increasing market share, Johnson Controls is committed to delivering value to shareholders and making its customers successful. In 2015, Corporate Responsibility Magazine recognized Johnson Controls as the #14 company in its annual "100 Best Corporate Citizens" list.

Website: [www.johnsoncontrols.com](http://www.johnsoncontrols.com) or follow @johnsoncontrols on Twitter.

### **Kilpatrick Townsend & Stockton LLP**

David Hsu, Ph.D., Associate Attorney

Kilpatrick Townsend is a full-service, international law firm that helps clean energy entrepreneurs through our expertise in intellectual property and project financing. A start-up company's patent and intellectual property portfolio can play a critical role in helping the company obtain government and private funding and in permitting the company to continue to operate. Kilpatrick Townsend has one of the largest and highly ranked patent practices in the United States, covering a range of energy technologies and existing clients. Kilpatrick Townsend has attorneys with a deep knowledge of the technologies used to generate, transport, and manage energy. We can help companies successfully structure, finance, build, and sell renewable energy projects. David Hsu, Ph.D. is a patent attorney in the Denver office. He is a former senior engineer at NREL and has published peer-reviewed articles on biofuels, solar, and other energy technologies.

Website: [www.kilpatricktownsend.com](http://www.kilpatricktownsend.com)

### **LG Innovation Ventures**

Henry Chung, Director LG Innovation Ventures

Talk about a mantra. Life's Good at LG. LG Electronics celebrates and elevates life for a better tomorrow.

LG Electronics, a global leader and technology innovator in consumer electronics, mobile communications and home appliances has more than 80,000 people working in 115 operations including 84 subsidiaries around the world. LGE is ranked on the 2011 Fortune Global Top 500 list with revenues in excess of 40 billion USD.

LGE North America is headquartered in Englewood Cliffs, New Jersey and has offices throughout the U.S. and Canada. We take pride in our international relationships and influence, especially as both become personally valued. LG is a worldwide icon for electronics but that prestige does not hinder our perspective on the life blood of success – People.

Specialties: Consumer Electronics, Home Appliances, Air Conditioning, Home Entertainment, Mobile Communications

Website: <http://www.lg.com/us>

### **MacKinnon, Bennett & Co.**

Chris Stern

MKB is a Montreal-based merchant bank that invests in renewable energy, urban infrastructure and related sectors as principal and on behalf of a network of family offices, high net worths and corporates. Our two main investments to-date have been in Potentia Solar Inc. (<http://potentiasolar.com>), a Canadian commercial rooftop owner/operator in which we manage a \$30 million position, and Miovision Technologies (<https://miovision.com/>), a traffic data services provider in which we manage a \$14 million position.

We are primarily growth stage investors, looking for companies that leverage the convergence of energy, telecom and IT to build highly scalable businesses in energy and infrastructure services. We will also investment smaller amounts initially in earlier stage companies that show promise in the management team, market position and strategic outlook. Our team comprises a diverse skill set of investment banking, direct investment and corporate finance, and we leverage this to play a pro-active role with investee companies on governance, capital markets and financial strategies.

Website: <http://mkbandco.com>

### **Momus Strategy**

M. Sean Ogan, Managing Partner

MOMUS is an advisor to (single-family/multi-family) family offices on investments in private equity, private debt, and special situations across a number of industries including energy sustainability, natural resources, industrials, software/technology, financial services and real estate.

### **New Energy Capital**

Bennett Collier, Vice President

New Energy Capital focuses on providing equity to small and mid-sized projects utilizing proven clean energy, clean water, combined heat and power, storage, and waste management technologies. Over the coming decade, investment opportunities in these target sectors will be driven by resource constraints, international energy demands, environmental mandates, and emerging technologies. Many of these projects, and the companies that develop and operate them, will require between \$10 and \$200 million of total capital -- a size that is underserved in the financial markets.

NEC deploys its transactional experience, professional skills, and network of industry and government contacts to assist developers with complex transactions that must integrate a range of regulatory, environmental, financial, technical, legal and project management expertise. Mitigating project risk is a core focus of the NEC strategy. Portfolio projects will incorporate only commercially proven technologies and will employ active measures to mitigate project risks through contracted sales of energy and products, secure sources of feedstock, and strategies to minimize the impact of commodity volatility.

Website: <http://www.newenergycapital.com/index.html>

### **New Energy Fund II, LP.**

Mark Townsend Cox, CEO; Olushola Ashiru, Vice President

New Energy Fund LP is a public and private equity hedge fund focused on global sustainable energy solutions. The Fund is focused on project financing and taking equity positions in companies whose technology can augment private equity yields for the benefit of Limited Partners. We are specifically interested in companies creating efficiency improvements in renewable energy technologies such as solar, wind, geothermal, and ocean power.

### **NREL Advanced Commercial Buildings Group**

William Livingood, Group Manager

Working on real building projects with a range of large institutional and private sector commercial building owners in multiple building types, NREL has developed tools and resources to capture proven energy savings. You can take advantage of this expertise and building owner network to make your next project or technology a model for energy efficiency success.

Applied technology research:

NREL develops and tests cutting edge building technologies such as liquid desiccant air conditioners, and sensor and control solutions. New technologies are testing in laboratory space such as in NREL's Thermal Test Facility (TTF) and Energy Systems Integration Facility (ESIF), and in owner partner buildings for field verification of system-integrated performance.

Building energy data acquisition and modeling tools:

The Commercial Buildings Group develops modeling tools, such the Open Studio Platform, to enable decision makers to quickly and easily assess the energy impacts of alternatives at every stage of planning and procurement of the built environment. These tools can also be used by NREL researchers to evaluate potential energy use, cost, and environmental impact of new energy technologies on a broad set of building types and building system combinations, in various climates. The results can direct planning efforts for building owners and technology developers alike.

Whole-building systems integration:

The Commercial Buildings Group combines expertise in setting building and technology performance targets, system-integrated energy modeling, and field measurement and verification to achieve ultra-efficient and net-zero energy new construction and retrofit buildings. Results are deployed to the public through case studies, web resources, and Advanced Energy Design Guides.

Website: <http://www.nrel.gov/buildings/commercial.html>

### **NREL- Energy Systems Integration Facility**

Brian Hunter, User Program Project Leader

NREL's multistory Energy Systems Integration Facility (ESIF) provides laboratory and office space for approximately 200 NREL researchers and support staff. The 182,500-ft<sup>2</sup> building houses research to overcome challenges related to the interconnection of distributed energy systems and the integration of renewable energy technologies into the electricity grid.

#### **Unique Capabilities**

**Hardware-in-the-Loop at Megawatt-Scale Power:** Megawatt-scale power-in-the-loop allows researchers and manufacturers to conduct integration tests at full power and actual load levels in real-time simulations and evaluate component and system performance before going to market.

**High Performance Computing Data Center:** Petascale computing at the High Performance Computing Data Center enables unprecedented large-scale modeling and simulation of material properties, processes, and fully integrated systems that would otherwise be too expensive, too dangerous, or even impossible to study by direct experimentation.

**Uniquely Connected:** Each lab in the ESIF has its own niche with different kinds of equipment and functionality fostering research on all aspects of energy integration. The Research Electrical Distribution Bus, the ultimate power integration circuit, is made up of two AC and two DC ring buses that connect multiple sources of energy and interconnect ""plug-and-play"" testing components in all the labs.

**Supervisory Control and Data Acquisition System:** Integrated throughout the ESIF, a SCADA system monitors and controls the Research Electrical Distribution Bus operations and safety and gathers real-time, high-resolution data for collaboration and visualization.

**Data Analysis and Visualization:** Analysis and visualization capabilities at the ESIF go beyond what is found in a typical utility operations center. Fully integrated with hardware-in-the-loop at power capabilities, an electrical distribution bus, a SCADA system, and petascale computing, the ESIF allows researchers and NREL partners to visualize complex systems and operations in a completely virtual environment.

Website: [www.nrel.gov/esi/esif.html](http://www.nrel.gov/esi/esif.html)

### **NREL- National Wind Technology Center**

Rick Damiani, Senior Engineer

NREL's National Wind Technology Center (NWTC) collaborates with industry to advance wind energy generation and assessment technologies and to accelerate their commercialization in the marketplace. The NWTC applies industry best practices in combination with innovative approaches to resource assessment, modeling and analysis to develop solutions to market barriers. We provide our partners and stakeholders with world class testing facilities, research capabilities and experienced staff members who are leaders in their field. We are uniquely positioned to provide an unbiased technical evaluation of innovative ideas and to disseminate research outcomes to a global audience.

Website: [www.nrel.gov/wind](http://www.nrel.gov/wind)

## **NREL- Strategic Energy Analysis Center**

Margaret Mann

The Strategic Energy Analysis Center (SEAC) conducts a broad range of energy analysis in support of NREL programs and initiatives that span a wide range of renewable energy technologies. Analyst capabilities include:

- Data Analysis and Visualization
- Energy Forecasting and Modeling
- Market and Policy Impact Analysis
- Technology Systems and Sustainability Analysis

Website: <http://www.nrel.gov/analysis/staff.html>

## **NREL- Technology Transfer Office**

Eric Payne, Senior Licensing Executive and Anne Miller, Assistant Director

**Partnerships:** NREL works with businesses to conduct collaborative R&D, provide technical assistance and advance the deployment of clean energy technologies in the marketplace. See [http://www.nrel.gov/technologytransfer/tech\\_partnership\\_agreements.html](http://www.nrel.gov/technologytransfer/tech_partnership_agreements.html) for more information.

**Licensing:** By licensing intellectual property rights to companies, NREL provides the new technology ideas that distinguish companies from their competitors, and the protection companies need to invest in the development of new products. NREL's licensing team strives to transfer cutting edge technologies into commercial products by licensing intellectual property rights to companies across the renewable energy and energy efficiency markets. NREL has a large portfolio of technologies available for licensing (<http://techportal.eere.energy.gov/lab/NREL>) and a dedicated staff eager to find the right technology for your company.

Website: [www.nrel.gov/technologytransfer](http://www.nrel.gov/technologytransfer)

## **Pangaea Ventures**

Andrew Haughian, Partner

Pangaea believes that breakthroughs in advanced materials are becoming increasingly important for companies to excel in almost any market. Advanced materials are solving fundamental problems necessary to make products more efficient and less expensive, two of the key attributes necessary for widespread adoption of any product. Pangaea's current fund is focused on energy generation, energy storage, energy efficiency, sustainable materials / processes, and environmental (air, ground and water).

Of course, the disciplines of chemistry and material science extend well beyond these five sectors, but we cannot be experts in every discipline. Therefore, we don't invest in such areas as pharmaceuticals or weapons, despite the obvious chemistry and material science content there.

Pangaea has a strong preference for capital efficient businesses. We like to hold significant minority stakes in companies and maintain those stakes over all stages of financing. It is important that the future capital requirements of any portfolio company be a fit for our fund. Additionally, we are focused on achieving superior exits and returns for our investors, which also drives the need for capital efficiency.

Our investment thesis is technology and IP-driven. Most high-multiple exits have been achieved by start-ups with a significant patent portfolio, offering excellent protection from competitors and making the companies very interesting acquisition candidates.

Website: [www.pangaeaventures.com](http://www.pangaeaventures.com)

### **Prelude Ventures**

Joshua Posamentier, Principal

Prelude Ventures invests in highly innovative companies capitalizing on the significant market opportunities for advanced energy technologies focused on reducing the global economy's carbon intensity. Founded in 2009 as an evergreen fund with a concentrated base of LPs, our fund has a high level of flexibility relative to the stage, size and structure of our investments. As a firm, we believe that successful investing in Cleantech requires backing exceptional management teams, establishing a long-term vision, taking informed risk, and having the necessary capital and patient time horizon to enable portfolio companies to develop on appropriate timelines.

Website: [www.preludeventures.com](http://www.preludeventures.com)

### **RenewableTech Ventures**

Rose Maizner & Todd Stevens, Managing Director

RenewableTech Ventures is a Canadian based venture fund with offices in Alberta and Utah. The fund invests in early stage and growth stage renewable energy, clean technology, energy efficiency, conservation, green materials and advanced material companies in Canada and the United States. RenewableTech Ventures has completed its first closing for its venture fund and continues to raise funds to complete the target \$100 million fund. The Fund will take advantage of investment opportunities in underserved markets of the Rocky Mountain corridor in Western Canada and the United States. The fund has already invested in five clean tech companies located in the Rocky Mountain region. The principals of the Fund are Todd Stevens, Dal Zemp and Robert Pothier. Together they have over 60 years of combined venture capital, clean tech and entrepreneurial experience. The Fund principals have an established network internationally through a long history of co-investing with private equity, venture capital and strategic corporate investors. The principals collectively have previously managed six venture capital funds totaling over U.S. \$250 million in capital commitments.

Website: [www.renewablevc.com](http://www.renewablevc.com)

### **Robert Bosch Venture Capital**

Heribert Uhl, Senior Investment Director

Robert Bosch Venture Capital GmbH (RBVC) is the corporate venture company of the Robert Bosch Group. The Bosch Group is a leading global supplier of technology and services. In the areas of automotive and industrial technology, consumer goods, and building technology, more than 360.000 associates generated sales of 49 billion euros in fiscal 2014.

Investment Focus: RBVC invests in start-up companies on a worldwide basis. They focus on technology companies along the line of Bosch's current and future business. The strategic focal points are in Electrification, Automation, Connectivity, Energy Efficiency and Emerging Markets. RBVC provides capital for minority stakes in start-ups from early to expansion stage.

Website: [www.rbvc.com](http://www.rbvc.com)

### **SABIC Ventures**

Michael Bowring, Sr. Investment Manager and Jay Amarasekera, Sr. Technology Manager

SABIC Ventures is a wholly-owned subsidiary of SABIC (Saudi Arabia Basic Industry Corp.) that is focused on providing seed and early stage venture capital financing to innovative companies in the fund's sectors of interest on a global scale. We aim to invest in outstanding entrepreneurial teams who dare to challenge the status quo in their respective industries and who are seeking to build extraordinary businesses that can

support SABIC's innovation and growth strategy. We seek to invest and co-invest with a broad network of VC partners, angel investors or investment groups that specialize in our targeted investment markets and geographies. Through collaborative innovation, we can leverage SABIC's global footprint and turn our strategic insights into market impact.

### **Saint-Gobain External Venturing**

Dorothee Martin, External Venture Manager

Saint-Gobain, the worldwide leader in sustainable habitat solutions, designs, manufactures and distributes building materials and high-performance materials, providing innovative solutions to the challenges of growth, energy efficiency and environmental protection. We are constantly innovating to make living spaces more comfortable, cost-efficient and sustainable worldwide.

Saint-Gobain solutions span from self-cleaning windows and photovoltaic glass to smart insulation systems, water supply systems and building materials distribution. We offer solutions to the major challenges of energy efficiency and environmental protection. No matter what new needs emerge in the habitat and construction markets, the future is made of Saint-Gobain.

Website: <https://www.saint-gobain.com/en>

### **Silicon Valley Bank**

Dan Baldi, Manager Director

Banking the world's most innovative companies and exclusive wineries, SVB's diverse financial services, knowledge, global network, and world class service increase our clients' probability of success. With \$23 billion in assets and more than 1,600 employees, we provide commercial, international and private banking through 34 locations worldwide. Forbes Magazine ranks us among America's Best Banks and Fortune considered SVB one of the best places to work.

### **Snowball Growth Capital, LLC**

Scott Herrin, Principal

Snowball, located in Boulder, Colorado, provides pre-institutional funding to early stage companies. Our investment focus is cleantech, with significant experience in energy efficiency and other areas, though recent investments include software and healthcare as well. Meaningful IP is attractive. Scale of initial investment is typically \$50,000 to \$200,000 with follow-on capital available; we also lead larger syndicated rounds with other angel investors. Scott Herrin, Snowball's principal, has operating experience from startup through IPO, private equity scale up and strategic sale. Also an attorney by background, he has licensed IP internationally.

Website: <http://www.linkedin.com/in/scottherrinboulder>

### **Southern Cross Venture Partners**

John Scull, Managing Director

Southern Cross Venture Partners backs promising entrepreneurs to build successful companies with global potential. The funds are currently focused on technology, energy and resources at the seed, early and growth stages.

We are uniquely placed to help entrepreneurs through our presence in Australia, Silicon Valley and Asia through our partnership with SBCVC. We assist our entrepreneurs by catalysing the right connections, bringing the lessons of experience, acting as a trusted partner and sharing in the vision of our entrepreneurs to build great companies.

What We Look For:

- Entrepreneurs able to succinctly express the purpose and vision of the company.
- Targeting large, growing markets that are ripe for disruption.
- Technology-based solutions with products or services that are differentiated and defensible.

Website: <http://www.sxvp.com>

### **The New York Angels**

Thomas Blum, Partner, G.C. Anderson Partners

The New York Angels is one of the longest running active angel groups in New York City and has invested over \$95 million in entrepreneurial ventures. The group is an independent consortium of over 100 individual accredited angel investors. The New York Angels typically invest \$100,000-\$1,000,000 in seed/early stage companies, and syndicate deals with angel group partners and VCs up to \$2 million. Because of the vast experience of the membership, the group is receptive to a wide variety of industry sectors. The strength of the group is its ability to pool its money to make large investments, to mentor entrepreneurs to help them achieve their goals, and to make introductions that can accelerate growth.

Thomas Blum is the New York Angels member responsible for screening clean technology opportunities. By day, he is an investment banker at G.C. Anderson Partners, where he focuses on cleantech and alternative energy transactions.

Website: <http://www.newyorkangels.com/>