

NJPACE/CRCS Annual Report 2013

Laying a Foundation for Cleaner, Greener, More Resilient Buildings in New Jersey Cities and Towns

Regenerating Communities through:

- Sustainable Economic Development
- Energy Conservation and Efficiency
- Renewable Energy Systems
- Building Resiliency in New Jersey in the Wake of Superstorm Sandy

March 2014

New Jersey PACE
Center for Regenerative Community Solutions
a 501c3 NJ Nonprofit Corporation

Princeton & Basking Ridge, NJ
CRCSolutions.org • NewJerseyPACE.org

Our first year began in January 2013 with registering the Center for Regenerative Community Solutions (CRCS), and ended with our first charitable fundraising campaign under our new 501c3 tax exempt status from the IRS.

Over this first year, we have sought to lay a foundation to address some of the challenges facing New Jersey in the wake of Superstorm Sandy. Dealing with climate change, carbon pollution, limits to energy, and anemic economic conditions will require changes in government policy, technology, business innovation and financing, and community engagement. We think these issues can only be addressed by developing solutions in which everyone wins.

New Jersey PACE generates the tangible win/win/win outcomes that CRCS was established to deliver. NJPACE is the first major initiative of CRCS, providing a new approach to financing conservation, clean energy, and ultimately, resiliency. NJPACE is designed to achieve the following goals:

- Unlocking large amounts of new private capital to invest in clean energy and resiliency in New Jersey communities
- Saving energy and reducing carbon and other pollution through profitable and cost-effective strategies
- Switching to cleaner, smarter, more widely distributed, and more resilient energy sources
- Creating jobs, encouraging sustainable redevelopment, and revitalizing regions and communities
- Rebuilding our commercial, industrial, and institutional infrastructure
- Scaling existing clean technologies and supporting the development of new ones

NJPACE is a state-wide nonprofit program for municipalities that enables commercial, industrial, nonprofit, and multi-family property owners to obtain highly favorable financing for long-term investments in energy upgrades, efficiency improvements, and energy self-sufficiency. New Jersey PACE undertakes the administration, processing, evaluation, and verification of projects on behalf of the community at no cost to taxpayers. New legislation will expand PACE to cover a wide range of resiliency improvements and facilitate the use of private financing.

I invite you to learn more, become involved, and financially support us spread the adoption of our programs.

Saturday, March 4, 2014


Jonathan Bond
Executive Director

Why New Jersey PACE (NJPACE)?

We chose to develop and implement NJPACE because it simultaneously offers solutions to several challenges:

- Aging, obsolescent "built" environment, particularly in the commercial/industrial sector
- Energy prices, availability and dependency
- Jobs and economic development
- Insufficient incentives to spur investment in upgrading properties

Rethinking Our Built Environment

In New Jersey, buildings account for 45% of our energy consumption and our carbon pollution. Many of these buildings are old and relatively inefficient. The challenge of reducing their energy consumption by even a third is an enormous one. Yet, this must be our goal if we are going to make a more sustainable future possible.

To understand the dimensions of this challenge, consider this analysis by Sustainable Jersey, the state-wide non-profit clearing house for municipal sustainability initiatives:

New Jersey is home to an extremely diverse base of properties reflecting its character as one of the oldest, most developed, and heavily populated states in the country. Much of the residential and commercial energy use is on more mature properties where there are significant energy efficiency improvement opportunities. The energy consumption profile is typical of an industrialized population in a temperate zone, including significant air conditioning load in the summer. Electricity consumption is heavily influenced by peak demand, which is a primary driver of consumer energy cost.

The total value of NJ nonresidential properties—the focus of NJPACE—exceeds \$200 billion. Upgrading and retrofitting these older properties with energy efficient systems in a significant way will require an enormous amount of investment, which can come only from the private sector. Past efforts to subsidize or incentivize this investment have fallen short of expectations, but PACE overcomes many of the obstacles faced by other approaches.

Meeting New Jersey's Energy Goals

The State's Global Warming Response Act (2007) mandates aggressive reductions in greenhouse gases within New Jersey, including a reduction to 1990 levels by 2020, and a reduction to 80% below 2006 emission levels by 2050. In the revised version of

New Jersey Energy Master Plan, New Jersey remains committed to achieving the 22.5% Renewable Portfolio target by 2021.

These objectives cannot be achieved without greatly accelerating the pace of upgrades, retrofits, conversions, renewables, distributed generation and smart building control systems that NJPACE is designed to finance.

The State's Master Plan also calls for optimizing existing energy efficiency programs through "revolving loan programs and improving the mechanisms for delivering the programs in a more efficient manner." Currently, the NJEDA's Energy Efficiency Revolving Loan Fund has less than \$20 million to lend, but New Jersey PACE will significantly address this Master Plan objective.

NJPACE will also contribute to another New Jersey goal that has taken on greater importance in the wake of Hurricane Sandy — increasing resilience, especially in the private sector. Legislation currently pending (S2632 and companion A3898) will provide additional tools for implementing NJPACE, and expand the range of improvements that can be financed to include hurricane-resistant construction, flood proofing, water conservation, and other such resilience elements. This will provide a boost to long-term recovery efforts.

Clean Energy Investment and Jobs

According to Sustainable Jersey's experts,

New Jersey has significant renewable energy assets upon which to build its sustainable energy strategy, particularly including solar (both distributed and wholesale grid-supply plants), waste and biomass, and marine resources (offshore wind and wave energy, among other potential solutions). These renewable resources are relatively untapped at the current time, and are large enough to ultimately meet a large fraction (if not all) of NJ's energy requirements.

The Energy Master Plan also calls for greater investment in energy efficiency, which is recognized as the most cost-effective way to reduce the waste of more than 30% of all energy delivered to nonresidential properties.

Efforts to promote economic development will include increasing in-state energy production, improving grid reliability, and recognizing the economic, environmental, and social benefits of energy efficiency, energy conservation, and the creation of jobs.

Meeting this challenge in New Jersey is part of an investment opportunity estimated by the Rockefeller Foundation to be worth nearly \$280 billion in the U.S. over the next ten years, resulting in more than \$1 trillion in energy savings, 3 million jobs, and 600 million fewer tons of carbon pollution each year.

According to the Center for American Progress,

Investments in a clean-energy economy will generate major employment benefits for New Jersey and the rest of the U.S. economy. Our research finds that New Jersey could see a net increase of about \$4.6 billion in investment revenue and 48,000 jobs based on its share of a total of \$150 billion in clean-energy investments annually across the country. This is even after assuming a reduction in fossil fuel spending equivalent to the increase in clean-energy investments.

Clean-energy investments, the authors say, create 16.7 jobs for every \$1 million in spending. Spending on fossil fuels, by contrast, generates 5.3 jobs per \$1 million in spending.

According to Bloomberg's latest numbers, clean energy investment already attracts more than \$150 billion in investment worldwide every year, with the U.S. accounting for about \$40 billion of that.

The New Jersey PACE Program

New Jersey PACE, a NJ 501c3 nonprofit, acts as program administrator for municipalities at no cost to the property owners or the municipalities themselves. We work with municipalities to design and establish a PACE program and have it approved by the State's Division of Local Government Services, after which we advertise and market the Program. Upon application, we assist property owners, contractors and local construction lenders by processing each PACE project from design to funding to final certification. By using best practices from other state programs, including standardized forms and procedures, we keep paperwork and costs to a minimum. Reasonable project-related out-of-pocket costs are reimbursable and included in the total project funding. "**New Jersey PACE**" is an alternate name of the **Center for Regenerative Community Solutions, a NJ Nonprofit Corporation**.

In short, **NJPACE** is an economic development tool, creating jobs, fostering property improvements, and retaining/attracting new businesses. NJPACE represents an investment opportunity of nearly \$8 billion in New Jersey, creating 85,000 new jobs, and lowering NJ's carbon emissions by some 14%.

Attracting New Private Investment to Downtowns, Office Parks, Shore Businesses, Multi-Family Residential, and Nonprofits such as Hospitals and Universities

In releasing the 2013 City Energy Efficiency Scorecard the authors note:

"Our report shows that cities are laboratories of innovation for energy-saving solutions that directly benefit people where they live, work and play," said Eric Mackres, ACEEE's local policy manager and the report's lead author. "Local governments have great influence over energy use in their communities and many have initiatives that result in significant energy and cost savings."

NJPACE offers a way to kickstart development in a number of challenging situations — from Main Street redevelopment, to the Adaptive Reuse of existing "white elephant" commercial and industrial structures, to the full-scale energy reengineering of for-profit or major nonprofit hospitals, nursing homes, and health centers.

With the passage of pending legislation in NJ, the program will also target the storm-resistant rebuilding of coastal businesses damaged by Hurricane Sandy, and increased resiliency overall for NJ's commercial and industrial infrastructure.

Milestones & Accomplishments

January 2013

- Created **Center for Regenerative Community Solutions (CRCS)**
- Launched **CRCSolutions.org**, article publications
- Presented at **Financial Permaculture Conference**, Homestead, FL
- Assisted **NJ Sen. Bob Smith** in drafting S2362, expanding PACE financing to include water conservation, storm shelter construction, and flood and hurricane resistance projects

February 2013

- Researched and contacted other state PACE programs

March 2013

- Submitted **IRS 501c3** application
- Launched **NewJerseyPACE.org**
- Provided first **municipal presentations** of NJPACE

May 2013

- Held first **contractor, property owner, and lender** meetings
- Provided first **county presentations**
- Submitted a team proposal to develop the **Greystone** property using NJPACE financing

June 2013

- Added first members to **NJPACE Advisory Board, Lyle Rawlings and John Sarno**
- Presented at “Best Practices for Financing of Energy Retrofits: Launch of the **EEB Hub Finance and Real Estate Platform**,” Navy Yard, Philadelphia

July 2013

- Met with **New Jersey Bankers Association**

August 2013

- Attended **Connecticut C-PACE Contractor Training**
- Attended **BASF Heat Management Workshop**
- Participated in **Duke Farms Sustainability Summit**

October 2013

- Engaged **Pro Bono Partnership** for legal services
- Initiated meetings with **NJ Board of Public Utilities**
- Added **Jigar Shah** to Advisory Board; co-hosted Jigar's Book Signing at **McCarter & English**

November 2013

- Attended **NJ League of Municipalities Conference and GreenBuild**
- Launched “**Alliance for NJPACE**”

December 2013

- **Received 501c3 designation**
- Met with **Governor Chris Christie's Office of Recovery and Rebuilding** policy staff
- Added **former Governor Jim Florio** to the New Jersey PACE Advisory Board
- Added **Peter Burgess** and **Matt Polsky** to the Board of Trustees
- Agreed to co-sponsor Delton Chen's “**Global 4C Mitigation Policy: Global Complementary Currencies for Climate Change**”



Center for Regenerative Community Solutions

Mission

The Center for Regenerative Community Solutions is a NJ nonprofit devoted to:

1. Providing local communities with educational services on the effects of climate change and other related issues that can affect their long term ability to regenerate their ecological and economic systems,
2. Providing local government institutions with assistance to undertake actions and initiatives to reduce and ameliorate present and expected extreme weather and other climate change effects,
3. Providing small businesses and non-profit organizations with funding to undertake actions and initiatives to reduce and ameliorate present and expected climate change effects in low and moderate-income communities, including communities impacted by Superstorm Sandy.

Executive Team



Jonathan Cloud, Executive Director

Jonathan has been helping catalyze action toward sustainable development in municipalities, communities, and businesses since the early 1970's. He consults to corporations of all sizes, nonprofits, municipal, state, and national governments, and colleges and universities. His expertise and interests include energy and environmental technologies, community financing mechanisms, local food systems, and renewable energy systems, along with sustainable innovation, entrepreneurship, community engagement, and transformational leadership for social change. Jonathan has been an entrepreneur, consultant, educator, community organizer, policy analyst, journalist and researcher in several fields of environmental and social change. He worked for the Canadian Government in policy, research, program management, and evaluation on energy and environmental issues. Jonathan ran a solar design and construction firm pioneering green building techniques, urban agriculture, and other areas of sustainability, in both Canada and the U.S.

Jonathan is founder of the Sustainable Business Accelerator and serves on the boards of several nonprofits. He is a member of the Institute for Sustainable Enterprise at Fairleigh Dickinson University. He holds a master's degree in sociology from York University in Toronto and a bachelor's degree in psychology from Victoria University of Wellington, New Zealand. He is a dual citizen who has lived and worked in multiple countries under a range of socioeconomic circumstances.

Jonathan is also responsible for developing and proposing legislation regarding small hydro in New Jersey, promoting energy aggregation and PACE programs, and consulting to businesses, communities, and nonprofits on sustainability. He has authored a number of articles and web sites addressing a range of topics, from the science of climate change to the development of new currencies and new communities. He was a keynote speaker at the Financial Permaculture Summit 2013 in Homestead, FL.



Gus Escher, Director of Finance

Gus is an Investment Banker and Managing Member of First Enterprise Consulting LLC, a Project Consulting firm for Alternative and Renewable Energy Facilities. He consults on projects from concept to development, to financial structuring/proformas, to team coordination, and to equity and debt execution.

Prior to First Enterprise Consulting, he has served in leadership positions at Citicorp Securities, PNC Capital Markets, RBC Capital Markets and BB&T Capital Markets — in all of them specializing in project development and finance. Gus is licensed by the SEC/FINRA in all 50 states, with Series 7, Series 63 and Series 79 designations. He holds a BA from Princeton University, and a Masters of Urban Planning, also from Princeton University.



Victoria Zelin, Director of Development

Victoria is Co-Founder of the Sustainable Leadership Forum, a peer network in Central NJ that empowers people in their own sustainability initiatives. She speaks publicly, has written and has been published on the subject of sustainability ("Who Will Be the Rock Stars of Corporate Sustainability?" *Science, Wisdom, and the Future: Humanity's Quest for a Flourishing Earth*, Collins Foundation Press, 2012).

Most recently, she sold Deloitte's sustainability consulting services to major corporations. Previously, she sold organizational change consulting services to F500 companies. She is masterful at getting people to take action by getting to the heart of the issue, using transformational approaches, and articulating a compelling case for change. She has an MBA from Yale's School of Management with a specialization in organizational development and a BA in cultural anthropology from Duke University.

Trustees at Large



Peter Burgess

Founder/CEO at TrueValueMetrics developing Multi Dimension Impact Accounting

Peter Burgess has formal training in engineering, economics and accountancy which has given him the background to understand problems from many perspectives, and introduce practical effective solutions.

The same skills that were effective in the corporate environment were also very effective in planning and evaluation in the field of international socio-economic development. Peter did many assignments for the World Bank, the UN (mainly UNDP) as well as private commercial clients. Worked in more than 50 countries over a period of more than 20 years.

Peter has used good basic accounting and key item control to measure performance and identify

profit improvement possibilities. Structured metrics so that everyone was pulling in the same direction to achieve corporate goals. Used similar techniques to improve factory performance and manage costs on large construction projects.

Read engineering and economics at Cambridge University. Trained as a Chartered Accountant with Coopers and Lybrand (PriceWaterhouseCoopers) in London. About 20 years professional and corporate management experience including VP Manufacturing and VP CFO. Also assignments for World Bank, IFC, UN agencies and others in the international relief and development sector for another 20 years. Experience with management information system development in corporate, government and NGO sectors.



Matt Polsky, Sustainability Change Agent

Matt Polsky is a sustainability change agent and Senior Fellow for Sustainability Innovation and Multidisciplinary Thought at Fairleigh Dickinson University's Institute for Sustainable Enterprise.

He has unique cross-sector experience working in business, government, for environmental groups, and as an adjunct professor. He was the Sustainability Team Leader at the New Jersey Department of Environmental Protection. He has taught sustainability and energy courses at six New Jersey colleges. He was a marketing manager at AT&T Microelectronics' Energy Division, a market researcher at Lane Bryant, and a marketing coordinator at BBD&O. Matt was co-chair of one town's Green Team, advised another town's Green Team, is on two Sustainable Jersey Working Groups advising Sustainable Jersey in their development of "Gold" level certification for municipalities; and has worked with a number of municipalities to preserve open space.

As a perpetual student, he has a BA in Psychology from Rutgers College; an MBA in Economics, an MA in Humanities & Social Thought, and a Certificate in Global Affairs, all from NYU; and completed the Corporate Environmental Leadership Seminar at Yale. He has taken additional courses with some of the giants of the sustainability field.

Advisory Board



James J. Florio, Governor of New Jersey 1990-94

Mr. Florio is Founding Partner of the law firm of Florio Perrucci Steinhardt and Fader, LLC based in Phillipsburg, NJ, and was founder and CEO of XSPAND, an asset management company in Morristown, NJ.

Mr. Florio is an authority on international trade, energy, environment, health care and transportation issues. He served on the Secretary of Energy's Advisory Board during the Clinton Administration. He was a member of the Trade and Environment Policy Advisory Committee (TEPAC) to the US.

Trade Representative. While in Congress from 1974 through 1990, representing the 1st District of New Jersey in the United States House of Representatives, Mr. Florio authored the Comprehensive Environmental Response Compensation and Liability Act, known as the "Superfund" law, our nation's primary program for cleaning up hazardous waste sites. As Chairman of the House

Subcommittee with jurisdiction over environmental matters, he was involved in the drafting or passage of virtually every major piece of federal environmental legislation.

Mr. Florio served as Governor of the State of New Jersey from 1990 through 1994. As Governor, he was responsible for signing into law the Clean Water Enforcement Act (1990), one of the strongest environmental laws of its type in the nation, and the prototype for legislation to reauthorize the federal Clean Water Act. He also signed the Quality Education Act (1990 and 1991), which provided greater equity in New Jersey's school finance system; a landmark welfare reform package (1992); a healthcare cost reduction program (1992); and the nation's toughest assault weapons ban (1990).



Lyle K. Rawlings, P.E.

An engineer with 34 years of experience in renewable energy research, design, policy advocacy, and business, Mr. Rawlings has designed and managed some of the most challenging - and some of the most innovative - PV projects in the country. In 2003 Mr. Rawlings served on Gov. McGreevy's Renewable Energy Task Force, where he successfully campaigned for the creation of the state's system of Solar Renewable Energy Certificates (SREC's). In 2009, Rawlings was a winner of the Ernst & Young "Entrepreneur of the Year" award. *President & CEO, Advanced Solar Products.*

In 2007 the founder of Advanced Solar Products was called "the founding father of renewable energy legislation in New Jersey," by New York Times Magazine, and he remains one of the nation's leading professionals in the field of solar energy.

Lyle Rawlings was also the co-founder of the Mid-Atlantic Solar Energy Industries Association (MSEIA) where he was instrumental in the creation of the New Jersey solar energy program, which today leads the nation in solar energy industry growth. Mr. Rawlings continues to serve as Vice President and remains active in the creation and improvement of solar energy incentives, regulations and legislation in the region.

Mr. Rawlings received a B.S. degree in Chemical Engineering from West Virginia University. He holds one U.S. patent in photovoltaic module design and has another patent for an improved module mounting system.

John J. Sarno, Esq.



John is an executive, lawyer, professor and trustee with an abiding interest in corporate ethics and social responsibility. He received a BA in Psychology from Ramapo College of New Jersey and an MA in counseling and JD from Seton Hall University. He serves on various nonprofit boards and has advised hundreds of companies on sound management practices.



Jigar Shah, Entrepreneur and Independent Investor

Jigar Shah is an entrepreneur and visionary committed to leveraging the next economy by solving the challenging issues of our time. As founder of SunEdison, he pioneered use of the Power Purchase Agreement (PPA) model for financing commercial and residential solar. His new book, [*Creating Climate Wealth: Unlocking the Impact Economy*](#), argues Shah has noted that a global "Impact Economy" is one in which mainstream investors team up with corporations, entrepreneurs, and governments at scale to solve the big environmental and social problems of our time while generating compelling financial returns – not just average returns. that our energy future is "an opportunity masquerading as a crisis."

He is a partner at Inerjys, a \$1 billion fund that invests in clean energy via growth capital and project finance, CEO of Jigar Shah Consulting, and a board member of Sir Richard Branson's Carbon War Room, which he led as its first CEO. He works closely with some of the world's leading influencers and guides policy makers around the globe on key issues to implement solutions for global warming and sustainability that will unlock "the next trillion dollar impact economy."

Dennis Wilson



Dennis Wilson, the founder of Renewable Power Inc. has thirty years of experience in the energy field, developing solar thermal, co-generation, large scale energy efficiency projects and over two hundred and fifty solar electric systems. The solar electric systems range in size from 3KW to 500KW, all of which are grid connected and are located in NY, NJ and Connecticut.

Renewable Power develops and implements integrated energy efficiency and renewable energy programs for commercial, industrial and institutional clients to reduce their carbon footprint and better manage their energy needs. These services include analysis of existing energy consumption, turnkey efficiency projects to upgrade the efficiency of existing energy consuming equipment, and the development of renewable energy systems to produce onsite electricity and reduce future electric cost risk. The staff of Renewable Power has decades of experience developing solar electric and thermal systems, cogeneration plants and over one hundred large scale efficiency projects.

Greystone Community Innovation Proposal

The essence of our proposal, submitted at the end of May 2013, was the conversion of the existing Greystone properties into a robust 21st century village environment. The uses being proposed range from housing to hospitality, from emerging technology businesses to sustainable and economically viable business ventures. Housing will be at the core of the plan and will feature a large live/work component as appropriate to the potential building re-use opportunities. In addition, we incorporate agriculture, multi-generational community development, education, and other elements that will make the project successful.

We are also taking into account the emerging forms of innovative financing mechanisms, including sustainable energy and PACE funding, which can make the operation of the community largely if not completely self-sustaining.

This proposal was well received by Preserve Greystone, a local nonprofit, and the Township of Parsippany, and remains under consideration.

Conclusion: An Opportunity to Contribute

The promise of our work is a world that works for all of us. If this inspires you, we invite you to make a contribution to one of our projects, or to our overall capacity-building effort.

These contributions can be financial (which are now “tax-deductible to the extent allowed by law,”) or in kind, which will be recognized through our site. To donate, please visit CRCSolutions.org.

Non-financial contributions include referrals, co-marketing, internships, and other forms of assistance, as well as membership in the Alliance for NJPACE (see Alliance.NewJerseyPACE.org).

Learn more at NewJerseyPACE.org, CRCSolutions.org or contact us today:

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