



Changing the Game for Clean Energy & Rebuilding Commercial Properties for a More Resilient Future

THE BIG PICTURE: PICKING UP THE PACE

Challenge: 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.

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%.

NJPACE Targets Downtown Revitalization, Office Park Conversions, Shore Businesses, and major Hospitals and Health Centers

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 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.

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.

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