

Sunny Skies Make a Brighter Future

- Solar Industry Bolstered
- Hundreds of Hours Worked by Green Collar Workers
- Creation of 33 MW of Clean Energy Generation Capacity - Nearly Doubling State Capacity
- Significant Pollution Reduction and Corresponding Health Benefits

A Changing Landscape

While New York is well known for its snow and ice storms, it is making huge strides to capitalize on the cleanest, most abundant, renewable energy source available – the sun. Solar power is a massive, domestic energy source that powers our homes, businesses, and with the U.S. Department of Energy's and NYSERDA's help, hundreds of public and private organizations in New York.

Approximately \$55 Million of Recovery Act funds have been dedicated to solar installations across the State.

This investment will help to permanently change the power production landscape of the State and drive environmental and associated health benefits for decades. NYSERDA is directing ARRA funding to just under 1,500 solar photovoltaic installations that will have a total generation capacity of over 33MW of electricity. This additional 33 MW of generation capacity will almost double the current installed photovoltaic capacity of the State. Installations will be across the state from Buffalo to Montauk. The total annual cost savings in energy that will be passed onto tax-payers and consumers is over \$6.5 Million.

These grants have allowed organizations throughout New York to fund solar projects that would have never gotten off of the ground without the help of ARRA funds. Over 42,000 MWh will be generated by the solar installations each year and carbon-emissions will be reduced by 30,355 metric tons, annually. This is the equivalent of taking 5,804 cars off of the road. Accompanying the environmental benefits of solar power is the bolstering of the growing U.S. solar industry that provides manufacturing and skilled laborer jobs to American tax-payers. "ARRA funded projects require that materials used are made in

America. This requirement has driven many international solar manufacturers to establish US manufacturing facilities, which not only creates jobs, but provides the US with a domestic source of equipment. Although the US only provides 10% of the world's PV equipment, with the stimulus of ARRA funding and policies that encourage domestic investment in this growing industry, the future of clean power in America is looking brighter", says Thom Besch, New York Director of Government Sales at Alteris Renewables.



Solar installation at West Maspeth Realty, Ltd by Solar Energy Systems

According to the Solar Energy Industries Association®, New York was ranked in the top ten states for installed solar generation capacity at the end of 2009. With over 33 MW of capacity being added by the ARRA funded projects, NYSERDA will have facilitated the almost doubling of New York's solar power installed capacity.

Green Jobs, Green Saved

Green jobs are one of the leading forces that will aid recovery and continued long-term growth of the U.S. economy, and New York is doing its part to support that goal. Hundreds of hours have already been logged on solar installations, and it is expected that by the end of the 2011 thousands more can be counted towards the recovery effort.

Local skilled labor is integral to the sustainable nature of these projects. Monolith Solar, LLC is based in New York, with offices in Nanuet and Albany. "The impact of recent projects has been drastic for our field of employment," says Mr. Steve Erby. "We went from two men in a garage to a group of eight, including salesmen, administrative support, and installers. We hire local electricians and local excavators – providing business growth beyond our own. Projects utilizing the ARRA grants have provided a 25% increase in our business."

David Bucker, President of Solar Energy Systems, LLC, located in Manhattan, stresses that "Solar PV is a renewable and domestically harvested energy source, lessening our dependence on fossil fuels and foreign energy sources. Solar energy is a powerful vehicle for domestic job creation and economic growth. The recently enacted stimulus package will expand tax credits, guarantee loans for businesses investing in solar, fund R&D, finance clean energy projects, and support the green workforce development in America."

Supporting green jobs in a state that was especially hard hit by the economic crisis was the objective of the Department of Energy stimulus program. According to several New York installers, ARRA funding is well on the way to achieving this goal. "Our goal is to cover New York State with solar panels. To do this, we have to look at the big picture and give all of our customers the benefits of our large volume work", says Adam Rizzo, president of Solar Liberty.

American-Made, America Profits

Supplementing the boost to the solar installers' workforce, ARRA funds also are strengthening the photovoltaic manufacturing sector. American tax-payer dollars are helping American manufacturing workers on the assembly lines. Due to demand, several facilities have been recently opened or expanded in order to provide domestic availability of solar panel components, so the

"Buy American" clause can be satisfied. In New York alone, solar manufacturers need to produce enough panels to cover the roofs of almost 1,500 buildings and seven parking lot structures.



Manufacturing Solar Panels at
Schott Solar in Albuquerque,
New Mexico

Leading by Example

In addition to directly adding jobs and reducing future electric costs, photovoltaic systems also offer other benefits. NYSEERDA is confident that the installations will shine a light on the environmental benefits of solar power and will provide an example of how solar power can be beneficial to a diverse set of organizations throughout the state. Utility companies also will reap the savings from the installations with the reduction of peak load.

The Town of Esopus Library, located in Ulster County, has used Recovery Act funds to install 28kW of roof-mounted and ground-mounted photovoltaics. "We're hoping to be a place to come to learn about renewable energy," says Library Director Kelly Tomaseski. "We think that people will be more likely to invest in a similar project if they can see it in practice."

These sentiments are shared by Adam Rizzo, president of Solar Liberty, the project installation firm for the Town of Esopus Library project. "It's important to demonstrate that solar energy is a viable way to power a building," he says. "Community centers, nonprofit buildings, and schools are especially important for promoting solar energy. Seeing is believing. This project proves to business people and homeowners that a solar panel system gives a strong return on investment in New York State."

The Cohoes Central School District echoes this and Dennis Phayre, commercial sales director for Alteris Renewables, adds that "Solar installations are an amazing learning opportunity for our students and the community. With this project, these students are on the cusp of a shift in the way the next generation perceives renewable energy. They will experience photovoltaics first hand and be supported with the equipment, and curriculum, that they need in order to develop an understanding of the system. The educational benefits of this system are innumerable."

Diversity in Jobs and Diversity in Benefits is Key to Success of Recovery

ARRA creates jobs and promotes investment and consumer spending during the recession. The need for financial support spread across all sectors and for organizations in New York was significant. Not only do the organizations receive grants for the installations of renewable and energy efficient measures, they receive the lasting benefit of a lower utility bill each month for the next several decades. Grateful communities across New York are proud to see their tax dollars go toward funding for projects such as solar panel installations. There are 85 municipalities, five public colleges and universities, 26 K-12 schools and 12 hospitals and not-for-profits that are reaping the benefits of installing solar photovoltaics at their sites.

"The Recovery Act-funded solar projects in New York have played a critical role in sustaining and expanding the solar industry in New York State," says Ron Kamen, President of the NY Solar Energy Industries Association. Mr. Kamen continues with, "The Buy American component of the Recovery Act funding has clearly helped the American solar manufacturing industry and installation workforces. As the Clean Energy Economy continues to develop, solar and other renewable energy technologies will become the least cost power, millions of jobs will be created, and our country will make the transition to true energy independence."

Recovery Act Grants Supplement Global Solar Push

NYSERDA designed four distinct programs to distribute the ARRA funds, and each has achieved success in its target market. Two of these programs were focused solely on expanding solar power in New York State. These programs were all funded by the State Energy Program and the Energy Efficiency Conservation Block Grant program administered by the U.S. Department of Energy. The New York Energy Research and Development Authority (NYSERDA) administered these funds in New York and designed its programs with the intention of advancing the State's goal of achieving 45 percent of the State's energy needs through renewable energy and improved energy efficiency by 2015. NYSERDA is using the success of these programs to improve its core programs and provide even greater economic benefits to taxpayers. Whether driven by regulations, customer preferences, or corporate values, solar power is becoming an increasingly important renewable resource for New York. New York joins the global community as it generates renewable power and reduces the carbon footprint of its residents.

American Recovery and Reinvestment Act

The awards and programs funds referenced throughout this document were funded by two U.S. Department of Energy programs: [U.S. Department of Energy's State Energy Program](#); and the [U.S. Department of Energy's Energy Efficiency and Conservation Block Grant Program](#). The State Energy Program provides grants to states and directs funding to State Energy Offices from technology programs in DOE's Office of Energy Efficiency and Renewable Energy. States use grants to address their energy priorities and to adopt emerging renewable energy and energy efficiency technologies. SEP is distributing \$3.1 billion of funding to the states and U.S. territories under the [2009 Recovery Act](#). The Energy Efficiency and Conservation Block Grant (EECBG) Program provides grants to states and directs funding to State Energy Offices from technology programs in DOE's Office of Energy Efficiency and Renewable Energy. States use grants to address their energy priorities and to adopt emerging renewable energy and energy efficiency technologies. EECBG is distributing \$3.2 billion of funding to the states and U.S. territories and through competitive offerings under the [2009 Recovery Act](#).



Solar Installation at the Town of Sand Lake, New York