



Madison County Planning Department
Scott Ingmire, Director / Jamie Hart, Planner

Solarize Madison Pilot

Program Evaluation and Lessons Learned

Jan Myers, Program Coordinator

Jamie Hart, Senior Planner

Philip Hofmeyer, Assistant Professor

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AUTHORS

Jan Myers, Program Coordinator for *Solarize* Madison
Jamie Hart, Senior Planner at Madison County Planning Department
Philip Hofmeyer, Assistant Professor at Morrisville State College

CONTRIBUTORS

Chris Carrick, Energy Program Manager at Central New York Regional Planning and Development Board and Regional Coordinator at NYSERDA CNY Energy Smart Communities

John Pumilio, Director of Sustainability at Colgate University

Kipp Hicks, Executive Director at Madison County Industrial Development Agency (IDA) and CEO at Madison County Capital Resource Corporation

Philip V. Hofmeyer, Ph.D., Assistant Professor of Renewable Energy at Morrisville State College and Instructor at Renewable Energy Training Center

Samuel Gordon, Senior Planner at Central New York Regional Planning and Development Board

Scott Ingmire, Director at Madison County Planning Department

Sponsors

The Madison County Planning Department serves a diverse array of functions and assists with efforts such as: County Parks administration, Climate and Sustainability initiatives, snowmobile trails, First Time Homebuyers programs, Geographic Information Systems (GIS) mapping, water quality management, Agricultural Districts, local land use planning and assistance, and much more.

The Central New York Regional Planning and Development Board (CNY RPDB) provides a comprehensive range of services associated with the growth and development of communities in Central New York with a focus on the following program areas: Community Development, Economic Development, Energy Management, Environmental Management, Information and Research Services, Intergovernmental Cooperation, and Transportation Planning.

The Morrisville State College Renewable Energy Training Center (RETC) provides technical short courses for individuals seeking marketable skills in renewable energy fields. The RETC is an alliance of employers, training providers, economic development partners, and K-12 schools to address long-term and short-term needs of New York State's renewable energy sector

New York Solar Energy Society (NYSES) mission is to encourage the understanding and use of solar energy technologies through public outreach, to be a source of sound technical knowledge and to provide a forum to address critical regional and state issues relating to solar energy solutions. We address the energy usage of all segments of society by increasing awareness of the benefits of renewables: solar, wind, biomass, geothermal ground source, tidal/wave energy and energy efficiency.



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Solarize Madison: Creating Renewable Energy Options for Madison County

ABSTRACT

Madison County, New York is a rural agricultural community in upstate New York with a population of nearly 74,000 and is at the forefront of the renewable energy industry in the State. Madison County is home to the first commercial scale wind farm in the state, with three currently in operation to date. The Madison County landfill was the first in the Nation to install a one acre thin-film solar PV array on one of its capped cells. Additionally, the County is also researching the cultivation of feedstocks used in the production of ethanol or electricity and has identified nearly 200 potential sites for micro-hydroelectricity systems. Despite the County's leadership in renewable energy advancement only 19 residential and nine commercial solar PV systems had been installed from 2003 to 2011.

The program began in 2011 as an initiative of Jan Myers, a Morrisville State College student, who had researched other Solarize programs and approached Madison County Planning Department with the idea. In 2012, the Madison County Planning Department¹ in collaboration with the Central New York Regional Planning and Development Board (CNYRPDB)² and the Renewable Energy Training Center (RETC)³ at Morrisville State College, launched *Solarize Madison*, the first *Solarize* campaign in New York State. *Solarize Madison* is a community-focused renewable energy program promoting sustainable energy production to stabilize current and future energy costs. The intent of the program was to help consumers save money, generate clean energy, reduce carbon emissions, create local jobs, and promote equity by creating local economic opportunities and career pathways in the region.

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³ The Morrisville State College Renewable Energy Training Center (RETC) provides technical short courses for individuals seeking marketable skills in renewable energy fields. The RETC is an alliance of employers, training providers, economic development partners, and K-12 schools to address long-term and short-term needs of New York State's renewable energy sector. Course curricula are based upon employer-identified skill gaps and needs. RETC short courses and MSC college courses focus on renewable energy resources and systems, including wind, solar, micro hydro, geothermal and bioenergy/biofuels.

The *Solarize* Madison pilot initiative was launched to replicate the successes of similar efforts in Portland, Oregon and other similar *Solarize* programs across the United States. The campaign proved successful resulting in 28 residential and one municipal solar PV systems totaling approximately 184 kilowatts of new solar in four months, which is nearly one and half times the amount of solar installed countywide in the previous eight years combined.

INTRODUCTION

The *Solarize* Guidebook identified three main market barriers that exist in the solar market: cost, a complex process and customer commitment. According to New York State Energy Research and Development Authority (NYSERDA)⁴, since 2003, New York has had over 3,000 NYSERDA funded installations. Madison County had 26 installations during this time; less than 1% of the state's total. Interest in solar has been on the rise and market prices have continued to decrease, however, interest is not a guarantee of action. Although NYSERDA and other outreach partners throughout the state have conducted education workshops for several years, the high attendance at workshops, as shown in Figure 1, did not translate into high numbers of solar installations.

The Madison County Planning Department is a participant in the Central New York Climate Change Innovation Program (C2IP) made possible through a grant to the Central New York Regional Planning and Development Board (CNY RPDB) from the US EPA Climate Showcase Communities program. Through C2IP the CNY RPDB selected seven local municipal governments from throughout their five county regions to assess their green house gas emissions impact, develop strategies to mitigate those impacts, and implement demonstration projects to showcase their efforts.

Madison County's desire to promote and support renewable energy at the local level, saw the *Solarize* model as an opportunity to provide its residents an easy and affordable community focused renewable energy program and to test a new approach to marketing solar. Madison County Planning Department was awarded \$30,000 in C2IP grant funding in 2010. Rather than use the funding to install one solar PV system, such as a 10 kilowatts system on a municipal

⁴ The New York State Energy Research and Development Authority (NYSERDA) offers innovative programs; technical expertise and funding to help consumers increase energy efficiency and save money while helping businesses create clean energy solutions. NYSERDA's professionals help New Yorkers reduce energy consumption, increase the use of renewable energy, protect our environment and create clean energy jobs. A public benefit corporation, NYSERDA has been developing partnerships to advance innovative energy solutions in New York since 1975.

building, Madison County used the C2IP funding to provide fifteen \$2,000 grants for the first fifteen residential customers that contracted to install a direct-own solar electric system through *Solarize* Madison.

The program explored the following questions:

- Does community involvement increase the likelihood of an individual installing solar?
- Does additional funding influence their purchasing decision?
- If you relieve the customer's task of selecting an installation firm, does it make them more likely to proceed and/or accelerate their purchasing decision?
- Does combining an education program with a limited time offer help people take action?

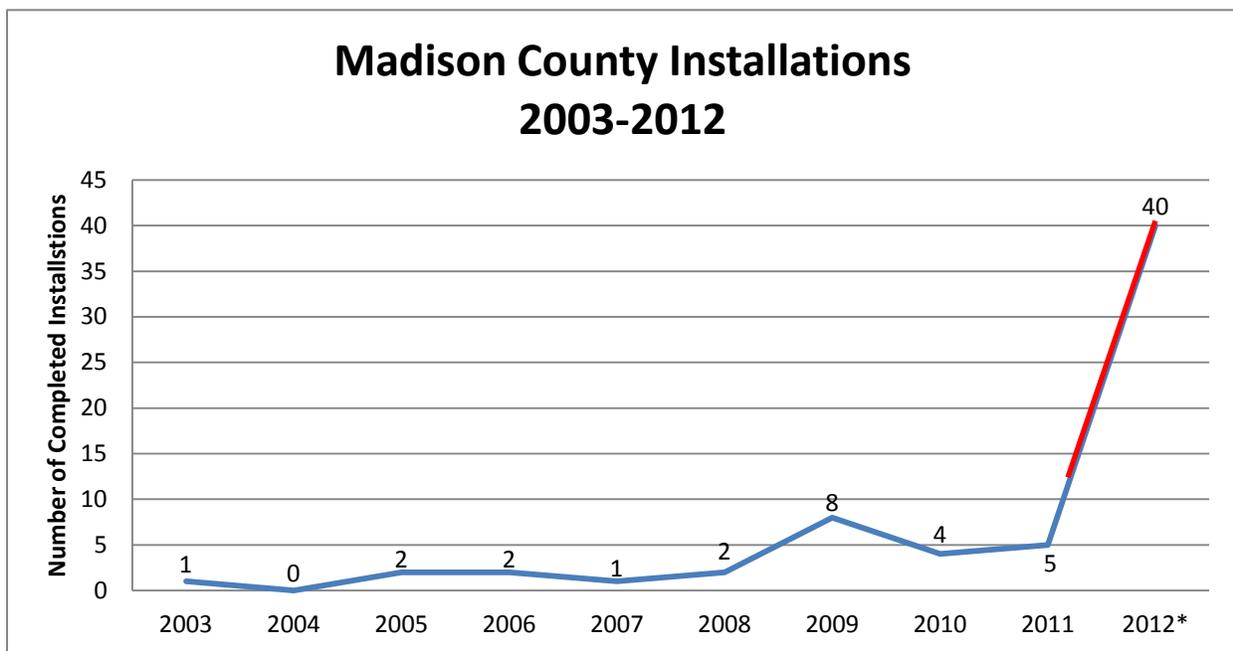


Figure 1. Solar PV installations in Madison County, New York 2003-2012 *2012 - *Solarize* Madison contracts to install solar are indicated in red. (Source: NYSERDA Power Clerk; accessed March 5, 2013)

Solarize Madison resulted in 170 enrollees during the first two weeks at a series of six informational meetings held throughout the County and an additional 35 enrollees by the close of the four month enrollment period. The goal was to obtain thirty (30) installation contracts from participants and expected to reach 100 kilowatts of combined solar through the effort. Due to its unique and successful merging of community engagement and education, smart marketing, green job training, and economies of scale, the program contracted to install twenty eight (28) solar PV systems generating nearly 77% more kilowatts of installed solar than originally targeted.

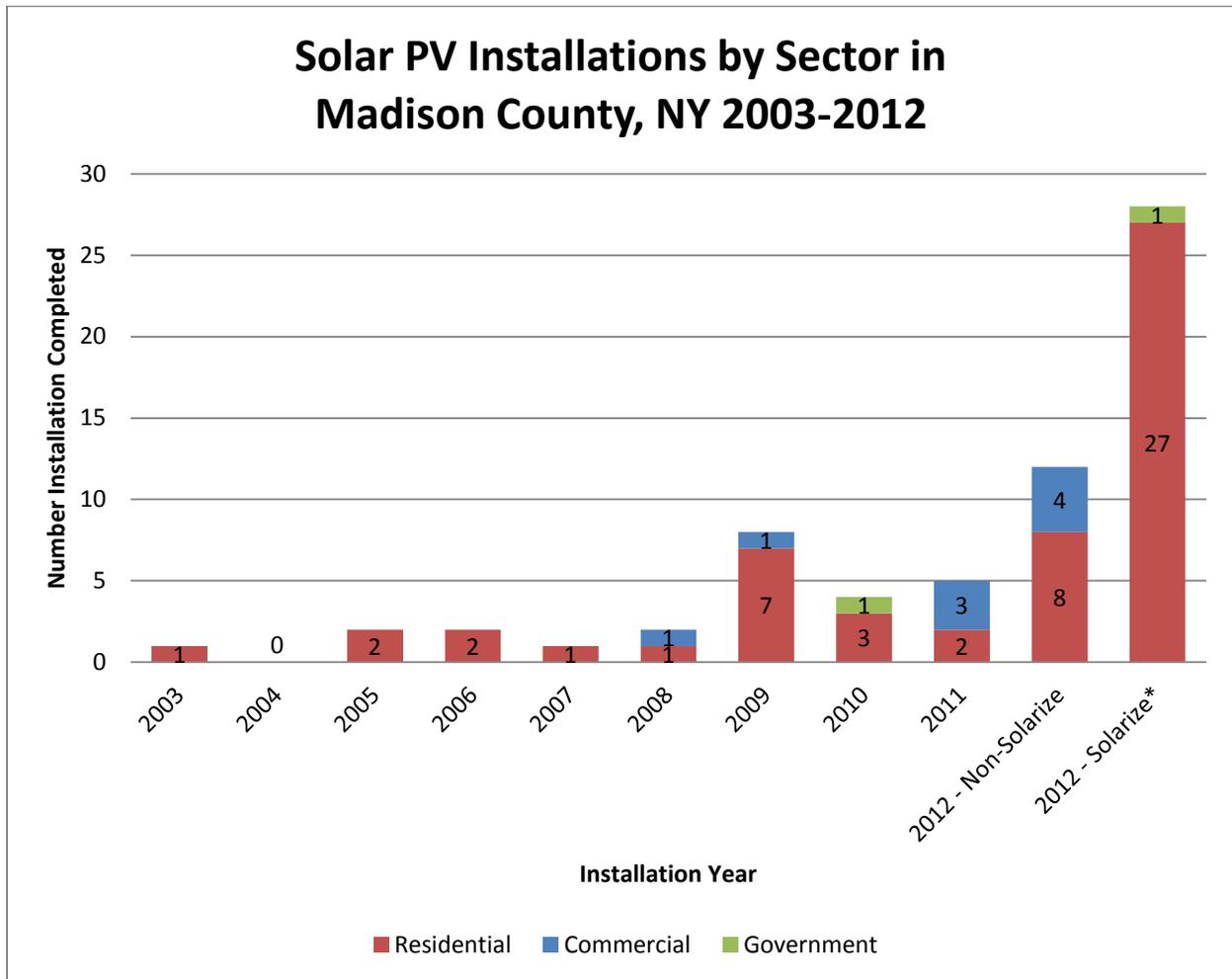


Figure 2. Solar PV Installation for Madison County, New York by market sector . [*2012-Solarize data indicates contracts signed, not completed installs.] (Source: NYSEDA Power Clerk; accessed March 5,2013)

According to NYSEDA, by the close of 2012, Madison County had a total of 46 residential, nine commercial and one government solar PV systems completed for a total of 421.5 kilowatts of solar. In 2012, Solarize Madison had 16 direct-own installations completed totaling 86.8 kilowatts and three leased systems completed totaling 19.6 kilowatts of new solar. Non-Solarize installations also increased as a result of the effort. As shown in Figures 1-3, Non-Solarize installs nearly doubled compared to the 2011 data. Solarize Madison has nine (9) solar PV systems scheduled for installation in 2013 totaling 71.0 kilowatts. Not included in the data for Madison County is a 7 kilowatts system installed in Oneida County as a result of Solarize Madison.

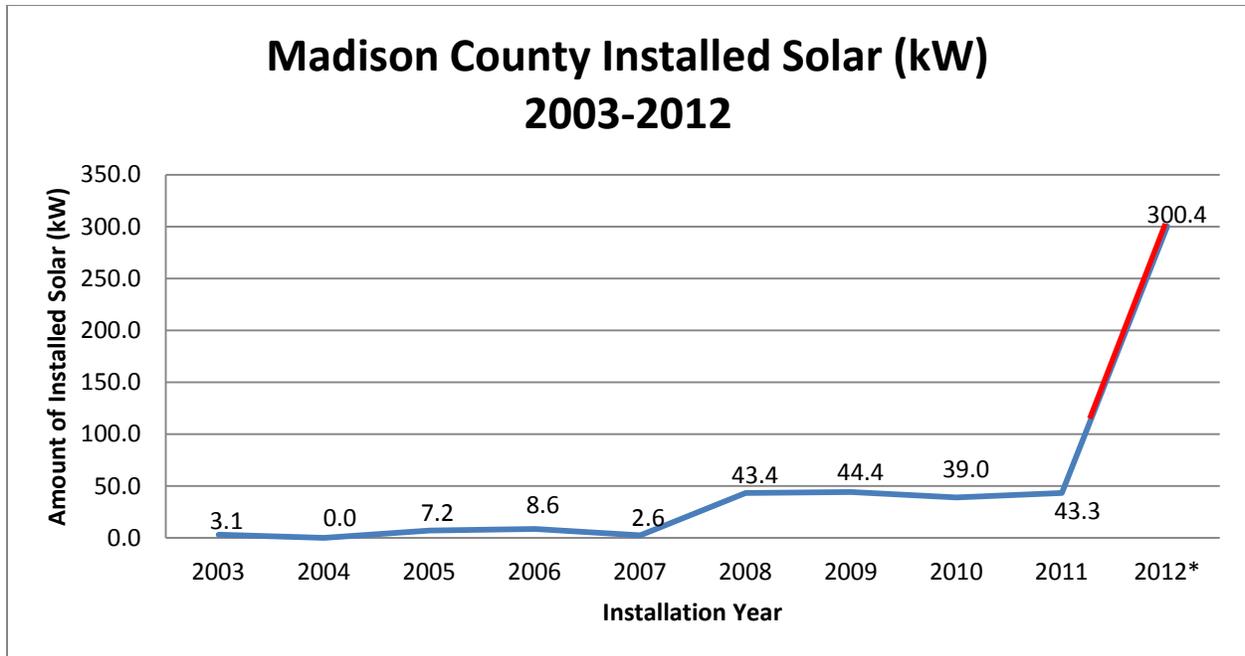


Figure 3. Total kilowatts of solar installed in Madison County, NY [*2012-Solarize data is in red and indicates contracts signed, not completed installs.] (Source: NYSERDA Power Clerk; accessed March 5, 2013)

The average price installed through *Solarize* Madison for direct-own systems was \$4.28/watt-DC and the average price for leased systems was \$5.35/watt-DC (price includes the additional costs for pole mount and micro-inverters). As shown in figure 4, the overall solar PV market price for both *Solarize* and Non-*Solarize* decreased; stabilizing prices and creating a more affordable market.

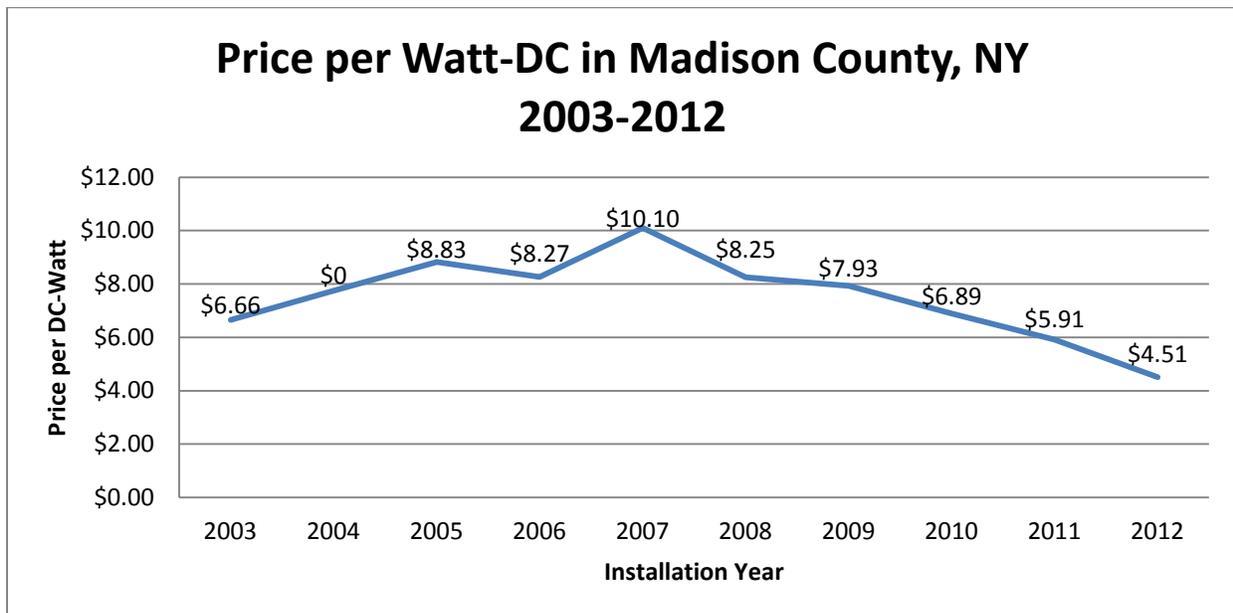


Figure 4 Solar PV market price for Madison County, NY (Source: NYSERDA Power Clerk; accessed March 5, 2013)

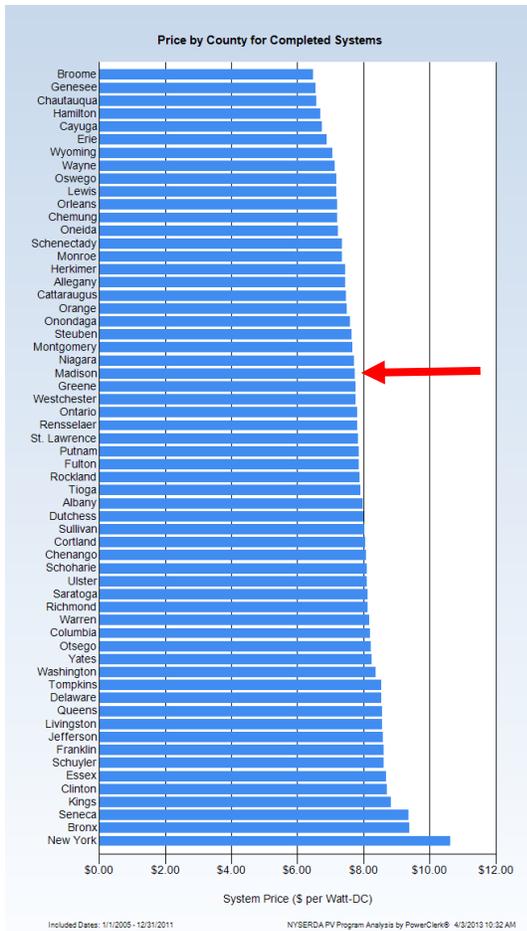


Figure 5 Price by County for completed installations in New York State for 2005-2011. [Source: NYSERDA Powerclerk, accessed April 3, 2013.]

lead for New York State's first *Solarize* campaign provided the community a sense of security and legitimacy through a transparent process. *Solarize* Madison quickly became a trusted and respected community program.

To be successful, *Solarize* Madison needed to tackle each of the primary market barriers for participants: cost, discomfort with installers and the sales process, unfamiliarity with the solar technology, financial complexity, and customer commitment. Furthermore, the program needed to be simple to engage and enroll in. To this end, the project featured several key elements:

How does Madison County compare to the rest of New York State? According to NYSERDA, in 2011, Madison County ranked number 24 on the list of counties with the lowest price for completed installations. As of April 2013, Madison County ranks number one in the state with the lowest price for completed installations, as shown in figures 5 and 6.

SOLARIZE MADISON DESIGN AND SCOPE

Critical to the success of *Solarize* Madison was the lead agency, the Madison County Planning Department and their partnership with CNY RPDB and RETC. Having a government agency take the

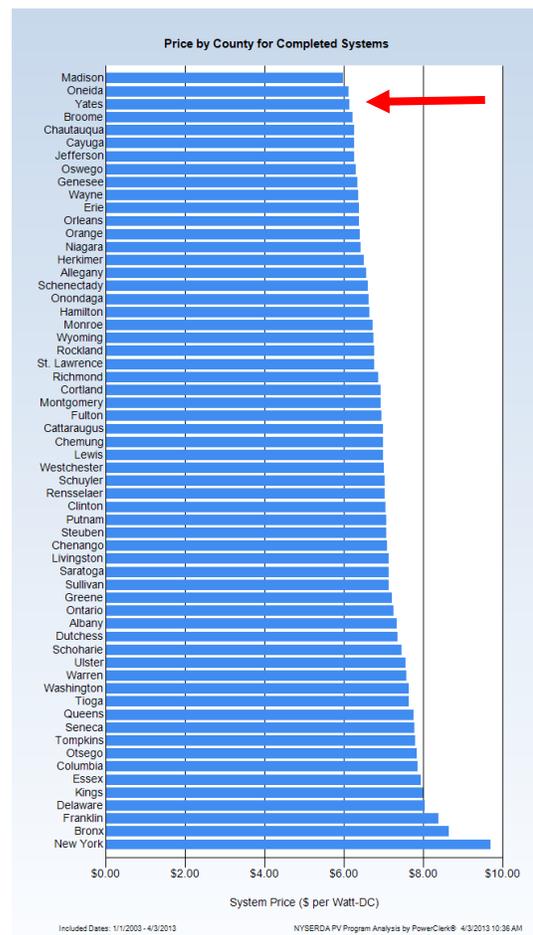


Figure 6 Price by County for completed installations in New York State for 2005-2011. [Source: NYSERDA Powerclerk, accessed April 3, 2013.]

- Community outreach and promotion
- Competitively selected installers with set pricing tiers for all participants
- Educational workshops in the community
- Free site assessments for all enrollees to determine solar suitability
- NYSERDA incentives plus state and federal tax credits
- Limited-time enrollment period

As *Solarize Madison* developed, the Madison County Planning Department assumed responsibility for outreach and community organizing, while the Central New York Regional Planning and Development Board (CNYRPDB) and the Renewable Energy Training Center at Morrisville State College (RETC) lent its market expertise in developing the structure of the program, the installer request for proposals (RFP) and educational programming.

Steering Committee. During the early stages of planning and development, the steering committee consisted of twelve (12) individuals, who represented the community and were responsible for the overall program design.

These community leaders became the authority for citizen input on everything from the outreach and communication strategy to how the installer RFP should be weighted. After the official launch, there remained seven core individuals who were responsible for implementing the program. They were representatives from

Madison County, the Central New York Regional



Jamie Hart at Hamilton Farmer's Market

Planning and Development Board, the Renewable Energy Training Center at Morrisville State College, and Colgate University. Program oversight was provided by Jamie Hart, Senior Planner and volunteer Program Coordinator Jan Myers, who were the point persons that ensured the overall project tasks and timeline were moving forward as planned.

Outreach Approach. Outreach was driven by the Madison County Planning Department and a corps of dedicated volunteers and community non-profit agencies. To kick off the program, Madison County Planning Department solicited participation from community organizations and volunteers to spread the word about the program within their community. Several community organizations and volunteers responded with a strong interest:

John Pumilio, Sustainability Coordinator for Colgate University who also served on the *Solarize* Madison steering committee and on the Board of Directors for Friends of Rogers was instrumental in reaching out to the Hamilton community. Through his efforts, Citizens for Safe Energy⁵, a community interest group in Hamilton, and Friends of Rogers⁶, a not for profit Environmental Education Center in Sherburne, partnered to host the Q&A informational meeting in Hamilton and assisted with community outreach. An Earlville resident and seven year solar PV owner provided testimony of his system's energy production and experience with solar at this meeting.

Cornell Cooperative Extension of Madison County (CCE)⁷ and Agricultural Economic Development partnered to host the Q&A informational meeting in Morrisville and assisted with community outreach and marketing. Karen Baase, Association Issue Leader for Agriculture at Cornell Cooperative Extension, provided testimony of CCE's solar PV energy production at this community meeting.

Greg Tyler, professor in the Computer & Information Technologies department at Morrisville State College, volunteered to provide IT support for our program. He was responsible for videoing and streaming live online our Q&A informational meetings and educational workshops. This proved to be a valuable marketing tool for the program. It provided an opportunity for participants to attend our community meetings from the comfort of their home and the videos were later uploaded online to Livestream and Youtube for those who may have missed the meetings.

In addition to the volunteers and community organizations that came forward with great passion, we had many sponsors who provided refreshments at our Q&A informational meetings. As a result, word of mouth, posters in local businesses, articles in community papers and newsletters, announcements at community meetings, and distribution of flyers at events were all used to solicit participation. A program website was created at

⁵ Citizens for Safe Energy is composed of Madison County residents who support best practices and public policies for natural resources development in order to ensure protection of our property values, our water and air quality, and the vitality of our local economy including business, tourism and agriculture.

⁶ Friends of Rogers (FOR) is a non-profit corporation composed of dedicated supporters of the Rogers Environmental Education Center. FOR now operates the Rogers Center without staff or financial support from the NYSDEC. FOR is developing new sources of financial support that will enable the Rogers Center to remain a vital part of our community. The Rogers Center and its trails are open daily, and new programs for all ages are offered each month.

⁷ Cornell Cooperative Extension engages citizens and community leaders in processes that identify the educational needs of local people, design programs that support lifelong learning and initiate actions that improve communities. This process of linking research-based knowledge with local citizen participation is summarized in the CCE mission statement. Cornell Cooperative Extension's mission is to *"enable people to improve their lives and communities through partnerships that put experience and research-based knowledge to work."*



Jan Myers, Program Coordinator at Cazenovia Q&A meeting

www.solarizemadison.com. This website, which was written and maintained by Jan Myers, became the central resource for information about the program as it progressed.

The media garnered a great deal of attention for the initiative. The television, radio and print coverage was greatly appreciated and was the key to spreading the word about the program. Although most of the coverage was local, some media outlets covered a much broader

area than Madison County. Interest flooded in from other communities who wanted to develop a *Solarize* program for their community or bordering counties wanted the program extended into their area; this posed challenges for our volunteers and for the Madison County Planning Department who was handling the influx of inquiries. Our team learned from *Solarize* Portland's experience as much of their media coverage came at the end of the enrollment period, after most of the educational workshops were completed, leaving latecomers with fewer opportunities to learn about the program before the enrollment deadline. *Solarize* Madison was fortunate to have a volunteer offer his expertise in videography. All of our Q&A informational meetings and three out of four of the educational workshops were broadcast live on Livestream and later uploaded to YouTube for future viewing by latecomers.

Solarize Madison conducted six Q&A informational meetings throughout Madison County. These meetings were held at public libraries and were open to the public. These meetings provided an opportunity to introduce the program, the basics of solar PV technology and for each installer to discuss their products and services and provided an opportunity for attendees to ask questions.



Chad Salerno with Salerno Electric and Steve Schnepf, with Arista Power, Inc. installing the first Solarize Madison solar PV system.

Installer Selection and Pricing.

Vetting the process of a certified installer was central to simplifying the process and making

solar affordable. With input from CNYRPDB and RETC, Madison County Planning Department wrote an RFP to solicit proposals from installers. The same community volunteers that shaped the program outreach strategy also assisted in the creation of the RFP and scoring matrix used to rank proposing firms. Their input ensured that the selection reflected what was important to the community. The RFP was issued by the Madison County Planning Department following the County's Purchasing Department bid process.

The goal of the RFP was to select one or two NABCEP-certified and NYSEDA-eligible installation firms to provide the site assessment, design, equipment procurement, and installation services for enrollees with a single price. Being the first *Solarize* program in New York State, the RFP was left open-ended and allowed for proposing firms to be creative in their approach to the program and for them to provide suggestions and ideas for community outreach and marketing strategies. The RFP required the proposing installation firm to provide site assessments and a system design proposal for each participant that enrolled. It was made clear that the number of participants was unknown and what percentage of these site assessments would ultimately result in signed contracts. Installers were asked to provide pricing, in \$/watt-DC, based on the volume of participation (total installed kilowatts from all participants).

For each participant that moved forward with an installation, the installer was responsible for securing all required permits, completing and submitting NYSEDA incentive applications, utility interconnect/net-metering agreements, and passing all jurisdictional inspections. The installer was also required to provide each participant with the appropriate documentation and guidance for applying for the state and federal energy tax credits, and the New York State property tax exemption.

As a result, nine installation firms responded to the RFP, which was distributed to NYSEDA-eligible installers within a 120 mile radius of the county and the RFP was made available for download on both the Madison County's website and the *Solarize* Madison website. Submitted proposals were reviewed by a selection committee and after interviews were conducted, the top two ranking installation firms were selected: Arista Power was selected to provide services for direct own systems and ETM Solar Works was selected to provide services for leased systems.

Table 1. Pricing tier for *Solarize* Madison based on total solar capacity installed.

PV System Equipment Information		Total Participant Capacity (kW)	< 50kW	50 – 75kW	75 – 100kW	100 – 200kW	> 200kW
Modules	Inverters						
250W Solar World SunModule Mono	SMA	Price (\$/Watt)	\$4.20	\$4.15	\$4.10	\$4.00	\$4.00
240 W Solar World SunModule Poly	SMA	Price (\$/Watt)	\$4.03	\$3.98	\$3.93	\$3.83	\$3.83
250 W Solar World SunModule Mono	Enphase	Price (\$/Watt)	\$4.50	\$4.45	\$4.40	\$4.30	\$4.30

Source: Arista Power, 2012

a wider range of options to the community by providing lease and financing options. Selecting two installation firms in this manner posed challenges. It was expected that the local market would be somewhat evenly split or interest would be more weighted towards leasing a system due to the upfront out of pocket costs associated with a direct-owned system. The outcome of this prediction was unexpected, contracts for twenty four direct own systems were signed and only five contracts were signed for a leased system. Because each installer was required to provide each enrollee with a site assessment and proposal, it was quickly realized early on that this approach was an inefficient use of the installation firms’ time as nearly every enrollee requested a site assessment and proposal from both installation firms.

Arista Power’s pricing tier for direct-owned systems was 14%-19% less than the average price for Madison County at the time, according to incentive applications and completed installations received by NYSERDA in the fourth quarter of 2011 and the first quarter of 2012.

The intention of selecting two installation firms was to provide

Educational Program. To make it easy for participants to understand the logistics of going solar, *Solarize* Madison offered six Q&A informational meetings and four, one hour educational workshops.

The six Q&A informational meetings were held during the last two weeks of June, three per week and were all well attended, with 30-40 attendees present each night. During these two weeks, 170 people attended the Q&A informational meetings and 151 enrolled in the program.

The topics discussed in the four workshops were 1) Renewable Energy 101, 2) Energy Efficiency and Conservation, 3) The Finances, and 4) The Nuts and Bolts. These workshops



Gay Canough, owner of ETM Solar Works provides a demonstration on mounting equipment used in a solar PV installation.



Glenn Steed, Installation Coordinator at Arista Power provides a demonstration of the Pathfinder used in a shading analysis during a site assessment.

were held on Monday evenings, one each week during the month of July. Attendance was well below expected and it is assumed the low attendance was attributed to the time of year. However, many Solar Ambassadors who were in attendance said the latter two were the most informational and answered any remaining questions they may still have had about going solar. Some participants indicated that they felt it was unnecessary to attend these workshops as all their questions were answered during the public Q&A informational meetings and during the installer’s site visit.

Site Assessments. At every event and on the website, the community was provided with the opportunity to enroll in the program. Enrollment served two purposes, but was not a commitment to install. First, it reserved them a spot in the program and second, it initiated the next step in the process—a site assessment.

Site assessments are necessary to establish a site’s suitability for solar. Furthermore, since size and cost are directly related, participants needed to know their options for system size, and corresponding system cost, before they could make a financial decision. As part of the program, both Arista Power and ETM Solar Works provided free site assessments to participants.

Additional Funding. Being the first showcase of a community solar bulk purchasing effort in New York State, the steering committee was uncertain of the response from both the installations firms and the community. The team decided to offer fifteen \$2,000 grants for direct-own systems, which served two purposes. First, the additional grant acted as a motivator to spur interest among participants and offered a solution to the customer commitment market barrier. Lastly, the grant also helped ensure the installers would receive at least fifteen committed customers and in turn would provide *Solarize* Madison some certainty that there would be some interested installation firms willing to submit proposals.

At the close of the program, a survey was issued to all participants requesting feedback about the program. The survey resulted in twenty six respondents of which seventeen installed solar through *Solarize* Madison. The question was asked, “How much did the \$2,000 additional funding contribute to your decision to participate in *Solarize* Madison?” The survey showed that 50% of the respondents indicated that the grant played a major role in their decision to participate in *Solarize* Madison, as shown in Table 2.

Guidelines were put in place for receipt of the \$2,000 grant. The grant was made available on a first come first serve basis for direct-own (purchased) systems and only to participants whose utility meter was designated to be a residential meter. Furthermore, the recipient was required to install a minimum of a 3 kilowatts solar PV system or a system offsetting at least 20% of their electricity usage, whichever was greater. All participants installing solar through *Solarize*

Table 2 Survey results of participants in *Solarize* Madison responding to the impact of the additional grant.



Madison were required to become Solar Ambassadors- a two year commitment.

Besides the additional funding offered by the Planning Department, all NYSEG and National Grid utility customers were eligible to receive the NYSERDA incentive that was available at the time application was made, as well as state and federal tax credits. The 2012 NYSERDA solar PV incentive, \$1.50/watt-DC solar, capped at \$10,500 for residential systems, is an instant rebate that reduces the installation cost to the homeowner up-front. NYSERDA later reimburses the installation firm for the amount of the incentive, after the system has passed inspection. New York State has a residential solar tax credit of 25%, capped at \$5,000 and can only be carried forward for a maximum of five years⁸. Projects were also eligible for the uncapped federal residential energy tax credit of 30% of project cost, less the NYSERDA incentive.

⁸ http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=NY03F

In addition to the above mentioned incentives and tax credit, New York State provides a 15 year property tax and sales tax exemptions. [According to Section 487](#) of the New York State Real Property Tax Law it provides a 15-year real property tax exemption for certain solar, wind energy, and farm waste energy systems constructed in the State. To date, none of Madison County municipalities have opted out of the NYS property tax exemption. Certain Madison County School Districts (Bridgewater-West Winfield, Canastota, Cazenovia, Madison, Morrisville-Eaton and Stockbridge Valley) have opted out of the property tax exemption and participants' school taxes may increase as a result of installing solar PV. In July 2005, New York enacted legislation exempting the sale and installation of residential solar energy systems from the state's sales and compensating use taxes (NYCL Tax, Article 28 § 115) and the exemption was extended to non-residential solar energy systems beginning in January 2013 (S.B. 3203).

Enrollment Period. Early enrollment was allowed and began in April, and officially opened on June 12. Enrollment was set to close on September 30, leaving an effective enrollment period of 3 ½ months but was extended an additional two weeks and closed on October 15. During the initial enrollment period an event was held every week till the end of July ensuring momentum remained high. Momentum seemed to slow after the workshops ended in July and did not resume again till mid-September when enrollment was scheduled to close. Due to the surge of interest again, the steering committee agreed to extend enrollment into October.

The combination of the enrollment deadline with the bulk-pricing created a highly effective limited-time offer. While enrollment was not a commitment to install, it did force interested participants to decide, by a particular date, whether they wanted to move forward with the process. Nearly 205 participants enrolled by the October 15 deadline, the bulk of these were obtained during the first two weeks after enrollment officially opened. Only 35 additional



Morrisville State College students taking Phil Hofmeyer's Solar PV courses, received on-the-job training, a service offered by Arista Power as part of their proposal.

enrollees were obtained from July 1 through October 15.

Training Partnership. *Solarize* Madison provided a strong opportunity for Renewable Energy Technology students at Morrisville State College to get hands-on field experience with solar PV design and installation. Over twenty (20) students in classes were involved in two installations (pole mount and roof mount) with Arista Power. This living classroom provided a total of 264 student-hours on solar PV in the County. Additionally, the *Solarize* program facilitated interactions between educators and installers, which were mutually beneficial to ensure students leave the College with skill sets that meet industry demands.



Phil Hofmeyer's advanced solar PV (RENG 430) class at the completion of a 7kW system installed at the home of Steve Law in Morrisville, NY.

Solar Ambassadors. As part of the program, solar champions were enlisted who already had solar installed on their homes or place of business to support the effort. These supporters were strong advocates and positive examples for participants considering a solar PV purchase. Solar Ambassadors attended and presented at the Q&A Informational meetings, providing an important testimony to others looking to install solar. To continue the peer to peer education and support, *Solarize* Madison, asked participants who contracted to install solar to become Solar Ambassadors. This was a two year agreement to provide *Solarize* Madison:



Michael Hedges of Arista Power, Steve Law, Morrisville resident, Glenn Steed and John Benetti of Arista Power.

- Twelve months of utility bills/consumption and system size and cost;
- System energy information every six months and for those who have monitoring equipment installed, public weblinks were provided and displayed on the program website;
- A personal testimony, due each year on the anniversary of their installation, describing their experience with the *Solarize*

Madison program, installation process, the energy output and cost savings of their system and other valuable information;

- Lastly, as an active supporter of the *Solarize* Madison program, Solar Ambassadors were encouraged to share their story through media interviews/appearances, presentations at discussion forums or workshops, neighborhood canvassing events, conferences, community solar tours or open houses, to name a few.

RESULTS

Approximately 205 participants had enrolled in the program with some level of interest by the October 15 deadline. Installers were allowed an additional six weeks to complete site assessments for any late registrants and to finalize contracts to install a solar PV system. By the end of December 2012, a total of 28 contracts had been signed for a total of approximately 177 kilowatts of new solar to be installed in Madison County—more than quadruple the six installations and the amount of solar installed countywide in 2011. A distribution map of

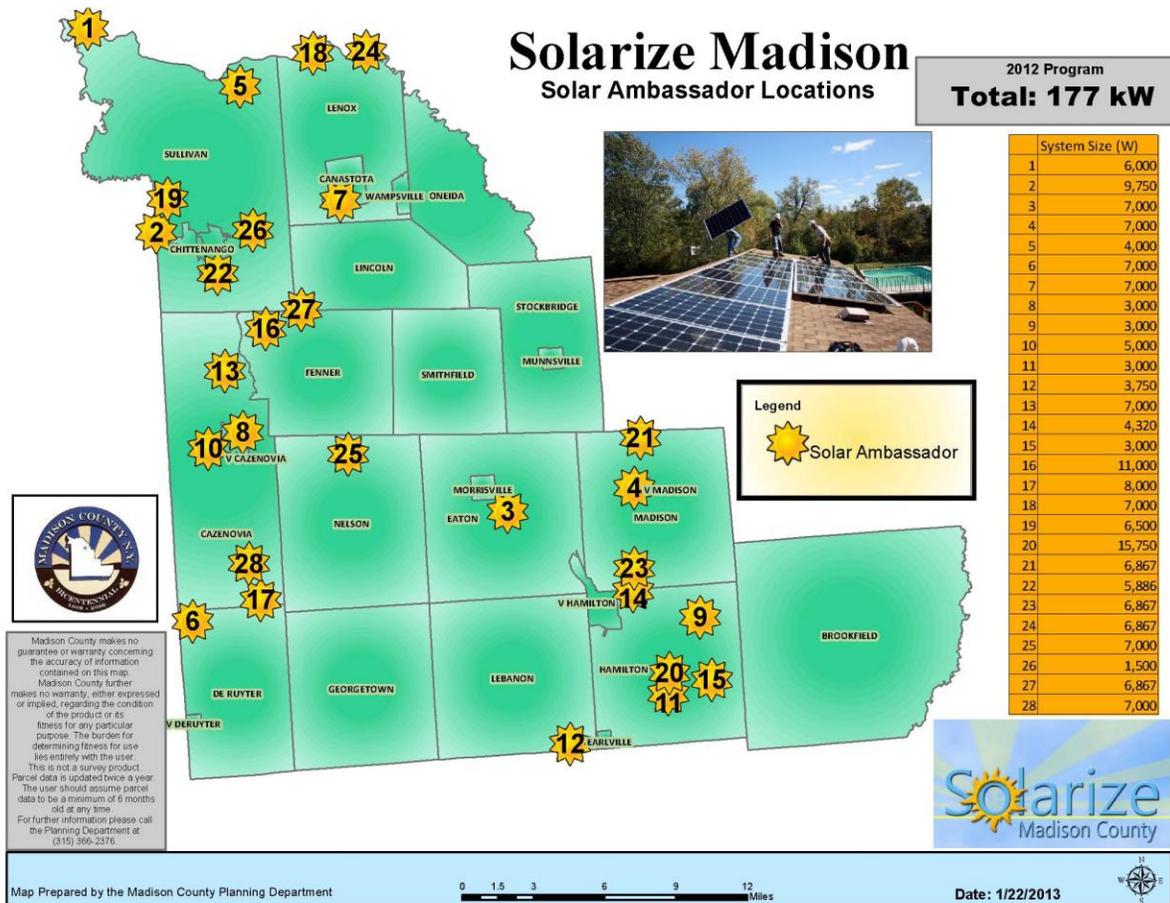


Figure 7 Map of solar PV systems throughout Madison County, NY installed through Solarize Madison in 2012. (Data accessed on March 5, 2013.)

Solarize Madison’s solar PV installations is shown in Figure 5. In Madison County, non-*Solarize* solar PV installations also increased. In 2011, there were five systems completed totaling 43.3 kilowatts, compared with four during the year prior. In 2012, twelve solar PV systems totaling approximately 123.5 kilowatts were completed, nearly tripling the installation rate and amount of solar installed.

The twenty eight (28) *Solarize* Madison installations added 177 kilowatts of new solar to the grid, and will produce an estimated 194,700 kilowatt hours of electricity per year, preventing 44 metric tons of **CO₂** annually.⁹

The decision-making and overall installation timeline for participants in the program was substantially less than a traditional installation. The survey conducted at the close of *Solarize* Madison in 2012 indicated that 46% of the respondents thought about installing solar for over 3 years and 15% indicated they considered installing solar for at least 1-3 years, as shown in Table 3. *Solarize* Madison participants received all of the information needed to make an educated decision about installing solar through informational meetings and workshops, the website or through direct communication with the selected installers during a site assessment. The

Table 3. Survey results of prior thinking about solar by respondents.

2. Prior Thinking of Solar							Download
How long had you been thinking about installing solar?							
	Never Before	<6 months	6 mos- 1yr	1-2 yrs	2-3 yrs	3+ yrs	Response Count
Answer each question	7.7% (2)	3.8% (1)	11.5% (3)	15.4% (4)	15.4% (4)	46.2% (12)	26
How likely would you be to install solar in the future?							
	0-6 mos	6 mos - 1yr	1-2 yrs	3+ yrs	Never	Already installed solar	Response Count
Answer each question	19.2% (5)	15.4% (4)	11.5% (3)	0.0% (0)	7.7% (2)	46.2% (12)	26

⁹ Estimates for kilowatt hours of electricity produced was calculated using NYSERDA’s Clean Power Estimator and carbon emissions was calculated using ICLEI CACP software.

information gathering phase was a few weeks to a few months for most participants.

The overall consensus of the survey results indicated participants appreciated the educational programming, vetting of the installation firm and the reduced price achieved through bulk purchasing at the community level. Most also stated that the program could have been better served by more community outreach and a better marketing strategy to get the word out. Table 4 shows the overall assessment from respondents about *Solarize* Madison in 2012.

CONCLUSIONS

Solarize Madison explored the combination of community involvement with an alternative approach to conventional sales strategies and a simple call to action. The program appears to have applied a downward price pressure to the historically inflated local solar market prices, bringing them in line with costs in the rest of the state.

Table 4. Overall Assessment of *Solarize* Madison from survey respondents.

9. Assessment of next steps and motivation (check all that apply)		Create Chart	Download
		Response Percent	Response Count
I feel Solarize Madison clearly explained the next steps I needed to take to install solar		76.9%	20
I feel Solarize Madison helped motivate me to install solar		65.4%	17
I feel Solarize Madison helped motivate me to make Energy Efficiency measures		53.8%	14
I feel Solarize Madison helped motivate me to conserve my energy consumption		38.5%	10
I feel ETM Solar Works connected with the community		26.9%	7
I feel Arista Power connected with the community		46.2%	12
	Additional Comments (please specify) Show Responses		8
answered question			26

Further study is needed to understand the further-reaching impacts of this program. It's important to determine if *Solarize* Madison and similar projects negatively affect installers who aren't participating in the program. While current data shows that non-*Solarize* installations have increased compared to previous years, there may be delayed market effects. An additional consideration is quality control and over exhausting the local market for installers.

Madison County has once again taken the lead in New York State by being the first community in the state to make an everlasting impression in the solar market. *Solarize* Madison's success has generated a surge of interest across the state. In 2013, *Solarize* Madison will launch a second campaign with a focus on domestic solar hot water and has inspired four additional 2013 *Solarize* campaigns across the state: *Solarize* Genesee County, *Solarize* Hornell and *Solarize* Tompkins Southeast.

Disclosure: The Solarize logo and trade name is a registered service mark of New York State Department of State. The "Solarize", "Solarize Madison" service marks or any variation thereof may not be used in connection with any product or service that is not ours, or in any manner that is likely to cause confusion among customers, or in any manner that disparages or discredits the Solarize program.