### **Rutland Community Solar Array (CSA) Program**

NRG Residential Solar Solutions and Green Mountain Power partnership

Many Vermont residents have heard of buying fruits, vegetables, meat, and eggs through farm CSA's (community supported agriculture) but thanks to this project solar generated electricity may now be on the menu. This innovative project has expanded the CSA acronym to include "Community Solar Array" by piloting a central solar lease program in Rutland, Vermont with two 150-kilowatt solar arrays. This groundbreaking CSA is a result of a partnership between NRG Residential Solar Solutions (NRG),

part of NRG Energy and Green Mountain Power (GMP). The result is a 150kW array connected in May of 2014 that has leased fifty 3kW



Rutland Vermont Community Solar Project (Photo: Business Wire)

agreements to Rutland Green Mountain Power customers with no money down. Residents are expected to save money on their electric bills and are motivated by the fact that they are contributing to the economic development of solar in Vermont. Project customers include Rutland Mayor Christopher Louras, the Rutland Free Library, Green Screen Graphics and a doctor's office to name a few.

One of the exciting benefits of this project is that it opens the door to solar for a wide variety of customers that are traditionally left out of the solar residential market. According to GMP, 80% of GMP customers cannot install solar panels due to roof limitations, shading, orientation, or renting rather than owning their property. This model drastically expands the residential market and removes the barrier of large upfront costs, something NRG is excited to pursue further in Vermont and beyond in the future with lessons learned from this pilot project.

The second array is currently in the planning phase with hopes for connection by early 2015. It will also be limited to Rutland GMP customers.

#### **Renewable Energy Credits (RECs)**

NRG has retained the RECs and will be monetizing them to help offset the lower prices offered to customers.

## How It Worked

NRG Residential Solar Solutions, is a residential solar leasing business that provides the opportunity to lease solar systems on homes. NRG became interested in exploring the potential to expand this market and provide opportunities for non-rooftop residential solar. As Scott Fisher, NRG director of alternative energy said, "We see this as a test case for new ways to bring the benefits of solar to more people. As the country's largest solar developer, we recognize the importance of making solar work for local communities. We appreciate that GMP is actively exploring ways to make solar a vibrant energy source for the company and its customers. As we looked around the country for the optimal partner to create this pilot, the innovative spirit of GMP and the City of Rutland made them the perfect partner for this pilot program." An agreement was reached for NRG to pilot two 150kW arrays located in the city and a new NRG office downtown with a Vermont Solar Coordinator was opened. Rutland residents were then offered an opportunity to lease 3kW agreements for 3, 5 or 10-year leases. Participating residents receive two monthly bills, the first from GMP including the solar credit for their portion of the array and a

monthly lease payment bill from NRG based on the lease length. The combination of the two bills is targeted to be less than the original GMP bill.

# Example Electricity Bill

Monthly Electricity Bill	3 year lease	5 year lease	10 year lease
Current			
Estimate kwh usage	685	685	685
\$/kwh	\$0.15	\$0.15	\$0.15
Total Bill	\$100.00	\$100.00	\$100.00
New			
NRG Bill	\$60.00	\$58.00	\$55.00
Expected Solar Production (kwh)	313	313	313
GMP Credit/kwh	\$0.21	\$0.21	\$0.21
Value of Credit	(\$64.38)	(\$64.38)	(\$64.38)
Original GMP Bill	\$100.00	\$100.00	\$100.00
Remaining GMP Bill	\$35.63	\$35.63	\$35.63
Total NRG + GMP Bills (Year 1)	\$95.63	\$93.63	\$90.63

"The NRG pilot marks the first time a utility and a private developer have worked together in this way to help solar energy flourish" - Mary Powell GMP President and CEO

The agreement results in no upfront costs, no construction at your home, a flexible contract, a moneyback power production guarantee and is competitive with existing electricity rates. The overwhelming majority of residents chose the 10-year lease option with the lowest monthly rate. At the end of the lease, the agreement terms will be re-evaluated and compared to prevailing utility rates but customers can expect a similar discount ratio for subsequent lease renewals.

## **Keys To Success**

- Strong community interest in sustainability and solar. Rutland has pledged to become the solar capital of New England by 2017.
- Vermont's favorable solar regulations coupled with Green Mountain Power's openness to new ideas made Vermont an ideal place for this national company to pilot this new approach to residential solar.
- The central location of the array simplified the lease agreement because the panels are not on an individual's property. This aspect also increases the ease of lease transfer as customers move outside of GMP territory since the new homeowner is no longer the only eligible person to adopt the lease.

## Contact

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