Community Solar

Tuesday, March 31, 6:30pm Martha Rich Theater, Thetford Academy

A Forum On Group Net Metering

An information packet on aspects of Community Solar

Hosted by The Thetford Energy Committee with presentations by Vermont Community Solar Developers The Thetford Energy Committee is working on a community solar initiative to help homeowners who are unable to go solar on their own property get connected to a community "group-net-metered" solar project. Community solar arrays enable participants to save money on their electric use and get their power from a remotely located renewable project.

The Town of Thetford is considering developing a couple of community solar projects. We ask those who might be interested in participating in a Thetford community solar project to fill out the online survey at http://goo.gl/forms/dGmbspmCax or send your name, address and annual kWh usage to <michaelkiessvt@gmail.com>, or call Mike Kiess at 802-785-2438 with the information. You can get your annual electric usage from your GMP monthly bill, or by calling GMP at 888-835-4550.

There are also a number of private solar installers who are also developing community solar projects that Thetford residents could participate in or possibly even host on their own property. Below are a number of questions an individual should ask about a group-net-metered community project. You will find responses to these questions by a number of Vermont solar developers who participated in the Forum in the attached material.

Questions To Consider

1.

A. Please provide a typical 20 yr cash flow for a 5kW portion of a GNM system. Who gets the 30% Federal Tax Credit?

- B. What is the cost per kWh delivered to the customer over 20 years? Factor in 30% Federal Tax Credit if customer qualifies for it. (Not asked of developers so not included in responses)
- 2. Does developer keep or sell the Renewable Energy Credits? If selling, can the customer take ownership of the RECs and how does it affect the costs?
- 3. If leasing, will there be an option to buy? When?
- 4. How does billing work?
- 5. What happens if the owner/leaser moves out of the electric provider's service area?
- 6. How is insurance and maintenance on the panels covered?
- 7. What are the warranties on the panels?
- 8. If I host a community array on my property, what compensation do I receive?
- 9. If I have a community array on my property, does the project have to be fenced?
- 10. What happens at the end of the system's life?

Vermont Solar Developers who responded (listed alphabetically)

Catamount Solar Clean Energy Collective Green Lantern Group Green Mountain Community Solar Norwich Technologies Solaflect Soveren SunCommon Wolfe Energy

Catamount Solar

Contact Info:

Doc Bagley, 34 Pleasant St., Randolph, VT 05060 doc@catamountsolar.com, 802-728-3600, www.catamountsolar.com

Our current focus is to work with communities that plan to manage their own system as the cost of the installation would be handled directly by the community group and eliminate a middleman and thus, additional costs to the community. The answer to some of these questions will depend on the structure any group / LLC brings to their particular project. Most of the community solar projects in the works these days seem to be in the 150kW range. We are certainly willing to work on systems that are smaller or larger.

Catamount Solar is currently working with developers on a couple of projects. We have done ½ dozen Group Net Metered systems but none that would be deemed a community solar project. We assume participants will buy within a group / LLC structure. A minimum investment would be dependent on whatever the owners / LLC decides.

Responses:

 A typical 150kW ground mounted system would be roughly in the \$2.80/watt range to each participant but this all depends on the owners / LLC share if any. See table below for more detail on a 150kW system with a total cost of \$420,000, \$126,000 federal tax credit leaving the total out of pocket cost of \$294,000. The model assumes a yearly 3% escalation of utility costs. The 30% Federal Tax Credit is given to the participants depending on structure of ownership by the group. Assuming the IRS will recognize tax credits for ownership of a system not on personal property.

Year	Cummulative	Yearly Net	Year	Cummulative	Yearly Net
	Cashflow	Income		Cashflow	Income
0	-\$294,000	-\$294,000	14	\$280,093	\$39,440
1	-\$255,000	\$39,000	15**	\$285,513	\$5,420
2	-\$215,339	\$39,661	16	\$326,938	\$41,424
3	-\$175,000	\$40,339	17	\$369,392	\$42,454
4	-\$133,964	\$41,036	18	\$412,900	\$43,509
5	-\$92,212	\$41,752	19	\$457,490	\$44,590
6	-\$49,724	\$42,487	20	\$503,188	\$45,698
7	-\$6,482	\$43,242	21	\$550,022	\$46,834
8	\$37,535	\$44,017	22	\$598,019	\$47,997
9	\$82,349	\$44,813	23	\$647,210	\$49,190
10*	\$127,979	\$45,631	24	\$697,622	\$50,413
11	\$164,619	\$36,640	25	\$749,288	\$51,665
12	\$202,170	\$37,550			
13	\$240,653	\$38,484			

* Green Mountain Power adder ends *** Inverter Replacement

- 2. The ownership of the RECs again depends on the Owner/LLC structure.
- 3. NA
- 4. We assume a purchase by participants, so purchase based on % of system plus any other fees (maintenance, insurance, land lease etc).
- 5. What happens if the participant moves out of the electric provider's service area is once again group dependent. Typically they can sell the system to another or sell back to the group.
- 6. Probably an annual fee would be assessed by the LLC to the owners for insurance and maintenance. Catamount could enter in on a separate, yearly maintenance agreement or the group could handle this with our assistance on an as needed basis.
- 7. The modules have a 25 year performance with 10 years on workmanship. The inverters have 10 to 12 year warranties, the racking has 10 years and the entire system a 5 year warranty from Catamount.
- 8. Generally a yearly land lease agreement would be drafted or a segment of the array apportioned to offset land use.
- 9. Fencing might be required or scrimming on the back of the modules. It depends on the site and local requirements.
- 10. At the end of the system's life the group is responsible for removal.

Clean Energy Collective (CEC)

Contact Info:Ron Wedeking, VP Developer Relations, 146 West Boylston,
Worcester, MA 01606 201-448-0146Independent Sales Rep:
Massachusetts Office of
CEC:Dori Wolfe, PO Box 161, Strafford, VT dori.wolfe@gmail.com
146 West Boyleston Drive, 2nd fl, Worcester, MA 01606

The Clean Energy Collective's first community solar array was built in Colorado in 2010 and in 2012 they expanded into Vermont. They currently operate 20 solar arrays. Participants buy into the projects with financing available. The minimum investment to participate is .25kW at \$3.00/W.

Responses:

- 1. A typical project payback is as follows; Purchase 1kW for \$3,000. Each year, on average, 1kW produces 3 kWh/day or 1,095 kWh/yr. Assume net metering credits of \$0.19/kWh, that would be \$208/yr savings, allowing for a simple payback of 14.4 years.
- 2. CEC owns the RECs and does sell them. The sale of the RECs provides the system with the revenue needed for O&M. Currently no option to own RECs.
- 3. N/A
- 4. A 10% deposit is required with the balance due upon commencement of construction.
- 5. CEC will assist the owner in selling the panels to another participant if the owner moves out of the electric provider's service area.
- 6. CEC sets up a reserve account for O&M. CEC uses payments from the sale of the RECs to cover the cost of insurance.
- 7. There is a 5 year construction warranty, a 25 year panel warranty and a 10 year racking and inverter warranty.
- 8. A hosting landowner receives net metering credits for a portion of the array or cash combination, which varies depending on the size of the array.
- 9. Whether or not the project requires fencing depends on the insurance provider, but scrim coating the wires on the back of the panels in lieu of fencing satisfies code requirements.
- 10. At the end of the system's life CEC is contractually obligated to remove the array and make the land whole.

Green Lantern Group

Contact Info:

Luke Shullenberger, Founder and CEO; P.O. Box 658, Waterbury, Vermont; <u>plans@greenlanterngroup.net</u>; Telephone 802-244-1658; <u>http://www.greenlanterncapital.com/index.htm</u>

Green Lantern's first community solar array was a 34 kW AC array put into operation on Jericho Settler's Farm in Jericho, Vermont in 2011. They currently have 15 commissioned arrays around Vermont with a combined AC output capacity of about 3.5 MW (one of which is a SPEED project) and 12 additional arrays in development with a combined capacity of 6.5MW. Ten of these serve community institutions such as towns, schools, and hospitals. During 2014, 8 out of a total of 15 group-net-metered solar arrays between 150 and 500 kW that the Public Service Board issued Certificates of Public Good for were Green Lantern projects.

Participants neither lease or buy into group net metered projects. Instead offtakers sign solar services agreements and pay a monthly fee to Green Lantern based on a net metering allocation we assign them. In their business model, there is no investment required for offtakers.

Responses:

- 1. Cash flow question not answered (see Q4). The ITC is claimed by the tax-equity investors in the systems we develop.
- 2. The RECs may be retained and sold by the Special Purpose Entity created to own, operate and maintain the array we develop, or sold to the offtaker(s), depending on their climate goals, financial goals, and other factors. The effect on costs depends on the current value of a Vermont REC in the market where it is being sold, such as Massachusetts. Green Lantern is very much looking forward to exploring the possibility of selling Vermont solar RECs in Vermont, pending passage of legislation currently in development.
- 3. This question is not applicable per se, since there is no lease; however a majority offtaker on whose land the array is located, such as a town or school district, typically may buy the system at years 7, 10, 15, or 20 for the fair market value of the array at that time.
- 4. Offtakers are billed monthly by Green Mountain Power for an average of 10% of their original bill, and also monthly by Green Lantern for an amount which is guaranteed to be less than the difference, thus passing savings along to the offtaker.
- 5. If the offtaker moves out of the electric provider's service area, Green Lantern would make all necessary efforts to replace that offtaker with a new one(s).
- 6. Insurance and maintenance are fully covered by us via the Special Purpose Entity set up to own, operate, and maintain the array, which pays all taxes, land leases, insurance premiums, and other operations and maintenance costs.
- 7. The equipment warranties and performance guarantees are provided to us by manufacturers and installers, but this is not relevant in the solar services agreement we enter into with offtakers.
- 8. A landowner receives an annual land lease payment, which currently runs between \$1500 and \$2000 per acre, typically.
- 9. Under normal circumstances the project is fenced.
- 10. At the end of the system's life Green Lantern pays all expenses for decommissioning the array and restoring the site to its original condition. Careful use of for example cover crops and grazing in the rows between panels can actually lead to improved topsoil condition.

Green Mountain Community Solar (GMCS)

Contact Info:

Bruce Genereaux, PO Box 154 Groton VT 05046, 802 588 2063, solar@gmcommunitysolar.com, www.gmcommunitysolar.com

Green Mountain Community Solar's first solar array was put into operation was a 140kW (AC) array on December 2014 in Groton, Vermont. They currently operate one community solar array with two more scheduled for construction in 2015.

Participants buy panels (\$1000 per panel, each panel saves them \$60 per year on their GMP bill) and enter into a license agreement to have the panels on one of our farms for 25 years. GMCS owns all racking and infrastructure and administers the net metering group and pays for operations and all maintenance for 25 years. Folks pay once to buy in for 25 years of savings. Approximately 9% after tax return on investment. The minimum investment to participate is \$1,000.

Responses:

1. The cost per watt based on the sale of 20 panels (\$20,000) and a license share of the solar field is \$2.69 which includes the 30% Federal Tax Credit worth \$6,000.

The 25 year estimated cash savings is \$15,480 with a payback of 12 years. See chart below for yearly cash flow.

Year	Cash Flow	Year	Cash Flow	Year	Cash Flow
1	-\$19,422	5	\$1,167	9	\$1,224
2	\$7,130	6	\$1,181	10	\$1,239
3	\$1,139	7	\$1,195	11-25	\$1,160
4	\$1,153	8	\$1,210	Total	\$15,480

- 2. GMCS keeps and sells the RECS and because of this we are able to price sales of panels at this level. If we didn't keep REC's panel prices would be approximately 20% higher. Our intent is to keep prices down to make solar more affordable for all.
- 3. N/A
- 4. We send you one invoice at the time of purchase. Green Mountain Power handles all credits assigned to purchaser's bills.
- 5. If the owner moves out of the electric provider's service area we buy you out at fair market value within 30 days.
- 6. GMCS insures all panels and infrastructure. We install our own panels and sell that power to large third party buyers such as towns, banks or non profits.
- 7. Full manufacturer's warrantee on panels and GMCS insures all panels and infrastructure. We guarantee that you'll have operational panels connected to GMP.
- 8. We pay on the order of \$5,000 per acre per year to a landowner hosting a community array.
- 9. The project does not have to be fenced.
- 10. We fund a reclamation trust account at the start of a project so that funds are available to remove equipment and return land to prior use.

Norwich Technologies

 Contact Info:
 Oli Simpson, 52 Bridge Street, White River Junction, VT 05001

 simpson@norwitech.com, www.ez-pv.com

Norwich Technologies' first community solar array is planned for Tigertown Road in Norwich, Vermont.

Project participants have the option to buy or lease into a community solar project. The minimum investment to participate is 2 kW.

Responses:

 For a 5kW customer with a fixed 5% savings off their net-metered rate, the customer would see their Green Mountain Power bill reduced by \$1,230, of which \$1,170 would be due to the owner of the solar array in fixed monthly payments of \$97.50. All Renewable Energy Credits would be retired, so the customer would have a year one \$60 savings for going solar.

Over 20-years, the customer would see their Green Mountain Power bill reduced by approximately \$25,000, of which \$23,750 would be paid to the owner of the solar array. All Renewable Energy Credits would be retired, so the customer would have a 20-year savings of approximately \$1,250 for going solar.

The owner of the system receives the 30% Federal Tax Credit.

- 2. All REC's all retired.
- 3. If participant opts to lease there is an option to buy after year 6.
- 4. The owner bills a constant monthly payment (can be auto-pay). Final bill each year is variable to reconcile for actual generation.
- 5. If the owner moves out of the service area, the owner will resell their solar array. If the leaser moves out of the service area, the leaser works with owner to find a new leaser.
- 6. The system owner pays for the insurance. The owner of the system maintains or contracts maintenance of the system.
- 7. There is a 25-year panel warranty, 10-year inverter warranty, 5-year workmanship by installer.
- 8. Compensation for a landowner hosting a community array includes \$1,000/acre/year or equivalent share of solar array.
- 9. The project does not have to be fenced.
- 10. At the end of the system's life the silicon and metals are recycled. Either a new array is installed or returned to field condition. Owner and/or host is contractually responsible for removal.

Solaflect Energy

Contact Info:

Jonathan Teller-Elsberg, 326 Main St., Ste 4, Norwich, VT, 05055 802-649-3700, jte@solaflect.com, www.solaflect.com

Solaflect Energy's first community solar array was commissioned Decemeber 2014 in Lunenburg, Vermont. The Lunenburg Solar Park is currently their sole operating community development. Participants purchase a dual-axis Suspension PV Tracker, which becomes their personal property. They also sign a hosting agreement to have their Tracker located at the Solar Park. The agreement is for 20 years, with an option to extend.

Responses:

 The customer owns the equipment and therefore is the one to claim the tax credit. We recommend that all prospective customers consult a tax professional to ensure their ability to utilize the credit. Depending on perspective the sticker price of the dual-axis Suspension PV Tracker is \$19,200 or \$13,440 if the tax credit is claimed in full. The 20-year cumulative net gain of a 4kW Tracker is \$7,246 (details in chart below)

4RW Tracker (all values are estimates, assuming typical weather, etc.)							
Year	kWh delivered	Cash Flow	Year	kWh delivered	Cash flow		
1*	2,490	-\$18,726	11***	4,731	\$1,024		
2**	4,955	\$6,724	12	4,706	\$944		
3	4,930	\$981	13	4,681	\$965		
4	4,905	\$997	14	4,656	\$987		
5	4,880	\$1,014	15	4,631	\$1,010		
6	4,855	\$1,032	16	4,606	\$1,033		
7	4,830	\$1,050	17	4,581	\$1,056		
8	4,805	\$1,068	18	4,556	\$1,080		
9	4,781	\$1,087	19	4,532	\$1,105		
10	4,756	\$1,106	20	4,507	\$1,130		
			21****	2,241	\$578		
All years: Assumes papel dealing of 0.5% per year (may dealing allowed under warranty); utility rate inflation 2.826%							

4kW Tracker (all values are estimates, assuming typical weather, etc.)

All years: Assumes panel decline of 0.5% per year (max decline allowed under warranty); utility rate inflation 2.836% per year (average for VT from 1990-2013)

* Assumes mid-year start, purchase paid in full **Assumes Federal tax credit claimed in full ***Final (1/2) year of solar adder **** Final ½ year

- 2. The customer owns the RECs. The hosting agreement obligates the customer to retain/retire the RECs. The park is "solar" in full compliance with FTC guidelines for truth-in-advertising regarding renewable energy.
- 3. N/A
- 4. Once purchase payments are made, there is no further billing (unless, in out years, the customer's Tracker requires repairs of out-of-warranty equipment which would be billed as incurred).
- 5. If the owner moves out of the electric provider's service area, the customer may sell their Tracker or lease out the use of its net metering credits. Solaflect is maintaining a list of individuals who have expressed an interest in purchasing a second-hand Tracker from the Solar Parks.
- 6. In lieu of any cash payments, the customer covers the costs of hosting by sharing 20% of the net metering output of their Tracker with the Solar Park. The values shown in the above table incorporate this 20% hosting share. So, for example, the year one kWh delivered value represents 80% of the kWh physically generated by the Tracker. This 80% share is the portion that the customer will see represented on their GMP bill.
- The warranties include: PV modules 10 years materials and workmanship, 25 years performance (after first year, performance of not less than 97% of rated capacity, annual decline in capacity not more than 0.5%, total decline over 25 years not more than 15%) Optimizers 25 years, inverters 12 years and tracker 10 years.
- 8. Land for the current Solaflect Community Solar Park is owned by Solaflect. Future projects may be developed on leased land.
- 9. This must be determined on a case by case basis. Our expectation is that no fencing will be required. If we are able, we will make the Solar Parks available to participants and residents of the host communities as locations for recreation.
- 10. We fully expect that by end-of-life, CPV (concentrated PV, which requires Trackers) modules with 2-3 times the efficiency of current modules will be available. We hope that the facilities will be upgraded to produce 2-3 times as much electricity on the same field. If this is not viable, a removal fund will be accrued from the annual hosting payments.

Contact Info:

Soveren Solar Soveren Solar, 101 Sullivan Drive, Putney VT 05346, sovernsolar.com, VTcommunitysolar.com

Soveren Solar's first community solar array was put into operation in 2013 in Putney, Vermont. They currently have 5 community solar arrays totaling 860kW DC. They have 4 more 150kW AC projects under Certificate for Public Good for the coming year.

Responses:

1. Participants buy panels with a minimum investment of 1 panel at approximately \$1,000. Below is a Financing Cash Flow Analysis for 4.94kW. The analysis is for a loan for the total cost less the Federal Tax credit and deposit. The assumptions include a loan term of 15 years, a loan interest rate of 4.99% and a loan amount (net cost) of \$11,362. The owner of the panels receives the Federal Tax Credit.

Year	Net Saving from PV System	Annual Loan Payment	Net Savings with Loan Payment	Year	Net Saving from PV System	Annual Loan Payment	Net Savings with Loan Payment
1	\$1,220	\$1,094	\$126	16	\$1,557	\$0	\$1,557
2	\$1,250	\$1,094	\$156	17	\$1,610	\$0	\$1,610
3	\$1,280	\$1,094	\$187	18	\$1,665	\$0	\$1,665
4	\$1,312	\$1,094	\$218	19	\$1,721	\$0	\$1,721
5	\$1,345	\$1,094	\$251	20	\$1,779	\$0	\$1,779
6	\$1,379	\$1,094	\$286	21	\$1,840	\$0	\$1,840
7	\$1,415	\$1,094	\$321	22	\$1,902	\$0	\$1,902
8	\$1,452	\$1,094	\$358	23	\$1,967	\$0	\$1,967
9	\$1,490	\$1,094	\$396	24	\$2,034	\$0	\$2,034
10	\$1,529	\$1,094	\$436	25	\$2,102	\$0	\$2,102
11	\$1,318	\$1,094	\$224	26	\$2,174	\$0	\$2,174
12	\$1,363	\$1,094	\$269	27	\$2,248	\$0	\$2,248
13	\$1,409	\$1,094	\$315	28	\$2,324	\$0	\$2,324
14	\$1,457	\$1,094	\$363	29	\$2,403	\$0	\$2,403
15	\$1,506	\$1,094	\$412	30	\$2,484	\$0	\$2,484

- 2. Typically we own and sell the RECs into the Mass Class 1 market. If the panel owner wishes to retain ownership of the RECs we charge an extra \$1/W. Our retail price is \$4/W and if we give up the RECs our price is \$5/W.
- 3. N/A
- 4. People pay upfront for the panels they purchase and the license to have them maintained at a Soveren site for 30 years. The owners receive a credit on their electrical bill each month equal to their percentage ownership of the whole project/total monthly credit from the field.
- 5. There are two options if a owner moves out of the electric provider's service area.
 - a. The owner can sell their panels or donate them to anyone else in the service area.
 - b. Soveren will buy back the panels at a pre-determined rate. The formula = Original price * 70% * (15-(# of years owned)/15).
 le. If an owner wants to sell panels they bought for \$10,000 back to us after 7 years they would get \$10,000 * .7 * 8/15 = \$3,733.
- 6. Soveren pays all insurance and taxes, and all other costs associated with the O&M of the project.
- 7. The panels have a manufacturer warranty of 80% of nameplate rating for 25 years. In addition, Soveren fully warrants all the equipment under a licensing agreement with the owner for the lifetime of the project. That is currently set to be 30 years.
- 8. A landowner hosting a community array typically receives \$2,000 to \$3,000 per acre.
- 9. The project usually does not need to be fenced.
- 10. At the end of the system's life the owners are responsible for their panels. Soveren will remove all of the infrastructure.

SunCommon Solar

Contact Info:

Taylor Ralph, 5430 Waterbury-Stowe Rd, Waterbury Ctr, VT 05677 <u>Taylor@suncommon.com</u>, 802-882-8181, www.suncommon.com

SunCommon commissioned their first Community Solar Array September 2014 in Waltham, Vermont. They currently operate 7 arrays, each with approximately 30 members. They are commissioning an 8th array March 2015 and beginning construction of their 9th array the following month. SunCommon offers membership shares in their community solar arrays (CSA). They match the size share to the amount of energy a home needs. There's no upfront cost to become a CSA member. The smallest share in an array is a 2% share, which is approximately \$73/month and offsets approximately a \$78/month electric bill.

Responses:

1. The membership shares are available in 1% increments. A 2% share would be equivalent to the production of a 4kW array, and a 3% share equivalent to that of a 6kW. A 2% share produces approximately \$935 in solar credit each year, and so completely offsets an electric bill of \$78/month. The monthly membership payment is \$73/month. The first monthly payment includes a one-month deposit (akin to first and last month's rent), and so in the first year thirteen monthly payments are made. So, the first year is basically break-even. Starting in the second year, there's an annual savings of \$60 or more. As utility rates increase, the CSA member's savings increase as well. It's hard to predict how utility rates will rise, and so we simply guarantee a 7% savings.

The owner of the array receives all federal incentives associated with the array, including the tax credit. (SunCommon owns some of our CSAs and our investors own others.) Therefore, the CSA membership option is ideal not only for folks who can't go solar at their own homes, but also for folks who can't take advantage of the federal tax credit themselves. We pass the value of the incentives back through to the CSA members as savings. More simply put, it is the incentives that allow us to offer CSA member shares at a 7% discount to utility rates.

- 2. The owner of the CSA maintains control of the RECs. If the RECs can be sold to Vermont utilities with the passing of a state Renewable Portfolio Standard, the RECs from our arrays will be sold in-state. If Vermont does not pass an RPS, the RECs will be sold out-of-state for no more than 7 years, at which point they will be retired.
- 3. No, there is no option to buy. Given SunCommon (or the owner of the array) maintains the land agreement with the Community Solar Array (CSA) host and therefore legal access to the solar array, we maintain responsibility for keeping the array in good working order.
- 4. The monthly billing is all done via automatic withdrawal. Once annually, there's a true up to ensure the monthly payments maintain the 7% savings.
- 5. The membership runs twenty years. However, ending the membership early is simple; there's just a 3-month administrative fee.
- 6. The owner of the array (either SunCommon or one of our investors, depending on the array) covers all ongoing costs, including insurance and maintenance.
- 7. All of the equipment associated with the array carries industry-standard warranties (that's 25 years for the panels and 10 years for the inverters). More importantly, we guarantee that CSA members will receive a 7% savings on their utility bills (or the portion we're replacing). And so, if the array produces less power than expected, for any reason, SunCommon on an annual basis will credit the CSA member's account the difference.
- 8. This is not a simple question to answer. Landowner compensation depends on a few different factors what size array it's possible to build on the land and what form the compensation takes to name a few.
- 9. The project probably has to be fenced. It depends on the equipment we use when designing the array, but yes, most of our arrays require fencing.
- 10. At the end of the system's life, our agreement with each landowner includes the obligation that SunCommon will maintain the system over its lifetime and then remove the system if it's not in use.

Wolfe Energy LLC

Contact Info:

Dori Wolfe, PO Box 161, Strafford, VT 05072; <u>dori.wolfe@gmail.com</u>; 802-765-4632

Wolfe Energy's first community solar array will be put into operation Spring 2015. The array will be a 91kW array serving the school, town and three other non-profits in Strafford, Vermont. Three other projects are in progress.

Wolfe Energy focuses on non-profit; municipal; school arrays which the customer purchases the net metering credits at a slight savings (no risk, no capital investment). There is no investment required.

Responses:

- 1. The investors who invest in the holding company receive the 30% Federal Tax Credit.
- 2. If finances allow, we strive to retire the RECs so the array is truly making green, clean power for our customers.
- 3. Wolfe Energy will be working over the next 5 years to allow these Community Solar projects to become cooperatively owned by the community they produce power for.
- 4. The Holding Company bills the customers monthly, a percentage of the value of the net-metering credits, as determined in their agreement.
- 5. We ask our customers to sign a 20 year Solar Credit Purchase Agreement, but should a consolidation happen, or a closing down of a non-profit, the Holding Company will seek additional customers to transfer the net metering credits to.
- 6. The Holding Company sets up a reserve account for O&M, and uses payments from the customers to cover the cost of insurance.
- 7. N/A, as the customer does not own the array. If the sun doesn't shine, or the array does not produce energy, the customer does not pay.
- 8. A landowner hosting a community array receives net metering credits for a portion of the array (varies depending on the size of the array).
- 9. Fencing depends on the insurance provider, but scrim coating the wires on the back of the panels in lieu of fencing satisfies code requirements.
- 10. At the end of the system's life the Holding Company is contractually obligated to remove the array and make the land whole.