

## **Acorn Energy Solar 3**

**An Investment Opportunity in Local  
Community-Owned Solar Generation**

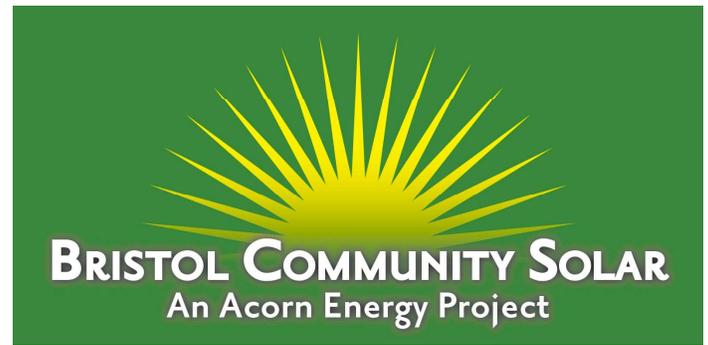
**June, 2021**

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# TOP 10 Things to Know about Investing in BRISTOL COMMUNITY SOLAR (BCS)

- 10** BCS will construct a 500 kW AC solar array consisting of 1,694 440-Watt solar panels, occupying a little over three acres of land on the site of the former landfill at 80 Pine Street in Bristol.
- 9** You can purchase a unit (a unit corresponds to a 405 watt section of the array) in BCS if you are a Vermont resident, have a Green Mountain Power meter for electrical usage, and are a member or become a member of the Acorn Energy Co-op.
- 8** A typical family home could meet its electrical needs with the purchase of 5 to 15 units.
- 7** Investment return comes in the form of dollar credits applied each month on your GMP electric bill, based on the amount of electricity produced during the previous month. BCS will charge you an annual administrative fee to cover insurance, maintenance, land lease payments, etc.
- 6** Vermont law limits your participation to \$10,000 (or \$20,000 for two adults) unless you meet certain income or net worth requirements.
- 5** Units are being sold on a first-come, first-served basis.
- 4** Units can be reserved by subscribing and paying a \$70 non-refundable deposit for each unit.
- 3** Construction of the array will begin once all units have been sold; currently targeted for sometime this summer.
- 2** A single unit is priced at \$702. Minimum purchase is five units or \$3,510.
- 1** The expected internal rate of return (IRR) for each unit is 6.98% with a payback in about twelve years.



## Further Information can be found in:

- Bristol Community Solar Term Sheet
- Frequently Asked Questions
- Vermont Crowdfunding Offering Memorandum
- Operating Agreement of Bristol Community Solar

Bristol Community Solar  
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PO Box 66, Middlebury, VT 05753

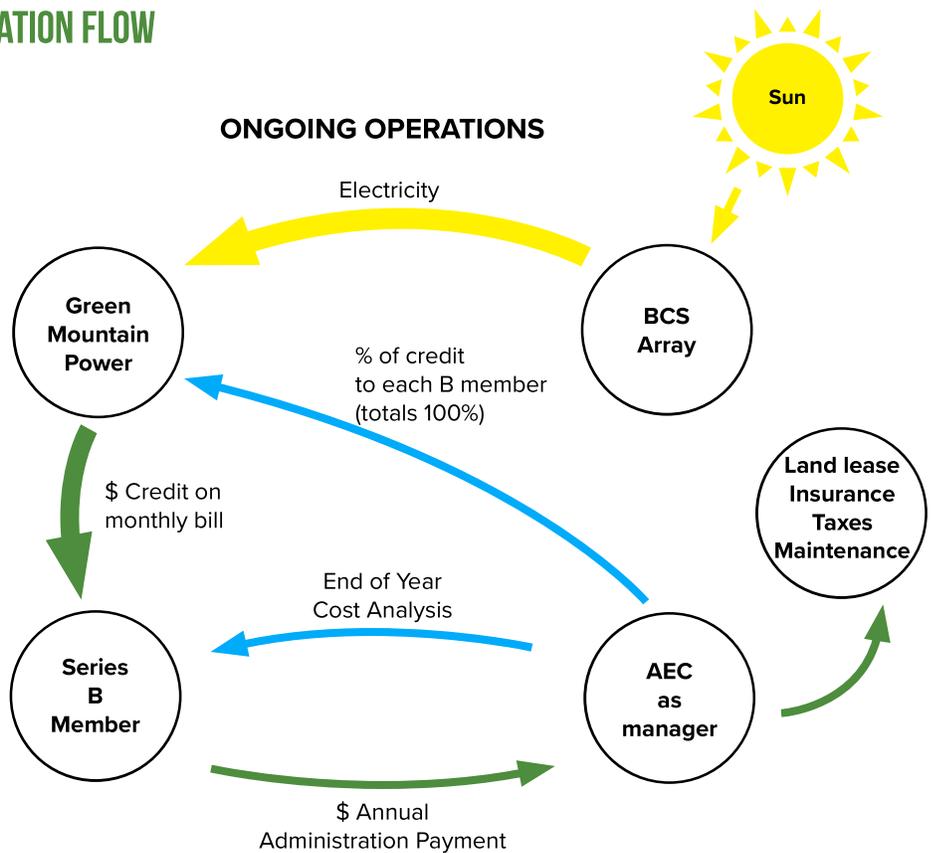
## HOW ELECTRICITY, MONEY AND INFORMATION FLOW

There are four elements:

- Series B Member
- BCS Array
- Acorn Energy Co-op as Manager
- Green Mountain Power

The flows are color coded:

- Energy - yellow
- Information - blue
- Dollars or credits - green



## HOW MANY UNITS TO PURCHASE

- Check total kWh you use per year; available from GMP
- Check table to determine the number of units corresponding to your annual kwh usage
- Determine whether this many units can be purchased given your investor type (typical, certified, or accredited)
- Acorn Energy Co-op can help with this determination

### NUMBER OF UNITS PURCHASED BASED ON ANNUAL ELECTRICITY USAGE

Number of kWh used per Year	2,500	5,000	7,500	10,000	15,000
Number of Units	5	10	15	20	30
Total Cost (\$)	3,510	7,020	10,530	14,040	21,060
Net Credit/year - 1st 10 years (\$)	250	500	750	1000	1500
Return on Investment - 1st 10 yrs	7.1%	7.1%	7.1%	7.1%	7.1%

NOTE: One unit corresponds to the credits earned by a 405-watt section of the array

## BENEFITS OF INVESTING IN BCS

- Net credits on GMP bill (after expenses) pay for the investment in about 12 years
- Total credit over 25 years is approximately 2.1 times the initial investment
- Ideal solar orientation to maximize electricity production
- Renters and condo owners are able to participate
- Makes solar possible if your yard or roof is not suitable
- Helps move Vermont toward the goal of 90% renewable energy by 2050

**Acorn Renewable Energy Co-op**

P.O. Box 66  
Middlebury, VT 05753

**For Immediate Release  
June 9, 2021**

**Contact: Mary Mester (802 385-1911)**



**Acorn Energy Co-op's third community solar project moving forward**

Bristol, VT – Fundraising for an innovative local community-owned solar project in Bristol under development by the Acorn Renewable Energy Co-op of Middlebury is moving forward. The proposed project, Bristol Community Solar (BCS), will be a 500 kW solar array on the capped former municipal landfill located off Pine Street in Bristol.

Acorn Energy Co-op is offering shares in the Bristol project to Vermont residents with an electric meter in the Green Mountain Power (GMP) service territory who are (or become) members of Acorn Energy Co-op. These investors will receive the project's net metered credits on their GMP bills, and ultimately take ownership of the project.

"If we are successful, we will have local investment, ownership, and management of a solar array developed in cooperation with the host community, and we will have made the most of a brownfields redevelopment opportunity as well. There are multiple winners all around, says Acorn Energy Co-op President Benjamin Marks. "We think that the installed price per watt of the array will also be attractive for prospective participants,"

The Bristol landfill is ideal for solar development since it has good solar exposure from the south and cannot be seen from public streets and neighborhood homes. In addition, this type of "brownfield" site receives favorable treatment from Vermont's energy permitting and approval agencies. Acorn Energy Co-op applied for a Certificate of Public Good for the project from the Public Utility Commission in December 2020. The CPG was issued by the Commission on April 1, 2021.

Acorn Energy Co-op, and Aegis Renewable Energy of Waitsfield (Acorn Energy's contractor), have developed the plan for the approximately \$1.8 million Bristol project. The Bristol Community Solar design calls for 1,694 solar panels, 440 watts each, which will cover a little over three acres of undulating terrain on the 12-acre capped Bristol landfill site. The panels will be a new bi-facial model, which also generates electricity from light reflected off the ground – a useful feature during Vermont's snowy winters. At 500 kilowatts, BCS will be considerably larger than the Energy Co-op's two previous 150 kW projects in Middlebury and Shoreham.

The Acorn Energy Co-op's innovative investment model calls for two initial categories of investors in Bristol Community Solar: a single Series A Member, and multiple Series B Members. The Co-operative Insurance Companies of Middlebury will be the Series A investor. The Series A investor will provide around a third of the capital to construct the project and in return will receive federal investment tax

credits for their project participation. Their involvement helps to keep the costs down for the Series B investors.

The Series B investors will receive net metering dollar credits applied each month to their GMP electric bills based on the amount of electricity produced the previous month for the number of investment units they have purchased.

“We are extremely pleased to have Co-operative Insurance as a major participant in Bristol Community Solar, ” says Richard Carpenter, Acorn Energy Co-op’s treasurer. “They played a similar major investment role in our Shoreham, Vermont project, Acorn Energy Solar 2, as well as our Middlebury project, Acorn Energy Solar One.”

Six years after the Bristol project begins electricity production, the equity structure will “flip” and the individual investors may take full ownership of the project, making BCS one of a small number of local, community-owned net metered solar projects in the state.

“Acorn Energy Co-op is very excited to be moving ahead with this community-owned solar project developed by Vermonters for Vermont residents,” says president Marks. “We believe it will help decentralize the grid, and will also help the State of Vermont to reach its ambitious goal of 90 percent renewables by 2050.”

A schedule of Informational online meetings for prospective investors can be found at: [acornenergycoop.com](http://acornenergycoop.com).

Organized in 2008, The Acorn Energy Co-op is a member-owned cooperative serving residents and businesses in Addison, Rutland and Chittenden counties. The Co-op provides education, outreach, products and services, as well as community solar projects that help members make the transition from our present reliance on fossil fuels to greater use of renewables and local solutions.

For more information on Bristol Community Solar, or to join the Acorn Energy Co-op, visit [acornenergycoop.com](http://acornenergycoop.com), email [info@acornenergycoop.com](mailto:info@acornenergycoop.com), or call Mary Mester at 802-385-1911.

# Bristol Community-owned Solar Expands

George Harvey

Acorn Renewable Energy Co-op of Middlebury, Vermont is developing a community-owned solar project in Bristol VT, and the funding is moving forward. The project, Bristol Community Solar (BCS), will require an investment of about \$1,800,000. Acorn Energy is working with Aegis Renewable Energy of Waitsfield as its contractor on the project.

BCS will have 1,694 solar panels, each of 440 watts. They are bi-facial, so they can generate power from light that is reflected from snow behind them. BCS will be built on over

three acres of the capped former municipal landfill off Pine Street in Bristol. The maximum output of the array will be 500 kilowatts of AC power.

The Bristol landfill is ideal for solar development since it has good solar exposure from the south and cannot be seen from public streets and nearby homes. Since it is on a “brownfield” site, it received favorable treatment from Vermont’s energy permitting and approval agencies. Acorn Energy Co-op was issued a Certificate of Public Good for the project by the Public Utility Commission April 1, 2021.

“If we are successful, we will have local investment, ownership, and management of a solar array developed in cooperation with the host community, and we will have made the most of a brownfields redevelopment opportunity as well. There are multiple winners all around,” said Acorn Energy Co-op President Benjamin Marks. “We hope that the installed price per watt of the array will also be attractive for prospective participants.”

The Acorn Energy Co-op’s innovative investment model calls for two initial categories of investors in Bristol Community Solar. It is to have a single Series A Member, and multiple Series B Members. The Co-operative Insurance Companies of Middlebury will be the Series A investor and will provide about a third of the capital needed to the project. In return, it will receive federal tax credits. Their involvement



Solar site layout for the Bristol Community Solar Array, a 500-kW solar project located in Bristol, Vermont. (Aegis Renewable Energy)

helps to keep the costs down for the Series B investors.

“We are extremely pleased to have Co-operative Insurance as a major participant in Bristol Community Solar,” said Richard Carpenter, Acorn Energy Co-op’s treasurer. “They played a similar major investment role in our Shoreham, Vermont project, Acorn Energy Solar 2, as well as our Middlebury project, Acorn Energy Solar One.”

An Investor in Series B Membership must be qualified as a Vermont resident or organization, have an electric meter in the Green Mountain Power (GMP) service territory, and be (or become) a member of the Acorn Energy Co-op. The investors will receive the project’s net-metered credits on their GMP bills, and ultimately take ownership of the project.

Participation in BCS was originally very restricted, but it has been expanded to any Vermont resident who has a GMP electric meter, regardless of where they live. We should point out that renters are allowed to invest in the array, if they have GMP accounts, and their ownership can continue if they move to another location with a GMP meter.

The minimum investment in BCS will cover five units of the array. Each Series B Unit corresponds to a 405-watt section of the array and is priced at \$702. The minimum investment is five units or \$3,510.

Six years after the Bristol project begins electricity production, the equity structure will change so the individual investors may take full ownership of the

project, making BCS one of a small number of true community-owned net-metered solar projects in the state.

“Acorn Energy Co-op is very excited to be moving ahead with this community-owned solar project developed by Vermonters for Vermont residents,” says president Marks. “We believe it will help decentralize the grid, and will also help the State of Vermont to reach its ambitious goal of 90 percent renewables by 2050.”

Organized in 2008, The Acorn Energy Co-op is a member-owned cooperative serving residents and businesses in Addison, Rutland

and Chittenden counties. The Co-op provides education, outreach, products and services, as well as community solar projects that help members make the transition from our present reliance on fossil fuels to greater use of renewables and local solutions.

A schedule of informational online meetings for prospective investors can be found at [acornenergycoop.com](http://acornenergycoop.com). For more information on Bristol Community Solar, or to join the Acorn Energy Co-op, visit that site. Email for the Co-op is: [info@acornenergycoop.com](mailto:info@acornenergycoop.com), or call Mary Mester at 802-385-1911. ♻️

**BRISTOL COMMUNITY SOLAR**  
An Acorn Energy Project

**The Acorn Energy Co-op is now offering shares in the new Bristol Community Solar project in Bristol, Vermont.**

**By Vermonters, for Vermonters**

[acornenergycoop.com](http://acornenergycoop.com)  
for more information

email:  
[info@acornenergycoop.com](mailto:info@acornenergycoop.com)

**Acorn Energy Co-op**  
Middlebury, VT

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## **Bristol Community Solar (BCS) -- Frequently Asked Questions**

Note: Since this is our third community solar project in Addison County, we initially named it Acorn Energy Solar 3 (AES3), and on April 6, 2020, we created a legal entity, Acorn Energy Solar 3 LLC, to oversee the project formation and development process. At a meeting with the Bristol select board on January 11, 2021, it was agreed to use the name, Bristol Community Solar (BCS), but AES3 LLC remains the legal entity that owns the Project.

### **Q1: Community Solar - How does net metering work?**

A: In Vermont, the energy generated from an individual's share of a community owned solar project is purchased by the utility that serves that area (Green Mountain Power in this case) for the retail price of that energy minus a size adjuster of (\$0.02 per kilowatt hour (kWh) for the life of the project, and an adder for its preferred site and REC assignment (\$.01 per kilowatt hour (kWh) for the first ten years of operation). The consumer's electric bill is then credited at that amount. The resulting monthly amount due to GMP is the "net" of the cost of electrical consumption minus this credit.

### **Q2: Do I have to be close to the solar array to participate?**

A: No. You do not need to live close to the array. You must, however, be a current electrical customer of Green Mountain Power (GMP) the utility that is receiving the electricity generated by the array.

### **Q3: What if my share of the Project generates more electricity than I consume?**

A: If your share of the array generates more electricity than you use for any given month, you will receive a credit on your account. This credit rolls over monthly. Therefore, the extra solar power that is generated during the long days of summer can be credited towards energy usage in the shorter days of winter. Unused net metering credits do expire, however, after twelve months, starting with the oldest credits on your account.

### **Q4: How long will this community owned solar project operate?**

A: The solar panels for Bristol Community Solar (BCS) are expected to produce at least 85% of their original output through the 25th year of operation. BCS's financial projections are based on 25 years. The Project owners may decide whether to extend operation beyond that time.

### **Q5: Who can participate as a Series B investor (as described in the Offering Memorandum) in BCS?**

A: You must be a Vermont resident, a GMP customer, and. a member of the Acorn Energy Co-op (or become one).

### **Q6: I live in the GMP utility service area, but I rent. Can I still participate?**

A: Yes, provided that you have an electric meter for your rental unit. Your share of the array is credited against your electric bill, so it doesn't matter whether you rent or own your home. If you receive a GMP electric bill, you can net meter and participate in the Project.

### **Q7: How is the credit to my monthly utility bill determined?**

A: Your bill will be credited based on your pro-rata share of the entire array's production. Note that the credits will only offset energy charges on your bill (and demand charges, if any), but will

not offset the non-bypassable charges (as now defined by GMP) such as energy efficiency charges, rental charges for GMP equipment (such as water heaters), customer charges, electric assistance program charges, etc.

**Q8: What if I move?**

A: The net metering credits generated from your share of the Project are attached to your electric account, not your residence. If you move to another property within the GMP service area, you can simply have your credits re-allocated to your new electric account. If you move to another property outside of GMP's service area, you may be able to sell your share of the Project to a new or existing Series B Member, or, if you are selling your home, include your share of the Project in the real estate sale. Such arrangements are not the responsibility of BCS.

**Q9: How can I add to or subtract from my allocation (i.e., number of units)?**

A: Once all units have been spoken for, you may not increase or decrease your number of units unless another member wishes to sell their units or to buy yours.

**Q10: I already have solar panels on my roof. May I also participate in BCS?**

A: Yes. However, your non-bypassable charges cannot be offset by AES3 credits. For those who installed solar at their residence prior to 1/1/17, this means that you will lose the ability to offset non-bypassable charges that you have been able to do previously. The reason is that the net-metering rule, PUC 5.100, changed effective January 1, 2017.

**Q11: How much does it cost to buy in, and what is the minimum?**

A: Each Series B Unit corresponds to a 405-watt section of the array and is priced at \$702. The minimum investment is five units or \$3,510.

**Q12: Is financing available for solar projects?**

A: Financing may be available from a number of lending institutions. Check with your local lender.

**Q13: Are there tax benefits for Project participants?**

A: Yes, but 99% of the Project tax benefits will be assigned to the Series A Member, whose participation in the Project helps to keep the cost down for the Series B Members.

**Q14: You refer to the Series A Member and Series B Members in your Offering Memorandum and the Operating Agreement. Who are they and how are they treated differently?**

A: The Series A Member will be the Co-operative Insurance Companies of Middlebury. Co-operative Insurance is providing approximately 30% of the capital to construct the Project. They will not be taking energy credits from the Project; rather, they will receive 99% of the federal tax credits and depreciation associated with building the Project, during the first six years of Project Operation.

The Series B Members will be providing 70% of the capital to construct the Project through their purchase of the units of the Project. The Series B Members will hold the remaining 1% of the Project tax credits and depreciation and will have limited voting rights for the first six years of Project Operation. During those years, Acorn Energy Co-op will be the Project Manager. Series B Members will be investing their own funds and will be receiving net metered energy credits

from GMP and, as a group, 1% of the tax credits and (if one or more Series B investors is a business) 1% depreciation.

After the six-year period, the equity structure will “flip” so that the Series B Members will be allocated 95% of the profits and losses of Acorn Energy Solar 3, and related benefits, and the Series A Member will be allocated the remaining 5%. By that time, the tax credits will have been used and the depreciation will have been mostly used. Also, after the end of the six-year period, the Series A Member will have the right to require AES3 LLC to repurchase its Series A Member Units for their “post-flip” fair market value. If the Series A Member’s Units are repurchased, then the Series B Members will have 100% voting control of AES3, with the right to appoint, remove, and replace the Manager of AES3. In this case, all Series A Units will be retired.

**Q15: How will Series B Members pay for ongoing Project maintenance, insurance, and administrative expenses?**

A: The Manager of BCS (Acorn Renewable Energy Co-op) will pay all such expenses from available AES3 LLC funds and invoice the Series B Members on a pro-rata basis once each year to cover the expenses. Moreover, this method is used to build a cash reserve sufficient to purchase all Series A Membership Interests after six years of Project operation, resulting in the Project being completely owned by the Series B Members.

**Q16: Are businesses or non-profits (such as churches) eligible to participate? If yes, how will the credits work related to the different rates and demand charges on business accounts?**

A: Yes, businesses and non-profits may participate. Because both the GMP credits and the BCS expense charges are expressed in dollars, it makes no difference what billing rates are used on the GMP bill; a dollar amount is credited to the bill based on the number of units owned.

**Q17: When do I need to finalize my subscription, submit my deposit, and pay the remainder?**

A: To hold your place, AES3 requires your deposit (\$70 per unit, which you will lose if you fail to purchase your reserved units). Once 95 percent of all units have been subscribed, you will be notified and your full payment will be due approximately two weeks thereafter at the Project’s financial closing. Once you have submitted a deposit, we will keep you apprised of subscription progress and the approximate closing date.

**Q18: What will happen to my deposit if the Project does not go forward?**

A: All deposit moneys that you have paid will be fully refunded.

**Q19: Where is the Project site and what are its general physical characteristics? Is there support from the Town?**

A: The Project, consisting of 1,694 solar panels, 440 watts DC each, will cover a little over three acres of undulating terrain on the 12-acre capped landfill site, located at 80 Pine Street in Bristol. Please refer to the site map provided with the Offering Memorandum. The Project is proposed to be located on land owned by the Town of Bristol. Bristol has executed a lease option agreement granting AES3 the right to build the Project in the proposed location. The lease option agreement and the underlying lease were approved by the Bristol Select Board in open session.

**Q20: What is the generating capacity of the Project and expected number of kWh produced annually?**

A: The Project can produce a maximum of 500 kW per hour during ideal conditions, such as full sun. We expect the Project to put about 929,400 kWh onto the GMP grid in the first full year of operation. Thereafter we expect the panels will lose approximately 0.5% of their productivity annually.

**Q21: I use about 7,000 kWh annually. How many units should I subscribe for?**

A: Your consumption is about 0.75% of the Project's production, so you should consider subscribing for .75% of the 1,840 units, or 14 units. Note that purchasing this amount will greatly reduce, but likely not totally eliminate your electric bill, due to BCS administrative costs and GMP non-bypassable charges, which cannot be offset with current net metering credits.

**Q22: What are REC's and how are they handled?**

A: A Renewable Energy Credit (REC) is a tradeable credit indicating that a megawatt hour of renewable energy has been generated. This Project will assign the RECs it generates to GMP with the understanding that the utility will use them to help Vermont meet its goal of 90 percent renewable energy by 2050.

**Q23: How do I transfer Series B Membership Interests to a willing buyer if I leave the area?**

A: Contact BCS's Manager as soon as you have identified the buyer. The Manager will verify that the purchaser has a GMP account and meets any other legally required investment criteria. The Manager will register the new buyer and then cancel your subscription. Before this can happen, the new Series B Member must agree to be bound by the BCS Operating Agreement and the commitments that other Series B Members have made. Because the Series B Membership Units are not registered on any stock exchange, it is possible that the purchaser of your home – or another prospective buyer – will not be eligible to purchase your Series B Membership Units, and you should be prepared to hold your Series B Units indefinitely. However, recent experience at our Shoreham project (AES2) demonstrated a strong demand for unit sales to other project subscribers.

**Q24: What happens to my Series B Membership if I die?**

A: Your Series B Membership Interest may be passed on to your heirs, provided that they are GMP customers residing in Vermont and otherwise qualify to be a Member. In addition, your Series B Membership Interest has value and can be sold to a person who is a GMP customer who also qualifies to be a Member of BCS, subject to applicable securities laws and the transfer restrictions described in the previous paragraph. For example, if your estate sells your home, and the buyer qualifies legally to be a Member, the buyer may elect to purchase the Membership along with your home, so long as the buyer agrees to be bound by the AES3 Operating Agreement and the commitments that other Series B Members have made.

**Q25: Does BCS commit to buying my units back if I leave the area and cannot use them?**

A: No, but the BCS Manager will maintain a list of any individuals/organizations, if any, who have indicated an interest in purchasing Series B units and will provide it to you upon request.

**Q26: Will there be any opportunity to "cash out" my investment during the 25-year period?**

A: The Series B Units are not publicly traded; the only opportunity to sell them is as described above.

**Q27: What happens if the array is damaged or destroyed?**

A: BCS will carry insurance coverage to mitigate this risk. Depending on the severity of the damage, the year in which the damage occurs, etc., the insurance carrier will either provide funds to rebuild or to liquidate. The Operating Agreement provides guidance on how recovery funds are to be allocated among Members. Certain events may not be insurable.

**Q28: What happens if a Series B Member does not remit their share of operating expenses?**

A: The BCS Manager will monitor expense payments, contact those who are in arrears and instruct GMP to stop posting credits to the Member's electric bill if adequate payment is not made within a reasonable timeframe. Persistent failure to meet these annual payments, after notice and opportunity to cure, will result in forfeiture of a member's Membership Interests and a termination of all rights under the Operating Agreement.

**Q29: What happens if I move from the GMP service territory, but do not find a buyer for my Membership Interests right away?**

A: If you cannot take advantage of the net metering bill credits generated by the Project and do not designate a recipient, the Manager may allocate your bill credits to a non-profit entity of the Manager's choosing until such time as you designate a recipient of your net metering credits. This will not cause a transfer of your Membership Interests; you will still have all your rights and obligations as a Member under the Operating Agreement.