



SHREWSBURY ELECTRIC
& CABLE OPERATIONS

SOLAR GUIDE

RESIDENTIAL SOLAR GENERATION
AND NET METERING

UNDERSTANDING THE PROCESS TO CONNECT YOUR
SOLAR ARRAY TO THE SHREWSBURY ELECTRIC & CABLE
OPERATIONS ELECTRICAL DISTRIBUTION SYSTEM.



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PLEASE NOTE: EFFECTIVE 03/04/2016

ALL INTERCONNECT AGREEMENTS SUBMITTED FOR NET METERING WILL BE SUBJECT TO FUTURE REVISIONS OF SELCO'S NET METERING TARIFF. THIS INCLUDES REVISIONS TO THE TARIFF THAT MAY CREDIT THE WHOLESALE RATE FOR ELECTRICITY GENERATED SYSTEM AND OR ADD A SOLAR DEMAND OR ADDITIONAL DISTRIBUTION CHARGE TO THE NET METERED CUSTOMER. CURRENTLY THERE IS A MONTHLY DISTRIBUTION RECOVERY CHARGE OF \$2.50/KW AC OF SYSTEM CAPACITY.

ABOUT NET METERING

Net Metering is a simple way to interconnect renewable energy systems (solar arrays) to the electric grid to offset part or all of your electricity use. With net metering, excess energy produced by your solar system and not immediately used by your home is sent back out to our electric lines to be used by others while you receive a credit to your account.

A net metered solar installation allows you to take electricity from our distribution lines at night or any time when your solar system is not meeting your needs.

When you use electricity supplied by SELCO, your available solar credit (if any) will be applied toward eligible energy charges.

The Net Metering policy enclosed in this guide was adopted by the Board of Commissioners in July, 2007 and updated most-recently in December 2020 to remove a stated system size limit. SELCO determines if a proposed system's capacity can be accommodated based on an engineering review.

Important: No customer can enter into a Purchase Power Agreement (PPA) with an agent or solar installer and purchase the power as it is produced. Customers must purchase the solar system outright and own all power produced to be eligible for net metering and a potential rebate.

Whether you are ready to begin or simply have specific questions about your system, contact patrick collins, our Integrated Resources Analyst by email at pcollins@shrewsburyma.gov or by phone at **508-841-8313**.

Completed solar application and signed agreement forms should be submitted through our online portal:

[SELCO.SHREWSBURYMA.GOV/VIEWPOINT](https://selco.shrewsburyma.gov/viewpoint)



FOR YOUR INFORMATION: SOLAR INSTALLATION CONTRACTORS

While SELCO does not recommend installers, we can offer some tips. First, be sure whoever you hire is a licensed contractor/electrician and that they pull all required building and electrical permits from the Town of Shrewsbury. To help you select the right contractor, consider asking them the following questions:

- How many similar systems have you installed?
- Have you worked with a municipal electric utility before?
- Have you specifically worked with SELCO before and are familiar with their requirements?
- When would you be able to perform the installation?
- How long will the project take?
- Please describe the warranty that you provide on the system.
- Have you worked with local building officials and utility representatives when installing similar systems in the past? Are there any unresolved issues with these representatives?
- Do you have a MA licensed electrician as part of the project team?
- Is your company bonded and insured?
- Will you hire subcontractors to complete portions of the project? What firms will you hire and what will they do?
- What kind of training will you provide me with so that I can better operate and maintain my solar generation system?
- Will you or a partner company be able to assist me in selling the RECs generated by my solar generation system if I choose to retain ownership of the RECs by choosing to not receive a rebate?

Installers and vendors can help you with a more detailed site and financial assessment. In addition, they will be responsible for providing you with a turnkey service and installation. You are responsible for performing your own due diligence with regard to the experience and qualifications of a potential contractor and for making sure that they meet SELCO requirements.

PLEASE NOTE:

In SELCO's experience, smaller scale local solar installers (compared to larger corporations) typically move much faster from application submittal to system interconnection and operation.



STEPS TO CONNECT A SOLAR ARRAY FOR NET METERING

When you have found a solar contractor and decided on the system to be installed, take these steps to confirm that your system can be connected to the SELCO distribution system. If your contractor installs your system before our approval of the application, you run the risk of needing costly changes before we can allow your solar array to interconnect to our electric grid.

1. Your solar contractor will submit the following while applying online:
 - a. Terms and Conditions for Simplified Process Interconnection
 - b. A one-line drawing of your generation system showing that it meets our system installation requirements, such as PV meter wiring direction and whole house disconnect
 - c. Specifications showing the materials (panels & inverters) to be installed meeting all required codes as noted in the terms and conditions and the agreement
 - d. Customer's proof of property (home) ownership
 - e. Participant Agreement for SELCO Solar Rebate Program (if applicable)
 - f. Supporting documents for rebate Minimum Technical Requirements approval (if applicable)
 - i. Site plan depicting the azimuth of each independent array
 - ii. Shading analysis
 - iii. A copy of the contract/agreement between the homeowner and solar installer
2. **APPROVAL CONFIRMATION** - Your contractor will receive notice from SELCO directly that your system layout and materials have been approved for installation.
3. **ELECTRICAL & BUILDING PERMITS** - Your contractor/installer must obtain electrical and building permits from the Town of Shrewsbury. Then installation can begin.
4. **ELECTRICAL INSPECTION** - After you complete the system installation, your contractor should call the wiring inspector at 508-841-8500 for a final inspection. SELCO will review the system while installing the new meters and the Certificate of Completion will be produced when the system is interconnected and will be kept on file at the SELCO office.
5. **CERTIFICATE OF COMPLETION & SOLAR RENEWABLE ENERGY CREDITS (SRECS)** - Through participating in the SELCO Solar Rebate Program, SELCO retains the rights to RECs. If you would like to retain ownership of RECs, you can choose to not participate in our rebate program.



FREQUENTLY ASKED QUESTIONS

WHAT IS NET METERING?

For customers who generate their own electricity using small-scale energy systems, net metering measures both the electricity you receive from SELCO and the electricity you deliver to SELCO using your own generating equipment. The electric meters let us track the “net” difference as you generate excess electricity and take electricity from the electric grid.

HOW DOES NET METERING WORK?

Basically, net metering is a special metering installation and billing arrangement between you and SELCO. Normally, your electric meter only measures the amount of electricity that SELCO sends into your home or business. A net-metering arrangement means the meter can also measure the excess electricity your generating system produces that comes back into the SELCO system. If your generation system makes more electricity than you need at any given time, net metering allows this electricity to run “backward” through the metering installation and out into the SELCO distribution system. We measure this and then credit you for the full value for the electricity you generate but don't use.

HOW WILL I BE BILLED?

SELCO will continue to read your meter and you will receive electric bills on your normal billing schedule. Each month you will either see a charge or a credit on your bill. SELCO currently credits net metered generators the same rate as what you'd be charged for usage. Some call this "even" or "equal" net metering.

DOES SELCO OFFER ANY OTHER SOLAR INCENTIVES?

SELCO customers are not eligible for state rebates through the state's Commonwealth Solar/Clean Energy Center program. However, SELCO customers are able to take advantage of any state or federal solar tax credits that might be available.



FREQUENTLY ASKED QUESTIONS

WHAT ARE THE TAX CREDITS?

Federal Tax Credit: Most owners of new residential solar electric systems qualify for the federal Residential Renewable Energy Tax Credit for 26 percent of total system costs. Note that the Federal Tax Credit is legislated to expire in 2022, unless renewed by Congress.

Massachusetts Personal Income Tax Credit: Most owners of new residential solar electric systems, located on their primary residence in Massachusetts, qualify for a state personal income tax credit for the lesser of 15 percent of the total cost of the solar electric system, or up to \$1,000.

Massachusetts Sales Tax Exemption: Equipment purchased for a residential solar electric system in Massachusetts is usually exempt from state sales tax.

Property Tax Exemption: Customers with a solar electric system are eligible for a property tax exemption on the value added by the system for 20 years.

HOW WILL SOLAR BENEFIT MY MONTHLY BILL?

Your system will only supply energy back to SELCO's grid when your system is producing more energy than your home is using at any given time. Your excess electricity now offsets electricity you would otherwise have to buy at full retail prices, and this makes owning your own generating system more cost-effective. If you use more energy than you generate in a given billing cycle, you would be a "net consumer," and the net amount due would appear as a charge on the current bill. If your system generated more power than you used in a given billing cycle, you would be a "net generator" for that billing cycle, and the difference would appear as a negative charge on the current bill and as a credit on your next bill. This credit will most likely be used up during months of less on-site generation (e.g. in winter months).



FREQUENTLY ASKED QUESTIONS

WHAT ARE THE BENEFITS OF INCLUDING BATTERY STORAGE WITH SOLAR?

Batteries can store excess power for later use. One benefits include backup power during the rare outage. SELCO customers can participate in grid load shedding programs with their batteries and receive a monthly check if their unit is dispatched. The HELPS Connected Homes Program allows customers to enroll their smart devices to make brief, limited adjustments to their devices during times of peak electric demand. Sonnen batteries are currently eligible to participate, and would receive a monthly incentive of \$15. Details can be found here:

<https://munihelps.org/selco>

SELCO may roll out time-of-use rates in the future, where electricity is charged at different rates at different hours of the day. To avoid using grid electricity at more expensive peak times of the day, customers can discharge their battery to supply their home's load, relying less on the grid and saving money. Additionally, when coupled with solar, battery costs qualify as a solar electric property expenditure, eligible for the federal tax credit. Any taxpayer considering the purchase of an energy storage system should consult their accountant or other tax professional before claiming a tax credit.

SELCO suggests discussing battery storage integration and system configuration with your solar contractor.

AM I ELIGIBLE FOR NET METERING?

In Shrewsbury, any SELCO electricity customer in good standing who generates at least some of their electricity is potentially eligible for net metering. Solar energy must power your generating system. Currently, other types of generating systems are not eligible for net metering. It is SELCO's sole discretion as to whether a net metering arrangement will be allowed. Proposed system size, service type and building load may all be reviewed.

WHAT ARE THE SYSTEM TECHNICAL REQUIREMENTS?

A net metering system used by a homeowner or business must include, at the customer's own expense, all equipment necessary to meet applicable safety, power quality, and interconnection requirements established by the National Electrical Code (NEC), National Electrical Safety Code (NESC), the institute of Electrical and Electronics Engineers (IEEE), the Underwriters Laboratories (UL), and any applicable state and local agencies.

These Interconnection Standards are listed in SELCO's Net Metering Policy in the appendix. SELCO may request a system test before you connect to the electric grid.

HELPFUL CHECKLIST

APPLY FOR INTERCONNECTION:

- Have your solar contractor prepare an Interconnection Application to include:
 - System details, sizing and inverter specification information (spec sheets)
 - Contact information for the electrician
 - One-line electrical diagram of the installation as proposed
 - Minimum Technical Requirements supporting documents (if participating in our rebate program)
 - Reach out with any questions about the Interconnection Application by calling our Integrated Resources Analyst at **508-841-8313** or email pcollins@shrewsburyma.gov.

THEN WAIT FOR:

- Approval to proceed - all communication will be electronic through the online application
- Local permits as required - your contractor/installer must apply for all required local permits including the wiring/electrical permit and building permit.

INSTALL:

- Construction completed and system is ready for operation.
- Local inspections completed and passed including wiring/electrical inspection.

ACTIVATE:

- SELCO has inspected the installation and installed a bidirectional meter (if not previously installed).
- SELCO has signed the Certificate of Completion & provided a copy to you for your records.
- System activated and generating power.

ONGOING RESPONSIBILITIES:

- Any planned changes to your system require that you notify SELCO at least 30 days prior to the work being performed. This includes any increase in the power rating.
- A change in ownership requires that you notify SELCO in advance and the new owner must sign an agreement for continuing operation of the system.



APPENDIX

The Following Policies & Applications are available on our website under [SELCO.ShrewsburyMA.Gov/Solar](https://www.selco.org/shrewsburyma.gov/solar)

- SELCO Policy 3.19 Customer Owned Generation (Residential)
- Simplified Process Interconnection Application & Service Agreement
- Terms & Conditions for Simplified Process Interconnections
- Certificate of Completion for Simplified Process Interconnections
- SELCO Energy Conservation Loan Application

