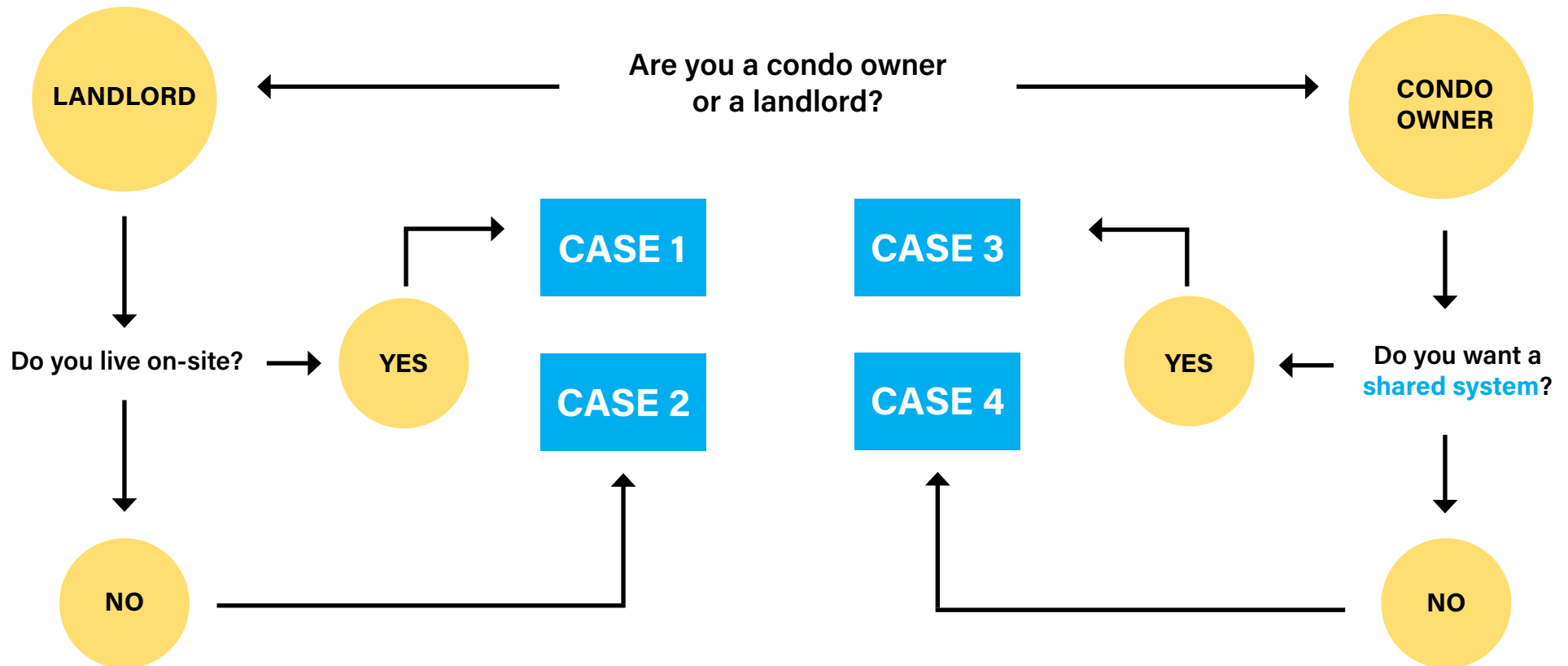


# solar flowchart

A TOOL TO HELP YOU FIND YOUR PATH TO SOLAR



This flowchart is meant to assist landlords and condominium owners with the solar energy decision-making process. Before installing solar on the roof of your multifamily building, follow the flowchart and click on a case number to discover your next steps.



Terms highlighted in **bold, blue letters** throughout this guide are defined in the Glossary of Key Solar Terms, where you will also find links to more educational resources.

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## CASE #1: ON-SITE MULTIFAMILY LANDLORDS

In Case #1, the landlord is the only decision-maker for the building and has full discretion to install a solar energy system on the roof. The landlord lives in one of the units and is financially responsible for that unit's independent electric meter.

*Here are the next steps for landlords living on-site:*

1. Work with an installer to size the solar energy system based on the available roof space.  
*Any excess credits could be transferred or sold through a program like **MySunBuddy**.*
2. Once you have an executed installation contract, your installer will apply for the **SMART Program** on your behalf.
3. Install a **behind-the-meter solar energy system** and interconnect it to your unit's electric meter.
4. When the system is finished, your installer will notify the **MA DOER** so you can begin receiving **SMART incentive payments**.
5. Consult a tax professional when filing with the IRS for the **Federal Investment Tax Credit** (30% in 2019, 26% in 2020) and with the MA DOR for the **state tax credit** (15%, capped at \$1,000).
6. Financing Options: Cash Purchase, **Mass Solar Loan**, Home Equity Loan, Power Purchase Agreement (**PPA**)

## CASE #2: OFF-SITE MULTIFAMILY LANDLORDS

In Case #2, the landlord is the only decision-maker for the building and has full discretion to install a solar energy system on the roof. The landlord does not live in one of the units. The landlord has two options: to interconnect the system to a common meter or to have a new service set up by Eversource for the system.

*Here are the next steps for landlords living off-site:*

1. Work with installer to size the solar energy system based on the available roof space.  
*Any excess credits could be transferred or sold through a program like **MySunBuddy**.*
2. Once you have an executed installation contract, your installer will apply for the **SMART Program** on your behalf. You can choose whether to have the **incentive payment** as direct deposit or by check.
3. Install a **behind-the-meter solar energy system** and interconnect it to a common electric meter for which the landlord is financially responsible.  
*Alternatively, the landlord could have a new service set up for a **standalone solar energy system**. The installer should apply for a new meter during the interconnection application process with Eversource.*
4. Complete a SMART **Payment / Credit Form** and/or a **Schedule Z** to allocate excess **net metering** credits or let them roll over each month.

5. When the system is finished, your installer will notify the **MA DOER** so you can begin receiving SMART incentive payments.
6. Consult a tax professional when filing with the IRS for the **Federal Investment Tax Credit** (30% in 2019, 26% in 2020). Because you do not occupy a unit in this multifamily home, you may not be able to claim the ITC as a *personal* tax credit.  
*Ask a tax professional if this building is considered to be a "home," as defined by the IRS in Form 5695. Ask if you could be eligible for the federal *business* ITC instead.*
7. An off-site landlord may not be eligible for the **state tax credit** (15%, capped at \$1,000) because the multifamily home is not considered to be the landlord's "Principal Residence."
8. Financing Options: Cash Purchase, **Mass Solar Loan**, Home Equity Loan, Power Purchase Agreement (**PPA**)



## CASE #3: CONDO ASSOCIATION OWNERSHIP

In Case #3, the condominium association has agreed to install and own a solar energy system. The association has two options: to interconnect the system to a common meter or to have a new electric service set up by Eversource for a standalone system. The association would receive all benefits.

*Here are the next steps for a system owned by a condominium association:*

1. Review the Master Deed and/or condominium documents to determine roof ownership.

If the roof is designated as common space, add a description of the solar energy system to the list of common elements in the Master Deed.

If a single unit has exclusive rights to the roof, create an **easement** to allow the condominium association to install and own the solar energy system.
2. Work with the installer to size the solar energy system based on the available roof space.

Any excess credits could be transferred or sold through a program like **MySunBuddy**.
3. Once you have an executed installation contract, your installer will apply for the **SMART Program** on behalf of the condominium association.
4. Install a **behind-the-meter solar energy system** and interconnect it to a common electric meter for which the association is financially responsible.

Alternatively, the association could have a new service set up and interconnect a **standalone solar energy system**. The installer should apply for a new meter during the interconnection application process with Eversource.
5. Complete a SMART **Payment / Credit Form** and choose whether to have the **incentive payment** as direct deposit into the association's bank account or by check. Complete a **Schedule Z** to send excess **net metering** credits to each unit's electric account based on the owner's share in the association.
6. When the system is finished, your installer will notify the **MA DOER** so you can begin receiving SMART incentive payments.
7. Consult a tax professional when filing with the IRS for the **Federal Investment Tax Credit** (30% in 2019, 26% in 2020) and with the MA DOR for the **state tax credit** (15%, capped at \$1,000).

**NOTE:** Each unit owner would file for their respective portion of the Federal ITC and with the MA DOR for the state tax credit.
8. Financing Options: Cash Purchase, **Mass Solar Loan**, Home Equity Loan

## CASE #4: SEPARATE SYSTEM OWNERSHIP

In Case #4, one or multiple condominium unit owners are interested in owning a solar energy system. The owners would like to install separate systems on the roof of the condominium. System benefits would be independently accrued.

*Here are the next steps for separate systems owned by individual unit owners:*

1. Determine the roof rights of the building. Develop an **easement** between the condominium association (or roof owner) and any participating unit owner(s) to allow for the installation and ownership of separate rooftop solar energy systems.
2. Once you have executed installation contracts, your installer will submit separate **SMART Program** applications on behalf of each participating unit owner.
3. Work with your installer to size the solar energy systems based on the available roof space. For separate systems, the recommended minimum size is 2 kW.
4. Install a separate, **behind-the-meter solar energy system** for each participating unit owner. Each system should be interconnected to the respective unit's electric meter.
5. Talk to your installer about applying for a **net metering** "blanket exception," so all system owners can receive net metering credits.
6. When the system is finished, your installer will notify the **MA DOER** so you can begin receiving SMART **incentive payments**.
7. Consult a tax professional when filing with the IRS for the **Federal Investment Tax Credit** (30% in 2019, 26% in 2020) and with the MA DOR for the **state tax credit**. (15%, capped at \$1,000).
8. Financing Options: Cash Purchase, **Mass Solar Loan**

Any excess credits could be transferred or sold through a program like **MySunBuddy**.

4. Install a separate, **behind-the-meter solar energy system** for each participating unit owner. Each system should be interconnected to the respective unit's electric meter.

## GLOSSARY OF KEY SOLAR TERMS

**BEHIND-THE-METER (BTM) SOLAR ENERGY SYSTEM** | A BTM solar energy system is interconnected to an existing electric meter that serves an on-site electricity load. The solar energy will directly reduce the electricity usage of that electric account. BTM system owners receive SMART compensation through both electricity savings on their bill and monthly cash incentive payments based on the system's total kWh production. If a system over produces in a billing cycle, it will receive **net metering** credits.

**COMMUNITY SHARED SOLAR (CSS)** | CSS is a cooperative solar model that offers an alternative for those who cannot install solar on their own property. A CSS project is hosted by an entity with a suitable roof or parcel of land. The project is supported by multiple participants, who either invest in the project's development, purchase the electricity, and/or purchase the on-bill credits generated by the solar energy. Check out the EnergySage's current community solar promotions for Massachusetts residents.

**EASEMENT** | In order for condominium owners to install solar energy on their roof, the owners may need to develop an easement between the the roof owner and participating system owners to transfer certain roof access rights. Click here to search for Master Deeds on the Massachusetts Land Records website.

**FEDERAL INVESTMENT TAX CREDIT (ITC)** | A taxpayer may claim a 30 percent tax credit for solar energy systems placed in service by the end of 2019 (before 1/1/2020). The tax credit is on a declining plan, which means it will be reduced to 26 percent after 12/31/2019 and before 1/1/2021, then 22 percent after 12/31/2020 and before 1/1/2022. For residential systems, this credit is called the Residential Renewable Energy Federal Tax Credit. For commercial systems, this credit is called the Business Energy Investment Tax Credit.

**INCENTIVE PAYMENT** | One portion of the SMART Program's total compensation will be delivered to the customer as a cash incentive payment from the utility. Using the Payment/Credit Form, the customer can choose whether the incentive payment is mailed as a check or directly deposited into a bank account.

**MA DOER** | The Massachusetts Department of Energy Resources is the state agency responsible for the development of the SMART Program.

**MASS SOLAR LOAN** | This program pairs \$30 million in MassCEC and DOER funding with traditional financing from qualified Massachusetts lenders to support loans between \$3,000 and \$35,000 with low, fixed interest rates. Some lenders offer up to \$60,000. Individual condominiums, townhomes (with HOA approval), or multifamily buildings of 2-4 units are all eligible to participate in this program. Condominiums of five or more units may participate if established as a Community Shared Solar (CSS) project. Email the MassCEC at [solarloan@masscec.com](mailto:solarloan@masscec.com) for more information.

**NET METERING** | When your solar energy system produces more kilowatt hours (kWh) than your building's energy consumption within a billing cycle, the excess electricity is fed back to the main electric grid. Net metering requires a special bidirectional meter that tracks both electricity usage and generation. This allows the utility to compensate you with monetized credit on your electric bill for the excess power that your system contributes to the grid. A bi-directional meter will be installed as a part of your solar project.

Massachusetts' Net Metering Program, which allows system owners to be credited by the utility for any excess solar generation produced in a month, is separate from the **SMART Program**. Net metering credits could be transferred to another electric account in the same load zone with a **Schedule Z** form or sold through a program like MySunBuddy. Eversource will not allow customers to "cash out" net metering credits. Since Net Metering is offered for 25 years and SMART ends after 10 years, customers should also sign up for the Net Metering Program. If the system owners in a multifamily home are planning to install separate systems on a single parcel/rooftop, then the customer will need to apply for a net metering blanket exception.

**PAYMENT/CREDIT FORM** | A form will be provided by your utility, Eversource, that allows the system owner to allocate the excess alternative on-bill credits to other electric accounts in the Eversource East service territory in Massachusetts. The installer would specify the system owner's preferred incentive payment option during the application process (e.g. check in the mail or electronic wire transfer). Note: If the customer is net metering, credit allocation is limited to load zone.

**POWER PURCHASE AGREEMENT (PPA)** | Under a residential solar PPA, a solar finance company buys, installs, and maintains a solar system on a homeowner's property. The homeowner purchases the energy generated by the system on a per-kilowatt-hour basis through a long-term contract at rates competitive with the local retail electricity rate. This allows the homeowner to use solar energy at a prescribed per-kilowatt-hour rate while avoiding the upfront cost of the solar system and steering clear of system operations and maintenance responsibilities. Ideally, a homeowner's PPA per-kilowatt-hour payments will be less than the retail electricity rate. (This description was taken from the MA DOER's Guide to Solar Leases, Loans and PPAs.) Considering all of the incentives offered to solar customers at this time, it is more lucrative for customers to own the system themselves.



**SCHEDULE Z FORM** | A form provided by your utility, Eversource, that allows the system owner to allocate excess net metering credits to other electric accounts within the same ISO-NE load zone. Note: Net metering credits are subject to more transfer restrictions than are stated for the SMART program. This form is separate from the Payment/Credit Form mentioned above.

**SHARED SYSTEM** | A solar energy system that is interconnected behind one meter, but benefits multiple units. For example, condominium owners may want to install one shared system for the Condominium Association.

**SMART PROGRAM** | Solar Massachusetts Renewable Target (SMART) is the new state incentive program (225 CMR 20.00). Residential solar customers in Cambridge will receive a compensation rate for a 10-year term. The SMART Program is now accepting applications on a first come, first served basis. As the amount of installed solar capacity increases in Massachusetts, the compensation for system owners decreases by four percent. For the most up-to-date information on SMART compensation rates, visit [masmartsolar.com](http://masmartsolar.com).

SMART compensation is realized through electricity savings and a cash incentive payment based on the system's production each month. If the customer connects the system to his/her meter, the customer will save money behind-the-meter each month and receive a monthly cash incentive payment for the total solar energy production. If the customer chooses to install a standalone system and connect it to a new meter, the customer will receive on-bill credits worth the value of energy and receive a monthly cash incentive payment for the total solar energy production.

*Declining SMART Rates for Capacity Blocks in Eversource East (\$/kWh)*

System Type	Term	Block 1	Block 2	Block 3	Block 4	Block 5	Block 6	Block 7	Block 8
Low Income ≤ 25kW	10 Years	\$0.3910	\$0.3754	\$0.3604	\$0.3459	\$0.3321	\$0.3188	\$0.3061	\$0.2938
Standard ≤ 25 kW	10 Years	\$0.3400	\$0.3264	\$0.3133	\$0.3008	\$0.2887	\$0.2772	\$0.2661	\$0.2555

**STANDALONE SOLAR ENERGY SYSTEM** | A standalone system is interconnected in front of the meter, which means that all of the electricity generated by the solar energy system is being fed into the main electric grid. The solar energy is not consumed on-site. Standalone system owners receive SMART compensation through both on-bill credits (based on the value of energy) and monthly cash incentive payments (based on the system's total kWh production).

**STATE TAX CREDIT** | The Massachusetts Residential Energy Credit offers system owners a personal income tax credit for 15 percent of the total solar energy system cost, which is capped at \$1,000. Speak to a tax professional if multiple unit owners are interested in claiming the state tax credit for a shared system.