Solar Panels - Solar Electricity

If your roof is good for solar panels,
they help "green the grid" and can save you money

In Massachusetts, photovoltaic ("PV") solar panels have recently paid for themselves in 5-10 years if they are installed in a location with a good solar exposure. They can last for 20-30 years, usually with little or no maintenance required, so for many people solar panels have been a good financial investment.

The Inflation Reduction Act included a 30% federal tax credit for solar panels, which was planned to end in 2032. The federal tax/budget bill enacted in July 2025 changed this expiration date to December 31, 2025. **Solar panels must be installed and paid for by this date to receive the federal tax credit.** The finances of solar panels will not be as good without the federal tax credit, but they may still be cost-effective if you have a good roof for them.

Two Key Questions

1. **Is your roof less than 10 years old?** The financial benefits from solar panels come after the pay-off period, so you may want to replace an older roof before installing solar panels on it. It is possible to remove and re-install solar panels, but it costs several hundred dollars per panel.
2. **Does your roof have a good solar exposure?** To evaluate your roof, look up your address on Project Sunroof: sunroof.withgoogle.com

A section of roof that looks **yellow** is great for solar panels

If your roof looks **brown**, use your money (and the earth's resources) in other ways

If it looks **orange**, you can go either way, depending on your preferences

Don't pay much attention to the numbers on the Project Sunroof website, since they are based on out-of-date data. The satellite images, however, are from a few years ago and generally reliable unless you know something has changed near your home.

We do not encourage removing trees for the purpose of installing solar panels. Trees help keep your home and Arlington cooler as our summers get hotter, and mature trees store a lot of carbon.

Community Solar

If your roof isn't good for solar panels, you may be able to reduce your electricity bills through community solar (buying a share in a solar farm). Learn more at tinyurl.com/MassCEC-CommunitySolar.

The default plan for Arlington Community Electricity (ACE) provides 100% renewable electricity, so it's perfectly fine to just stay with ACE if climate change is the primary reason you're interested in solar panels. Learn more at ace.arlingtonma.gov.

Solar Panel Financial Incentives

There are currently four financial incentives for solar panels:

1. Federal tax credit: 30% of cost, with no cap. **This tax credit is available only for homeowners, not for rental properties, and the solar panels must be installed and paid for by December 31, 2025.** The 25D tax credit previously could be carried over to future years if a taxpayer couldn't use it all in one year, and it looks like this is still true, but it's prudent to consult with a tax professional before counting on the carry-over provision.
2. State tax credit: 15%, up to $1,000. This tax credit is available only for homeowners, not for rental properties.
3. Net metering: Eversource gives you credits for electricity generated by the solar panels, and these credits pay for your electricity usage during the darker months of the year.
4. SMART payments: Massachusetts's SMART program has existed for many years, and the state is renewing it in response to the cuts in federal tax credits. SMART 3.0 incentives will probably be a lot larger than the current SMART 2.0 incentives (which intentionally declined over time and are now quite small). The details may change, but the current plan is that applications for SMART 3.0 payments will open on October 15, 2025, for solar projects that began on-site construction after June 20, 2025 (July 1, 2024, for low-income properties). Solar installations that began construction before June 20, 2025, are eligible for SMART 2.0 incentives. Learn more at tinyurl.com/SMART-3-details.

The state has also been preparing to launch its "Solar for All" program, which would provide financing for solar panels for low-income households, including public and private owners of affordable housing. Participants would receive a minimum of 20% savings on average electric bills. The federal government announced on August 7, 2025, that it is clawing back all Solar for All grants. Lawsuits have been filed, and at some point the courts will determine whether this program can continue.

Paying for Solar Panels

People usually pay for solar panels in one of four ways:

1. Pay out of pocket.
2. Use a loan from the installer or a bank. (Massachusetts used to offer low-interest loans for solar panels, but this program has ended. The Solar for All program may or may not provide financing for low-income households in the future.)
3. Sign a lease with a solar panels company. The company will own the solar panels on your roof. You will pay them a fixed monthly payment, which will probably go up each year. After some number of years, you may own the solar panel system outright, depending on the terms of the lease.
4. Sign a power purchase agreement ("PPA") with a solar panels company. The company will own the solar panels on your roof. You will pay them a variable monthly payment, depending on the amount of electricity your solar panels produce that month. After some number of years, you may own the solar panel system outright, depending on the terms of the lease.

In general, purchasing panels yourself has been more cost-effective than a lease or PPA, where you share the financial benefits of the solar panels with a for-profit company.

This comparison may shift, however, in 2026, with the end of the federal tax credit for homeowners. The 2025 federal tax/budget bill extended the 30% 48E federal tax credit for commercial solar installations to projects that begin construction before July 4, 2026, or are connected to the grid by the end of 2027. This tax credit may be conditional on upcoming regulations on the source of equipment and materials, but it may reduce the relative cost of leases and PPAs.

If you enter a lease or a PPA, make sure the contract allows you to pay it off if you sell your home. In Massachusetts, a home with solar panels sells for an average of 0.8% more than similar homes without solar panels, which in Arlington translates to an average of around $8,000. Many buyers and their attorneys are, however, reluctant to take over a solar panels contract, so a continuing lease or PPA will probably reduce your pool of potential buyers.

Finding Installers

It is prudent to get quotes from at least three installers, since prices, equipment, and contract terms can vary. Also, search online for reviews of any installer you are considering.

You can search for local installers of solar panels and other green technologies on the Massachusetts Clean Energy Center (MassCEC) website: goclean.masscec.com/installers

You can use the EnergySage website to anonymously request quotes from installers without giving them your contact information. The website will provide a basic analysis of each quote, and you will be connected with an Energy Advisor – a human being who can answer questions. The EnergySage website also has a lot of helpful written information, including articles about solar panel finances, residential batteries, and choosing between different kinds of inverters. Learn more here: www.energysage.com.

Maintenance Notes

Solar panels usually perform well for many years without any maintenance needs.

One of the most common reasons for a maintenance call is squirrel damage. If you sometimes have squirrels on your roof, talk with your installer about "critter guards" around the panels. You may also want to trim back branches that provide easy access to your roof, both to discourage squirrels and to reduce the risk of damage from a falling branch.

Solar panels' output will decrease a lot when they are covered with snow. Do not attempt to remove the snow yourself, as a shovel or brush may damage the panels. Solar panels are dark and slippery and the snow will fall off them relatively soon if they are installed at a slant.

The panels' output gradually decreases over the years, but this change is slow – generally around 0.5% per year. If your panels suddenly produce less electricity and it's not because of snow or clouds, talk with your installer.

Learn more on the MassCEC website: tinyurl.com/MassCEC-SolarPV

Questions? Email Arlington's Energy Advocate: ElectrifyArlington@town.Arlington.ma.us