

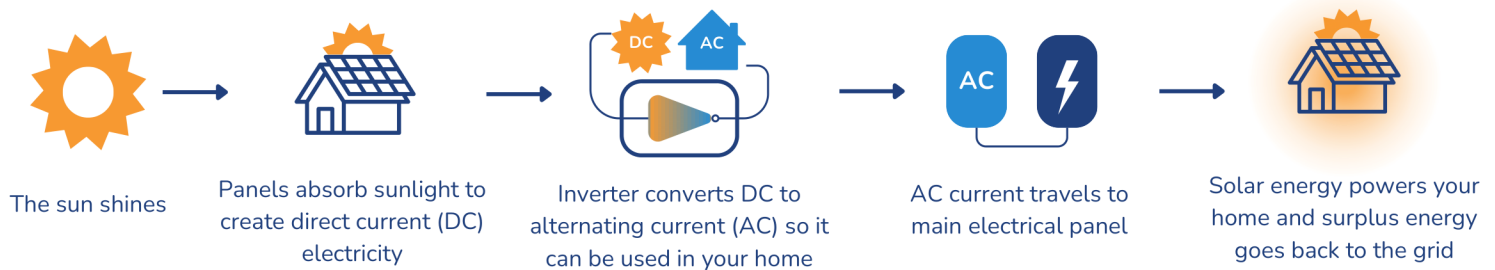
SOLAR POWER 101



You want to go solar but have some questions? We've got answers! Our handy guide will explain the benefit, the costs, incentives, and resources available to help you make the **switch to solar**.

How does solar work?

Solar panels give you access to a **renewable source of energy: the sun**. Your solar panels will generate electricity for you, meaning you can **save money** on your electricity bills and **reduce your carbon footprint** by using the energy you generate.



Is solar right for my home?

Ideally, you should have a south-facing roof that gets plenty of sunlight. The **more sunlight the panels collect, the more electricity you generate**. If your roof faces east or west, it is still possible to go solar, but the panels may produce less energy (as low as 75% of a south-facing roof). The portions of the roof that will be covered by solar panels should also be free of shade, most of the day. Trees, chimneys, dormers and HVAC equipment can cause shading.

Will I need to replace my roof?

If your roof is more than 15 years old or you plan on replacing it soon, you may want to consider doing so before you install solar panels. Most solar vendors recommend using roofing materials that will last as long as the system, which is about **25 to 30 years**. Solar panels are not particularly heavy so it shouldn't damage the roof. A solar installer will consider the age, size and the structural soundness of the roof as part of their assessment.

Will I have electricity when the sun isn't shining (at night or during inclement weather) or when the neighborhood loses power?

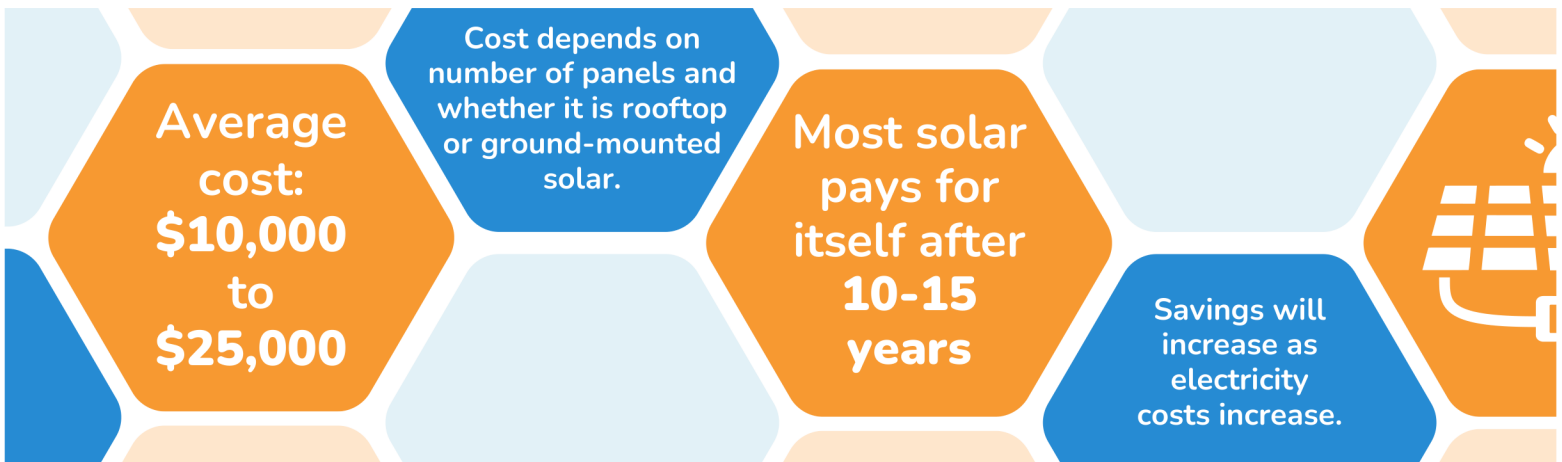
Solar panels are less efficient in inclement weather and do not generate electricity at night. Unless your system is equipped with battery storage, **you will still be reliant on the grid** (and experience outages when your neighborhood loses power). However, as most solar arrays are connected to the local power grid (grid-tied), because of something called "**net metering**," any excess energy generated during peak sun hours will be sent back to the grid and **credited to your bill**. This helps offset the cost of any grid energy you may use during non-peak sun hours.

Will my homeowners association (HOA) permit solar?

Virginia law states that **HOAs cannot outright ban solar power systems**, in most circumstances, but they can put “reasonable restrictions” on the size, place and manner of placement. As part of their Solarize program, the Local Energy Alliance Program (LEAP) provides homeowners and HOAs with guidance on Virginia’s solar laws. If you encounter resistance from your HOA, contact **LEAP or a group like Solar United Neighbors** to help you navigate the process.

What’s the lifetime of a solar panel and is regular maintenance required?

Solar panels usually have about a **25-year warranty** and are mostly maintenance free. You won’t need to get on the roof to clean them, as **rain and snow naturally clean them**. It is still a good idea to have your installer visually **inspect the panels every 3 to 5 years** to make sure everything is in good working order.



Is there a tax credit or other incentives?

There are federal tax credits available to homeowners through the Inflation Reduction Act, which allow you to deduct the cost of installing solar by **as much as 30%**. Nonprofit organizations who install solar may qualify for a direct pay reimbursement and bonus credits in some cases. Fairfax County also offers a tax **exemption on installation** of solar equipment and waives the permit fee.

What are solar group purchasing programs?

Group purchasing programs (also known as solar co-ops) help people go solar by providing free assessments, access to experienced installers, technical assistance, and a significant price discount. Two programs that are available to homeowners in Fairfax County are **Solarize Virginia** and **Capital Area Solar Switch**.



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Visit our website to find more resources and information on solar power:
<https://www.fairfaxcounty.gov/environment-energy-coordination/going-solar>

