FAQs OF ROOFTOP SOLAR

Review these frequently asked questions to learn about the many important considerations of a rooftop solar installation.

SUNLIGHT AND ENERGY PRODUCTION

Do I have a suitable space on my roof for optimal solar energy production?

- Consider the direction your roof faces, as well as any sunlight obstructions.
- A south-facing roof with minimal shading offers the greatest solar energy potential. Homes that face other directions will still produce solar energy, just not as much.
- Obstructions that block direct sunlight, such as trees or nearby structures, will limit solar energy production.

Is the condition of my roof sufficient for a rooftop solar installation?

Because of the potential long life of solar panels, your roof should be less than five years old to avoid costly removal or replacement of your panels during roof repairs. The cost to remove and reinstall a rooftop solar system can exceed $2,000.

How much solar energy do I need to generate?

Before deciding on a rooftop solar system, review your current electricity use, which can be provided by calling Carroll EMC at 770-832-3552. Understanding your home's average electricity use will help you and your solar installer size a rooftop solar system to best meet your electricity needs and financial objectives.

You should also consider energy efficiency improvements you can make to your home, such as using energy-saving LED light bulbs or installing a smart thermostat. Making your home more energy efficient will help reduce your electricity use while also lowering your electricity costs. As a result, you'll also reduce the size needed and total cost of a rooftop solar system.

SYSTEM COMPONENTS

What components are needed?

Rooftop solar systems consist of three main components:

1. The panels that collect the sunlight and convert it into electricity.
2. An inverter to change the direct current, which is produced by the solar panels, to alternating current, which is used in your home.
3. The support structure and wiring necessary to connect the panels and inverter to your home electric system.

Do I need battery storage with a rooftop solar system?

Some people choose to pair a rooftop solar installation with a battery storage system. This can be used to store energy generated by solar panels for use at night or as an emergency backup. However, despite declining prices, batteries are still relatively expensive. To ensure

an adequate return on your investment, you should consider your specific use case and electricity needs carefully before investing in a battery storage system.

COST

How much does a rooftop solar system cost?

The average rooftop solar system costs between $3,000 and $5,000 per kilowatt. Costs will vary depending on your available roof space, the condition of your roof and the direction your home faces. Refer to our **QUESTIONS TO ASK A SOLAR INSTALLER TIP SHEET** to help you evaluate proposals you receive.

Will rooftop solar eliminate my electric bill?

Unless you have a rooftop solar and battery storage system large enough to meet all of your electricity needs during every hour of the day, you'll need reliable electricity from Carroll EMC when solar is not available. While the amount of electricity you purchase from Carroll EMC may decrease, we will still be providing you with electricity at night and on cloudy days.

What return on investment can I expect?

Visit our website at CarrollEMC.com/solar to access our Rooftop Solar Assessment Tool. By answering a few short questions, the tool will generate an estimate of your solar generation potential, ongoing utility costs and estimated payback period for a rooftop solar system. While results are estimated and include a variety of assumptions, this tool can help provide awareness to the many important financial considerations of rooftop solar.

What ongoing maintenance is required?

In general, solar panels require little maintenance. However, just like other home appliances, routine inspections, monitoring and system cleanings are important to ensure that the panels are operating efficiently. On average, maintenance costs can exceed $100 per year. Additionally, some system components may need to be repaired or replaced over time.

Will homeowners insurance cover my solar panels?

Contact your insurance agent to see whether your policy covers a solar installation on your roof.

Are there any available tax credits for a rooftop solar installation?

You can find information about tax incentives at the Database of State Incentives for Renewable Energy. Contact your tax advisor to see if you qualify.

What financing options are available?

The four most common ways to purchase a rooftop solar system are:

1. Cash
2. Financing
3. Leasing
4. Power purchase agreement (PPA)

While an upfront cash payment eliminates financing fees, homeowners should factor in added costs to cover operations and maintenance over the life of the system. Loans or leases can reduce your upfront costs; however, you should be aware of the fine print in any agreements to ensure that you understand the total cost of ownership. Under a PPA, homeowners are buying the electricity from a third party and do not own any part of the solar system.

It is important to note that with leasing or a PPA, where the homeowner does not own the rooftop solar system, the homeowner cannot claim any state or federal tax incentives.

INTERCONNECTION

What agreements are required for a rooftop solar installation?

Before you install rooftop solar, it's important to complete Carroll EMC's interconnection agreement to ensure that your system meets safety and reliability requirements.

Additional agreements will depend on whether you are buying a system outright, leasing a system or using some other method. Make sure you check with your local building and zoning office to see what building code regulations apply. Consult with a reputable solar installer to learn more.

Should I remain tied in to Carroll EMC's electric grid?

Unless you have a rooftop solar and battery storage system large enough to meet all of your electricity needs during every hour of the day, Carroll EMC will still be providing you with electricity at night and on cloudy days. The use of battery storage can help meet your electricity needs; however, it will add a significant expense to your total system cost.

Will I receive credit for excess energy generated by my rooftop solar system?

Call us at 770-832-3552 to learn about Carroll EMC's buy-back policy and rate. While it's possible for your rooftop solar system to generate more electricity than your household used, it's typically not economical to invest in a larger system than you need.

SOLAR INSTALLERS

Where can I find a reputable rooftop solar installer?

The North American Board of Certified Energy Practitioners maintains a list of reputable and qualified solar installers. Visit www.nabcep.org to conduct a search.

What questions should I ask a rooftop solar installer?

Refer to our **QUESTIONS TO ASK A SOLAR INSTALLER TIP SHEET** for a comprehensive list of questions that will help guide your conversations and evaluate any rooftop solar proposals you receive.

At Carroll EMC, we know solar, and we can help you evaluate your solar energy options. Review the resources on our website at CarrollEMC.com/solar or call us at 770-832-3552.

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