# The Essential Home Solar Buying Guide

For the Colorado Front Range

Straightforward answers to the top 9 questions anyone interested in solar must ask

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# Will Solar Work for Me?

# How Many Solar Panels Do I Need?

The answer will depend on your energy usage and the characteristics of your roof. When you receive your customized design and quote for your home solar installation, it will include a measurement of the size of the system listed in kilowatts (kW). The labeled size of your system is determined by the number of solar panels in your array and how many watts each individual panel is rated for.

Reminder! 1000 watts = 1 kilowatt (kW)

For example, if you install a system with 18 panels using 400-watt solar panels, the system will be a 7.2 kW system. If the system used 350-watt solar panels, the same number of panels would make it a 6.3 kW system. That's what the kW label for your system refers to.

How much energy that system actually produces will be a function of the angle of your roof, the direction your roof faces, where you are in the country, weather, shading, and other characteristics. That means two homes with the same monthly energy bill may need differently sized solar energy systems based on these factors.

You can also consider potential changes to your future energy usage. Are you planning to purchase an electric vehicle? Do you plan on having children in the future? Or maybe you've had your eye on a hot tub and want to finally go for it. All these factors will change your future electric usage and may impact the size of the solar array you want on your home.



# Is My Roof a Good Fit for Solar?

There are six key factors to consider when determining if your roof will be a good fit for solar. These factors will impact the final design requirements and production potential of your residential solar system. A professional solar advisor will calculate how all these factors come together and show you the net result for your home.



**Orientation:** Which direction does your roof face? A south-facing roof is the best because it will allow the solar panels to collect the most sunlight throughout the day. An east-facing roof catches the morning sunshine and will provide plenty of production. A west-facing roof is also good because it maximizes energy production during peak energy hours.



**Shade:** The more exposed your roof is to sunlight throughout the day, the better. Take a look at trees, roof features, or other buildings that may shade your roof. You don't need 100% sun on your roof to make solar viable for your home, though.



**Size:** The size of your recommended solar panel array will depend on your energy needs, but you need some open roof space (or land, if applicable) to place a solar panel system. Do you have one large roof space or is your roof multi-faceted? These factors will affect the design of your system.



**Pitch:** What is the angle of your roof? The design and mounting equipment used on your roof will vary based on the pitch. Your solar advisor will take this into account when putting together your solar proposal.



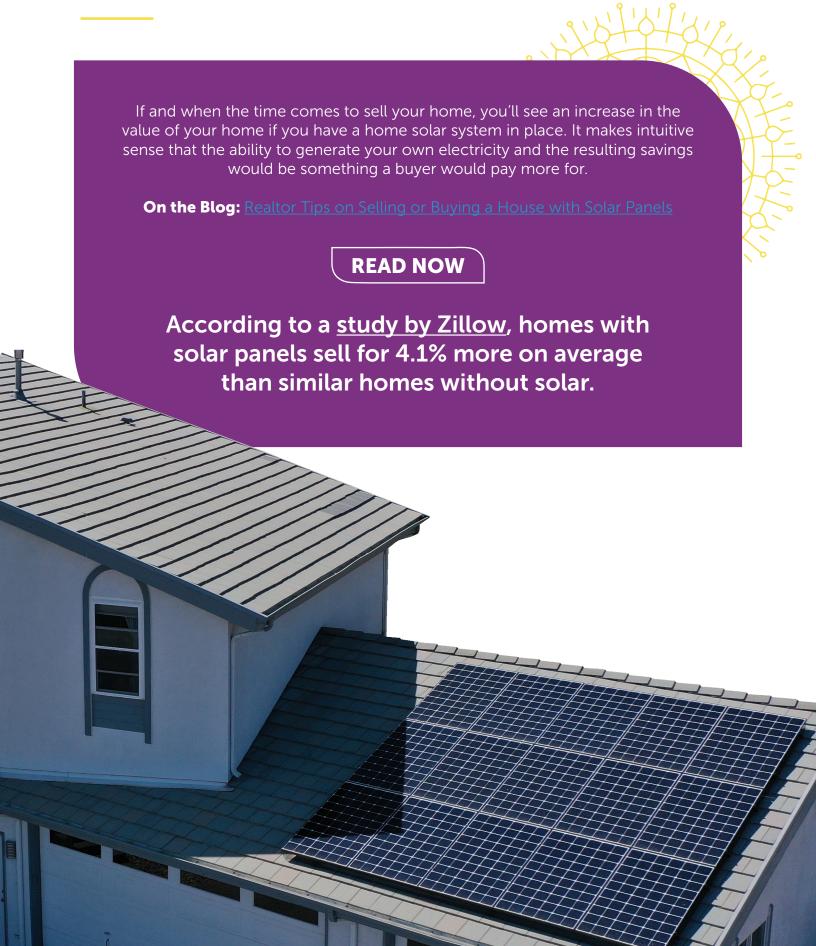
**Material:** What is your roof made of? Installation and mounting requirements will vary based on what materials (composite shingles, tiles, metal, etc.) were used for your roof. Traditional composite shingles are the most common roof surface, but a good solar installer can work with a variety of roof types.



**Age:** If you think you might need to replace your roof in the next 2-3 years, consider installing solar after the new roof is in. The cost to de-install and then re-install a solar panel system is reasonable, though, so you don't need a brand-new roof for your solar panels.

If your roof doesn't check off everything on this list, don't worry! Your roof doesn't have to be perfect to be a great candidate for solar.

# What if I Sell My House?



# Can I Afford Solar?

#### **How Much Does Solar Cost?**

The most heavily weighted factor in determining the cost of a solar panel system is the size of the system, which is measured in kilowatts (kW). A properly sized system will maximize your savings and return on investment (ROI). The average system size that we installed in 2021 was 7.75kW and the cost ranged from \$27k-\$32k before factoring in the federal tax credit.



#### **SAVE 30% OFF YOUR SOLAR SYSTEM!**

- The investment tax credit (ITC), also known as the federal solar tax credit, allows you to deduct 30% of the cost of installing a solar energy system from your federal taxes.
- The credit is 30% through 2032 and will then step down to 26% in 2033 and 22% in 2034.
- Curious about how much you can save on solar? Speak to one of our non-commissioned solar advisors.



# How Will I Pay for it?



#### **Cash Purchase**

When you pay for your system up front you will get all the benefits of solar now with direct savings on your electricity bill as soon as your system is turned on. Some installers, including Namaste Solar, also offer a discount for cash purchases.

#### **Solar Loan**

You can work with a solar lending partner or use your own financing options, like a home equity line of credit or financing from your own bank or credit union. Your fixed monthly payments will usually be comparable to your monthly electric bills, and there are zero-down options available.

#### Leasing

Some solar installers offer leasing options. The leasing company owns and maintains the panels and takes any rebates or tax incentives available for the system. Namaste Solar doesn't offer leasing because we don't think it's a good financial deal for customers.



# Will I Save Money?

Yes! As soon as your solar panels are installed and your system is turned on, you have an electricity-generating power plant of your very own on your roof. The electricity that you generate will offset some or all of your electricity bill.

The U.S. Energy Information Administration states that electricity prices have increased 1.8% per year for the past 25 years. Your home solar system will give you independence from rising and unpredictable energy costs.

These savings are your dividends on your solar investment. Over time the money you save will pay back your solar panel system investment.

# When Will the System Pay for Itself?

On average, homes on the Colorado Front Range see a payback period between 12-15 years. For some people it's sooner, others later – it depends on your energy usage and utility rates. You'll see more financial gain in a shorter amount of time if your household has high electricity use and higher utility rates.

#### Is Solar a Good Investment?

When people say that solar is an investment in the future they are often talking about the environmental benefits of clean energy, but home solar is also a smart investment for your financial future.

Consider that a typical payback period for home solar of around 12 years is roughly the equivalent of an 8.3% annual return on investment.

This compares favorably to returns on other common investments like intermediate term bond funds, which at the time of this writing are yielding around 2.4%, or the S&P 500 index, which is a risker and more volatile investment.

Add this on top of the other benefits of solar, and the case for solar as a smart investment looks even better.



**Note:** We are solar advisors, not financial advisors. Even though we're pretty good with numbers, you should still check with your financial advisor when planning your investment portfolio.

# I'm Ready. Now What?



Once you're ready to see the specifics of solar for your home, it's time to talk to your local solar company. During the initial consultation, your home solar advisor will discuss your solar goals, and ask for your last 12 months of electric usage in kilowatt hours (kWh). This information will allow them to put together the best design for your needs.

The next step is for your solar advisor to virtually inspect your roof using high resolution satellite imagery and 3D modeling software. The solar advisor will walk you through your solar proposal to make sure everything makes sense and looks right. This is the best time for you to ask more specific and detailed questions.



The initial consultation will cover solar basics for your home.



Schedule a virtual site visit to finalize your proposal and answer any questions.



Your local installer will do the rest so you can start saving with the sun!

# Request a Free Quote

Do you have additional questions? <u>Have a no-pressure conversation with one of Namaste Solar's non-commissioned advisors</u> to get your questions answered.

Reach out to 303-443-0611 or freequote@namastesolar.com.

