# The Essential Home Solar Buying Guide



For the Colorado Front Range

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

Presented by Namaste Solar, Colorado's top-rated solar company since 2005



# 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.

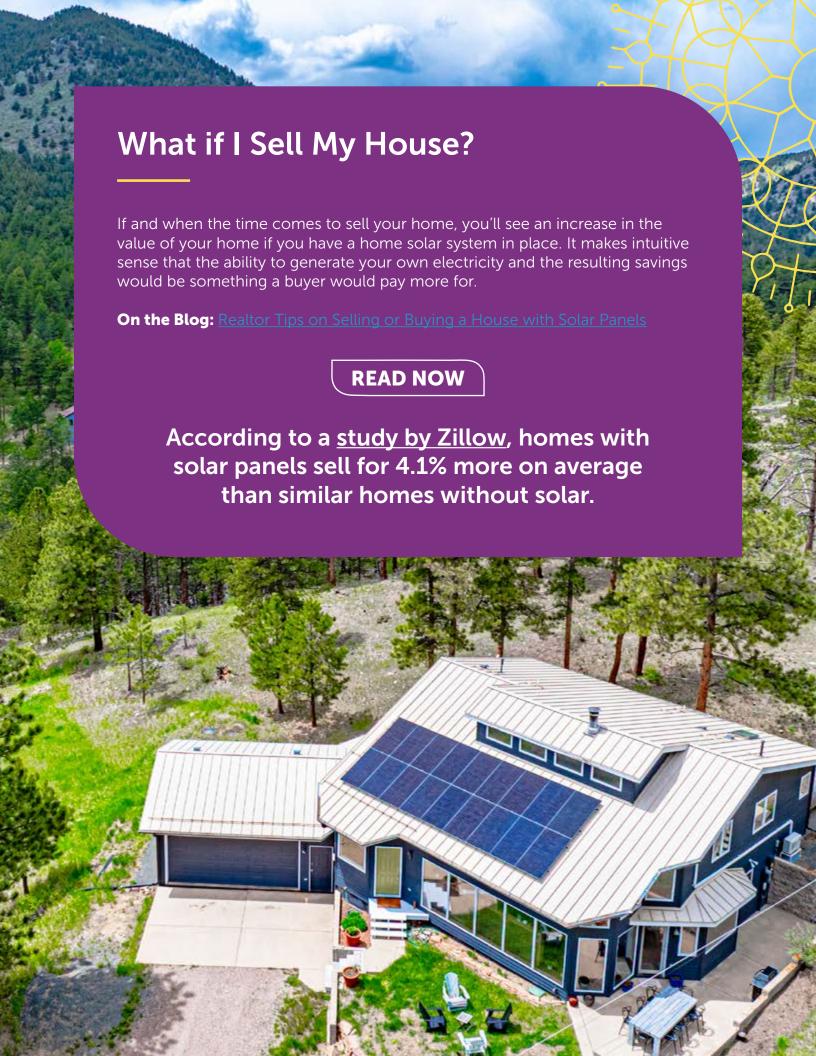


**Material:** What is your roof made of? Installation and mounting requirements will vary based on what materials (composite shingles, tiles, metal, etc.) were used for your roof. Traditional composite shingles are the most common roof surface, but a good solar installer can work with a variety of roof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



### Can I Afford Solar?

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

Home solar panel installation costs range from \$20,000 to \$50,000 on average depending on how much electricity you use, your future electrification goals, and other factors. 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).



#### **Long-Term Value with Solar**

- Solar allows you to lock in your electricity cost, insulating you from rising electricity prices. Instead of paying the utility, you'll be putting those savings back in your pocket.
- Solar offers a reliable, long-term return on investment that often beats the stock market and the savings are tax free.
- Think of solar like buying in your energy in bulk. Each year electricity prices go up, but with solar, you've locked in lower costs.





#### **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.



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

Your home solar system will give you independence from rising and unpredictable energy costs.

#### 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.

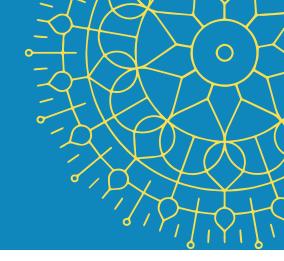
This compares favorably to returns on other common investments or the S&P 500 index, which is a risker and more volatile investment. Plus, these returns are post-tax unlike many investments.

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.

## BATTERY BACKUP



# Increase your home's resilience with the latest in home battery backup solutions.

When you combine solar energy with a home battery backup system, your solar panels charge the battery during the day. Your battery then powers your essentials when the sun is down or acts as a seamless backup even when the power grid is down. Home battery backups increase the resiliency of your home, can further reduce your utility bill, and put you on a path toward a zero-emissions home.

## Take advantage of incentives for home battery installation

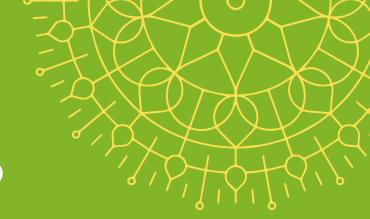
Our team has closely monitored, researched, and tested the major home battery backup manufacturer offerings to bring you the most reliable and cost-effective energy storage solutions. Namaste Solar currently offers the Enphase 5P and the Tesla Powerwall 3 batteries. Learn more about each of these home battery backup solutions below.

The price of home battery systems is based on how many batteries you want to install. You'll need to consider which appliances you want to operate and how many hours you want to operate them, without recharging the system from the sun. Namaste Solar also offers zero-down, low-interest financing.

Our team of non-commissioned advisors can review options with you and help you figure out which type of system will best fit your needs. As always, a quote from Namaste Solar comes with no-pressure, and we'll do our best to answer all your questions.

**REACH OUT** 

# I'm Ready. Now What?



Once you're ready to see the specifics of solar for your home, it's time to talk to Namaste Solar, your best rated 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.



Namaste Solar's team 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.



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