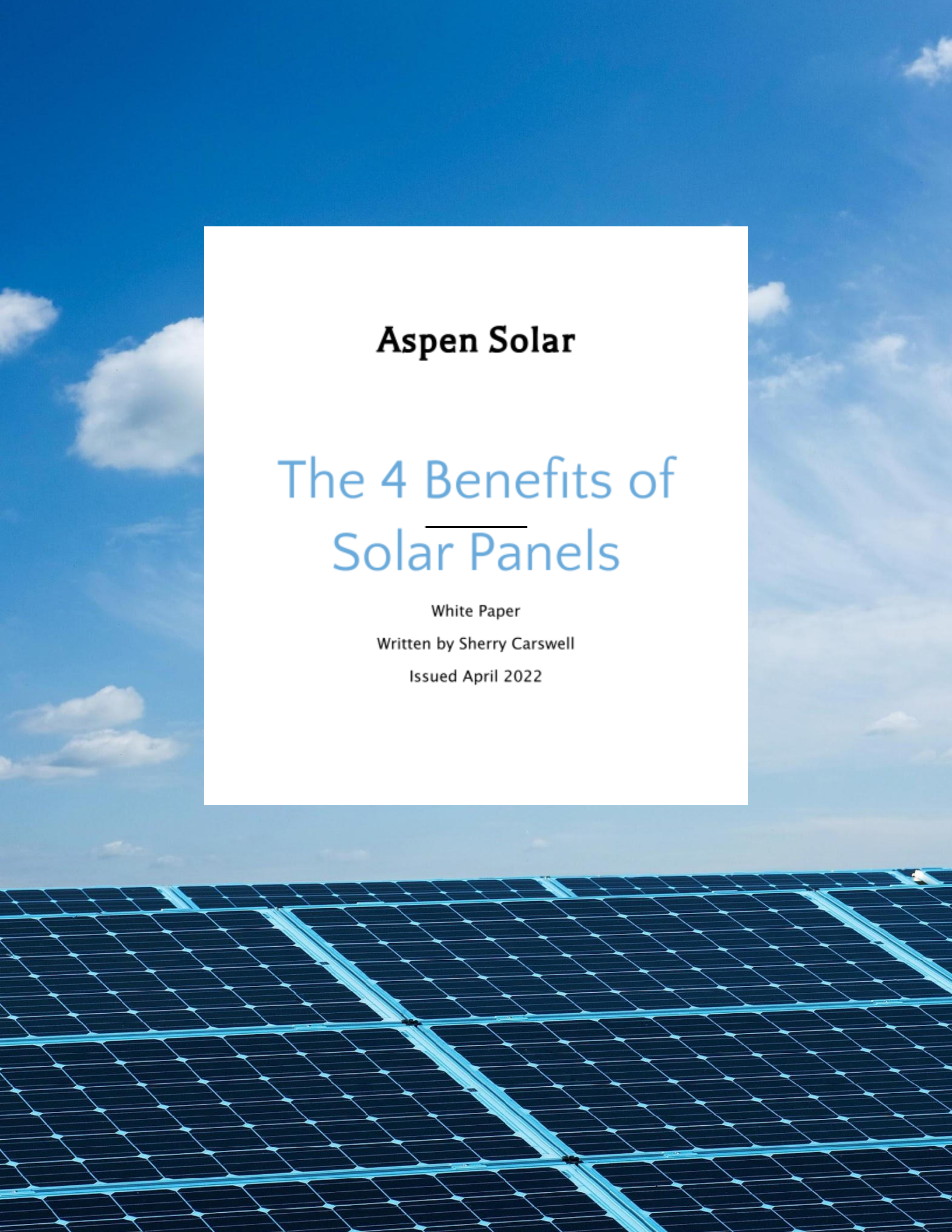




Aspen Solar

The 4 Benefits of --- Solar Panels

White Paper

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Table of Contents

Overview.....	2
1. Increase your Savings.....	3
2. Help the Environment.....	4
3. Increase your Home's Value.....	5
4. Earn Tax Credits & Rebates.....	6

Overview

Looking for an affordable way to power your home? Solar panels will provide you the benefits you need at the fraction of the cost compared to nonrenewable energy such as gas and coal. This white paper will go over the **4** major benefits that you can receive when going solar for your home.



Aspen Solar

“Put it where the Sun
‘does’ shine”

1. Increase your Savings

Energy could cost you thousands of dollars annually, including those who may have transportation like a car. Solar power can reduce these costs, resulting in long-term savings. You can easily lower monthly utility bills with low risks for your investment. In fact, this is the main appeal for those who are looking to invest in a solar panel system.

The average home can save between **\$10,000** and **\$30,000** during the solar panel's lifetime.¹ Not only does the amount of sunlight you receive daily, and the angle of your roof is important, the most influential factor to save you money are the local electricity rates. A common misconception about solar panels is that your electric bill will diminish entirely.



Although you'll still receive an electric bill if you remain grid-connected, there are policies that allow you to still save tons of money on your electric bill. Net metering allows for you to receive credits on your electric bill whenever your solar panels produce energy that you don't immediately use. This is sent to the grid in exchange for the credits mentioned before, allowing you to draw energy from the grid at night and not pay extra if you draw back the same or less amount you provided to the grid.¹

¹ How Much Do Solar Panels Save. 2019.
<https://news.energysage.com/much-solar-panels-save/>

2. Help the Environment

When installing solar panels, not only do you save money, but you also help reduce greenhouse gas emissions. Traditional electricity uses nonrenewable energy such as coal and natural gas. These energy plants are the primary cause of air and water pollution and global climate change because of the harmful gases they emit.

Additionally, nonrenewable energy such as nuclear power, coal, and natural gases could constantly fluctuate in price and the costs will increase over time. ²

Despite the small improvements in power plants, they continue to use large amounts of water as demand grows due to large populations and drought-prone regions. Solar panels can produce power during a drought because they don't require water to generate electricity.

“These plants produce about 84% of U.S. electricity at the cost of about **30 trillion gallons** of water per year.”³



² Top Four Benefits of Installing Solar Panels on Your Home. 2017.
<https://www.usgbc.org/articles/top-four-benefits-installing-solar-panels-your-home>

³ Non-renewable Energy's Other Environmental Problem: Water Waste
<https://www.axios.com/non-renewable-energys-other-environmental-problem-water-waste-cd516770-1518-4a55-8d9f-6bb10b4cb7f7.html>

3. Increase your Home's Value

Solar panels are a great way to improve your home's resale value. With a solar panel system installed, most homeowners could potentially see a resale value of nearly **\$18,000**.⁴ Similarly to a newly renovated kitchen or bathroom, the investment can likely increase your value.

Solar panels have a limited lifetime of about 20 years which is common for any home improvement. However, **Zillow** noted that this is like other attributes of a home such as HVAC systems that need to be replaced after about 10-15 years, but people will still value having air conditioning.⁵

Also, solar panels do not require much maintenance because of this. The price for cleaning usually costs between **\$150** and **\$330** as done on a needed basis.⁶

Ensuring that cleaning and other needed maintenance for your solar panels such as wiring, you'll be making a better return on your home. The National Renewable Energy Laboratory (NREL) found that every dollar saved on solar energy increases your home value by **\$20**.



Additional positives homeowners can benefit from solar panel systems:

- An energy-efficient home
- Extended life of your roof
- Property tax exemptions
- Savings for utility bills
- Low maintenance costs

⁴ Top Four Benefits of Installing Solar Panels on Your Home. 2017.
<https://www.usgbc.org/articles/top-four-benefits-installing-solar-panels-your-home>

⁵ Solar Power Can Boost Your Home's Value - Especially in these 10 States
<https://www.cnbc.com/2019/10/05/solar-power-can-boost-a-homes-value-in-these-10-states-the-most.html>

⁶ Do Solar Panels Increase Property Value? Here's the Whole Truth
<https://www.homelight.com/blog/buyer-do-solar-panels-increase-property-value/>

4. Earn Tax Credits & Rebates

Did you know that installing solar panels earns you a federal tax credit? In 2006, the federal government enacted the solar [Investment Tax Credit \(ITC\)](#), “a federal policy which allows solar system owners to deduct some of their solar installation’s cost from their taxes.”⁷

Not only has the industry created jobs for thousands of Americans, but it has also grown by more than [10,000%](#) with an average annual growth of [50%](#) over the last decade. You can qualify for the ITC as long as your solar panel system is new or being used for the first time between [January 1, 2006](#) and [December 31, 2023](#). Unless Congress renews this policy, it expires in [2024](#).

Some requirements include:

- The system is owned outright (not leased)
- It is located in the United States
- It is located at your primary or secondary U.S. residence (or for an off-site community solar project)

State tax credits also work similarly to the way that federal ITC does. These amounts vary depending on your state and they generally don’t reduce your federal tax credits. However, some states may offer rebates for installing a solar power system, which can reduce your solar costs by [10%](#) to [20%](#).

Another state incentive is a [Solar Renewable Energy Certificate \(SREC\)](#), also known as a [Solar Renewable Energy Credit](#). After installation of your solar panel system and registering it through state authorities, they will track your energy production and often offer you SRECs as a benefit. You can sell the SRECs to your local energy utility to provide payment that’s considered taxable income.⁸

For more information about incentives for your state, consult the [Database of State Incentives for Renewables & Efficiency](#).

⁷ What You Need to Know About the 2021 Solar ITC Extension
<https://www.aurorasolar.com/blog/solar-itc-extension/#:~:text=The%20ITC%20is%20the%20federal,by%20over%2010%2C000%25%20since%202005>.

⁸ Solar Tax Credit 2021 By State: What You Need To Know
<https://www.forbes.com/advisor/home-improvement/solar-tax-credit-by-state/#:~:text=Installing%20solar%20panels%20earns%20you,actually%20lowers%20your%20tax%20bill.&text=You%20can%20qualify%20for%20the,home%20in%20the%20United%20States>.