

Blue Horizons Project

Setting the course for clean energy

Solar Panels Technology Presentation



Solar Panels Introduction

Solar panels installed at your home or business give you direct access to clean energy. They are now widely available and affordable all over the world.



How Do Solar Panels Work?

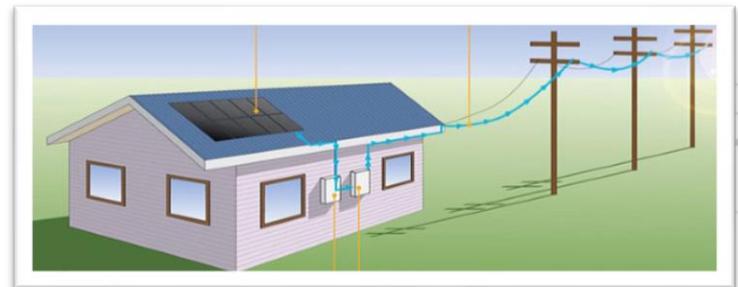
A solar panel collects sunlight and turns it into electricity, providing you with your own energy and an alternative to using fossil fuel energy. Unlike fossil fuels, the panels produce no pollutants while generating electricity.

Since energy is produced at your home or business, less and sometimes no energy is required from the utility's electric grid.



Benefits of Solar Panels

- Solar panels produce clean energy, reducing Asheville and Buncombe County's need for new fossil fuel power plants.
- Solar panels are a great investment because they save you money year after year, by generating energy at your home to reduce your electric bill.
- Excess energy can be sold to the utility's electric grid, making it even more affordable, and providing the utility with more renewable energy.



Solar panels Financial Cost?

Solar Panels can be purchased upfront, or through a loan or payment plan. An average home uses 1 kW of energy per day. A 5 kW solar panel can be purchased using payment plans equal to the cost of your utility bill.

Total panel cost may range from \$10,000 - \$40,000, including installation fees. Costs depend on how much energy (kW) the system produces. Duke Energy provides rebates, one is \$6,000 back for homeowners. The federal tax credit also provides 30% savings on all solar-related costs.



Solar Panels Support Clean Energy

Our Community in Asheville and Buncombe County is committed to creating a cleaner, smarter and more affordable energy future.

Solar energy helps our community becomes less reliant on polluting, non-renewable energy sources, like fossil fuels. Solar panels contribute to lowering CO₂, which affects global warming. And, the reduced usage of energy from the utility's electric grid will help eliminate new power plants.



Want to Know More?

Frequently Asked Questions

1. Where can I find more info about using solar panels in NC?

This website link below provides data and info specific to using solar panels in North Carolina.

<https://solarenergylocal.com/states/north-carolina/asheville/>

2. How long do solar panels last?

Different solar panels have different lifetime warranties based on their design and materials. Typical lifetime warranties are between 15 and 30 years for most solar panel designs.

Want to Know More?

3. Can I use solar panels to store energy with batteries?

There are many types of battery storage technologies that can be used to store solar energy ranging from lithium ion, salt water and hydrogen fuel cells. Typically an inverter is required along with the battery. A solar panel provider will explain what's needed and how to get it.

4. Can you explain the federal tax credit for solar panels?

The credit applies to the entire system being installed and can offer you 30% back which is explained well in the link below from article in 2018.

<https://news.energysage.com/congress-extends-the-solar-tax-credit/>.

5. How can I receive a rebate for installing solar panels on my home?

You can receive a rebate from Duke Energy and the rebate applications are found at this link below. There is a limited number given out per year.

<https://www.duke-energy.com/home/products/renewable-energy/nc-solar-rebates>.

Want to Know More?

6. Is there a way to calculate my potential savings as a sneak peek?

Yes. There are websites that offer solar calculators. We linked a site below, where you enter your address and estimated monthly electricity bill to find out how much you can save over the next 5-10 years.

<https://www.energysage.com/solar/calculator-results/>