

Solar Panels

In a Nutshell

Solar panels generate electricity using the nearly limitless supply of energy from the sun. Panels can be installed in large arrays or on rooftops/walls of homes and buildings. Solar panels have become more affordable over time, and thanks to rebates and tax credits included in the 2022 [Inflation Reduction Act](#) (IRA), making the switch is now more affordable than ever.

The “How To”

The 2022 Inflation Reduction Act (IRA) made tax credits available to cover [30% of installation costs for solar panels](#), [30% of installation costs for battery storage](#), and [30% of electric panel upgrades](#) made in conjunction with rooftop solar. For the first time, governments, schools, and nonprofits can also take advantage of clean energy tax credits. Depending on requirements, credits can cover up to 30-70% of a project. Find out more about how tax-exempt entities can take advantage of clean energy credits from this [user guide](#).

The [Missouri Department of Natural Resources](#) also offers information on available incentives for renewable energy, including solar. [Ameren MO](#) offers a community solar program and solar rebate program. [Ameren IL](#) also has a renewables resource center, including information on rebates.

[Grow Solar St. Louis](#) and [Grow Solar Metro East](#) are public education and group buy purchasing programs for residential and small commercial solar. They help connect consumers with more information about solar and secure significant discounts through the group buy program. [Illinois Solar for All](#) helps bring affordable solar energy to income-eligible homeowners, renters, non-profit organizations, and public facilities.

Planning & Zoning

In 2020, the City of St. Louis became the first city in the Midwest to pass a [solar ready ordinance](#) covering both commercial and residential construction. For buildings that are five stories or less, the ordinance requires roofs to be sturdy enough to receive solar arrays and requires a conduit to an electric service panel with dedicated space labeled "For Future Solar Electric."

As part of the OneSTL grant, [St. Louis County](#) drafted examples of ordinances that could be used to regulate solar panels and/or solar arrays. Solar panels are discussed on page 3 immediately followed by solar arrays.

The [American Planning Association](#) offers resources that provide background or policy guidance on solar energy use, as well as examples of guides, plans, model codes, and regulations that encourage solar development.

Here are local examples of cities which regulate solar panels:

- [City of Clayton](#) Section 405.3880
- [City of Edwardsville](#) Section 1248.02.21

Dollars & Cents

The [Missouri Department of Natural Resources](#) offers information on available incentives for renewable energy, including solar. Ultimately solar energy investments [pay for themselves](#). The U.S. Department of Energy offers a [Homebuilder's Guide to Going Solar](#) that comprehensively reviews the initial expense, maintenance, and long-term cost savings of using solar power. [Ameren MO](#) offers a community solar program and solar rebate program. [Ameren IL](#) also has a renewables resource center, including information on rebates. Rewiring America's [online calculator](#) can also help you find tax credits for rooftop solar installations. An [online tool](#) can assist in estimating cost savings.

Measuring Success

Once solar panels are installed, property owners will immediately see a drop in their utility bills. Utility companies will pay the homeowner for extra electricity generated by the solar panels. Other benefits include cleaner and more environmentally-friendly energy production.

Solar panels increase the percent of energy that municipalities receive from renewable energy, also known as energy diversity. [Energy Diversity](#) is one of the performance measures OneSTL is measuring as part of our 'Efficient' goal for our region.

Discover More

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In Illinois, the [Illinois Solar Energy Association](#) is a non-profit with the goal of advancing solar, wind and other renewable forms of energy throughout the state through education and advocacy. The organization works on renewable energy policy development and promoting local renewable energy vendors.