

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 as prices are reduced and more incentives are put in place to make the purchase of solar panels a cost effective venture.

The “How To”

[The Solar Panels Cost Guide](#) website gives a good description of how solar panels work. The website also provides information on costs as well.

According to the Optimal Deployment of Solar Index (OSDI), [Missouri](#) is the 4th best state for solar energy output. The index is based on several factors including level of solar insulation and cost of installation. This ranking underscores the impact solar energy could have on our region.

Our region is surrounded by outstanding support and activity from both the private and public sectors in terms of solar energy. 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. In Missouri, [Missouri Solar Applications](#), [Missouri Sun Solar](#) are examples of for-profit companies that will install solar panels. These companies may even help you locate and apply for tax incentives and fee reductions as you work to install solar panels.

Planning & Zoning

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 released a [report](#) with examples of how cities included solar panels in their comprehensive plan. Examples include Fort Collins, CO and Pleasanton, CA.

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 Solar Panels Cost Guide](#) website provides information on various things to think about when looking to purchase solar panels. According to this website, a solar array for an average size home (one that requires 20 to 24 kWh of electricity per day) can expect to pay \$15,000 to \$20,000 for the installation of panels without any

incentives or price breaks. [Another section](#) of the website has information on financial incentives from the US Department of Energy and other national government agencies.

The Database of State Incentives for Renewables and Efficiency has webpages for incentives in [Illinois](#) and [Missouri](#).

Measuring Success

Once install solar panels, 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 know as energy diversity. Energy diversity is one of the performance measures OneSTL is measuring for our Efficient goal.

Discover More

[SolarWorld](#) is a good additional resource for information on how solar panels work.