



Process Improvements

Step 1, PR 1-C

Streamline Permitting: Centralize Information

Provide a central information source for potential solar customers

Solar-related information should be provided electronically via a dedicated page on a municipality's (or other relevant jurisdiction's) website. If it is infeasible for individual areas to provide this information on their own websites, using a regional resource may be appropriate. Often, local or regional nonprofits with a solar-aligned mission may provide this information. Clearinghouse information should include:

- At a minimum, the name, email address and telephone number for a designated point of contact to answer solar permit-related questions, as well as a time frame in which to expect their response.
- Clear and concise language regarding the applicable permitting requirements for solar photovoltaic projects.
- A list of other local, state and national solar-related resources, such as web links to incentive calculators, cost or savings calculators, solar maps to determine individual homeowners' solar potential, regional solar associations, etc.

Establishing a regular schedule for validating and updating the clearinghouse information is essential, as is the assignment of this duty to a specific staff person or team. One tool that may assist regions in this task is a nationwide, open-source software tool to streamline the solar-permitting process, such as the one currently being developed by Clean Power Finance. Online solar permitting technologies are also available from View Permit, Simply Civic (SunShot Incubator awardee) and CRW Systems' Trakit.

Examples

City of Philadelphia, Pennsylvania: Guidebook for Solar Photovoltaic Projects in Philadelphia

In 2011, the city of Philadelphia released the second edition of its solar photovoltaic guidebook. The document provides detailed information about the basics of solar energy, and describes the major steps in the solar installation process. The document also discusses available incentives and financing programs.

www.phila.gov/green/PDFs/PhillySolarGuidebookFinal.pdf

City of Boston, Massachusetts: Renew Boston Solar

The city of Boston launched Renew Boston Solar to encourage solar development within the city. Renew Boston Solar's website provides detailed resources on solar permitting for contractors and installers. It also provides a map of all active solar installations in Boston.

www.cityofboston.gov/environmentalandenergy/conservation/solar.asp

City of Berkeley, California: Office of Energy and Sustainable Development website

The Berkeley Office of Energy and Sustainable Development provides detailed resources on solar energy, permitting requirements and links to other national resources for the general public. The city of Berkeley also provides contact information for a local non-profit, which offers free technical assistance through its Solar Smart program.

www.cityofberkeley.info/ContentDisplay.aspx?id=37808

City of Denver, Colorado: Project Guide for Solar Panels

In Denver, homeowners interested in installing a solar system can reference the Project Guide for Solar Panels. It provides step-by-step guidance directed at the general public on permitting requirements, fees and the solar installation process. It also provides a directory of licensed contractors, and outlines the requirements necessary for a homeowner to self-install. www.denvergov.org/development/services/DevelopmentServices/HomeProjects/OutsidetheHome/SolarPanels/tabid/441392/Default.aspx

The State of Connecticut: Energize CT

Energize CT is a consolidated resource for all energy efficiency and renewable energy programs and incentives in the state of Connecticut. The outreach page for residential solar includes a list of siting considerations, links and information on all available incentives and financing options, contact information for installers, links for general information on solar energy and a point of contact for further questions. The Energize CT website will soon host a permitting guidebook with checklists and standard application forms for the state.

www.energizect.com/residents/programs/residential-solar-investment-program

Sample Website Language

Source: [Solar Ready KC](#)

By using solar energy and energy-efficient technologies in your home and business, you will:

- Help the environment.
- Reduce your consumption of fossil fuels.
- Lower your monthly bills.
- Save money in the long term.

Is my home or commercial property right for a solar energy system?

A photovoltaic (PV) system needs unobstructed access to the sun for most or all of the day throughout the year. PV panels are relatively unaffected by changing weather and the modules are angled to catch the sun, not snow, so any snow that does collect melts quickly. Here are some important tips that will help you determine if your property is right for PV:

- PV systems are best installed on a southern exposed roof, however some east or west exposures may also be acceptable.
- PV systems are ideally mounted parallel with the roof at a 35 degree roof pitch with no shading between the hours of 9 a.m. and 4 p.m. Shading can include trees, chimneys, TV antennas, satellite dishes, dormers and gables.
- A PV system can be installed on any well-structured roof. If your roof is older and needs to be replaced in the near future, you may want to replace it at the same time your PV system is installed.
- The amount of roof space needed for a PV system is based on the output and type of system. Your roof size and orientation will determine how much PV you can install on your roof.

Getting Started

If you want to purchase a PV system, you are probably going to need a PV installer. You can check your local phone directory under Solar Energy Equipment or view a pre-screened contractors list at www.nabcep.org/installer-locator. It is always advisable to obtain several bids before making a selection.

Before you purchase a PV System:

- Shop around to compare prices before choosing a PV contractor. Compare system features, warranties and expected annual electrical output.
- Get two to three estimates from different contractors to compare pricing and PV systems.
- Ask each PV contractor for customer references. You can also check each contractor with your local Office of Consumer Affairs.
- Be sure your PV contractor provides you with a written contract that includes equipment pricing, installation costs, model numbers and warranty information. Make sure you know when to expect delivery and installation of your PV system.
- Understand your PV warranty and that you know who is responsible for honoring the warranty (the installer, dealer, builder or manufacturer).
- Verify that the PV system you receive matches the equipment listed on your contract.
- The PV contractor will assist you in obtaining all building permits and inspections. **Your PV system must be inspected and approved by a licensed electrical inspector and utility before it can operate.**
- If you live in a homeowners' association, verify that you have all required approvals from the Architectural Review Committee as applicable. Your contractor can help you with this process. [See link to homeowners' tools for more information.]
- Ask your PV contractor to review maintenance and operation of your new system. Be sure the contractor reviews your PV manual with you prior to completion of the installation.

Resources (Missouri Jurisdictions)

- Customer checklist [link to jurisdiction permit checklist]
- Frequently asked questions: www.kcpl.com/save-energy-and-money/for-home/home-rebates/mo/solar-power-rebate/solar-power-faqs
- City standards and initiatives [customize for local jurisdiction]
- KCP&L Solar Rebates Program (residential): www.kcpl.com/solar
- KCP&L Missouri Solar Electric Rebate Application: www.kcpl.com/~media/Files/Save%20Energy%20and%20Money/solarrebateapp.pdf
- KCP&L Missouri Interconnection: www.kcpl.com/~media/Files/Save%20Energy%20and%20Money/Sched34.pdf
- Net metering frequently asked questions: <http://www.kcplsave.com>. Select "MO" and type "net metering" into the search function.

Resources (Kansas Jurisdictions)

- Customer checklist [link to jurisdiction permit checklist]
 - Include links to various forms (interconnection/net-metering application and jurisdiction checklist)
- Frequently asked questions: www.kcplsave.com/customer-service/faqs
- City standards and initiatives [customize for local jurisdiction]
- KCP&L Kansas Interconnection: www.kcpl.com/~media/Files/My%20Bill/KS%20Detailed%20Tariffs/11702%20%20Net%20Metering.pdf
- Net metering frequently asked questions: <http://www.kcplsave.com>. Select "KS" and type "net metering" into the search function.

Still have questions?

[Local jurisdiction] has designated a Solar Coordinator [link to contact information for jurisdiction point-of-contact for solar] to answer your questions regarding installing a PV system on your property.

About solar energy (this could be a series of links on a sidebar)

Why use Solar Energy?

Investing in solar energy or “PV” (Photovoltaic) technology makes good sense, whether you are a residential or business customer, school or municipality.

- PV can help lower your monthly bills, reduce your energy consumption AND it’s good for the environment.
- PV preserves the earth’s finite fossil-fuel resources — coal, oil, natural gas — and reduces air and noise pollution associated with those energy sources.
- Recent technological breakthroughs have drastically reduced the cost of PV ownership and a typical PV system may last 40 years with minimal maintenance.
- [Available rebates in your area] valuable rebates combined with state and federal tax incentives make PV more affordable than ever before.
- A highly energy-efficient home or business means you can install less PV.

Solar Resources

Below are a number of different solar resources on the web.

- American Solar Energy Society: www.ases.org
- Go Solar California: www.gosolarcalifornia.org
- Missouri Solar Energy Industries Association: <http://www.moseia.com/>
- Missouri Department of Economic Development: <http://energy.mo.gov/energy/communities/community-tips/renewable-energy>
- National Renewable Energy Laboratory: www.nrel.gov
- Solar Energy Power Association: www.solarelectricpower.org
- Solar Living Institute: www.solarliving.org
- U.S. Department of Energy: www.energy.gov/energysources/solar.htm

Glossary of terms

- **AHJ:** Acronym that stands for Authority Having Jurisdiction. AHJ is often used to describe the designated department or agency that enforces certain laws or regulations. It is often used interchangeably with the term Enforcing Agency.
- **BIPV:** Acronym that stands for Building Integrated Photovoltaic, which is a form of photovoltaic solar energy technology that is integrated into the building envelope to become a part of the roof, skylight or façade.
- **Contractor:** A contractor licensed by the state of [insert state or states] performing work within the scope of their license.
- **Dead load:** The weight of materials of construction incorporated into the building, including but not limited to walls, floors, roofs, ceilings, stairways, built-in partitions, finishes, cladding and other similarly incorporated architectural and structural items, and the weight of fixed-service equipment, such as cranes, plumbing stacks and risers, electrical feeders, heating, ventilating and air-conditioning systems and automatic sprinkler systems.
- **Enforcement:** A diligent effort to secure compliance, including review of plans and permit applications, response to complaints, citation of violations and other legal processes. Except as otherwise provided in this part, “enforcement” may, but need not, include inspections of existing buildings on which no complaint or permit application has been filed, and effort to secure compliance as to these existing buildings.
- **Enforcing agency:** The designated department or agency that enforces certain laws or regulations, as specified by statute or regulation. In regard to solar PV installations, this entity can also be referred to as the “permitting agency,” since it is often the entity that issues a permit to allow for solar installations to be constructed.
- **Comprehensive plan:** A document adopted by a city or county to create a long-term vision to guide the jurisdiction’s future growth and land use. It includes a statement of development policies and implementing actions to achieve its development objectives.

- **Live load:** Loads produced by the use and occupancy of the building or other structure and not including construction or environmental loads such as wind load, snow load, rain load, earthquake load, flood load or dead load.
- **Photovoltaic:** A method of generating electrical power by converting solar radiation (sunlight), generating electrical power into direct current electricity using semiconductors.
- **Qualified person:** One who has the required state license and has proper skills and knowledge related to the construction and operation of the electrical equipment and installations and has received safety training to recognize and avoid the hazards involved.
- **Solar photovoltaic system:** The total components and subsystems that, in combination, convert solar energy into electric energy suitable for connection to utilization load.