



Solar Smart Handout

Incentives & Permit Process Guidance for Installing a Solar Energy System

The amount of sunlight we get is ideal for solar energy systems to produce clean power on most properties across King County. Federal, state and local incentives help to both offset installation costs and reduce your monthly utility bills. If you are considering installing a solar energy system on your new or existing building, this document will provide helpful information, including:

- Financial incentives available
- Notable building code requirements
- Process steps to obtain your building permit

Financial Incentives Available

Participate in one or more of the following federal, state, and local incentives to offset both system installation costs and reduce your monthly utility bills!

The U.S. Internal Revenue Service (IRS) [Personal Tax Credit](#) Incentive:

Applies to: A solar energy system you’ve installed atop your home.

Personal Tax Credit Incentive: Claim this one-time credit on the costs associated with the installation of your solar energy system. The credit amount is based on the year your system was installed and providing service:

Where the System is in service:	Rebate Amount
By 12/31/2019	30%
After 12/31/2019 & before 01/01/2021	26%
After 12/31/2020 & before 01/01/2022	22%

- There is no maximum credit. Any amount exceeding tax liability may be carried forward to the next taxable year.

Program Expiration: You may claim this tax credit through 2021

Process: File [Tax Form 5695](#) with your tax return.

The U.S. Department of Agriculture and Rural Development (USDA) [Rural Energy for America Program](#)

Applies to: Energy upgrades, including the installation of new or replacement solar energy systems, to buildings in [eligible](#) rural areas being used for agricultural production or a small business.

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Incentive Type: Loan financing and grant funding

- Loan guarantees on loans from \$5,000 - \$25 million up to 75% of total eligible project costs.
- Grants from \$2,500 - \$250,000 up to 25% of total eligible project costs.
- Combined grant and loan guarantee funding up to 75% of total eligible project costs.

Process: [Program instructions](#)

Washington State [Renewable Energy System Incentive](#) in partnership with [Puget Sound Energy \(PSE\)](#):

Applies to:

- Residential scale (1 through 12 KW) and Commercial scale (greater than 12 KW) systems.

Incentive details and rates:

- Receive production payments once a year (resulting from what your system produces).
- The rate is based on whether it is a residential or commercial sized system, when that system is placed into service, and whether the system includes made-in-Washington components. The rates decline each year so jump on this incentive fast!

Fiscal Year	Residential-scale (≤12 kW) System Base Rate	Commercial-scale (>12 kW) Systems Base Rate	Modules Made in WA Bonus
2019	\$.14 per kWh	\$.04 per kWh	Additional \$.04 per kWh
2020	\$.12 per kWh	\$.02 per kWh	Additional \$.03 per kWh
2021	\$.10 per kWh	\$.02 per kWh	Additional \$.02 per kWh

- The set rate will be paid for eight years, or until the cumulative incentive payments for electricity produced reach 50% of the total solar energy system price:
 - The annual payment for residential sized systems is capped at \$5000 per year.
 - The annual payment for commercial sized systems is capped at \$25,000 per year.

Process

- [Apply](#) to the [Washington State University \(WSU\) Energy Program](#) to achieve State Certification.
- Be a PSE customer with a valid [interconnection agreement](#) with PSE (see net metering below).
- Have a system that includes [production metering](#) capable of measuring the energy output of the renewable energy system.

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Questions: Contact solarprogram@energy.wsu.edu

Puget Sound Energy (PSE) [Net Metering Program](#)

If your solar energy system is producing some or all of your electricity needs, net metering will allow you to use that electricity anytime, not just when it's generated. Puget Sound Energy will track when your excess energy produced is put back on the grid, and when the electricity you need is supplied by the utility.

Applies to: All systems up to 100 kW in capacity on any type of building.

Program Benefits: You will see a reduction in electricity bills. You are producing your own energy, so you will only pay for the energy PSE provides you. There's no payback, but you bank the excess for use at another time if needed!

Process: [Apply here](#) to check out this opportunity!

Utility Statement: Here's an example of what your energy use/net metering [statement](#) will look like.

Questions: Contact a PSE Energy Advisor: [800-562-1482](tel:800-562-1482)

What Permits are Required?

The following matrix will help determine if your project requires a building permit from the Department of permitting and Environmental Review (DPER):

Project Description	Building/Fire Permits Department of Local Services, Permitting Division (Permitting)	Electrical Permits WA State Department of Labor & Industries (L&I)	Permit Process
Residential solar installations exempt from permit	Using the Solar Photovoltaic System, Roof Mounted, Residential Exemption Checklist , confirm that a building permit is not required	Required	None
Commercial solar installations & Residential solar installations not exempt from a permit	Required	Required	<ul style="list-style-type: none">○ Permit Application○ Depending on project scope, drawings may include: Site plan, elevations, framing plans, and construction details○ Manufacturer's specifications for how panels attach to the rooftop○ Structural engineering calculations, as applicable○ Fees Guides

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Solar installation projects often involve other construction work such as the installation of a hot tub, commercial tenant improvement or residential remodel. Additional work will likely require permits from one or more of the following agencies: Check with the applicable permitting agency for additional information.

[Department of Local Services, Permitting Division](#)

- Building & Fire (including private swimming pools) Land Use
- Clearing & Grading
- Land Use

Seattle – King County Public Health – [Environmental Health Services](#)

- Plumbing & Gas Piping
- On-site Septic and Wells
- Public & Semi-public swimming pools and hot tubs

WA State Department of Labor & Industries

- [Electrical](#)

Applicable Land Use, Residential, Building, and Fire Codes

Below are common code sections which may apply to your solar energy system installation project. Your design professional will be able to provide a complete design analysis.

Zoning Code Requirements

The [King County Zoning Code](#) has base height, setbacks and impervious surface requirements:

- Residential and rural zones: 21A.12.030.
- Resource and commercial/industrial zones: 21A.12.040.

[Residential Code Requirements with King County and Washington State Amendments.](#)

The Residential Code will provide parameters on how a solar energy system needs to be safely and securely attached to your single family, duplex or townhouse:

- See Section R324 for general solar energy system requirements.
- See Chapter 9 for fire classification and structural requirements associated with rooftop installations.
- See Appendix U for guidance on where to place a solar array (This appendix is not required by King County).

[Building Code Requirements with King County and Washington State Amendments.](#)

The Building Code will provide parameters on how a solar energy system needs to be safely and securely attached to your commercial or multifamily building:

- See Chapter 15 for fire classification associated with rooftop installations.
- For structural design and loads, see Chapter 16 and ASCE 7.
- Appendix N for guidance on where to place a solar array (This appendix is not required by King County).

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[Fire Code Requirements](#) with [King County](#) and [Washington State Amendments](#).

The Fire Code ensures safe access and clearances atop the roof of all buildings:

- See Chapter 6 for access, pathways, and spacing requirements associated with a solar arrays.

Resources

- Look to the Department of Planning and Environmental Review's [Green Building Handbook](#) to learn more about solar energy systems – as well as other green building methods.
- Check out the Photovoltaic Solar Panel tip on the www.MyBuildingPermit.com web site for additional information on residential installations.
- PSE provides a great list of solar [resources](#)

