

Eau Claire Energy Cooperative offers a similar community solar program called Member Solar for members within their service territory. For more information see: www.ecec.com/energy-efficiency/renewable-energy/membersolar



Eau Claire Energy Cooperative's
872 kW Community Solar Array

Practical Considerations

- ◆ Be a good neighbor by notifying in advance.
- ◆ Recognize adjacent land uses and vegetation when planning and designing solar projects.
- ◆ Reflect on future site improvements before proceeding with a solar installation. If you hope to expand your home or business in the future, consider how this could affect your solar project.
- ◆ Carefully evaluate energy use behavior and potential solar options to decide on the best choice.
- ◆ Consider the type of financing and installation size that is right for your budget.
- ◆ Options like utility community solar exist as an alternative for those without good solar access.

City of Eau Claire

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Current of 11/8/16

City of Eau Claire

Solar Access Regulations And Best Practices



Development Services Division
Department of Community Development
Eau Claire, Wisconsin

Tel: 715.839.4914

Solar Access Regulations

Purpose

- ◆ Permit reasonable uses of solar for energy production on property while protecting the general safety, public health and welfare of property owners.
- ◆ Promote best practices and set forth site specific solar planning standards.
- ◆ Preserve neighborhood aesthetics while encouraging sustainable design.
- ◆ Increase use of solar energy, a free form of clean energy.
- ◆ Reduce environmental degradation caused by carbon emissions from the mining and burning of non-renewable energy sources.
- ◆ Add electric grid resiliency during peak demand and other stresses to the system.
- ◆ To keep in mind that energy conservation and energy efficiency strategies should be in place beforehand or in concert with solar.

Solar by Zoning District

Solar arrays are considered accessory uses in all zoning districts, and solar farms are considered conditional uses in all zoning districts. In some instances, a solar array may be considered a conditional use.

Ordinance References

Chapter 18.02 Definitions

- ◆ Solar Array. An accessory system or device that is roof-mounted or ground-mounted with poles or racks used to collect radiant energy directly from the sun for use in a solar collector's energy transformation process.
- ◆ Solar Collector. A device, structure, or part of device, the substantial purpose of which is to transform solar energy into thermal, mechanical, chemical, or electrical energy.
- ◆ Solar Farm. An array of multiple solar collectors on ground-mounted racks or poles that

transmit solar energy and is the primary land use for the parcel on which it is located.

Chapter 18.30 Accessory Uses

18.30.040 Specific Standards. The following specific standards shall apply to the specific accessory use as listed.

Solar Arrays. That are accessory and incidental and designed primarily for serving on-site needs or a use that is related to the principal use of the property.

1. A solar array shall follow building setback and height requirements for accessory structures within the zoning district it is proposed.
2. Accessory solar arrays have no size limits except that in residential zones for buildings with 4 dwelling units or less, the maximum size is 1,000 square feet. Larger arrays in these districts may be allowed by conditional use permit.
3. In all zoning districts accessory solar arrays exceeding height standards may be allowed by conditional use permit under provisions listed in Chapter 18.35.

Chapter 18.35 Conditional Uses

18.35.050 Specific Provisions. The following specific provisions, applicable to specific conditional uses as listed, shall be considered by the Commission, in addition to provisions included under section 18.35.040:

1. Solar farms are designed primarily for serving off-site power needs and are principal uses of the property requiring a conditional use permit. A solar farm shall follow building setback and height requirements for principal structures within the zoning district it is proposed.
2. An accessory solar array may be allowed in size over 1,000 square feet in residential zones for buildings with 4 dwelling units or less.

Solar Site Options

Rooftop Photovoltaic



Ground Mounted Hot Water



Solar Air Heat Collector



Ordinance continued...

18.35.050 Specific Provisions

3. Height standards in all districts may be exceeded for both solar arrays and solar farms so long as the standards of this chapter are met.

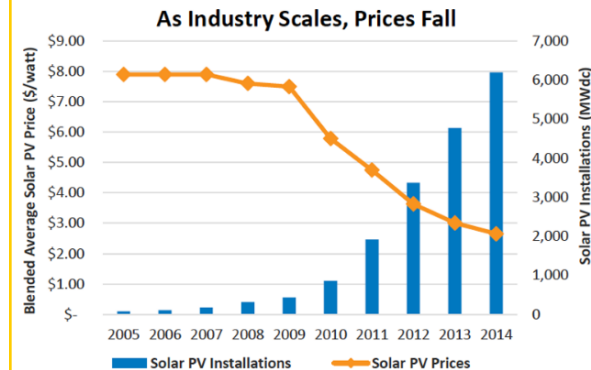
4. Ground mounted solar arrays or solar farms considered by the Zoning Administrator to create impervious surface above lot restrictions for improved surfaces, shall only be conditionally approved if appropriate mitigation measures for stormwater runoff can be demonstrated.

State Statute

Solar installations must be in compliance with State Statutes, including §66.0401 and following sections. Refer to the statute for protection of solar rights.

Solar Efficiency Development

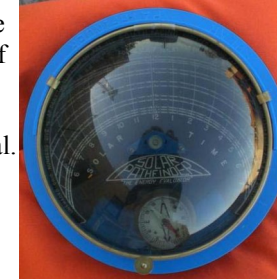
Solar has become exponentially more affordable in recent years because of increases in demand and technological developments associated with the production of solar panels. The solar industry now includes over 175,000 laborers, making it a larger employer than either the steel or coal industry in the United States. (*Bloomberg, New Energy Finance*) (*Greentech Media*) (*SEIA*).



Site Evaluation

To determine if your property has a workable solar energy site, hire a qualified solar contractor to perform a site assessment. A Solar Pathfinder

(pictured) is the standard device used to measure the coverage of the sun throughout the year and shows both the quantity and value of a site's energy potential.



Permitting

Contact the City's Inspection Services Division at 715-839-4947 in order to understand which type of permits and fees may be required for a project. The type of permit and number of inspections depends on the type of installation. The following are generally required:

- ◆ Electrical permits are required for all solar electric projects and solar hot water.
- ◆ Plumbing permits are required for all solar hot water projects and may be for solar air collectors.
- ◆ Building permits are required when structural and wind loads are a concern and when needing extensive racking and or footings.
- ◆ Note: Building-integrated solar energy systems such as solar shingles, windows, skylights, awnings, etc. are a building product. However, relevant permitting, zoning and building codes may be required depending on the type of application and location.

Inspection & Enforcement

Requirements contained herein are enforced before permit issuance and at times of inspection. Violations and penalties are subject to the applicable code.

Interconnection with Utility

An interconnect agreement and or permit application is required depending on the service provider. For properties within the city, most will fall within Xcel Energy's territory. Check property billing statement if unsure.

◆ Xcel Energy

Call Xcel's Business Solutions Center 1-800-481-4700 or visit: https://www.xcelenergy.com/working_with_us/how_to_interconnect

◆ Eau Claire Energy Cooperative

Call 715-832-1603 or visit: https://www.ecec.com/energy-efficiency/renewable-energy/distributed_generation

Financing of Solar

Typically solar is paid for through loans or cash with incentives that are available. As of the date of this brochure, the following options were available:

Federal Tax Credit: Primary and seasonal residences can receive a tax credit of 30% of the total cost of installation from the IRS. No upper limit exists on this tax credit but it cannot be used on rental units or non-residential properties. Credit applied to cost after rebates.

WI Focus on Energy Incentives: Up to \$2,400 in incentives exist for both residential and non-residential properties. Check requirements at: <https://focusonenergy.com/residential/renewable/solar-electric-systems>

Property Tax & Sale Tax Exemption: Added property value from the installation of solar arrays is exempt from property tax as long as the proper form is approved by City Assessing. Solar arrays are also exempt from sales tax in the state of Wisconsin.

Property Assessed Clean Energy: By obtaining a loan and placing it as a special charge on the tax rolls, repayment can be deferred over a longer term. Projects over \$250,000 should have a cost-to-savings ratio of 1:1. Contact the City at 715-839-4914 for more information.

Solar Group Buy: The benefit of group buy programs is leveraging the strength in number of buyers to obtain competitive solar prices from contractors. For more information contact Chippewa Valley Affordable Solar Group at: www.solarpowerwisconsin.com

Community Solar: Xcel Energy's Solar* Connect Community program offers customers an option to subscribe to a portion of the output from an Eau Claire solar garden to offset usage. Learn more at: www.xcelenergy.com/programs_and_rebates