



Fox Point SOLAR

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Village Board Member Liz Sumner and I are excited to announce the creation of Fox Point Solar, a resource for village homeowners and businesses interested in installing their own solar energy systems.

From Europe to Israel to Africa to many of our sister states, solar is fast becoming a mainstream source of energy. It's environmentally friendly and upfront costs have come down giving solar a relatively short return on investment.

Solar basics from Solar Nation and the Midwest Renewable Energy Association

The sun is a long way away, but it is still a very powerful source of energy. While studying light in 1839, the French scientist Alexandre Edmond Becquerel noticed that when certain materials, such as silicon, absorbed light, they "knocked" electrons loose. This is called the photovoltaic effect. In the intervening years many scientists, including Albert Einstein, took up the subject. Over time various labs have worked to create and improve the photovoltaic (PV) cell, which is a device containing an electric field that make these "knocked" electrons flow in a certain direction, hence creating an electric current. But only in the last several years has solar technology become competitive economically with other sources of electricity.

Most roofs in the state will easily fit a mid-sized system of 5kW solar panels. And once secured up there, the panels will produce home-spun electricity for decades. A south facing roof usually is the best, but the panels facing east or west can often work too.

PV panels are usually warranted for upwards of 25 years. However, experts suggest these panels have a useful life of 30 years or more.

Here is why solar is something to consider

Costs for installing solar PV panels have been rapidly declining in the last few years. What once might have cost over \$20,000 for a 5kW solar system today costs closer to \$15,000. Placed on a south-facing house roof in the Milwaukee suburbs, property owners could earn nearly \$30,000 in savings over 25 years.

Benefits to the property owner include an average of 18 kWh of clean, green electricity per day. That amounts to 6,550 kWh per year of clean power. Given that the average Wisconsinite only uses 8,400 kWh, that's shaving almost 80 percent from the electric bill.

Emissions are slashed too, by five tons of CO₂ per year. That's like planting 130 trees each and every year your system is running. Good for your bank balance, and great for local and state air quality.

But what about that \$15,000 initial outlay? It's a gross number, not the net. We have a sales tax of 5.6 percent that you'll avoid thanks to Wisconsin's solar sales tax exemption. Wis. Stat. Section 77.54(56).

Then there's the federal solar tax credit, also known as the investment tax credit, that allows you to deduct 26 percent (down from 30 percent

in 2019) of the cost of installing a solar energy system from your federal taxes. 26 U.S.C. Section 48.

Property owners will likely qualify for an incentive on the cost of the solar equipment from Focus on Energy (a state sponsored program). In 2020 for residential customers it is \$300 per kW not to exceed \$1,500.

So, after factoring in the incentives, tax credits, and rebates, the out-of-pocket cost is a lot less than the outlay. And the return on investment is competitive.

Moreover, once the system is up and operating, your property likely will see a boost in its value.

More good news. In Wisconsin, any value added by a solar-energy system is exempt from general property taxes. The exemption applies regardless of whether the equipment is deemed real property or personal property. Wis Stat. Section 70.111(18).

Property owners should have no major obstacles in connection with local permissions. Wisconsin has a strong solar rights statute that creates a common format and structure for solar zoning. Wis. Stat. Section 66.0401 relating to solar and wind energy systems states: No political subdivision may place any restriction, either directly or in effect, on the installation or use of a solar energy system... unless the restriction satisfies one of the following conditions: (a) serves to preserve or protect the public health or safety, (b) does not significantly increase the cost of the system or significantly decrease its efficiency, (c) allows for an alternative system of comparable cost and efficiency.

In Fox Point, it's simple: We do not yet have a solar ordinance to navigate. A property owner applies to the Building Board for approval of a solar panel design and installation plan. With approval, the project can proceed.

Fox Point Solar, possibly in coordination under a North Shore Solar umbrella, will facilitate "group buys," provide information about and assistance with solar panel installation and maintenance, and explain available incentives, tax credits, and rebates.

Fox Point Solar will exist independently of, but in cooperation with, the Village of Fox Point. We expect to schedule our first meeting by February 2020.

All this is a little complicated. Fox Point Solar will answer questions and help property owners find out if this technology makes sense for your household or business.

Solar is a win for the property owner, the village, and the greater good. Let's get started on an even greener path.

Douglas H. Frazer is a Fox Point resident and neighborhood contributor as well as the village president. The views expressed are his own and not necessarily those of the Village, the village board, other village board members, or Best Version Media, LLC.