Savings from solar investment more significant than many realize

Rural families save money in three, familiar ways. (1) By trading goods and labor rather than using cash; (2) by stocking-up on staples when prices are lower; and, (3) if savings are substantial over time, taking out loans to capture the savings. Investing in solar is money smart for all of these reasons in addition to the values of lowering CO2 emissions and keeping energy dollars in our pockets to spend in our local economies.

Not that long ago, typical families paid from $35-75 per month for electric service. Today, the average residential electric bill is in excess of $100 and soaring prices have become quite threatening to the profitability and competitiveness of Wisconsin businesses. Only seven other states have experienced faster rising electricity costs. Compared to the national average of 3.4% per year, Wisconsin increases have averaged 4.6% per year— double that of inflation since 2003.

Of course, utilities will always strive to maximize their profits. To help keep utility investments under control, most states create laws for their Public Service Commission to enforce. Until 1998, Wisconsin electric customers enjoyed such energy laws. Every utility request for a new power plant or transmission line had to be cost compared to user-side improvements like energy efficiency and local power. When these laws were eliminated, utility spending for new power plants and high-capacity transmission lines went out of control. As a result of this accumulating high debt load in conjunction with our flat energy use, Wisconsin electric customers are now seeing unprecedented fixed fee increases-- about $12 billion worth over the next 30 years.

The debt on the average Wisconsin electric bill today, is about 40%. The bulk of these payments leaves our communities in the form of high, guaranteed financing costs on the past capital utility purchases. It is worth pointing out that had Wisconsin allowed electric customers to invest instead in energy efficiency, a $1 per month increase would have rendered any need for new power plants and high capacity transmission lines wholly unnecessary. Clearly, $1 per month is pale compared to recent fee increases in the range of $4 to $14 per month.

If there is “good news” in this blunder, it is electricity costs are certain to increase about 4.5% per year for the foreseeable future. For electric customers who can afford to invest in solar, the value of the solar power produced is pretty much certain to increase at a rate of about 4.5% per year.

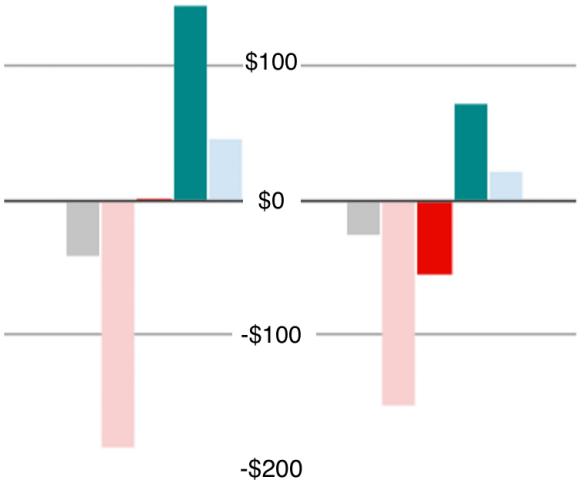
Solar Savings Over Time

Vernon Electric Coop Example

Home/Business Solar

Per Month, Over 30 Years

Cost of Investment: (6kW system at $15K)	-$42
15 year average "Do Nothing" electric bill:	-$186
After Solar Electric Bill:	$1
Net monthly savings:	$145
Comparable return on 2.5%, 30 year CD:	$46



Community Solar

Per Month, Over 25 Years

Cost of Investment: (4kW system at $8K)	-$26
12.5 year average "Do Nothing" electric bill:	-$155
After Solar Electric Bill:	-$56
Net monthly savings:	$73
Comparable return on 2.5%, 25 year CD:	$22

Chart assumptions: 350 kWH/mo. average electricity use; electricity cost increasing at 4.5% /year; electricity use when “doing nothing” continues increasing .7% per year ; awareness from solar keeps energy use flat; home installation with partial do-it-yourself savings at $2.50 / watt; community solar at $1.97 / watt; home located, fixed 6 kW solar array generating 1.3 kWh/watt/year at 300 kWh/month more than use; community 4kW solar panels generating 1.3 kWh/watt/year at 125% of use; solar power credited at full retail rate for home located array & 90% for community array; no rebates or tax credits applied.

The greater savings from the at home or business solar installation come from receiving full, retail rate credit for the solar power produced and purchasing additional panels to off-set the high facility fee. This opportunity will not be available under all utilities. The lower, but still significant savings from the $8,000 community solar investment are affected by a cap placed on the number of panels that can be contracted, a 10% reduction in price credited for the solar power produced and the 5 year shorter contract at 25 years. Solar equipment typically has a 25 year warranty but lasts considerably longer.

All Wisconsin utilities provide "net meter" or "grid-tied" provisions allowing each home, farm, business to generate electricity from the sun. A special meter is installed to measure power flow in two directions. On sunny days when more solar power is generated than the house is using, the meter measures the power flowing from the panels into the utility distribution line where it is consumed by neighbors. On overcast days and at night, the meter functions traditionally measuring the power flowing from the grid to the house. The environmental benefits of owning solar can be increased by shifting electricity use to day – particularly when the sun is shining

Financial terms for solar vary from utility to utility, but even the least favorable terms produce substantial savings over time. Unlike an investments in a car or home, solar requires minimal upkeep. Investments are typically repaid in 10-15 years or less if rebates or tax credits are taken.

Families with no savings to invest are disadvantaged but it may be possible to get financing at a rate low enough to justify the investment. Lower interest loans for solar and energy efficiency are available through Westby Co-op Credit Union's "LEG-Up" program. http://bit.ly/WCCU_LegUp

It helps to team-up with an organization and other families to share questions and compare quotes. Solar Installers welcome multiple inquiries and most allow homeowners to provide non-specialized labor. Contact info@SOULWisconsin.org for a free investment calculator via email to compare savings between net-metered installation, community solar, off-grid solar, energy efficiency and a CD earning 2.5% interest.

Contrary to assertions that solar adds costs to running the grid, solar reduces long term costs by relieving stress on equipment and reserves during periods of high use. If you cannot install solar where you live, meet with your utility about community solar. If money is tight or you live in apartment, there are low or no cost ways to reduce your energy use and your carbon footprint such as http://bit.ly/LowCostEnergyImprovements

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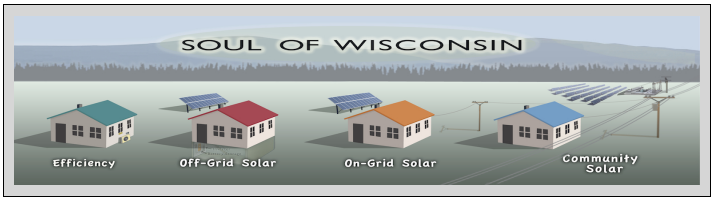

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