



**Barry Electric
Cooperative**



Owned by those we serve

Mark Aeilts, CEO/General Manager

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INVESTMENTS TO \$AVE: DON'T BE SORRY – BE INFORMED

FIRST: Energy Audit for \$75 & efficiency improvements may cost \$1,000 +

SECOND: Home Battery may cost \$5,000 to \$7,000 +

THIRD: Residential Solar cost \$15,000 to \$30,000 + (MONTHLY Net Meter)

Solar energy is sustainable, renewable, and plentiful, but those selling solar equipment may not have your best interest in mind. Some solar vendors use deceptive sales tactics. Barry Electric Co-op (BEC) is here to help you make the most cost effective choice for you, our member-owner. Going solar is a long term strategy—think decades, not years. If only for a short term, solar is an expensive option and inconsistent in its savings. Energy efficiency may be less exciting, but is far more affordable and consistent in its savings.

START WITH ENERGY EFFICIENCY OR BATTERY STORAGE

You can save big by investing in your home's efficiency, and there are multiple ways to do that. First, stop the energy leaks. Conserve energy by avoiding phantom loads when appliances are in standby mode instead of being turned off. Second, invest in energy efficient products such as a timer for your electric water heater and a programmable thermostat. Third, BEC offers an energy audit/energy efficiency kit for \$75. If the energy audit recommends weather stripping/insulation for the home or supply ducts, then 50% of the installed cost of your investment up to \$500 is eligible to be paid by BEC. Fourth, begin using our Shift to \$ave program. Additionally, a battery system can drastically reduce energy use at peak hours, and could prove an easy, worthwhile investment.

AVOID HYPE AND SEEK COMPETITIVE BIDS

Solar companies use a basic sales pitch: 'Did you know going solar can save thousands of dollars?' However, savings through solar are not guaranteed, nor easily computed. As a not-for-profit which serves member-owners, BEC has a vested interest in our member-owners' financial wellbeing, and that's why we recommend reading the Solar Energy Industries Association (SEIA) Residential Consumer Guide to Solar Power prior to making solar decisions or signing contracts. It is also important to seek competitive bids to insure the best warranties and price.

Some solar sales persons claim BEC electric bills will rise annually by 6%. This is false. BEC electric bills were rising approximately 2% per year and the last rate change was a ½% rate decrease. The service availability charge and other unavoidable charges still remain for any services that are purchased from BEC. You must know the future DECLINING BEC rate per kWh to be able to calculate a solar investment payback.



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FUTURE BEC RATE STRUCTURE

The BEC rate structure is changing from a two-part to a four-part rate structure to become more cost based. Cost based rates allow more equity between members with fair pricing for members to make their best choices for energy saving investments. First, there is a BEC service availability charge to cover fixed costs. Second, there is an energy charge per kWh. The new charges are for On-Peak max hour of use (weekdays 7-8am; 2-6pm) and all other times Off-Peak max hour of use. The \$1.30 per day service availability charge will remain unchanged. The energy charge may go down from \$0.0870 to \$0.0600 per kWh while the new power charges rise.

The total utility bill for two-thirds of the membership will be the same or go down. Those members who use most of their power during the BEC peak time periods will pay more. Yet, for those members who consistently use power across most week day hours, or those who use power only during non-peak hours, the total electric bill will hold steady—or even decrease—using the four-part rate structure.

CAN I SAVE MONEY BY INSTALLING A SOLAR ENERGY SYSTEM? Maybe

The answer depends on many factors and the desired timeline for the return on investment. How long are you planning to live in your home utilizing the same amount of electricity? According to the National Association of Home Builders (NAHB), the average buyer of a single-family home will stay in the home approximately 13 years before moving out. Many solar systems have similar payback timelines; therefore, you may be building solar for the next owner and may still have to pay off the solar balance.

One of many online solar calculators asks for the total monthly electric bill rather than the avoidable kWh energy portion of the bill. For instance, one online solar calculator made the claim that there would be no money down and an “immediate” payback. This claim is false because it ignores the solar loan repayment and any ongoing unavoidable utility cost. We demand more honesty and transparency for our members.

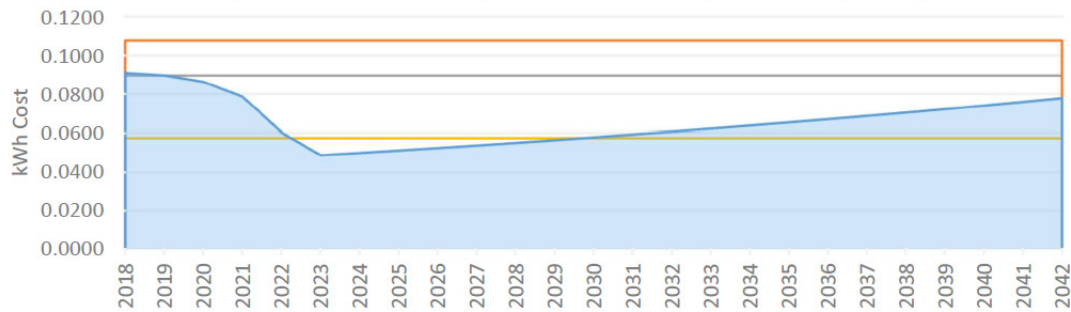
BE PREPARED TO ASK THE RIGHT QUESTIONS: Is solar energy right for me?

Please seek an energy audit and invest in energy efficiency to reduce the size of power needs. Please consider the advantages of our Shift to \$ave program. Next conduct thorough research by comparing competitive bids. Be aware BEC prepay billing cannot be net metered; therefore, a change to traditional billing will require a deposit. There is a one-time \$125 net meter change fee and an annual \$50 fee to safety check the auto-disconnect switch. Be sure to avoid exceeding your home’s **MONTHLY ENERGY NEEDS** with too large of an array for the best payback. BEC recommends to avoid solar panels on your roof where one leak may undo more than the savings. Ask BEC for current member solar installation references.

Ask installation vendors for proof of licensure. Ask if they are a member of the SEIA, the national trade association for solar that requires all of its members to abide by their code of ethics. If a SEIA member does not abide by the code of ethics, please use the SEIA grievance procedure. The Residential Consumer Guide to Solar Power includes a section entitled “Key Questions to Ask Before Entering into an Agreement.” Please call Barry Electric Cooperative at 417-847-2131 or visit us on the web at www.barryelectric.com, and visit www.seia.org for more information.

Barry Electric Co-op grid costs vs. Solar options in NREL System Advisory Model (SAM)

Updated 2-16-18



- BEC avoidable kWh rate is decreasing (please see attached explanation)
- LCOE rate 5 kW solar array size matches low use month of April; therefore, receive full credit of \$0.0908 /kWh each month
- LCOE rate 9 kW solar array matches annual load. Missouri law: net meter per month. Excess production at \$0.022 /kWh. Any excess credits must be used within a year; no check paid.
- Solar install rate 9 kW solar array excluding important costs of maintenance, insurance (\$250 /yr) and financing

Solar energy is sustainable, renewable and plentiful. BEC will help you size a solar system with factual pros and cons. Technology can be good but if there are false claims for low solar costs or high savings that is not good.

Solar Levelized Cost of Energy (LCOE) rate includes installation, insurance (i.e. \$250 /yr), maintenance, & panel performance. Note that this does not include financing which also needs to be included. In this example a home uses 14,000 kWh per year. Many consumers find it difficult to use the 30% federal tax credit. If the tax credit is utilized and the system is paid for in cash then the payback return on investment is over 20 years. A loan payment of \$165 per month for 25 yrs = \$49,500 vs. BEC avoidable kWh charge of \$23,100. These costs are in addition to service availability, time-of-use and outdoor light charges.