



**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: “Power Checks” beginning cost is \$1,200 + may qualify for rebates

SECOND: Battery to manage time-of-use charge may have prompt payback

THIRD: Solar will have the largest investment (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 commercial building 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 LED lighting, motor replacement or HVAC applications. Third, “Power Checks” is for members who have greater than 50kW annual average demand. Based on recommendations from the energy auditor, member may qualify for rebates from BEC including Geothermal Heat Pump Rebates and the Business Lighting Program. Additionally, a battery system can drastically reduce energy use during time-of-use 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 have risen approximately 2% per year. The service availability charge and other unavoidable charges still remain for any services that are purchased from BEC. You must know the future 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 and send correct price signals 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 time-of-use demand hours per kW and a peak charge per kW. The \$1.40 per day service availability charge will remain unchanged. The energy charge may go down from \$0.0965 to \$0.0364 per kWh while the new demand charge(s) 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

When evaluating the potential of installing a solar electric system at a business, please follow the recommendations of the Missouri Department of National Resources financial considerations. 1. Solar access: South facing with no shading (suggest avoiding roof mount) 2. Future Retail Cost of Electricity (shown above) 3. Certain solar energy systems may qualify for a Federal credit of 30% percent until 2019. Rentals do not qualify. (Be sure to understand if the solar price quotes include the assumption that you need to offset sufficient tax liabilities. If so, many customers have found they do not qualify or need additional tax incentives in their present circumstance.) Also, check with your tax preparer about 4. Accelerated depreciation of the solar array.

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?

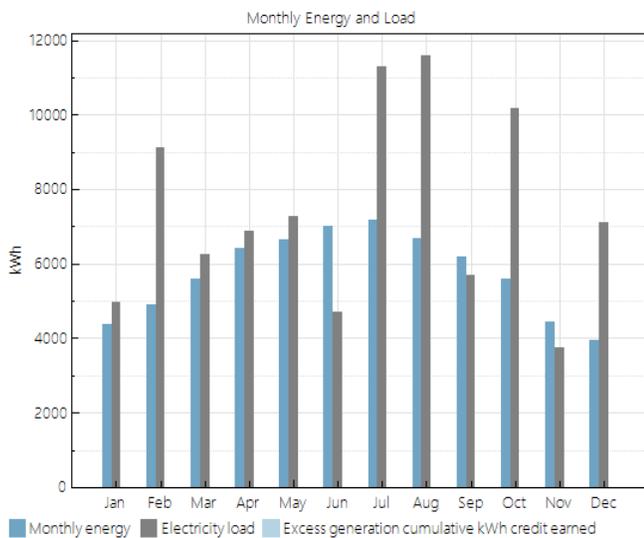
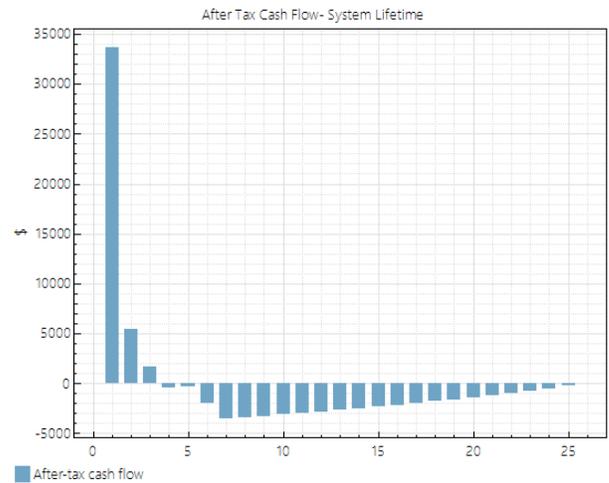
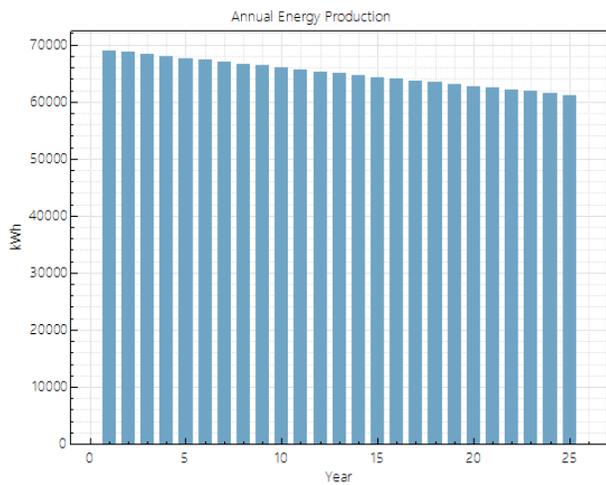
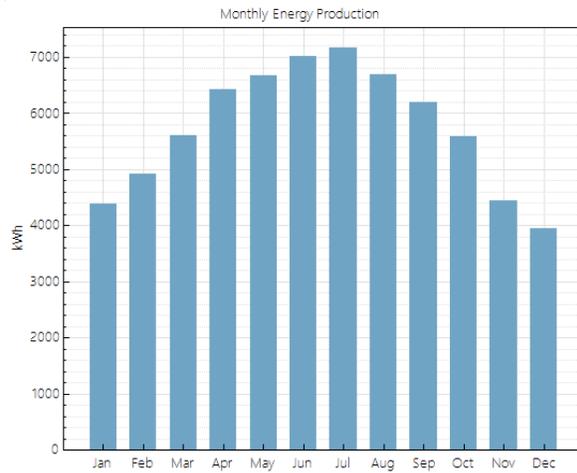
Please seek a “Power Checks” audit and invest in energy efficiency to reduce the size of power needs. Next conduct research by comparing competitive bids and check references. Be aware BEC prepay billing cannot be net metered; therefore, a change to traditional billing will require a deposit. There is a one-time \$100 net meter change fee and an annual \$100 fee to safety check the auto-disconnect switch. Be sure to avoid exceeding **MONTHLY ENERGY NEEDS** with too large of an array for the best payback.

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.

EXAMPLE: ONE-METER OPERATING FOUR CHICKEN HOUSES

Numbers based on NATIONAL RENEWABLE ENERGY LABORATORY
System Advisor Model

Metric	Value
Annual energy (year 1)	69,028 kWh
Capacity factor (year 1)	15.8%
Energy yield (year 1)	1,381 kWh/kW
Levelized COE (nominal)	5.77 ¢/kWh
Levelized COE (real)	4.56 ¢/kWh
Electricity bill without system (year 1)	\$8,538
Electricity bill with system (year 1)	\$2,508
Net savings with system (year 1)	\$6,030
Net present value	\$20,813
Payback period	15.7 years
Discounted payback period	NaN
Net capital cost	\$106,367
Equity	\$0
Debt	\$106,367



- Based on 50 KW Direct Current
- Includes:
 - o BEC current rates as of May 1, 2018
 - o 30% Tax Credit
 - o 5 Year Accelerated Depreciation
 - o Financing at 5% APR
 - o Estimated maintenance and estimated property insurance