



Saints Peter and Paul Catholic Church, Danville KY

GOING SOLAR TO SAVE MONEY AND THE EARTH

This proposal asks that our parish invest in solar panels to offset 100% of our electricity bill. It gives us financial payback in 8 years and links to the Diocesan mission of Caring for Creation. We would be able to access Federal tax credits if completed by December 2027. And we would be a visible sign to our community that we are investing in the future of our parish and our planet.

MISSION OF THE CHURCH

In April 2024, Bishop John Stowe as a response to the Tenth Anniversary of Pope Francis's encyclical Laudato Si, set the Diocese of Lexington a goal to be "NetZero by 2030". His call to action connects our mission to be good stewards of all of creation with our mission to be good stewards of our parish and our finances. We want to ensure that our planet is safe for our kids and grandkids, and to lessen the impact of changing climate on the most vulnerable populations.

KEY BENEFITS

- Utility costs are rising rapidly. This is true locally as well as across the country. By going solar now, we access federal tax credits and protect against utility rate increases.
- By paying for solar initially, we minimize our monthly power bills and free up operating budget to use in key parish programs, such as education and social ministries.
- By investing in solar we avoid having to buy carbon credits in the future to meet the Diocesan goal of "NetZero".
- Most importantly, we set a model of responsible financial stewardship for our community and our diocese.

FINANCIAL ANALYSIS

This proposal offsets 100% of the electric energy use of the Church, Catholic Center, and rectory. We would still have a very small Kentucky Utility bill for meter costs and fees as well as our gas bill.

- **Federal Direct Pay (ITC):** The Inflation Reduction Act and the One Big Beautiful Bill allow tax-exempt organizations to receive 40% credit from the IRS for the cost of the system. This will come to the Diocese in the year following the installation and be passed back to the parish.

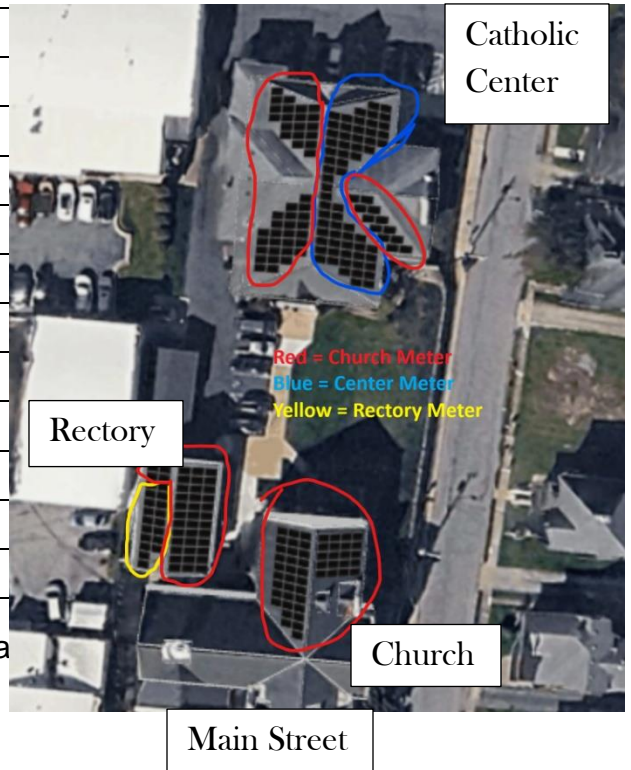
Total costs for the parish		With CC and R roof replacement
Initial Outlay	\$225,000	\$272,000
Tax refund	\$ 63,825	\$ 63,825
Diocesan grant	\$10,000	\$10,000
Total net	\$151,175	\$198,175

- Payback Period: 8 years (10 years if we need to replace roofs)
- Lifetime Savings: Projected savings of \$880,000 to \$930,000 over 30 years
- The parish can choose to access our existing capital funds to pay for this or can initiate a new capital campaign
- Two independent bids were obtained from qualified and vetted installers

TECHNICAL OVERVIEW

This proposal uses 100% domestic content materials to meet all requirements for the Federal tax credits. The proposal also meets requirements of the Danville Architectural Heritage Board that no solar panels will be visible from Main St. (approval will be required by the DAHB).

CHURCH	
System size	65 KW-DC
Number of panels	150
CATHOLIC CENTER	
System size	28.6KW-DC
Number of panels	65
RECTORY	
System size	7.9KW-DC
Number of panels	18
TOTAL	
System size	101.5KW-DC
Number of panels	233



The power for the church will be provided by panels on a three buildings as shown.

FREQUENTLY ASKED QUESTIONS

How does solar power work?

Solar panels convert sunlight into direct current (DC) electricity. Their efficiency is typically about 22%, so about 1/5 of the sunlight is converted to electricity. The DC electricity is then converted to AC by an inverter and fed into the grid. During the day when power is made, the system sends more energy than we use to the utility and in the evening, we consume that energy credit. This is called net metering.

How long do solar panels last?

Solar panels see a very small decrease in efficiency over time. The proposed solar panels carry a warranty of 30 years at which point they are guaranteed to produce 82.5% of their initial power.

Are there maintenance costs for solar panels?

Buildup of dust on solar panels can affect performance. Rain and snow are typically sufficient to maintain solar efficiency with the average angle of the panels. No normal maintenance is required.

Are there concerns for storm damage of solar panels?

Solar panels are contained in tempered glass and are designed to withstand weather conditions including wind and severe hailstorms.

What is the warranty following the installation? Is there a risk of roof leakage?

Installation includes a warranty that covers any issues seen following the installation for up to 3 years. The installation follows national standards for sealing all roof penetrations as well as electrical connections.