



Kansas City Church Takes Bold Steps To Cut Carbon Emissions And Costs

Challenge

Central Presbyterian Church in Kansas City, Missouri, was faced with rising electricity costs and sought to reduce the carbon footprint of its 100-year-old building. The congregation developed an ambitious plan to improve the facility's energy efficiency and transition to solar energy.

Solution

As the church implemented energy efficiency measures, SunPower Elite Dealer, Good Energy Solutions designed and installed an 88.3 kW system for Central Presbyterian. The SunPower® Helix® system includes 256 high-efficiency SunPower X-Series solar modules installed on the roof of the church.

Benefit

The SunPower system cut the church's electricity expenses by 72 percent. Going solar also aligns with the congregation's mission to reduce its carbon emissions by 89.5 metric tons annually—the equivalent of not burning 98,629 pounds of coal each year.

Quick Facts



88.3 kW
System Size



**SunPower® Helix®
Rooftop**
Installation Type



126,600 kWh
Estimated Annual
Production



\$466,896
Estimated 25-Year Savings

“We view SunPower and Good Energy Solutions as long-term partners while we continue to reduce our carbon footprint and care for our earth.”

Mary Merola
Committee Member

Lighting the Way with Solar

Over the past five years, Central Presbyterian Church in mid-town Kansas City has been searching for ways to reduce rapidly rising utility costs. With a building that's more than 100 years old, improving energy efficiency was the first order of business. After converting incandescent lightbulbs to LEDs and adding insulation in the attic, the church's building and grounds committee began exploring solar.

At first, solar did not appear to be cost-effective, but after contacting Good Energy Solutions, the committee members found a way forward.

“The representatives from Good Energy Solutions were sensitive to our needs, carefully considered the age of our building and were respectful of the sacred nature and history of our church,” says committee member Mary Merola.

With the higher efficiency of SunPower modules and a significant rebate from Kansas City Power and Light, the church could realize a good return on investment for the solar system. SunPower's industry-leading, 25-year warranty and American-based headquarters were also important considerations.



To maximize long-term efficiency, the church installed a new roof prior to the solar installation. With support from SunPower, Good Energy Solutions provided a financing plan to suit the church's needs, and when engineers identified a structural challenge, the team provided an alternative installation design that would provide the same energy production and while remaining within the original budget.

“We view SunPower and Good Energy Solutions as long-term partners while we continue to reduce our carbon footprint and care for our Earth.” Mary notes.

The solar system has been operational since July 2019 and has so far exceeded all savings estimates, cutting the church's electricity costs by 72 percent. More importantly, the system will eliminate an estimated 89.5 metric tons of carbon emissions from the atmosphere annually, the equivalent of 98,629 pounds of coal every year.

Creating their own clean energy with a solar energy system is the perfect way to practice their organization's motto: “We will maintain facilities in a way that respects creation, conserve resources, and share what we have.”

Or as Mary says, “The members of Central Presbyterian Church are proud of the decision to go solar and feel the environmental benefits are consistent with the church's mission and vision.”

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