# Kokomo Office – Solar Electric Panel Installation

## Solar Power at Work

In July 2007, Duke Energy installed two photovoltaic panels at our Kokomo office as part of our on-going commitment to study solar power as a viable renewable energy source. The installations are being monitored to compare output of a stationary panel with a panel that can track the sun across the sky.

## Project Highlights

- Each panel consists of eight 120-watt Evergreen EC-120 solar modules for a rating of 0.96 kilowatts (kw) or 960 watts. Total rating of both panels: 1.92 kw (1,920 watts).
- An earlier stationary installation study at our Bloomington office indicated that solar output trails off significantly before our system load peaks in the afternoon.
- The Kokomo site is testing a stationary panel and an identically sized tracking panel to measure the additional power output of the tracking panel.
- The single-axis tracking panel tracks the sun from east to west and is expected to produce more kilowatt hours during the day and have higher output late in the afternoon when our system load peaks.
- Output from the panels is used to help power the Kokomo facility.
- Live monitoring results are available to the public. To access, visit http://www.duke-energy.com/environment/renewable-energy.asp and click on Solar under Duke Energy Initiatives.

## How Solar Installations Work

The panels are installed in a grid interactive mode and produce DC electricity. An inverter mounted on the support pole of one of the panels converts the DC electricity from both panels into AC electricity at 240 volts. The AC side of the inverter is connected to the building's electrical system. Any output from the panels results in a reduction in the amount of electricity the building draws from power plant generation.

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