# Green Notes: Narthex Display Will Show First UMC's Solar Power Production in Real Time

One of the questions NorthWestern Energy asked when we applied recently for a renewable energy grant was this: How will you monitor your solar installation and verify its success?

The answer is one of the most exciting features of the array proposed for the roof of First Church's Education Annex.

Every solar installation has an inverter; in fact, it is one of the system's most important pieces of equipment. An inverter is the device that converts direct current (DC) electricity – the power generated by a solar panel – to alternating current (AC) electricity – the power we use.

First UMC's inverter is manufactured by SolarEdge, and it includes a monitoring app that reports power produced both instantaneously and cumulatively. Our proposal also includes the hardware needed to bring the data online, so members of the church, church staff, the public and SBS Solar can monitor the system's health and production.

That means we'll all be able to verify the success of our solar system – just by logging on to SolarEdge via the link to our system's page. Anyone can access the display from home, but we will make it easily accessible to our church's thousands of visitors by installing a live display in the Narthex.

This week, the Green Team and Pastor John Daniels began work on finding the stand-alone monitor and mini-computer we will use for the Narthex display. We'll continue Monday. For testing purposes, we will connect the monitor to the SolarEdge page showing minute-by-minute power production by the solar panels atop Our Savior's Lutheran Church in Bonner.

As we told you in a Nov. 7 Green Notes column, the Bonner church dedicated its 30-panel, 12 kW solar system last Oct. 31. Much as we will, Our Savior's installed a computer monitor and ChromeBook just outside its sanctuary so parishioners can see the power produced by its solar array in real time. And that's not all: It also displays that day's total power production, the monthly total, and the system's lifetime output. The weather forecast is shown on one side, as is a graphic displaying the environmental

benefits of the system. Larger bar graphs show daily power production for the current month, and a comparison with the same month last year. Here's the link.

There's so much coming if we're awarded the NorthWestern Energy grant later this summer. Stay tuned!