Green Notes: Weekly tips for reducing your carbon footprint from First United Methodist's Green Team

Net metering is the key to solar power success!

If you read last week's Green Notes about a possible solar array atop First UMC, you might have wondered: Aren't Missoula's winters too dark for solar power to succeed?

The answer: Absolutely not! Solar power can and does generate electricity year-round for Missoula residences, churches, government buildings and businesses.

"The reason solar works in Missoula is because of net metering," said Ralph Walters of SBS Solar, who is preparing the proposal to install an 80-panel system on the roof of First Church's education wing.

"With rooftop solar, you produce your own power, and the electric grid becomes your storage facility," he said. "During those long, beautiful summer months, you build up your account – you produce more electricity than you use. During the winter, you only produce about one-seventh the solar energy of summer – so you call upon the resources you banked back in July and August."

Over the year, Walters believes an 80-panel array could supply 90 percent of First Church's electricity. NorthWestern Energy would supply the remainder. "You want to maximize the number of panels in your installation so you have a balanced system, summer to winter," he said.

One factor that limits the number and placement of First UMC's solar panels is the shadow cast by the church tower. But the

production lost to the shadow is “acceptable,” according to an initial analysis by SBS.

Walters said each of the panels will have a “smart box” on its underside, which will control its operation as the tower’s shadow passes over the roof during the day. “You’ll see a wave of power production across the panels,” he said.

Before the pandemic, First Church used about 20,000 kilowatt-hours of electricity a year, so “it’s pretty efficient for a building this size,” Walters told trustees and Green Team members during a Dec. 20 meeting. “That’s about equivalent to the usage of three or four homes.”

THIS WEEK’S CAUSE TO CELEBRATE: Congratulations to Missoula’s Mountain Line bus system, which announced that 40 percent of its fixed-route bus fleet is now electric. Thanks to federal grants, 12 of 29 buses are powered by electric-charged batteries. That’s important because transportation – cars, buses, trucks, trains and planes – is the largest source of greenhouse gas emissions in the Missoula Valley, according to a 2017 study.