Did You Know? You Don’t Need a Suitable Roof to Benefit From Solar Power

When Rita and I bought our current home, one of our considerations was that we have a suitable roof for installing a solar photovoltaic system so that we could reduce our monthly electric bill to what the utility charges to be connected to their electric grid — about $8/month.

Thanks, however, to the “Community Solar Gardens Act” signed into law on June 5, 2010, we could have bought (or rented) any home at all and still installed that 10-kW system — as part of a much larger array in a field far from our house.

Now, 4½ years after that law was signed by Governor Ritter, hundreds or maybe thousands of homeowners, renters, and organizations across the state have done exactly that, and are now enjoying the same freedom from large electric bills that Rita and I enjoy. Do a web search for “community solar gardens” and you’ll see that there are many entities, both for-profit and non-profit, in the solar garden business. Clean Energy Collective is one I’m most familiar with, since they built a 2,422-panel array on open land just north of Golden. Learn how you can participate in their program at www.EasyCleanEnergy.com.

Their website explains the concept well: “Community solar arrays, sometimes referred to as a solar farm or solar garden, are centralized photovoltaic (PV) power facilities that deliver reliable, commercial-scale renewable energy to an electric utility’s grid. The utility’s customers, including residences, businesses, and tax-exempt entities, can own or lease solar panels in the array without having to install panels on their own rooftop or property.”

In effect, anyone with an electric bill can own or lease solar panels and have the panels’ production directly reduce their electric bill. Also, as a participant in a solar garden, you can easily add additional solar panels at any time. For example, when it comes time to replace your gas hot water heater or forced air furnace, you could choose electrically powered units and buy or lease additional panels to cover that added electrical load.

I know a home in Applewood, coming on the market soon, which terminated its gas service and became an all-electric house — powered by the sun. For cooking, they use induction cooktops which not only use less electricity than standard electric cooktops but are child-safe, heating only when non-aluminum metal pots are placed on each “burner.”

When your gasoline-powered automobile needs its next major repair, you could also purchase an electric car and buy or lease additional solar panels to cover that electrical load. Even renters can buy into solar community arrays. When they move, their solar garden investment moves with them, or they can sell it to another electric customer, or even donate it to a non-profit organization.

The more I think about the advantages a solar garden, the more I think that it is a good choice even for those with a “suitable roof.” I’m thinking... no delay for building permits and installation, no HOA approval needed, no inverter to replace if it fails years from now, and easy expansion as my electrical needs increase. If I move, I wouldn’t have to install a new system.

Looking at the Big Picture: What’s the Future of Solar PV?

Solar-powered electricity has become so affordable now that utilities are (1) beginning to build utility scale installations, especially in desert areas of the country, (2) asking their regulators to eliminate or reduce their once generous incentive programs, and (3) proposing to make customers with solar PV pay for their use of the electrical grid.

Grid-connected PV systems save customers the cost of battery storage. During the day, when solar panels create more kilowatts of power than is needed, that power is pushed into the grid where it is used by other customers. The electric meter actually runs backward. After dark, the flow is reversed.

I like to say that “the grid is my battery.” If I didn’t have a net meter I’d have to invest in large batteries to store that power. Maybe I should pay for the grid.

Electric Driving Powered by the Sun

In the article above I point out that you can power an electric car with the energy created by your home’s solar panels, whether those panels are on your roof or in a “solar garden” several miles away.

So, you may wonder, how many free EV miles can I get from a solar panel? The answer is about 1,500 miles per year. Thus, if you drive your Chevy Volt or Tesla 15,000 miles per year, you could obtain all the power you need from 10 solar panels. Electric cars get 3 to 4 miles per kilowatt-hour.

This Week’s Featured New Listing

This townhome at 6313 Zang Court, Arvada is a short walk from Meadowlake Park, where there is a 1/2-mile walking path around the lake, plus a playground and tennis courts. This home is beautifully updated, too. The original wood-burning fireplace has been fitted with an electric fireplace insert which can project heat or simply look like a burning fireplace. The main floor has hardwood flooring throughout, which leads to an updated kitchen with slab granite countertops and stainless steel appliances. Off the kitchen through a sliding glass door, is a spacious west-facing patio with a remote controlled retractable awning which makes the patio enjoyable year-round. All appliances are included, even the washer and dryer. The wall-mounted flat-screen TV’s aren’t included but are negotiable. In the basement is a spacious workshop, and both work bench and shelving are included. The gas furnace is five years old, but the hot water heater and A/C are only two years old. The windows and doors are also new. In short, this home is in prime condition, and you’d be hard-pressed to find anything to improve after you move in. At just $200,000, this 3-bedroom, 2½-bath, home is a great buy! Take the narrated video tour at www.MeadowlakeHome.info, then come to this Saturday’s open house, 1-4 pm.