

Solutions for a Sustainable Future

Dear Mr. Comfort: I read that Ohio utility FirstEnergy Corp claims it cannot meet the state mandates to get 25% percent of its electricity from solar projects or credits within the state by the end of 2024. It wants a SREC shortage declared by the Ohio PUC. What is an SREC.



Factoid: Solar panels. FirstEnergy had planned to meet the state's new mandates for energy generated by solar power, but now says that may not be feasible.

If you've wandered around on the Web looking for information on residential solar energy systems, you will come across something called a "Solar Renewable Energy Credit" — or SREC for short.

Factoid: An SREC is a certificate representing the "green attributes" of one megawatt-hour (MWh) of electricity generated from solar energy.

If you install solar panels on your home, your roof will, in effect, start generating kilowatt-hours (kWh). As these kWhs add up, you'll be on your way to making one SREC — which, as noted above, is the equivalent of one MWh, or 1,000 kWh.

It depends generally on the size of the system and the amount of sunshine available. By way of example, a 7-kW home solar energy system in Somerset County, New Jersey, would, according to solar cost calculators, produce roughly eight SRECs over the course of a given year.

Once you've accumulated a SREC, you'll be able to sell your credits. Exact SREC prices vary from state to state, but the highest price recorded so far has been around \$680 in New Jersey. At this price, SRECs would generate \$5,440 in annual revenue for our hypothetical 7-kW solar array in Somerset County. Put differently, we would earn \$0.68 cents for every kWh that our system produces — this in a state where the average residential price of electricity is around 16 cents. Clearly, SRECs in New Jersey provide a generous incentive!

Factoid: a typical Ohio home solar array could generate 4 to 8 SRECs each year, and each SREC sells for \$300 to \$400 in Ohio, so the annual passive income you

could expect to generate off an average Ohio rooftop would be somewhere between \$1,200 to \$3,200 every year.

SRECs are traded actively in only a handful of states (Ohio is one of these state) — but that number is growing. Also, it's important to note that the going price of an SREC tends to fluctuate, and that \$680 levels are likely the exception, not the rule. Finally, in some states, like Colorado, utilities offer an upfront payment for all the SRECs a given system is expected to generate — rather than buying them over time.

Many states have passed a Renewable Portfolio Standard (RPS), legislation requiring them to produce a certain percentage of their electricity from renewable resources by a certain year. For example, Ohio must get 50% of its electricity from solar projects or SRECs by the end of 2024. Half of that must come from inside the state. State requirements vary based on their political support, baseline level of renewable electricity in use, and level of public investment. An RPS almost always includes a policy plan to incentivize renewable energy development and installation within their state. In the residential sector, this is most traditionally done though subsidies awarded based on the number of watts of renewable energy installed.

Many states include a provision specifically for solar energy, requiring a smaller percentage of total renewable energy to be met by solar photovoltaics. Each electricity provider that does not meet this percentage must purchase SRECs to correct their deficit, and non-compliance means a hefty fine. As a result, SRECs are sold for prices determined strictly by the market for RPS compliance. It's a simple case of supply and demand: fewer solar installations means higher prices for available SRECs, creating an incentive for future solar installations.

So far, Delaware, Maryland, Massachusetts, New Jersey, North Carolina, Ohio, and Pennsylvania, have funded and implemented SRECs to promote the level of solar energy development that their policies demand.

Factoid: There are only 8 homeowners in Ohio making solar off their roofs and selling the 40 SRECs that they generate to FirstEnergy.

I am Jim Steigner (Mr. Comfort) and I just wanted you to know. As always please feel free to contact me with any questions (this one was excellent. I thank you), comments or thoughts at www.mrcomforthvac.com under the “Ask Mr. Comfort” section.