

Solar Panel Installation at Sky Mountain Board Position Paper

A few months ago your HOA conducted a survey on current topics. One of the issues for which several owners expressed an interest was solar power. Because the installation of roof-top solar panels would require a vote to change our CC&Rs, your HOA has collected some information for your consideration in preparation for a vote to change the CC&Rs.

For these reasons and AT THIS TIME, the Board does not support the amendment. You are encouraged to undertake your own review on this issue. As technology improves, this issue may be addressed again in the future.

The two main questions are (1) is solar power cost effective and (2) is solar power as environmentally friendly as it appears to be. The answers are No and No.

The answer to the first question is a somewhat complicated because solar power output varies throughout the day and throughout the year. To answer this question we have obtained actual data from our city records. But first let's address the cost of installation and financing for a solar power system with an expected lifetime of 20 years. According to cleanenergyreview.com a 6 kW system would cost about \$18,500 plus the cost of inverters and mounting hardware for a total of \$20,000. (Note: this does not include the cost of a battery storage system that would allow solar power to be used after sunset.)

If one paid the total cost out of pocket for a solar system the power savings would begin immediately, but one would have to consider how much the \$20,000 would have grown over time if invested. Clearly one would not want to finance a solar installation beyond the expected lifetime of the system so if we consider \$20,000 financed over a period of 20 years at an annual rate of 5% we see that the actual cost of the installation is \$132/month for a total of \$31,678. In addition, a home equity loan would most likely require a lien on your property which could add to the difficulty of selling your property.

Actual annual cost data for a home in Hurricane before solar power in 2018 was \$2974. Solar power was installed partway through 2019, but if we consider that the 2020 annual cost of power for the same house was \$2099, one sees a savings of \$875 per year. At this rate it would take 22.9 years to recover the cost of installation. This is longer than the expected lifetime for the system. If we look at the financing example, it would take over 36 years to recover the total cost. Other actual examples from Hurricane homes were even more costly.

This is why so many solar power companies have gone out of business in Hurricane/St. George. In Southern California where the cost of electric power is three times as much as it is here, solar can make sense financially.

Now let's look at the environmental question. At first glance it would appear that solar power is a totally clean approach to household power. However we must realize that almost all solar panels now come from China where open pit mines for the non-renewable raw materials (silicon, lithium, and cobalt for example) to make the panels are scarring the environment. In addition, China is not known for its humanitarian approach to labor and there are many concerns (see Amnesty International) about the use of child labor in these mines. In other words the picture is not all that clean unless you consider only your back yard.