Refer to your home energy audit.

1. How much energy does your family use annually? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What percent of your energy use was your family able to reduce through the home energy audit?
3. What would be your family’s new annual energy use (after reductions)?
4. Go to PV Watts, type in your address, and draw the area where solar panels can be placed. Specify the azimuth, tilt, and mounting style (if mounting the system on the roof of your house or garage, then chose roof mount). The energy costs we used for the energy audits was $0.056 / kWh.
5. How big will the system be (DC kW) ? How many kW will it produce? And what is the annual value?

DC kw: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

kWh output: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Annual Value: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Find the kW deficit, meaning, find the difference between what you need and what you can generate from solar.
2. Use an installation cost of $3 / watt to determine the cost of the system. Then find the return on investment.
3. Calculate the percent of energy you can generate out of the energy your family needs.

(The energy you can generate divided by the energy you need, times 100)

 8) Place your answers in the table below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Original Annual Use | Annual UseAfter % Reduction | kW solar capacity | % Generated | kW deficit | Installation Cost |
|  |  |  |  |  |  |

NOTE: If you chose not to participate in the home energy audit, you will calculate your numbers using national and class averages. On average, a household uses 10,000 kWh per year. On average (mean), per household, our class was able to reduce energy consumption by 23.5%.