

Technical Details for our Solar Arrays



The Net Metering System:

- The system is located about 65 miles (100 km) from West Hill House B&B, in a secluded location near Poultney, Vermont—almost invisible from the nearest road.
- Total system provides 113.4kW (DC) of peak power.
- Comprised of 360 x 315W [Solarworld](#) Modules, made in America in Hillsboro, Oregon.
- System is divided into 6 rows, and each row is electrically divided in two, for 12 sub-arrays connecting to 12 SMA 700 TL-US invertors. (This design minimizes the impact of any sub-system failures.)
- Estimated annual production of 145MWh.
- The overall arrangement takes advantage of Vermont's [Group Net metering](#) statute [Title 30 Section 219a](#) updated with [Act 99](#).
- Went into service in August 2015.

Specifics for West Hill House B&B:

- West Hill House B&B (though a holding company) owns 28% of the array, totaling about 32kW peak power.
- Typical production for West Hill House B&B is about 37.5MWh per year.
- This production approximately zeroes out our electricity cost on an annual basis, including EV charging.
- Over the 25-year life of the system West Hill House B&B will offset a total of approximately 130 tons of carbon dioxide.

Solar Trackers on the Property:



- In December 2022 our two new Solar Trackers were commissioned, located right here at the north end of the property beside the big pond, increasing our solar power capacity by about 30% or roughly an additional 15MWh per year.
- Each of the two trackers has 16 modules, producing a peak power of 390W per module, or about 12.5kW overall.
- The trackers are designed and made by Solaflect, a Vermont company. They are unique in that they use a lightweight cable stayed structure, rather than the heavy rigid frames used by more conventional trackers. Less weight means smaller motors and less wear and tear.
- By directly tracking the sun all day, the Trackers capture up to 40% more solar energy than solar panels mounted on a fixed surface like a rooftop or fixed panels on the ground.
- The Trackers also “sleep” vertical at night, meaning gravity takes care of any remaining snow in the winter. This is particularly relevant because solar panels are as much as 30% more efficient at producing electricity when it’s very cold. (The trackers do rest horizontally in high winds.)
- The extra power from the trackers makes it cost effective to use the mini-split heat pumps that we have installed over the last few years for some of our heating in the winter and to power additional EV charging.
- Over the 25-year life of the system West Hill House B&B will offset a further total of approximately 82 tons of carbon dioxide.