

HUNGRY HILL FARM

WENDY STEIN AND PHIL FREEMAN

SOLAR PV

For us, environmental issues have been paramount for many years. When we were young children, the human population of the world was about 3 billion and the U.S. population was about 185 million; today, those numbers are 7.7 billion and 329 million, respectively. It is not a coincidence that in 1960, the concentration of CO₂ in the atmosphere was less than 320 ppm, while today it is over 410 ppm. For people aware of this (and of the myriad other threats facing the diversity of life with which we share the planet), despair would be understandable and we feel our share of that. But we decided that one tiny action we could take would be to meet at least some of our electrical energy needs with renewable technology. When presented with the “group buy” opportunity, we took it. We are very pleased with the results and find comfort in taking that action.

Phil Freeman, co-owner



System overview

- Adjustable ground-mount style PV installation
- Installed by Next Energy Solution with electrical by Jolma Electric

www.cheqbayrenewables.org

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- Grid-tied to Bayfield Electric Cooperative with net metering

Technical specs

- 3.1 kW dc consists of 10, 310-watt solar modules manufactured by Silfab
- Modules Model SLA310M made in Canada
- single-phase system, 10 modules per string
- Inverted from DC to AC using Fronius Primo 3.8
- Fronius web-based monitoring
- Estimated generation is 3870 kWh per year, 100% of annual usage

Incentives

- 30% Federal Investment Tax Credit for renewable energy

Costs

- Total cost including solar system, electrical and utility fees: \$12,012
- Out of pocket costs after incentives: \$8,408
- Estimated payback of 14 years
- Estimated 25-year annualized return: 5.74%
- Estimated 25-year annualized tax equivalent yield: 7.66%

Additional features

- Solar thermal installation to heat hot water
- Seasonally movable greenhouse
- Produce business

