



## 2018 Group Buy Installation Profile

# WILD HOLLOW FARM, LLC

## Ashland, WI

Wild Hollow Farm, LLC is a small-scale fruit, vegetable, and cut flower farm near Marengo, WI. The solar installation was sized for a full offset of the annual electricity use of the home and farm. Roughly 40% of the annual electricity is used by the farm for chest freezers, walk-in cooler, irrigation, greenhouse blower fans, and workshop heating. The installation is a Ready-to-Install (RTI) system from Next Energy Solution consisting of 32 Peimar SG270P 270-Watt panels mounted on a treated-wood in-ground frame with a Fronius Primo 8.2-1 Inverter. The array is tied to the grid via a 50amp circuit in a service panel.



**32 panel 8.64 kW Solar Array**

Construction of the in-ground frame and mounting of the panels was done by the farm owners. Installation of the inverter and connection to the grid was completed by Jolma Electric.

### Projected Economic Performance

With a 30% federal tax credit and depreciation, estimated payback for the array is 6.5 years with a 25-year internal rate of return of 16.4%. This assumes a 3% energy cost escalation, which effectively increases the value of the avoided costs.

		<b>Payback</b>	<b>25-Year Savings</b>	<b>IRR</b>
Total Cost	\$17,469	10 years	\$ 62,047	10.1%
30% federal tax credit	<b>\$ (5,241)</b>			
Net Cost	\$12,228	7.5 years	\$ 62,047	14.7%
Farm Use Depreciation (40% of total generation)	<b>\$ (1,307)</b>			
<b>Adjusted Cost</b>	<b>\$ 10,921</b>	<b>6.5 years</b>	<b>\$ 62,047</b>	<b>16.4%</b>

<b>Economic and Performance Assumptions</b>	
Starting electricity rate	\$0.140
Escalation of energy costs/year	3.0%
Production degradation/year	0.50%
PVWatts Solar capacity factor	15%

<b>Costs</b>	<b>Amount</b>
Bayfield Electric Co-op Fee	\$500
Wood Ground Mount Materials	\$879
Cost of Electrician and Materials	\$1403
8.64 kW Panels/Inverter/Mounting Hardware	\$14,688
<b>Total Cost</b>	<b>\$17,469</b>