

2,165 of Carbon Dioxide (CO₂) equivalent

This is equivalent to greenhouse gas emissions from:

423 gasoline-powered passenger vehicles driven for one year 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#vehicles>



4,874,431 miles driven by an average gasoline-powered passenger vehicle 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#miles>



This is equivalent to CO₂ emissions from:

220,969 gallons of gasoline consumed 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#gasoline>



192,903 gallons of diesel consumed 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#diesel>



2,172,711 pounds of coal burned 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#lbscoal>



26 tanker trucks' worth of gasoline 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#tankers>



247 homes' energy use for one year 


<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#houseenergy>



382 homes' electricity use for one year 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#houseelec>



10.8 railcars' worth of coal burned 


<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#railcars>



4,546 barrels of oil consumed 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#oil>



80,189 propane cylinders used for home barbecues  <https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#propane>



0.0005 coal-fired power plants in one year 

<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#coalplant>



0.005 natural gas-fired power plants in one

year [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#gasplant) [<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#gasplant>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#gasplant)



238,875,739 number of smartphones charged [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#smartphones)

[<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#smartphones>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#smartphones)



This is equivalent to greenhouse gas emissions avoided by:

679 tons of waste recycled instead of

landfilled [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#recycle) [<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#recycle>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#recycle)



97.1 garbage trucks of waste recycled

instead of landfilled [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#gtrucks) [<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#gtrucks>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#gtrucks)



85,002 trash bags of waste recycled instead

of landfilled [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#trash) [<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#trash>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#trash)



0.534 wind turbines running for a year [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#wind)

[<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#wind>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#wind)



74,428 incandescent lamps switched to

LEDs [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#lights) [<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#lights>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#lights)



This is equivalent to carbon sequestered by:

32,471 tree seedlings grown for 10 years [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#seedlings)

[<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#seedlings>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#seedlings)



2,324 acres of U.S. forests in one year [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#pineforests)

[<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#pineforests>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#pineforests)



13.2 acres of U.S. forests preserved from conversion to cropland in one year [?](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#deforestation)

[<https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#deforestation>](https://epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references#deforestation)





Caution: Photovoltaic system performance predictions calculated by PVWatts® include many inherent assumptions and uncertainties and do not reflect variations between PV technologies nor site-specific characteristics except as represented by PVWatts® inputs. For example, PV modules with better performance are not differentiated within PVWatts® from lesser performing modules. Both NREL and private companies provide more sophisticated PV modeling tools (such as the System Advisor Model at <https://sam.nrel.gov>) that allow for more precise and complex modeling of PV systems.

The expected range is based on 30 years of actual weather data at the given location and is intended to provide an indication of the variation you might see. For more information, please refer to this NREL report: The Error Report.

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The energy output range is based on analysis of 30 years of historical weather data, and is intended to provide an indication of the possible interannual variability in generation for a Fixed (open rack) PV system at this location.

RESULTS

2,770,987 kWh/Year*

System output may range from 2,705,869 to 2,840,816 kWh per year near this location.

Month	Solar Radiation (kWh / m ² / day)	AC Energy (kWh)
January	3.05	167,727
February	3.79	187,200
March	4.81	251,550
April	5.39	261,227
May	5.63	273,633
June	6.18	285,387
July	6.43	300,248
August	5.77	269,172
September	5.33	247,386
October	4.02	203,044
November	3.35	171,605
December	2.79	152,806
Annual	4.71	2,770,985

Location and Station Identification

Requested Location	North Haven, CT
Weather Data Source	Lat, Lng: 41.41, -72.86 1.1 mi
Latitude	41.41° N
Longitude	72.86° W

PV System Specifications

DC System Size	2161 kW
Module Type	Standard
Array Type	Fixed (roof mount)
System Losses	14.08%
Array Tilt	20°
Array Azimuth	180°
DC to AC Size Ratio	1.2
Inverter Efficiency	96%
Ground Coverage Ratio	0.4%
Albedo	From weather file
Bifacial	No (0)

Monthly Irradiance Loss	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Performance Metrics

DC Capacity Factor	14.6%
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