NREL
NATIONAL RENEWABLE ENERGY LABORATORY

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 //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.

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

155,052,584 kWh/Year*

System output may range from 144,338,451 to 158,479,246 kWh per year near this location.

Month	Solar Radiation (kWh / m^2 / day)	AC Energy (kWh)
January	2.23	6,711,342
February	3.34	8,951,008
March	4.98	14,055,412
April	5.92	15,417,815
May	7.01	18,082,731
June	7.55	18,605,362
July	8.57	21,478,770
August	7.13	18,042,909
September	5.68	14,340,033
October	3.24	8,813,426
November	1.93	5,317,737
December	1.78	5,236,040
Annual	4.95	155,052,585

Location and Station Identification

Requested Location	riverside road, busti, ny
Weather Data Source	Lat, Lng: 42.01, -79.26 0.6 mi
Latitude	42.01° N
Longitude	79.26° W

PV System Specifications

DC System Size	111720 kW
Module Type	Standard
Array Type	1-Axis Tracking
System Losses	14.08%
Array Tilt	0°
Array Azimuth	180°
DC to AC Size Ratio	1.241
Inverter Efficiency	96%
Ground Coverage Ratio	0.4
Albedo	*From weather file*
Bifacial	Yes (0.7)
Monthly Irradiance Loss	Jan 6.6% Feb 5.8% Mar 4.1% Apr 1.6% May 0.5% June 0.5% July 0.5% Aug 0.5% Sept 0.5% Oct 0.5% Nov 2.6% Dec 5.3%

Ground Coverage Ratio	**0.4**
Performance Metrics	
DC Capacity Factor	**15.8%**