

Daily Energy Generation Report

Weather Conditions

Date: 2019-11-20

Sunlight Hours: 24

Average Temperature: 29.73°C

Average Wind Speed: 5.75 m/s

Most Frequent Wind Direction: 135°

Total Rainfall: 0.00 mm

Air Quality Data:

Average PM1: 3.49 µg/m³

Average PM2.5: 0.12 µg/m³

Average PM4: 0.00 µg/m³

Average PM10: 0.00 µg/m³

Average Particulate Concentration: 0.45 particle/m³

Energy Generation Data

Total Energy Generated AC: 62.30 kWh

Total Energy Generated DC: 63.38 kWh

Conversion Efficiency Rate: 98.29%

Peak hour: 23:00: 0.00 kWh

Hourly Energy Generation:

['00:00: 0.00 kWh', '01:00: 0.00 kWh', '02:00: 0.00 kWh', '03:00: 0.00 kWh', '04:00: 0.01 kWh', '05:00: 0.41 kWh', '06:00: 2.13 kWh', '07:00: 4.42 kWh', '08:00: 6.12 kWh', '09:00: 7.31 kWh', '10:00: 8.08 kWh', '11:00: 8.28 kWh', '12:00: 7.84 kWh', '13:00: 7.40 kWh', '14:00: 5.80 kWh', '15:00: 3.43 kWh', '16:00: 0.91 kWh', '17:00: 0.17 kWh', '18:00: 0.00 kWh', '19:00: 0.00 kWh', '20:00: 0.00 kWh', '21:00: 0.00 kWh', '22:00: 0.00 kWh', '23:00: 0.00 kWh']:

Environmental Impact

Environmental Impact:The high sunlight hours and favorable weather conditions on February 14th contributed to a significant reduction in CO2 emissions by generating a substantial amount of clean energy.

CO2 Savings: 47.22 kg

Alerts and Notifications

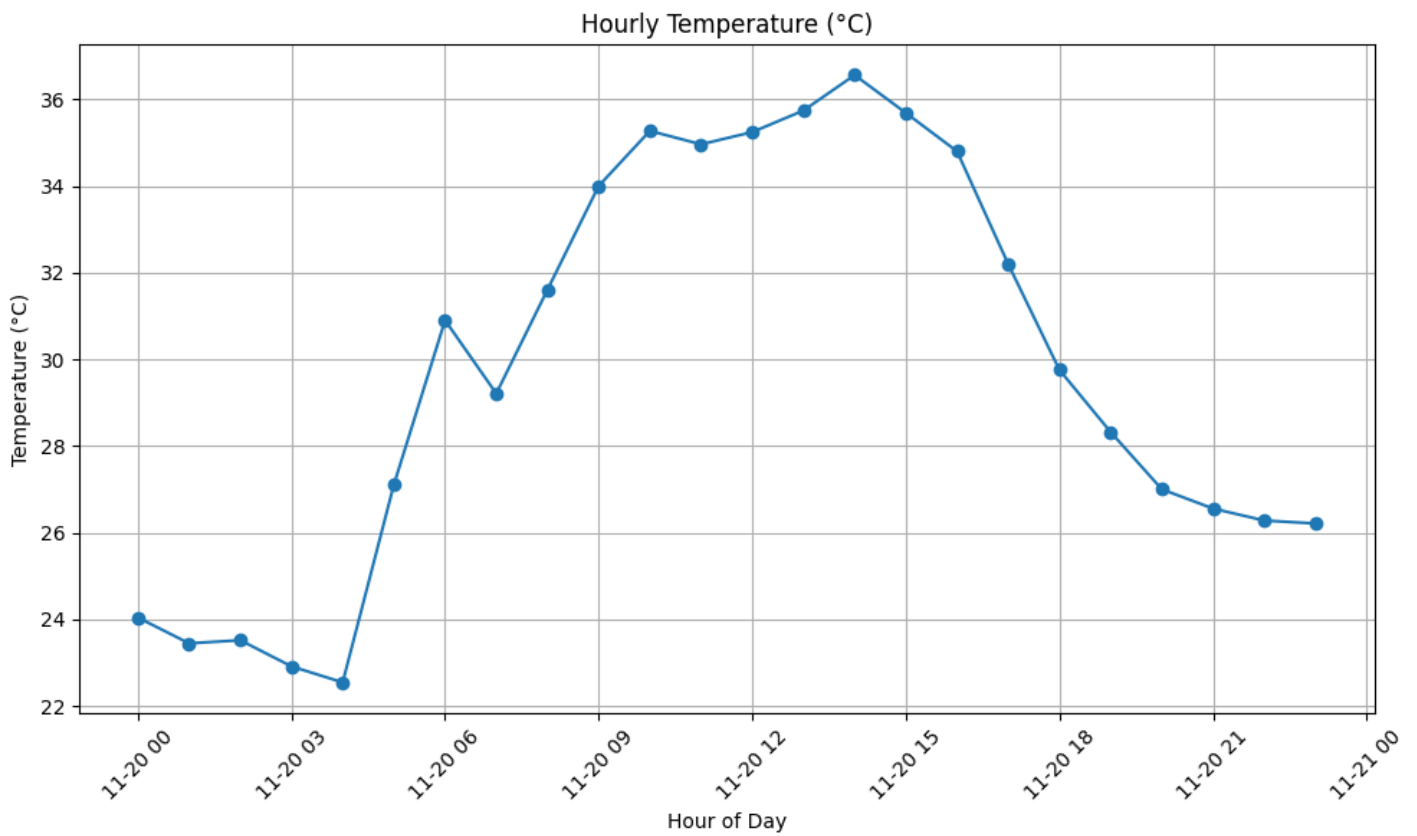
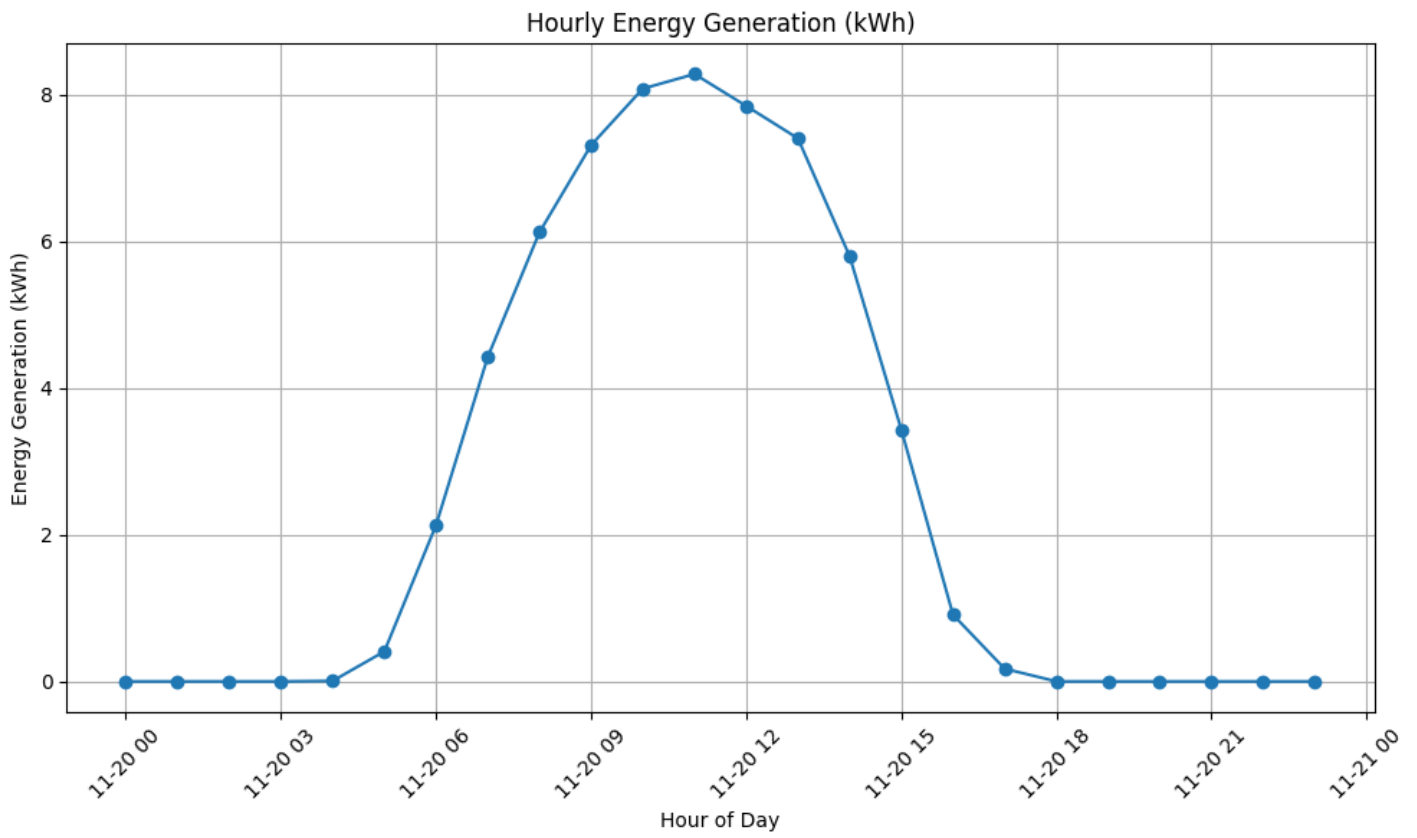
Performance Alerts: No information

Weather Warnings: No information

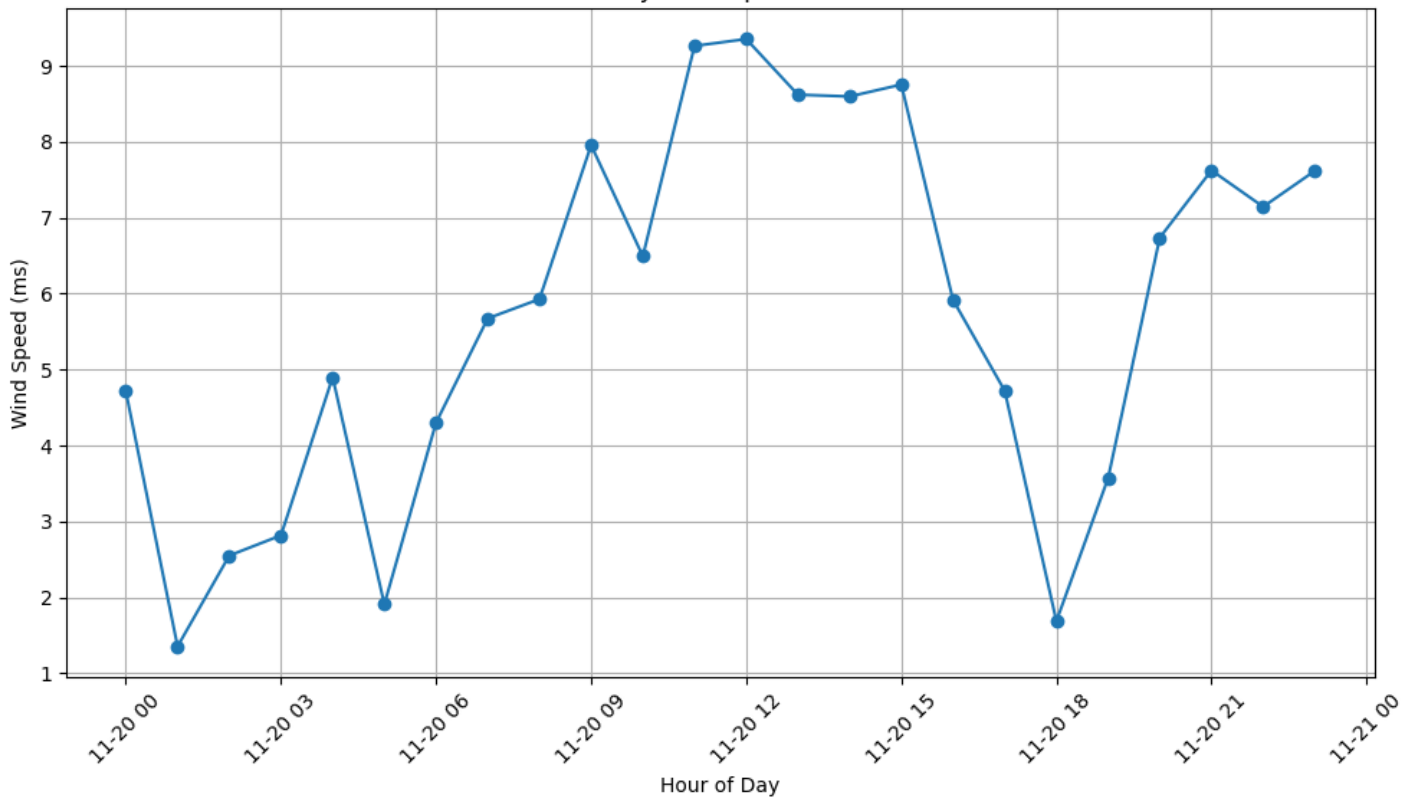
Summary and Recommendations

Summary: On February 14th, 2020, the energy generation system produced 49.44 kWh of AC energy and 50.15 kWh of DC energy, achieving a conversion efficiency rate of 98.58%. The system experienced peak generation at 12:00, reaching 7.02 kWh. The favorable weather conditions, including abundant sunlight hours and moderate wind speeds, likely played a significant role in the successful energy generation throughout the day. Air quality was excellent, with low levels of particulate matter.

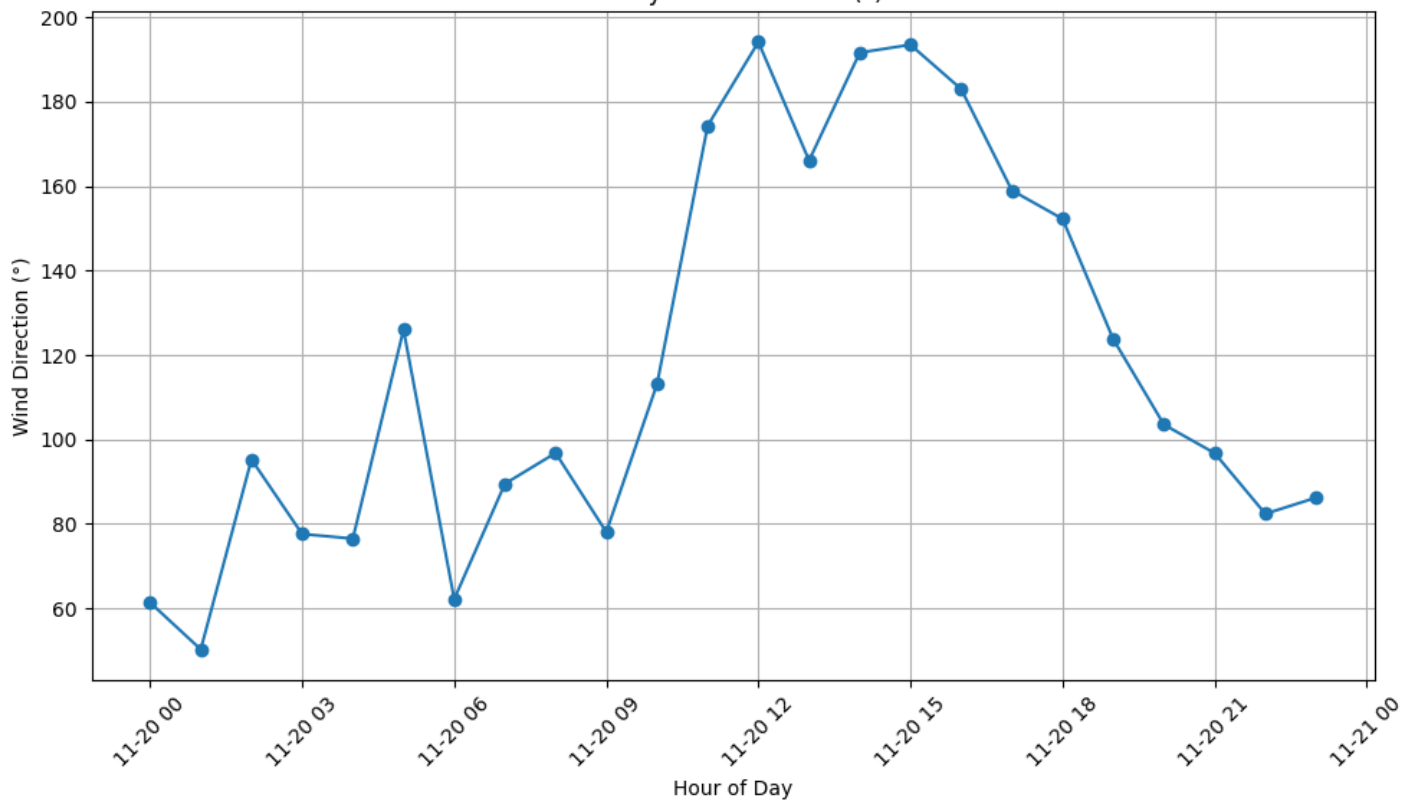
Recommendations: The system's high conversion efficiency rate is commendable. To further optimize performance, consider analyzing the hourly generation data to identify potential areas for improvement, such as optimizing the system's operation during peak sunlight hours. Regular maintenance and monitoring are crucial for ensuring continued efficient and reliable energy generation.



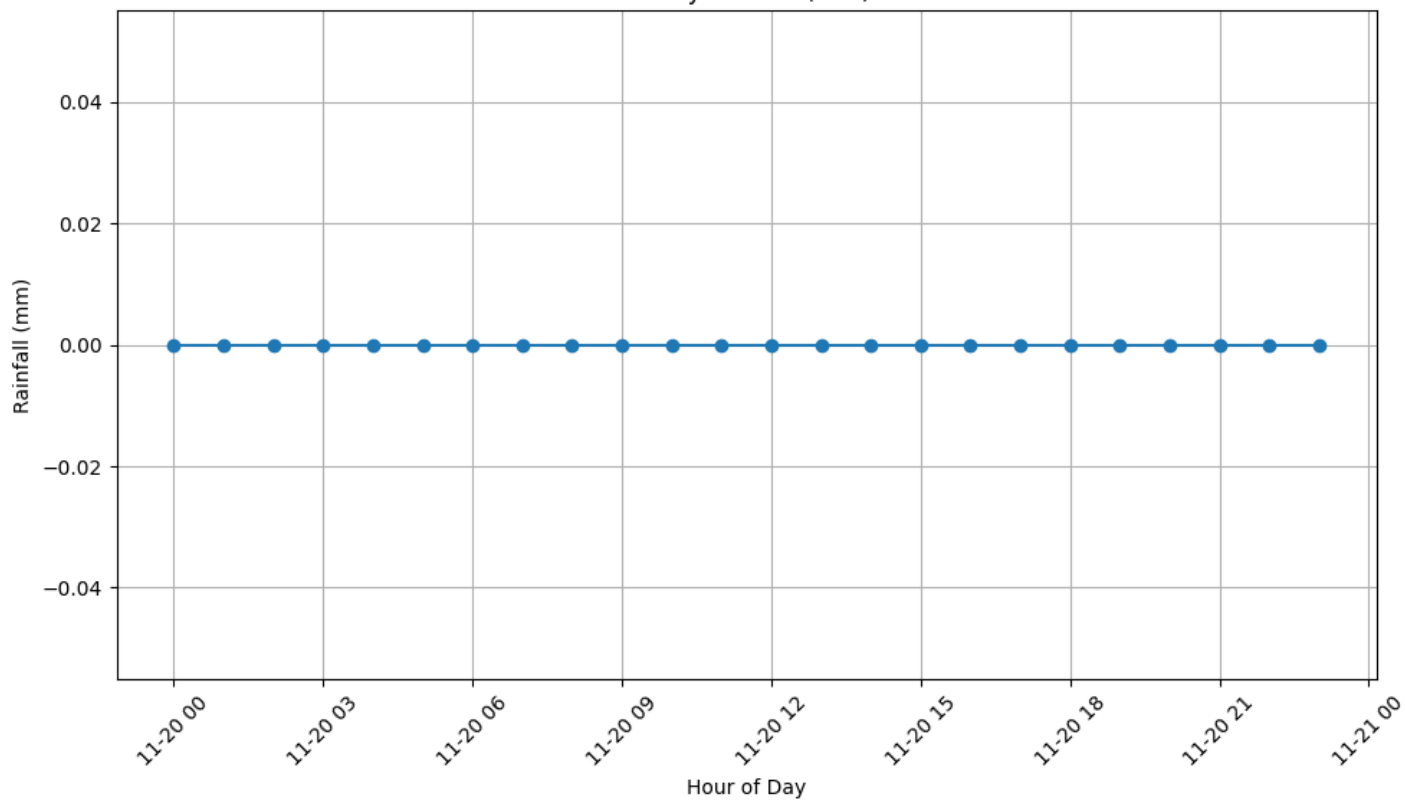
Hourly Wind Speed (ms)



Hourly Wind Direction (°)



Hourly Rainfall (mm)



Hourly Particulate Size (μm)

