

System Hybridization Wins Resiliency in Inclement Weather

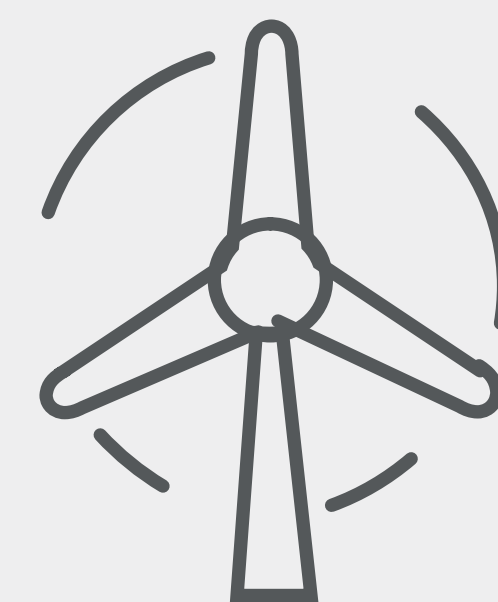
Inconsistencies of nature can pose a challenge to the resiliency and reliability of renewable energy systems. Hybridization (combining solar and wind energy) in system design allows for overall power production to remain steady, even when the forecast is uncooperative.



Susceptible to decreased power output from shading during variable weather conditions, solar arrays experience production reduction.

↓ CAPEX + O&M

↑ Required Footprint



Larger temperature gradients found in weather inclement places lead to greater wind speeds, increasing wind energy production.

↑ CAPEX + O&M

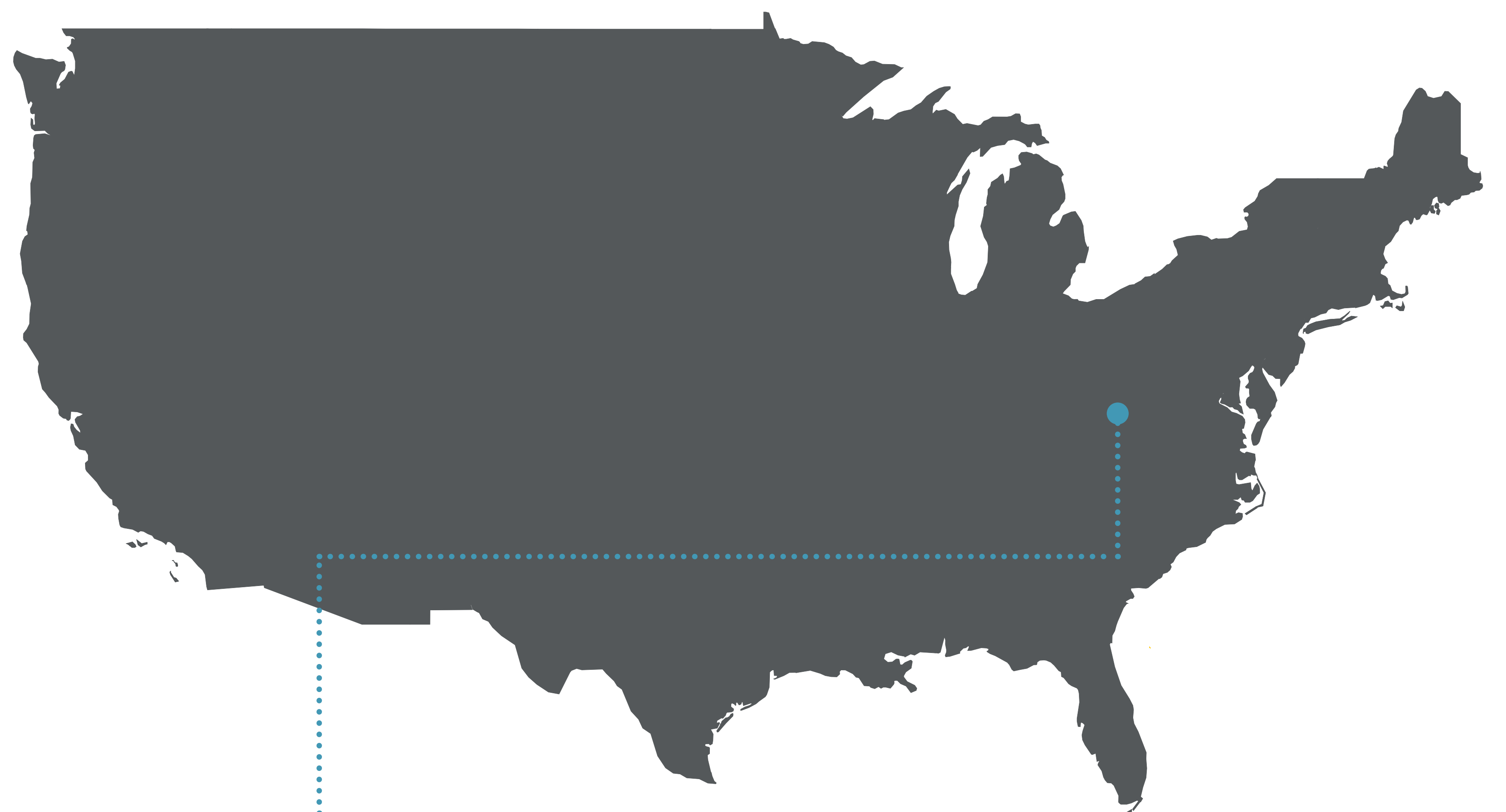
↓ Required Footprint



Anchorage, AK

Wind + Solar systems at 200 kW, Hybrid at 100 kW each

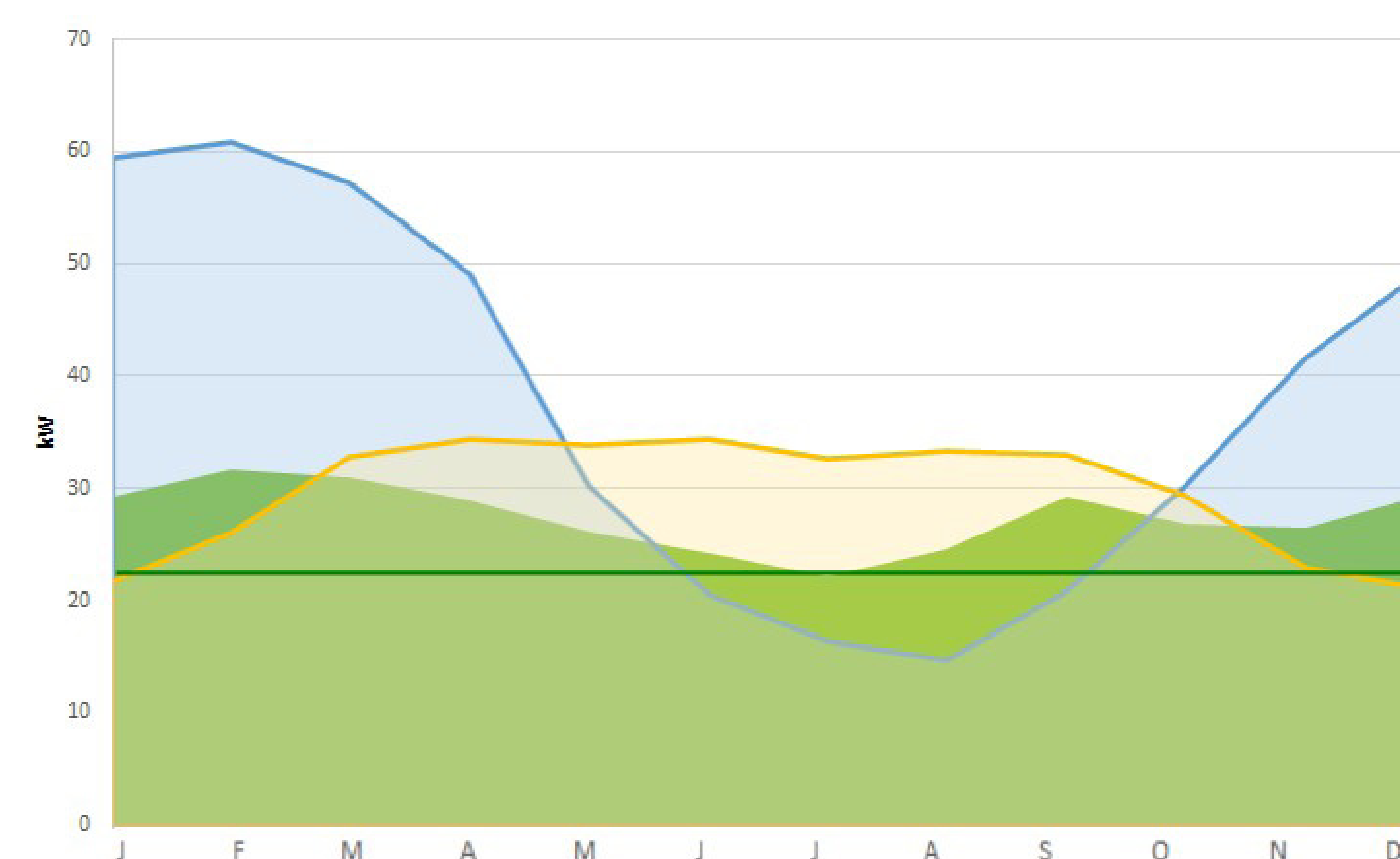
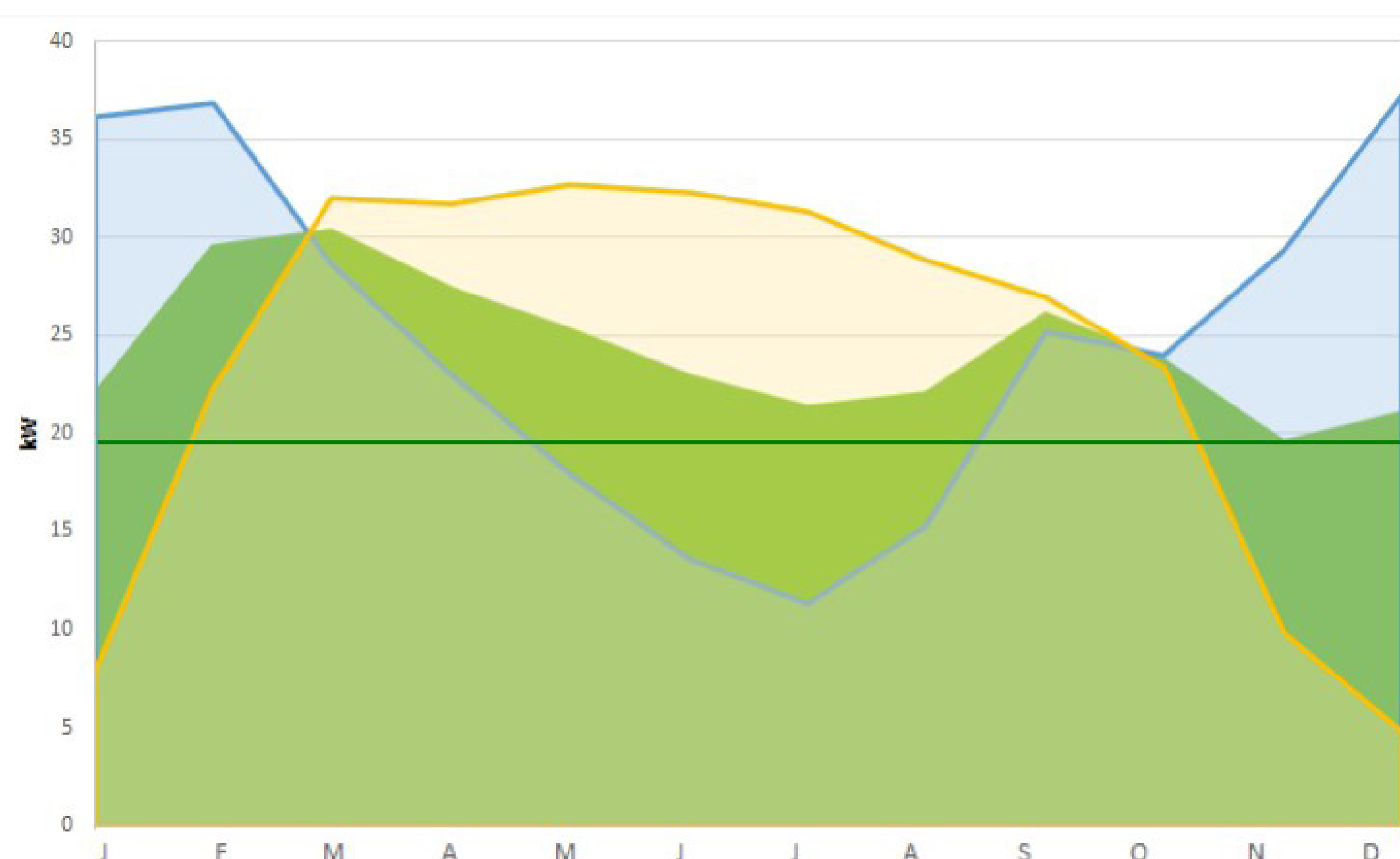
- Annual Solar: 207,308 kWh (46% Renewable Fraction)
- Annual Wind: 217,300 kWh (49% Renewable Fraction)
- Annual Hybrid: 212,304 kWh (51% Renewable Fraction)



Summersville, WV

Wind and Solar systems at 200 kW, Hybrid at 100 kW each

- Annual Solar: 266,542 kWh (55% Renewable Fraction)
- Annual Wind: 327,413 kWh (63% Renewable Fraction)
- Annual Hybrid: 296,977 kWh (64% Renewable Fraction)



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