



## Data Center David Crowley's Plan Would Pave Over at Least 100,000 Acres of Wisconsin Land

Below is the amount of solar capacity needed to generate an equivalent amount of annual electricity for the data centers in Port Washington and Mount Pleasant.

- With 400-watt solar panels, approximately [2,500 panels](#) are needed per megawatt (MW) of installed capacity. Solar panels require between [5 and 7 acres](#) of land per MW.
- Just two projects, the Microsoft data center in Mount Pleasant and the Vantage data center in Port Washington, are expected to require a combined [3.9 gigawatts \(GW\)](#) of power. Assuming a continuous combined demand of 3.9 GW, the two data centers would consume approximately 34.2 TWh of electricity annually. Calculation: 3,900 MW x 8,760 hours = 34,164,000 MWh/year.
- Solar in Wisconsin has an annual capacity factor of [roughly 21%](#).

### Calculating the Land Required:

- Estimated annual electricity generation from 1 MW of solar capacity in Wisconsin: 1 MW of solar panels x 8,760 hours in a year x 21% capacity factor = 1,839.6 MWh/year
- Estimated installed solar capacity required to generate the same amount of electricity annually as the two data centers consume: 34,164,000 MWh/year ÷ 1,839.6 MWh/year = 18,571 MW of solar
- Estimated number of solar panels: At 2,500 panels per MW: 18,571 x 2,500 = 46,427,500 solar panels.
- Estimated land requirement:
  - 5 acres: 18,571 x 5 = 92,855 acres
  - 7 acres: 18,571 x 7 = 129,997 acres
- Accordingly, generating approximately 34.2 TWh of electricity annually at an assumed 21% solar capacity factor would require approximately 18.6 GW of installed solar capacity, equivalent to roughly 46.4 million 400-watt solar panels occupying an estimated 92,900 to 130,000 acres of land.
- **Important limitation:** 18.6 GW of installed solar would generate roughly the same amount of electricity over a year, but it would not reliably power a 3.9 GW data center load 24/7. Because solar production varies by time of day, weather, and season, additional battery storage, backup generation, and transmission infrastructure would be needed, further increasing the total land footprint.

### Data Center David Crowley's Plan:

- [Website](#): Data Centers must “provide 100% renewable energy.”
- [Quote](#): “They need to bring their own new clean energy when it comes down to building more solar, building more wind and battery storage so we don’t see the burden shifted onto Wisconsin taxpayers.”
- [Video](#): “People keep asking me what does Beyoncé have to do with data centers? But it means ‘bring your own new clean energy.’ It’s an acronym. And so, I want to see them building more wind power, more solar power, and more battery storage.”