

# CADENENERGY

## Renewable Energy in West Virginia

## West Virginia Governor's Energy Summit

October 11th, 2018

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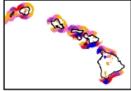


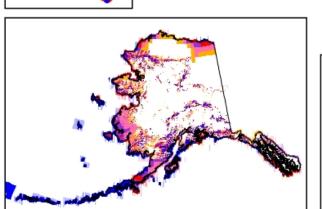
U.S. Department of Energy

National Renewable Energy Laboratory

#### West Virginia's Renewable Energy Potential - Wind

This map shows the annual average wind power estimates at a height of 50 meters. It is a combination of high resolution and low resolution datasets produced by NREL and other organizations. The data was screened to eliminate areas unlikely to be developed onshore due to land use or environmental issues. In many states, the wind resource on this map is visually enhanced to better show the distribution on ridge crests and other features.



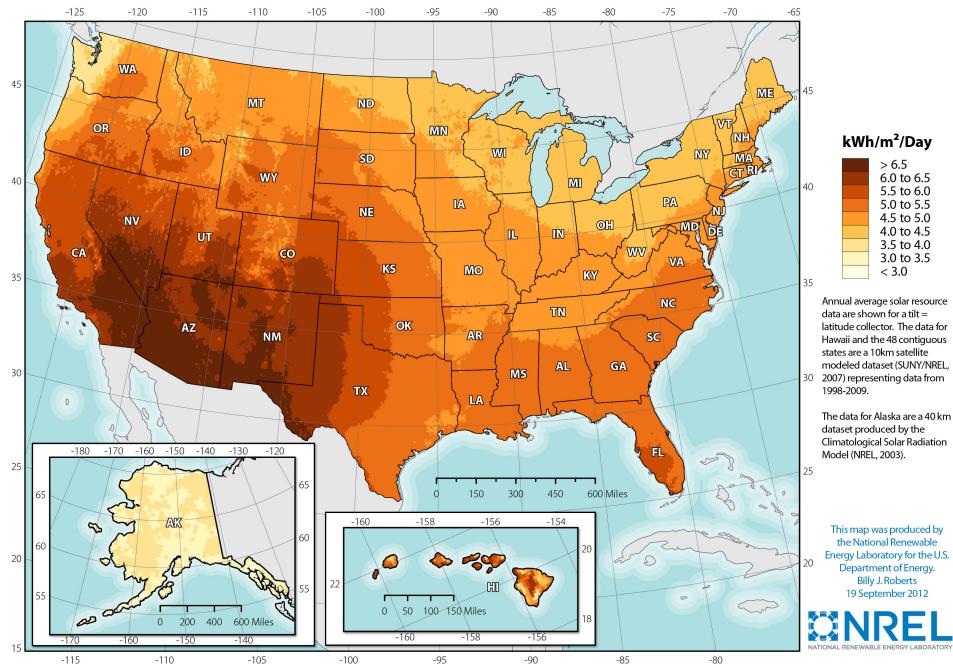


A. Land	W:1		nd Power Class		Wind Same	
	Wind Power Class	Resource Potential	Wind Power Density at 50 m W/m <sup>2</sup>		mph	
1	3 4 5 6 7	Fair Good Excellent Outstanding Superb	300 - 400 400 - 500 500 - 600 600 - 800 800 - 1600	6.4 - 7.0 7.0 - 7.5 7.5 - 8.0 8.0 - 8.8 8.8 - 11.1	14.3 - 15.7 15.7 - 16.8 16.8 - 17.9 17.9 - 19.7 19.7 - 24.8	

<sup>a</sup> Wind speeds are based on a Weibull k value of 2.0



#### West Virginia's Renewable Energy Potential - Solar



-115 -110 -105 -100 -95 -90 -85



#### **Renewable Energy - Economic Opportunities**

Jobs & Career Training Opportunities + local/ regional economic engines (data centers, etc.)





#### **Renewable Energy – Cost Savings for Utilities & Customers**

No Capital Cost for Utilities – Solar & Wind Facilities are on Power Purchase Agreements



Updated: Tucson Electric signs solar + storage PPA for 'less than 4.5¢/kWh'

Average in WV (2017): 6.53c/kWh (industrial) 9.25c/kWh (commercial)

Source: U.S. Energy Information Administration (EIA)



#### **Community Benefits – Long-Term Preservation of Natural Open Spaces**



http://www.cityofchesapeake.net/Government/City-Departments/Departments/Planning-Department/Planning-Library/open-space-agriculture.htm

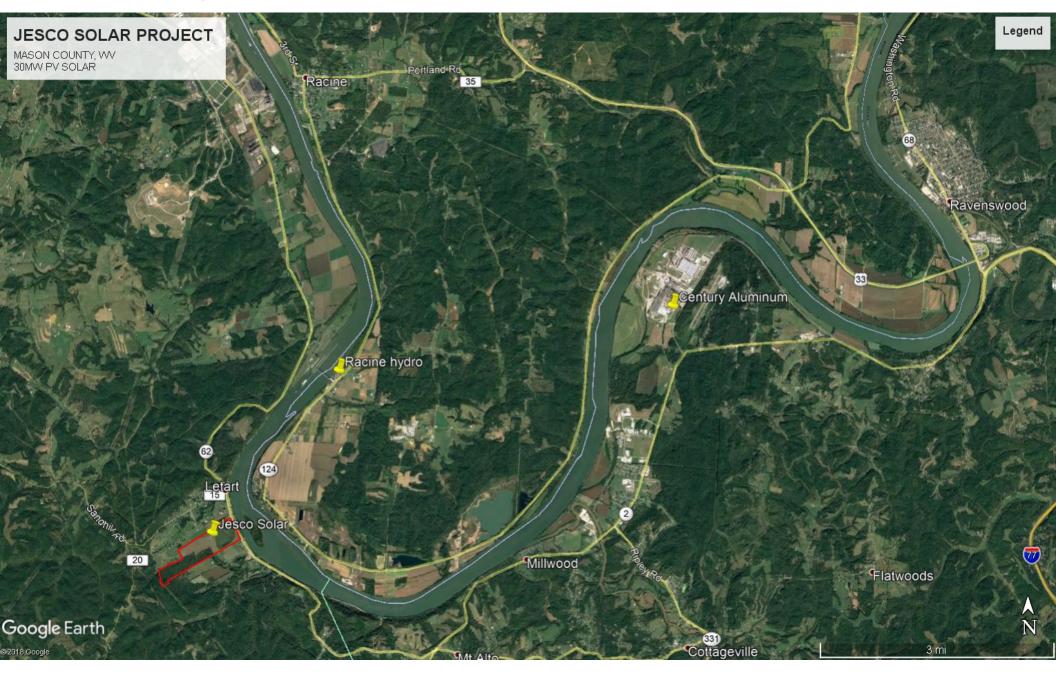


#### **Community Benefits – Public Education Support**





### **Solar Energy Development in WV**





#### Way Forward for Renewable Energy in WV

- Regulatory Support, including interconnection support
- Community Engagement
- Connecting to academic & vocational programs
- Spin-off Benefits: Anchor Companies & Industries (Data centers, tech companies, tourism)



#### Thank you!

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