

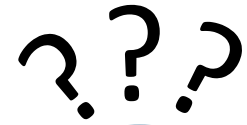
Wind Energy Production in Tornado Alley

Kelley Mathews and Luis García, University of Colorado, Colorado Springs

363,916 mi² of land

65 yrs of Tornado Data
12,417 Tornadoes

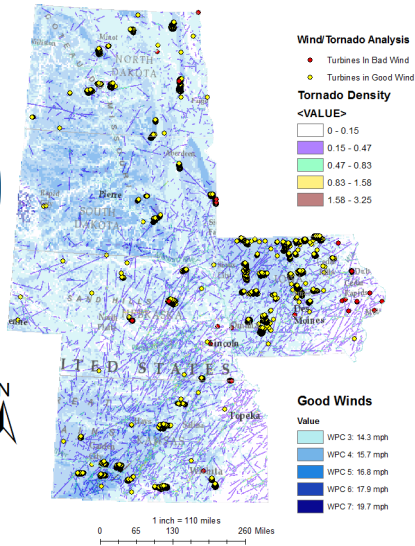
6,871 Turbines



Is there a connection between prime wind energy producing land and extreme weather that may endanger energy production?



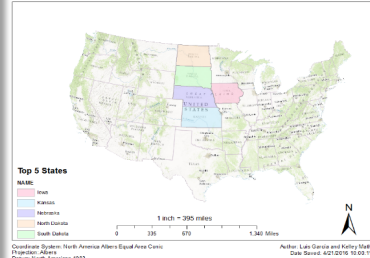
Wind Energy Production in Tornado Alley



Coordinate System: North America Albers Equal Area Conic
Projection: Albers
Datum: North American 1983
Units: Meter

Author: Luis García and Kelley Mathews
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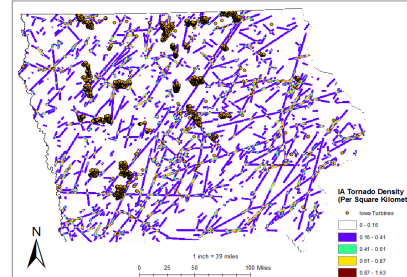
Wind Energy Production Potential (Top 5 States)



Coordinate System: North America Albers Equal Area Conic
Projection: Albers
Datum: North American 1983
Units: Meter

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Correlation Between Existing Iowa Wind Farms & Tornado Prone Regions



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Datum: North American 1983
Units: Meter

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Analysis showed a strong connection between good wind locations and tornado prone areas

States with Most Potential

Good Wind Areas

Tornado Prone Areas

Existing Turbine Locations
& Good Wind Locations

Existing Turbines, Good
Winds & Tornado Regions

Wind Power Class (WPC) 3 or Higher = Good Power Generation