Wind Energy and Wildlife in Ohio

Erin Hazelton, Wind Energy/Wildlife Administrator
5 MW, 516 feet tall
OFFSHORE / NEXT
GENERATION

1.8-3.6 MW, 391-591 feet tall
LAND-BASED / CURRENT USE

0.11 MW, 72 feet tall
ALTAMONT PASS / "OLD STYLE"
Texas leads the nation with nearly 25 GW of cumulative installed capacity.

Iowa solidified its second place position and grew to nearly 9,000 MW of wind capacity, while Oklahoma remains third with 8,072 MW.

Michigan now has more than 2,000 MW of installed wind capacity and moved up two spots in the state rankings to 13th place.
Q1 2019: 729 MW will power 148,292 homes
(assumes 25% capacity factor & household use of 10,766 kWh per year)
ODNR’s Role

- 5 MW or larger & connected to grid must be approved by the Ohio Power Siting Board (OPSB)
- ODNR is a member agency on the OPSB
- ODNR provides technical support & recommendations for evaluating project impacts
- USFWS officially involved if there is a federal nexus (funding, permit, or take of federally listed species)
ODNR’s Objectives

• Determine if wind energy facility operations are causing an unacceptable level of impact on wildlife and make recommendations on additional minimization or mitigation measures.

• Use the best scientifically and statistically appropriate methodology that is standardized among projects in Ohio, based on 2009 protocols.

• Use an adaptive approach for each site after year 1.
Minimum
- Breeding bird surveys
- Acoustic bat monitoring
- Raptor nest searching & Monitoring

Moderate/Moderate
- Passerine migration
- Diurnal bird/raptor migration
- Sandhill cranes
- Owl playback surveys
  - Barn owl
- Bat mist-netting
- Nocturnal marsh bird surveys
- Waterfowl surveys
- Shorebird migration

Extensive
- Radar monitoring
Ohio Bird Fatality Estimates

Estimated 1.1 – 6 birds /MW/yr
(2-12 birds/turbine/yr)

Ohio fatality estimates calculated under turbine curtailment (6.9 m/s)
Estimated 2-17 bats/MW/yr
(4-34 bats/turbine/yr)
Ohio fatality estimates calculated under turbine curtailment (6.9 m/s)
327 grid-tied turbines in Ohio

654 - 3,924 birds/year

1,308 - 11,118 bats/year
Future trends
Future Trends

- Acoustic Deterrents
- Visual deterrents
- Smart curtailment
- Radar and infrared detectors
Future items

• Legislation regarding wind setbacks and energy tax credits
• Off-shore wind development
• Ohio monitoring guidelines & incidental take rules
Thank you!

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