



RENEWABLES SCALE UP: WIND FARMS

CLARION

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Wind Power on the Rise

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- + 8,500 MW in U.S. in 2008
- 42% of New Capacity in 2008
- >20% of U.S. Energy Feasible
- Technology Advancing
 - ▣ Newer farms more productive
 - ▣ More efficient designs



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Hot Button Issues

Hot Button Issues

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□ Offshore Wind in U.S.

▣ Cape Wind project

- Kennedys/public opposition
- Wampanoag Tribes - “first light”
- Eligible for National Historic Register designation

▣ Other Possible Sites in U.S.

- Eastern seaboard
- Great Lakes
- Texas
- California



Image source: Danish Wind Power Association

Hot Button Issues

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- Wyoming Energy Excise Tax
 - ▣ Championed by Gov. Fruedenthal
 - ▣ Legislature Approved Feb 2010
 - \$1/MWh = \$3.8 M/yr
 - Split 60-40 between counties, state
 - 6% sales tax exemption expires 2010
 - WY has no income tax, 11.5% property tax
 - ▣ Debate:
 - Rate commensurate with impacts?
 - Revenue opportunity vs. hobble fledgling industry



Source: BillingsGazette.com

Hot Button Issues

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- Financial Assurance

- Local requirement for bond or similar guarantee
- No precedent for lenders



- Intermittent Power Integration Charges

- Backlash against RPS
- FERC reviewing a request by Westar Energy
- Reasonableness challenged by industry, advocates

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Legal Challenges

Legal Challenges

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□ Endangered Species Act

■ *Animal Welfare Institute v. Beech Ridge Energy, LLC*, 2009 U.S. Dist. LEXIS 114267 (S. D. Md.)

- Posed protection of endangered species against development of renewable energy resources. ESA prohibits the “taking” of any endangered species.
- Challenge to proposed wind farm in Greenbrier County, WV, on grounds it would result in an unlawful “take” of endangered Indiana bat.
- Allowed completion of 40 turbines, prevented remaining 84. Use of turbines allowed only during bat hibernation.
- Court recommended “incidental take” permit.

Legal Challenges

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- Migratory Bird Treaty Act: potential
 - ▣ Protects migrating species from killing, incidental “takes”
 - ▣ Avian kills from wind turbines: 20-30K in 2003; ¼ million future estimate; compare to ½ billion from buildings
 - ▣ *U.S. v. Corbin Farms*, 444 F. Supp. 510 (ED Cal. 1978)
 - No intent to kill required - strict liability if could reasonably foresee harm due to activity. Act not limited to controlling hunting.
 - ▣ *U.S. v. Moon Lake Electric Assn.*, 45 F. Supp. 2d 1070 (D. Col. 1999)
 - Power company liable for electrocution of raptors
 - Activity was inherently dangerous and harm foreseeable

Legal Challenges

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□ Wind Farm Nuisance Rulings

▣ *Burch v. Nedpower Mountain Storm, LLC*, 647 S.E.2d 879 (W. Va. 2007)

- Recognized nuisance claims against an energy company proposing a wind farm approved by the state PSC: noise impacts, flicker from the blades, broken blades, ice throws, falling towers, and diminution in property values.

▣ *Rankin v. FPL Energy, LLC*, 266 S.W. 3d 506 (Tex. App. 2008)

- Rejected nuisance claim against existing wind farm based on aesthetic impacts. Recognized that nuisance claim could be based on invasion of property by light, sound, odor, or foreign substance.

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Local Planning Considerations

Local Planning Considerations

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- Avoid Nuisance Impacts with Proper Siting
 - ▣ Noise/ Flicker shadow/Ice throw - separation of uses
 - ▣ Wildlife - keep out of critical habitat

- Construction Impacts
 - ▣ Large, heavy vehicles on local roads
 - ▣ Site disturbance



Local Planning Considerations

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- Overall Community Impacts
 - ▣ Revenues & cost of services
 - ▣ Energy generation/unit land area
 - ▣ Design of access roads

- Private Property Values
 - ▣ Studies: no decrease in area
 - ▣ Nuisance impacts can decrease
 - ▣ Leases benefit individual owners



Local Planning Considerations

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- Timing of Development
 - ▣ Adequate duration of approval
 - ▣ Flow of revenue & expenditures
 - ▣ Phases, expectations

- “Fit” with the Community
 - ▣ Existing and desired future uses
 - ▣ Views, character
 - ▣ Community Plan policies



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Local Planning Tools

Local Planning Tools

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- Zoning Regulations
 - ▣ Zoning districts where allowed
 - ▣ Minimum use standards
 - Sound
 - Appearance
 - Location, buffers
 - ▣ Conditional use permits
 - Public notice and hearings
 - Address site-specific issues
 - Educate: dispel myths, fear



Local Planning Tools

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- Development Agreements
 - ▣ Complement zoning & permits
 - ▣ Address wider range of issues
 - Timing/phasing
 - Road construction/restoration
 - Liability insurance
 - Mediation of conflicts
 - Successor owners
 - Decommissioning (controversial)



Thank You

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