

# WIND SITING IN WISCONSIN

Deborah Erwin  
Public Service Commission of Wisconsin



UW Extension Local Government Center  
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# Public Service Commission (PSC)

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- ❑ State agency responsible for the regulation of public utilities, including electric providers
- ❑ Consists of three Commissioners appointed by the Governor who issue official decisions by the agency
- ❑ PSC staff advises the Commissioners on regulatory matters
- ❑ Some decisions can be delegated by the Commissioners to the staff

# Governor's Task Force on Global Warming

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- ❑ Governor's Task Force on Global Warming
  - ❑ Advised regarding opportunities to address global warming locally while growing the state's economy
  - ❑ Provided specific short and long term goals for reductions in greenhouse gas emissions in Wisconsin
  
- ❑ Task Force Final Report July, 2008
  - ❑ Enhanced Renewable Portfolio Standard
  - ❑ Wind Siting Legislation, Rulemaking

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# Renewable Portfolio Standard



# Wisconsin's RPS – 10% by 2015

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Wisconsin  
Statutes  
Section  
196.378

Wisconsin  
Administrative  
Code PSC  
Chapter 118

- ❑ Wisconsin's RPS - 10% of the energy sold to customers in the state from renewable resources by 2015
- ❑ Each electric provider has a "baseline" which they cannot go below - equal to that provider's renewable energy percentage from the years 2001-2003
- ❑ From 2006-2009 = maintain the baseline
- ❑ In 2010, each provider must increase their renewable energy percentage by 2%; maintain baseline + 2% from 2010-2014
- ❑ In 2015, each provider must increase their percentage an additional 4% over their original baseline, and not go below thereafter



# Recommended Enhanced RPS –25% x 2025

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Per Wisconsin  
Governor's  
Task Force on  
Global  
Warming

- Would move the current baseline +6% requirement (10% of state total by 2015) up to 2013
- Would impose new state total requirements of 20% by 2020 & 25% by 2025
- Recommends a mandatory percentage of the RPS be met with Wisconsin-based resources
  - 6% by 2020
  - 10% by 2025
- 2009 Senate Bill 450/Assembly Bill 649
  - Was not voted on before close of legislative session

# Renewable Portfolio Standards in the US

**DSIRE™**

Database of State Incentives for Renewables & Efficiency

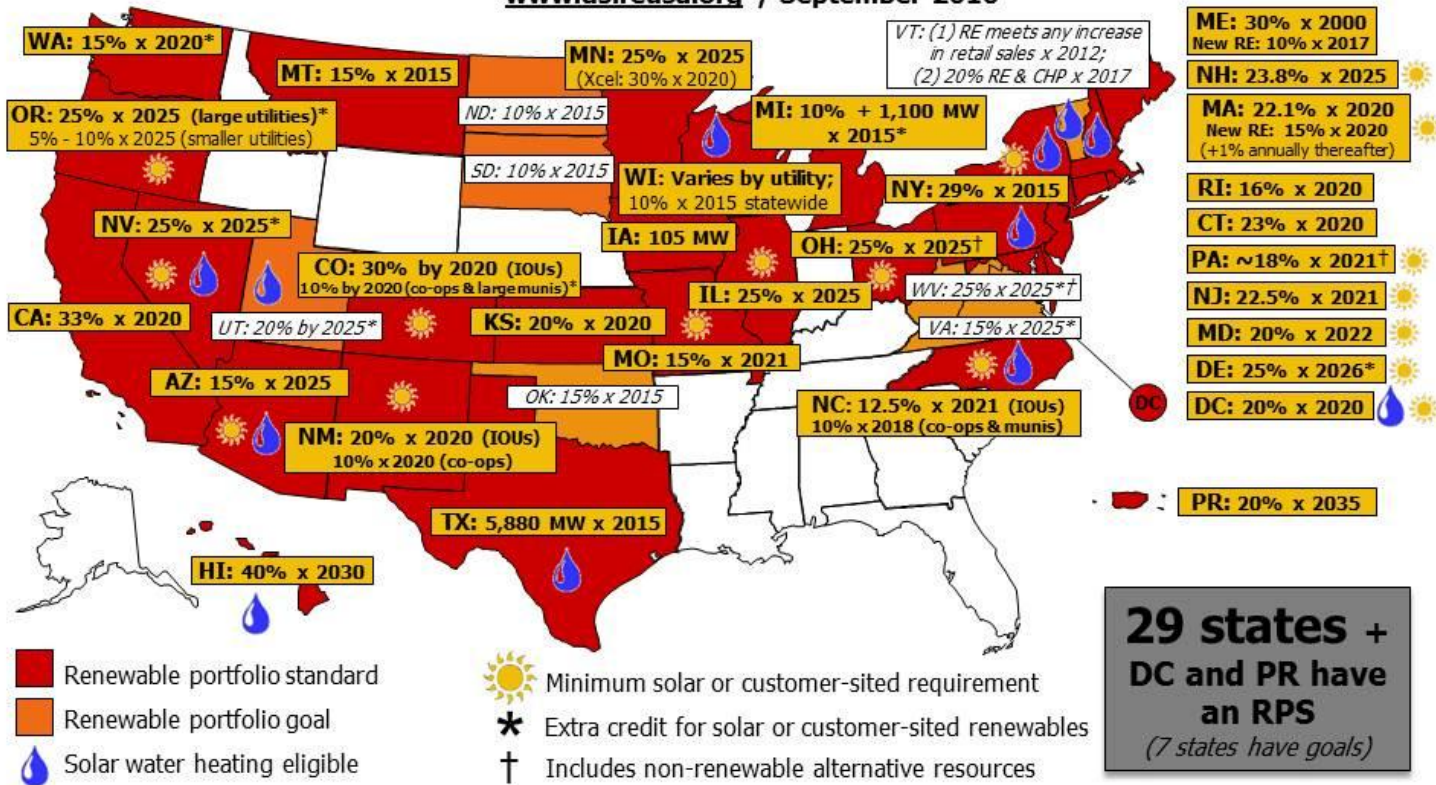
U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

North Carolina Solar Center

IREC

## RPS Policies

[www.dsireusa.org](http://www.dsireusa.org) / September 2010



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# Wind Siting in Wisconsin

# Wind Siting – Prior to October 2009

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- ❑ PSC has authority over wind projects 100 MW or larger, or which are proposed by a utility and meet certain cost threshold
- ❑ Wind under 100 MW follows local permitting requirements
- ❑ Local governments cannot restrict, unless the restriction:
  - ❑ Serves to preserve or protect public health or safety
  - ❑ Does not significantly increase cost of system or significantly decrease its efficiency
  - ❑ Allows for an alternative system of comparable cost and efficiency

# Wind Siting – Prior to October 2009

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- ❑ Local regulations vary greatly and wind developers claim the wind siting environment in Wisconsin is challenging to navigate
- ❑ Governor's Task Force on Global Warming recommended enacting legislation to create uniform standards for siting wind projects at local level
- ❑ 2009 Wisconsin Act 40 passed in September 2009, took effect in October, 2009

# Wind Siting – 2009 Act 40

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- ❑ Review of projects under 100 MW remains at local level
- ❑ PSC given rulemaking authority to set standards for:
  - ❑ Setback requirements
  - ❑ Decommissioning
  - ❑ Noise
  - ❑ Shadow flicker
  - ❑ Radio, telephone, tv signal interference
- ❑ Standards for local review of wind projects – local govt may not be more restrictive than PSC rules
- ❑ Creates a right to appeal local decision to the PSC

# Wind Siting – 2009 Act 40

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- ❑ Created Wind Siting Council – members representing:
  - ❑ Wind developers
  - ❑ Towns & counties
  - ❑ Energy industry
  - ❑ Environmental groups
  - ❑ Realtors
  - ❑ Non-participating landowners living near a wind project
  - ❑ Members of the public
- ❑ Council advised the Commission in rulemaking – more than 20 meetings over 4+ months
- ❑ Council is also directed to review research re: health impacts and other state, national developments in wind siting and report back to the legislature every 5 years



# Wind Siting Rulemaking Status

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- ❑ PSC issued draft rules in May, 2010
- ❑ Public comments were accepted until July, 2010
- ❑ Wind Siting Council provided Final Report to PSC August 9, 2010
- ❑ PSC sent final rules to legislature August 30, 2010
- ❑ Currently under review by legislative committees
  - ❑ Senate – Commerce, Utilities, Energy & Rail Cmte
  - ❑ Assembly – Energy & Utilities Cmte
  - ❑ Committees may ask PSC to make changes

# PSC's rules currently under review

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- Local governments can choose whether to restrict wind energy systems
- If local government restricts wind energy systems, cannot be more restrictive than PSC's rules
- Different rules for small wind energy systems (up to 3 turbines, each no larger than 100 kW)
- Frequently used terms
  - Participating = turbine host or other person who contracts to become a participating landowner
  - Nonparticipating = everyone else
  - Occupied community building = school, church or similar place of worship, daycare facility, public library



# PSC's rules currently under review

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## Setbacks

- 3.1 times maximum blade tip height from:
  - ▣ Occupied community buildings
  - ▣ Nonparticipating residences
- 1.1 times maximum blade tip height from:
  - ▣ Participating residences
  - ▣ Nonparticipating property lines
  - ▣ Public right of way
  - ▣ Overhead communication/electric transmission/  
distribution lines

# PSC's rules currently under review

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## Noise

- Limit on noise attributable to the wind energy system
- Measured at outside wall of nonparticipating residence or occupied community building
- 50 dBA during daytime hours
- 45 dBA during nighttime hours
  - ▣ Nighttime = 10pm to 6am, year-round
- Steady pure tone (whine, whistle, screech, hum – a sound not produced under normal operating conditions) must be eliminated
- Pre- & post-construction noise studies required

# PSC's rules currently under review

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## Shadow Flicker

- Limit on shadow flicker attributable to the wind energy system
- Limit of 30 hours per year at nonparticipating residence or occupied community building
- Mitigation required for 20 hours or more per year
- Computer modeling required

## Signal Interference

- Commercial & personal communications
  - ▣ Avoid to extent practicable
  - ▣ Mitigation interference for life of wind energy system
- Cannot construct in line-of-sight communication path

# PSC's rules currently under review

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## Construction & Operation

- Conventional finish, advertisements prohibited
- Lighting in compliance with FAA standards
- 24 hour emergency contact, signage
- Compliance with national electric code, national electric safety code, ch. PSC 114
- Underground collector circuits to extent practicable
- Site restoration requirements for land not occupied by wind energy system – preconstruction condition
- Emergency procedures, emergency plan; training for first responders

# PSC's rules currently under review

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## Decommissioning

- Decommissioning presumed to be required if generates no electricity for continuous 360 day period
- Presumption may be rebutted with plan to return system to service
- When decommissioning is required, must complete decommissioning within 540 days
- Local government may require financial assurance (bond, deposit, escrow account, irrevocable letter of credit)
- Amount based on estimated cost to decommission
- Site restoration requirements – preconstruction condition

# PSC's rules currently under review

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## Political Subdivision Procedure

- To regulate wind, must adopt an ordinance that complies with PSC 128 and Wis. Statutes
- Timelines
  - Pre-application notice to political subdivision – 90 days
  - Time to adopt an ordinance if one does not exist – 4 months
  - Time for review for completeness – 45 days
  - Time for application review for approval/denial – 90 days; possible 90 day extension

# PSC's rules currently under review

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## Political Subdivision Procedure

- Completeness determination – list of application contents in rules and detailed application filing requirements from PSC
- Establish process for accepting written public comments
- Joint application review for multiple jurisdiction projects possible
- Ability charge application fee for reasonable expenses relating to review and processing an application
- Record-keeping requirements
- Compliance monitoring process; third-party inspector during construction

# PSC's rules currently under review

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## Political Subdivision Procedure

- Option to require monetary compensation to nonparticipating residence within 0.5 miles of constructed wind turbine – 25% of payment to turbine host
- Option to require information about consultations, recommendations of state or federal agencies
- Option to require cooperation with studies coordinated by state agencies of effects of wind energy systems

# PSC's rules currently under review

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## Complaint Process

- ❑ Owner of wind energy system must develop complaint resolution process, maintain complaint log
- ❑ Owner must use reasonable efforts to resolve complaints; good faith effort to resolve within 45 days
- ❑ Complaint must be made first to wind energy system owner
- ❑ If not resolved within 45 days, may petition local government for review
- ❑ Local government's decision is appealable to PSC
- ❑ Local government may establish complaint resolution monitoring committee

# PSC's rules currently under review

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## Commission standards

- Commission to establish detailed application filing requirements
- Commission may establish protocols for measurement, compliance, testing
  - ▣ Noise protocol
  - ▣ Stray voltage protocol
  - ▣ Shadow flicker
  - ▣ Communications interference
  - ▣ Other as appropriate

# PSC's rules currently under review

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- ❑ Review by legislative committees
- ❑ Senate – Commerce, Utilities, Energy & Rail Cmte
  - ❑ Referred on Sept, 2, 2010
  - ❑ Hearing held October 13, 2010
- ❑ Assembly – Energy & Utilities Cmte
  - ❑ Referred on September 14, 2010
  - ❑ Hearing held November 9, 2010

# Additional Resources

- ❑ Final Report of the Governor's Task Force on Global Warming
  - ❑ [http://dnr.wi.gov/environmentprotect/gtfgw/documents/Final\\_Report.pdf](http://dnr.wi.gov/environmentprotect/gtfgw/documents/Final_Report.pdf)
- ❑ Wind Siting Legislation – 2009 Wisconsin Act 40
  - ❑ <http://www.legis.state.wi.us/2009/data/acts/09Act40.pdf>
- ❑ Wisconsin Commission Wind Siting Rulemaking Docket 1–AC–231
  - ❑ [http://psc.wi.gov/apps/erf\\_search/default.aspx](http://psc.wi.gov/apps/erf_search/default.aspx)
- ❑ Deborah Erwin, [deborah.erwin@wisconsin.gov](mailto:deborah.erwin@wisconsin.gov)

