
The Nuclear Moratorium Protects Consumers and the Environment

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Nuclear Moratorium (Wis. Stats. 196.493)

- PSC cannot issue a construction permit for any nuclear power plant unless it finds that:
 - “a federally licensed facility ... with adequate capacity to dispose of high-level nuclear waste from all nuclear power plants operating in this state will be available, as necessary, for disposal of the waste; and
 - the proposed nuclear power plant, in comparison with feasible alternatives, is economically advantageous to ratepayers”
 - costs of construction, operation, decommissioning, waste disposal; adequate fuel supply

“... a federally licensed facility...”

- Yucca Mountain, site of proposed federal nuclear waste repository
- U.S. Dept. of Energy: “Best Achievable Schedule”
 - Application for license: June 30, 2008
 - Begin receipt of waste: March 31, 2017
- U.S. DOE: more likely 2021 (Congressional testimony, March 2007)

“...economically advantageous...”

- Nuclear cost estimates:
 - Progress Energy: \$7,000/kW, March 2008
 - Puget Sound: \$10,000/kW, Jan. 2008
 - FP&L: \$5,700 – \$8,020/kW, Oct. 2007
 - Moody’s: \$5,000 - \$6,000/kW, Oct. 2007
 - S&P: \$4,000/kW, May 2007
- Other considerations
 - cost escalation during construction
 - supply-chain problems (parts, labor)

Sale of the Kewaunee Nuclear Power Plant

- “...our concern about the operational and economic risks associated with continued ownership are the primary factors that led WPSC and WPL to consider selling the KNPP.”
 - Testimony of WPSC (Johnson) and WPL (Seitz), Docket 05-EI-136, February 27, 2004, p. 7.

Sale of the Point Beach Nuclear Power Plant

- “[By agreeing to sell the plant], we have eliminated future capital, fuel cost, operating and maintenance risks associated with nuclear generation and have replaced those risks with an agreement to purchase, at a predetermined and fixed price for the remaining life of the units, all the output from the plant at a cost comparable to what we would have incurred had we continued to own the plant.” (emphasis added)
 - Testimony of We Energies (Kuester), Docket 6630-EI-113, January 22, 2007, p. 4.

Could Wisconsin Utilities Finance a Nuclear Plant?

- Assume nuclear plant costs \$5 billion.
- Market Capitalization, % of Market Cap:
 - Exelon = \$56 billion, 9%
 - Dominion = \$25, 25%
 - We Energies = \$5 billion, 100%
 - WPSC = \$4 billion, 125%

What about a Merchant Nuclear Plant?

- Merchant plant
 - not owned by a Wisconsin utility
 - no demonstration of “need”
 - no economic tests
- Nuclear moratorium
 - *any* proposed nuclear plant
 - protection from merchants

Nuclear Moratorium = Energy Efficiency, Renewables

- Nuclear: not an option
- Coal without sequestration: not an option
- Utilities must focus on other options:
 - Energy efficiency
 - Renewable energy

Need Baseload? Think “Combined Cycle”

- Combined cycle plants include a combustion turbine and a steam turbine
 - Natural gas
 - Biofuels
 - “Substitute natural gas”

Energy Efficiency and Renewable Energy Are Better

- Dollar for dollar:
 - energy efficiency saves 7 times more global warming pollution than nuclear.
 - wind and cogeneration: 2 times more
 - Source: Scott Cullen et al, *False Promises: Debunking Nuclear Industry Propaganda*, Grace Energy Initiative, New York, October 2006, p. 12, citing Rocky Mountain Institute).
- Less risk from accidents
 - no security forces
 - no evacuation plans
 - nuclear accident=\$billions, unusable land, water

Source: American Solar Energy Society, *Tackling Climate Change in the U.S.*, January 2007.

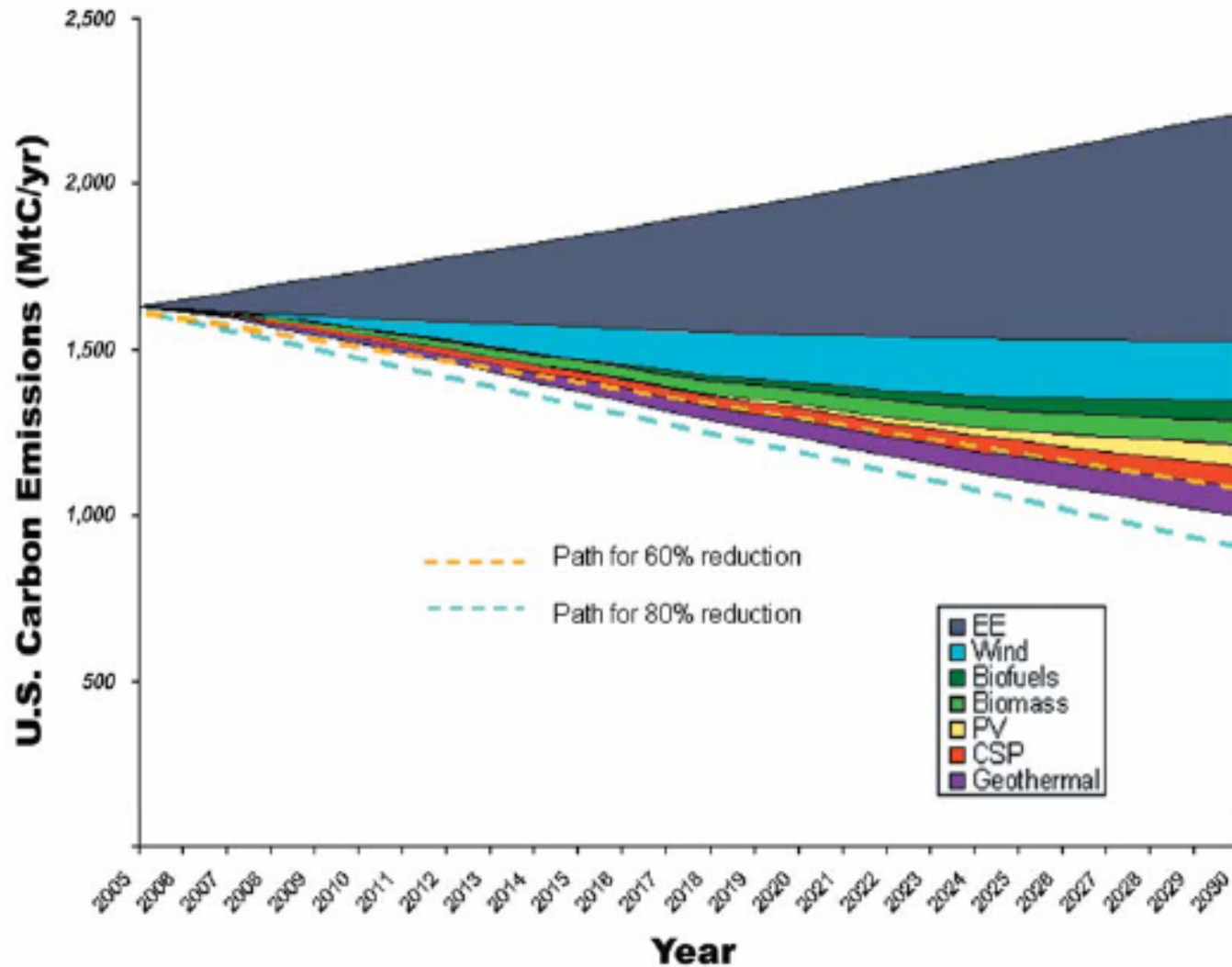
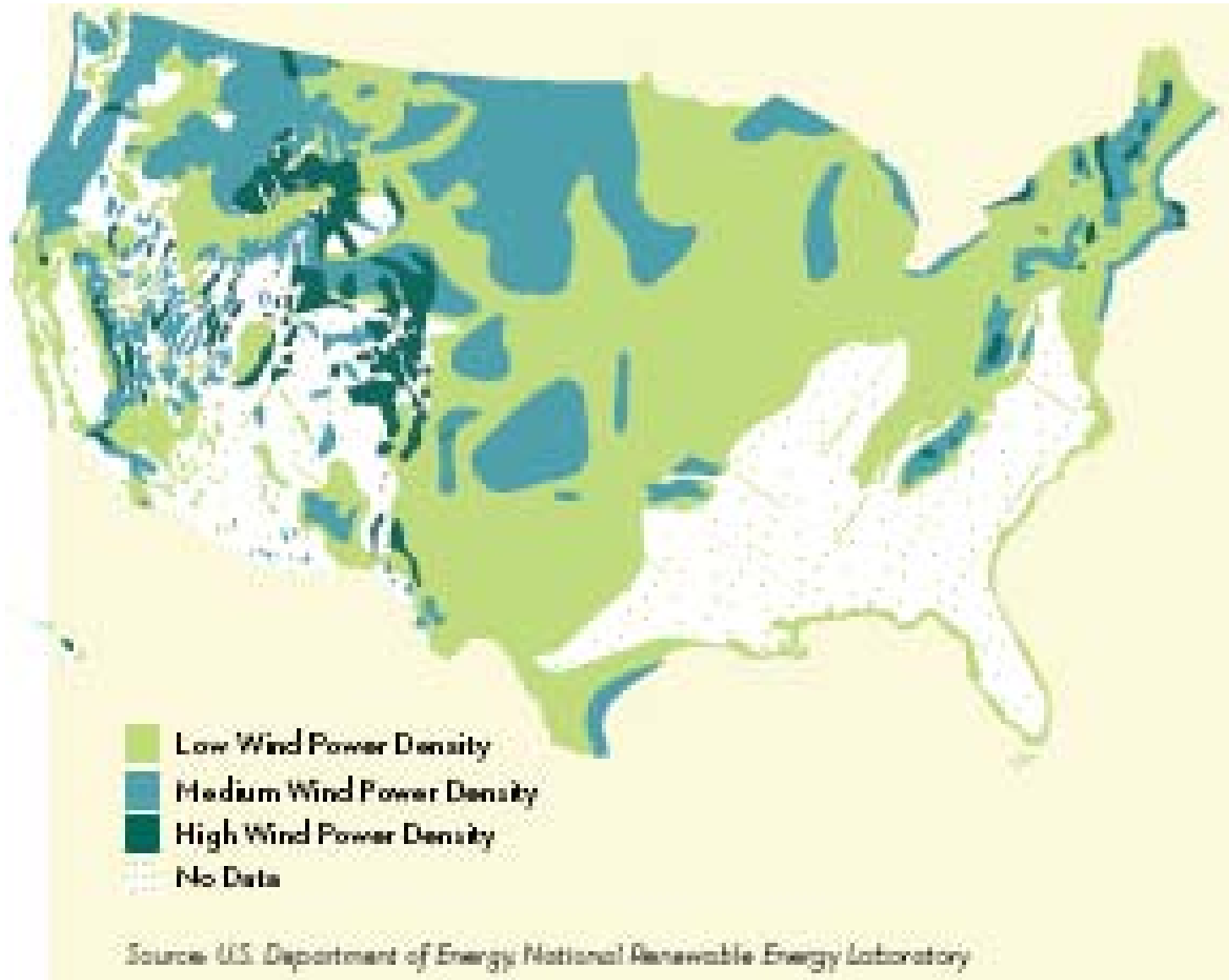
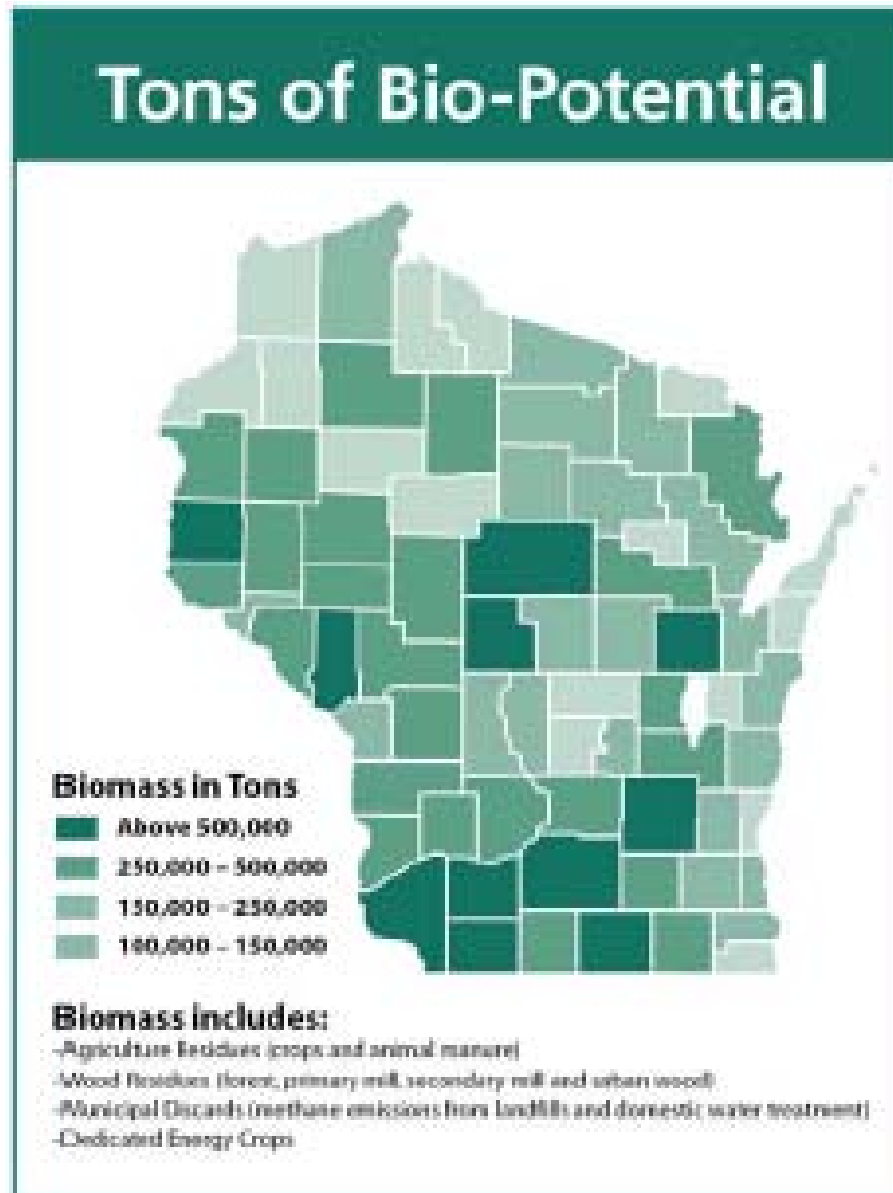


Figure 2. Potential carbon reductions in 2030 from energy efficiency and renewable technologies and paths to achieve reductions of 60% and 80% below today's emissions value by 2050.

U.S. Wind Resources



Wisconsin Biomass



Governor Doyle's Goals for EE & RE

- Governor Jim Doyle, *Clean Energy Wisconsin: A Plan for Energy Independence*, Spring 2008
- Energy Efficiency (from MGA summit): By 2015,
 - save 2% of annual electricity
 - save 1% annual natural gas
- Renewable Energy (RE)
 - **25% by 2025** renewable electricity & transportation fuels
 - **Capture 10%** market share for producing RE systems & bioproducts
 - **RE Research Leadership** to make RE more affordable, jobs for Wisconsin workers

Energy Efficiency and Renewable Energy

- Generate \$billions each year for the Wisconsin economy
- Reduce flow of Wisconsin \$\$ out-of-state for fossil and nuclear fuels
- Reduce pollution and nuclear waste
- Create more jobs in Wisconsin than fossil and nuclear industries
- Cheaper than coal and nuclear
- People can't afford to spend \$trillions on the wrong technologies