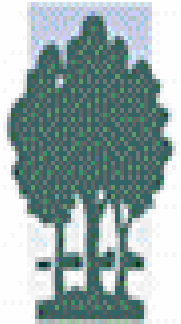


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ELPC

*Believes that Economic Development and
Environmental Protection
Go Hand in Hand*

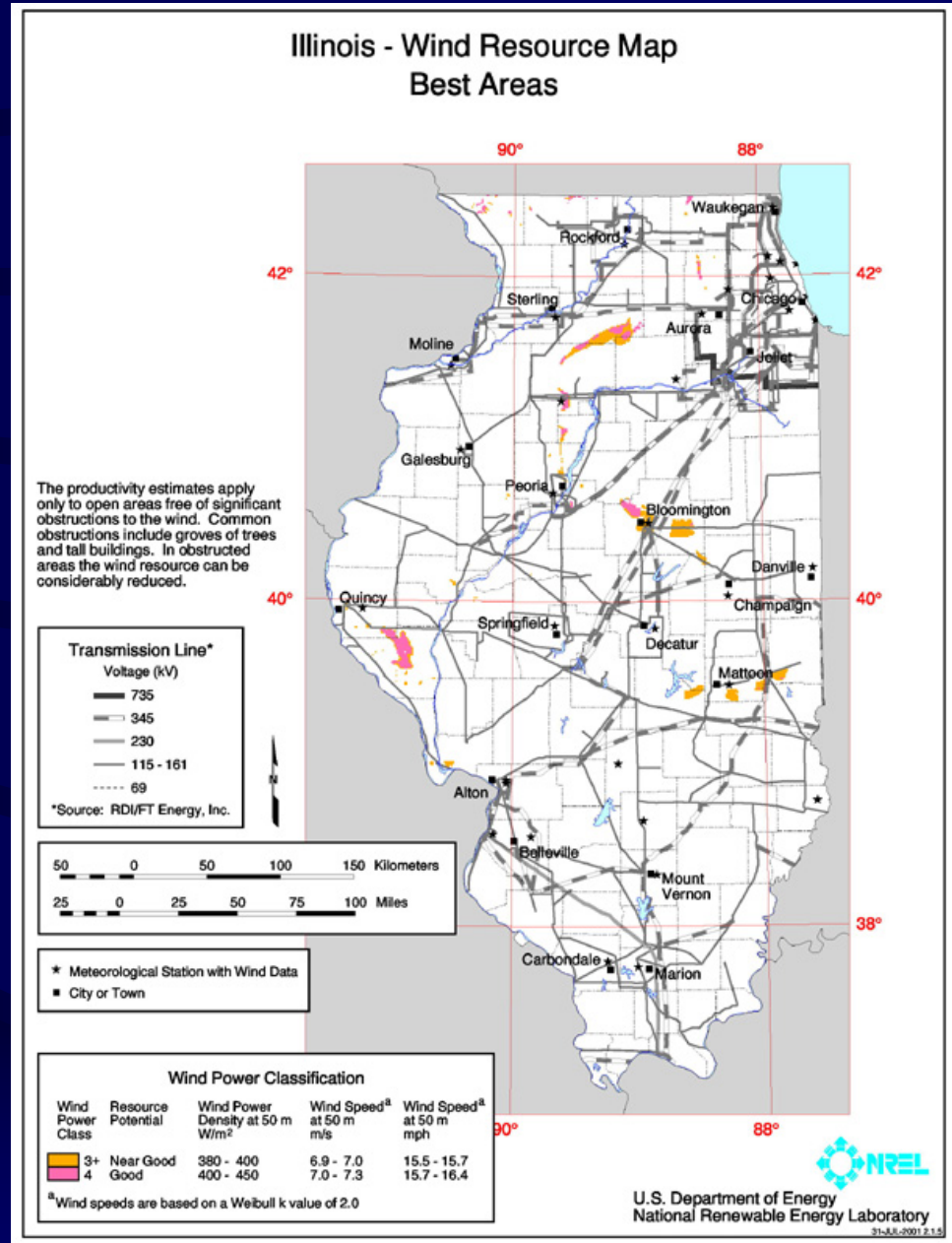
www.repowermidwest.org

Encouraging Green Energy Development in Illinois: Key Factors

- Recognize the Renewable Resource Base
- Recognize Technology Improvements and Cost Effectiveness
- Recognize Economic Development Value of Renewable Energy
- Design Renewable Energy Policy based on successful policies in other states

NREL: Illinois Wind Resource Map

Class 4: 3000 MW
 Class 3.8, 3.9: 6000 MW
 Total: 9000 MW



Illinois Wind Projects under Development, May 2003:

Total of 1700 MW, 4% of IL load

Partial list includes:

- McLean County: 400 MW, Zilkha Renewable Energy
- Pike and Adams Counties: 200 MW, Invenergy
- Bureau County: 100 MW, Illinois Wind Energy LLC
- Lee County: 550 MW, FPL Energy
- Lee County: 50 MW, Navitas
- Boone County: 100 MW, enXco
- Stephenson County: 100 MW, Zilkha Renewable Energy

Midwest Clean Generation

Under Repowering the Midwest

Generator Type	2010		2020	
	Capacity (MW)	Generation (% of Total)	Capacity (MW)	Generation (% of Total)
Wind Turbines	6,698	3.0	24,510	11.3
Biomass ¹	4,874	4.9	11,385	10.5
Photovoltaics	161	0.0	482	0.1

Efficient Gas ²	9,155	10.4	21,933	24.5
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TOTAL	20,888	18.3	58,310	46.4
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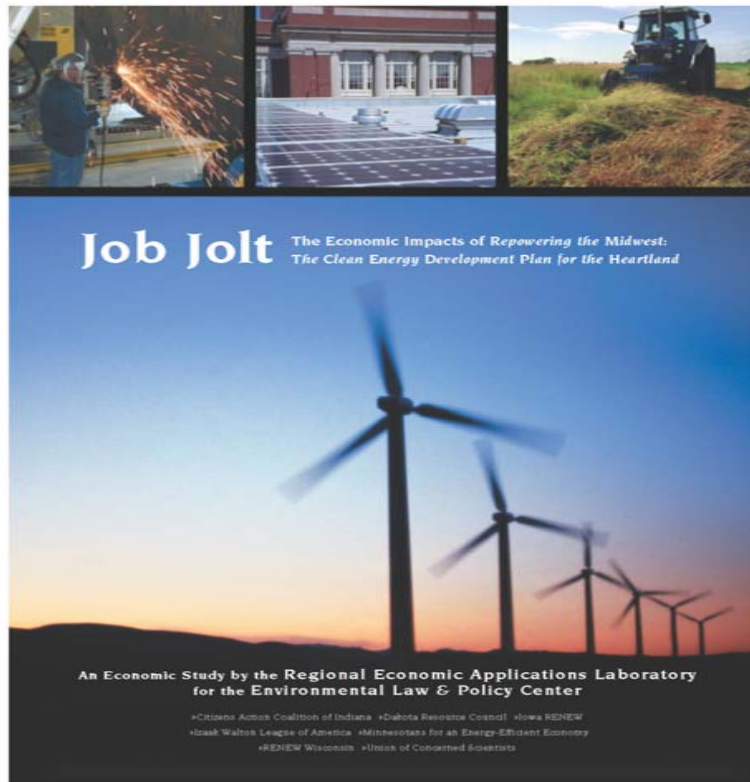
¹ Includes CHP, Co-Firing and Gasification

² Includes CHP, District Energy Systems and Fuel Cells

Recognize the Cost Effectiveness of Renewable Energy

- Colorado Public Utilities Commission ordered Xcel Energy to construct a 162-MW wind power plant as part of its generation resource plan under Colorado's Least Cost Planning law.
- Recent MN RFP: all serious bids under 3 cents/ kWh
- Platt's "Power Price Stability: What's it Worth", March 2003, found the value of wind energy as a hedge against natural gas price increases to be \$5.20/ MWh, or up to \$24.20/ MWh under a "limited natural gas supply" scenario
- IL has a little less wind resource than MN and IA, but superior transmission capacity and a large load

Job Jolt: The Economic Impacts of Repowering the Midwest



About the Regional Economics Application Laboratory

- Joint project of Federal Reserve Bank of Chicago and University of Illinois
- Perform economic research for policy-makers on a variety of phenomena
 - Steel and gas price increases
 - Cultural events

Positive Impacts: Net Job Growth by State

State	Net Job Growth-2020	
	Efficiency	Renewables
Illinois	43,400	13,500
Indiana	15,500	6,500
Iowa	6,800	5,700
Michigan	29,100	9,100
Minnesota	8,200	6,400
Nebraska	2,900	2,600
North Dakota	800	2,100
Ohio	25,500	13,500
South Dakota	1,200	2,600
Wisconsin	7,400	6,400
TOTAL	140,900	68,400

Job Jolt Case Study: Top of Iowa Project

- 80 MW project in Worth County, IA
 - (89 NEG Micon 900kW turbines)
- Midwest Renewable Energy Corporation and Zilkha Renewable Energy
- 240,000 MWH/year, or ~ 25,000 homes

Top of Iowa: Real Property

- 35 landowners with approximately 5,300 acres of wind farm facilities
- 15 landowners with approximately 6.5 miles of collection line easements
- 16 neighboring landowners with Noise/Shadow easements

Top of Iowa: Construction

- 2275 truckloads of gravel (~25 per tower)
- 1780 truckloads of cement (~20 per tower)
- 540 long haul trailerloads of equipment
- Total Site Labor: 30,000 man-hours

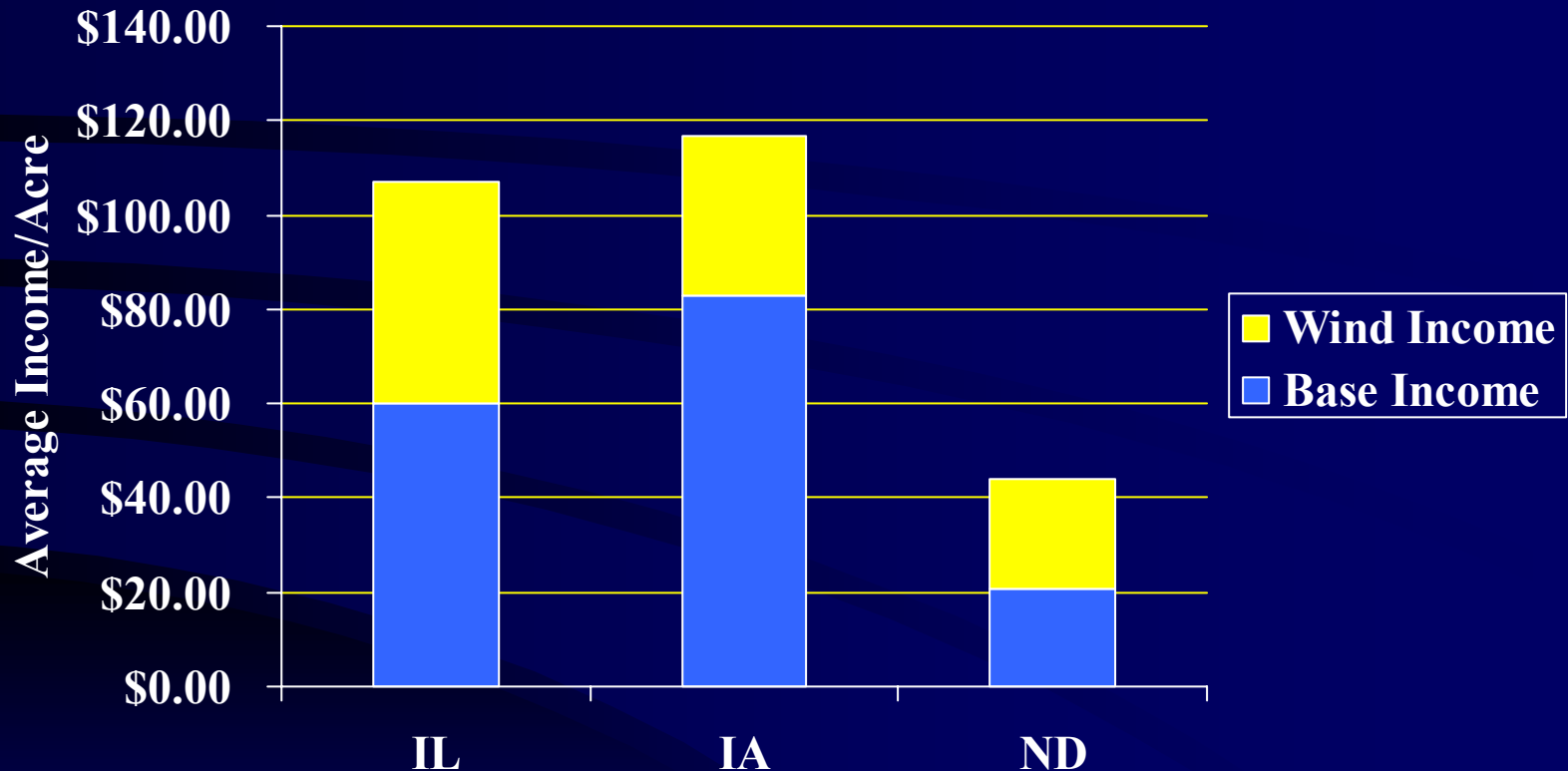
Top of Iowa: Property Taxes

- 80 MW project pays average annual payment of about \$350,000
- 20 year total payment of \$6.9 million
- largest property tax payer in Worth County, Iowa
- \$4,300 per MW per year

Illinois: Crescent Ridge Wind Farm

- Illinois Wind Energy LLC
- 48 MW in Bureau County
- Property taxes: \$300,000/year
 - \$6,250 per MW of capacity (50% more than IA)
- Landowner payments over \$5000 per tower per year
- Contract labor agreement for construction

Potential Farm Income Adding Wind



- Farm Income Source: USDA ERS, NASS
- Excludes farms with gross revenues <\$10,000/year
- Assumes conservative wind income of \$3000/tower @10 towers/section for IL; \$2200/tower for IA, and \$1500/tower for ND

Support Policies That Have Worked in Other States

- IL Renewable Energy Standard:
 - SB 25, Welch, and HB 2200, Turner
 - 5% by 2010, 15% by 2020
 - over 20 cosponsors in both the House and the Senate
 - endorsed by Gov. Blagojevich in campaign
 - Under negotiation at press time...

About SB 25/ HB 2200:

- 13 States have an RPS, including Texas, Iowa, and an identical standard in MN
 - WI Governor Doyle supporting 13% by 2013
- Market-based goal/ flexibility for utilities
 - real competition among renewable energy developers, in a firm market, lowers costs
- Wind generation now cost-competitive with traditional *new* generation sources

“Green Pricing” plans, absent a firm regulatory market, have significant problems:

- Green Pricing programs often produce little new green power;
- Green Pricing programs often incentivize projects remote from the purchaser, producing few or no local economic or environmental benefits;
- Green Pricing programs can be very expensive, with more spent on marketing and administration than on Green kWh

“Green Pricing” Failure: LADWP

- Expensive: program marketing and administrative expenses totaled \$7.3m, compared with \$2.6m for Green kWh;
- Ineffective: program increased renewable energy usage by only 1% over 4 years (IL equivalent of 4% by 2020: too little);
- Few local benefits: little local air quality benefit from remote projects;
- Heavily Criticized: According to a recent *LA Times* editorial, the program “lags woefully” behind mandatory standards

ELPC Recommendation

Stick to what works:
firm Renewable Energy
Standards creating a firm market



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Wind Energy and Birds

- New tower and turbine construction friendlier to birds (monopole towers, fewer and larger towers, and lower RPMs).
- National Average of 2.19 birds/turbine/yr, but 1.83 outside of CA (and .006 raptors/t/yr)
- Minimal wind/ avian Endangered Species issues in Illinois
- Bird losses under RTM less than 0.1% of bird losses due to buildings, vehicles