

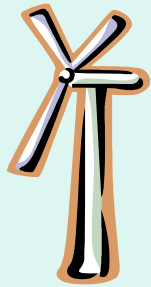
Wondering About Wind



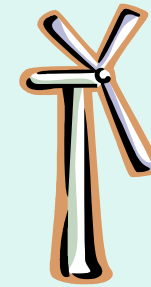
Mark Denecke, Finger Lakes Energy \$mart Coordinator
Genesee/Finger Lakes Regional Planning Council

Presented at the Finger Lakes Institute 9/28/06



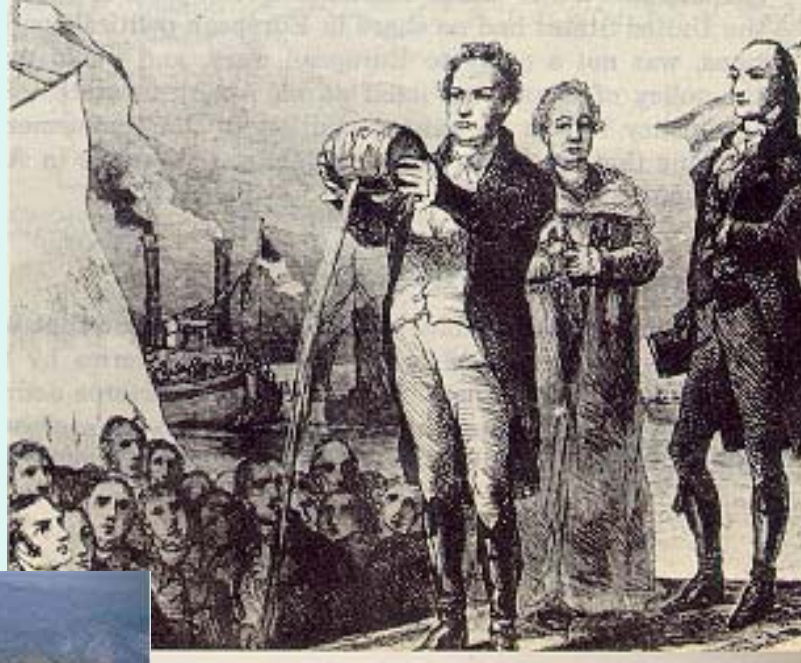


“The Answer My Friends, Is Planning for the Wind”



- Wind development increasing In New York.
- Supply, Price and Stability of traditional sources of energy more in flux.
- Detriments of these sources are more apparent: pollution, global climate change, habitat destruction, human health
- NYS Renewable Portfolio Standard – calls for an increase in renewable energy from its current level of about 19% to 25% by the year 2013; wind energy is expected to play a big role.

Wind: Opportunity or Threat ?



NYS Energy Mix

29% Nuclear

22% Natural Gas

18% Coal

17% Hydropower

12% Oil

1% Solid Waste

<1% each

Wind, Biomass, Solar



Wind in NY

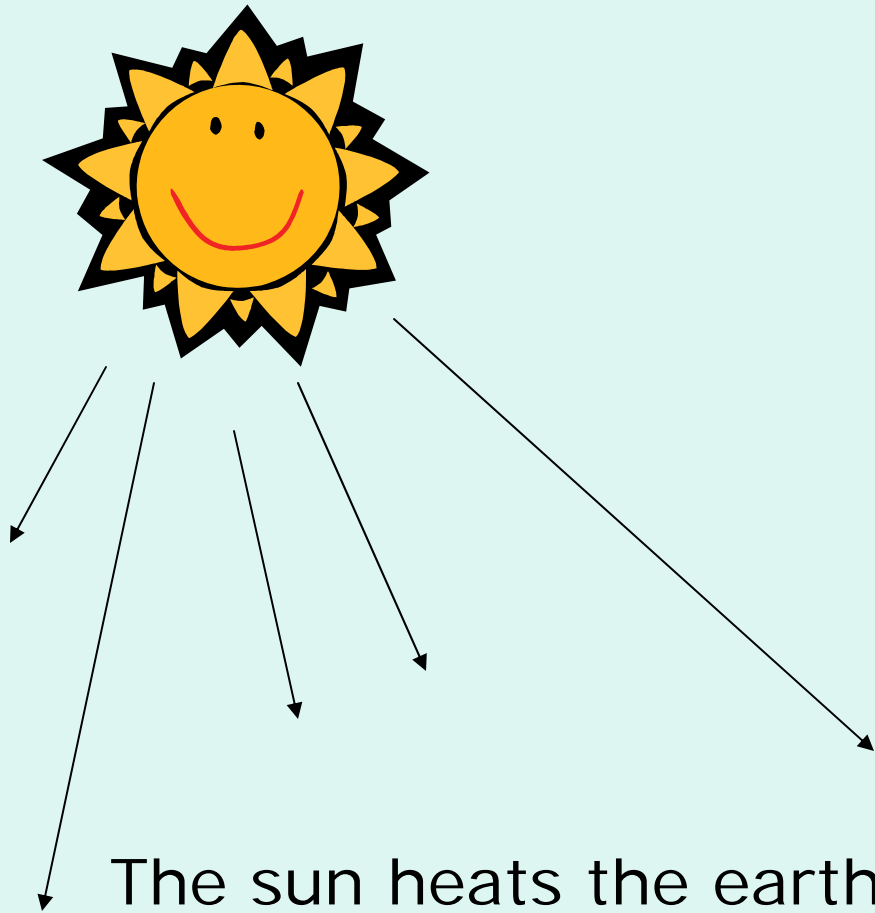


- **NY is 15th** in US for wind potential (62 billion kWh) – more than California, and any state east of the Mississippi.

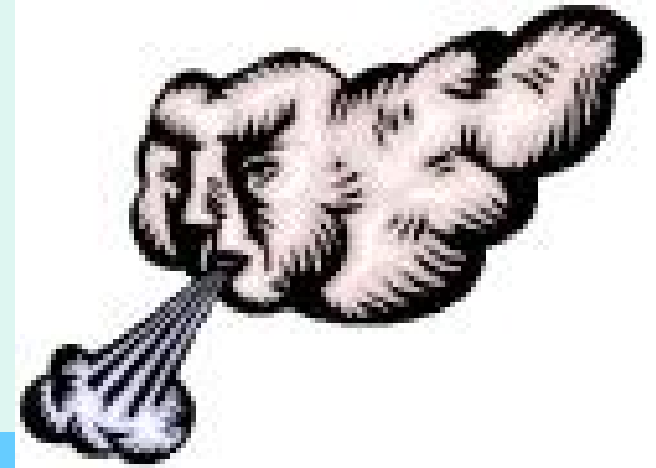


- **Wind needs...**
 - **Potential** – the higher you go, the better it is
 - **Proximity to Population** – people who use the energy
 - **Transmission Lines** – get the energy to where it's needed

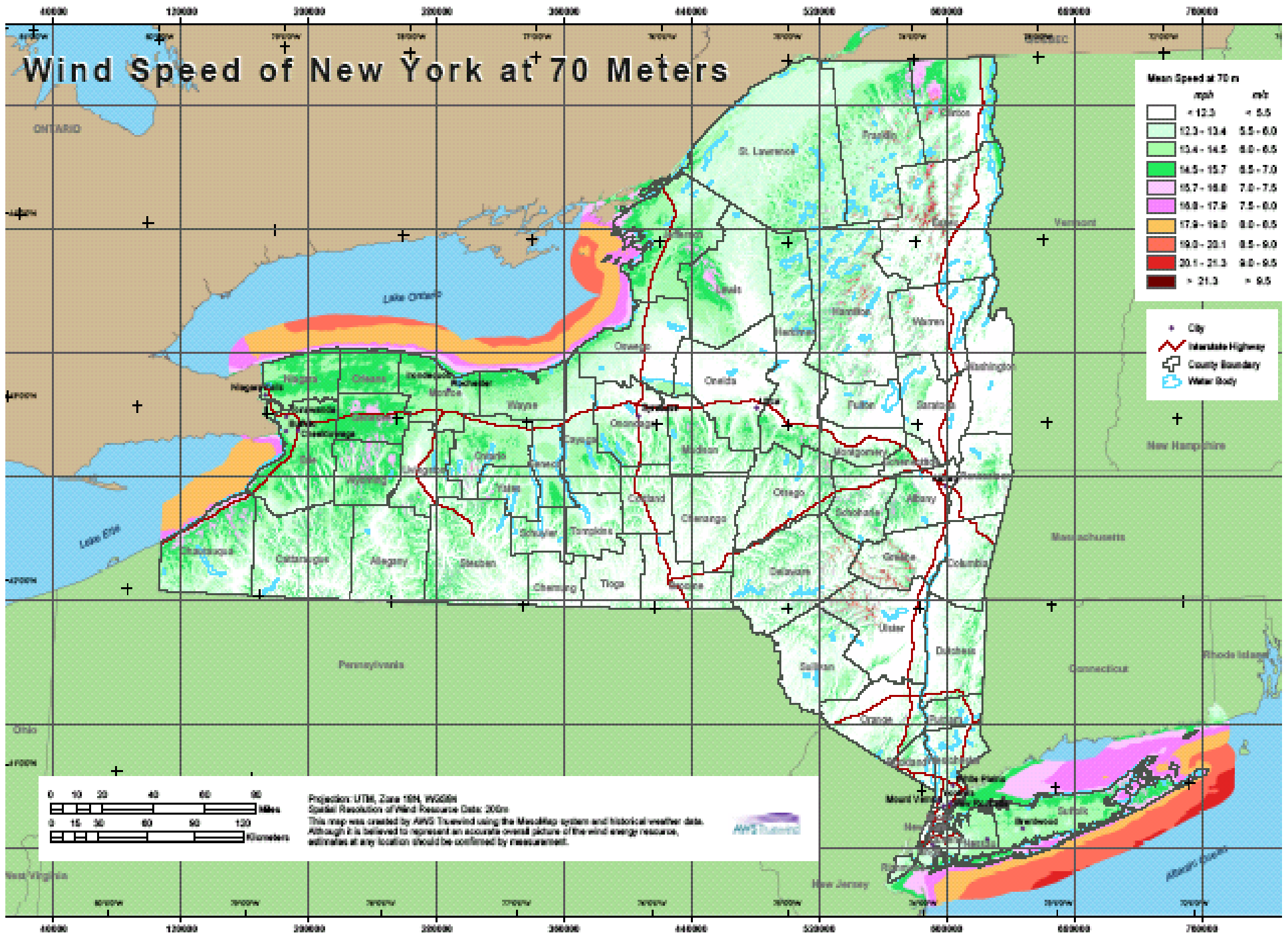
How Wind Works



The sun heats the earth,
warm air rises faster
than cool air,
creating wind.

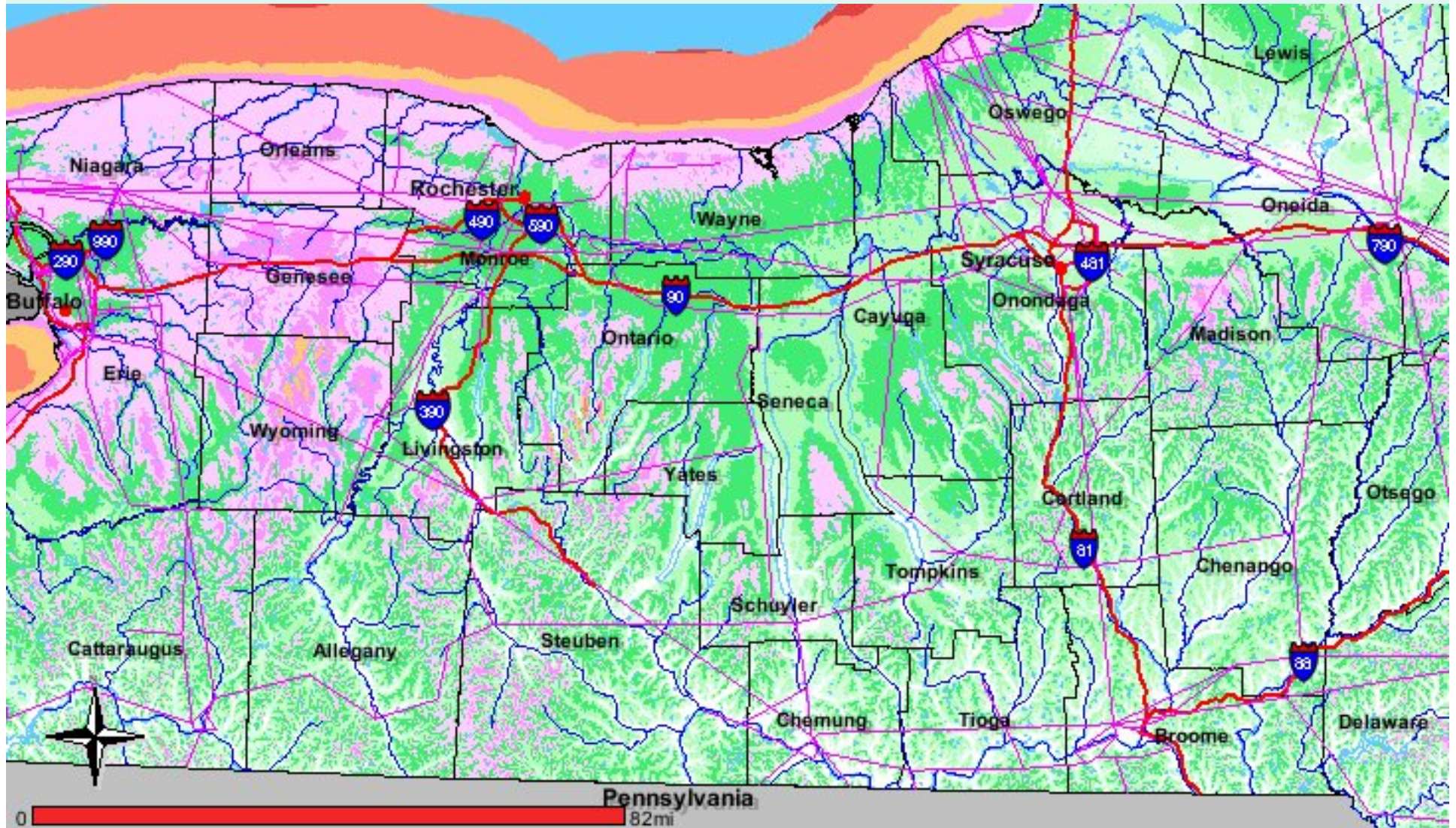


Wind Speed of New York at 70 Meters



Wind Potential @ 100m

www.windexplorer.com



Wind Impacts

Positive


- No emissions or hazardous waste.
- Renewable Energy
- Economic Benefits
 - Municipalities
 - School Districts
 - Land Owners
- Job Growth
- Complimentary use with agriculture practices.




Negative

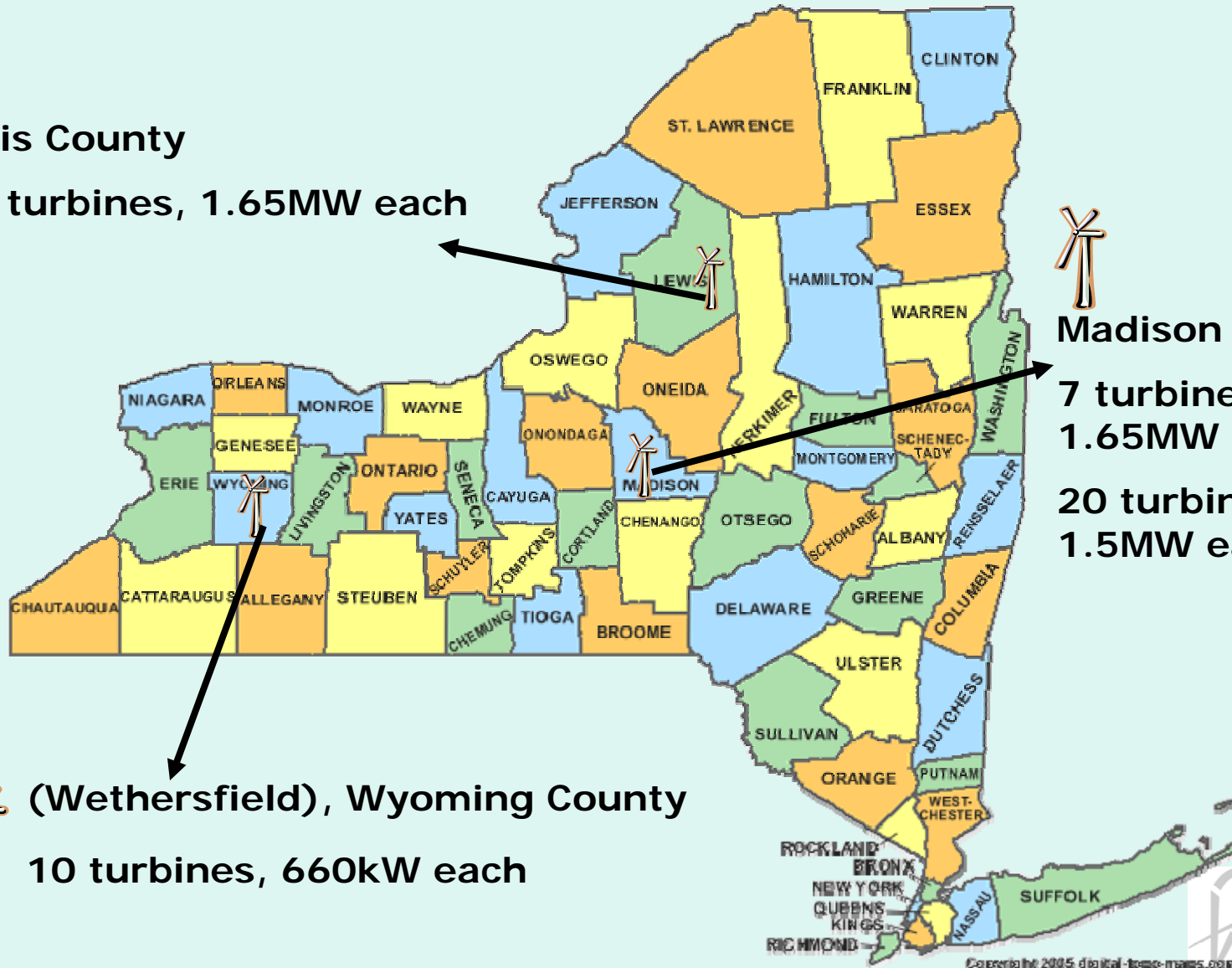
- Visually intrusive
- Noise
- Disturb habitats
- Injury or death to birds and bats
- Shadow or flicker effects
- Ice throw
- Electromagnetic Interference

Wind in NY – Existing Windfarms

 Lewis County
196 turbines, 1.65MW each

 Madison County
7 turbines, 1.65MW each
20 turbines, 1.5MW each

 (Wethersfield), Wyoming County
10 turbines, 660kW each



Process ?

- “Prospecting” – meteorological towers
 - Landowner agreements
- **NYISO INTERCONNECT**
- Town Board, Planning Board, Zoning Board, Bldg Inspector
 - **County Planning, IDA**
- State approval (NYSERDA, DEC, PSC)



Who's Involved in Wind Projects?

State government

- The Public Service Commission (PSC)
- NYSERDA
- Dept. of Environmental Conservation
- Office of Parks, Recreation, & Historic Preservation (OPRHP) - SHIPO

County government

- Industrial Development Agencies (IDA)
- County Planning Board Review

Local government

- Governing Board (zoning, tax decisions)
- Zoning Board of Appeals (area variances)
- Planning Boards (site plan review, special use permits)
- Building Code Enforcement

Applicant

- Wind developer - typically an independent power company or utility

Land owner

Public

- Individuals
- Community Groups,
- Activists



YOU have the power!

- New York is a **Home Rule** state. Municipalities have the ability to plan for what their community wants!
- **1-800-Lawyer Up!** – A good lawyer is a good start.
- **You Need Professional Help!** – Seek assistance from County Planning Dept, Regional Planning Council, private firms (planning, environmental research, engineering)

Tools

- Comprehensive Plans, Zoning, Site Plan, Building Codes, Moratoria, Special Use Permits, PILOT Agreements, Host Community Agreements, Municipal Cooperatives, Banning Wind
- SEQRA – State Environmental Quality Review Act

