

DeKalb County Public Hearing

INTRODUCTION

MYTH

**WIND FARMS REDUCE PROPERTY
VALUES**

MYTH

**WIND FARMS REDUCE PROPERTY
VALUES**

FACT

**NO EFFECT ON PROPERTY
VALUES**

FACT

**WE (AND OTHERS) HAVE DONE
STUDIES**

**TAX ASSESSORS VERIFY NO
EFFECT ON PROPERTY VALUES
(IN THE REAL WORLD)**

Non-Biased Evidence

Town of Eden Tax Assessor, Charles Schriber...

“In my opinion [NextEra’s] Montfort [WI] Wind Farm has not negatively affected the property values in Eden Township.”

MYTH

**WIND FARMS ARE LOUD AND
CAUSE HARM TO HEALTH**

MYTH

**WIND FARMS ARE LOUD AND
CAUSE HARM TO HEALTH**

FACT

**AT THE PROPOSED SETBACK
DISTANCES, SOUND LEVELS
ARE LOW**

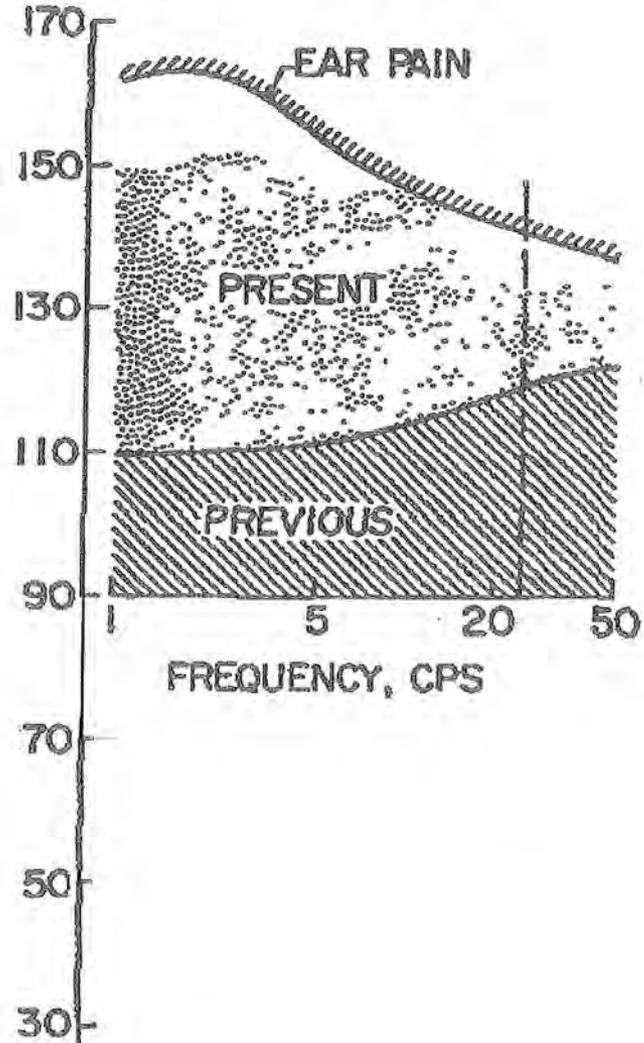
FACT

**WE'VE STUDIED LOW FREQUENCY
NOISE**

**HEALTH CONCERNS DO NOT EXIST IN
TYPES OF TURBINES WE USE**

**OUR EXPERIENCE WITH OVER 7,000
WIND TURBINES – SHOWN NO
HEALTH HAZARDS**

SPECTRUM
LEVEL, dB



MYTH

ICE WILL CAUSE DANGER

MYTH

**ICE ON TURBINES IS
DANGEROUS**

FACT

**NOT A SINGLE ICE RELATED
INJURY - 7,000 TURBINES**

FACT

SUPERIOR OPERATIONAL SAFETY MEASURES

SENSORS & DUAL MONITORING

NO OPERATION IN UNSAFE ICY CONDITIONS:

(SAFETY AND MACHINE)

MYTH

WIND FARMS...

THREATEN FARMING / SPRAYING

**CHANGE THE CHARACTER OF
THE AREA**

FACT:

**USE LESS THAN 1/2 OF 1% OF
LAND**

TURBINES WIDELY SPACED

**AGRICULTURAL USE WILL STILL
DOMINATE**

FACT:

**CARE TAKEN FOR THE
ENVIRONMENT**

**USE CONFORMS TO THE DEKALB
COUNTY COMPREHENSIVE PLAN**

1. Benefits Far Outweigh Concerns

2. Dispell Concerns & Myths

**3. World Class Group That Deserves
Your Trust**

4. Leave You Less Concerned

DeKalb County Public Hearing

John DiDonato
Vice President, Development
March 21, 2009

NextEra Energy Is America's Largest and Most Experienced Wind Farm Developer



20 YEARS OF EXPERIENCE

Best Practices

Doing Things Right

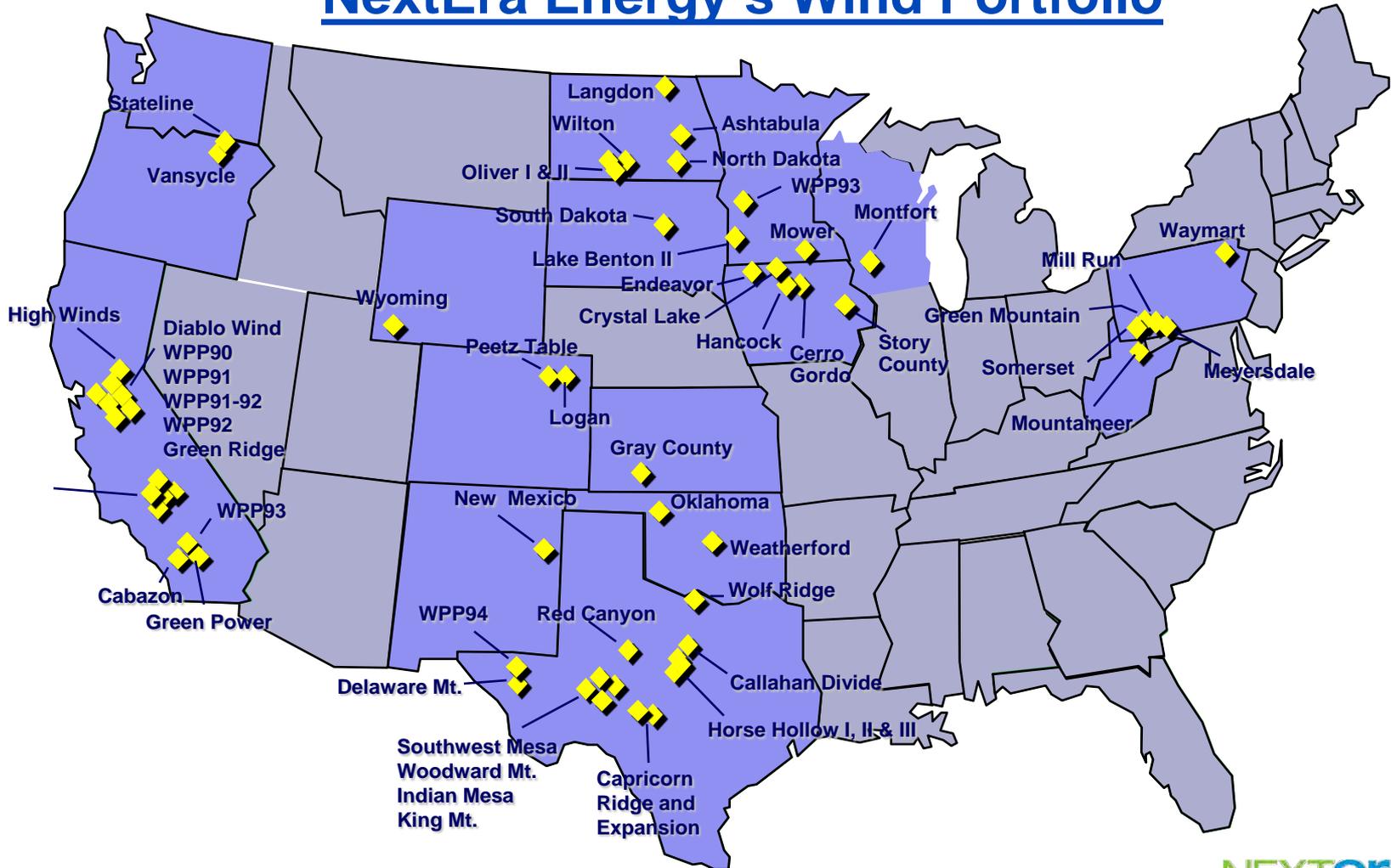
Learning From Past

Awareness Of Issues

Responsiveness To Community

Unmatched Record In Wind Power, 60+ Wind Farms In 16 States, Canada. Some Operating Since The 1980s.

NextEra Energy's Wind Portfolio



OUR FOCUS FOR YEARS IS NOW THE FOCUS OF THE NATION



The Power of Green

What does America need to regain global stature?

Environmental Leadership.

By Thomas L. Friedm



Crist looks to make global warming a hot-button issue

By KRISTI E. SWARTZ
Palm Beach Post Staff Writer

TALLAHASSEE — After Jeb Bush listened to researchers make a case last year for the theory that global warming is causing an increase in the number of strong hurricanes, he remained noncommittal about what he thought of the concept.

But there have been reports of the former governor joking with reporters that he refused to see Al Gore's movie on global warming.

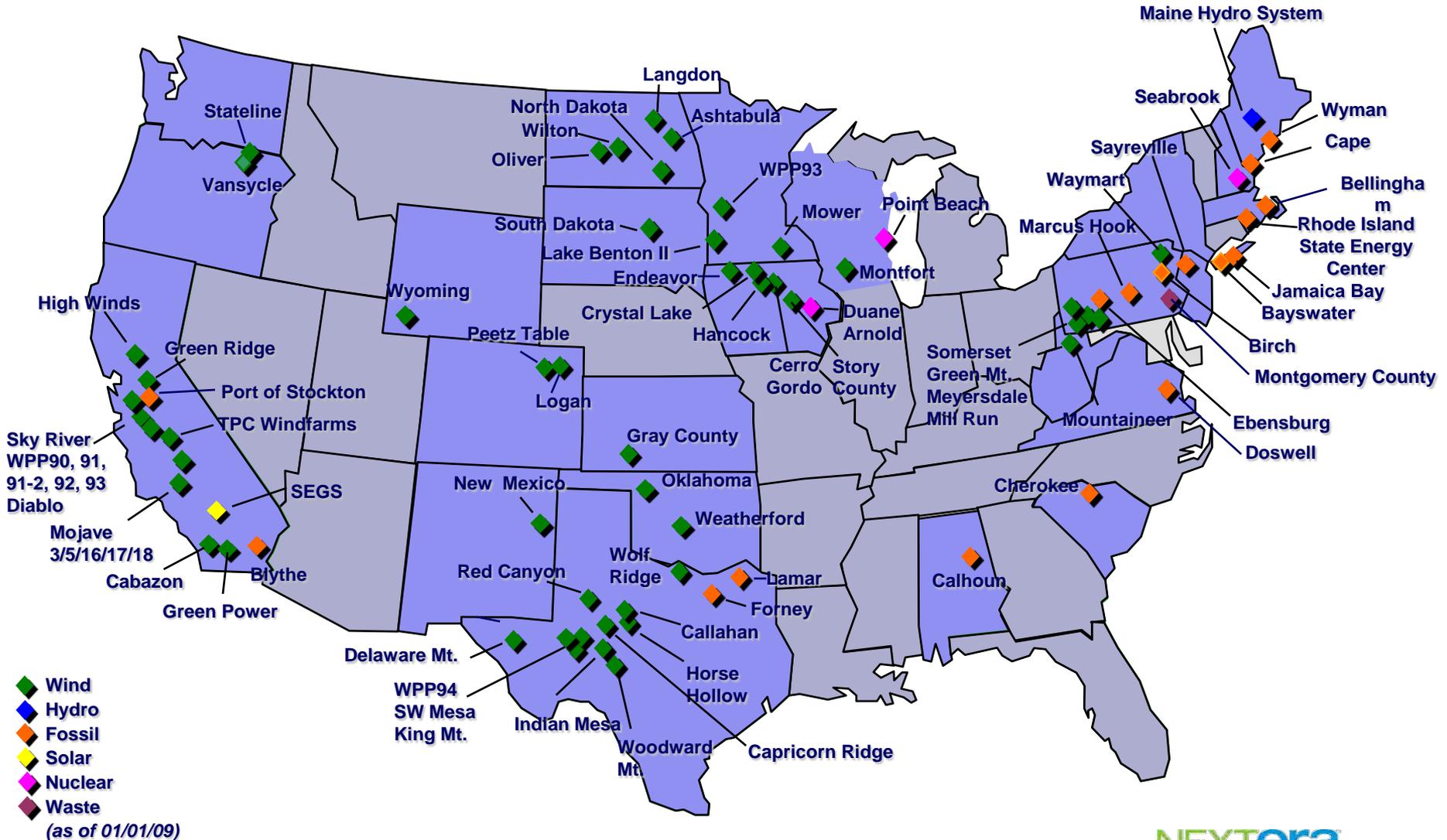
Last week, Gov. Charlie Crist made it clear the state's attitude on that issue is going to change.

Not only is *An Inconvenient Truth* the last movie he saw,



**WE ARE MORE THAN
JUST A WIND COMPANY**

When Hydroelectric, Nuclear Is Added In - We Are A Participant In Most Major Markets



Furthermore, FPL Group Is A Premier American Power Company – NextEra Is Just One Part Of It

FPL Group

- \$21.1 B market capitalization
- 39,015 MW in operation

Florida Power & Light

- One of the largest U.S. electric utilities
- 4.5 MM customer accounts
- 22,087 MW in operation

NextEra Energy Resources

- U.S. leader in renewable generation
- Assets in 25 states and Canada
- Wind and Solar
- 16,928 MW in operation

FPL Energy Illinois Wind

Market Capitalization as of January 28, 2009
Operating Revenue for the year ended December 31, 2008
All other data as of December 31, 2008

We're Here For The Long Term

“A” Credit Ratings

FPL Group Ratings

	Fitch	Moody's	S&P
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FPL Group
Corporate credit rating
Outlook

A	A2	A
Stable	Stable	Stable

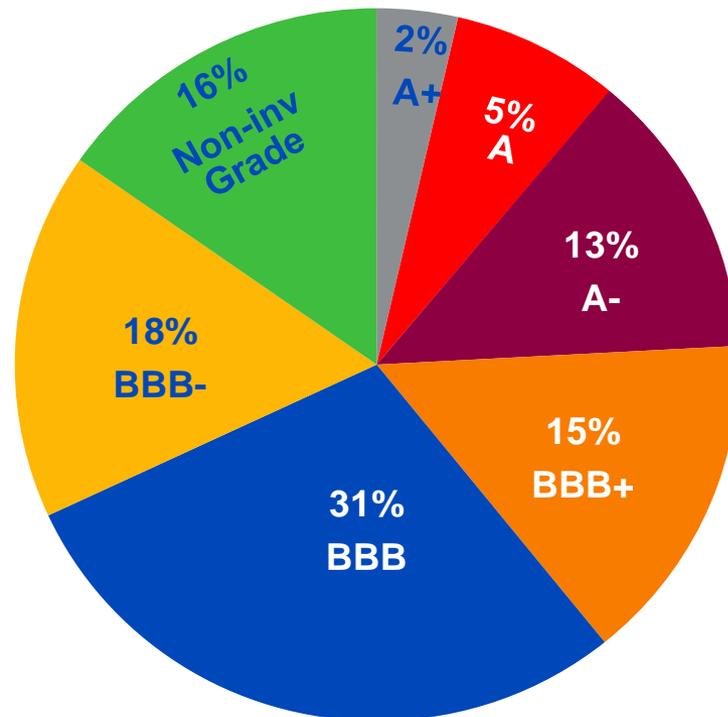
Florida Power & Light
First mortgage bonds
Commercial paper
Outlook

AA-	Aa3	A
F1	P-1	A-1
Stable	Stable	Stable

FPL Group Capital
Sr. unsecured debentures
Commercial paper
Outlook

A	A2	A-
F1	P-1	A-1
Stable	Stable	Stable

Power Sector Ratings



Only three companies in the power sector, including FPL Group, have an “A” or better issuer credit rating



What Differentiates Us?

- **Financial Strength**
 - Invest \$400+ Million Without Need For Outside Financing
- **Here For The Long Haul (30+ Years)**
- **Never Sold A Wind Farm We've Constructed**
- **More Projects / Turbines Than Anyone**

Local Focus / National Presence

- **We Have More Than 7,000 Wind Turbines In Operation**
- **Hosted By Thousands Of Landowners**
- **In Hundreds Of Communities**

The Difference From 2002

- A Long-term Power Purchase Contract Is No Longer Required To Build
- Illinois Passed A Renewable Portfolio Standard

Win - Win

- **Benefits To The Community**
- **Benefits To The Environment**

Supporting Community Activities



Education

Supporting community activities across the country



Community health



The arts

When our neighbors need us

LETTER OF RECOMMENDATION



135 EAST 7TH STREET
PHONE: (940) 759-2281

MUENSTER, TX 76252-0608
FAX: (940) 759-5200

MUENSTER ISD
A Tradition of Success!

JOHN KAUFMAN, SUPERINTENDENT
LOU HEERS, ELEMENTARY PRINCIPAL
BRANDON PEAVEY, HIGH SCHOOL PRINCIPAL

Office of the Superintendent

March 13, 2009

Subj: Experiences with Next Era Energy

TO: DeKalb County Commissioners

Proven Community Partner

- **Benefits To The Community**
- **Benefits To The Environment**

Last Year Alone – Our Company's Environmental Benefits To Nation And Planet:

- **Over 13,000,000 Tons of Avoided CO₂ Emissions**
- **Nearly 20,000 Tons of Avoided NOx**
- **Over 30,000 Tons of Avoided SOx**

Last Year Alone – Our Company’s Environmental Benefits To Nation And Planet:

- **Over 1.3 Billion Gallons Of Gasoline**
- **Over 2 Million Cars**
- **Not Burning Coal From Coal Train More Than 821 Miles Long**
- **Not Burning Natural Gas That Could Fill Louisiana Superdome 1,224 Times**

Annual Emissions Avoided This Project:

- **Over 900,000 Tons – Avoided CO₂**
- **Almost 1,000 Tons – Avoided NO_x**
- **Over 2,700 Tons – Avoided SO_x**

Recognition:

"100 Best Corporate Citizens" for 2008 by CRO, the magazine for corporate responsibility officers and IW Financial

***Ethisphere Magazine's* list of the World's Most Ethical Companies for its commitment to ethical leadership and corporate responsibility**

***Fortune* magazine's "America's Most Admired Companies" In 2007, 2008 and 2009**

Honored for Environmental and Operational Excellence



Innovest
Strategic Value Advisors

Top environmental electric utility in U.S.

2003 Renewables
Company of the
Year. Platts
Global Energy
Award



**EDISON ELECTRIC
INSTITUTE**

2003 Electric Utility of the Year Award

2003 National Land Management Award



Marine Safety



U.S. Coast Guard
Benkert Award for
excellence in protecting
marine environments

Environmental
Protection

Outstanding
Stewardship Award
of America's rivers



NHA
National Hydropower
Association



Pioneer Partner
World Wildlife Fund's
PowerSwitch! Program to
reduce greenhouse gases



Charter partner,
1st utility member



Participation in Research and Protection Groups



Avian Powerline Interaction Committee



American Wind Energy Association™

Lindsay Wildlife Museum

NATIONAL WIND
COORDINATING COMMITTEE
Wildlife Working Group



Audubon

National Renewable Energy Laboratory



PROJECT DIRECTOR, ANTHONY PEDRONI

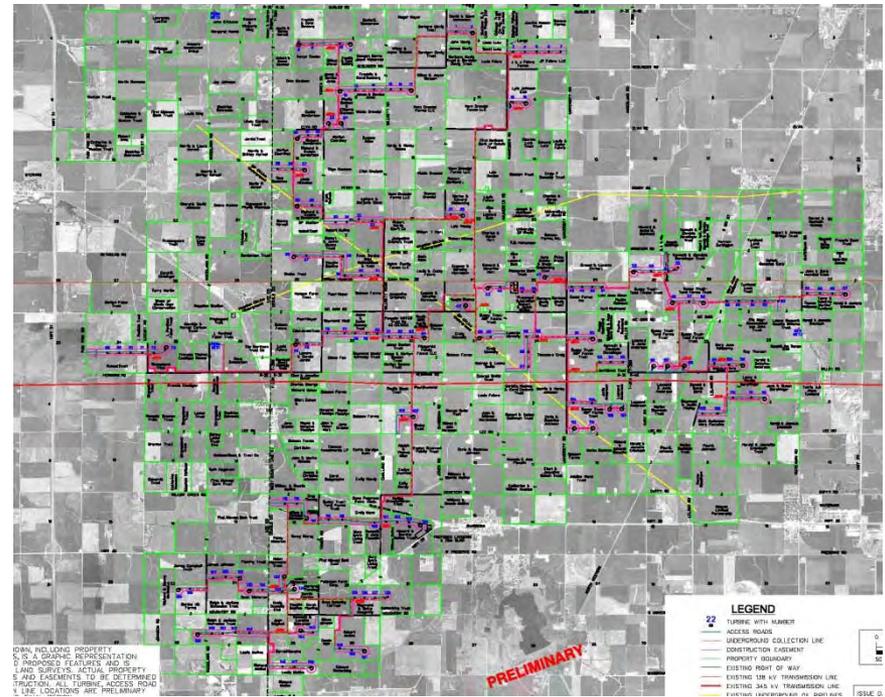
ECONOMIC AND TAX BENEFITS

THE COMMUNITY PARTNERSHIP PROGRAM

THE PROJECT PROPOSAL

Lee-DeKalb Wind Energy Center Overview

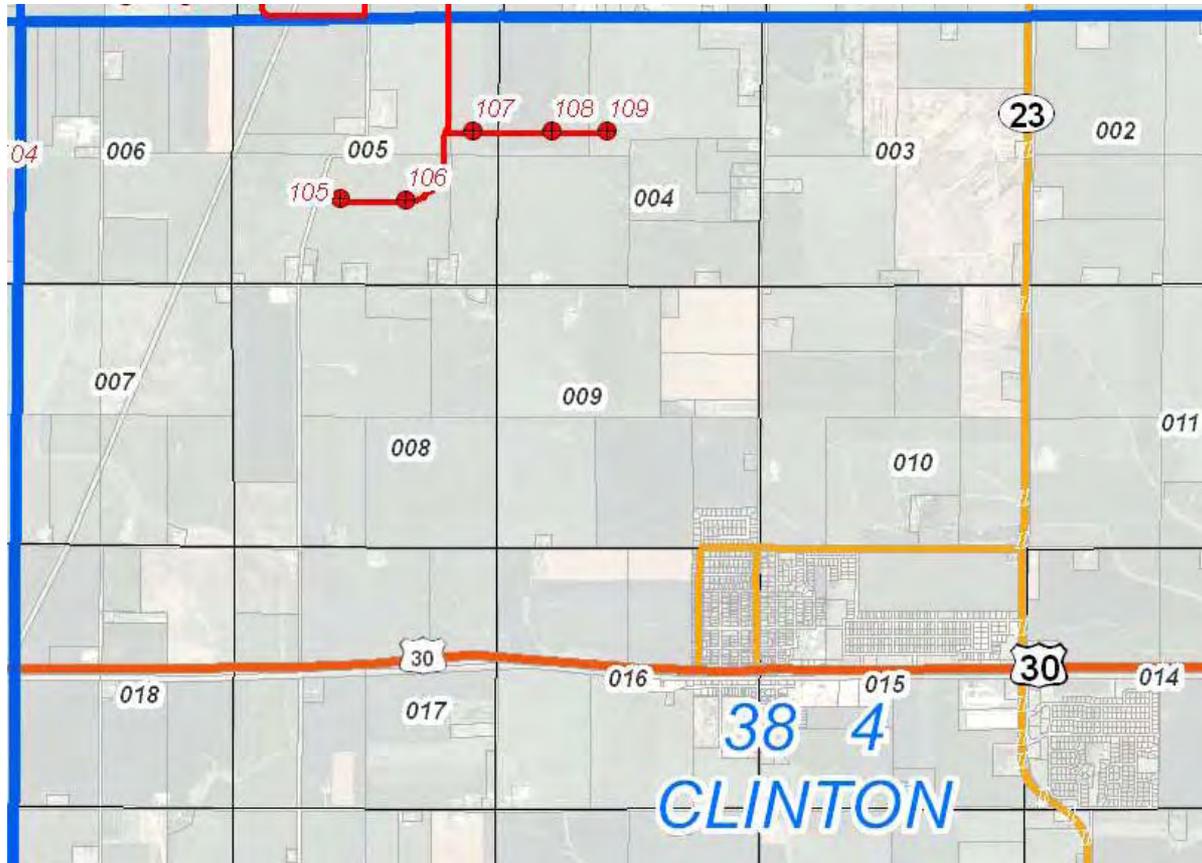
- **151 proposed turbines**
 - 226.5 megawatts total capacity
 - 129 proposed in DeKalb County
 - 18 approved in Lee County
 - 4 to be annexed into Shabbona
 - 75 total landowners
- **Generate clean, domestic, renewable power**
 - Equivalent to energy used by 67,500 homes in a year
- **Job creation for community**
- **Significant tax contribution to community**



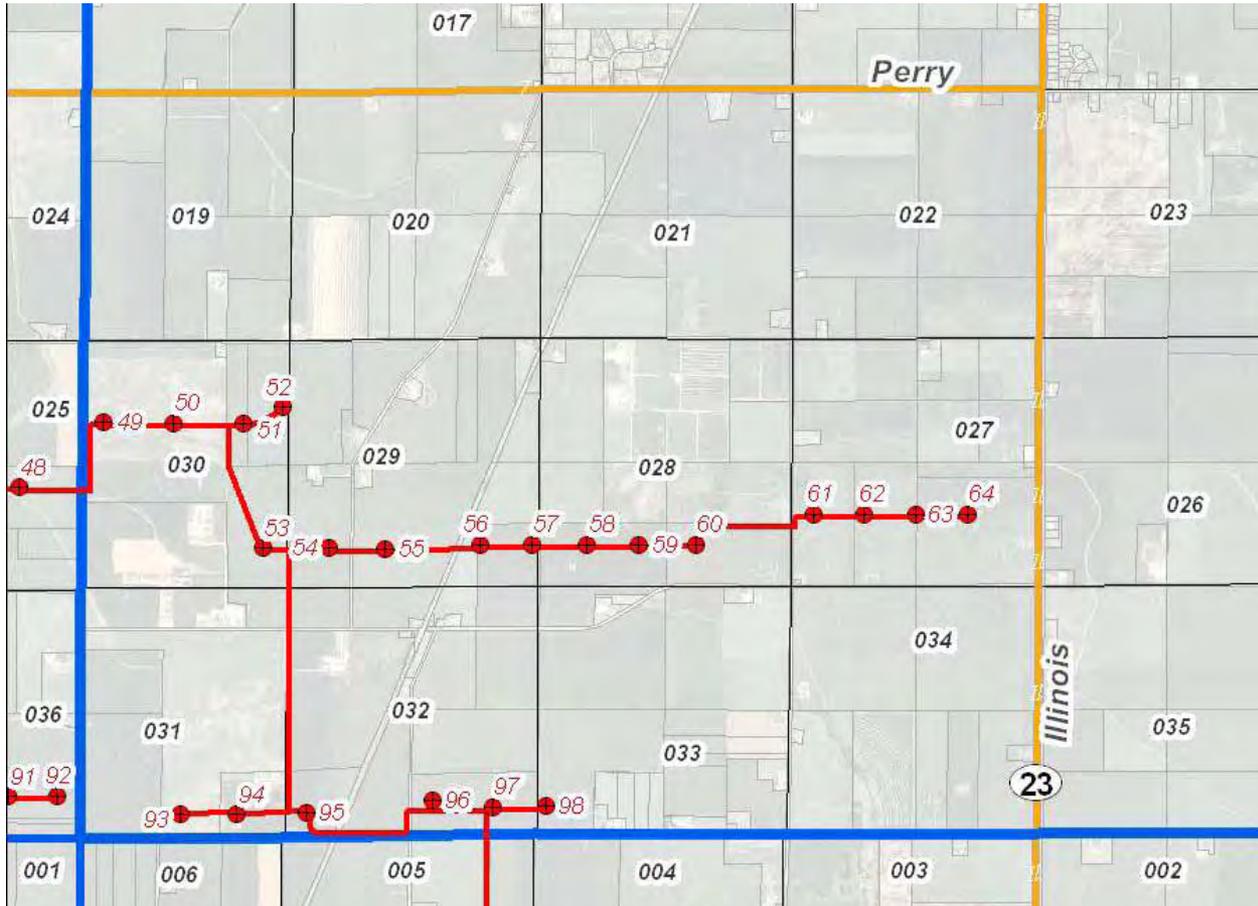
Aerial Compatibility

- **NextEra has built relationships with local crop dusters and emergency flying services**
- **Important design and operational considerations**
 - Straight, east to west strings
 - Wide spacing
 - Crop dusters generally operate at winds less than 10mph
 - Wind turbines start rotating at speeds greater than 10mph
 - NextEra has committed to stopping turbines during aerial application or emergency flights if needed
- **NextEra has continuous control over the turbines**
 - Local maintenance staff during business hours
 - Central fleet control center in Florida at all times
- **Turbines can be stopped in less than 60 seconds**

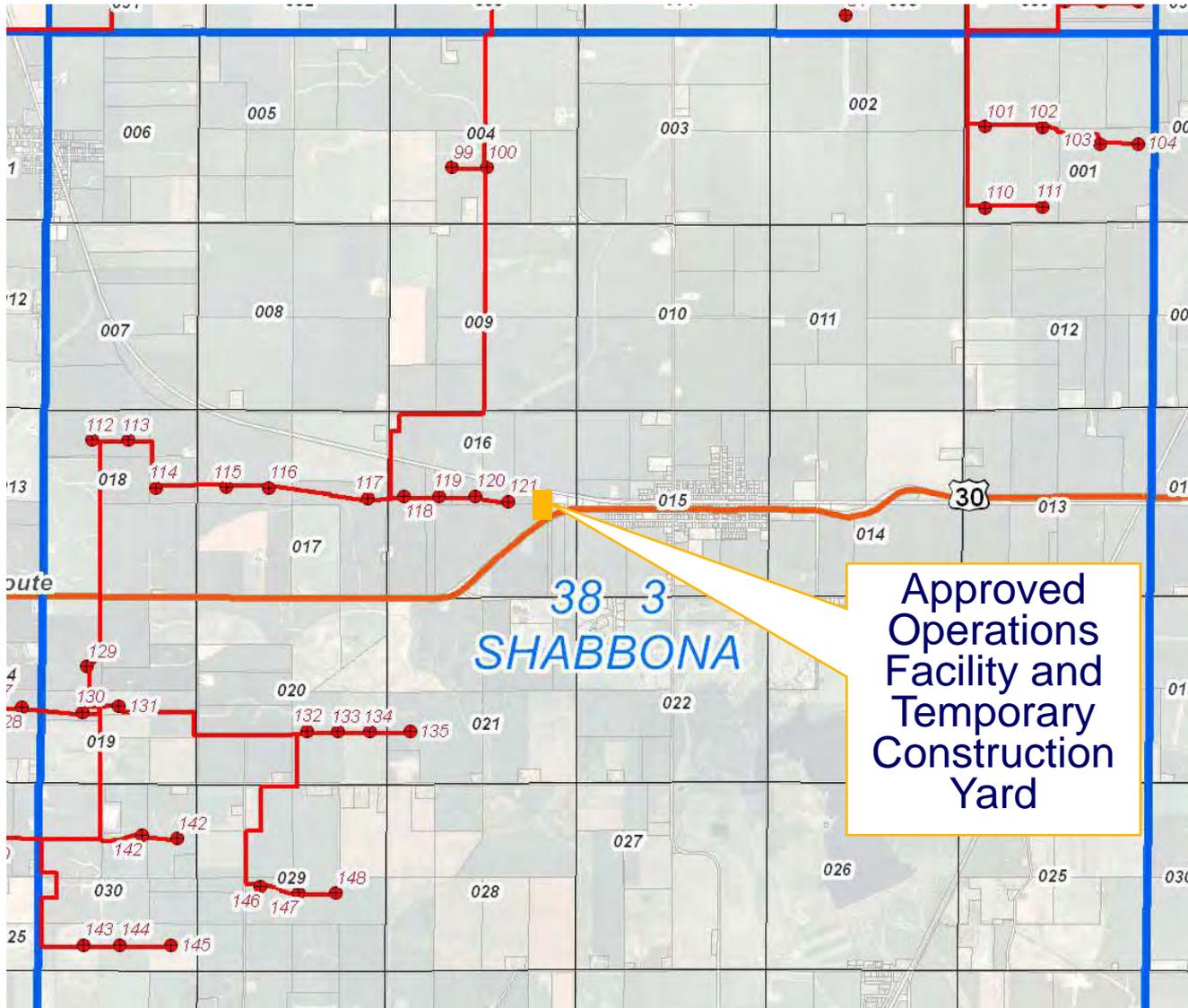
Clinton (5)



Afton (22)

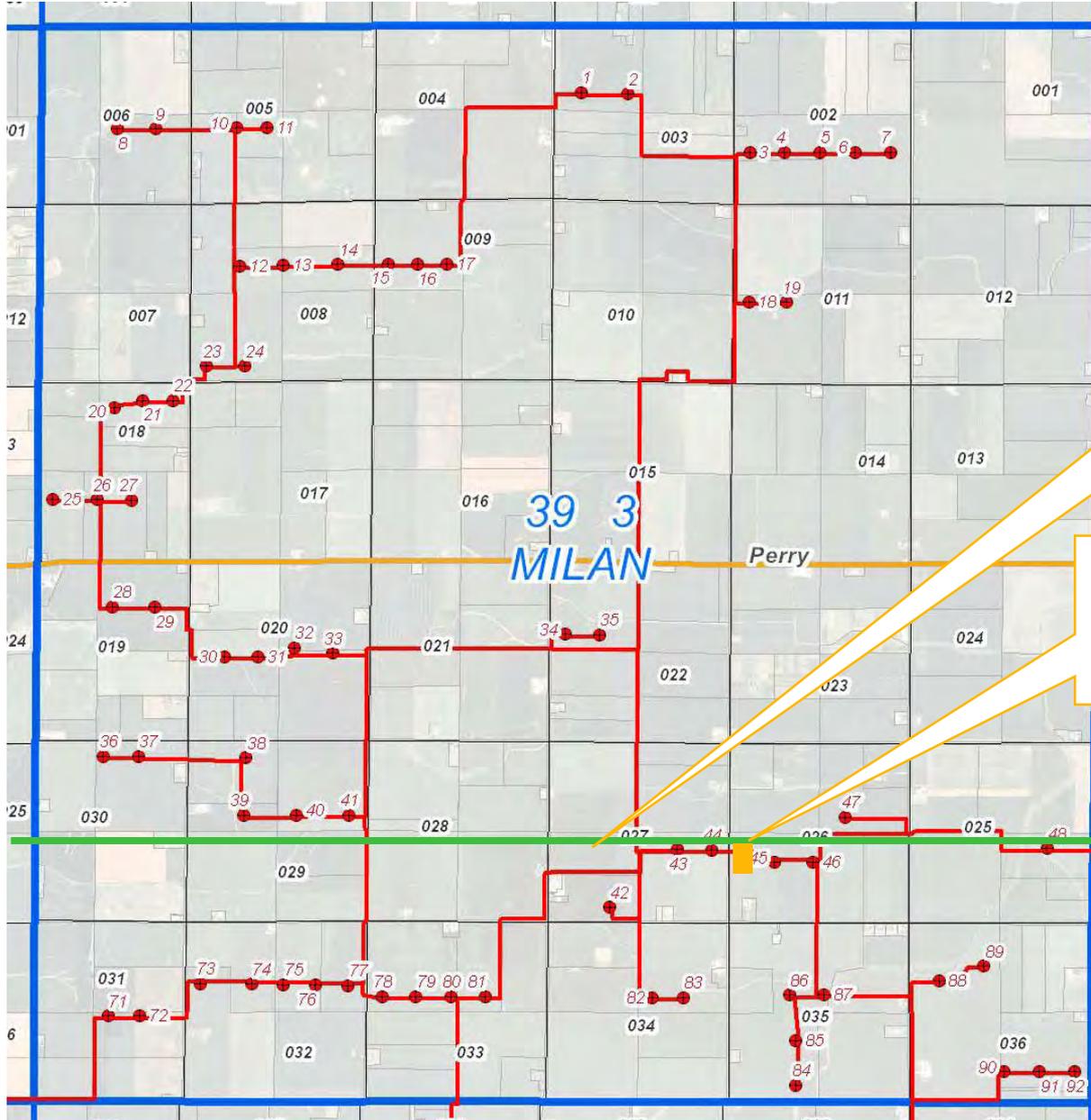


Shabbona (29)



Approved
Operations
Facility and
Temporary
Construction
Yard

Milan (73)



Existing
ComEd
Transmission
Line

Substation



This project benefits the community

The community benefits financially from the project

The Financial Impact of this Project

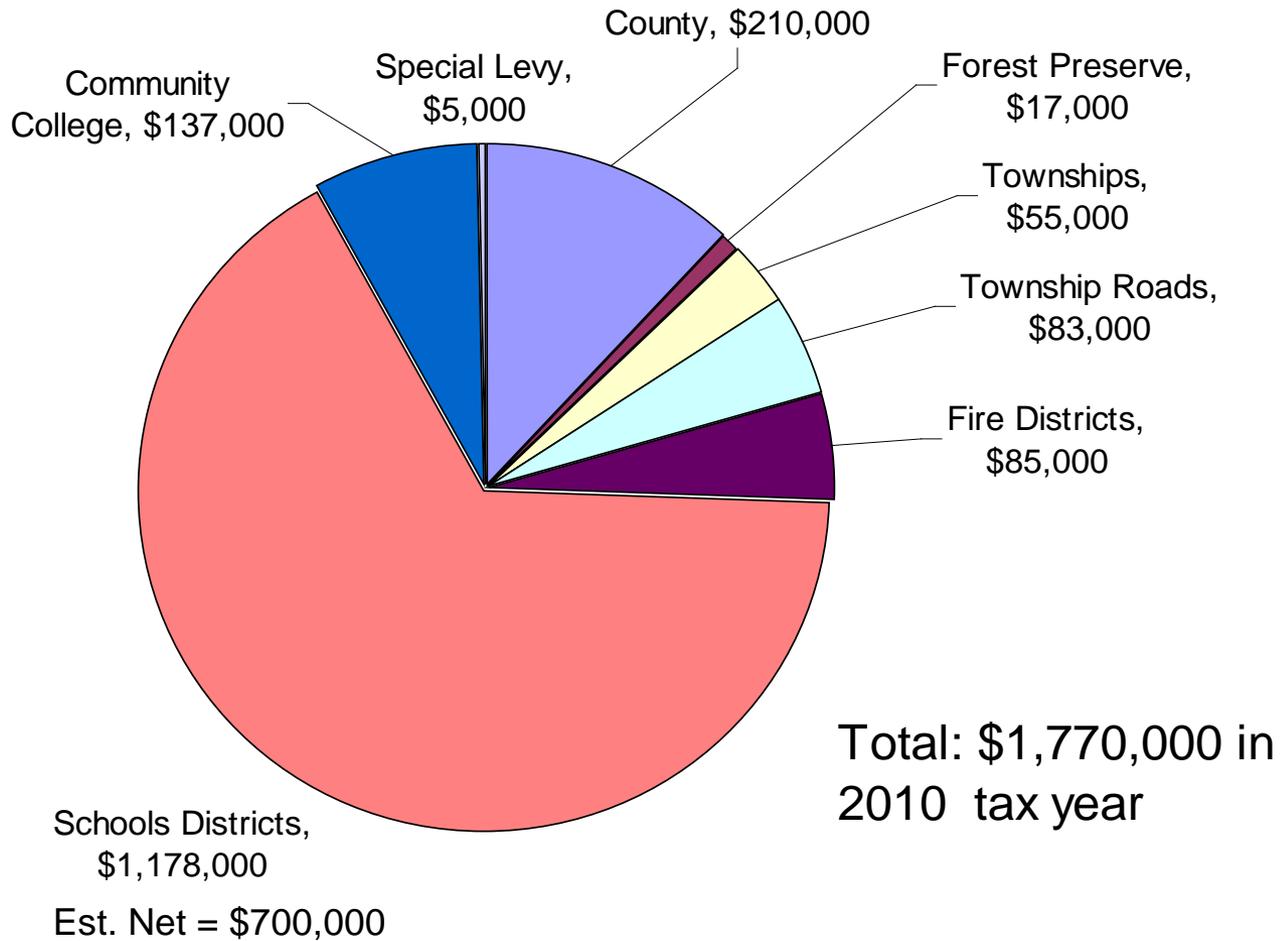
- **\$400+ million of direct investment in 2009**
 - Locally sourced Labor and Materials (people, concrete, gravel, fuel, equipment)
- **\$42 million in total property taxes paid over 30 years**
- **\$50 million over 30 years in land lease payments**
- **\$50 million over 30 years in salaries and benefits to the permanent local maintenance staff**

**FPL Energy Illinois Wind is investing \$500 million of its money
in this community**

Estimated Project Property Tax Breakdown

- **\$2.1 million paid for tax year 2010**
 - \$1.3 million for schools for tax year 2010
 - \$240 thousand for the counties for tax year 2010
 - \$160 thousand for the community college for tax year 2010
 - \$100 thousand for township roads for tax year 2010
 - \$100 thousand for the fire districts for tax year 2010
 - \$63 thousand for the townships for tax year 2010
- **\$40 million over the next 29 years**
 - \$1.45 million average per year
 - Equivalent to 85,000 acres of farmland

Estimated 2010 Tax Year DeKalb County Property Tax Breakdown



The project's total annual property tax payments will benefit community without impacting local resources

Wind Farm Benefits

- **The project will not impact local resources**
 - Does not require water
 - Does not create waste water
 - Does not pollute the air
 - Utilizes existing transmission lines

The Long-Term Plan

- **Establish ourselves in the community for the long-term**
- **Own and operate the project**
- **Restoration of land to preconstruction condition**



Project Restoration

- **Your land is safe with us**
- **Full protection for landowners, county, and neighbors in three ways:**
 - Removal and restoration required by contract within one year of project termination
 - Farmland must be returned to previous conditions
 - FPL Energy Illinois Wind will post a \$4 million restoration bond “Insurance Policy” after 15 years of operations
 - Obligation to landowners to post bond to cover any unexpected expenses of removal above salvage value
 - Turbine value or salvage value will fund near term restoration

Participation includes those hosting turbines and the greater community

Community Partnership Agreement Program

- **Revenue sharing program for nonparticipating homeowners**
 - Annual payment of \$1,000 per year for the life of the project
 - Agreement stays with the property
- **Offered to homeowners within $\frac{3}{4}$ of a mile of turbine**
 - Approximately 200 homes in DeKalb County inside this area
 - Offered to those living in unincorporated areas
- **Homeowners can join program at any time**
- **Homeowner agrees to not obstruct the wind**

The Development Process

- ✓ **Identify a site**
- ✓ **Meet landowners and local officials**
- ✓ **Gather wind data**
- ✓ **Conduct environmental and other studies**
- ✓ **Develop and refine a site plan**
- ✓ **Communicate plans to community**
- **Obtain all necessary permits**
- **Work closely with landowners and county on construction process**



Executive Summary: Project Aesthetics and Design

Tom Factor

3/25/2009 Wind Farm Siting and Development

Why Here?



- **Excellent Wind Resource**
- **250 megawatts available on existing transmission lines**
- **Compatible Land Use**
- **Improved economy of scale**
- **Increased demand for renewable energy**
- **Increased number of participating landowners (75)**
- **Increased financial benefit to County**

Different Proposals: 2002 to 2009

	2002	2009
Windfarm Size (megawatts)	205.5	226.5
Total Turbines Proposed	137	151
Turbines in Lee County	60	18
Turbines in DeKalb County	77	133
Average number of acres of Ag land per turbine	238	286
Turbines per acre density reduction		16.8%
Average Acres for Each Turbine with Access Road		1.57

5-years local experience with wind farm and increased demand for renewable energy means project doesn't need to be built in stages.

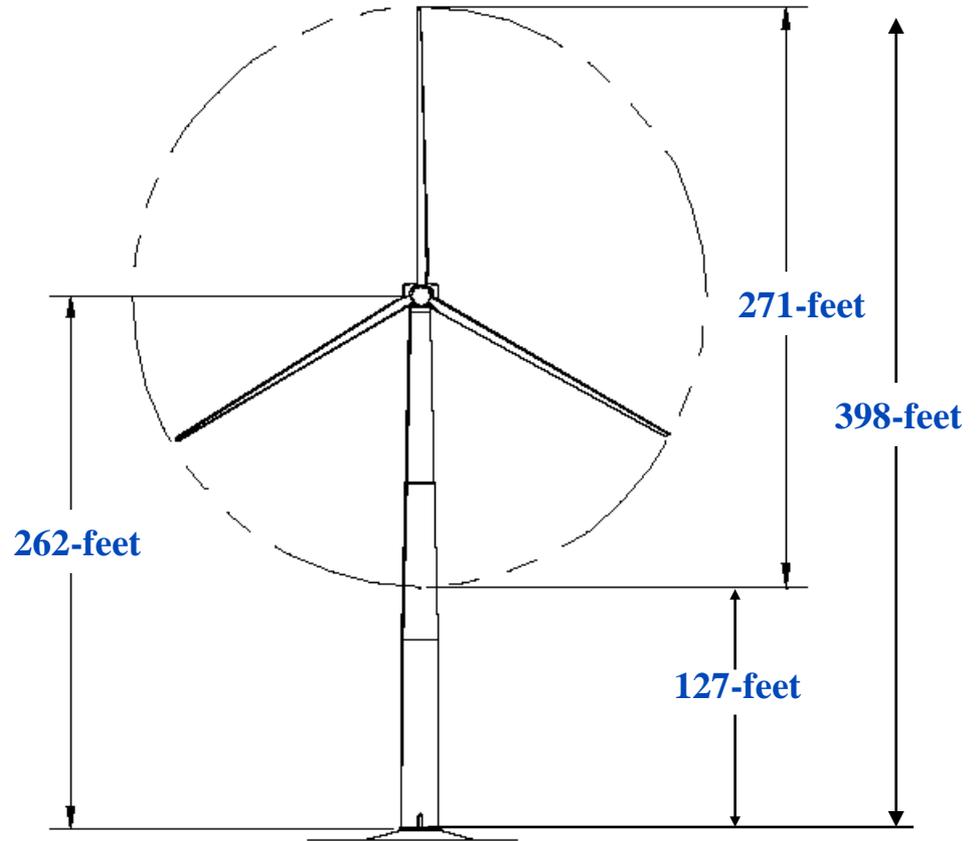
Visual Comparison of Design

	<u>Mendota Hills</u>	<u>FPL</u>
Kilowatt Capacity of Turbine	800	1500
Tower Height (feet)	214	263
Turbine Height (feet)	295	398
Turbines needed for 226.5 MW	283	151
Reduction in density of turbines per acre		47%



GE turbine requires about half as many towers spaced wider apart to produce same output.

Better Technology Captures More Wind GE 1.5 MW xle



Visual Compatibility

- Tubular towers
- Off-white, non-reflective color on towers blend best into skyline
- Meet FAA lighting requirements
- Very slow turning (only 20 rpm)
- Larger size allows wider spacing and fewer turbines
- Substantial distance from homes, roads, etc.



The wind project is designed to be compatible with current land use

NextEra Design for DeKalb Project

- **Set-Backs**

- At least 1,400 feet from homes*
- At least 437 feet (1.1 x height) from existing powerlines, roads, railroad tracks, and adjoining property boundaries

- **Environmental**

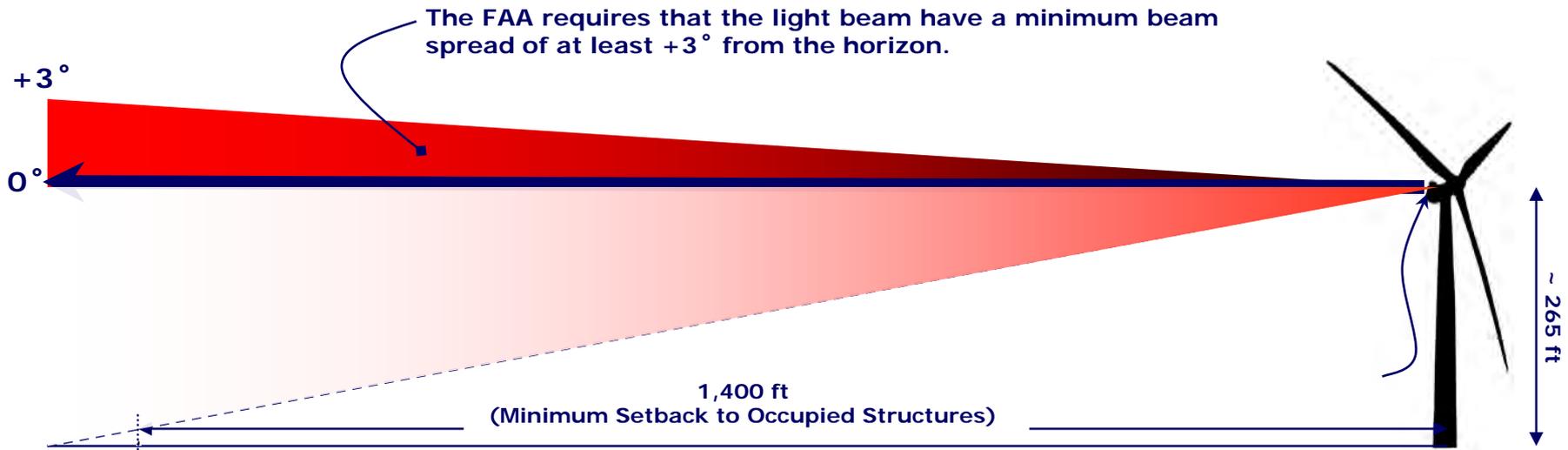
- Acoustics: Will meet state sound standards
- Shadow Flicker less than 1% of daylight hours at any home
- Avoid wetlands, microwave beam paths, cultural sites, airport approaches

- **Landowner considerations**

- East/West or North/South turbine strings in line with crops
- Farm tile

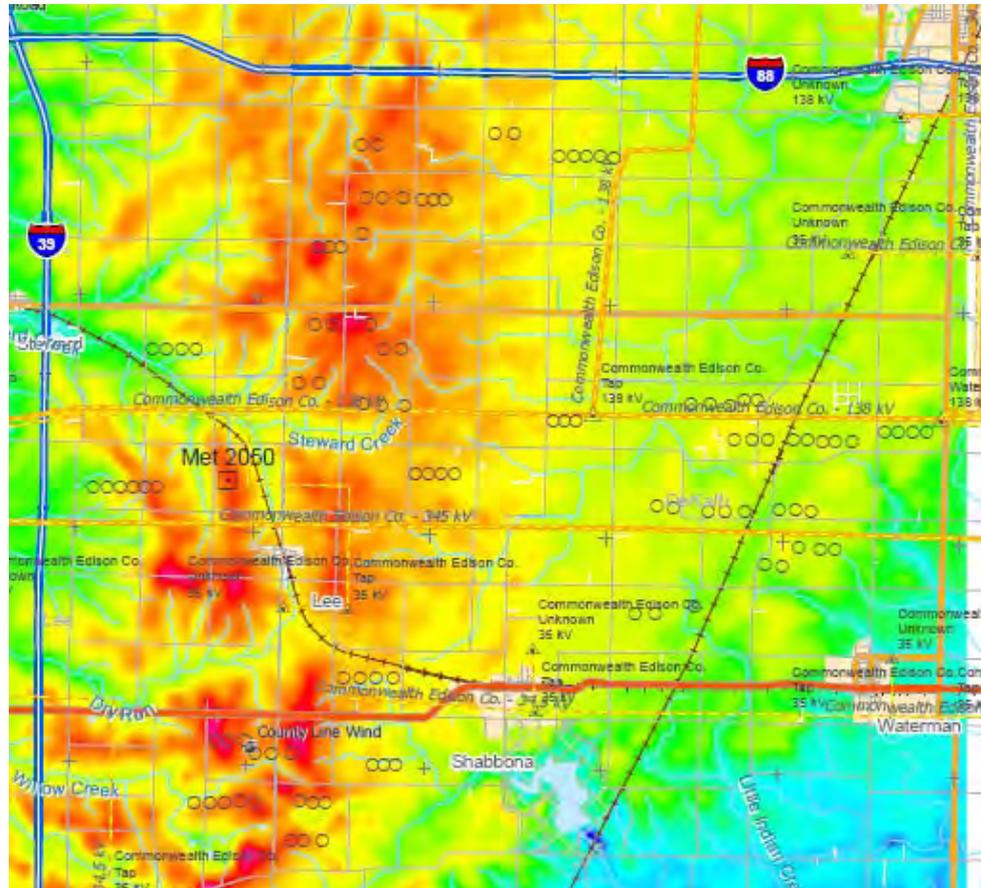
* As modified in light of testimony at public hearing

FAA Lighting



- LED lights pointing upward and encased in nacelle minimize light spreading below turbine
- No lights during day
- Synchronized flashing red lights on 30-40% of the turbines at night
- LED-based obstruction lights that have been shown to limit stray light to less brightness than a 7.5 watt light bulb
- No security lighting required at the base of the tower.

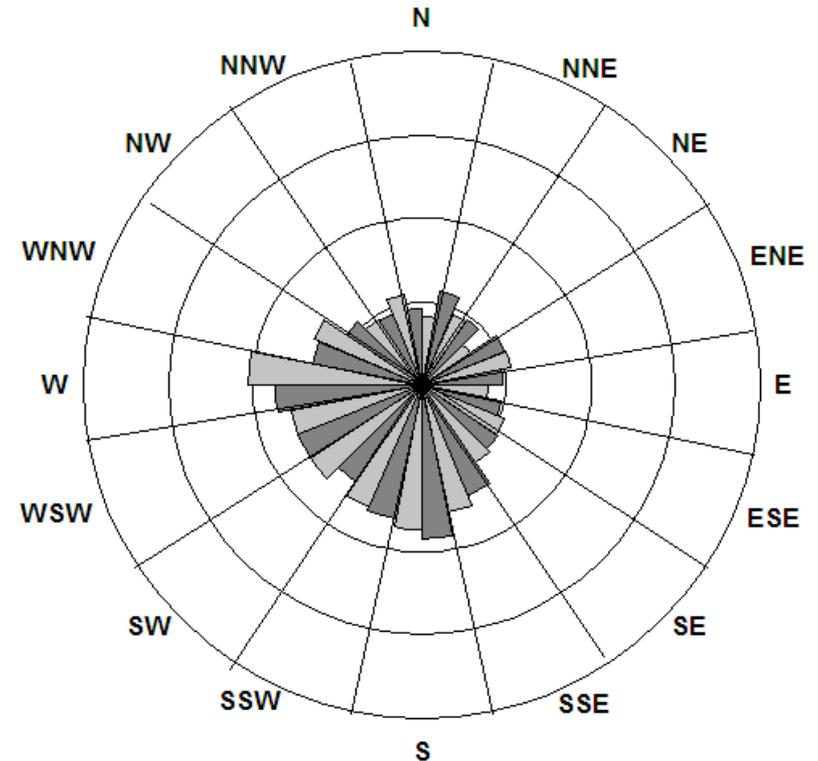
Wind Map Impact on Design



Wind map shows area's good wind resource.

Wide spacing of turbines to minimize waking

- Based on Wind Rose and Land Use
- For this site approximately 1,000 feet east/west and 3,000 feet north south



Design Responds to Environmental Studies

- Endangered/threatened species consultation
- Avian risk assessment
- Cultural resources review and avoidance
- General Permit for Storm Water Discharges from construction activities will be obtained prior to construction
- Wetlands delineation and avoidance
- Coordination with state and federal agencies



NextEra Energy Resources does an exhaustive analysis of each turbine location before construction

Design Responds to Sound Study

- NextEra designs to meet Illinois' stringent sound standards
 - Different thresholds at various frequencies
 - Most comprehensive standards in the Midwest
- Sound is a major consideration during design
 - Turbine layout is redesigned based on preliminary results
 - Final design must be within standards before construction begins
- Agree to address complaints

Erik J. Kalapinski, INCE
Senior Sound and Vibration Engineer
National Lead Acoustics – Energy Group
Tetra Tech EC, Inc.

Elements of a Sound Study

- Step 1) Review of Applicable Regulatory Limits**
- Step 2) Acoustic Propagation Modeling**
- Step 3) Reporting and Determination of Regulatory Compliance**

Review of Regulatory Criteria

Based on Extensive Industry Experience, are Designed to Protect Health and Well-Being

Illinois Pollution Control Board
Regulation Nighttime Octave Band
Sound Pressure Level Limits

<u>Hz</u>	<u>dL</u>
31.5	69
63	67
125	62
250	52
500	47
1000	41
2000	36
4000	32
8000	32

USEPA L_{dn} Guideline – Levels of Noise
Requisite to Protect Human Health and
Welfare with an adequate margin of safety:

$$L_{dn} = 55 \text{ dB(A)}$$

For continuous sound level

$$L_{eq} = 48.6 \text{ dB(A)}$$

Illinois Pollution Control Board equivalent
sound level for Wind Turbines

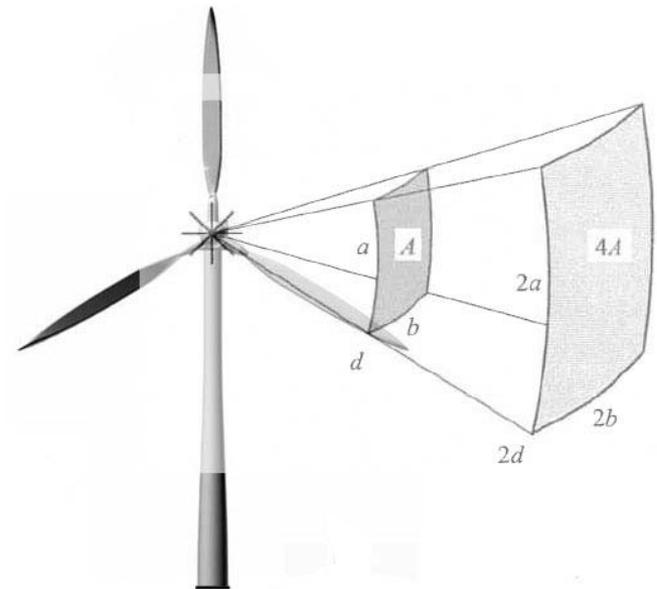
$$L_{eq} = 46 \text{ dB(A)}$$

FPL Illinois Wind Turbine maximum

$$L_{eq} = 45 \text{ dB(A)}$$

Acoustic Propagation Modeling: Site Specific Application of Standards

- Atmospheric absorption
- Diffraction by topography and obstacles
- Complex terrain and ground attenuation
- Sound source direction
- Height of sources and receptors
- Seasonal foliage effects
- Frequency dependant sound propagation
- Meteorological conditions
- Specific wind turbine acoustics.



Reporting and Determination of Regulatory Compliance at Every Home for Every Turbine

- In Low Winds
- In Average Winds
- In High Winds
- At Specific Frequencies
- With all frequencies averaged
- During Day
- During Night
- For each season



Location of Receptors



Location of WTGs

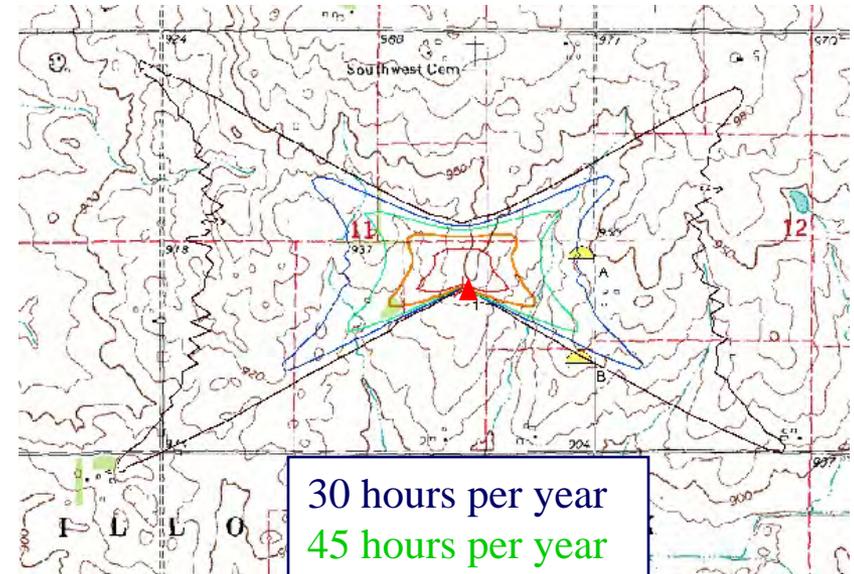
Low-Frequency and Infra-Sound

- **Low-frequency and infra-sound health effects and annoyance levels have been well studied in U.S. and Europe by published research**
- **Based on these studies, low-frequency and infra-sound criteria have been set in U.S. by ANSI**
- **Every wind turbine model has unique acoustic characteristics**
- **Epsilon measured low-frequency sound on GExle turbine**
- **There is no audible infra-sound to the most sensitive listeners**
- **At 1,000-feet low frequency and infra-sound is well below criteria set by ANSI**
- **FPL wind farm will comply with ANSI standards for low-frequency and infra-sound at all homes in the area**

NextEra Energy Resources does an exhaustive analysis of each turbine location before construction

Design Responds to Shadow-Flicker Analysis

- **Conditions that create shadow-flicker**
 - Must be sunny (24% of year)
 - Must be dawn/dusk
 - Must be windy from East or West
 - Turbine must be within 30 degrees due east or west of home and about .5 miles of home
 - Must have a window facing turbine
- NextEra designs to the standard that no home to have more than 1% of daylight per year exposure to shadow flicker and will address any complaint.***



▲ = Wind Turbine Location

Design Responds to Turbine Icing

- Average is 1-2 icing events per year at this site
- The wind turbine has sensors that indicate when icing occurs.
- NextEra has an operational guideline to shut down turbines with the potential to shed ice that are within 800-feet of roads.
- With its 7,000 turbines and 10-year operational history, NextEra has never had an ice related injury.
- Statistical risk even without shutting down the turbine is near zero

Wind Turbine Icing and Public Safety – Colin Morgan, Ervin Bossanyi, Garrad Hassan

Exploratory of HAWT Blade Throw Risk to Nearby People and Property – A.J. Eggers, Jr., W.E. Holley, R. Digumarthi, K Chaney

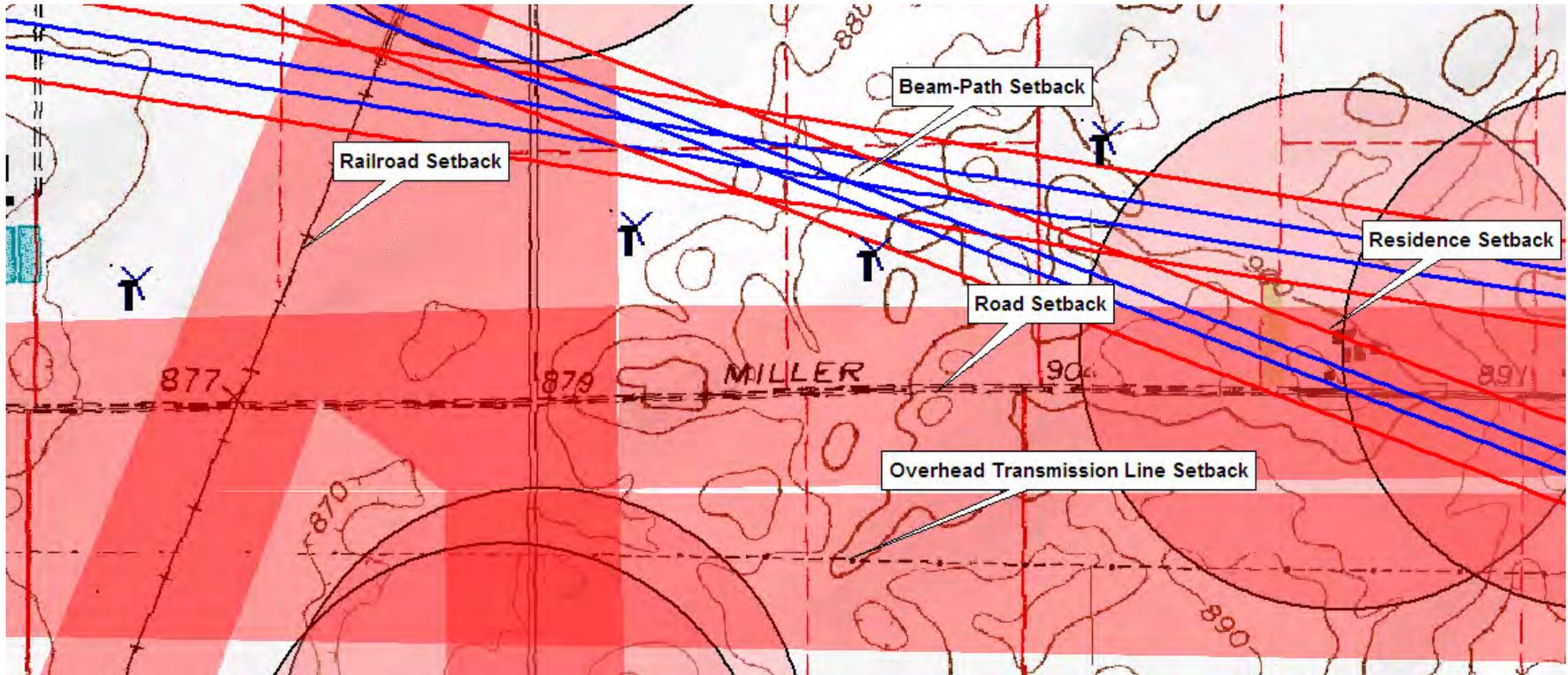
Risk Analysis of Ice Throw from Wind Turbines – H. Seifert, A. Westerhellweg, J. Kroning, April 2003

Electrical Considerations

- **There should be no AM/FM radio, wireless internet, or TV interference**
 - If interference should occur, we will fix any problems
- **There is no stray voltage or additional lightning risk associated with installation and operation of a wind farm due to compliance with electrical grounding codes**
- **Electro-magnetic fields (EMF) are at about background levels 25 feet from turbine.**



Combined Impact on Design



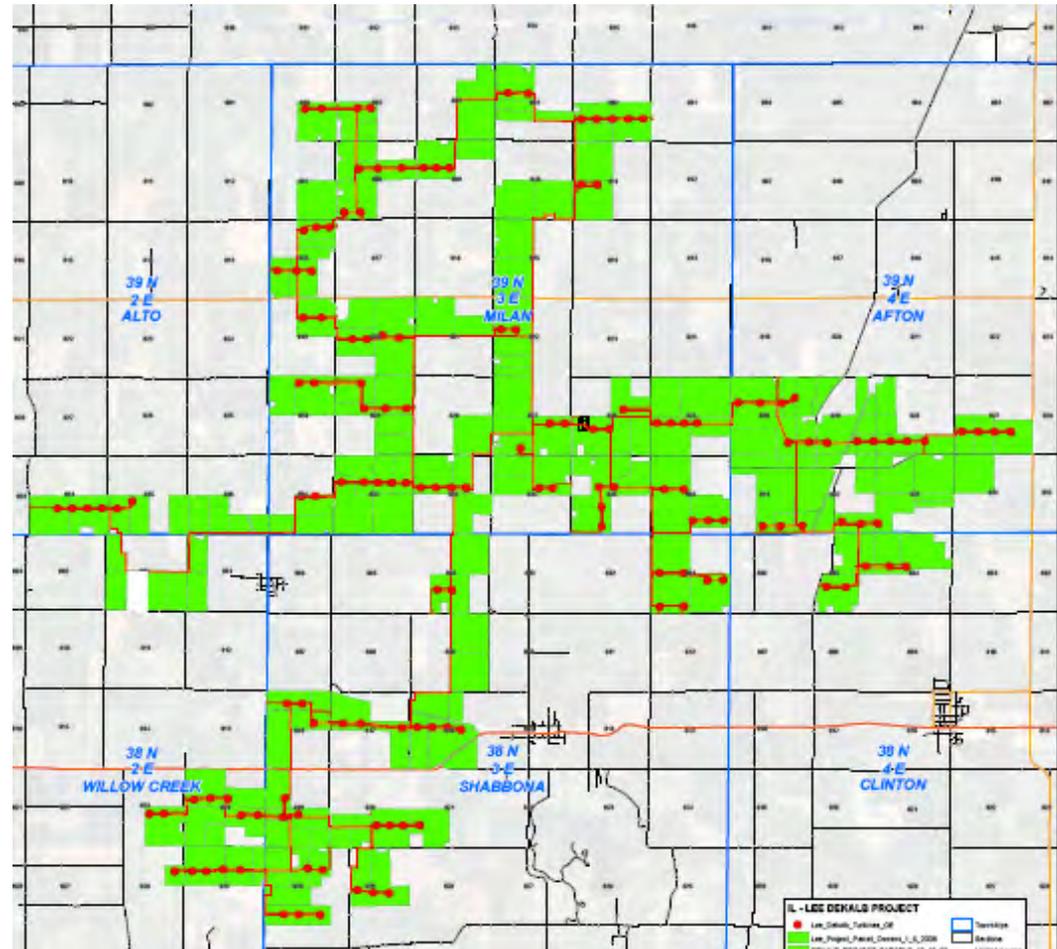
Example of rail, road, transmission line, home, and beam-path setbacks that also meet land use requirements.

Putting It All Together

Considering:

Setbacks

- Wind Wakes
- Wind resource maps
- Landowner participation
- Environmental impacts
- Sound impacts
- Crop-dusting
- Property-lines
- Roads
- Landowner preferences



Story County, Iowa



NextEra Energy Resources Drives National Wind/Wildlife Issues

- NextEra supports wind energy/wildlife research across the U.S.

Member of :

Technical Advisory Committees for Bat Wind Energy Cooperative

National Wind Coordinating Collaborative Wildlife Working Group

Ducks Unlimited Water Fowl Breeding Success Study

Avian Power Line Interaction Committee

NextEra Energy Resources leads the industry in reducing impacts to natural resources by carefully siting wind energy facilities



NextEra Energy Resources Drives National Wind/Wildlife Issues

- **Bat/Wind Energy Issues**

- NextEra discovered and self-reported bat issues associated with forested Appalachian ridge tops
- NextEra instrumental in establishing the Bat Wind Energy Cooperative
- Hosted first ever bat wind energy study in U.S. at NextEra facilities
- NextEra continues to fund and support this important research

- **NextEra policy**

- NextEra conducts long term post-construction monitoring of wildlife impacts at all NextEra wind facilities in U.S.

NextEra Energy Resources is committed to understanding and minimizing impacts to wildlife



NextEra Energy Resources Drives National Wind/Wildlife Issues

- **How we approach our sites**

- Extensive pre-construction wildlife studies
- Initial high level screening of potential wind energy sites for fatal flaws
- Early and often consultation with local, state and federal wildlife agencies
- Site specific biological field monitoring to enhance micro-siting
- Continuous micro-siting to minimize risks to birds and bats
- Employ wildlife Best Management Practices during construction
- Long term post-construction wildlife monitoring

- **NextEra policy**

- Construct wind energy facilities nation wide that pose lowest achievable risk to flora and fauna

NextEra Energy Resources considers wildlife issues from start to finish



Wildlife Studies

- **Consultations conducted with US Fish & Wildlife and Illinois Dept. of Natural Resources**
- **USFWS concurred with findings that Indiana bat habitat rendered it not likely to occur**
- **IDNR said no effect to state threatened or endangered species.**
- **Birds are primarily common and widespread black bird varieties**
- **Raptors uncommon**
- **Minimal impacts to birds because turbines will not remove important breeding habitat**

Michael A. Slavney

Expert Qualifications:

- ❑ **Planning Consultant; Vandewalle & Associates**
- ❑ **27 Years Exp., 6 as City Government Planner**
- ❑ **Masters of Regional Planning from UNC**
- ❑ **Fellow of the College of the American Institute of Certified Planners (FAICP)**
- ❑ **Principal Author of:**
 - Nearly 50 Comprehensive Plans, including Lee & Boone Co.
 - 20 Zoning Ordinances & Maps
- ❑ **Co-Author of Lee County WECS Ordinance**

Expert Opinion on 4 Key Findings:

- Proposal is in harmony with the Unified Comprehensive Plan**
- Wind Energy Conversion Systems (WECS) are a Special Use in A-1 Zoning**
- Proposal Complies with the 3 Special Use Criteria for A-1 Zoning**
- Proposal Complies with 6 Burden of Proof Criteria for all Special Uses**

Expert Opinion on 4 Key Findings:

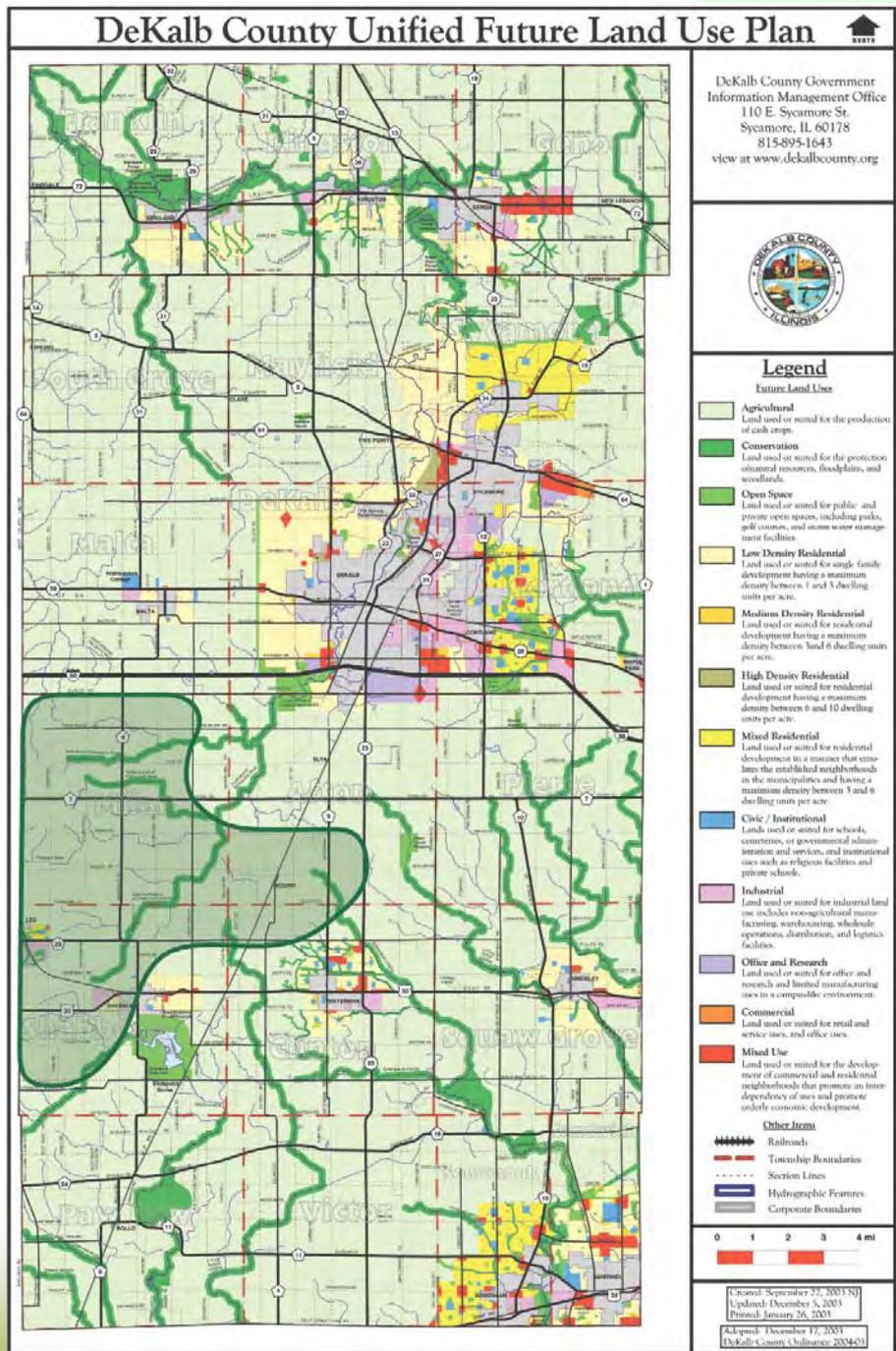
- ❑ **Proposal is in harmony with the Unified Comprehensive Plan**
- ❑ **Wind Energy Conversion Systems (WECS) are a Special Use in A-1 Zoning**
- ❑ **Proposal Complies with the 3 Special Use Criteria for A-1 Zoning**
- ❑ **Proposal Complies with 6 Burden of Proof Criteria for all Special Uses**

Finding 1: Proposal is in Harmony with the Unified Comprehensive Plan

- ❑ **WECS Help Keep Farmers on the Farm**
- ❑ **Diversified Stable Income to Farmland Owners**
- ❑ **Highly Compatible with Agriculture**
- ❑ **Agricultural Land Use Category is not intended for additional residential development**
- ❑ **Future Land Use Plan Map accommodates approximately 250,000 persons well away from the Project Area**

DeKalb County Unified Future Land Use Plan

*Adopted
Dec. 17, 2003*



Expert Opinion on 4 Key Findings:

- ❑ **Proposal is in harmony with the Unified Comprehensive Plan**
- ❑ **Wind Energy Conversion Systems (WECS) are a Special Use in A-1 Zoning**
- ❑ **Proposal Complies with the 3 Special Use Criteria for A-1 Zoning**
- ❑ **Proposal Complies with 6 Burden of Proof Criteria for all Special Uses**

Finding 2: WECS are a permitted Special Use in the A-1 Zoning District:

- **WECS clearly belong within the Essential Service Structure land use group**

4.02.C.1.m.:

- 4.02.C.1.m: “Essential service structure including, but not limited to: any new rights-of-way across farm land, telephone exchange or repeater buildings and towers, electrical station and substation buildings, gas regulator stations and regulator buildings as well as other structures and buildings related to essential or public services.”

Finding 2: WECS are a permitted Special Use in the A-1 Zoning District:

- ❑ The phrase “including, but not limited to” clearly indicates that the listed land uses are examples and not an exhaustive list
 - This *listing of examples* approach is verified by the concluding phrase “as well as other structures and buildings related to essential or public services”
 - WECS qualify as an Essential Service Structure in three ways

Finding 2: WECS are a permitted Special Use in the A-1 Zoning District:

[1] Description's explicitly listed permitted special uses include “**electrical station and substation buildings**”

- Each WECS turbine is an electrical station – commonly understood to mean a facility that generates electricity
- The proposal includes an electrical substation

Finding 2: WECS are a permitted Special Use in the A-1 Zoning District:

[2] The Essential Service Structure listing also includes the phrase “as well as other structures and buildings related to essential or public services”

- Electricity is commonly understood as an essential or public service
- Electricity is needed for a modern economy and for a basic standard of living

Finding 2: WECS are a permitted Special Use in the A-1 Zoning District:

[3] The term “structure” is defined in the Ordinance as: “any improvement of man-made materials erected on land, the use of which requires more or less permanent location on or in the ground or attached to something having a permanent location on or in the ground, including but not limited to, buildings, fences, **towers**, antennae, freestanding signs, decks and swimming pools.”

Expert Opinion on 4 Key Findings:

- ❑ **Proposal is in harmony with the Unified Comprehensive Plan**
- ❑ **Wind Energy Conversion Systems (WECS) are a Special Use in A-1 Zoning**
- ❑ **Proposal Complies with the 3 Special Use Criteria for A-1 Zoning**
- ❑ **Proposal Complies with 6 Burden of Proof Criteria for all Special Uses**

Finding 3: Proposal Complies with the Three A-1 Special Use Criteria:

- a. **“The proposed use shall be sited upon lands which are less suitable for commercial agriculture than other agricultural lands within the district, or on lands designated for non-agricultural use by the County Comprehensive Plan.”**
 - Proposal locates turbines based on a combination of strict *setback & spacing criteria* – as further refined by *agricultural property owner consultation and approval* of the most suitable location.

Finding 3: Proposal Complies with the Three A-1 Special Use Criteria:

- b. **“The proposed use shall be sited upon a lot in a manner which minimizes the amount of productive agricultural land which is converted to the proposed use.”**
 - Proposal converts an average of 1.57 acres per turbine site for the combined area of the tower base and access driveway. This is less than *one-half of one percent (0.5%)* of the project area.

Finding 3: Proposal Complies with the Three A-1 Special Use Criteria:

- c. **“The proposed use shall be located in close proximity to existing facilities providing agricultural services whenever possible and appropriate. The clustering of agribusinesses into agricultural service centers shall be encouraged and accomplished by special use permit.”**
 - WECS are appropriately located in open space areas such as farmland, and *not near other business. Nor should they be clustered.*

Expert Opinion on 4 Key Findings:

- ❑ **Proposal is in harmony with the Unified Comprehensive Plan**
- ❑ **Wind Energy Conversion Systems (WECS) are a Special Use in A-1 Zoning**
- ❑ **Proposal Complies with the 3 Special Use Criteria for A-1 Zoning**
- ❑ **Proposal Complies with 6 Burden of Proof Criteria for all Special Uses**

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

1. **“The proposed special use complies with all applicable provisions of the applicable (A-1 Agricultural) District.”**
 - WECS are an Essential Service Structure
 - Proposal meets the 3 Special Use Standards specific to the A-1 District
 - Proposal meets all A-1 District requirements (lot area, setbacks, parking, loading and signage)

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

2. **“The proposed special use will not be unreasonably detrimental to the value of other property in the neighborhood in which it is to be located or the public welfare at large.”**
 - Poletti & Associates study shows “no statistically measurable effect” on values
 - Mr. Tom Factor’s presentation indicates no unreasonable detriments to the public health, including noise, shadow flicker, and icing

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

3. “The location and size of the special use, the nature and intensity of the operation involved in or conducted in connection with it, and the location of the site with respect to streets giving access to it are such that the special use will not dominate the immediate neighborhood so as to prevent development and use of neighboring property in accordance with the applicable zoning district regulations. In determining whether the special use will so dominate the immediate neighborhood, consideration shall be given to (1) the location, nature and height of buildings, structures, walls, and fences on the site, and (2) the nature and extent of proposed landscaping and screening on the proposed site.”

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

- ❑ Proposal lowers the density of the proposed turbines from the previous approval
- ❑ The large setbacks, sleek physical design of the turbines, their color, and the use of existing overhead transmission lines result in no dominance “so as to prevent development and use of neighboring property in accordance with applicable zoning district regulations”
- ❑ Proposal does not prevent any development
- ❑ A-1 Zoning prohibits non-farm residential

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

4. **“Off-street parking and loading areas will be provided in accordance with the standards set forth in these regulations.”**
- The WECS turbines do not require any regularly-used parking or loading facilities
 - The access driveway will provide more than enough area for infrequent parking for vehicles associated with maintenance

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

5. **“Adequate utility, drainage and other such necessary facilities have been or will be provided.”**
 - The project will use a standard electrical service from existing electrical service lines
 - New electrical lines will be underground
 - All erosion control and drainage requirements will be met, and will receive proper Permits prior to site disruption

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

6. “The proposed uses, where such developments and uses are deemed consistent with good planning practice, or can be operated in a manner that is not detrimental to the permitted developments and uses in the district; can be developed and operated in a manner that is visually compatible with the permitted uses in the surrounding area; shall in all other respects conform to the applicable regulations of the district in which it is located; and are deemed essential or desirable to preserve and promote the public health, safety and general welfare of DeKalb County.”

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

- ❑ Project's development standards are consistent with "good planning practices"
- ❑ The Plan's Agricultural land use category and the A-1 Zoning District emphasize that the proposed project area is a *working landscape* rather than a nature preserve or residential neighborhood – therefore the project is not detrimental to the permitted agricultural, agribusiness, extraction, disposal and essential service land uses dominant in the A-1 Zoning District

Finding 4: Proposal Meets the Six Burden of Proof Criteria:

- ❑ Proposal conforms to all applicable regulations of the A-1 Zoning District
- ❑ Proposal will deliver a stable and diversified source of income to farmland owners – helping to preserve farmers and farming – consistent with the County Plan
- ❑ The exemplary agricultural, agribusiness and comprehensive planning reputation of DeKalb County is reinforced by the presence of a WECS project

Expert Opinion -- In Conclusion:

- Proposal is in harmony with the Unified Comprehensive Plan
- Wind Energy Conversion Systems (WECS) are a Special Use in A-1 Zoning
- Proposal Complies with the 3 Special Use Criteria for A-1 Zoning
- Proposal Complies with 6 Burden of Proof Criteria for all Special Uses

Timeline and construction

2009

April May June July Aug Sep Oct Nov Dec



Construction Process Completion

- Township and county roads are returned to preconstruction condition or better
- Applicant funded training for First Responders
- Turbines are tested and begin delivering energy into the local power grid
- Land around turbines and access roads is reclaimed, decompacted and prepared for next growing season



Non-Biased Evidence

Town of Eden Tax Assessor, Charles Schriber...

“In my opinion [NextEra’s] Montfort Wind Farm has not negatively affected the property values in Eden Township.”

Impact of Wind Farms on Surrounding Property Values.

- The purpose of this report is to determine the extent that the proposed Lee-DeKalb Wind Farm is so located as to not be unreasonably detrimental to the value of other property in the neighborhood in which it is to be located or the public welfare at large.

Peter J. Poletti, PhD; MAI

- President of Poletti and Associates, Inc.
- Assessor, Collinsville Township, Collinsville Illinois since 1977
- Over 30 Years of Experience in Real Estate Appraisal.
- B.S. in Forest Management - University of Illinois – Urbana
- M.A. in Cultural Geography - Southern Illinois University – Edwardsville
- Ph.D in American Studies – St. Louis University
- Certified General Appraiser in 8 States including Illinois
- MAI Designation and Former Instructor of the Appraisal Institute
- Certified Illinois Assessing Officer
- Professional Association Memberships
- AI / IAAO / ITAA

Land Use

- Land uses in area.
- Primarily agricultural with some single family residences on small tracts.
- Topography.
- Gently rolling.
- Vegetative patterns
- Generally open with Trees along creek banks.

Information Sources

- Review of literature
- Personal inspection of study areas and operating wind farms
- Inspection of the proposed Lee-DeKalb Wind Energy Center area.
- Review and analysis of property transactions at the assessor's offices located in areas of an existing wind farm

Literature Review

- REPPS Report “The Effect of Wind Development on Local Property Values” (2003).
- ECONorthwest “Wind Power in Kittitas County, Washington” (2002).
- Hoen “Madison County, New York”(2006).
- Crosson Dannis “ Eight Properties in Cooke and Montague County, Texas” (2008).
- Sims and Dent “Modeling Wind Farms in U.K. “ (2007).

- All of the above studies indicated no measurable impact on surrounding property values.

Methodology

- Comparison of sale prices within Target Area to sale prices of similar properties within a Control Area.
- Target Area: A zone in proximity to a wind farm that is defined by a combination of distance, visibility, and intervening land uses
- Control Area: Region outside of the target area that is considered a zone where property values would not be affected by proximity to an operating wind farm.
- Averages within the Target and Control areas are then subjected to a Student's t Test to determine if there is a true difference in the means. If the calculated t value is less than the Standard t value, there is no statistically significant difference between the two averages.

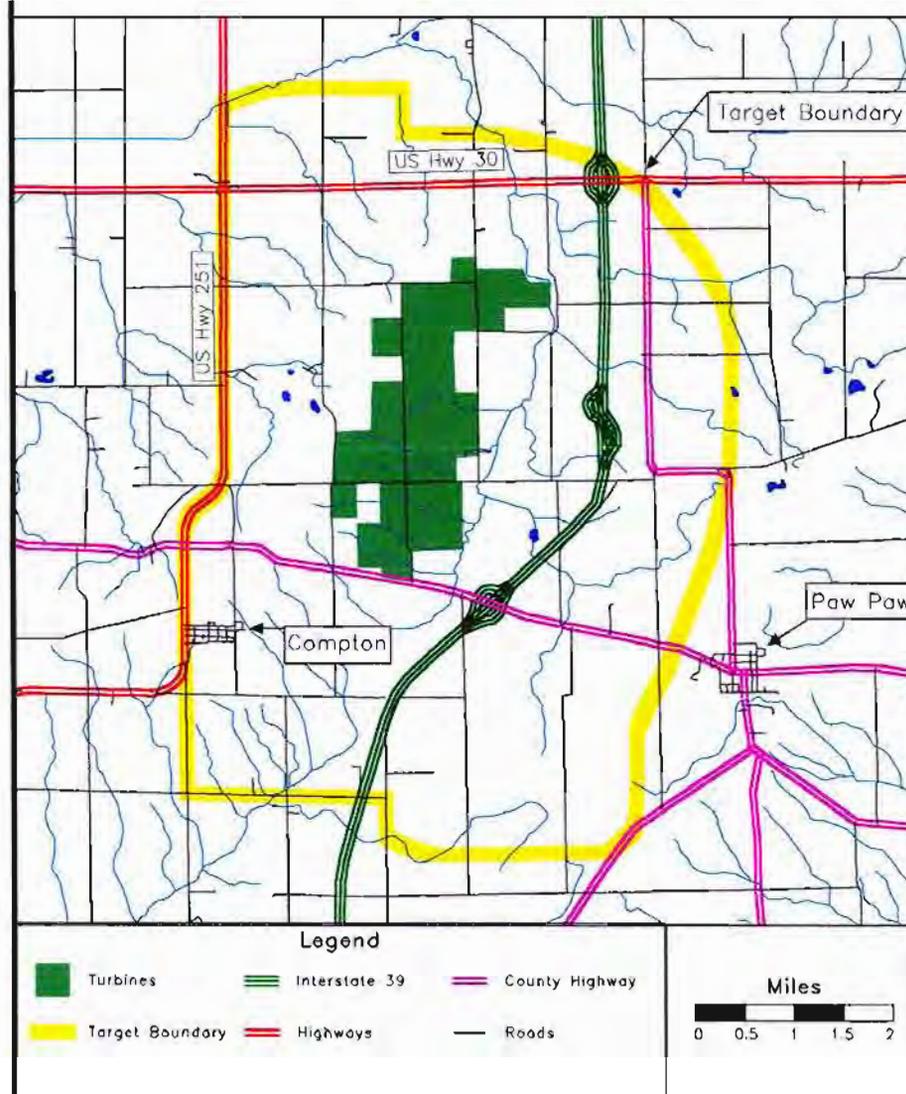
Data Information

- Sales and information concerning those sales were obtained at local assessor's offices.
- Sales between related parties such as family members, result of judicial action, bank foreclosures, or to an energy company were not used in the analysis.
- These sales are not considered arm's length transactions.
- Collection of anecdotal data

MENDOTA HILLS

Located In Lee County, Illinois near the
Community of Paw Paw.

Fig. 4: Target Area of Mendota Hills Wind Farm.



Property Types

- Agricultural Tracts
- Residential Tracts
- Single-Family Residences

Mendota Results

Type	Target	Control	Target	Control	Stat.
					Diff.
January 2005 thru March 2009:					
Ag. Land(>20 Ac.):	9	41	\$5,944	\$5,650	No
Resid. Tracts	12	19	\$16,873	\$14,515	No
Not Inc. Cobb Lane:	11	19	\$15,517	\$14,515	No
Residences:	19	126	\$99.23	\$102.83	No
Post 1955 Resid.:	9	54	\$132.56	\$117.13	No

965 Bingham Rd.

- House built in 2005 and placed on Market
- Seven Turbines within 1,500 feet of the house.
- 1,786 square feet; 5 Ac. of land.
- Asking Price was \$329,900
- Final Selling Price was \$265,000.

965 Bingham Rd.



Aerial Photograph of 965 Bingham.



965 Bingham Sales Comparison Chart

Property	965	3569	658	664	1995	1832
	Bingham	Paw Paw	Ogee	Ogee	Cotton Tail	Quail Hollow
Sale Date:	Mar-08	Sep-07	May-07	Sep-07	Sep-07	Jun-07
Sale Price:	\$265,000	\$235,000	\$275,000	\$400,000	\$249,900	\$360,000
Size:	1,786	1,660	1,881	2,316	1,916	2,532
Lot:	5	1.89	5	7	1.134	2.44
Basement:	Full	Full	Full	Full	Full	Full
Const.:	Frame	Frame	Frame	Frame	Frame	Brick
Style:	1Sty	1Sty	1Sty	1Sty	1Sty	1Sty
Quality:	Avg.	Sim.	Sim.	Sim.	Sim.	Superior
Cond.:	Good	Good	Good	Good	Good	Good
Adj.Price:		\$263,688	\$243,125	\$348,625	\$287,403	\$376,200
\$/Ft ²	\$148.38	\$160.05	\$130.32	\$151.39	\$151.05	\$149.37
					Average:	\$148.43

3569 Paw Paw



658 Ogee Rd.



664 Ogee Rd.



1995 Cotton Tail



1832 Quail Hollow



Additional Data

Meadowbrook Subdivision

- Located 0.8 miles from turbines
- Lot prices increased from \$35,500 to \$47,900
- 9 of 11 lots are sold
- 8 of sales occurred after construction of wind farm
- 7 houses constructed after the wind farm
- New 47 lot addition planned.

Meadowbrook Sub. And Wind Farm



View of Turbines from Meadowbrook Sub.



House within Meadowbrook Sub



Conclusion

- Based on these studies, there is no statistical difference between sale prices of properties located within proximity to an operating wind farm and those properties located some distance from an operating wind farm.
- The proposed Lee-DeKalb Wind Energy Center is located so as to not be unreasonably detrimental to the value of other property in the neighborhood in which it is to be located or the public welfare at large.

Property Sales \$250+ Lee County (2005-7)

Sale	l Number					Address	Sale	Acreage	Sale	Age	Size	\$/Ft ²
							Date	Price				
1	07	02	18	477	007	2121 THORN WOOD DR	Jun-05	\$250,000	2005	1,938	\$129.00	
2	17	05	07	200	011	1998 COTTON TAIL RD	Nov-05	\$250,000	2005	1,864	\$134.12	
3	07	02	33	454	011	1217 GREAT OAKS WAY	May-06	\$252,000	2005	1,854	\$135.92	
4	15	07	13	100	010	518 KAREN CT	Aug-07	\$254,900	2006	1,646	\$154.86	
5	11	16	29	100	006	753 GREEN WING RD	Aug-06	\$257,500	1998	1,536	\$167.64	
6	07	02	18	477	001	2130 RIDGEWOOD LN	Dec-06	\$260,000	2006	2,098	\$123.93	
7	01	06	14	376	003	1815 QUAIL HOLLOW RD	Sep-05	\$265,000	1999	3,023	\$87.66	
8	16	07	11	401	014+	1629 BRANDYWINE LN	Aug-07	\$275,000	1998	3,106	\$88.54	
9	22	18	13	100	006	658 OGEE RD	May-07	\$275,000	2003	1,881	\$146.20	
10	07	02	18	276	004	2161 FAWN RIDGE DR	Jun-07	\$285,000	2000	2,010	\$141.79	
11	07	02	14	351	023	2115 GRAND DETOUR RD	Aug-06	\$290,000	2006	1,781	\$162.83	
12	14	09	05	100	007	1781 ROBBINS RD	May-06	\$297,000	1998	1,821	\$163.10	
13	01	06	14	326	003	1829 QUAIL HOLLOW RD	Jan-06	\$304,500	1998	4,176	\$72.92	
14	11	16	29	100	013	778 GREEN WING RD	Aug-07	\$310,000	2000	2,502	\$123.90	
15	16	01	35	377	002	1805 WHITE PINES DR	Oct-07	\$310,000	2000	2,474	\$125.30	
16	21	12	24	400	013	3588 HOUGHTBY	Nov-05	\$320,000	2002	1,673	\$191.27	
17	07	02	30	152	001	1942 HIDDEN SHORES	Jun-05	\$340,000	1999	2,236	\$152.06	
18	07	02	18	276	003	2165 FAWN RIDGE DR	Jul-05	\$342,500	2005	2,430	\$140.95	
19	22	18	31	300	021	3011 HONEYSUCKLE	Mar-05	\$355,000	2002	3,655	\$97.13	
20	01	06	14	327	007	1832 QUAIL HOLLOW RD	Jun-07	\$360,000	2005	3,662	\$98.31	
21	22	18	11	376	009	157 CHICAGO RD	Dec-05	\$370,000	2005	3,092	\$119.66	
22	15	07	13	400	007	573 LEVAN RD	Aug-07	\$375,000	2006	2,246	\$166.96	
23	22	18	13	100	005	664 OGEE RD	Sep-07	\$400,000	2003	2,316	\$172.71	
24	07	02	30	152	003	1946 HIDDEN SHORES	Mar-05	\$480,000	2003	2,790	\$172.04	
25	21	12	17	301	001	3103 COBB LN	Aug-06	\$554,148	2005	3,252	\$170.40	
26	07	02	30	152	011	1934 HIDDEN SHORES	Jun-06	\$631,000	2000	5,561	\$113.47	
Average:											\$136.64	

