

Sapphire Sky Wind Energy LLC Text Amendment Application

McLean County Zoning Board of Appeals
April 6, 2021



Sapphire Sky Text Amendment

- Request to Increase Maximum Wind Turbine Tip Height from 550 feet to 595 feet
- Sapphire Sky project now owned by Invenergy affiliate
- Sapphire Sky project being developed in southeast McLean County



Differences from Geronimo Text Amendment

- Height increase substantially less – 595 feet versus 675 feet
- 45 feet increase (+8%) compared to 125 feet increase (+23%)
- Turbine models identified for Sapphire Sky:
 - Vestas 4.2 MW – 591 feet tip height
 - Vestas 3.6 MW – 568 feet tip height
- Sapphire Sky Project Special Use Application ready to be filed



Differences from Geronimo Text Amendment

- Sound Emission Information Available and Modeled
- FAA Turbine Approval Granted Already (DNH's)
- Environmental Consultation (IDNR) Completed
- Shadow Flicker Information Available and Modeled
- Turbines/Project Meet All Other McLean County Standards



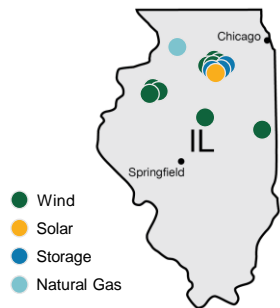
Introductions

Developer: Invenergy

Largest privately held renewable energy developer in North America

Developed 16 energy projects in Illinois

- Blooming Grove Wind Project (2020)
- White Oak Wind Project (2007)



Invenergy

Applicant: Sapphire Sky Wind Energy LLC

Project Team

Greg Vander Kamp – Lead Project Developer

Jim Griffin – Lead Counsel

Joe Brunner – Senior Staff Engineer

Andrea Giampoli – Director, Environmental Compliance and Strategy

Consulting Team

Mike Hankard – Hankard Environmental & Acoustical Consultants

JoAnne Blank – Stantec, Shadow Analysis Consultant

Dr. David Loomis – Strategic Economic Research LLC

Benefits of Larger Turbines

- Sapphire Sky will require 30% less turbines for the same energy output:
 - Blooming Grove has 94 turbines to generate 250 MW capacity
 - Sapphire Sky will only use 64 turbines to generate 250 MW capacity
- Reduced visual, agricultural and environmental impact due to fewer turbines and less infrastructure
- **Tax revenue is not impacted since it is based off installed capacity, not number of turbines**



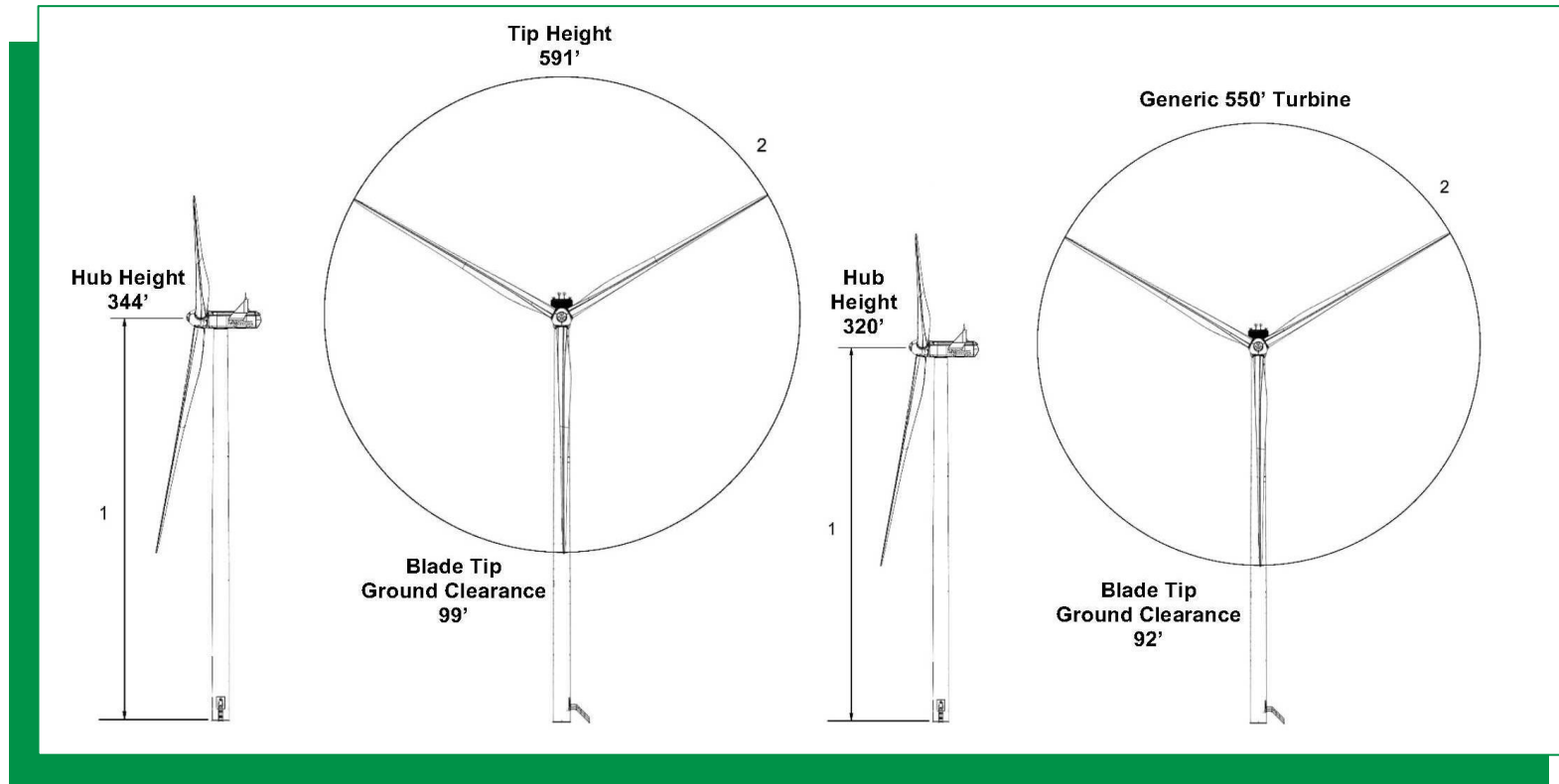
White Oak Wind Project in McLean County

Why is a Height Increase Necessary?

- Wind industry trends are moving towards taller, more efficient turbines
- Taller turbines can reach higher wind speeds at greater heights
- Numerous Illinois counties with wind ordinance height limits greater than 600' or no limit at all:
 - Logan, La Salle, Vermilion and Woodford



Turbine Sizing Comparison



DISCLAIMER: For illustration purposes only. Does not represent a specific turbine model.

Why Wind in McLean County?

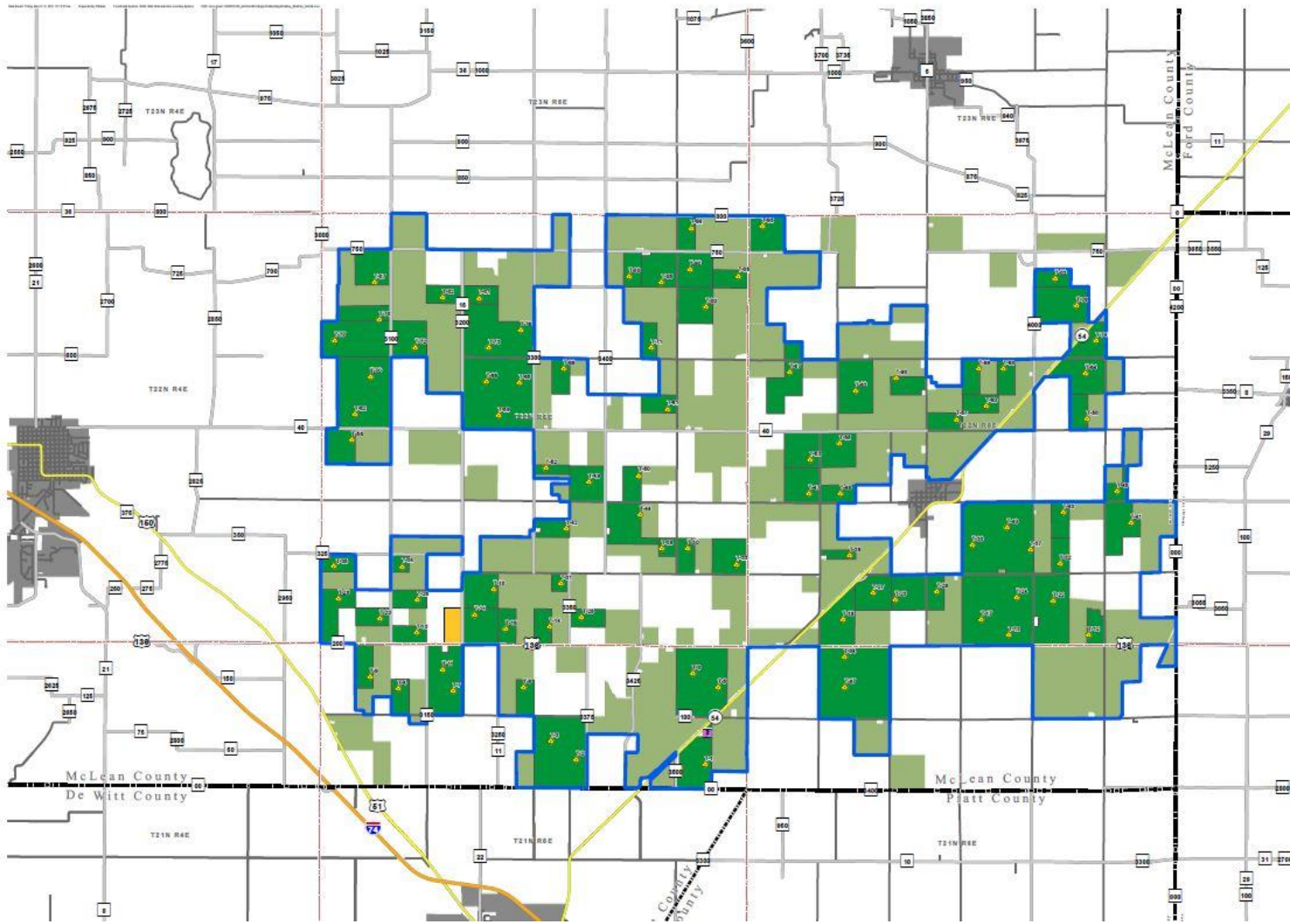
- Excellent wind resource, flat agricultural landscape, and proximity to large load centers
- McLean is the top wind energy producing County in the state of Illinois
- McLean has received \$52,689,726 in Total Tax Collections since 2007 (excludes Blooming Grove tax revenue which is taxable 2021)
- Landowners see significant economic benefit of participating in a wind project while continuing to farm

Sapphire Sky

- 131 landowners participating
- 31,000 acres involved



Sapphire Sky Site Plan



Responsible Environmental Turbine Siting

- The Project has consulted with Illinois Department of Natural Resources and the US Fish and Wildlife Service since 2018.
- IDNR sent a letter to Phillip Dick on Feb. 22, 2021 confirming the Project's commitment to their recommendations and stating that the "Department has no outstanding concerns."
- The Project held a call with ISU professor Dr. Angelo Capparella on Feb. 10, 2021; the Project reviewed all environmental studies performed to date and committed to complying with the IDNR's recommendations
- **By using taller, more productive turbines, the Project needs 30 fewer on the landscape, while still complying with IDNR's setback recommendations. If more turbines are required on the landscape, some may need to be sited closer to sensitive resources.**

Limited Shadow Flicker at Sapphire Sky

Sapphire Sky Case Study

- Stantec modeled all 89 Vestas turbine locations (although only 64 will be constructed)
- Assumed V136s (568') and V150 (591') units
- Model represents a worst-case scenario

Conclusion

- Under this worst-case scenario, all identified receptors (residences) received less than 30 hours of flicker over the course of an entire year
- 85% of those receptors received less than 10 hours over the entire year

Economic and Environmental Benefits of Sapphire Sky Project

	McLean County	Le Roy CUSD 2	Blue Ridge CUSD 18	West Township	Bellflower Township	Parkland College	Fire District	Library District	Parks Dept.	Bloomington- Normal Airport
Annual Average	\$ 250,097	\$ 265,362	\$ 1,193,207	\$ 100,289	\$ 120,075	\$ 145,179	\$ 141,746	\$ 65,852	\$ 55,456	\$ 39,265
30-yr total	\$7,502,914	\$7,960,865	\$35,796,206	\$3,008,674	\$3,602,237	\$4,355,362	\$4,252,381	\$ 1,975,573	\$1,663,679	\$ 1,177,965

- Hundreds of union jobs during construction, many fulfilled locally
- In-state energy generation and long-term, stable energy prices
- Improved air and water quality resulting from a clean, sustainable energy source
- Le Roy and Blue Ridge CUSDs
- 68 Landowner Letters of Support
- Bellflower Siting Agreement

