

**BEFORE
THE OHIO POWER SITING BOARD**

In the Matter of the Application of	)	
Champaign Wind LLC, for a	)	
Certificate to Install Electricity	)	Case No. 12-0160-EL-BGN
Generating Wind Turbines in	)	
Champaign County	)	

DIRECT TESTIMONY OF FRANCIS T. MARCOTTE

Q.1. Please state your name and business address.

A.1. My name is Francis T. Marcotte. My address is 1033 Tallokas Road, Crestview, Florida 32536.

Q.2. What is your present occupation?

A.2. I am an independent aviation air safety investigator specializing in helicopter accident reconstruction and analysis. I have over 9,000 hours of helicopter flight time in my career and have served as a captain, flight safety manager and heliport design consultant.

Q.3. On whose behalf are you testifying?

A.3. I am testifying on behalf of the applicant, Champaign Wind LLC.

Q.4. Would you please summarize your educational background and experience flying helicopters?

A.4. I graduated from the U.S. Coast Guard Academy in Connecticut in 1968. I completed my Navy flight training in 1970 and immediately began flying Coast Guard rescue helicopters. In 1973, I attended the first of my safety training at USC Los Angeles

and later at Arizona State University. My rescue flying was all-weather-no radar-no autopilot-no GPS in single engine amphibious Sikorsky helicopters.

I left the U.S. Coast Guard as a safety officer at Air Station Miami at the end of the Cuban Exodus to become the Director of Flight Safety for SFO Helicopter Airlines. I flew Bell 206 helicopters with FAA approved minimums of 300/2 day and night.

My EMS flying experience began in 1988 for REACH in Santa Rosa, California in the Augusta 109 single pilot IFR in the California coastal mountains. I retired from the cockpit in February of this year flying A-Star helicopters for Era Helicopters in the offshore oil industry. I have attached my curriculum vitae to my testimony.

Q.5. What documents have you reviewed in preparation for your testimony?

A.5. I have reviewed Staff recommended Condition 70 contained in the October 10, 2010 Staff report as well as Googled Earth map depictions of the area between Dayton and Columbus, Ohio, just east of Urbana's Grimes Field.

Q.6. Have you ever been involved in operating a helicopter as part of emergency medical care flights?

A.6. Yes.

Q.7. Please describe your experiences in operating helicopters in such emergency medical care flights.

A.7 I had ten years of experience flying Coast Guard rescue missions across the country and two years of dedicated EMS service at the Santa Rosa Memorial Hospital in northern California. While in the Coast Guard, I acted as Aircraft Commander Senior Duty Officer and Flight Safety Officer at two of the busiest rescue units in the country. These units made as many as 1,000 rescue responses annually. While in the Coast Guard,

I was engaged in true “all weather” flying involving site rescues and transport to the nearest hospital, airport or vessel. In both my experience with the Coast Guard and the civil EMS unit, I have transported every imaginable type of victims.

Q.8. When operating a helicopter as part of an emergency medical care flight program, what are your top priorities?

A.8. Safety is my top priority. One must be able to respond to the worst situations and do no harm to the victim or the first responders. While speed is important, it is not necessarily a priority once the rescue portion of an event has been completed by the first responders who have stabilized the subject victim in need of transport.

Q.9. Have you ever flown a helicopter near a wind farm?

A.9. Yes.

Q.10. Is it possible to safely operate a helicopter near a wind farm day or night?

A.10. Yes. Helicopter pilots already deal with flying around buildings, trees, power lines, and antennas that rise hundreds of feet into the air. Just as issues associated with flying near power lines are part of the safety training for pilots, flying around wind farms will also be added to EMS training programs.

From a technical aspect, it should be noted that there are large areas of undisturbed air immediately in front of and on both sides of each wind turbine. Helicopter pilots will find this undisturbed air quite usable. In addition, it should be recognized that there is a large clear zone that is free of wind turbines along the length of U.S. Route 36 which will be usable to emergency medical care flights.

Technological advances such as GPS aircraft positioning and mapping equipment are tools that will allow pilots and flight following management personnel the ability to fly

and track EMS flights near wind farms. The GPS associated obstruction hazard warning systems will backup in-flight pilots. Onboard weather monitoring displays highlight areas of bad weather to avoid, particularly when the area around turbines is obstructed. The increased use of night vision goggles (NVG) will highlight the wind turbine area perimeter outline from many miles away allowing small and timely course deviations, if necessary, to avoid wind farm areas as well as the final approach and landing clearance precision.

Q.11. If there were a farming accident on a farm contiguous to a wind turbine, where would a pilot of a helicopter as part of an emergency medical care flight program typically land the helicopter?

A.11. It depends on the individual circumstances. The ideal situation is to land the helicopter as near to the on-scene first responders as possible, slightly down-wind and/or uphill from them if possible, as with any obstructed area such as forests or towns.

Q.12. Are there different aspects of operating a helicopter near a wind farm that distinguish it from operating a helicopter in other locations?

A.12. Yes, but my sense is that after proper training and testing, these rescue missions around wind farms should become routine as procedures are developed and formalized. The air disturbances around wind farms are not dissimilar to the conditions involved in landing helicopters on roof top helipads or vessels underway. Both can be done safely with proper training.

Q.13. Does the presence of a nearby wind farm delay the time it takes for an emergency medical care flight helicopter to arrive on the scene?

A.13. Not necessarily. During a flight with clear weather and ceilings above 1,000 feet, there should be no delay. These helicopter operators are prohibited by their operations specifications from flying at all when ceilings are below 1,000 feet. Any small delay would depend on where exactly the scene was in relation to the helibase and the wind farm. If the scene was on the east side of Urbana, a helicopter pilot can fly down U.S. Route 36 with only one antenna to avoid. At speeds of two and three miles each minute (120/150 knots) these helicopters respond quickly and small deviations become unnoticeable.

Q.14. Have you reviewed the October 10, 2012 Staff Report and particularly Staff recommended Condition 70?

A.14. Yes, I have.

Q.15. Staff recommended Condition 70 in the Staff Report requires that “The Applicant shall submit to Staff, for review and confirmation that it complies with this Condition, a medical needs service plan for construction, testing, and operation of this facility, in coordination with the local emergency life flight service, CareFlight. This plan shall incorporate measures that assure immediate shutdowns of any portion of the facility necessary to allow direct routes for emergency life flight services within the vicinity of the facility.” Do you recommend that the Board adopt Condition 70?

A.15. No.

Q.16. Why not?

A.16. There are several reasons why the Board need not adopt Condition 70. Helicopter operators are already prohibited from flying over these wind turbines when the ceilings are so low as to make such a flight unsafe. The planned wind turbine setbacks along the highway (for example, from U.S. Route 36) allow for the high speed pass through by a helicopter to any scene. Even though the turbine blades are moving, helicopter pilots will still avoid the entire disk area. Any wind turbulence involved descends and dissipates quickly. If it is necessary to land within the perimeter of a wind farm, it should be noted that the helicopter pilot will attempt to land into the wind in the clean air between or in front of the turbines on days when the prevailing wind is strong. If the wind is weak, then the turbines will be turning slowly or not at all and will generate minimal wake and will only need to be avoided just as one would avoid a tall tree or antenna. Given the high speed capabilities of the aircraft and the proximity to the area in question, it is neither practical nor desirable to require immediate shutdown of these turbines for emergency LifeFlight services. It would be more effective if wind turbine farm operating procedures were incorporated into training programs. Electric utility companies are not required to de-energize power lines so that helicopters can land; we helicopter pilots simply work around them instead. The same principle should apply to wind farms.

Q.17. Does this conclude your testimony?

A.17. Yes, it does.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing document was served upon the following parties of record via e-mail on this 29th day of October, 2012.

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Summary: Testimony of Francis Marcotte electronically filed by Ms. Miranda R Leppla on behalf of Champaign Wind LLC