

**PRESENT:** Peter Bardaglio, Councilperson Mike Carpenter, Charlies Elrod, Martha Fischer, Marcus Gingrich, Mimi Mehaffey, Councilperson Michael Miles,

**ABSENT:** Jude Lemke, Rob Tesori

**STAFF:** Sue Thompson/Wind Farm Advisory Recording Secretary

Michael Miles called the meeting to order at 7:00 p.m. and lead the assemblage in the Pledge of Allegiance to the Flag.

### **Technical Expert:**

Martha Fischer introduced Roger Lauper, Enfield Volunteer Fire Company Chief. Roger Lauper spoke of the concerns which the fire company has regarding the wind turbines. He said that the fire company has only one “off road” vehicle. The roads to the wind turbines have to be accessible for fire trucks. The fire company requests that the Black Oak Wind Farm (BOWF) meet with them regarding fire coverage. Peter Bardaglio stated that Marguerite Wells told him she had met with the fire company. Roger Lauper answered he was not aware of any meeting. Peter Bardaglio said he would check with Marguerite on who she met with. There was discussion regarding a “no fly zone” for emergency medevac helicopters. The fire company uses different medevac helicopters, depending on who is available at the time of the accident. Each of these companies has their own regulations as to “fly zones”. Roger Lauper said this would be part of the discussion with the BOWF. He also stated that the fire company members need to be trained regarding fires and the wind turbines. Peter Bardaglio said that General Electric (GE) will provide that service to the fire company.

Charles Elrod asked Roger Lauper if access roads in the winter would be a concern. Roger Lauper answered no as they would not be up there in the winter. Peter Bardaglio stated that access roads would be plowed and taken care of by the BOWF.

### **Approval of Minutes (2-9-16)**

Corrections suggested to February 9, 2016:

Add to Privilege of the Floor, Mimi Mehaffey asked where any of the specific turbines were being used, where they were located and if they could get a list so they can compare them. Peter Bardaglio answered; yes they are in other locations but didn't know where. GE could tell where they are, he will ask for a list.

Michael Miles made a motion approve the February 9, 2016 minutes as corrected. Motion passed unanimously.

### **Old Business**

Michael Miles reminded everyone of the [windadvisory@townofenfield.org](mailto:windadvisory@townofenfield.org) e-mail to send articles/research/comments/suggestions to and the

<https://trello.com/enfieldwindfarmadvisorycommittee> site for research articles, laws, and minutes of the Committee.

Michael Miles reminded the audience to keep all comments until the end of the meeting during the Privilege of the Floor.

### **Update on Technical Experts**

Charles Elrod will ask Jonathan Rogers from the Georgia Institute of Technology to speak with the Committee at the next meeting March 2, 8:30 pm, regarding methods for defining setbacks. There was discussion regarding setbacks, ice throws, and what is the acceptable risk regarding ice throws. Charles Elrod will ask Jonathan Rogers to address these concerns.

Peter Bardaglio said the sensors on the wind turbines watch for malfunctions – ice throws and adjust the speed.

Michael Miles said he thought there was a Swiss paper on the Trello web site regarding ice throws. Martha Fischer suggested the Committee ask Bob Frick of GE about ice throws.

Peter Bardaglio will ask Jim Manwell, Director of the Wind Energy Center at the University of Massachusetts to speak to the Committee.

It was reported that Jude Lemke is locating a technical expert on acoustics to speak with the Committee.

### **Meeting Time**

Michael Miles said that Martha Fischer suggested holding the Wind Farm Advisory Committee meetings on Tuesdays at 7:00 pm. The Committee unanimously agreed to hold the meetings on Tuesdays.

### **Update on Supplemental Draft EIS**

Peter Bardaglio informed the Committee that the Draft Supplemental EIS had not been submitted to the Town Board. He referred to a letter written to the Town of Enfield Attorney Guy Krogh from the BOWF Attorney regarding “vested rights”. He asked Michael Miles and Mike Carpenter if they had received a copy of the letter and they answered no.

There was discussion on who all the attorneys and advisors regarding the “wind farm” were. Frank Pavia of Harris Beach, the law firm retained by the Town of Enfield for the Black Oak Wind Farm Project; LaBella Associates, the engineering firm retained by the Town of Enfield for the Black Oak Wind Farm Project and Guy Krogh, Town attorney on town matters. It was stated that there was a discussion at the January Town Board meeting on how lawyers fit into the situation of the wind farm.

### **Common ground, compromises, CDRC help**

Mike Carpenter suggested the committee members all need to state how they feel a compromise might be reached regarding the wind farm. This solution will be given to the Town Board. He also hopes that the audience will be included in this solution discussion. He pointed out that he knows that Peter Bardaglio is in a restrictive place regarding legal issues.

Peter Bardaglio stated yes the BOWF operates on legal issues and decisions are based on the Enfield town law and believes the BOWF has vested rights in this issue.

Michael Miles reminded the Committee that the CDRC is available to be in attendance at meetings regarding a compromise.

There were questions regarding non-participant and participant setbacks. Michael Miles read Section 17 B2 on page 15 of the Wind Farm Law which explains the setbacks.

### **Review of Enfield's Current Wind Law**

Michael Miles asked for any suggestions of changes or corrections for the Wind Law.

Article 5 page 18 E - there was discussion on the appeals process involving the Town Supervisor. It is not clear as to the exact meaning of this section. Mimi Mehaffey asked if the wording for Town Supervisor could be replaced with Town Board. Mike Carpenter asked, no.

It was suggested to ask the Town Supervisor her feelings on changing the paragraph.

### **Technical Expert:**

Peter Bardaglio introduced Bob Frick who is a Senior Sales Manager at the General Electric. The conversation was done using "Facetime" on the computer from Mexico City.

Bob Frick described how GE came into the wind turbine business. He stated the 2.3.17 model megawatt wind turbine for the BOWF is based on wind data.

Martha Fischer asked how wind speed was measured. BOWF measured value of wind speed by the Met tower (meteorological tower) which was placed in the area where the wind farm is to be located.

IEC wind mechanical load analyst is done for each turbine using lots of energy and math to produce report.

Peter Bardaglio pointed out the more wind data collected the better the fit they can make with the turbines.

Question was asked on how many models have been installed using the 2.3.107 model? The 107 model has a sister 2.13.16. They are both of the same design. They have sold 200 – 300 models of 107. The sister model they have sold 1500 to 2000 models. They have remote monitoring 24/7, 365 days by facilities in Schenectady, NY and in Germany. GE can use remote monitoring if safety issues occur with the wind turbine/developer. The monitoring of the wind turbine is to keep up on proper maintenance of the wind turbine so that the whole turbine does not end up having to be replaced.

There is a design life of 20 year sof a turbine and longer when properly maintained.

It is not expected to have failure in a wind turbine. Literally it is one in several thousand may fail. Lightning strikes could cause blade failure or incorrect construction of the wind turbine.

There is a coating on blades to lower the ice adherence to the blade.

Monitoring of the wind turbine can detect very early any “icing” on the blades.

Blades in certain times of the year have different “whooshing” sounds. The blade sound has lower decibels than a running lawn mower or wind in a corn field.

Blades mitigate noise issues on wind turbines. The blades have serrated edges for noise reduction.

Met tower is not as tall as wind turbine is the testing still viable for the turbines. Wind shear factors can be used for higher towers to 94 foot. AWS a wind analysis Company in Albany does testing.

A listing was requested of counties/towns where wind turbines are being used. A list can be obtained but may not be all inclusive because of contracts with the companies. There are no wind turbines close by of the same kind as the proposed Enfield turbines.

If a wind turbine fails, catches fire and burns is a respirator needed in fighting the fire? No GE turbine has caught on fire they are designed to not catch on fire. If there was a fire you do not enter the turbine and the machine would be shut down.

Sound studies – acoustic sound – are these studies done on the computer or on actual sites? Prototype is measured in the wild.

Is information available regarding performance of the wind turbine? The performance report is guarded in its release because of competitors. The report is shared with developer but no, report is not released to others.

How is sound monitored once turbine is up and running? GE does not monitor for sound. The performance of the wind turbine is guaranteed in its operation which includes the sound performance. The developer could hire a consultant to measure sound if there was a concern. Sound is measured from the boundary of the property or at the residence front door or primary entrance depends on the regulations.

Does turbine have a fire suppression system? No there is no fire suppression system and there is no option for this.

Is there radar activated lighting system when an airplane is near does it turn on? GE can supply lighting fixtures/brackets for the towers if requested by the developer. This is based on the regulations of the area for the towers.

When problems are detected through the computer monitoring system do they have a list of local people/fire companies to call? Yes there is a safety protocol in place and yes there is a list of people to call in this protocol.

Who oversees/does the installation of the wind turbines? GE does not do the installation. They hire an installation company for the turbines. Supervisory personnel are provided during the installation. GE does a startup check for the turbine then turns monitor/maintenance over to the developer.

Who inspects the process of the development of the wind turbines? Not sure, this is based on the local code regulations/laws for inspections of the development.

Blades of wind turbine are made to withstand lightning strikes.

Do wind turbines interfere with radio reception? Has not heard of any problems with radio receptions?

Components of the wind turbines are manufactured globally.

Is there maintenance/cleaning of the turbine blades? Cleaning the blades is not a common maintenance procedure. If the blades are cleaned it may be done every couple of years. A “buffer” would be used for the cleaning.

Is there an acceptable noise protocol? There is no standard, depends on the acoustic engineers measurement protocol within the industry. Acoustics is driven by speed of the turbine blade.

It was encouraged everyone should visit an operating wind farm.

How is the town law less than what GE recommends for setbacks? What are GE concerns for setbacks? GE would not get involved with local law. GE recommends minimum setbacks. GE looked at the BOWF project and setback analysis are within the recommended GE setbacks. Setbacks look at distance from public areas, public structures, and ice throws.

What is the decay rate of the technology on the blades? Not sure.

What is the safety record of the turbine to be used at the wind farm? The safety is from the direct evolution from previous turbine design. This provides good indication of the turbine safety.

Blades and all other parts of the turbine are safety tested to failure.

The wind turbine that recently had a blade fall was a prototype and not from GE.

Does GE study infrasound problems? If GE gets a call-back to study infrasound they would help the developer and work on what might be a problem. Bob Frick said he has not seen any supporting research for infrasound, low sound.

Acoustic engineer advice from GE was offered to the Committee. This would be a general acoustics of wind turbines.

Committee members thanked Bob Frick for his time and information on the wind turbines.

### **Thoughts and Comments on GE presentation**

How the acoustic numbers are gathered that are reported in the EIS? Michael Miles said he would look into this.

What does the Committee really need to know regarding acoustics, setbacks, and ice throws, they need to narrow it down.

The EIS might be turned into Town Board in March that gives Committee two weeks to decide what they need to know. What does a solution for the wind farm look like?

Town Lawyers need to address the scope of the existing law. What changes, if any, can the town make? BOWF does not agree that the town can make any changes. Guy Krogh will be asked to interpret this for the Committee.

Can the Committee and BOWF step outside of the legal area and find a common ground to the wind farm situation and then apply it to the legalities of the wind farm.

Both Board Members and BOWF need to follow the legal direction regarding the wind farm and will need help.

The Committee was informed, that one member of the Committee indicated they would sue the town if the wind farm is allowed to go through with their project. Response was that the BOWF can also sue in this situation. Response was the Town Board has to do the best they can regarding the wind farm project. It was suggested that the CDRC could help with this situation.

Comment was made that two members of the Committee made a list of how a comparison could be reached. That it was not an ideal law. There is a long way to go in the law.

Comment was made that a lot of the rules/laws were made up to help the BOWF project.

It was suggested that the Committee members all state what they feel is the problem and what a solution could be.

### **Privilege of the Floor**

Donald Gunning, 68 Weatherby Road. Would like to see BOWF and neighbors come together to the Committee next week and discuss problems and solutions. They need to move forward.

Dawn Drake, 105 Griffin Road. Is concerned with fire from the wind turbines and will sue both BOWF and Town of Enfield, if her property, or family is harmed by this. The town has to worry about the safety of the people. Appreciates all the efforts in what the Committee is doing. She enjoys the peace and quiet. She encourages people to attend all meetings of Town Board.

Cryus Umrigar, 165 Caroline Depot Road. In favor of wind farm. Feels the wind farm has bent over to meet all standards. We need clean energy and jobs. He has walked up to wind turbines and just hear a gentle whoose sound. Infrasound is sound you can't hear. Knows there is concern about the safety of turbines and the technology is getting better all the time. The project is vested and any new laws cannot apply to the farm now and needs to be moved forward.

Mike Carpenter stated that the noise from a wind turbine is a constant noise – 24 hours a day. European cities are raising their setback levels. There are real issues regarding noise. Everyone has to live with the decision made for the rest of their lives. Feels that the wind turbines need to be monitored by GE and that responsibility is put in the law for the monitoring. He asked the residences to come back with a solution of compromise with the project.

Chad Newhart, 146 Griffin Road. Feels in order to look at a compromise they need to see “numbers” actual data regarding the turbines and noise levels.

Michael Miles adjourned the meeting at 10:05 p.m.

Town of Enfield Wind Farm Advisory Committee Meeting –  
February 23, 2016 - Enfield Community Building

Respectfully submitted, Sue Thompson, Recording Secretary