AS APPROVED SEPTEMBER 29, 2011

MINUTES OF REGULAR MEETING
CHAMPAIGN COUNTY ZONING BOARD OF APPEALS
1776 E. Washington Street
Urbana, IL 61801

DATE:	**September 1, 2011**	**PLACE:**	**Lyle Shields Meeting Room**
			1776 East Washington Street
TIME:	**7:00 p.m.**		**Urbana, IL 61802**

MEMBERS PRESENT: Catherine Capel, Thomas Courson, Roger Miller, Melvin Schroeder, Eric Thorsland, Paul Palmgren, Brad Passalacqua

MEMBERS ABSENT : None

STAFF PRESENT : Connie Berry, Lori Busboom, John Hall, Jamie Hitt

OTHERS PRESENT : Michael Blazer, Greg Leuchtmann, Deanne Sims, Kim Cambron, Kim Schertz, Bill Ingram, Tim Casey, Matt Cavalenes, Sue Naughtin, Roy Knight, Greg Frerichs, Richard Grant, Rob Parker, Michael Jarboe, Eileen Jarboe, Harold Hoveln, James Rusk, C. Pius Weibel, Sherry Schildt, Herb Schildt, Patti Cavalenes, Mitch Fruhling, Kay Fiscus, John Fiscus, Larry Kearns, Amy Allen, Erica Harris, Steve Moser, Alan Nudo, Pattsi Petri, Ralph Langenheim, Marvin Johnson, Jeff Blue

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1. Call to Order

The meeting was called to order at 7:02 p.m.

Mr. Thorsland requested a moment of silence in honor Wayne Busboom, former Zoning Board of Appeals member.

2. Roll Call and Declaration of Quorum

The roll was called and a quorum declared present.

Mr. Thorsland informed the audience that anyone who desires to present testimony must sign the witness register. He reminded the audience that when they sign the witness register they are signing an oath.

3. Correspondence

None

4. Approval of Minutes

None

5. Continued Public Hearing

Case 696-S-11 Petitioner: **California Ridge Wind Energy LLC and the participating landowners listed in the legal advertisement. California Ridge Wind Energy LLC is wholly owned by Invenergy Wind North America LLC, One South Wacker Drive, Suite 1900, Chicago, IL, with corporate officers as listed in the legal advertisement.** Request: **Authorize a Wind Farm with consists of 30 Wind Farm Towers (wind turbines) in total with a total nameplate capacity of 48 megawatts (MW) of which 28 Wind Farm Towers with a total nameplate capacity of 45 MW are proposed in Compromise Township (Part A) and 2 Wind Farm Towers with a total nameplate capacity of 3 MW are proposed in Ogden Township (Part B), and including access roads, wiring, and public road improvements, and including the waivers of standard conditions in Section 6.1.4 as listed in the legal advertisement.** Location: **In Compromise Township the following sections are included with exceptions as described in the legal advertisement: Sections 19, 20, 21, 28, 29, 30, 31, 32, and 33 of T21N, R14W of the 2nd P.M.; and Section 24, 25, and 36 of T21N, R10E of the 3rd P.M.; and Fractional Sections 30 and 31 of T21N, R11E of the 3rd P.M. In Ogden Township the following sections are included with exceptions as described in the legal advertisement: Fractional Section 6, T20N, R11E of the 3rd P.M.; and Fractional Sections 4, 5, 6 and 7 of T20N, R14W of the 2nd P.M.; and Sections 8, 9, and 16 of T20N, R14W of the 2nd P.M.**

Mr. Thorsland informed the audience that this is an Administrative Case and as such the County allows anyone the opportunity to cross examine any witness. He said that at the proper time he will ask for a show of hands for those who would like to cross examine and each person will be called upon. He requested that anyone called to cross examine go to the cross examination microphone to ask any questions. He said that those who desire to cross examine are not required to sign the witness register but are required to clearly state their name before asking any questions. He noted that no new testimony is to be given during the cross examination. He said that attorneys who have complied with Article 6.5 of the ZBA By-Laws are exempt from cross examination.

Mr. Thorsland asked the Petitioner's representative if he would like to make a statement outlining the nature of the request prior to introducing evidence.

Mr. Greg Leuchtmann, Invenergy project representative, stated yes.

Mr. Greg Leuchtmann, Invenergy project representative, gave a PowerPoint presentation regarding the proposed special use permit. He said that he wanted to follow up on some of the items which were discussed at last week's meeting and address some of the questions and concerns that the ZBA voiced. He said that the project is 48 MW in Champaign County with a 214 MW project capacity. He said that there are 30 General Electric 1.6-100 wind turbine generators proposed with a 100 meter hub height and 100 meter rotor diameter. He said that there are approximately 10,200 acres in Champaign County within a portion of the project area and approximately 26,000 total acres under easement.

Mr. Leuchtmann stated that there were five main concerns raised during the last hearing and those concerns were as follows: 1. Reclamation Agreement; and 2. Road Use Agreement; and 3. wind resource for California Ridge; and 4. power output for 48 MW of wind turbines; and 5. school district benefit. He said that the a Draft Reclamation Agreement was submitted to Champaign County and the State's Attorney on August 30, 2011, therefore the State's Attorney is in the process of reviewing that agreement. He said that the Draft Reclamation Agreement includes removal of all above-ground structures and turbines, turbine foundations down to 4-1/2 feet, site grading and de-compaction to return the property to its previous condition and repair and maintenance of roads during that effort. He said that the initial decommissioning report included in the Special Use Permit Application was submitted on July 1, 2011. He said that the professional engineer estimates the current demolition costs for removal of turbines, foundations and roadway repair and maintenance. He said that the professional engineer also estimates the current costs to dump or salvage demolished materials, including steel, copper, aluminum, tin and concrete. He said that the costs are summarized in the decommissioning report and the report is updated every five (5) years to reflect current market conditions and financial securities revised accordingly. He said that the decommissioning costs, including dumping or salvage costs, are multiplied by 210% and that becomes the basis for the financial assurance which is provided to the County. He said that decommissioning and dumping costs as well as the salvage values are in current year dollars and inflated to account for labor and commodity fluctuation. He said that the financial assurance is a combination of a letter of credit, a surety bond and an escrow and this is one of the waivers that are being requested. He said that they would like to provide an escrow in the amount of 25% and a letter of credit for the remaining 75%.

Mr. Leuchtmann stated that the road use agreement is currently being reviewed by Champaign County, Ogden and Compromise townships. He said that Invenergy received comments back from Champaign County although he has not had a chance to review those comments while traveling down to the meeting although he does plan to review those comments and will hopefully be moving forward to a signed agreement within the next few weeks. He said that they are requesting a waiver of strict IDOT-BLR standards for the project's road maintenance and upgrades. He said that the road use agreement includes requirements for the project to keep the existing roadway configurations, upgrade roads, as necessary and repair what is used. He said that they are proposing to keep the

width of the pavement, shoulder and ditches as they currently exist because adherence to BLR standards could push the existing road and ditches past available rights-of-way and could require removal of farm land from landowners.

Mr. Leuchtmann stated that when they began analyzing the wind resource for California Ridge they started to look at a state wide map and verified the area to have a sound wind resource. He said that an initial review of the National Renewable Energy Laboratory (NREL) Wind Maps indicated a good wind regime. He said that the maps indicate the wind resource at certain levels and certain heights and this information is provided at a 50 meter basis and 80 meter basis and from that information Invenergy is able to get a good idea of what the wind resource is at a particular location. He said that what the wind resource is on a certain piece of land becomes very specific to that land therefore it is specific to the elevation. He said that if the proposed site is near agricultural land the wind resource will be better versus a forested or mountainous region. He said that based on the NREL maps Invenergy installed four meteorological (MET) towers on the project site to obtain data for an in-depth wind study which confirmed the wind resource and that data was used as a design basis for the facility. He indicated the project area on the NREL map and stated that the area is in the middle of 6.5 and 7.5 meters per second on an 80 meter basis which is some of the best wind in Illinois. He said that when they collected MET data on their 58 meter met towers they collected between 6.5 and 7.5 meters per second at a 58 meter height therefore when they predict what the wind speed will be on an average basis for a 100 meter hub height turbine they get up to 7.6 to 7.9 meters per second.

Mr. Leuchtmann stated that the power output and efficiency for a 48 MW wind turbine was questioned at the last meeting. He said that at the right wind speed the wind turbine will be 100% efficient therefore at 10 meters per second 48MW of power will be generated. He said that the power output on an annual basis must be based on what the wind speeds are during different hours over a year's time as well as laying that against the power chart for the turbines. He said that maximum power output is reached at approximately 9.5 to 10 meters per second and currently it is predicted that the turbines will operate above 9 meters per second approximately 50% of the time. He said that based on wind conditions, land, layout and maintenance project estimates are that the annual output will be between 38% and 44% of the full rated capacity of 48MW for the entire farm. He reviewed the GE-1.6-100 Power Curve Chart and the California Ridge Wind Speed Distribution Chart with the Board.

Mr. Leuchtmann stated that at the last meeting there were some questions regarding school district benefits. He said that property taxes for a wind turbine are based on the assessed value and the megawatts that are installed on the property. He said that the Illinois Department of Revenue has a standard assessment procedure for wind turbines. He said that in 2007 the assessed value established for wind turbines was $119,988 dollars per wind turbine and currently it is around $135,000 dollars per MW. He said that the school district revenue and property tax revenue would come from the per

MW dollars. He said that as a hypothetical example, if you multiple 48MW by $135,000 dollars the amount of assessment or EAV would increase by that sum. He said that for a 48MW wind farm the county taxes would increase approximately $548,000 dollars in the first year and the school district would receive approximately $301,400 dollars.

Mr. Leuchtmann stated that this concludes his presentation and Mr. Tim Casey is present tonight to answer any of the Board's questions regarding the noise analysis.

Mr. Thorsland stated that at this time he would like staff to review any new information for the Board.

Mr. Hall distributed a new Supplemental Memorandum dated September 1, 2011, for the Board's review. He said that the Board requested information regarding the best prime farmland that is located within the project area. He said that the Champaign County Soil and Water Conservation District has completed an analysis of the soils that will be used for the wind tower sites and access roads. He said that approximately 22 acres of farmland will be used for the sites and roads. He said that the soils that will be used have an overall Land Evaluation of about 80.5 which is well below the LE of 85 that indicates best prime farmland therefore the land that will be used for the project will not be best prime farmland on average.

Mr. Hall stated that included separately from the new Supplemental Memorandum dated September 1, 2011, is a Memorandum dated August 26, 2011, from Michael S. Blazer, legal counsel for Invenergy, regarding the court case which was most pertinent to the issue about whether the Illinois Pollution Control Board standards are property line noise standard or are they actually applied at the dwelling. Mr. Hall stated that the August 25, 2011, minutes are included separately and will be on the September 8, 2011, agenda for approval. He said that attached to the Supplemental Memorandum is the handout, "Fifteen Bad Things with Windpower and Three Reasons Why," that Mr. Bill Ingram referred to during his testimony at the August 25th meeting. He said that also attached to the memorandum is an Erratum received August 2, 2011, which is a correction to Section 4.3.6 Decommissioning and Restoration, third paragraph, page 4-10 of the Special Use Permit application. He said that also attached to the memorandum is the Draft Reclamation agreement which has been forwarded to the State's Attorney for legal review therefore he has no comments on the agreement for tonight's hearing. He said that the last attachment to the memorandum is Attachment E. Compliance with Subsection 6.1.4 Not Requiring Waivers, which is a written assessment of all the other standard conditions for which no waiver is required and supplements the most pertinent information so that Board members can see if the conditions are met or not. He said that he hopes to have a Draft Summary of Evidence for the Board's review at the September 8th meeting.

Mr. Thorsland asked the Board if there were any questions for Mr. Hall and there were none.

Mr. Thorsland asked the Board if there were any questions for Mr. Leuchtmann.

Mr. Miller asked Mr. Leuchtmann to clarify what happens to the tax assessment after the year 2016.

Mr. Leuchtmann referred Mr. Miller's question to Michael Blazer.

Mr. Michael Blazer, legal counsel for Invenergy, stated that the same questions surfaced during the public hearings for Vermilion County and to be truthful there is no concrete answer. He said that currently there are so many variables due to the economic condition of the State of Illinois but it is assumed that things will remain relatively the same as to where taxes are distributed but it is impossible to tell what the State will do to fill the colossal financial hole that exists.

Mr. Courson asked if the taxes increase ten-fold would the wind farm be economically feasible or would Invenergy go bankrupt and shut the wind farm down.

Mr. Leuchtmann stated that when Invenergy proposes a project the lenders are aware of the risk that the tax rates could increase although they are still willing to invest in the project. He said that there are mechanisms in the lending, debt agreements and power agreements which can, at times, take care of those types of situations but most of the time Invenergy pays the taxes in accordance with the existing State and Federal guidelines. He said that the investors are willing to stand behind what could occur.

Mr. Passalacqua asked Mr. Leutchmann if the same would hold true with a 38% output.

Mr. Leuchtmann stated yes. He said that at times in Michigan there is only 25% output which is still pretty good.

Mr. Courson asked Mr. Leuchtmann if Invenergy's costs increase do they pass that increase on to the power company.

Mr. Leuchtmann stated that the lenders have mechanisms in the debt agreement and at times the power purchase agreement will have mechanisms to offset the increases. He said that at this point he is not sure what the power purchase agreement includes for this project. He said that most importantly it is Invenergy's relationship with the lenders and debt holders because they are the ones who are backing the project and are willing to take the tax increase risk.

Mr. Courson stated that the financial holders are those who are on the hook for the tax increase.

Mr. Leuchtmann stated yes.

Mr. Courson asked if the financial holders would pull the plug on the project due to the increase and would deal with the loss.

Mr. Leuchtmann stated that it is all dependent on what happens after 2016 and that is unpredictable at this point. He said that assumptions will have to be made that it will remain somewhat similar but if there are some increases in the tax then adjustments will have to be made to either the debt or equity side.

Mr. Blazer stated that no one in Springfield is discussing increases at that level or even approaching ten-fold. He said that the project financing is occurring now and it doesn't vary based on what the case may be in five or ten years from now. He said the financing will go forward as soon as the time that the case is approved based primarily on the income from the power purchase agreement with certain assumptions built into it based on presumed escalations of the early basis of what the project costs may be. He said that he cannot tell the Board that the project has a ten-fold increase built in to it but there are actuaries who are paid to determine whether or not the project is a viable financial risk and they have.

Mr. Miller asked Mr. Leuchtmann and Mr. Blazer if a power purchase agreement exists to date.

Mr. Leuchtmann stated that Invenergy is in the advanced stages of finalizing and completing a power purchase agreement and the details of whom and what are not in his hands.

Mr. Miller asked if the power purchase agreement is pending the Board's decision.

Mr. Leuchtmann stated no.

Mr. Courson asked what is the typical rate used to sell to the utilities.

Mr. Leuchtmann stated that he does not negotiate the power purchase agreement therefore he cannot answer Mr. Courson's question.

Mr. Blazer stated that he can supply this information to staff for distribution to the Board.

Mr. Miller asked if construction would continue with or without a power purchase agreement.

Mr. Leuchtmann stated no. He said that Invenergy is a project financing company therefore what

secures their projects is a power purchase agreement and typically the agreement is a 15 to 20 year agreement.

Mr. Blazer stated that a project will not be built without a power purchase agreement in place. He said that every project that Invenergy has built has had a power purchase agreement but there are companies that will build spec projects although Invenergy is not one of those companies. He said that a power purchase agreement is in the advanced stages of negotiations and it is going to happen although he can not disclose as to who the agreement is with yet.

Mr. Miller asked if Invenergy has the intention of marketing the project to another company once the power purchase agreement is finalized.

Mr. Leuchtmann stated that out of the 28 projects that have been built by Invenergy only two have been sold. He said that Invenergy is mainly an owner, developer and operator and their goal is to own the project for a long term timeframe.

Mr. Blazer stated that Invenergy does not operate as a spec company.

Mr. Miller asked Mr. Leuchtmann if the two projects that were sold were sold after they were completed.

Mr. Leuchtmann stated yes.

Mr. Thorsland asked the audience if anyone desired to cross examine Mr. Leuchtmann.

Mr. Thorsland called Mr. Bill Ingram.

Mr. Bill Ingram, who resides at Catlin, Illinois, stated that Vermilion County is going through this process and asked Mr. Leuchtmann if he is correct in assuming that the landowner who signed a lease has no input on what happens to the land for 25 years.

Mr. Thorsland noted that Mr. Leuchtmann did not discuss the land leases during his testimony.

Mr. Ingram asked what obligation Invenergy would have if they went out of business. He asked if Invenergy would have to reclaim the land or leave it as it exists for 30 years.

Mr. Leuchtmann stated that Invenergy would reclaim the land either way.

Mr. Ingram asked if things go south for Invenergy is the landowner stuck with an inoperable wind

turbine during the length of the lease.

Mr. Leuchtmann stated that there is financial assurance from the County's perspective, financial assurance from the landowner's perspective, and there is a debt holder on the equipment that has an interest to make sure the project continues whether Invenergy is operating the wind farm or someone else is but either way the landowner has several different levels of security.

Mr. Ingram asked if Invenergy falls upon hard times, goes into bankruptcy and loses its subsidies what is the landowner to do to obtain the reclamation.

Mr. Leuchtmann stated that reclamation is in the contract with the landowner and with the County. He noted that the Letter of Credit is not with Invenergy but with a third party bank. He said that whether it is with Invenergy or someone else as long as the project is operating there would be no need to reclaim the land by the landowner or by the County.

Mr. Ingram asked what would happen to the reclamation and all the other agreements if all of the subsidies ceased.

Mr. Leuchtmann stated that they plan to continue running the project with or without the subsidies.

Mr. Ingram asked Mr. Leuchtmann if Invenergy can run the project without subsidies.

Mr. Thorsland noted that the subject of subsidies was not part of Mr. Leuchtmann's testimony.

Mr. Ingram asked if the subsidies were cut what would happen to the reclamation agreement.

Mr. Leuchtmann stated that Invenergy's financial team considered worst case scenarios therefore they are willing to take the risks involved.

Mr. Ingram asked if Invenergy's financial team and number crunchers indicated that they will be okay if the subsidies cease.

Mr. Thorsland reminded Mr. Ingram again that Mr. Leuchtmann's testimony did not include a discussion about subsidies. He said that the reclamation agreement does not include the word subsidy in it either therefore for Mr. Ingram to continue this path will not be allowed during his cross examination of Mr. Leuchtmann.

Mr. Ingram stated that reclamation is part of the entire project and the project depends upon subsidies therefore if Invenergy is not around how will the land be reclaimed.

Mr. Thorsland pointed out that this is a wind farm application based on the Champaign County Zoning Ordinance therefore his questions regarding subsidies are not relevant to the Board's application of the Ordinance to Invenergy's special use permit request.

Mr. Ingram stated that Mr. Leuchtmann's presentation indicated that the foundation is approximately 54 yards of concrete and the reclamation calls for reducing it to four feet below grade. He asked Mr. Leuchtmann to indicate the top of the foundation in relation to the grade.

Mr. Leuchtmann stated that the information is included in their report.

Mr. Ingram asked if it is possible that the top of the foundation and the 54 yards of concrete which supports the tower could already be four feet below grade.

Mr. Leuchtmann stated that the foundation would go to grade but it would slope down with the idea that the landowner could farm within three feet of the tower without any issue.

Mr. Ingram asked if it is possible that nothing would have to be done for reclamation because the concrete is already four feet below grade.

Mr. Leuchtmann stated no. He said that the HDR engineer has made plans as to what will be removed and with the intent that once the reclamation is complete the land could be farmed.

Mr. Ingram asked if there would be a significant amount of concrete left in the ground.

Mr. Leuchtmann stated that there would be concrete left in the ground.

Mr. Ingram asked if the salvage value of the tower and equipment is the amount that the landowner will be compensated to bring the land to its original state.

Mr. Leuchtmann stated that the decommissioning plan takes into account the salvage value but the financial assurance is intended to account for the expenses in decommissioning, costs for removal of the turbine, costs for removal of the foundation, costs for public road improvement, as well as taking into account the salvage value but the financial assurance that the landowner and the County are getting separate items.

Mr. Ingram asked if Invenergy were to cease to exist would the lease holders' only recourse be the court system to obtain compensation.

Mr. Leuchtmann stated that such was not part of his presentation.

Mr. Ingram asked if it was true that the CEO of Invenergy just purchased a multi-million dollar mansion.

Mr. Thorsland reminded Mr. Ingram again that his question or statement is irrelevant and was not part of Mr. Leuchtmann's testimony. He asked Mr. Ingram if he had any further questions that are relevant only to Mr. Leuchtmann's testimony.

Mr. Ingram stated no.

Mr. Thorsland asked the audience if anyone else desired to cross examine Mr. Leuchtmann. He reminded the audience that all cross examination should be based on testimony given at tonight's public hearing.

Mr. Thorsland called Deanne Sims.

Ms. Deanne Sims, who resides at 2765 CR 2500N, Penfield, Illinois, asked Mr. Leuchtmann to explain how decommissioning is defined.

Mr. Leuchtmann stated that the Ordinance has certain stipulations that trigger a decommissioning event. He said that if the wind farm is not in operation and Invenergy is not making a reasonable effort to get the wind farm operated then a decommissioning event would be triggered and the County would have the ability to go through the process of drawing upon the financial assurance to take down the turbines.

Ms. Sims asked if the financial backers are a group or the individuals who own each turbine.

Mr. Thorsland noted that the information regarding the financial entities of the wind farm project was not part of Mr. Leuchtmann's presentation. He said that the requested information is private.

Ms. Sims asked if the guidelines for decommissioning are listed in the Ordinance.

Mr. Leutchmann stated yes, and they are also included in Attachment D of the Supplemental Memorandum dated September 1, 2011.

Mr. Thorsland called Mr. Matt Cavalenes.

Mr. Cavalenes, who resides at Catlin, Illinois, stated that the special use permit application indicates 28 projects and of those 28 five have been sold. He asked Mr. Leuchtmann if this information is correct.

Mr. Leuchtmann stated that he would need to review the information.

Mr. Thorsland called Kim Schertz.

Ms. Kim Schertz, who resides at Hudson, Illinois, asked Mr. Leuchtmann how many current wind farms in Illinois have 100 meter rotors.

Mr. Leuchtmann stated that he cannot answer Ms. Schertz's question.

Ms. Schertz asked if the fiberglass blades are included in the salvage value for decommissioning.

Mr. Leuchtmann stated that the contractors indicated that if they can they will recycle the blades but typically the fiberglass blades have to be sent to the dump.

Ms. Schertz asked Mr. Leuchtmann how many tons of hazardous waste would be created by the blades.

Mr. Leuchtmann stated that he does not know the exact weight of the blades.

Mr. Thorsland stated that Mr. Leuchtmann's testimony did not include the weight of the blades.

Ms. Schertz stated that Mr. Leuchtmann admitted that the blades are included in the decommissioning cost.

Mr. Leuchtmann stated that the blades were accounted for as part of the decommissioning costs in that they will be hauled off and dumped.

Ms. Schertz asked if the blades would be dumped at a regular land fill or a hazardous waste dump site.

Mr. Leuchtmann stated that he does not know if the blades would be considered hazardous waste.

Ms. Schertz asked if the location of the nearest dumping site to the project was considered in the decommissioning plan.

Mr. Leuchtmann stated that the decommissioning plan is located in the special use permit application.

Ms. Schertz asked Mr. Leuchtmann to indicate how much the roads would be raised to reinforce them for the proposed project.

Mr. Leuchtmann stated that they are in negotiations for the road agreements.

Mr. Thorsland noted that, to date, no road agreement has been finalized.

Ms. Schertz stated that Mr. Leuchtmann stated that Invenergy did not want to push out the pavements therefore keeping the existing width of the ditches. She said that she has heard that at other wind farms there is an extra foot of gravel placed on top of the existing road and the ditches are not the standard grade and must be re-graded. She asked if this issue will be addressed.

Mr. Thorsland stated that when the road agreement is received perhaps those questions will be answered. He informed Ms. Schertz that she is on the border line in providing testimony rather than cross examination.

Ms. Schertz asked Mr. Leuchtmann to explain how a wind reading could be accurate when there are only four MET towers on 10,000 acres.

Mr. Leuchtmann stated that it is accurate enough that they have completed this process on previous projects and the data proves to be accurate.

Ms. Schertz asked if any data is available to indicate that a 38% capacity in Illinois was received year around.

Mr. Leuchtmann stated that the presentation indicates such. He said that the Ordinance did not request this information therefore it was not provided in the application.

Ms. Schertz asked if Mr. Leuchtmann was aware that last year legislation was proposed to make the wind turbines exempt.

Mr. Thorsland noted that Ms. Schertz's question is truly testimony and the Board is hearing a zoning case and not a tax case.

Ms. Schertz stated that Mr. Leuchtmann indicated that of the 28 projects only two were sold but Mr. Cavalenes stated that five were sold. She asked Mr. Leuchtmann if the sale of the White Oaks

project, which is close to her residence, was sold before it was built and a condition of the sale was that it be completed. She said that it is her understanding that the project was sold in January when the turbines were being erected.

Mr. Leuchtmann stated that he is not aware of the details of that sale.

Ms. Schertz stated that if Mr. Leuchtmann did not know the details then he should not have answered Mr. Cavalenes question.

Mr. Leuchtmann stated that he is not aware of the exact time frame as to when the White Oaks project was sold.

Ms. Schertz stated that Mr. Leuchtmann indicated that the project was complete and in operation before it was sold. She said that it is her understanding that the project was sold in January yet they were constructing towers near her residence during that same time.

Mr. Leuchtmann stated that it is his understanding that construction had been completed and then transferred.

Ms. Schertz stated that Mr. Leuchtmann indicated that he did not know the timeframe which would trigger the decommissioning process.

Mr. Thorsland indicated that the timeframe that would trigger the decommissioning process is in the Ordinance.

Ms. Schertz asked Mr. Leuchtmann if the foundation was removed down to four feet would it allow Invenergy to avoid the Illinois EPA Hazardous Waste requirements.

Mr. Leuchtmann stated no.

Ms. Schertz asked what percentage of the concrete is removed.

Mr. Leuchtmann stated that the information is included in the decommissioning plan.

Mr. Thorsland asked the audience if anyone else desired to cross examine Mr. Leuchtmann and there was no one.

Mr. Thorsland again informed the audience that anyone who desires to present testimony must sign the witness register. He reminded the audience that when they sign the witness register they are

signing an oath.

Mr. Thorsland called Mr. Tim Casey to testify.

Mr. Tim Casey, Senior Environmental Scientist with HDR Engineering, whose office is located at 701 Xenia Avenue, Minneapolis, Minnesota, stated that he is the founder and national manager of HDR's Acoustics Program. He said that HDR was hired to complete the noise analysis for the wind farm project which included an initial component of measuring existing noise levels and an analysis of project related noise. He said that he would like to briefly explain some basic acoustical concepts that will be part of his testimony because it will help everyone understand the messages that he is trying to share.

Mr. Casey stated that the human ear hears a wide range of sounds and the sounds that are heard are comprised of a wide range of energy and frequencies. He said that frequencies can be thought of as tones upon which there are high frequencies and low frequencies. He said that the human ear does not hear all frequencies equally in that low frequencies are not heard well at all and some of the higher frequencies are heard just fine. He said that if the ability to hear frequencies could be graphed the graph would slope down dramatically where the lower frequencies are and that type of graph is used to correct the measurement of sound to put them in a context that meaningful and into the context of what is heard and such a graph is called the A-weighting scale. He said that when you hear about sound and noise expressed as A-weighted decibels or dBA it means the total content of that sound has been corrected so that it reflects our ability to hear it. He said that dogs hear much higher pitches than humans therefore different animals have different abilities to hear energy throughout the tone range. He said that humans hear the overall sound level and we hear a combination of sounds but perceive them as one sound. He said that it is possible to take a measuring instrument and have the analyzer break up the sound into frequency components and indicate how much energy is in each frequency range. He said that such an analyzer is sometimes called a Real Time Analyzer or Spectral Analyzer. He said that the range of sounds of low and high frequencies is sometimes referred to as using the concept of a spectrum, indicating low frequency at one end and high frequency at the other end. He said that environmental sound is regulated differently in each state in the United States and in Illinois it is regulated by frequency components which are not A-weighted and in reality it is a little bit abstract as the way noise is regulated in Illinois. He said that noise is regulated in Illinois in frequency components and not representative of how humans actually hear things.

Mr. Casey stated that other there are other scales such as the B-weighted scale and C-weighted scale and in the context of wind turbines sometimes the C-scale is discussed. He said that if the A-weighted scale cut the low frequencies in a manner that simulates how we hear them the C-weighted scale does not because it does not cut the low frequencies but is useful for measuring sound from a

source that is known to have a lot of low frequency noise, such as a jet engine. He said that when noise analyses are completed for a jet engine that is bolted to the ground and used to drive a generator to generate electricity, called a peeking turbine or simple cycle turbine, it is useful to understand the low frequency content of their noise because there is a lot of it. He said that when you hear a jet airplane there is a lot of low frequency noise and you can really tell when there is a lot of low frequency sound and at times there is a tactile sensation that can be felt. He said that low frequencies can be heard and felt if they are high enough.

Mr. Casey stated that HDR's noise assessment for this project had two primary components, a measuring component and a modeling component. He said that his staff visited the project area and based on their review of aerial photographs and land use they identified all principal noise sources. He said that in most rural communities principal noise sources are railroads, highways, township roads or streets, airports or industrial facilities. He said that based on the review of the digital aerial photograph for the wind farm project location they identified two locations that had land use in proximity to noise sources that were generally representative of everyplace else in the project area. He said that at those two selected locations they placed sound level meters on tripods and measured noise levels for 24 continuous hours and those measurements and data which were collected were compared with the noise limits in the IPCB Environmental Rules. He said that he has been involved in several other projects in Illinois where he has measured existing noise levels in Illinois and compared the data with the state noise limits which are frequency and spectral based and are not A-weighted and what is found is that whenever the wind blows those limits are exceeded. He said that they have 48 hours of data collected within the wind farm project and there was an average of 13 hours per location that were out of compliance.

Mr. Casey said that there are two fundamental issues when it comes to environmental noise, a regulatory compliance issue and a perception issue. He said that when the wind blows not many people run inside complaining that the law is being broken because the state noise limits are not A-weighted and not expressed in a way that is necessarily how we hear stuff. He said that the key message is that on average, 13 of the 24 hours at each of the two locations noise levels exceeded the state levels and that was because the wind was blowing. He said that since we are here to talk about a wind energy project we want to harvest the kinetic energy of that wind and convert it into useable electricity.

Mr. Casey stated that the modeling portion of HDR's analysis is where they calculate the wind turbine noise levels. He said that HDR completed this analysis by using commercially available software called Cadna-A which is based on international acoustic standards. He said that they imported into Cadna-A a digital terrain file that was a three dimensional map of the project area which covered 33,500 acres. He said that the three dimensional map helped them tell the model what the terrain was like because if there is an obstacle in that sound propagation path, such as a hill,

the model will be able to see it and take that into account as it calculates sound that is traveling from the source to the receiver. He said that the analysis was done in 3-D. He said that in addition to the digital terrain model they imported another file which had the X, Y and Z coordinates of 260 homes and then another file was imported which had the X, Y and Z coordinates of every proposed wind turbine. He said that they go into the model and input the height of the wind turbine, a hub height of 100 meters, and then they tell the model how loud the wind turbines are which is data provided by General Electric which is spectral noise emission data. He said that wind turbines are a little different than motorcycles, boats, cars and trucks because their noise emission varies based on how fast the wind is blowing and GE has data over a variety of wind speeds therefore HDR picked the loudest noise emission that was representative of a 14 meter per second wind or 31 miles per hour. He said that they had the option of incorporating the site specific meteorological data that was recorded from the MET towers which would have told them from which direction the wind blows and at what percent of the time on an annual basis it comes from that direction. He said that they chose to not input the meteorological data and instead use an option in the model which indicates that the wind blows from every direction all the time all year long because if you review the meteorological data you will find that there is a predominant wind direction. He said that if the predominant wind direction is used the model would calculate wind levels downstream in that predominant direction as being pushed downstream more efficiently and the noise levels it calculates in directions other then downwind would not be enhanced by that downwind effect. He said that they tell the model that the wind blows in every direction all of the time so that it calculates noise levels that are a little bit higher than what would normally happen. He said that telling the model that the wind always blows in all directions is somewhat unrealistic but it over estimates noise levels therefore they are being conservative in not under-calculating noise levels anywhere.

Mr. Casey stated that HDR input into the model site specific terrain, 3-D locations of 260 homes and 30 turbines, the loudest noise emission data for the GE turbine that is provided by GE, and assume that the winds are constantly31 mph therefore obtaining a noise level from the model that is a one hour average. He said that the wind does not blow 31mph for one hour in every direction uniformly therefore the analysis is very conservative. He said that the model can give results broken out into the same frequency spectrum range so that HDR could do apples to apples comparison to the IPCB noise limits. He said that the results are not A-weighted because the noise rules are not A-weighted. He said that they found that the highest calculated noise level amongst the 260 homes complies with the daytime and night time noise limits.

Mr. Thorsland asked the Board if there were any questions for Mr. Casey.

Mr. Courson asked Mr. Casey if there were any models on the noise from the braking mechanisms on the wind turbines.

Mr. Thorsland stated no.

Mr. Passalacqua asked Mr. Casey if a baby crying for 13 hours is a noise that he would be okay with as long as it was just under the limit because it is just a matter of perception. He said that maybe wind is a soothing sound that everyone is used to but perception of noise is the key.

Mr. Casey stated that there are two issues to look at, the regulatory compliance issue which is the purpose for his presentation, and the perception issue which is his attempt to help the Board understand the results that he presents.

Mr. Passalacqua stated that he was talking about the perception of sound therefore he asked Mr. Casey if, at his home for 14 hours per day, would it be okay if there was a baby crying just under the limit.

Mr. Casey stated that he does not understand the relevance of Mr. Passalacqua's question in the context of wind turbines. He said that he had three sons within three years therefore he could imagine the scenario that Mr. Passalacqua is indicating but it has nothing to do with wind turbines.

Mr. Passalacqua stated that it is the perception of the sound and not the legal limit especially if it can be heard and is not natural. He said that if the sound is a droning sound it could be irritating.

Mr. Casey stated that the way Mr. Passalacqua perceives sound could be different than anyone else on the planet therefore we have to be careful how we answer any questions. He said that when the wind blows the noise level exceeds the limits.

Mr. Passalacqua stated that he is not as concerned about the limits as he is the affect of the sound on humans. He said that some sounds are not soothing.

Mr. Casey stated that he would agree that some sounds are not soothing.

Ms. Capel asked Mr. Casey if we are just talking about the wind, the turbine or a combination of both the wind and the turbine.

Mr. Casey stated that if you take the IPCB noise limits and apply A-weighting and do the math to condense them into one overall number the daytime and night time limits are 61 and 51 which are A-weighted decibels, the maximum wind turbine level amongst all 260 homes was 45.

Mr. Palmgren asked Mr. Casey if they ever go out with a meter to measure existing wind farms to measure high and low ambient noise levels during the day.

Mr. Casey stated that HDR is under contract to perform post construction monitoring on a handful of projects. He said that the requirement for the follow up monitoring is a relatively new requirement in the industry and as a result there is not a tremendous abundance of post construction monitoring data but there is some compelling post-construction monitoring data that is readily available and it showed that calculated noise levels and measured noise levels were very close depending upon how the modeling was completed. He said that he read a post-construction monitoring report for a project in Minnesota which had measurements at five locations and they felt that the data showed that the project was in agreement with the state noise regulations.

Mr. Thorsland asked if staff had any questions for Mr. Casey.

Mr. Hall asked if there are certain weather conditions that conspire to make the turbines sound louder than they normally would when there is a lot of wind.

Mr. Casey stated that turbine noise emissions vary under wind speed conditions throughout the range of wind speeds but there are also meteorological conditions that effect noise emissions from wind turbines. He said that under a temperature inversion the temperature of the atmosphere decreases as you get higher away from the ground and at night things cool and as the sun begins to raise the warm air rises and cooler air remains at ground level. He said that the temperature inversion can have a refracting affect on sound. He said that sound waves travel equally in all directions but under temperature inversion conditions the sound that would normally go up and continue beyond the altitude in the atmosphere, a portion of it is refracted down therefore causing slightly elevated noise levels at a location where the slightly elevated noise level would occur.

Mr. Hall asked if it was possible to model such an occurrence.

Mr. Casey stated that they use the best available tools, computer models, and there are ways that the model can be tricked but there is very limited ability in importing real meteorological data and have the model create an accurate report.

Mr. Hall asked him if he believed that the difference in noise may only be a few decibels.

Mr. Casey stated that there are different ranges in the literature and there is a document regarding study that was done on the Dutch/German border that indicated that their coastal inversion layers produced dramatically higher noise levels than was modeled. He said that he does not believe that the report indicates how the modeling was done therefore he does not know how conservative their base model analysis was and if some conservative assumptions are not built in to it then the margins could be large. He said that if there are two noise sources that are identical and they are placed

together there is a 3 decibel increase therefore if all of the acoustic energy was reflected downward there would be a 3 decibel increase.

Mr. Hall asked if there is another condition during the summer which may not have a lot of wind at the ground level but a lot of wind in the higher elevation therefore making the noise more noticeable.

Mr. Casey stated yes under certain atmospheric stability conditions. He said that when there is an unstable atmosphere one of the conditions that occur is that the winds above the trees is very active therefore the human ear hears the wind rustling the leaves and foliage and that makes noise plus the wind itself is heard and the turbines are turning because they are 80 or 100 meters in the air. He said that when you have different stability conditions and a more stable atmosphere exists at ground level wind speeds can be calm and the human ear is not hearing the wind sound or the rustling of leaves but at the hub height the wind turbine blades could be experiencing a wind speed above the cut in speed which would mean that they are rotating. He said that if the wind turbine blades are still turning and making sound under such conditions there may not be elevated turbine noise at the ground level because the perception is different due to the natural environmental noise that would normally be heard is no longer evident to mask the wind turbine sound. He said that under stable atmospheric conditions the wind turbines may be a little bit more perceivable but it doesn't mean that the wind turbine is any louder.

Mr. Hall stated that Tables 5 and 6 in the report were very helpful in that they report the maximum sound levels and it indicates that the modeling never exceeds the maximum levels. He said that he does not know what to make of the large table that was included in the Appendix that reports an average sound level because he does not know how that relates to the IPCB regulations.

Mr. Casey stated that the large table in the back of the report is the raw modeling of all 260 locations and that data was put onto a spreadsheet and sorted and identified the highest calculated noise level in any given location and that data is what is indicated in Tables 5 and 6. He said that the raw modeling is expressed in two ways, the second column has the overall dBA which is the overall noise level that is A-weighted and is expressed using an acoustic measure called an LEQ which stands for an equivalent level and is one way to express an average noise level. He said that there are mean, median and low and the LEQ is the mean. He said that the next column is the hourly LEQ broken into octave band which are regulated by the State of Illinois therefore the column can be reviewed to see the range of calculated wind turbine noise levels and how it varies amongst the 260 homes.

Mr. Hall stated that for clarification there is no key in the report for someone like Ms. Sims to determine the octave noise level at her home.

Mr. Casey stated that Mr. Hall is correct.

Mr. Thorsland asked the Board and staff if there were any further questions for Mr. Casey and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Mr. Casey.

Mr. Thorsland called Mr. Rob Parker.

Mr. Rob Parker, who resides at 467 CR 2500N, Mahomet, Illinois, asked Mr. Casey if 31 mph is the data used for the maximum wind speed.

Mr. Casey stated no. He said that the noise emission data published by General Electric was representative of noise emissions for this model turbine under wind speed conditions of 31 mph.

Mr. Parker asked what happens over 31 mph.

Mr. Casey stated that turbines use the technology of feathering the blades because they want to try to extract the maximum power under the full range of wind speed therefore when the wind is not so strong the wind turbine will turn on its axis and make it close to perpendicular so that it is harvesting more of the kinetic energy. He said that when the wind speeds pick up it has to maintain control of the rate of rotation so they will rotate the blade so that it doesn't exceed a rate of rotation that is within its design constraints. He said that if the winds pick up to more than 31 mph the blade will not turn any faster.

Mr. Parker asked if the turbine would be louder with wind speeds over 31 mph.

Mr. Casey stated that he has to rely on the data prepared by GE and they indicate that 31 mph is the loudest noise emission condition.

Mr. Parker asked if the modeling is conducted at 100 meters.

Mr. Casey stated yes.

Mr. Parker asked if the IPCB requires the modeling to be conducted at 100 meters.

Mr. Casey stated that he does not believe that noise regulations in Illinois include modeling guidance but if you submit something and said that it doesn't demonstrate compliance and it is clearly not representative of the noise codes then it would be reasonable to assume that someone would point

that out and question the merit of the information.

Mr. Parker asked if the temperature inversion would cause a significant doubling of the noise.

Mr. Casey stated that it depends on the term significant. He said that doubling of the noise would be a 3 decibel increase therefore you would have to look at what octave band did that 3 decibel increase occur and apply A-weighting to it and compress it into one overall noise level and then the relevance of the increase could be assessed in the context of human hearing. He said that the noise limits in Illinois are quite stringent in comparison to other states and if the Illinois rules were compressed into A-weighted noise levels, 61 for daytime and 51 for night-time, their highest noise level is 45. He said that if the wind turbines got louder there is still a 6 decibel range which is more than just a doubling and that would be a clearly perceivable increase. He said that the average person cannot perceive a change in increase or decrease of less than 3 decibels and before a person with average hearing can hear a difference it has to be 3 decibels or higher. He said that if it gets up to 5 decibels the change is clearly perceivable and a change of 10 is considered a halving or doubling therefore a slight increase based on increased wind speeds or MET conditions may or may not be perceivable.

Mr. Parker asked if the A-weighting is the noise pressure and C-weighting is the human perception of the noise.

Mr. Casey stated no. He said that the purpose of the A-weighting is to correct spectral measurement data so that it is representative of how people perceive it. He said that the purpose of C-weighting is to help identify a noise source that has an elevated low frequency.

Mr. Parker asked if there is any data suggesting how the noise will affect animals.

Mr. Casey stated that there have been very brief discussions with wildlife biologists regarding the topic of acoustics and wildlife and it has always been very site specific and is an area that he tries to stay out of because he is not a wildlife acoustician therefore he cannot comment on Mr. Parker's question.

Mr. Thorsland called Deanne Sims.

Ms. Deanne Sims, who resides at 2765 CR 2500N, Penfield, Illinois, asked Mr. Casey to disclose what 24 hour period the noise tests were conducted.

Mr. Casey stated that the tests were conducted during the week of May 4, 2009, as indicated in the report.

Ms. Sims asked Mr. Casey to disclose the location of the tests.

Mr. Casey stated that there is a graphic which indicates where the monitoring was done although he cannot provide addresses.

Ms. Sims asked if there were monitoring sites in Champaign County.

Mr. Casey stated yes, there were two monitoring locations in Champaign County.

Ms. Sims asked if there was any third party data available other than the data which was provided by GE.

Mr. Casey stated that GE hires a certified acoustical laboratory to measure noise emission sound power from a wind turbine using an IEC 61-400 which is an international electrical standard for measuring sound power output form a wind turbine and so the data does come from a third party.

Ms. Sims asked if this data was specific to the proposed wind turbines for California Ridge.

Mr. Casey stated yes.

Ms. Sims asked if any post-construction monitoring will be conducted.

Mr. Casey stated that the requirement for post-construction monitoring is a fairly new one relative to the age of the industry therefore there is not an overwhelming abundance of post-construction monitoring data. He said that he and his staff are dying to go measure and record noise from wind turbines and have attempted to get permission to do so but have not been successful.

Mr. Thorsland called Herb Schildt.

Mr. Herb Schildt, who resides at 398 CR 2500N, Mahomet, asked Mr. Casey if Appendix A was generated by the computer model.

Mr. Casey stated yes.

Mr. Schildt asked Mr. Casey to indicate what program was used.

Mr. Casey stated that he used Cadna-A.

Mr. Schildt asked how Cadna-A was certified.

Mr. Casey indicated that he is not a representative of a software company therefore he cannot answer Mr. Schildt's question.

Mr. Schildt asked Mr. Casey if he is capable of doing the analysis without the computer.

Mr. Casey stated yes.

Mr. Schildt asked if he took a few of the locations and manually did the computations to assure accuracy.

Mr. Casey stated that he did that a few years ago but he did not do it with the latest version.

Mr. Schildt asked Mr. Casey if he had seen the source code for the computer model and did he know if it accurately represents what is being seen.

Mr. Casey stated that they have compared Cadna-A results on non-wind turbine projects with noise levels that have been calculated by using spreadsheet files that they wrote themselves and found very close agreement.

Mr. Schildt stated that Mr. Casey is here tonight as an expert witness although he is relying on a computer program and the public cannot ask any questions to the creator of the program to determine what formulas were used for the methodologies.

Mr. Casey stated that he has no idea how software is certified because he is not in that type of business therefore he asked Mr. Schildt to accept his response. He said that Cadna-A is based on the International Acoustical Standard for Sound Propagation.

Mr. Schildt stated that he cannot respond to what Mr. Casey has said and accepts his answer. He stated that it would make him feel better if he could get a solid answer as to how the software was certified.

Mr. Casey stated that he is in not in the business of certifying software therefore the question is irrelevant to the context of his testimony. He said that he has already stated that he has calculated noise levels using spreadsheets that he wrote and Cadna-A results using the same methods that were used for this analysis.

Mr. Thorsland stated that certification of the software is irrelevant and Mr. Casey was hired to do the analysis by using available tools. He suggested that Mr. Schildt speak with the software company

that developed Cadna-A to obtain answers to his questions regarding certification.

Mr. Schildt stated that it is incumbent upon an expert witness to be able to validate the tools that he used in testimony given.

Mr. Casey stated that he gave Mr. Schildt two examples that clearly demonstrate that he has completed that step.

Mr. Thorsland requested that Mr. Schildt keep his questions relevant to Mr. Casey's testimony.

Mr. Schildt stated that he needs to ask Mr. Casey a question regarding a noise that he has heard but without explaining the noise he cannot properly ask the question.

Mr. Thorsland stated that if Mr. Schildt would like to sign the witness register he could present testimony at that time. He said that by asking Mr. Casey the question regarding a noise that was previously heard is on the edge of presenting testimony therefore he will not allow the question. He again asked Mr. Schildt to keep his questions relevant to Mr. Casey's testimony.

Mr. Schildt asked Mr. Casey if the analysis includes damage to the turbine which could create additional noise.

Mr. Casey stated that he does not believe that the GE noise emissions data represents a malfunctioning wind turbine.

Mr. Schildt stated that it is Mr. Casey's understanding that the GE noise emissions data only represents a properly functioning wind turbine.

Mr. Casey stated yes.

Mr. Schildt asked Mr. Casey if the noise contours represent any noise created by the maintenance vehicles that will operate in the area.

Mr. Casey stated that he did not monitor maintenance vehicles.

Mr. Schildt stated that the maintenance vehicles add to the noise.

Mr. Casey stated that maintenance vehicles could emit noise.

Mr. Schildt asked about the low frequency component that is emitted to the ground.

Mr. Casey stated that this is just airborne sound in the frequency bands that are regulated by the State of Illinois.

Mr. Schildt stated that since the turbine is mounted to the ground can any noise be transmitted through the ground into a house.

Mr. Casey stated that there was a study done to measure ground-borne energy from a wind turbine in the vicinity of an Italian physics laboratory and the results of the study were published at the Wind Turbine Noise Conference in Denmark and he does not believe that they found any meaningful ground-borne energy associated with an operating wind turbine in the vicinity of the Italian physics laboratory.

Mr. Schildt asked Mr. Casey if data was provided regarding the composition of the ground.

Mr. Casey stated that he does not know.

Mr. Thorsland called Ms. Kim Schertz.

Ms. Kim Schertz, who resides at Hudson, Illinois, asked Mr. Casey if he stated that humans do not hear low frequency well but they can feel it.

Mr. Casey stated no. He said that his comment was that the average human has a response to spectral sounds that can be characterized by a dip in the low frequencies. He said that humans do not hear the low frequencies very well but they can hear them when they are at high elevated levels and when they are at those elevated levels it is conceivable that there would be a tactile response depending upon the intensity of the sound and what frequency it is in.

Ms. Schertz stated that a human could feel them if the noise was a high enough spectral sound.

Mr. Casey stated that humans can feel low frequency sound if the levels are high enough.

Ms. Schertz asked what active enforcement agency does the IPCB utilize.

Mr. Thorsland stated that Mr. Casey did not testify about such.

Ms. Schertz stated that Mr. Casey indicated that he relies on data provided by General Electric and that the IPCB regulates the sound at an un-weighted frequency. She asked Mr. Casey to indicate the lowest un-weighted frequency that was provided by General Electric.

Mr. Casey stated 31.5 hertz.

Ms. Schertz asked Mr. Casey if there is anything lower than what GE provides.

Mr. Casey stated that his testimony is clear in that 31.5 hertz is the lowest octave band that they report.

Ms. Schertz asked if there were lower frequencies that occur in the world.

Mr. Casey stated yes.

Mr. Schertz stated that the lower frequencies occur in wind turbine emissions.

Mr. Casey stated yes.

Ms. Schertz asked Mr. Casey if the GE data does not show any violations, yet he just indicated that GE does not provide the lowest level frequencies, there is no proof that there is no violation at frequency levels lower than 31.

Mr. Casey stated that Ms. Schertz is incorrect. He said that it is a very simple concept because the State of Illinois does not regulate noise below 31.5 hertz.

Ms. Schertz asked Mr. Casey if people can feel the lower frequency through perception.

Mr. Casey stated that everyone's perception is unique.

Ms. Schertz asked Mr. Casey if the crops were up or down on May 4, 2009, when the 24 hour sound monitoring was completed.

Mr. Casey stated that the information is not in his report.

Ms. Schertz asked Mr. Casey if it is true that the crops create an absorbing factor for sound.

Mr. Casey stated that the ground has the potential to absorb acoustical energy.

Ms. Schertz asked Mr. Casey if the 13 hours which were out of compliance were during the night.

Ms. Casey stated that he indicated that on an average of the 24 hours measured at two different

locations in Champaign County there were an average of 13 hours that were out of compliance. He said that Table 3 in HDR's report indicates that summary.

Ms. Schertz apologized for not reviewing the report. She asked Mr. Casey if he provided an hourly summary of what was out of compliance at night and by how much it was out of compliance.

Mr. Casey stated that Table 3 indicates daytime, night time and total hours and the number of hours exceeding the IPCB sound limits in the daytime and night time.

Ms. Schertz asked if the report is indicating a 12 hour daytime average and a 12 hour night-time average.

Mr. Casey stated no. He said that Table 3 indicates the number of hours in daytime and the number of hours in night time when measured noise levels exceeded the IPCB noise limits.

Ms. Schertz asked Mr. Casey to indicate how many of the 260 homes were modeled and how many of the noise levels were taken at the site.

Mr. Casey stated that HDR's analysis calculated project related noise levels at 260 locations that are considered to be representative of homes in the project area.

Ms. Schertz stated that the number would be zero.

Mr. Casey stated that the noise levels were calculated at 260 homes.

Ms. Schertz asked how many actual noise readings on the ground were taken.

Mr. Casey stated that the report which is in the record indicates the results of two measurements that were completed at two representative locations in Champaign County.

Ms. Schertz asked Mr. Casey if either of the two locations were at homes.

Mr. Casey stated that he does not have the information in the record although the two locations were in the project area therefore it is more than reasonable to assume that they were done at locations which were at or near two of the 260 homes.

Ms. Schertz asked Mr. Casey if he has the full discretion as to the location of the two monitoring sites.

Mr. Casey stated that they modeled 260 locations.

Ms. Schertz asked Mr. Casey if he picked the actual two locations of the real-time noise readings that were used during the modeling of the 260 homes.

Mr. Casey stated that the noise analysis team reviewed digital aerial photographs and identified noise sources and noise distribution throughout the project area. The noise analysis team then identified noise sensitive locations, homes, throughout the project area and attempted to identify potential candidate locations where they could measure noise levels and feel confident that the measurement data was representative with other portions of the project area based on proximity to land base noise sources and noise sensitive receivers.

Mr. Thorsland asked Ms. Schertz if she has had an opportunity to go on-line to read the report.

Ms. Schertz stated that she has not.

Mr. Thorsland stated that many of Ms. Schertz's questions could be answered by reading the report. He noted that the report has been available for viewing for several weeks.

Ms. Schertz asked Mr. Casey how many wind turbines were in existence when the IPCB regulations were enacted.

Mr. Casey stated that the requested information was not part of his testimony.

Ms. Schertz asked Mr. Casey if the waiver is granted for measurement from the home and not the property line could that negatively affect animals and livestock and businesses on that acreage.

Mr. Casey stated that he did not discuss any waivers during his testimony.

Mr. Thorsland informed Ms. Schertz that questions regarding the waivers should be directed to Mr. Leutchmann.

Ms. Schertz stated that she believed she heard someone indicate that 10 decibels was four times louder.

Mr. Casey stated that he did make a comment regarding how 10 decibels would be perceived and the comment that he made was that an increase or decrease of 10 decibels would be perceived by a person with average hearing senses as being a halving or a doubling of the sound pressure levels.

Ms. Schertz asked Mr. Casey to indicate what was the lowest ambient rural background noise level that he has ever taken.

Mr. Thorsland stated that such was not part of Mr. Casey's testimony and it is up to him as to whether he chooses to respond to the question.

Mr. Casey stated that he will respond to Ms. Schertz' question. He said that he has 5,000 hours of measurement and audio recordings done on the north slope of Alaska where there is virtually no human activity and the average decibel levels were in the low 20's.

Ms. Schertz asked Mr. Casey if he had such data for central Illinois farm fields.

Mr. Casey stated that such information was not part of his analysis.

Ms. Schertz asked if it could be in the same range of 20 decibels.

Mr. Casey stated that he does not consider central Illinois to be representative of the north slope of Alaska and he has no reason to believe, based on the data that he collected during his professional career, that noise levels in central Illinois approach the noise levels on the north slope of Alaska.

Ms. Schertz asked if he was indicating that it was not possible to get a 25 decibel reading in the wind farm project.

Mr. Casey stated that he did not indicate such.

Ms. Schertz asked if icing has been modeled during the analysis.

Mr. Casey stated that Ms. Schertz will have to read the report to obtain an answer to her question.

Ms. Schertz asked Mr. Casey if he would like her to read the report or if he does not want to answer the question.

Mr. Casey stated that he is trying to walk the fine line of trying to deal with the question that is outside the testimony.

Ms. Schertz asked if any icing was considered.

Mr. Casey stated that he does not believe that General Electric reports spectral sound data for icing conditions.

Ms. Schertz asked if there were any factors included in the noise data regarding the pulsating or tonal noise of the turbine.

Mr. Casey stated that the noise analysis incorporated spectral sound power data published by General Electric for the model turbine as proposed for use in this project and that analysis addresses the tonal issue.

Ms. Schertz asked Mr. Casey to indicate the maximum hub height.

Mr. Casey stated that the 1.6-100 GE wind turbine has a hub height of 100 meters.

Ms. Schertz asked Mr. Casey to indicate the decibel level at the hub height.

Mr. Casey stated that the sound power data expressed by GE and used in the HDR analysis is expressed on a spectral level therefore there are several noise levels in different octave bands therefore there is no convenient one answer to the question.

Ms. Schertz asked Mr. Casey to indicate the loudest decibel at the hub height.

Mr. Casey stated that the GE data for 1.6-100 shows 99.9 which is an A-weighted sound power level and humans do not hear sound power but sound pressure therefore the data is not very meaningful.

Mr. Thorsland repeated that the report indicates most of the information that Ms. Schertz is requesting tonight and it might be helpful for everyone to review that report prior to the next meeting.

Ms. Schertz stated that she read the Denmark report and asked Mr. Casey if there was no ground energy reported.

Mr. Casey stated that the conclusion that he remembers them reaching and stating at the conference was that there was no meaningful amount of ground-borne energy.

Ms. Schertz asked if it was true that the report also indicated that the noise could be heard seven miles away.

Mr. Thorsland informed Ms. Schertz that she is presenting testimony and indicated that Mr. Casey is not obligated to respond to her last question.

Ms. Schertz asked Mr. Casey that even though the report indicated that there is no ground energy he is not aware that noise was emitted seven miles out.

Mr. Casey stated that he has not read the entire report.

Mr. Thorsland called Ms. Sims to testify.

Ms. Deanne Sims, who resides at 2765 CR 2500N, Penfield, Illinois, stated that she would like to discuss Waiver #8 which would place the boundary at the foundation of her home rather than at the property line. She said that her house is roughly 1200 square feet and her property is roughly three acres, two acres of grass and one acre which is tillable. She said that there are 43,560 square feet in three acres therefore Invenergy is asking the County permission to take everything that she owns and pays property taxes upon and reduce it down from 43,560 square feet to 1,200 square feet. She said that the map that was presented at the last hearing does not have a scale because she was trying to determine how many feet the proposed turbines would be from her back door and to the east and west.

Mr. Hall stated that the map that was presented at the last hearing was only a portion of a larger map that was put together at a staff level. He said that the map provided by Invenergy did have a scale indicated.

Mr. Thorsland stated that as a rough idea the section lines are generally one-mile apart.

Ms. Sims stated that her property was not indicated on the map either.

Mr. Hall stated that with the scale used on the map should indicate Ms. Sims' property, a three acre lot, as a darker area.

Ms. Sims stated that the list that she received in the mail, indicating the descriptions of the locations of the turbines, does not appear to match up with the spots on the map.

Mr. Hall stated that he does not know how familiar Ms. Sims is with the township grid but in some parts of this project area the fractional sections make it very difficult to read the map.

Ms. Sims asked if the map is a legal document.

Mr. Hall stated no. He said that the map is just for general information. He said that the scale on the map in question appears to be ¾ of an inch equals 1800 feet.

Ms. Sims noted that the CR District is circled on the map provided by staff although it is not indicated on Invenergy's map.

Ms. Sims stated that a portion of the text under 55ILCS Division 5/5-12001, Authority to regulate and restrict location and use of the structures reads as follows: For the purpose of promoting the public health, safety, morals, comfort and general welfare, conserving the values of property throughout the county, lessening or avoiding congestion in the public streets and highways, and lessening or avoiding the hazards to persons and damage to property, etc.

Ms. Sims asked if the setback determined in the wind farm ordinance is to the foundation of her house or to the property line.

Mr. Hall stated that the setback is to Ms. Sims' house.

Ms. Sims stated that the County Board has already reduced her property to 1,200 square feet and the remaining is unusable.

Mr. Hall stated that the 1,200 feet is the separation to principal structures and Ms. Sims' house is a principal structure and it has nothing to do with the size of the property. He said that the setback is only the minimum distance between the nearest turbine and the nearest line of the home on the property.

Mr. Thorsland asked the Board if there were any questions for Ms. Sims and there were none.

Mr. Thorsland asked if staff had any questions for Ms. Sims and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Sims and there was no one.

Mr. Miller requested a five minute recess.

The Board recessed at 9:07 p.m.
The Board resumed at 9:12 p.m.

Mr. Thorsland called Ms. Kim Cambron to testify.

Ms. Kim Cambron, who resides at 2736E CR 3700N, Rankin, Illinois, stated that at the last meeting she had submitted a letter from Mr. Gerry Meyer. She said that she has been in contact with Mr. Meyer and requested a signed copy of his letter and he indicated that he will place it in the mail. She

said that once she receives the signed copy she will submit it to the Board. She submitted, as a Document of Record, a document titled *"Properly Interpreting the Epidemiologic Evidence about the Health Effects of Industrial Wind Turbines on Nearby Residents"* by Carl V. Phillips, PhD. She encouraged the Board to review the document and not to approve any of the waivers requested by Invenergy because the County established the rules for a reason.

Mr. Thorsland asked the Board if there were any questions for Ms. Cambron.

Ms. Capel asked Ms. Cambron if she knows whether the document was submitted to a peer review journal.

Ms. Cambron stated that she does not know but she will look in to it. She said that sometimes you receive information quickly and you only have time to read it and pass it along.

Mr. Thorsland asked if staff had any questions for Ms. Cambron and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Cambron and there was no one.

Mr. Thorsland called Ms. Kim Schertz to testify.

Ms. Kim Schertz, who resides at Hudson, Illinois, stated that she distributed a packet of information as a Document of Record and for the Board's review. She said that the three waivers that she is most concerned about are the waivers concerning the road agreement, decommissioning and noise. She said that the document titled *"Trouble in the wind"* indicates that the turbines are not going to be around for more than five to ten years. She said that *Wind Energy Update* has shown that the operation and maintenance costs are sharply increasing rising to two or three times more than first projected causing a 21 percent decrease in returns on investments. She said that operation and maintenance costs were found to be especially high in the United States. She said that the problem with this is that when Invenergy is indicating successful decommissioning and successful maintenance, 80% of the world's turbines are still under a five year warranty but once the warranty expires the cost skyrockets and the project will not be feasible and will be shut down. She said that they will never get past the ten year tax credit because of the skyrocketing maintenance costs. She said that in Bureau County the maintenance costs went up from $8,500 per year to an additional $35,000 rider that would be required for them to keep their warranty insurance. She said that when those kinds of numbers come in at the same time that the ten year tax credit expires it isn't going to be economically feasible for Invenergy to maintain the turbines and they are going to be standing there.

Ms. Schertz stated that the article titled *"Caught in the turbine: Some aren't so excited to see the region filled with new wind farms"* is about Oregon. She said that you hear about the number of wind farms that are in Oregon but people wonder what it is going to look like when the gold rush is over. She said that the article cites the wind graveyards in California where abandoned and obsolete turbines sit and decay. She said that Oregon is always used as a prime example of how great wind is but the problem is that they have never removed a turbine to date therefore you cannot guess the estimates of what it is going to take to take them down. She said that the article titled, *"Decommissioning Myths,"* is in regards to the White Oak Wind Farm Project, an Invenergy project. She said that Ken Davis, Project Manager for White construction, testified that it takes 2,000 man hours to install a turbine but when he was asked how many hours it takes to remove a turbine he indicated that it would take the same amount. She said that Mr. Davis estimated $25,000 dollars to remove the first five feet of concrete but that did not include taking the turbine, blades or tower down or bringing in the crane or anything else other than the five feet of concrete. She said that Ken Davis also indicated during the public hearing that he is in the business of estimating these projects and if he is capable of understanding how much it costs to put it up the first time, it's a pretty good bet it's going to take as much to take it down. She said that this Board can estimate how much 2,000 man hours will cost for union labor for removal of one turbine.

Ms. Schertz stated that the article titled *"The Rest of the Story…What I learned at the Wind Conference"* includes the following testimony from Mike Pierce, Vice-Chairman of the Bureau County Board: Mr. Pierce stated that he has seen estimates ranging from $180,000 to one-quarter of a million dollars to take down one turbine. He said that the problem with the scrap value provision is that scrap is not in any useable form because towers may have to be cut down into three foot sections, which escalates the labor cost. He said that it's the same with copper because it's very valuable but not when it's encased in a generator 300 feet up in the air. He said that turbine blades are tons of carbon fiber and fiberglass and the EPA says some of it may be recycled but it may be a huge liability.

Ms. Schertz stated that the article titled "*Tilting at Windmills"* was included for the simple reason that everyone has heard the wind companies say that they have had successful decommissioning in southern California and this is an example of successful decommissioning. She said that the article indicates that wind turbines were removed at a project in Palm Springs, California and they are now being used in Minnesota. She said that in Minnesota they spent $3.3 million dollars on eleven wind turbines but Minnesota experiences cold weather and it was discovered that the wind turbines freeze up. She said that apparently the hydraulic fluid which propels the turbines was supposed to work in colder temperature but it failed because they did not take in to account the difference in temperature between Palm Springs and Minnesota. She said that the article titled, *"As the turbine blades turn,"* is in regards to the same wind turbines in Minnesota. She said that the 20-year old windmills were made in Denmark and had operated on a wind farm in California before being bought by the

Minnesota Municipal Power Agency. Avant Energy brought in enXco, a California firm that refurbished the windmills and installed upgrades to get the turbines spinning. Avant Energy indicated that when the machines languished, critics said the problem could be that they are too short and too old, 80 feet high with a 160 kW capacity.

Ms. Schertz stated that the article titled "*For the sake of green or greed"* indicates that wind farm owners have a strong incentive to sell off or abandon their projects once the tax benefits have been captured, 5-6 years for accelerated depreciation, 10 years for production tax credits. She said that when the turbine performance deteriorates the maintenance costs escalate. She said that economics may dictate abandonment of individual windmills or entire wind farms. She said that in California there are thousands of abandoned wind turbines which litter the landscape.

Ms. Schertz stated that the document titled "*Decommissioning costs and scrap value: Beech Ridge wind energy facility"* is in relation to an Invenergy project that was located in West Virginia. She said that Energy Ventures Analysis, Inc. was hired as an independent assessment of the salvage value of the Beech Ridge Wind turbines and during the analysis they uncovered several major flaws in the applicant's study methodology and pricing. She said that the developer used old scrap prices but failed to take into account costs related to transporting scrap to a yard and in addition to obtain the posted scrap price they would need to break down the tower into 3 to 4 foot length pieces and the quoted prices would be significantly less. She said that the copper materials would have to have the insulation stripped and the copper pieces separated to obtain their posted copper price and it was found that posted price was 40 to 50% less than what was originally estimated.

Ms. Schertz stated that the article titled *"Wind Energy's Ghost"* discusses how many thousands of abandoned turbines exist. She said that there is not decommissioning in the United States and the only wind turbines which have been taken down are the ones that have been taken down so that they could be replaced with a larger turbine and if they are not replaced they are left there. She said that the article discusses 37 abandoned turbines in Hawaii but it is California where the impact is felt because thousands of abandoned wind turbines litter the landscape and the city of Palm Springs was forced to enact an ordinance requiring their removal. She said that the turbines installed in the first wind rush were not very reliable and some never worked at all. She said that the elements took their toll and downtime climbed closer to 100% therefore the developers often set the malfunctioning turbines to virtual mode and for public relations the blades would spin appearing to generate electricity.

Ms. Schertz stated that the article titled "*Misquoted? Tell the DEC, USFWS"* discusses the Invenergy Stony Creek Wind Farm. She said that Invenergy used 45,000 tons of slag that was ordered from the 100-year old federal Brownfield cleanup operation on the grounds of the former Bethlehem Steel plant site. She said that this was contaminated slag that was hauled in and dumped on Invenergy

leased land, agricultural fields, at depths of 4 feet deep and 32 feet wide despite the fact that they had an agreement that called for stone fill.

Ms. Schertz stated that the article titled "*Wind farm officials emphasize safety; Landowners meet with Bent Tree Representative,"* is in regards to road damage. She said that one of the main speakers at a meeting with landowners for the Bent Tree Wind Farm project indicated that there will be an exasperating amount of traffic for the duration of the project. The speaker stated that for each of the 122 sites there will be about 55 trucks of gravel for the access road, 50 trucks of concrete and two semis of steel for the foundation as well as trucks hauling the pieces of the 11 cranes. Ms. Schertz stated that something that the Board may want to consider is setting limitations as to when the project can operate during construction. She said that when the project starts the workers will be in the area at 8:00 p.m. blocking roads, installing the hubs and blades at 3:00 a.m. She said that if no limitations are set by the County then there will be no limitations.

Ms. Schertz stated that the document titled "*Potential Road Damage from Loads Needed for Each Wind Turbine Tower"* indicates testimony from Ken Davis at the McLean County ZBA meeting on January 18, 2007. Mr. Davis was asked if he had ever taken down a wind turbine and he replied no and asked the Board if they knew of anyone in the U.S. that has taken down a tower. Mr. Davis continued to say that to his knowledge, no one has taken one down in the U.S. Mr. Davis stated that the concrete foundation will go down 7 to 11 feet therefore they virtually will leave all of the concrete in place which is going to devalue the farmland for the rest of its life because you can never build anything on and or remove the hunk of concrete.

Ms. Schertz stated that the document titled *"Black Prairie Wind Farm ZBA Hearing Notes"* includes testimony from Eric Schmidt, McLean County Highway Engineer, who discusses the Cooksville Area Wind Farm which is permitted but not built. She said that Mr. Schmidt testified that the township roads are rebuilt but probably to a lesser standard and there were a lot of problems with the right-of-way acquisition and the shoulders were not as good as they should be. Ms. Schertz stated that when you are rebuilding a road that has 50 years of asphalt, four to five inches deep and it is being torn out and replaced with an A-3 surface that is only 1 to 1.5 inches thick. She said that testimony was received that sometimes it take 50 years to get a road built back up to what previously existed and the new surface is probably easier to tear. She said that when the developer indicates that the roads will be structurally better they mean tensile strength and not the surface. She said that when she is driving down her road she does not care whether the road can handle 80,000 pounds she only cares that her shocks are not going to be broken when she hits a pothole. She said that at the wind farm project at Carlock, Illinois, which is close to her residence, a hot mix is being used rather than gravel therefore there is a much higher cost in keeping it repaired and that cost goes to the county.

Ms. Schertz stated that the article titled "*County Board ok's landscape work for Soldiers and Sailors"* discusses the law suit between Bureau County and Iberdrola Renewables. She said that Bureau County was sued and they had to sue the wind developer and the wind developer sued Bureau County. She said that Bureau County sued Iberdrola Renewables to make them enforce their road agreement. She said that Champaign County is two steps behind because they are considering approving the project without a road agreement and if you did you must consider how much money it is going to take in attorney fees to enforce the road agreement. She said that the article indicates that the Bureau County Board voted to take legal action to force Iberdrola Renewables to comply with its county road agreement. The County Board claimed that the wind farm developers had refused to honor its contractual obligations to accept responsibility for its fair share of the road damage.

Ms. Schertz stated that the article titled *"Wind farm dispute may be on 'road' to court"* discusses the Bureau County lawsuit again Iberdrola Renewables. She said that Rick Wilkin, Bureau County Board Transportation Committee member, stated that Iberdrola is getting a massive influx of taxpayers' dollars yet is refusing to live up to the roads agreement in Bureau County and pay for the damage to the roads that was caused by their construction. Mr. Wilkin also stated that it takes 20 truckloads of cement to create the base on which each turbine stands therefore for the 37 turbines in Providence Heights, 740 cement trucks will travel over the county roads that weren't built to sustain such consistent, heavy use. Ms. Schertz stated that the lawsuit was recently settled although the terms of the settlement were not published. She said that the article titled *"County to take legal action"* discusses the same lawsuit.

Mr. Thorsland reminded Ms. Schertz that the County does not have a road agreement to date therefore the Board has a lot of time to digest all of the articles that she has submitted regarding the roads.

Ms. Schertz stated that the article titled "*Wind farm work leaves roads in bad shape"* is a letter to the editor of the Daily Pantagraph, from a private citizen who lives in the middle of an existing wind farm, which describes how bad the roads were left in the Ellsworth project in McLean County.

Ms. Schertz stated that the article titled *"Wind turbines too noisy, internal Ontario government memo says"* discusses a memo written by Cameron Hall, as senior environmental officer in the ministry's Guelph district office, which concludes that the current limit of 40 decibels should be reduced to 30 to 32 decibels. She said that according to the 2008 ministry guideline, the tonal blade swoosh should trigger another five-decibel penalty because this is the sound which is most annoying to the human ear.

Ms. Schertz stated that the document titled "*Noise Measurements – Twin Groves Wind Farm – 4-23-07"* was previously distributed to the Board. She said that in Central Illinois she personally

measures the noise levels in the Twin Groves Wind Farm and has gotten 15 or 20 noise readings at night. She said that it is easy to get 25 to 28 decibels at night. She stated that the Board needs to do a ton of research to discover how Mr. Casey found two sites that are representative of the entire proposed wind farm project. She said that she has been up against Mr. Casey before and at the Carlock wind farm Mr. Casey's representative areas were very close to East White Oak Church which has a five acre flat parking lot and pond which both reflect noise. She said that the pond had a fence around it with a metal fence with chains on it and it was once a cattle pasture. She said that this is what is done to the Board to make it relevant and they attempt to con the Board into thinking that there is an average background noise of 45 decibels. She encouraged the Board to check out the representative areas themselves with a noise meter because she has done this at almost every wind farm hearing and it was found that in Grundy County the MET tower was placed next to a puppy mill therefore at 2:30 a.m. it was possible to obtain an 85 decibel reading in the middle of the night. She said that one of the other testing sites was near the Clinton Nuclear Power Plant with a huge lake therefore she is informing the Board that there is always a reason why and how they can give you a 45 decibel background and the Board needs to know what it is before it subjects all of the people in the area to it.

Mr. Thorsland asked the Board if there were any questions for Ms. Schertz and there none.

Mr. Thorsland asked if staff had any questions for Ms. Schertz and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Ms. Schertz.

Mr. Thorsland called Mr. Herb Schildt.

Mr. Herb Schildt, who resides at 398 CR 2500N, Mahomet, Illinois, asked Ms. Schertz if she has ever heard a damaged turbine or a turbine that is exhibiting unusual noise.

Ms. Schertz stated that she has not but she has read a lot of articles that indicate that the damaged turbines omit a whistling sound. She said that she has heard testimony from a gentleman who is located in a Dekalb County wind farm who indicated that when icing occurs the wind turbines produce a screaming noise. She said that the turbines near her home have only been up since January therefore she has not gotten the full noise when the crops are out. She said that currently there are 55 acres of corn blocking the wind turbine noise. She said that when construction began in January she lost her television reception and the turbines have only been running for a few months. She said that a few nights ago at 12:00 a.m. the turbines were all lined up and she began hearing the pulsating noise which was sad because it was the first time all summer that they could actually open their windows but were forced to shut them so that they could go to bed.

Mr. Schildt asked Ms. Schertz if she is speaking about the "whoosh" noise.

Ms. Schertz stated yes. She said that every morning she hears a very mechanical background noise which sounds like a generator running two miles away and the kicker is that the nearest turbine is three-quarter of a mile away therefore she cannot imagine what the landowners in project area are going to go through when the crops come out.

Mr. Thorsland called Ms. Kim Cambron.

Ms. Kim Cambron, who resides at 2736E CR 3700N, Rankin, Illinois, asked Ms. Schertz to indicate how many years she has been educating herself about wind farms.

Ms. Schertz stated that her first opposition to a wind farm was five years ago with Invenergy in regards to the wind farm at Carlock. She said that she was part of the active team lawsuit that was against them and they basically ran a group of 80 concerned citizens out of money and then we ran them into the financial crisis therefore it has taken them four or five years to get the project built.

Ms. Cambron asked Ms. Schertz if she has ever testified as an expert.

Mr. Thorsland noted that Ms. Schertz did not testify as an expert.

Ms. Schertz stated that she has never testified as an expert but she has given a lot of agricultural testimony because her husband is a crop duster and she was asked to testify. She said that the information is available and people need to find it from non-wind energy sources and people who are not trying to con you. She said that one of the articles that she submitted to the Board for review is titled "*The Anatomy of a Sucker*" and if the Board gives Invenergy 11 waivers from zoning then the Board can figure out how she believes the Board would fit into the equation.

Mr. Thorsland asked the audience if anyone else desired to cross examine Ms. Schertz and there was no one.

Mr. Thorsland called Bill Ingram to testify.

Mr. Bill Ingram declined to testify at this time.

Mr. Thorsland asked the audience if anyone desired to sign the witness register to present testimony regarding this case.

Mr. Thorsland called Mr. Matt Cavalenes to testify.

Mr. Cavalenes, who resides at Catlin, Illinois, asked the Board to clarify the setbacks in the Zoning Ordinance in relation to Ms. Sims' concerns. He said that it was stated that the setback is 1,200 feet from a non-participating dwelling but isn't there also a setback from the property line of a non-participating dwelling.

Mr. Hall stated that within one-quarter mile of the street there is a requirement that certain areas must be part of the special use permit and there are separations from property lines which are less than 1,200 feet. He said that there are a lot of different separations and there are also requirements for areas that must be part of the special use permit. He said that the question posed by Ms. Sims was the 1,200 foot separation and that is specific to the dwelling and not the property line.

Mr. Cavalenes asked if as a non-participating dwelling wouldn't she also have setbacks from her property line.

Mr. Hall stated yes, but the setbacks are nowhere near 1,200 feet and are never more than 750 feet.

Mr. Thorsland asked the Board if there were any questions for Mr. Cavalenes and there were none.

Mr. Thorsland asked if staff had any questions for Mr. Cavalenes and there were none.

Mr. Thorsland asked the audience if anyone desired to cross examine Mr. Cavalenes and there was no one.

Mr. Thorsland asked the audience if anyone desired to sign the witness register to present testimony regarding this case and there was no one.

Mr. Thorsland closed the witness register for tonight's meeting.

Mr. Thorsland asked the Board for staff direction. He said that Mr. Hall indicated that he will be preparing a Draft Summary of Evidence for the Board's review.

Ms. Capel moved, seconded by Mr. Schroeder to continue Case 696-S-11 to the September 8, 2011, meeting. The motion carried by voice vote.

6. New Public Hearings

None

7. Staff Report

Mr. Hall stated that staff has reserved the Lyle Shields Meeting Room for October 6, 2011, for any anticipated continuance of the wind farm.

8. Other Business

A. Review of ZBA Docket

Mr. Hall distributed a new ZBA Docket dated September 1, 2011, for the Board's review.

Mr. Thorsland asked the Board if there were any questions regarding the docket and there were none.

9. Audience Participation with respect to matters other than cases pending before the Board.

Mr. Schildt asked if it was allowed for someone to ask a question regarding testimony that was given at a previous hearing.

Mr. Thorsland stated that all testimony is part of the record therefore is would be allowed.

10. Adjournment

Mr. Schroeder moved, seconded by Mr. Courson to adjourn the meeting. The meeting adjourned at 9:50 p.m.

Respectfully submitted

Secretary of Zoning Board of Appeals