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# MINUTES OF REGULAR MEETING

CHAMPAIGN COUNTY ZONING BOARD OF APPEALS

1776 E. Washington Street

Urbana, IL 61801

DATE: February 12, 2009 PLACE: Lyle Shields Meeting Room

1776 East Washington Street

TIME: 6:30 p.m. Urbana, IL 61802

**MEMBERS PRESENT:** Catherine Capel, Thomas Courson, Roger Miller, Melvin Schroeder, Eric

Thorsland, Paul Palmgren

**MEMBERS ABSENT**: Doug Bluhm

**STAFF PRESENT**:

Lori Busboom, John Hall, Jamie Hitt, Leroy Holliday, J.R. Knight, Christina

Papavasiliou (Assistant State's Attorney)

**OTHERS PRESENT:** 

Bill Fabian, Sam Smucker, Dwight Farber, Alan Kurtz, Tim Polz, Michael Jarboe, Daniel Cain, Hal Barnhart, Steve Burdin, Tom Walsh, Delmer Castor, Scott Hays, Barbara Wysocki, Alan Nudo, Jan Anderson, Stephanie Holderfield, Jerry Watson, Russ Taylor, Neil Malone, Vic Smith, Carl Smith, Sherry Schildt, Herb Schildt, Brian Sullivan, Mike Miller, Eric McKeever, Barbara Gerdes, Robert Gerdes, Jim Meadows, Victor White, Bruce Stikkers,

Gerald Henry, Mike Babb, Dean Rose, Eric McKeever, Rob Parker

#### 1. Call to Order

The meeting was called to order at 6:35 p.m.

 Mr. Hall informed the Zoning Board that Mr. Doug Bluhm, Chair, is absent tonight therefore the Board needs to appoint an interim Chair for tonight's meeting.

Mr. Miller moved, seconded by Mr. Courson to appoint Eric Thorsland as interim Chair for the February 12, 2009, Zoning Board of Appeals meeting. The motion carried by voice vote.

### 2. Roll Call and Declaration of Quorum

The roll was called and a quorum declared present.

### 3. Correspondence

47 None

## 4. Approval of Minutes

None

# 5. <u>Continued Public Hearing</u>

None

### 6. New Public Hearings

Case 634-AT-08 Petitioner: Zoning Administrator Request: Amend the Champaign County Zoning Ordinance as follows: A. Authorize the County Board to approve Special Use Permits (SUP) and to change the requirements for development of wind turbine developments (wind farms) to a County Board Special Use Permit (CBSUP) and a rezoning to the new Wind Farm Overlay Zoning District (WFO); B. Change the requirements for private wind turbines; and C. Add a requirement for a CBSUP for subdivisions in a Rural Residential Overlay.

Mr. Thorsland informed the audience that there are a lot of signatures on the witness register and the Board would like to give everyone the opportunity to present their testimony although redundant testimony will be limited. He requested that if, as a witness, you agree with previous testimony then simply state such and present any new testimony that you may have. He requested that County Board members refrain from presenting testimony at tonight's public hearing.

Mr. Hall distributed two Supplemental Memorandums dated February 12, 2009, to the Board for review. He said that Supplemental Memorandum #1 includes an Attachment A. Source of Brief Justification of all Proposed Standard Conditions which is a comprehensive listing of all of the conditions proposed for the Special Use Permit. He said that the purpose of Attachment A is to make it very clear where the special conditions for the proposed Special Use Permit came from. He said that attached to Supplemental Memorandum #1 are Attachment B and C regarding impacts of wind farms on property values. He said that there are no conditions related to property value impacts and the two attachments indicate that there are no identified impacts on property values. He said that he has spoken with other Zoning Administrators from other Illinois counties and not one indicated that they have identified any effects on property values. He said that before tonight's public hearing he was asked about all of the evidence on the internet regarding property value impacts. Mr. Hall stated that he has provided the attached evidence but other people can certainly submit additional evidence for the Board's consideration.

Mr. Hall stated that Attachment D of Supplemental Memorandum #1 is Section 7: Protecting Existing Drainage of the Champaign County Stormwater Management Policy and is relevant to the condition regarding agricultural drainage. He said that Attachments E and F are two articles related to the apparent problems with aerial application of herbicides in the vicinity of wind farms. He said that this seems to be a matter of some agreement therefore for the rest of this hearing, unless evidence is presented otherwise, it is his position that wind farms are not compatible with agriculture to that respect at least.

Mr. Hall stated that there are two attachments to Supplemental Memorandum #1 related to the proposed requirement for a wildlife study. He said that one of the separate attachments is the report by the Illinois

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Department of Natural Resources (IDNR) dated June 2007 which is not very useful. He said that the IDNR is the relevant state agency and this is their report on wildlife impacts and basically its position is that there are no impacts. He said that the other report which was provided is the report that he found most useful in his survey of everything that he could find on the internet. He said that Attachment G is from the Washington Department of Fish and Wildlife which indicates that there should be studies to assess whether there are likely to be impacts on birds and bats. He said that this study is consistent with the Model Ordinance and the draft that he proposed for the Board's consideration but again that is a proposal and it is up to the Board to modify it as the Board sees fit.

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Mr. Hall stated that a separate attachment has been included titled Pipeline Construction Standards and Policies for Agriculture Impact Mitigation recommended by the Illinois Department of Agriculture. He said that these policies are relevant to the condition for protecting agricultural drainage. He said that obviously there are no pipelines associated with wind farms but to the extent that the developer would propose to do underground wiring it has been suggested that this is a good standard to follow. He said that it is not clear to him at this point if the *Ordinance* should just reference these things or if the relevant portions should be excerpted. He said that it is not actually an Illinois Department of Agriculture requirement so it is a little hard to reference something that is not a requirement.

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Mr. Hall stated that as a separate attachment to Supplemental Memorandum #1 are two road upgrade and maintenance agreements for the wind farms in McLean County. He said that one of the agreements is between the County Engineer and the wind farm developer and the other is between the Township Highway Commissioners and the wind farm developer. He said that the reason why he has provided these two documents to the Board for review is because what is in the proposed amendment is what he excerpted from the two documents as to what seemed reasonable. He said that he requested that Jeff Blue, Champaign County Engineer, review the proposed amendment and Mr. Blue has gotten his comments back to him. Mr. Hall said that when there are existing documents that he is referring to he is more comfortable in distributing copies to the Board so that the Board can identify for itself if there are other portions of the document that need added to the proposal.

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Mr. Hall stated that Supplemental Memorandum #2 dated February 12, 2008, has no separate attachments and has additional background information on our existing wind turbine requirements. He said that from a staff level he was not involved with the text amendment in 2000 which added wind turbines to our Zoning Ordinance and he did not recall how it came to be that we went through that exercise without ending up with any requirements that would be relevant to wind farms and Supplemental Memorandum #2 makes it very clear how that happened. He said that most relevant is that the Finding of Fact for Case 236-AT-00 states that Champaign County expected that large scale wind turbine facilities will need to be located in rural areas and approval should be a combined rezoning and a Special Use Permit. He said that unfortunately through the process of reviewing the amendment that completely fell out.

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Mr. Hall noted that in the Preliminary Memorandum dated February 6, 2009, he made a typographic error on Page 2, Paragraph 3. He said that in the memorandum he stated that eight of the nine ELUC members at the November 6, 2008, meeting voiced support for the alternative for both a map amendment and a County Board Special Use Permit for wind farms. He said that he was trying to squeeze too many thoughts into one sentence. He said that what actually happened at that meeting was that there were eight of the nine ELUC

members at that meeting and of those eight, four voiced support for the map amendment approach. He said that the one member who was absent from that meeting had previously voiced some support for the map amendment approach therefore in his mind a majority of the nine ELUC members had voiced support for the map amendment approach. He said that in 2000 this was the approach that Champaign County was going to adopt before they had to make changes following municipal comment and it was the same feeling again in 2008 by ELUC. He said that it doesn't matter what ELUC's direction was but what does matter is what the current ZBA recommendation to the County Board is. He said that this issue has happened in a recent text amendment where the ZBA recommended something that was different than the direction that had been given by ELUC and if the evidence takes you there the Board could do the same thing with the wind farm amendment. He said that the ZBA should recommend to the County Board what it thinks is adequate for the regulation of wind farms.

Mr. Hall stated that attached to Supplemental Memorandum #2 dated February 12, 2009, is the Finding of Fact for Case 236-AT-00, and the Board can see for itself that Item #11 clearly states that the County Board anticipated that these things would be located in rural areas with a Special Use Permit and rezoning. He said that the Finding of Fact included a Proposed Text Addition, which was subsequently changed, and the Approved with Amendments September 13, 2000, minutes is where the basis for that change was discussed.

Mr. Hall stated that included in Supplemental Memorandum #2 is a listing of 20 relevant items regarding whether it is really justified to use the map amendment approach for wind farm development in Champaign County. He said that he has mentioned in previous memorandums that there is no other county in Illinois that takes that approach but that does not necessarily have to be an issue because it is our *Zoning Ordinance* and it is whatever the County Board wants to make it. He said that in talking with the wind farm development representatives they are not keen on it because they do not understand why Champaign County has to be different than everyone else, which is irrelevant. He said that if you are a wind farm developer a map amendment adds extra risks and they really do not want extra risks if it isn't absolutely necessary. He said that it is extra risk because a map amendment provides protest rights for adjacent land owners and provides protest rights for townships that have plan commissions. He said that if enough adjacent land owners are unhappy they could trigger the super-majority requirement for the map amendment. He said that frankly he believes that the County Board should be concerned if that many neighbors are unhappy about a proposed wind farm but it is the County Board's decision as to how they want to handle that issue. He said that perhaps what causes the wind farm developers the most concern is that they don't even have to have a protest it can be just a change of mind on the part of the County Board. He said that the County Board does not have to, in a detailed way, justify the inability to approve a map amendment although they are encouraged to and no doubt they could come up with good reasons but a wind farm developer would not like to see that much freedom on this decision especially when other counties do not think this is necessary.

Mr. Hall stated that one part of the amendment is to amend the purpose section, Chapter 2, of the *Zoning Ordinance* to indicate that facilitating the development of renewable energy is a purpose of the *Zoning Ordinance*. He said that this is as far as he can go to make sure that any denial of a wind farm would have to be for good reason otherwise you are not promoting the purpose of your own *Zoning Ordinance*.

Mr. Hall stated that there are three parts to this case. He said that Part A is the most important and most critical. He said that the ZBA has not been presented with all the changes necessary to facilitate Part A. He

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said that Part B is changing the requirements for private wind turbines. He said that he hopes that we can get Part B done during this hearing but frankly he is not going to get to that until he can provide everything for the major wind farms. He said that Part C is proposing to make subdivisions in the Rural Residential Overlay Zoning District a County Board Special Use Permit. He said that staff has been meaning to do this for a long time therefore he has added it. He said that if it receives much opposition it can be dropped from this amendment but there is a point a view that it is such a small part of this amendment that it could be easily overlooked and we do not want people to overlook a major change such as this. He said that Part C is not nearly as important as the other two parts but the most important and critical part is Part A. He said that the ZBA has two important tasks with Part A: 1. identifying the standard conditions necessary for a wind farm development in Champaign County; and 2. identifying, within the mind of the ZBA, whether a map amendment is also required. He said that to date the only real evidence that the ZBA has been given is within the distributed Supplemental Memorandum #2 dated February 12, 2009.

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

Mr. Tim Polz, Senior Project Developer for Midwest Wind Energy, LLC stated Midwest Wind Energy is a utility scale wind power development company based out of Chicago. He said that currently Midwest Wind Energy has two development projects operating in Illinois with a third under construction. He said that he has reviewed the proposed ordinance and feels that it is a well constructed ordinance and is a very good start. He said that the proposed ordinance is comparable if not slightly more stringent than what they have seen in other counties that they have developments within in Illinois and other Midwestern states. He said that he has specific comments in writing regarding the language as it is currently drafted. He said that he can submit a copy of his written comments to each individual Board member for review or he can read his comments in to the record.

Mr. Thorsland requested that Mr. Polz submit his written comments as evidence, supply a copy to each Board member for review and read a summarized version.

Mr. Polz stated that Section 6.1.4(C) specifies that the setback measurements will be taken from the "base of the tower" but it doesn't state which portion of the base. He said that Midwest Wind Energy, LLC would suggest that the County specify that the measurement should be taken from the "center of the base of the tower." He said that Section 6.1.4(C)7 is in regard to the Pipeline Impact Radius requirements. He said that Midwest Wind Energy, LLC does have several projects in Illinois that are located amongst pipelines and they have worked with those pipeline companies to come up with the best approach when siting cables and wind turbines near their pipelines. He said that Midwest Wind Energy, LLC would suggest an exception to the setbacks specified by the Pipeline Impact Radius required by Paragraph 4.3.4H where the applicant and owner of the pipeline facilities have agreed in writing to a lesser distance than what is in the Pipeline Impact Radius standards. He said that Section 6.1.4(F) is in regard to the County's road agreements. He said that Champaign County is on the right track in that it spells out in their *Ordinance* the various requirements for the road agreements but a fallback would be that the agreement has to be in place prior to the approval of the Special Use Permit. He said that in other counties that they have worked in that agreement has been basically a stipulation to the Special Use Permit and it needs to be basically presented, negotiated, signed and approved and presented to the Zoning Administrator before any building permits would be issued. He said that the reason why he suggests this approach is because in the road agreement Champaign County will

want to specify which roads are going to be used, bridges that will crossed, etc. and this information will be completed in great detail. He said that by requiring this information up front when a Special Use Permit application is submitted, just due to the nature of these projects, and approved it may be six months or more before the project is ready for construction. He said that depending on where the wind turbines are coming from the roads that are anticipated to be used or bridges that may need crossed could differ. He said that you obtain a better quality agreement if you allow that as a stipulation to the Special Use Permit that this be provided at the time the applicant applies for a building permit. He said that the County is still protected with this approach because construction cannot begin without a building permit and so by presenting the agreement to the Zoning Administrator at the time of applying for a building permit the county is still protected.

Mr. Polz stated that Section 6.1.4(M) is in regard to "Shadow Flicker." He said that this is a very loose term and can mean anything from when the sun is low on the horizon during the winter months creating a very long, faint indiscernible shadow as opposed to during the summer months when the sun is higher on the horizon and a much darker, shorter compact shadow is developed behind the turbine. He said that the *Ordinance* should differentiate between the two and set a limit for the number of minutes or hours within a year that the various types of shadow can be cast on certain areas.

Mr. Polz stated that Section 6.1.4(P) is in regard to resubmittal for the Special Use Permit if any component of the wind power project is replaced with a non-like kind replacement. He said that he understands what the *Ordinance* is trying to achieve and the County may not want a full scale replacement of the wind turbines of a different kind than originally permitted. He said that there may be instances where a newer, better, more efficient component is introduced such as a transformer, electrical cabling, etc. which would enhance the project. He said that it would be best if the *Ordinance* were to allow replacement with those types of components provided that they comply with any safety or design criteria outlined in the *Ordinance* without having to go back through the submittal process.

Mr. Polz stated that Section 6.1.4(R) relates to the decommissioning plan. He said that he has the same comments as he had with the road agreements. He said that in other counties that they have worked with this component of the *Ordinance* has been a stipulation to the Special Use Permit required prior to building permit submittal. He said that he would echo his comments in regard to the roads agreement. He said that a better more comprehensive agreement is received if that agreement can be negotiated further in to the development of the project.

Mr. Polz stated that his final comment is in regard to Section 6.1.4(T(1)(c). He said that this requirement is for the submittal, at the time of application, of a turbine layout plan specifying the location of all the wind turbines, cabling, access roads and any other components of the wind tower project. He said that it is not clear if the applicant would be able to undertake minor relocations of wind turbines and other components after the Special Use Permit had been granted. He said that the changes which would occur would be within the Special Use Permit area therefore on the properties that were designated under the Special Use Permit. He said that the changes would also comply with any relevant setbacks, sound standards, shadow flicker or any other standards under the *Ordinance*. He stressed that between the time that the Special Use Permit is granted and construction commences there will be many, many instances where components of the project need to change due to soil conditions, constructability issues, or due to a host of a number of reasons. He

said that if the County gives the developer and the applicant that flexibility it would make for a more streamlined process and the County would receive the same assurances that they would receive otherwise by making sure that any of the relocations comply with the components of the *Ordinance*. He said that he would like to understand how the map amendment component of this approach works and what the whole process entails in completing the map amendment process separate from the application for a Special Use Permit.

Mr. Polz asked Mr. Hall to explain the difference between a Special Use Permit and a Zoning Use Permit.

Mr. Hall stated that the Zoning Use Permit is the equivalent of a building permit.

Mr. Polz stated that his only comment regarding this issue was that there is a sunset clause on the Special Use Permit of 10 years or until the Zoning Permit is granted.

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

17 Mr. Thorsland asked if staff had any questions for Mr. Polz.

19 Mr. Hall asked Mr. Polz to repeat his specific question regarding the map amendment.

Mr. Polz stated that it is his understanding of the map amendment requirement is that any property that is either surrounded by wind turbines or special use properties or any property within 1000 feet from the base of the turbine must be included in the map amendment or the overlay district under this Ordinance.

Mr. Hall stated that it exempts any parcel that is not a participating parcel and is bigger than five acres.

Mr. Polz stated that if a parcel is smaller than five acres then his comments would be accurate.

Mr. Hall stated yes and not within 1000 feet when it is more than one-quarter mile from the road.

Mr. Polz asked Mr. Hall if when it is determined where the Wind Turbine Overlay District is located how does the developer determine what is necessary in the form of approvals from the County Board. He said that it appears that at least 50% of the landowners must be within the overlay district for the Board to consider that map amendment and at that time the County Board can make any determination that they see fit. He said that the thought is that provided that you have greater than 50% of the landowners signing on to the overlay district the Board may or may not follow the majority of the folks within that overlay district. He asked Mr. Hall when the super-majority requirement kicks in.

Mr. Hall stated that his recommendation would be to take action on the Special Use Permit and once the Board determines that the applicant meets the criteria for a Special Use Permit then they could recommend approval of a Special Use Permit then they should have no qualms about recommending approval of a map amendment. He said that presumably the ZBA would recommend both cases to the County Board for approval and his advice to the County Board would be the same thing. He said that the County Board should determine if they are happy with the Special Use Permit and we have already said, assuming that it is

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adopted, that furthering renewable energy is a purpose of the *Ordinance*. He said that normally if the County Board disagrees with a recommendation from the ZBA they kick it back to the ZBA for another attempt. He said that if the County Board agrees with the recommendation from the ZBA then they should then approve the map amendment but as far as he knows it cannot be made a requirement of the County Board. He said that if the State's Attorney believes that we can then he would recommend it because they should only be establishing the map amendment Overlay District where they know the Special Use Permit requirement can in fact be met.

Mr. Polz asked Mr. Hall if he submits an application for a Special Use Permit with the County and they provide evidence and exhibits that they meet all of the criteria for the Special Use Permit then the County Board approves it with a majority vote. He said that once that approval is obtained they submit evidence of approval by the folks within the overlay district and if that number is greater than 50% then that standard majority would apply. He said that if the evidence of approval by the folks within the overlay district is below 50% then how does the County Board have to vote in order for the map amendment to be approved and does it impact the Special Use Permit.

Mr. Hall stated that currently the *Ordinance* requires the evidentiary signatures of the owners of 50% or more of the property to even make the application. He said that what he does not have an explanation for is when there is support of 100% of the people within the overlay district and you get a recommendation from the ZBA but there is still a frontage protest of 20% or more of the surrounding landowners. He said that the receipt of a frontage protest of 20% or more of the surrounding landowners would trigger the super-majority requirement of the County Board and unfortunately the protestors do not have to give specific detail as to why they are opposed they only need to indicate that they are opposed. He said that the 20% protest will come from the people who are bordering the overlay district therefore those people who own 20% of the lineal frontage. He explained to Mr. Polz that the wind farms are going to be very large therefore there is a lot of frontage. He said that a good site plan will be required and as protests are received staff will have to determine how much frontage each protest represents which is a problem that staff has with any map amendment but luckily it doesn't happen that often and because of the size of the wind farm it is a special challenge.

Mr. Polz stated that there are many challenges but he believes that it is workable.

Mr. Dwight Farber, Representative for Horizon Wind Energy stated that they develop, construct, own and operate wind farms across the United States. He said that currently they have ten wind farms across the Unites States with over 2000 megawatts and they have a strong presence in the State of Illinois with a 400 megawatt wind farm east of Bloomington, Illinois which is an operating wind farm. He said that they are currently constructing a wind farm in Logan and Tazwell Counties and have just received approval for another wind farm in LaSalle County with anticipated construction this spring. He commended the Board for taking the process that they are taking because an *Ordinance* is a very important and foundational part of getting a wind farm in to the county and it is important enough that it merits a lot of consideration and study. He said that he is pleased to see that Champaign County has reviewed wind farm ordinances from other counties in Illinois which have put a lot of effort and research in developing a workable ordinance. He said that it is important to be knowledgeable about the wind business and to understand it because it is complex and it is different. He said that the fact that staff from Champaign County has visited existing wind farms

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and is doing its due diligence is commendable and having an open discussion for stakeholders to come in and state their opinions helps form a workable ordinance in Champaign County. He said an ordinance is a set of rules that allows landowners in the county to be able to participate in a wind farm. He said that when you look at agriculture it is very important for a landowner to have the availability of choice on their land and to be able to participate in a wind farm or second crop on that farm. He said that the second thing that is important about an ordinance that we all should be conscious of is that we minimize the effect on the rest of the community so whatever ordinance Champaign County comes up with needs to not only protect those landowners who want the income and the second crop but needs to protect others in the community so that they can have a viable livelihood in that area. He said that if Champaign County wants to generate income it needs to have an ordinance that encourages wind developers to come in to Champaign County to build wind farms. He said that if these factors are considered and weighed out he believes that a good ordinance will be constructed in Champaign County. He said that this ordinance needs not only to have good rules which allows wind farm developers to be part of the community and allows them to know that they have a set of standards to operate by so that they are being responsible to the community but also the ordinance needs to allow them to get an adequate return on their investment. He said that as they design these wind farms the developer needs to have the appropriate setbacks that allow them to efficiently connect the turbines in a way that gives them an adequate return on their investment. He said that he has been very actively involved with LaSalle County, Livingston County and Grundy County in developing their ordinances and it took a very similar process in obtaining input from stakeholders as they developed their ordinance. He said that it is very important if there is an ordinance that it is flexible and easy enough to understand so a wind farm can be developed effectively and efficiently and get adequate economic return. He noted that he agrees with many points that Mr. Polz presented.

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

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

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Mr. Hall thanked Mr. Farber for his comments and stated that members of the audience that have never attended a ZBA hearing may be wondering why staff hasn't included all of the good things about wind farms. He said that staff will and one of the final documents that the County Board will approve is called the Finding of Fact and that document will discuss the positive things about wind farms.

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

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Mr. Carl Smith, who resides at 214 CR 2700E, Allerton, Illinois stated that he as well as others have ownership interest in the proposed wind farm development. He said that the project is stretched out through four counties and it is his understanding that Vermillion, Douglas and Edgar, his area, already have ordinances in place. He said that he hopes that Champaign County does a good and diligent job but it is important to not make it overly cumbersome to where it might discourage any development. He said that there is potential for tax dollars to come into an area which could really use them and he would hate to see anything deter that.

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

Mr. Thorsland asked if staff had any questions for Mr. Smith and there was none.

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Mr. Herb Schildt, Chairman of the Newcomb Township Plan Commission, stated that at their February 9<sup>th</sup>, 2009, meeting the Newcomb Township Plan Commission began evaluating Case 634-AT-08 and at that time only an initial and incomplete draft of the amendment dated February 6, 2009, was available. He said that their review of Case 634-AT-08 is ongoing however based on that initial and incomplete draft, they had one comment and four concerns.

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Mr. Schildt read the Newcomb Township Plan Commission's comment as follows: We are pleased by the requirement that both special use permits and map amendment are required to site a wind farm. This is important because we could not support an ordinance that did not include the requirement for a map amendment. It is our opinion that a special use permit alone is insufficient.

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Mr. Schildt read the Newcomb Township Plan Commission's concerns as follows: 1. We believe that a setback larger than 1,200 feet is needed from any storage tank that holds flammable gas, flammable liquid, or other hazardous material. The Peoples Gas storage tanks in Newcomb Township are one example. We believe that requiring a larger setback is a reasonable step that will provide an extra margin of safety in our Township. We further believe the setback must be sufficiently large to prevent damage to a tank from debris caused by a catastrophic turbine failure (possibility due to tornado), ice throw, or blade detachment; and 2. We have significant safety concerns about locating a wind farm in the Manlove Gas Storage Field in Newcomb Township. Among these concerns are damage to well heads caused by debris from a catastrophic turbine failure, ice throw, or blade detachment, and the potential for increased lightning strikes in the storage field. The effects of a high pressure gas line failure can be very significant and we want to avoid anything that might increase the possibility of such a failure. Until such time that the county can provide information from an accredited, independent authority that certifies to our satisfaction the safety of locating a wind farm in the Manlove Gas Storage field, we believe that Gas Storage Field should be added to the list of areas in which the County does not allow a wind farm to be located. This list is in Section 6.1.4.A.2; and 3. We believe that a setback larger than 1,200 feet from any non-participating residence is required. We believe that requiring a larger setback is a reasonable step that provides an extra margin of safety in our Township. In addition to mitigating the effects of noise and shadow flicker, we believe the setback must be of sufficient length to prevent damage to a dwelling and to prevent harm to its occupants from debris caused by a catastrophic turbine failure, ice throw, or blade detachment. For the same reason, we believe that a larger setback is required for schools (both public and private), hospitals, churches, places of business, and any other place where people congregate (such as parking lots and cemeteries); and 4. We believe that turbine height should not exceed 400 feet.

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Mr. Schildt stated that he wanted to emphasize that Case 634-AT-08 is still under review by the Township and they are awaiting the completed text amendment. They may have other concerns, issues or comments in the future.

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

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Mr. Courson asked Mr. Schildt why the Newcomb Plan Commission indicated that the turbine height should not exceed 400 feet.

Mr. Schildt stated that the *Model Ordinance* by which this amendment was based on was written before turbine heights were going beyond 400 feet. He said that he is not convinced that other aspects of the Ordinance can accommodate 500 foot turbines. He said that it simply increases the debris field length.

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

Mr. Hall asked Mr. Schildt if the township had any reservations regarding Part C. Requiring County Board Special Use Permits for the Rural Residential Overlay subdivisions.

Mr. Schildt stated that they spent all of their time reviewing the wind farm aspect of it however they will be having another meeting in a month.

- 14 Mr. Thorsland requested that Mr. Schildt summarize his personal comments during his testimony.

Mr. Thorsland informed Mr. Schildt that his personal written testimony will be entered as evidence.

Mr. Schildt stated that he distributed his comments as a courtesy to the minute's clerk but it is very important that the Board indulge him and allow him to read his comments.

23 Mr. Thorsland stated that he will allow Mr. Schildt to proceed.

Mr. Schildt stated that his comments are very important.

Mr. Herb Schildt, who resides at 398 CR 2500N, Mahomet stated that as the Board knows he is the Chairman of the Newcomb Township Plan Commission however he is not speaking in that capacity at this time he is speaking strictly for himself. He said that he and his wife are residents of Newcomb Township and they live within the Manlove Gas Storage Field. He said that he is impressed by the amount of thought and effort that John Hall has put into the proposed text amendment and he looks forward to seeing the completed version. He thanked Mr. Hall.

Mr. Schildt stated that tonight he will be focusing on only one specific aspect of the wind farm amendment which is the setback it specifies for a non-participating dwelling or principal building. He said that in this version of the amendment dated February 6, 2009, this setback is 1,200 feet. He said that he believes that this distance is insufficient and that, if used, would present a clear and present safety risk. He said that the reason that he believes this is that the setback is too small to handle in all cases the potential debris field that can be generated from a catastrophic turbine failure. He said that obviously if the debris goes beyond the setback, property and people can be harmed. He said that he would like to be very clear on one point in that he is not present to recommend how large a setback is required to contain a debris field, this determination is the burden of the County. He said that he will however show that there are cases in which 1,200 feet is not adequate. He said that to do this he will present two stories that describe situations in which a turbine failure caused a debris field that was in excess of 1,200 feet and he will present information from a wind turbine operator's manual.

Mr. Schildt stated that the first news story, included as an attachment to his personal statement, is from the Journal Pioneer which is a newspaper located in Summerside, Prince Edward Island, Canada and is not an internet blog. Mr. Schildt stated that in the story debris from a damaged wind turbine blade is deposited approximately 1,600 feet away from the turbine. He said that this is obviously greater than the 1,200 feet specified as the setback proposed by the County. He said that a spokesperson for the wind energy company states that blades on two turbines sustained damage and the company blamed the damage on a bad storm and wind. He said that the story indicates that only the blades sustained damage and that is important. He said that this is one reason why he chose this story because it shows that even a relatively minor failure can generate a large debris field. He said that as you will see the situation can get much worse.

Mr. Schildt stated that the next news story includes two videos of a wind turbine that suffered a catastrophic failure in Denmark on February 22, 2008. He said that the two videos are taken from two different vantage points and clearly show the event. He said that he wasn't sure if he could show the video footage at the hearing so he created a series of still shots that show the destruction of the turbine at various points. He said that as the story states, the braking system on the turbine failed during a storm and pieces of the shattered turbine were sent more than 500 meters which is over 1,625 feet. He said that this well outside the proposed setback of 1,200 feet. He said that at the top of each page is the URL at which the ZBA can view the videos for themselves and strongly urged that they do so because it is really worth viewing. He said that the still shots show that the turbine suffered complete destruction with debris flying everywhere at high speed as if the turbine just exploded. He said that it is clear from the video that large chunks of debris are being thrown and the column then collapses. He said that he supplied still shots of both vantage points. He said that the first still shot shows the turbine essentially intact then within a few seconds later you can see that one of the blades is falling apart and then it appears that the turbine explodes. He said that if you look closely you can see a truck at the base of the tower and the last shot shows the tower collapsing. He said that the ZBA can certainly view these shots at each vantage point on their own.

Mr. Schildt stated that in addition to illustrating the need for a larger setback in general this turbine failure graphically illustrates one reason why he is so concerned about having a wind farm in the Manlove Gas Storage Field, he and his wife live there. He said that even though he is sure that such failures are relatively rare they can and obviously do happen and although any such failure is a serious and potentially life-threatening event the risk of such an event occurring within the Manlove Gas Storage Field is magnified by the possibility of collateral damage to a well head, pipeline or tank. He said that the consequences of a high pressure pipeline failure can be very severe and some of the members of the Board may recall that one occurred a few years ago and it was a very intense event. He said that for those members who are not aware of what he is talking about he will explain. He said that there was a pipeline breach and it caught fire. He said that he and his wife live about three miles from that event and it took three or four minutes for them to realize that it was not the end of the world. He said that the noise was incredible and the sky was lit up with flames.

Mr. Schildt stated that because of the potential risk posed by gas pipelines such as those in the Manlove Gas Storage Field and elsewhere, the County added a pipeline setback to its zoning code that is based on the impact radius described in Title 49 of the Code of Federal Regulations Part 192.903. He said that the pipeline impact radius is the distance within which the potential failure of a pipeline could have significant impact on people and property, which is right out of the code. He said that it seems only reasonable that the

County should, in similar fashion, establish a wind turbine setback that takes into consideration the potential debris field, in other words impact radius, of a turbine failure. He said that the size of such a setback must be specified by an accredited, independent authority as in the case of the pipeline impact radius because the consequences of getting this setback wrong could result in significant harm.

Mr. Schildt stated that he needs to make another important point about wind turbines near gas lines. He said that the amendment requires wind turbine to be outside the impact radius of a pipeline. He said that the problem is that in many cases, the impact radius of the pipeline is smaller than the height of the turbine. He that that he believes that this condition needs to work both ways, with the pipeline also being outside the debris field of a turbine because this way a pipeline failure can't affect a wind turbine and a wind turbine failure can't affect a pipeline. He said that it is important to not just focus on the risks in the Manlove Gas Storage Field or on gas pipelines in general because clearly a catastrophic turbine failure could cause significant damage to a house, school, church, etc., and of course harm people caught in the debris field.

Mr. Schildt stated that he would like to present another document that further illustrates why 1,200 feet is too short to use as a setback distance. He said that at the website wind-watch.org is a copy of Appendix O of the Vestas V90 commercial wind turbine manual. He said that this is the Mechanical Operating and Maintenance Manual and the manual is dated June 29, 2007. He said that before continuing he wanted to point out that Vestas is a Danish wind turbine manufacturer, and it is his understanding that they make the turbines used in the McLean County wind farm. He said that he would like to draw the Board's attention to Page 3, which is part of the safety regulations for operators and technicians. He requested that the Board pay special attention to Stay and Traffic by the Turbine. He read the following portion of that section: "Do not stay within a radius of 400m (1300ft) from the turbine unless it is necessary. If you have to inspect an operating turbine from the ground, do not stay under the rotor plane but observe the rotor from the front. Make sure that children do not stay by or play nearby the turbine."

Mr. Schildt stated that as the Board heard the manual explicitly says to stay 1,300 feet away from the turbine unless otherwise necessary. He said that obviously this is greater than 1,200 feet which is the setback proposed by the County. He stated that he would like to draw the Board's attention to Page 17, Section 16, which is entitled, "Precautions in Case of Fire." He read a portion of that section as follows: "In case of a fire during an uncontrolled operation, do under no circumstances approach the turbine. Evacuate and rope off the turbine in a radius of minimum 400m (1,300 feet)." He said that again, 1,300 feet is greater than 1,200 feet. He said that it is also interesting to note that they seem to indicate that a fire during an "uncontrolled operation" should be left to burn out. He said that although the inability to extinguish a turbine fire concerns him in general it concerns him even more when he thinks about a turbine fire occurring in the Manlove Gas Storage Field or near any residence, school, church and so on.

Mr. Schildt stated that while he imagines that the safety instructions for commercial wind turbines vary from model to model and from manufacturer to manufacturer and that the specifics of a manual may change over time you now have one example of safety instructions that clearly require a setback larger than 1,200 feet which is the setback proposed by the County. He said that these are safety instructions from a wind turbine manufacturer.

Mr. Schildt stated that in conclusion wind turbine setbacks serve many purposes, including noise mitigation

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and reduction of shadow flicker. He said that these aspects are covered in the proposed ordinance and he believes that the setback must also accommodate the debris field created by a turbine failure. He said that he has presented two news reports that clearly show that the debris field can exceed 1,200 feet and have presented safety instructions from a wind turbine operator's manual that says to stay back 1,300 feet to be safe. He said that Champaign County has always prioritized public health and safety which is one reason why the impact radius amendment was adopted. He said that it is evident to him that the setback must be increased to prevent harm and that it must take into consideration the potential debris field that a turbine failure can cause.

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

Mr. Thorsland stated that he also lives in Newcomb Township and fairly close to Mr. Schildt. He said that there are injection well and valve sites all around their property and some of those sites are very close to the road and the likelihood of a truck or car hitting one of those sites is probably greater than a wind turbine falling on them. He said that during the pipeline ordinance hearings there was concern from Mr. Schildt, as a private landowner, that the pipeline impact radius setbacks too far therefore interfering with the landowner's buildable area on their lots. He asked Mr. Schildt if perhaps the pipeline setbacks were not determined to be far enough or does he think that the turbine setbacks should be stacked at the end of the pipeline setbacks or should they be moved away from the highway.

Mr. Schildt stated that he can identify multiple concerns about wind turbines in the Manlove field. He said that lightning hits wind turbines a lot therefore if there is a bad storm and lightning hits the wind turbine it could also ignite the escaping gas. He said that wind turbines can affect the ability of air ambulances to land, as needed, by a wind farm due to the wind turbulence created by the blades. He said that the Manlove Gas Storage Field has a known risk associated with it although he has lived there for many years and he feels that the risk is manageable. He said that wind turbines introduce an unknown element into that environment and until such time as the implications of that element can be determined we have to urge caution and safety because it is not the same thing. He said that a car could hit a wind turbine because it is his personal opinion that they are going to be too close to the road. He said that the debris field of 1600 feet is a lot different that a car running off of the road and it could hit more than one. He said that if the research is completed you will find that the blades do detach and they will weigh tons. He asked how deep the pipelines are buried in the Manlove field because a blade could become detached breach a line and cause a catastrophic event. He said that he would like to have answers to his question and until these answers are received the wind turbines should not be placed in this area.

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

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

Ms. Sherry Schildt, who resides at 398 CR 2500N, Mahomet stated that she is Herb Schildt's wife and he was speaking on her behalf during his previous personal testimony. She distributed a handout titled, *Wind Turbine Struck by Lightning* which shows what can happen to a wind turbine. She said that the first photograph shows what happens when a wind turbine is struck by lightning, the second illustrates a blade detachment, and the third illustrates a fire which took place on a wind turbine that was 265 feet in the air

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which is pretty far up for any rural fire departments to extinguish. She said that she attended the Champaign County Farm Bureau tour on Saturday and Mr. Farber indicated that Horizon generally places turbines 1500 feet away from an occupied dwelling therefore based on that the proposed 1200 feet should be revised.

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

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

Mr. Mike Miller stated that he had no comments to add at this time but reserved the right to speak at a later time during the hearing.

Mr. Eric McKeever stated that he had no comments to add at this time but reserved the right to speak at a later time during the hearing.

Ms. Barbara Gerdes, who resides at 52 CR 2700E, Broadlands stated that she is concerned about the setback. She said that she does not believe that the proposed setback is enough to eliminate noise pollution and health concerns. She said that when you live on a farm you do not just live at your house because you also have machine sheds, barns, etc where you spend a lot of time therefore depending on where the towers are located someone could be located much less than what is proposed to the tower itself. She said that she believes that the setbacks should be at least 1/3 of a mile. She said that if the packet material is reviewed the section regarding health and safety concerns the recommended decibels at the noise level needs to be down to the low 30's, especially for children. She said that her farm is the headquarters for their farming operation so it is not just she and her husband that she is concerned about but also their children and grandchildren. She said that they do not feel that it is right that the setback is such a minimum.

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

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

Mr. Michael Jarboe, who resides at 2792 CR 2400E, Penfield stated that he lives south of Penfield in Compromise Township and he has been approached by Invenergy. He said that he believes that a 1,000 foot setback is adequate and he would like to see that for both the participating and non-participating landowners. He said that the participating landowners are not protected enough because they can waive their right to the 1,000 foot setback and have the wind turbine within 500 feet of their residence. He said that the contract includes text which states that the landowner will waive any restrictions placed on them by any government body therefore a lot of people who have signed contracts are going to be open to that although the company has verbally stated that they will not build closer than 1,000 feet. He asked if in regard to the Letter of Credit, in case the wind turbines have to be decommissioned and the company goes bankrupt, will the County take care of that for the landowners or will they be required to take care of that themselves.

Mr. Hall stated that the County will take care of it.

Mr. Jarboe stated that there should be an inflation clause included because it could cost a lot more later to

decommission one of the wind turbines in the future and he does not want to be stuck with large fees. He said that the memorandum states that 90 days is the time allowance for decommissioning therefore he would not want to be responsible for that decommissioning and removal. He said that if the company goes bankrupt the landowner could be stuck with all the costs for removal. He questioned what happens with the real estate taxes, if the company has gone bankrupt, until a wind turbine is decommissioned because it is his understanding from attending a meeting in Vermillion County that the State of Illinois has set the amount of taxes at \$9,000 per megawatt which would be \$13,500 per megawatt on each one of the turbines. He said that personally he does not want to pay that amount of real estate taxes on each of these turbines and he does not feel that it should be his responsibility. He said that he does not feel threatened by the proposed wind farm and believes that it is good to be green and creating environmentally friendly energy is a good thing.

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

Mr. Roger Miller asked Mr. Jarboe if the Board could have a copy of his contract with Invenergy or is it a confidential document between himself and the company.

Mr. Jarboe stated that once he signs the contract he cannot share the information within the contract with anyone unless Invenergy issues a waiver. He said that he does not believe that he should share his contract with the Board but the Board could contact Invenergy.

Mr. Roger Miller asked Mr. Hall if he has seen any of the contracts.

Mr. Hall stated no.

25 Mr. Thorsland asked the Board if there were any additional questions for Mr. Jarboe and there were none.

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

Mr. Daniel Cain, who resides at 2567 CR 2600E, Penfield indicated that he had no comments to add at this time.

Mr. Victor White, who resides at 2051 CR 2100N, St. Joseph stated he is the Superintendent of Prairieview-Ogden School District #197 and is attending the meeting on behalf of their Board of Education. He said that they are very much in favor of the wind farm proposed in the northeast portion of Champaign County. He said that they are part of the Royal, Flatville and Ogden area and they rely mainly on farmland because over 50% of their Equalized Assessed Value (EAV) comes from our local farmers. He said that they see an opportunity which could come into their area which will be positive once the rules and regulations are set. He said that he has contacted many other superintendents that already have wind turbines in their districts and they have indicated that the added revenue is a nice part of getting things that are needed within the school district. He said that school districts try to keep their tax rates as low as they can and he can brag that Prairieview-Ogden is the lowest in Champaign County. He said that the document which he distributed to the Board for review are the rules for the wind turbine – tax calculation. He said that each one of the towers, based on one megawatt, is assessed at \$360,000 per megawatt which would be divided by 33-1/3%

megawatt wind turbine would generate approximately \$4860 for Prairieview-Ogden District in the first year. He said that the school district sees the proposed wind farm as a positive thing but what they are scared about is that other counties have passed an easy wind farm ordinance. He said that he hopes that the people that are trying to make this a positive aspect in bringing money in to our county are not scared away because it would be easy for them to walk right outside of the Flatville, Penfield and Royal area and move further to the east into Vermillion County. He said that he agrees that safety is a big issue but he hopes that the County only considers what is really needed so that it does not scare away the business.

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

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

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Mr. Rob Parker, who resides at 467 CR 2500N, Mahomet stated that he, like many others, would like to reduce our dependence on foreign oil. He said that he has read that many of the wind farms are foreign owned as well therefore even though the energy is renewable he is not sure if the profits are necessarily staying in our country. He said that he does not want to appear too negative about the wind farms because there are a lot of positive things about them. He said that wind turbines are an industrial powered generation unit and with them comes industrial traffic. He said that he would like to know if the township road commissioners will have an opportunity to give input regarding their concerns or will it all be under the direction of the County Engineer. He said that he lives in an area where many of the roads have dead ends and obstructions due to the Sangamon River and a single road closure could have a significant impact on their emergency services as well as being an inconvenience to daily travel. He said that he also lives near an underground storage field and he sincerely hopes that it will be a proven fact that the wind turbines will not compromise the safety of that storage field or its related piping. He said that it appears that the approach that is being taken is to require a map amendment for the wind farm which he believes is a positive step and it will allow the neighboring property owners to have a voice. He said that this map amendment approach may not be the best approach for the wind farm company but will be nice for the small guy to be able to oppose it if they have sufficient cause. He said that he believes that anywhere there is a residence the setbacks should be increased. He said that he will not recommend any specific distances but 1200 feet is not very far from these monstrous towers.

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

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

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Mr. Hall stated that he would like to add that for a citizen to claim that a 1,200 foot setback is not adequate without having a recommended alternative is not very helpful to the Board. He said that it would be very helpful if Mr. Parker had a more acceptable distance for the setback.

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Mr. Parker stated that he has been reading a lot about this on line and there is a lot of information out there. He said that personally he wouldn't feel comfortable living within 1,200 feet from one of the towers.

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Mr. Hall urged Mr. Parker to not self edit his comments and if he feels that an appropriate setback would be one-half mile then certainly he should share that distance with the Board so that they have something to

work with during their review of this case.

Mr. Parker asked Mr. Hall if this hearing will be the only opportunity for public comments.

Mr. Hall stated no. He said that the Board has reserved the next three meetings for this case and those dates are: February 26, 2009; March 12, 2009; and March 26, 2009. He said that hopefully the Board can wrap this case up at the March 12, 2009, hearing.

Mr. Parker asked Mr. Hall if he perceived making any revisions to the ordinance before the March 26<sup>th</sup>, meeting.

Mr. Hall stated that certainly there will be revisions and regarding the setback 1,200 feet is his best guess therefore until the Board gives him different direction he will keep it at 1,200 feet. He said that there will be public comment accepted at every meeting therefore perhaps Mr. Parker can give a recommendation for an adequate setback at the next meeting.

Mr. Scott Hays, who resides at 569A CR 2400N, Dewey stated that as a landowner he is concerned that the setback may be insufficient because the Ordinance will create a requirement that the turbine be within 1,200 feet from your home or barn. He said that the landowner can negotiate an agreement with the developer indicating that they want the turbine to be 2,000 feet from their barn.

Ms. Capel stated that this is not correct.

Mr. Hays stated that the Ordinance requires a landowner to comply.

Mr. Hall stated that the Ordinance sets a minimum but landowners must work with the developer.

Mr. Hays stated that if a landowner indicates to the developer that they do not want the turbine to be within 2,000 feet then that is the landowner's problem.

Mr. Hall stated that this will depend on what the agreement states.

Mr. Hays stated that the thing to be remembered is that the landowner does not have to have a wind farm on any portion of their property within any distance. He said that there could be a potential problem if the participating landowner has a wind turbine at the required distance, 1,200 feet, and a non-participating landowner's home is right next to the participating landowner's property line. He said that he wonders if the proposed 1,200 feet or more setback produces problems for the developer in expanding the wind farm. He said that a wind turbine at 500 feet is about one and one-half football fields in length and 1,200 feet is four football fields which seems a long way. He said that he does not know anything about the debris field although he has researched catastrophic failure and he found that Vestas has approximately 36,000 wind turbines and the video that Mr. Schildt spoke about only includes one. He said that of the 36,000 only about 30 have failed and none have been catastrophic failure therefore whether catastrophic failure should be a standard which the Zoning Board judges distance could be questioned significantly. He said that his question to the developer would be what is their ideal separation distance. He said that presumably the only

advantage in having it shorter and further is density which would give more turbines on a given plot of land. He said that he believes that the Board needs more facts about the occurrence of catastrophic failure if that is going to be a standard and he too shares Mr. Schildt's concern about the Manlove Gas Field although he is not sure that 1,200 feet is not sufficient because four football fields seems like a good distance to him.

Mr. Thorsland stated that once Mr. Hays is finished with his testimony he will have one or both of the developers address his questions.

Mr. Hays stated that he would like to know what kind of burden is created on development to lengthen the distance.

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

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

Mr. Thorsland requested that Mr. Dwight Farber, Representative for Horizon Wind Energy address the questions regarding setbacks.

Mr. Farber stated that basically we are talking about setbacks from residences of 1,200 feet or more. He said that in the counties that he has worked with the setback requirement varies from 750 feet to 1,200 feet. He said that many times his company will use the standard of 1,500 feet but really when it gets down to the practicality of it the *Ordinance* will be a guideline for the wind company. He said that they must meet the noise regulations that are set by the State of Illinois therefore they do extensive modeling of their planned turbine sites on a computer model and take into consideration the turbine model that will be used and the characteristics of that model as well as the terrain and all the other factors that are involved. He said that computer interactions will come back and tell them whether they need to setback a greater distance from a particular residence to make sure that they are meeting the noise regulations that are required by the State. He said that many times, depending on all these factors, it may be that 1,200 feet is adequate or it might be more and it also depends on the number of turbines that are required in the whole array.

Mr. Thorsland stated that Newcomb Township does house an underground gas storage facility and there is a lot of pipe that runs along the road and next to landowner's properties. He asked Mr. Farber if they have had any wind turbine failures in Illinois.

Mr. Farber stated that Horizon Wind Energy has not had any failures occur in Illinois and the reason for the setbacks is so that if the worst would happen or if a turbine would fall over the setback would be adequate so that no one would be put in any danger. He said that most setbacks are 1.1 times the tip height and setbacks from non-residential properties are driven by sound and noise but 1.1 times the tip height seems to be the setback from all other types of issues.

Mr. Thorsland asked Mr. Farber if they would take into consideration the pipelines that are housed in Newcomb Township.

Mr. Farber stated that they would take the pipelines into consideration and in the due diligence that a wind

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company would take they would look at where pipeline and gas lines are located before they would even consider that type of an area for a wind farm. He said that there are certain structural characteristics about the soil that you would not want to get into when developing a wind farm.

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

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

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Ms. Stephanie Holderfield, who resides at 1401 Caro Ct, Mahomet stated that she is speaking on behalf of the Champaign County Association of Realtors (CCAR) as Chair and is also a resident of Mahomet. She said that she did see the explosion that occurred on the very north end of Mahomet, as previously mentioned in Mr. Schildt's testimony, and she lived about seven miles away on the south end of Route 47. She said that the Champaign County Association of Realtors' concern is two fold and mainly concerns property values. She said Attachment C, Page 5 of the Supplemental Memorandum dated February 12, 2009, gives an example of 965 Bingham Road which gives the perception that there is potential for property values to decline. She said that they are already seeing property values decline in Champaign County and their hope is that the proposed wind farm would not affect all of the other properties that are surrounding that area. She said that Mahomet would suffer greatly plus once it would start devaluing it would affect other properties in the area therefore causing a burden to the entire town and possibly surrounding communities. She asked if the wind turbine would prohibit other commercial properties coming in and developing in the area. She said that in Mahomet the property taxes are very high, as well as everywhere else, and the wind farm could be a blessing but it could also be a detriment to the area should one of the companies fold. She said that there is no guarantee that the wind farm developer will continue to thrive.

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Ms. Holderfield stated that on a personal note there is a huge wind farm near Palm Springs, California but it is located in the desert far away from homes. She requested that when the guidelines are considered that the Board keep in mind that this project will affect surrounding homeowners. She said that the Champaign County Association of Realtors requests that the Board proceed with caution. She said that the CCAR is concerned with property taxes. She said that this project will potentially alleviate burdens for our schools however will there be a detriment and how will it alleviate the burden to the property owners in our community. She requested any information that will show that this will decrease the burden to the property owners in our communities. She said that she believes that this project is a good thing and we are all for renewable energy, as long as it stays in America, helps our property values and lowers our tax burdens but as a resident she does not want to see her property value devalue.

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

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Mr. Thorsland stated that he lives out near the location of the previously mentioned explosion and he believes that this issue will be addressed by the Zoning Board. He said that there is a lot of information on the internet but what the Board has to review are actual studies and they did not indicate a decline in property values and they also did not see any cessation of development and in fact some of the development was proposed to go in after the wind farm was constructed. He said that, in his opinion, if we want to worry about property values going down right now there is no wind farm out there now and the property values have gone down. He said that perhaps they went down because there are too many houses out there. He

said that personally he would be all for establishing a setback for realtors and developers too.

Ms. Holderfield stated that one reason why the property values went down is because of the subprime.

Mr. Thorsland stated in regard to commercial property most of the wind turbines are located in fairly rural areas and they are generally rural for a reason. He said that he does not believe that anyone is proposing to put in wind farms close to existing businesses therefore if the wind farm business goes out of business then the township would be on the hook for some of that work and it would not be generating tax revenue any more. He asked Ms. Holderfield if the wind farm in California can be seen from any homes.

Ms. Holderfield stated that the wind farm in California is far enough from any homes that it is not visible. She said that the wind farm is visible from the interstate and it is far enough away that it hasn't done any damage to residential areas. She said that commercial growth promotes future housing growth therefore she would like to review any information, statistics or proof that the Board may have indicating that a wind farm has not affected growth and development in housing as well as commercial.

Mr. Thorsland stated that he has read that farm ground that has a wind farm lease attached is worth more and farming is a commercial enterprise.

Ms. Holderfield stated that CCAR is not opposing a wind farm and they would hope that it would alleviate the tax burden to the homeowners in the area but if there are studies which show that there has been property values that have declined then that would be a concern for them as well.

Mr. Thorsland asked if staff had any questions for Ms. Holderfield.

Mr. Hall stated that in reference to the 965 Bingham Road example there is a sales chart on Page 7 of Attachment C which breaks the sales price down to a square foot basis and it shows a range of five other homes. He said that the person who gave this presentation explained that the owners were asking too much for the home in the beginning and with what it sold for it was comparable to other homes in the area.

Ms. Holderfield asked Mr. Hall if this was a recent appraisal or one from a few years ago. She said that the appraisals included in this presentation appear to be very low.

Mr. Hall stated that he does not believe that the appraisal was very old but it does not have a date.

Ms. Holderfield stated that if you are going to base the sale on square foot value that is not, regardless of how this appraiser did it, how a realtor would list a home therefore there are a lot of complexities that are involved. She said that she does understand how sellers believe that their property values are higher than they actually are and the seller determines how they would like to have their home listed and the buyer determines what it will sell at. She said that the CCAR would like to examine any data that is available that would substantiate that whether or not a wind farm would damage property values in the area.

Mr. Hall asked Ms. Holderfield if at this point it is her position that 965 Bingham Road, example in Attachment C, did experience a decline in property value due to the wind turbine.

Ms. Holderfield stated yes by the way it looks on paper although the house may look totally different when you walk inside. She said that the way it is presented on the document it is hard to say because there may be a lot of different economic reasons why this property value dropped but she believes that one of the contributing factors was the close proximity of the seven wind turbines.

Mr. Courson stated that he sat through the presentation regarding Attachment C and the wind farm was there when the house, a spec house, at 965 Bingham Road was constructed.

Mr. Russ Taylor, who resides at 1301 W. Hickory, Mahomet stated that he had no comments to add at this time.

Mr. Miller stated that Part B of Case 634-AT-08, is in regard to changing the requirements for private wind turbines. He requested that prior to closing the witness register for tonight's public hearing that people in the audience have an opportunity to voice their concerns and comments regarding Part B.

Mr. Thorsland asked the audience if anyone would like to address Part B.

Mr. Mike Miller, Representative for Arends Brothers, a John Deere dealership, thanked the Board for the courtesy of addressing Part B. He said that they did not want to interject too much into the initial discussion about the industrial wind farm proposals because they represent small wind. He said that Arends Brothers has just expanded their company with the intention to market small wind generators for private use therefore they have an interest in the zoning regulations. He said that their objectives would to be to participate in any group discussions and make sure that they are in compliance with zoning regulations and they would wish to have a voice in developing any of the regulations that would impact the way that they do their business. He said that they are thrilled about the interest that Champaign County has about wind energy and they are happy to be involved in this business because it is the right thing to do for environmental reasons.

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

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

Mr. Eric McKeever, Wind Specialist/Project Manager for Arends Brothers stated that he would like to see the *Ordinance* revised to allow for a taller tower height. He said that one main reason for the requested height increase is because you get an acute increase in output by having just one degree increase in wind speed. He said that you achieve an increase in wind speed by raising the height of the tower and that is why many of the industrial developers have the 400 foot towers. He said that their tallest tower available is 126 feet and the tip height would roughly be 10 feet past that therefore they would recommend a maximum height of 150 feet. He said that there are other kilowatt units available from some manufacturers which would entail 100 foot towers with a tip height of 20 to 30 feet therefore again requiring a maximum height of at least 150 feet. He said that Arends Brothers would appreciate it if the Board would consider revising the 100 foot maximum height requirement to 150 feet because restricting it to 100 feet would be reducing the efficiency of the machine.

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

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

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Mr. Hall stated that when he met with Mr. McKeever earlier and they discussed a 115 foot maximum to which he added ten feet. He said that a re-advertisement would be required in order to increase the maximum height for a private wind turbine to 150 feet. He stated that perhaps the recommendation should be a height based on providing a setback from the property line equal to 1.1 times the height.

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Mr. McKeever stated that if some of the template ordinances that are available are reviewed, such as one from California which is the leader in small wind turbines, their actual proposal is 1.1 times the height and 12 they do not worry about a maximum height. He said that he would stress that the *Ordinance* indicate either 13 a tip height or tower height because there can be a large difference.

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15 Mr. Hall requested that Mr. McKeever supply a copy of the model ordinance from California.

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17 Mr. McKeever stated that he would be happy to send a copy to Mr. Hall.

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19 Mr. Thorsland asked the audience if anyone desired to sign the witness register at this time and there was no 20 one.

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22 Mr. Thorsland asked the audience if anyone signed the witness register and was not called to testify and 23 there was no one.

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25 Ms. Capel moved, seconded by Mr. Courson to grant a ten minute recess. The motion carried by 26 voice vote.

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The meeting recessed at 8:30 p.m.

The meeting resumed at 8:42 p.m.

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Mr. Roger Miller moved, seconded by Mr. Courson to close the witness register for the February 12, 2009, public hearing. The motion carried by voice vote.

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Mr. Thorsland asked if the Board had any direction for Mr. Hall for this case.

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36 Mr. Roger Miller stated that he received a business card from Mr. Jarboe for the Representative for 37 Invenergy. He said that he would like to obtain a sample contract that is being distributed to the landowners 38 for review.

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40 Mr. Hall asked Mr. Roger Miller if he would like to review what types of restrictions are being placed on the 41 property owner. He asked if Invenergy does not supply a copy of the contract what information would he 42 like to know.

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44 Mr. Roger Miller stated that his thought was that perhaps some of the steps that the Board is trying to consider may already be included in their contract. He said that he has heard that there are future building provisions included in the contracts therefore he believes that a sample copy of a contract would be good information to have in this case.

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Mr. Hall stated that his understanding is that any future building is whatever the *Zoning Ordinance* actually allows. He said that this is an excellent question which is relevant to the case therefore the developers can answer this question. He said that he will request that a sample contract be supplied for review and if they are unable to supply such he will definitely ask the question about future building provisions.

Mr. Palmgren stated that the proposal mentions Federal Aviation Administration (FAA) guidelines. He asked Mr. Hall if he could supply the Board with those guidelines for review.

13 Mr. Hall stated yes.

Mr. Hall stated that the *Model Ordinance* requires setbacks from principal structures and normally we would not consider a farm shed to be a principal structure but an accessory structure. He said that a comment was received this evening that the landowner was not keen on having to put up with the higher noise level at that accessory structure than would be permissible at the dwelling. He said he believes that Board could in fact include such a requirement but changes like that will only come if the Board requests such.

Ms. Capel stated that it could be written to have different setbacks for participating and non-participating landowners although according to Mr. Jarboe if there is a possible difference the landowner waives all those rights anyway.

Mr. Hall stated that he actually found that discussion confusing. He asked if the landowner is assured of receiving the minimum that the County establishes.

Ms. Capel stated yes, it is her understanding that when the landowner is given the choice they only receive the minimum.

Mr. Hall asked the Board if they would be interested in not distinguishing between accessory buildings and principal buildings.

Ms. Capel stated that she would be interested.

Mr. Thorsland stated that in some of the *Model Ordinances*, if you were a participating landowner, you had the ability to waive the setbacks therefore perhaps the accessory structures could be incorporated in to that waiver.

Ms. Capel stated that she does understand the concern raised by Ms. Gerdes regarding the noise level at her accessory structure, especially if she is a non-participating landowner.

Mr. Hall stated that he thought that the point raised about the proximity to flammable storage was a useful idea because not all principal buildings are as flammable as all the others. He said that he does not subscribe

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to planning for catastrophic failure but when it is 150,000 gallons of flammable liquid it could be just as catastrophic. He asked the Board if they would like to see some specific separations for items like that.

Mr. Thorsland stated that it could be a rated scale based on capacity or just a cutoff point.

Mr. Courson asked if the Board could prohibit placement within certain areas.

Mr. Hall stated that the Board could if it is proven that there is a real risk. He said that he does not know how deep the fiberglass blades can penetrate the earth but obviously they are a very strong structure. He said that the Board has received previous testimony that the pipelines are only buried four feet below grade.

12 Mr. Courson stated that same concerns should also be placed on water mains.

Mr. Hall stated that generally the water mains are located within the right-of-way therefore the wind turbine should be setback 1.1 times the overall height. He said that the issue would be in those instances when we know that a water main is not located within the right-of-way. He said that he has talked to the Manlove Gas Storage manager and as a company they are not opposed to having a wind farm on top of the gas storage area. He said that the land is not owned by the gas company but they do not see the wind farm causing a problem with their operation.

Mr. Thorsland stated that perhaps the setbacks could be stacked.

Mr. Roger Miller requested that they explain the noise levels at the wind farm.

Mr. Roger Miller asked Ms. Capel, Mr. Hall and Mr. Thorsland if they attended the Champaign County Farm Bureau Wind Farm Tour at the Twin Groves Facility in Leroy.

Ms. Capel, Mr. Hall and Mr. Thorsland stated yes.

rhythm to it.

Mr. Thorsland stated that they arrived at a site that had the minimum setback from the road, which was about 900 feet, so that they could be at the closest, accessible site. He said that the wind was approximately 23 miles per hour therefore the wind turbine was operating very well. He said that when he got off of the bus the natural wind noise was very loud and as he moved closer to the wind turbine he could start to hear a rhythmic noise that was coming from the tower. He said that he noticed that Mr. Hall was backing away from the tower and approximately half way between the road and tower he indicated that he could not hear the tower noise anymore. Mr. Thorsland stated that when you were approximately 400 feet from the wind tower you could not differentiate the tower noise from the natural wind noise except that there was some

Mr. Courson asked Mr. Thorsland if the noise would be a concern to livestock or horse boarding facilities that were located in close proximity of a wind tower.

Mr. Thorsland stated that he does not believe that there should be a concern. He said that he rides motorcycles, with and without a helmet, and there is a lot of wind noise. He said that he could not hear the

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noise generated by the wind turbine until he got closer to it but it was certainly a loud windy day. He said that he would have liked to have been at the wind farm on a day where the wind was perhaps only 10 miles per hour.

Mr. Hall stated that he believes that Mr. Farber indicated that the wind turbine that they visited was at the minimum distance from the road, which would have been the 1.1 times the overall height and it was approximately 500 feet from the road.

Mr. Thorsland stated that the tour was beneficial but there was only one wind turbine close to the visitors therefore the noise level might have been different if there were more. He said that currently the wind turbines must meet the State of Illinois standards for noise.

13 Mr. Courson asked what is the minimum wind speed required for the wind turbines to begin operating.

Mr. Thorsland stated that the wind turbines begin to generate at 10 miles per hour and are at maximum capacity at 22 miles per hour. He said that the wind turbines stop when the wind speed reaches 45 miles per hour and unlike the infamous video on the internet the wind turbines are turned off and must be manually restarted or unlocked. He said that the model in the video was a smaller, higher RPM model and people were working on the brake system. He said that the wind continued to pick up and the technicians could not fix the brake issue therefore causing the wind turbine to destruct and luckily someone just happened to be there with a camera.

Mr. Palmgren asked Mr. Thorsland if the wind turbines start by themselves when the wind reaches 8 to 10 MPH.

Mr. Thorsland stated that they were not able to go in to the operations center but he was told that the Twin Groves Facility has 50 full-time employees. He said that he is going to try to visit the operations center.

Mr. Thorsland asked the Board if there was any further direction for Mr. Hall and there was none.

7. Staff Report

None

8. Other Business

Ms. Capel asked Mr. Hall if the Board will ever have any minutes to approve or will they devote one entire meeting to just approving minutes.

Mr. Hall stated that there are several sets of minutes in process. He said that the Board will have the minutes of tonight's meeting at the February 26<sup>th</sup> meeting.

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

2/12/09 ZBA AS APPROVED FEBRUARY 26, 2009 None **10.** Adjournment Ms. Capel moved, seconded by Mr. Palmgren to adjourn the meeting. The motion carried by voice 7 vote. The meeting adjourned at 9:02 p.m. Respectfully submitted Secretary of Zoning Board of Appeals 

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