

MINUTES OF REGULAR MEETING

CHAMPAIGN COUNTY ZONING BOARD OF APPEALS

1776 E. Washington Street
Urbana, IL 61801

DATE: January 14, 2010 PLACE: Lyle Shields Meeting Room
1776 East Washington Street
Urbana, IL 61802

MEMBERS PRESENT: Doug Bluhm, Catherine Capel, Thomas Courson, Melvin Schroeder, Eric Thorsland, Paul Palmgren

MEMBERS ABSENT : Roger Miller

STAFF PRESENT : Connie Berry, John Hall, J.R. Knight

OTHERS PRESENT : Barbara Wysocki, Steve Burdin, Barbara Gerdes, Herb Schildt, Jeff Veazie, Jed Gerdes, Sherry Schildt, Phillip Geil, Lisa Karcher, Hal Barnhart, Carl Smith, Terry Ladage, Bill Fabian, Jeff Tock,

1. Call to Order

The meeting was called to order at 6:30 p.m.

2. Roll Call and Declaration of Quorum

The roll was called and a quorum declared present.

3. Correspondence

None

4. Approval of Minutes

None

Mr. Thorsland moved, seconded by Mr. Courson to re-arrange the agenda and hear Case 645-S-09, Robert and Barbara Gerdes prior to Case 634-AT-08, Part B. The motion carried by voice vote.

5. Continued Public Hearing

Case 634-AT-08 Part B. Petitioner: Zoning Administrator Request: Amend the Champaign County Zoning Ordinance as follows: 1. Add definitions for "SMALL WIND TURBINE TOWER" and "BIG WIND TURBINE TOWER" and revise the definition for "WIND FARM."; and 2. Amend subsection

1 4.2.1. to allow “BIG WIND TURBINE TOWER” as a second principal use on lots in the AG-1 and
 2 AG-2 Zoning Districts; and 3. Amend paragraph 4.3.1.E. to add new height regulations that apply to
 3 “SMALL WIND TURBINE TOWER” and “BIG WIND TURBINE TOWER.”; 4. In Section 5.2
 4 replace “wind turbine” with “BIG WIND TURBINE TOWER,” and indicate “BIG WIND TURBINE
 5 TOWER” is only authorized as a second principle use on lots in certain Zoning Districts; and 5. in
 6 Section 6.1.3. add new standard conditions for “BIG WIND TURBINE TOWER” that are similar to
 7 the standard conditions for a WIND FARM; and 6. Add new subsection 7.7 making “SMALL WIND
 8 TURBINE TOWER” an authorized accessory use by-right in all zoning districts and add
 9 requirements including but not limited to: (a) the turbine must be located more than one and one half
 10 miles from the nearest municipal zoning jurisdiction; and (b) minimum required yards that are the
 11 same as for other accessory structures in the district provided that the overall height is not more than
 12 100 feet; and (c) an overall height limit of 200 feet provided that the separation from the nearest
 13 property line is at least the same as the overall height and authorize private waivers of the separation
 14 by adjacent neighbors; and (d) a limit of no more than two turbine towers per lot; and (e) allowable
 15 noise limits; and (f) a requirement for engineer certification; and (g) a requirement to notify the
 16 electrical power provider if interconnected to the electrical grid; and (h) a requirement that no
 17 interference with neighboring TV, radio, or cell phone reception; and (i) a requirement for the
 18 removal of inoperable wind turbines. 7. In Section 9.3.1. add fees for SMALL WIND TURBINE
 19 TOWER and BIG WIND TURBINE TOWER; and 8. In Section 9.3.3. add application fees for BIG
 20 WIND TURBINE TOWER Special Use Permit.

21
 22 Mr. Hall distributed a new Supplemental Memorandum dated January 14, 2010, to the Board for review. He
 23 said that the new memorandum has new information and a new draft finding of fact. He said that in the
 24 January 8, 2010, Supplemental Memorandum the Illinois Pollution Control Board’s Class C to Class B noise
 25 rating was discussed and unfortunately when he calculated the noise rating he used the incorrect limits and
 26 instead of being 49 decibels it should be 61 decibels. He said that Page 12 of the handout titled, *Wind*
 27 *Turbine Noise Issues* by Anthony L. Rogers, Ph.D. and James F. Manwell, Ph.D. includes a Figure 7.
 28 Sample wind turbine noise from a wind turbine. He said that based on information in the report the Class C
 29 to Class B standard is so high that no minimum separation from adjacent businesses appears to be warranted.
 30 He said that the noise curve begins at 60 decibels when the turbine itself puts out 102 decibels therefore
 31 what the diagram tells staff is that a wind farm tower with a height of 150 feet at the base of the tower the
 32 noise level is reduced from 102 decibels to 60 decibels. He said that if a wind farm turbine has that great of
 33 a noise reduction just due to the height then for Class C to Class B where the noise limit is 61 decibels he
 34 does not believe that there is a noise issue because there is only going to be some distance to the property
 35 line and as Figure 7. indicates, virtually within a few feet it is already less than 60 decibels. He said that he
 36 is somewhat embarrassed relying on this graph but it is the only information that he has. He said that the
 37 Supplemental Memorandum dated January 14, 2010, gets rid of any separation requirements for distances
 38 from a small wind turbine for businesses. He said that Page 3 of the Supplemental Memorandum indicates
 39 that Item (b)(3) referring to any separation to the nearest property line on which a business use is established
 40 has been stricken.

41
 42 Mr. Hall stated that the Supplemental Memorandum dated January 14, 2010, includes revised paragraph
 43 7.7.B. that clarifies the relationship of maximum allowable height to minimum required side and rear yard.
 44 He said that in regards to rotor diameter the revised paragraph 7.7.C. clarifies that the limits for rotor

1 diameter apply to both vertical and horizontal axis wind turbines. He said that amended subparagraph
2 7.7.F.2. is based on the corrected Class C to Class B noise limit and other minor changes. He said that new
3 subparagraph 7.7.F.4. indicates the following: The Zoning Administrator shall include with any zoning use
4 permit for a SMALL WIND TURBINE TOWER a statement that compliance with these requirements does
5 not necessarily indicate compliance with the Illinois Pollution Control Board noise regulations. He said that
6 the way that the current draft ordinance deals with noise is that what the Board approves could still violate
7 the ICPB noise regulations because the Board and staff does not know if the ICPB and the IEPA are willing
8 to consider a residential wind turbine as a Class C land use. He said that the ICPB and the IEPA could
9 easily indicate a residential wind turbine is a Class A land use in which the allowable noise limit reduces
10 from 46 decibels to 38 decibels. He said that it is unknown what the ICPB and the EPA will think if a
11 turbine is built where there are no residents within 900 feet therefore by their own rules there is no noise
12 limit but the next day a home could be built right over the property line in which case there is Class C noise
13 going to a Class A land use. He said that there is no way of knowing how this situation will be dealt with by
14 ICPB or the IEPA because there is no one to ask so what the County should do is decide what the County
15 finds acceptable for the *Zoning Ordinance* and then include this notice, included in new subparagraph
16 7.7.F.4., so that landowners do not have a false understanding. He said that the County is not trying to
17 encourage arguments between neighbors but he believes that the County is obligated to make people aware
18 of this issue. He said that the most important thing that he would like to hear from the Board at tonight's
19 hearing is about the new approach to noise. He said that what went out in the January 8, 2010,
20 Supplemental Memorandum was not a change from previous versions of the amendment but was much more
21 specific.

22

23 Mr. Bluhm asked the Board if there were any questions for Mr. Hall.

24

25 Mr. Courson stated that the IEPA may revise their noise standards in the future therefore he believes that the
26 notice to landowners is an excellent idea. He said that he also believes that the restriction of no more than
27 two turbines is too small and he would like to see four off-grid residential turbines allowed because it is
28 cheaper to run four 12-volt small turbines than two large turbines.

29

30 Mr. Hall asked Mr. Courson if those are generally at a limited rating.

31

32 Mr. Courson stated that the rating on those turbines is 500 watts.

33

34 Mr. Hall asked Mr. Courson if he is comfortable in indicating the allowance of four small wind turbines or
35 allowing four that are each less than 10 kilowatts.

36

37 Mr. Courson stated no, he would rather just indicate the allowance of four.

38

39 Mr. Hall stated that in stating that four turbines are allowed then the County could end up with four 100
40 kilowatt small wind turbines.

41

42 Mr. Courson stated true, if someone had that much land and money.

43

44 Mr. Bluhm called Mr. Herb Schildt to testify.

1
2 Mr. Herb Schildt, who resides as 398 CR 2500N, Mahomet submitted and read a prepared statement. He
3 stated the following: As you know, I am Chairman of the Newcomb Township Plan Commission. He said
4 that Case 634-AT-08, Part B is still under review by the township and tonight he is speaking strictly for
5 himself. He said that it is his view that all proposed wind turbine installations must meet the IPCB noise
6 standards before they are permitted and there must be no exceptions. He said that in other words, the
7 County must not grant permits for wind turbines in situations that do not meet Illinois regulations and it is
8 difficult for him to imagine arguments to the contrary. He said that the noise standards are also important
9 because they contribute to that delicate balance between the right of one landowner to install a wind turbine
10 and the right of an adjoining landowner to be free of adverse effect. He said that simply put he sees the
11 noise requirement with no exceptions as a crucial part of this amendment.

12
13 Mr. Schildt added that he would find the allowance of four small wind turbines very troubling.

14
15 Mr. Bluhm asked the Board if there were any questions for Mr. Schildt.

16
17 Mr. Courson asked Mr. Schildt how he would determine taking wind noise measurements on a wind turbine
18 that has not been constructed.

19
20 Mr. Schildt stated that he believes that Mr. Hall's current proposal is very good. He said that the County
21 would need to rely on manufacturer's data. He said that he agrees with Mr. Hall in that he does not believe
22 that the County needs to enforce it but he has trouble with the County permitting something that does not
23 meet Illinois law.

24
25 Mr. Courson asked Mr. Schildt if the manufacturer's rating would be sufficient.

26
27 Mr. Schildt stated that the manufacturer's rating would be better than nothing. He said that Mr. Hall pointed
28 out at the November 19, 2009 meeting that the box rating could produce noise levels that would exceed
29 IPCB standards if they were not adjusted.

30
31 Mr. Hall asked Mr. Schildt if he is comfortable with the current version which indicates that if there is no
32 dwelling within 900 feet, Class A land use, then there is no worry about the noise output from the wind
33 turbines because there are no IPCB noise regulations that would apply. He said that the IPCB noise
34 regulations only apply when the Class C sound gets to a Class A land use.

35
36 Mr. Schildt stated that he is not sure that he would characterize the term as Class C sound but staff is
37 offering the ZBA the option of selecting a threshold at which the noise regulations would be applied and that
38 is more the direction of his commentary. He said that there should be no exceptions because noise is noise
39 no matter what the size of the turbine that generates it.

40
41 Mr. Hall stated that Mr. Schildt's last comment is the reason for his question because Mr. Schildt indicated
42 that he agreed with enforcing the IPCB noise regulations and his position is that all the County can do is its
43 best attempt at implementing the IPCB noise regulations. He said that the County is not the IEPA.

44

1-14-10

AS APPROVED FEBRUARY 1, 2010

ZBA

1 Mr. Schildt stated that he believes that Mr. Hall misunderstood his statement. He said that he agrees with
2 Mr. Hall in that the County cannot be in an enforcement position after the fact but it is in the position to not
3 grant permits to devices that “out of the box” indicate that is known to violate the IPCB standards, i.e.:
4 Illinois law.

5
6 Mr. Hall stated that his understanding of Illinois law is that if someone comes to staff and indicates that they
7 have a wind turbine that is rated at 100 decibels and there is no one who lives within one-quarter mile of
8 their property then that wind turbine would meet the IPCB noise regulations.

9
10 Mr. Schildt stated that if it meets the regulation then it meets the regulation. He said that nothing that he has
11 said conflicts with Mr. Hall’s statement.

12
13 Mr. Hall informed Mr. Schildt that he has not gone on record to indicate that he agrees with the approach
14 proposed in the draft ordinance.

15
16 Mr. Schildt stated that there are problems with the draft ordinance because there is an option of a threshold.

17
18 Mr. Hall agreed that the italicized area in amended subparagraph 7.7.F.2. does need to be addressed by the
19 Board.

20
21 Mr. Schildt stated that the italicized area in that subparagraph is the threshold that he has been referring to
22 and when he indicates no exceptions that is what he is talking about. He said that he had just assumed that
23 everyone had done their homework.

24
25 Mr. Hall stated that he has done his homework but he did not realize what he was speaking about.

26
27 Mr. Schildt stated that he should have elaborated more on what he was discussing in regards to the threshold
28 option. He said that in Mr. Hall’s memorandums he has made a very strong point about offering an option
29 in shaded and italicized text.

30
31 Mr. Hall stated that the shaded and italicized text came from the last meeting where the Board discussed the
32 idea that instead of applying the IPCB noise regulations across the board to all wind turbines maybe they
33 only need to be applied to those wind turbines that make more noise. He said that this was before he had a
34 better understanding of what the IPCB noise regulations are really all about. He said that currently he does
35 not believe that the Board needs to apply those regulations to only some and not others but it is clearly the
36 Board’s choice. He said that if the Board would review the Supplemental Memorandum dated January 14,
37 2009, subparagraph 7.7.F.2. indicates shaded and italicized text which indicates the following: with a
38 manufacturer’s nameplate rating of more than 5/10/40 kilowatts. He said that if the Board chooses to do this
39 then the County is apt to receive noise complaints in some instances when not allowing that threshold should
40 have guaranteed no valid noise complaints. He said that no matter what the County does it is apt to get
41 noise complaints but the question is whether or not they will be valid therefore if the Board chooses not to
42 require this noise limit for some class of wind turbines then the County will receive noise complaints that
43 are probably valid. He said that it still isn’t going to be a violation of the *Zoning Ordinance* but it is not a
44 good situation.

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Mr. Schildt stated that this is what he was stating when he indicated no exceptions. He said that it is difficult for him to imagine successful arguments to not require an installation that meets the Illinois regulations. He said that he would recommend that the shaded and italicized text be removed from amended subparagraph 7.7.F.2.

Mr. Hall stated that relevant evidence in the Supplemental Memorandum dated January 14, 2010, has been added which summarizes what staff found about noise. He said that Page 14 of the Revised Draft Finding dated January 14, 2010, Item (d) An informal review of wind turbine manufacturers indentified the following manufacturers who claim noise ratings that equal or exceed the IPCB noise regulations: i: Swift Wind Turbine which is a 1.5kW; and ii: Kestrel e400ⁱ which is a 3kW; and iii: Jacobs 31/20 which is a 20kW with a 300 foot separation; and iv: Honeywell WT650 which is a 2.2kW; v: Falcon line of vertical axis wind turbines and; vi: Hummer line of horizontal axis wind turbine which is 500W up to 20kW. He said that the manufacturers of these wind turbines indicate that they meet the IPCB noise standards therefore there is a pretty broad range of wind turbines that do comply with the IPCB noise regulations. He said that this noise standard would limit the choices for many rural residences because it would be easy to be within 900 feet from an adjacent dwelling in the rural area. He said that Mr. and Mrs. McCall have been very interested in this text amendment because they desire to construct a wind turbine but all of their property is within 900 feet of two adjacent dwellings therefore they will have a limited choice of wind turbines if the Board goes with the draft that is before them. He said that he actually believes that the Board choosing to go with this draft would be a reasonable thing to do but he wishes that the McCalls were present at tonight's meeting so that they could present comments.

Mr. Schildt stated that the McCalls would not be too limited because there are at least a half dozen models available.

Mr. Schildt stated that he still finds the allowance of four wind turbines unacceptable.

Mr. Hall asked Mr. Schildt if he would find the allowance for four turbines more acceptable if the nameplate ratings were limited.

Mr. Schildt stated that he could imagine four really little wind turbines that probably wouldn't bother anyone but he cannot begin to imagine what Champaign County would look like if people started putting up four, by-right, really large turbines all over the place. He said that four 100 kW wind turbines is essentially a wind farm and that is not the intent of small wind. He said that if someone really wants to do something like that there are provisions in the zoning code and they can apply for a wind farm because there is nothing that would stop someone from applying. He said that if the use is limited to their property perhaps a wind farm special use permit would be obtainable.

Mr. Hall stated that such a use would not really be a wind farm.

Mr. Schildt stated that effectively it would be a wind farm. He said that if someone owned two separate lots then they could place eight wind turbines and then they would actually qualify as a wind farm.

1 Mr. Hall stated that in that instance the two lots would be treated as one zoning lot and the owner would still
2 be limited to four turbines.

3
4 Mr. Schildt asked if that would be the instance if it were under two different owners.

5
6 Mr. Hall stated that two different owners would be an entirely different situation because there would be two
7 different properties.

8
9 Mr. Schildt stated that the wind turbines could be owned by one owner on two different properties therefore
10 the point is that it is hard for him to image four 100 kW wind turbines on land in residential areas and it
11 would be a real stumbling block for him with this ordinance.

12
13 Mr. Bluhm asked the Board if there were any additional questions for Mr. Schildt and there were none.

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15 Mr. Bluhm asked if staff had any additional questions for Mr. Schildt and there were none.

16
17 Mr. Bluhm called Mr. Jeff Tock to testify.

18
19 Mr. Jeff Tock stated that he had no comments to present to the Board regarding this case at this time.

20
21 Mr. Bluhm called Mr. Phillip Geil to testify.

22
23 Mr. Phillip Geil, who resides at 2060B CR 125E, Mahomet stated that he has a 10kW turbine. He said that
24 no one could put up four 100kW turbines because they could not do anything with the electricity that they
25 produce. He said that a person cannot present more electricity back to the electric company than they could
26 effectively use in terms of net metering. He said that someone may put four 10kW turbines and that would
27 just about supply the electricity that he uses at the present time. He complimented Mr. Hall because he does
28 believe that this is a very good ordinance at the present time.

29
30 Mr. Geil stated that in regards to the noise issues he would like to say that even at the highest wind his
31 turbine cannot be heard. He said that the only time that he hears his turbine is when it essentially furls
32 automatically because the wind is too high and the blades are slowing down. He said that if the Board
33 would review one of the references that were made available they would see that the Bergey unit produces
34 no more noise than essentially the surrounding noise from the wind itself. He said that there is no wind
35 noise issue with the turbine that he has and that is standing underneath it or anywhere on his lot.

36
37 Mr. Bluhm asked the Board if there were any questions for Mr. Geil and there were none.

38
39 Mr. Bluhm asked if staff had any questions for Mr. Geil.

40
41 Mr. Hall stated that Mr. Geil's turbine is an interesting example because his turbine is within 900 feet from
42 at least one neighbor's dwelling and no complaints have been received. He said that the noise standards that
43 Mr. Geil described in his testimony that his turbine cannot be discerned from the surrounding sound is more
44 than is allowed by the IPCB regulations therefore the draft ordinance which Mr. Geil complimented would

1 not allow the re-construction of his wind turbine without a variance. He said that all of the data that staff
2 has received regarding Bergey units indicates that they exceed the IPCB regulations.

3
4 Mr. Geil stated that he believes that he has an earlier NREL report than the one that was distributed to the
5 Board for review. He said that there were two different Bergey units that were reviewed in this report and
6 the unit that he has is the second unit that was reviewed. He said that he will find this report and submit it to
7 staff for review and distribution. He asked that if his unit cannot be heard why would the County be worried
8 about the noise that it produces?

9
10 Mr. Hall stated that is a good question for the Board.

11
12 Mr. Geil stated that if his unit exceeds the limit then the limit makes no sense.

13
14 Mr. Bluhm asked the Board and staff if there were any further questions for Mr. Geil and there were none.

15
16 Mr. Bluhm called Mr. Terry Ladage to testify.

17
18 Mr. Ladage stated that he had no comments regarding Case 634-AT-08, Part B at this time.

19
20 Mr. Bluhm called Mr. Steve Burdin to testify.

21
22 Mr. Steve Burdin, who resides at 2527 CR 450E, Mahomet stated that he submitted a packet at the end of
23 December for the Board's review and he hopes that the Board enjoyed it. He said that a couple of things
24 have come up since he submitted this packet in December and discussed those changes. He said that as the
25 Board may recall in the document he had contacted Windtronics and WePower and the response that was
26 received from Windtronics was disappointingly untechnical because it appeared that the technical sales
27 people were not very informed about acoustics. He said that he received a call from the WePower sales
28 technicians which turned out to be just as technically nonexistent as the one from Windtronics because the
29 technicians were not able to give information on how the measurements were done and they did not give
30 him the impression that they were trying to pursue a more authoritative measurement. He said that he did
31 learn from one of the Windtronics sales technicians that along Interstate 80 and U.S. Route 30 near New
32 Lennox a WT6500 blade tip power system wind turbine unit is proposed for testing with the hope of
33 installing 150 units therefore if the Board is interested they may get a chance to listen to one of these units.
34 He said that he mentioned in the packet the costs and how this might become more attractive. He said that a
35 Honeywell turbine has a MSRP of \$5,995 which is pretty low in price when you compare other turbine
36 prices especially if you consider the \$1,500 installation cost that is quoted by Honeywell. He said that Mr.
37 Geil commented that given the amount of money involved someone could use solar power far more cost
38 effectively than any wind and this may become a game change which would make hybrid systems more
39 attractive.

40
41 Mr. Burdin stated that he received a copy of the *Wind Turbine Noise Issues* from the University of
42 Massachusetts at Amherst in his packet and the document is a good paper with a lot of information. He said
43 that Page 5 includes an error which indicates that the threshold of pain for the human ear is about 200Pa
44 when it should truly read 20Pa and this can be verified by the cartoon illustrated on Page 6 of the document.

1 He said that whether the document is addressing sound pressure or sound power is not the reason why
2 decibels would be used and the sentence on Page 5 implies that indication. He said that the only reason why
3 decibels are used is to make it more convenient to represent very largely spaced numbers. He said that a
4 factor of 100,000 is the human hearing range which is a pretty big number therefore they use decibels to
5 make it convenient. He said that whether sound pressure or sound power is a preferable unit to some extent
6 depends, and he could argue his case because he is really concerned with what he hears in comparison to
7 where he is standing and that is sound pressure not sound power which is a function or property of where the
8 sound is emitted at the point of emission.
9

10 Mr. Burdin stated that Page 7 of the *Wind Turbine Noise Issues* document discusses the simple 6dB rule
11 which may be easier to use to judge how sound falls with distance than what he discussed in his packet. He
12 said that Page 18 discusses measurements and what is frustrating is that when Sony makes an acoustic
13 measurement an engineer is going to ask how the measurements were determined. He said that everybody
14 who does this will say that they used IEC 61400-11 and that is fantastic however he cannot get his hands on
15 IEC 61400-11 unless he shells out about \$2,000. He said that industry loves their standards and they do not
16 like anyone else to change them or propose something differently but the paragraph on Page 18 raises the
17 specter of the possible inadequacy of how the measurements are done. He said that he raised this issue
18 during the wind farm ordinance and there are several lower noise units which are available and the
19 ordinance should be flexible enough to allow people to put up turbines even in areas with higher population
20 density. He said that when he saw the draft of the City of Champaign's ordinance he was concerned about
21 how restrictive it might be but it was actually embracing the possibility of wind power.
22

23 Mr. Bluhm asked the Board if there were any questions for Mr. Burdin and there were none.
24

25 Mr. Bluhm asked if staff had any questions for Mr. Burdin.
26

27 Mr. Hall stated that in Mr. Burdin's document he made several valid criticisms of fixed separation
28 requirements. He said that he spoke about site specific determinations although staff has been unable to
29 come up with anything that would work on a permitting basis. He asked Mr. Burdin how this could be done
30 on an as of right basis.
31

32 Mr. Burdin stated that his initial idea was to have some sort of pamphlet which would indicate a simple way
33 for people to figure, by themselves, how loud the turbine will be at any given distance. He said that he is not
34 sure if a pamphlet is something that the County could generate for distribution or if the County even expects
35 to hear from landowners if they are doing some by-right before they try to install a wind energy system. He
36 said that he believes the calculations could be made pretty understandable for people and to a certain extent
37 the County could indicate that if a turbine is over 100 decibels then they need to be careful and if 30 decibels
38 then there is no worry. He said that one area of the ordinance states that a fixed setback will be required for
39 an equivalent that does not have a specification for sound therefore it could be changed to state that if no
40 noise specifications are indicated then the turbine should not be considered by the owner.
41

42 Mr. Hall stated that if the County could hire a noise consultant to develop such guidance then he believes
43 that it could help some people but for most manufacturers who provided the noise data that noise data was
44 less than the IPCB standards.

1
2 Mr. Burdin stated that if there is no noise data to begin with then perhaps the County could discourage
3 people from considering those units. He said that to some extent there is no wind turbine that does not meet
4 certain regulations because it depends on where it is being placed as to where you are measuring the noise.
5 He said that if the County expects people to contact them or inquire on wind energy then perhaps some
6 guidelines would be appropriate for distribution to the public. He said that these guidelines may be better
7 than hiring some professional noise consultant to prepare something really fancy.
8
9 Mr. Bluhm requested that Mr. Burdin indicate the section of the Finding of Fact that indicates the fixed
10 separation.
11
12 Mr. Hall stated that on Page 13 of 29 of the Revised Draft Summary of Evidence dated January 14, 2010,
13 paragraph xiii. indicates the following: A fixed separation for noise can have undesirable results such as
14 overprotection if it is larger than necessary. Unless the separation is set so low that it will clearly be
15 inadequate in some instances there will always be some degree of overprotection.
16
17 Mr. Thorsland stated that paragraph xv. indicates the following: landowners who feel that the 900 feet
18 separation is unreasonable will have to apply for a variance and provide convincing and reliable evidence
19 regarding the noise performance of their desired wind turbine. Such evidence will probably have to be
20 developed by a professional noise consultant. He said that he believes that the 900 foot setback is too
21 excessive. He said that if he was looking to purchase a turbine and he was the one that would be sitting the
22 closest to it he would not pick out the Bergey which is 120dB when he could pick out the Honeywell which
23 indicates that he won't hear it all. He said that Mr. Burdin has a valid point that if a turbine does not have a
24 sound rating then the larger setback should be required. He said that he was uncomfortable with a ten foot
25 side yard setback with a 150 foot tower but not with a 50 foot setback with a 150 foot tower.
26
27 Mr. Bluhm asked the audience if anyone desired to sign the witness register to present testimony regarding
28 this case and there were none.
29
30 Mr. Bluhm closed the witness register.
31
32 Mr. Hall asked the Board if they desired to eliminate the threshold.
33
34 Mr. Thorsland stated yes. He said that he does not believe that the technology will make the turbines less
35 powerful and noisier but will make them quieter and more powerful. He said that people can find a turbine
36 which is the desired size and get it on the lot without exceeding the limits of the IPCB. He said that he
37 would be more interested in allowing four units per lot.
38
39 Mr. Hall stated that Page F-3 of Attachment F. of the January 7, 2010, Supplemental Memorandum Item
40 #E.2 indicates that no more than two small wind turbine towers shall be authorized on a lot with three acres
41 or more lot area provided that no more than one non-residential accessory small wind turbine tower shall be
42 authorized less than 1,200 feet from the nearest dwelling that is under different ownership and conforming
43 to use.
44

1-14-10

AS APPROVED FEBRUARY 1, 2010

ZBA

1 Mr. Thorsland stated that he is very intrigued by the Honeywell unit and he would not want his property to
2 be limited to just two units because he could personally see use for one unit for one structure and another
3 unit for a different structure on his property. He said that the turbines are getting smaller, quieter, cheaper
4 and more efficient. He recommends four units.

5
6 Mr. Bluhm stated that it could be stated that no more than two units are allowed on a property without a
7 special use permit.

8
9 Mr. Hall stated that if more than two units were desired then a variance would be required.

10
11 Mr. Courson stated that it depends on what type of system someone is considering. He said that the County
12 is telling one person that if they only want a 24-volt system then they could have two units but if they are
13 going to install a 48-volt system then they have to get a variance.

14
15 Mr. Hall stated that if the Board just indicates four and no limit is placed upon those four then the Board is
16 only considering four pretty small turbines.

17
18 Mr. Courson stated that on his lot he could build a 100,000 square foot house but he does not have \$100
19 million dollars to do so therefore someone is not going to put \$5 million dollars worth of turbines on their
20 property to run a household.

21
22 Mr. Hall stated that if the four turbines do not meet the IPCB standards then a variance will be required
23 anyway.

24
25 Mr. Courson stated that if someone is on 160 acres in CR then they would need more than two small towers.

26
27 Mr. Thorsland stated that he has a neighbor with a lot of money and a lot of land and he could not see that
28 neighbor wanting to be limited to two units.

29
30 Mr. Hall stated that going with four units per property with no limits could generate some protests.

31
32 Ms. Capel asked Mr. Hall what type of limit would be reasonable.

33
34 Mr. Courson stated that four 10kW units would be more than anyone would need.

35
36 Mr. Hall stated that currently there is no power limit on two units and it could be left that way and add text
37 indicating that four is allowed as long as they do not exceed 10kW each.

38
39 Mr. Courson asked Mr. Hall if it would be better to add that text or just put a total cap of 50kW on it
40 regardless of someone having one or four units.

41
42 Mr. Hall stated that there is no kilowatt rating in the definition of small wind.

43
44 Mr. Thorsland stated that someone could have two at whatever kilowatt rating they want or four if they are

1 no more than 10kW each.
2
3 Mr. Hall stated that Mr. Thorsland is indicating that no power rating would be on the limit of two.
4
5 Mr. Courson stated that he would have no problem with stating that no more than four turbines with a total
6 cap of 100 kW is allowed.
7
8 Mr. Hall read the following text for the Board's consideration: No more than two or more than four
9 provided the total rating is no more than 40 kW.
10
11 Mr. Bluhm stated that the previously read text appears to apply for both the two and the four.
12
13 Mr. Hall stated that this is why it is very hard to draft text on the spot.
14
15 Mr. Palmgren stated that a maximum of four units up to a maximum of 50kW.
16
17 Mr. Bluhm stated that the problem with that is that there are no power ratings in the definition of small
18 wind.
19
20 Mr. Hall stated that as the Zoning Administrator he is concerned that currently there is no limit when
21 someone just has two units and no one has complained.
22
23 Mr. Thorsland stated that someone could desire to have one unit that is 30kW and three additional units for
24 his outbuildings for his chickens.
25
26 Mr. Bluhm stated that the three additional units would be exempt because chickens are agriculture.
27
28 Mr. Hall stated that for the four units it would make more sense to limit the total rating and that way the
29 property owner has options. He said that if they buy one unit one year and five years they may want an
30 additional unit.
31
32 Mr. Thorsland stated that the Board is going to use a total rating on four units then it would make sense to
33 use the same rating on two units.
34
35 Mr. Courson stated that he would recommend 40kW for two or 40kW cap for four.
36
37 Mr. Hall stated that Item #E.2. on Page F-3 should be revised to indicate the following: No more than four
38 small wind turbine towers with a total rating of no more than 40kW shall be authorized on a lot with three
39 acres or more lot area provided however that no more than one non-residential accessory small wind turbine
40 tower shall be authorized less than 1,200 feet from the nearest dwelling that is under different ownership and
41 conforming to use.
42
43 Ms. Capel stated that we would be limiting any small wind application on three acres to 40kW.
44

1 Mr. Courson stated yes.
2
3 Mr. Hall stated that even with no more than one turbine it could only go up to 40kW.
4
5 Ms. Capel asked the Board members if this is truly the intention.
6
7 Mr. Thorsland stated that the variance process is available if a larger unit is desired.
8
9 Mr. Hall stated that the other unintended consequence is that if a business desired to put up a 100kW turbine
10 that would require a variance to do so.
11
12 Mr. Thorsland asked if a business would already be a variance case.
13
14 Mr. Hall stated no. He said that before the revision a business could put up a 100kW small wind turbine and
15 provided that they met the separation for noise and the separation for rotor diameter it would be by-right.
16
17 Mr. Courson stated that the limit could be raised to 100kW total.
18
19 Mr. Hall stated that the Board could indicate several options such as there is no limit on the output of one
20 turbine but more than one, with a limit of four, would have a total rating limit 40kW.
21
22 Ms. Capel stated that the Board discussed having no rating limitation on two turbines and she agrees with
23 that limitation. She said that two small turbines is better than one really big turbine and if someone truly
24 requires four turbines on their property then there is a limit of 40kW total.
25
26 Mr. Courson stated that someone could need two turbines for the same reason that they needed four but they
27 could also get by with one turbine.
28
29 Mr. Hall asked Mr. Courson what he would consider as too big for one turbine.
30
31 Mr. Courson stated that he had a grain elevator stop by his home to ask questions about his turbine because
32 the cost of propane is getting too high to run the dryers. He said that the gentleman did not like the answer
33 to his question about how much it would cost to install a turbine large enough to run his dryer but he could
34 see someone needing a large turbine, 100kW, to run their grain dryers. He said that a turbine large enough
35 for his purpose would probably cost in the range of \$1 million dollars therefore the gentleman decided that
36 he would stay with propane to fuel his dryers.
37
38 Mr. Bluhm asked the Board if they prefer allowing one turbine with no rating limit.
39
40 Ms. Capel stated no. She said that she would prefer allowing two turbines with no rating limit and anything
41 above two turbines would have a total rating unit of 40kW.
42
43 Mr. Hall stated that the finding of fact indicates that a Vestas V17, 9kW unit typically costs \$180,000
44 installed on a 132 foot tower.

1
2 Mr. Schroeder stated that his electrical bill costs \$250 per month and he runs his grain dryers too therefore
3 why would he waste money on such a unit and pay taxes on it. He said that there are very few people that
4 should even consider this option unless they want to throw their money away.
5
6 Mr. Hall stated that this ordinance will apply to business applications as well as the average homeowner.
7
8 Mr. Schroeder stated that the average homeowner will not be able to afford it and it may even be
9 questionable for a business owner.
10
11 Mr. Thorsland stated that it would help some people if a business was allowed to install a 100kW turbine
12 without a public hearing.
13
14 Mr. Hall stated that the way the ordinance is drafted currently no more than one non-residential accessory
15 small wind turbine tower shall be authorized less than 1,200 feet from the nearest dwelling. He said that
16 currently if a business does install a 100kW turbine it will be the only unit that can be placed on the property
17 and it has to be at least 1,200 feet from the nearest dwelling.
18
19 Mr. Thorsland stated that the business has a limit already without a variance therefore the ordinance does
20 treat a business a little differently.
21
22 Mr. Hall stated that the change that the Board made earlier regarding a cap of 40kW would also cap the
23 business at 40kW although the business owner could come to the Board to request a variance.
24
25 Mr. Thorsland asked Mr. Hall what the fee would be for a variance request.
26
27 Mr. Hall stated that a variance would cost \$200 but the real problem is staff time and the Board's time.
28
29 Mr. Thorsland asked if there was a way that the Board could split a business use from this part of the
30 ordinance.
31
32 Mr. Hall stated yes, it is all in the way that the Board writes the ordinance.
33
34 Mr. Thorsland stated that he believes that a business should be treated differently. He said that Ms. Capel
35 has a valid point in that someone could have enough land to install two turbines but to keep from turning the
36 acreage into a miniature wind farm appears to be a problem.
37
38 Mr. Courson stated that the Board could limit one turbine at 100kW or four turbines with a total rating of
39 100kW.
40
41 Mr. Hall stated that the text in Item #E.2 on Page F-3 could indicate the following: No more than 4 small
42 wind turbine towers with a total capacity of 100kW shall be authorized on a lot with three acres or more lot
43 area. He said that if it is a business that installs one 100kW turbine then that is okay but they cannot install
44 any more but a homeowner could install four turbines provided that the a total capacity is not over 100kW.

1
2 Mr. Courson stated that the homeowner could also install one 100kW turbine.
3
4 Mr. Hall stated yes.
5
6 Mr. Thorsland stated that if either is at its capacity and required additional turbines then they could request a
7 variance.
8
9 Mr. Hall stated yes.
10
11 Mr. Hall read the text for Item #E.2. for the Board: No more than 4 small wind turbine towers with a total
12 capacity of no more than 100kW shall be authorized on a lot with three acres or more lot area provided
13 however that no more than one non-residential accessory small wind turbine tower shall be authorized less
14 than 1,200 feet from the nearest dwelling that is under different ownership and conforming to use.
15
16 Mr. Thorsland stated that the Board could be evil and indicate that no more than 99.99kW which would
17 knock out all of the 25kW units out of the picture.
18
19 Mr. Hall suggested that the Board not be that evil.
20
21 Mr. Courson stated that this text gives more flexibility to the property owner.
22
23 Mr. Hall stated that the text does not give flexibility to non-residential uses because they can only have one
24 if they are less than 1,200 feet from the nearest dwelling. He asked the Board if this was reasonable.
25
26 Mr. Thorsland stated that this is without a variance.
27
28 Mr. Hall stated yes.
29
30 Mr. Thorsland stated that if the business owner has a good reason then they can pony up and request a
31 variance.
32
33 Mr. Hall stated that if they even want to put two 10kW units they still need to come before the Board for a
34 variance.
35
36 Ms. Capel stated that this would hold non-residential properties to a different standard and that does not
37 make sense.
38
39 Mr. Hall stated that the limit goes back to the time when there was no limit on kilowatt ratings. He said that
40 the text in Item #E.2. could be revised to indicate the following: No more than 4 small wind turbine towers
41 with a total capacity of 100kW authorized on a lot with three acres or more lot area.. He said that if the
42 business does one 100kW unit then that is all that they can have without a variance otherwise they are more
43 like a residence in that they could have four smaller units and separation based on rotor diameter will always
44 be there. He asked the Board if they agreed to the new text for Item #E.2.

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The Board agreed to have Item #E.2. to read as follows: No more than 4 SMALL WIND TURBINE TOWERS with a total capacity of 100kW authorized on a lot with three acres or more LOT AREA.

Mr. Hall stated that Page F-6 Item N. of Attachment F. of the Supplemental Memorandum dated January 8, 2010, discusses replacement of an existing turbine. He said that when someone originally installs their wind turbine it may not be within 900 feet of a dwelling but when it comes time to replace the turbine that situation may have changed. He said that he believes that a permit should be required for the replacement of a wind turbine and it may be difficult to enforce because people may believe that they do not need a permit but it should be required.

Ms. Capel asked what the fee would be for replacement.

Mr. Hall read Item #N as follows: In the event of destruction by any means or the need for replacement, wind turbine towers and wind turbines located more than one-and-one half miles from an incorporated municipality that has a zoning ordinance may be replaced as follows: 1. the wind turbine may be replaced on the original tower pursuant to a new Zoning Use Permit provided that the replacement complies with all manufacturer's safety recommendations and requirement. He said that if someone could still get a turbine back on the existing tower then this text would grant the property owner that right, even if there is a dwelling next door. Mr. Hall read N.2. as follows: 2. If a replacement wind turbine cannot be installed on an existing wind turbine tower in compliance with all manufacturer's safety recommendations and requirements and a new small wind turbine tower is required the new small wind turbine tower shall be in full compliance with these regulations. He said that if residences come in next door and the turbine owner cannot get a wind turbine to go back on the original tower then everything has to be in compliance and the owner's choice of turbines may be limited.

Mr. Thorsland stated that presumably the wind turbine was up and running when new residences were constructed therefore the new property owners were aware of its existence.

Mr. Hall stated this would be an instance when the County granting this permit could well be in violation with the IPCB standards.

Ms. Capel stated that a permit would be required to replace a turbine on the top of an existing tower.

Mr. Bluhm stated not if the existing tower can be used.

Ms. Capel asked why the County would be in violation.

Mr. Hall stated that a zoning use permit needs to be required for any replacement so that there is assurance of reliable enforcement. He said that if a permit is not required the County will not know if the property owner is only replacing the turbine.

Ms. Capel asked Mr. Hall how the County will know that the turbine is being replaced any way.

- 1 Mr. Hall stated that it will be indicated on their permit application.
- 2
- 3 Mr. Capel asked what if they do not get a permit.
- 4
- 5 Mr. Hall stated that this is true for the whole *Zoning Ordinance* because there are times when no one bothers
- 6 to contact the office and then they later find that they are in violation.
- 7
- 8 Mr. Courson stated that a lot of the towers come up and down for maintenance. He asked Mr. Hall if the
- 9 County will require a permit if someone takes a tower down to replace a damaged blade and then puts the
- 10 system back up.
- 11
- 12 Mr. Hall stated no.
- 13
- 14 Mr. Bluhm stated that if the turbine is destroyed or it just wears out and a new whole new turbine is required
- 15 then a permit is required for that replacement.
- 16
- 17 Mr. Courson stated that he believes that it is too restrictive. He said that he has had two turbines come down
- 18 therefore he would have had to have two permits to replace the same size turbines under a different
- 19 company.
- 20
- 21 Mr. Hall stated that the current rules do not require permits for such an occurrence.
- 22
- 23 Mr. Courson stated that under Item N. he would have to obtain a permit to replace the same size turbine on
- 24 an existing tower.
- 25
- 26 Mr. Hall stated yes, but the fee for a replacement turbine is \$100 and the Board could decide that it should
- 27 be less than that but if a permit is not required then the County cannot enforce the other provision which is
- 28 that if a new tower and turbine is required then that new system must be in compliance with the noise
- 29 requirement. He said that this is a scenario where the owner cannot obtain a turbine to fit on the existing
- 30 tower therefore an entire system is required.
- 31
- 32 Mr. Schroeder left the meeting at 9:14 p.m.
- 33
- 34 Ms. Capel stated that Mr. Hall is indicating that the County will not force the owner to install a whole new
- 35 system if only the turbine can be replaced on top of the existing tower.
- 36
- 37 Mr. Hall stated yes, but that might violate the IPCB regulations.
- 38
- 39 Mr. Bluhm stated that if the unit was there before the other residences were built it would be much like
- 40 moving in next to an existing airport because you knew it was there and if there are noise issues then it is
- 41 just your problem.
- 42
- 43 Mr. Hall stated yes.
- 44

1 Mr. Courson asked Mr. Hall if this would stay in effect if the height of the tower was changed.
2
3 Mr. Hall stated that if the same turbine was being re-used but the height of the tower was being changed.
4
5 Mr. Courson stated that perhaps the tower would be shortened.
6
7 Mr. Hall stated that shortening the tower would not raise any concerns.
8
9 Mr. Courson stated that noise levels would change if the tower was made lower. He said that most people
10 would try to save money in using the same tower.
11
12 Mr. Bluhm stated that the replacement fee is \$100. He asked Mr. Hall what the permit fee would be for a
13 new unit.
14
15 Mr. Hall stated that it depends on the height of the new unit but if it was 100 feet in height the fee would be
16 \$340 and if it 150 feet in height the fee would be \$500.
17
18 Mr. Bluhm asked Mr. Courson to indicate the height of his unit.
19
20 Mr. Courson stated that his unit was 40 feet.
21
22 Mr. Hall stated that the permit fee would be the same as if he put up a new unit.
23
24 Mr. Bluhm stated that he does not agree with that fee schedule because someone would be paying the same
25 amount as if they were putting up a new unit under 100 feet.
26
27 Mr. Hall stated that the same amount of work is completed by staff but the Board can change the fee if it
28 desires.
29
30 Mr. Thorsland asked Mr. Hall if a permit fee is charged for replacement of an existing accessory structure.
31
32 Mr. Hall stated yes.
33
34 Ms. Capel stated that it is going to cost the same whether the owner replaces the turbine or the turbine and
35 the tower.
36
37 Mr. Hall stated yes, but only for a unit that is less than 50 feet tall otherwise there is a cost break for only
38 replacing the turbine. He asked the Board if there was anything in the City of Champaign's ordinance that
39 indicated something missing in the County's ordinance.
40
41 Mr. Thorsland stated that Page 6 of the City of Champaign's ordinance addresses minimum ground
42 clearance. He read the text from Item #1.o.1.. as follows: The blade tip of a Wind Energy Conversion
43 System, at its lowest point, shall have a ground clearance of no less than twenty (20) feet.
44

1 Mr. Hall stated that the County is more restrictive. He said that Item #K, Page F-6 of Attachment F. of the
2 Supplemental Memorandum dated January, 8, 2010, indicates the following: There shall be a minimum
3 clearance of 15 feet between the ground and the lowest arc of the rotor blades for a small wind turbine
4 tower.

5
6 Mr. Bluhm stated that he would prefer making the County requirement similar to the City of Champaign's
7 requirement and revising Item #K to indicate a minimum clearance of 20 feet.

8
9 Mr. Hall stated that he will revise Item #K to indicate a minimum clearance of 20 feet.

10
11 Mr. Bluhm stated that a turbine was just installed in Gifford.

12
13 Mr. Hall stated that Gifford has zoning.

14
15 Mr. Bluhm stated that the lot is small and the turbine is in the back yard. He said that a new subdivision is
16 going in right behind the lot and the mono-pole unit appears to be in the wrong location.

17
18 Mr. Bluhm asked the Board if there were any further revisions.

19
20 Mr. Hall stated that there is a lot of new information in the finding and if the Board is comfortable without
21 reviewing all of this information the Board could take action on this case tonight. He said that any changes
22 that he will make to the Findings are not critical although he might need to capture Mr. Schildt's concerns
23 regarding the number of wind turbines allowed but those concerns will already be included in the minutes.

24
25 Ms. Capel stated that the case could be continued to the special meeting on February 1st.

26
27 Mr. Hall stated that the continuance would allow the public to see what has been added to the finding. He
28 said that if the Board is just verifying what has been included in the finding then final action should not take
29 very long.

30
31 The consensus of the Board was to continue Case 634-AT-08, Part B. to the February 1, 2010, Special
32 Meeting.

33
34 **Mr. Courson moved, seconded by Mr. Thorsland to continue Case 634-AT-08, Part B. to the February**
35 **1, 2010, special meeting. The motion carried by voice vote.**

36
37 **Case 645-S-09 Petitioner: Robert and Barbara Gerdes Request: Authorize the construction and use**
38 **of a "Residential Landing Area" as a Special Use in the AG-1 Agriculture Zoning District. Location:**
39 **An approximately 83 acre tract that is approximately the West Half of the Southwest Quarter of**
40 **Section 33 of Ayers Township and commonly known as the farm at 52 CR 2700E, Broadlands.**

41
42 Mr. Bluhm informed the audience that this is an Administrative Case and as such the County allows anyone
43 the opportunity to cross examine any witness. He said that at the proper time he will ask for a show of
44 hands for those who would like to cross examine and each person will be called upon. He requested that

1 anyone called to cross examine go to the cross examination microphone to ask any questions. He said that
2 those who desire to cross examine are not required to sign the witness register but are requested to clearly
3 state their name before asking any questions. He noted that no new testimony is to be given during the cross
4 examination. He said that attorneys who have complied with Article 6.5 of the ZBA By-Laws are exempt
5 from cross examination.

6
7 Mr. Hall stated that staff has not received any new information to date regarding this case. He said that the
8 Petitioners and their attorney are present at tonight's meeting.

9
10 Mr. Bluhm asked the Board if there were any questions for Mr. Hall and there were none.

11
12 Mr. Bluhm called Jeff Tock to testify.

13
14 Mr. Jeff Tock, attorney for Robert and Barbara Gerdes, stated that when he appeared before the Board at the
15 last public hearing he requested a continuance of the public hearing because he felt that the subject restricted
16 landing area was an agricultural use and not subject to the restrictions of the *Champaign County Zoning*
17 *Ordinance* to require a special use permit. He said that since the last public hearing he has received
18 correspondence from Mr. Hall regarding the interpretation of the statute by the State's Attorney's office
19 which said that the restricted landing area could only be used by the owners of the property which are
20 Robert and Barbara Gerdes and not be used for the benefit of their son, Jed Gerdes. He said that he
21 disagrees with that interpretation therefore he has requested that the Circuit Court make an interpretation of
22 the application of the statute to the zoning provisions of the *Champaign County Zoning Ordinance* and their
23 interpretation will take some time for that determination. He requested that Case 645-S-09 be continued for
24 90 days.

25
26 Mr. Bluhm asked the Board if there were any questions for Mr. Tock and there were none.

27
28 Mr. Bluhm asked if staff had any questions for Mr. Tock and there were none.

29
30 Mr. Bluhm stated that Case 645-S-09 could be continued to the April 15, 2010, public hearing.

31
32 Mr. Tock submitted a copy of the Complaint for Declaratory Judgment that was filed with the Champaign
33 County Circuit Court as a Document of Record.

34
35 **Mr. Courson moved, seconded by Mr. Palmgren to continue Case 645-S-09 to the April 15, 2009,**
36 **public hearing. The motion carried by voice vote.**

37
38 **Mr. Thorsland moved, seconded by Mr. Courson to re-arrange the agenda and hear Case 658-AT-09**
39 **prior to Case 634-AT-08, Part B. The motion carried by voice vote.**

40
41 **6. New Public Hearings**

42
43 **Case 658-AT-09 Petitioner: Champaign County Zoning Administrator Request: Amend the**
44 **Champaign County Zoning Ordinance as follows: Part A: 1. Delete subparagraph 6.1.4.A.1.c. to**

1-14-10

AS APPROVED FEBRUARY 1, 2010

ZBA

1 make consistent with paragraph 6.1.4.M.; and 2. Amend paragraph 6.1.4.C.11 to require the wind
2 farm separation from restricted landing areas or residential airports only for restricted landing areas
3 and residential airports that existed on the effective date of County Board adoption of Case 658-AT-
4 09; and Part B: 1. Amend paragraph 6.1.1.A.5 to reference the requirements of paragraph 6.1.4.P.5.;
5 and 2. Amend paragraph 9.1.11.D.1. to include reference to subsection 6.1 instead of subsection 6.1.3.
6

7 Mr. Hall distributed a new Supplemental Memorandum date January 14, 2010, to the Board for review. He
8 clarified that Case 658-AT-09 has zero effects on any pending RLA special use permit case or application.
9 He said that at this time there is only one case like this which is Case 645-S-09, Robert and Barbara Gerdes
10 and Case 658-AT-09 will have no effect on the Zoning Ordinance requirements that relate to their case. He
11 said that their case, should it be approved as an RLA, would forever receive the separation from a wind
12 farm, as adopted in the Zoning Ordinance. He said that the separation can always be waived in any given
13 case but the point is that the separation would have to be waived or it would not to apply. He said that Case
14 645-S-09 brought to his attention that other people seeing its success or failure could get into their mind that
15 if they do an agricultural RLA then they would always receive the benefit of a 3,500 foot separation from
16 any wind farm that would wander into their vicinity. He said that prior to Case 645-S-09 and in the twenty
17 years that RLAs have been an authorized use in the Zoning Ordinance there have only been three cases
18 therefore the County does not see RLAs that often. He said that it is known that there are a lot of people
19 who are opposed to wind farms especially if they don't happen to get a wind turbine themselves. He said
20 that rather than leave the possibility of a situation that could just result in a lot of ill will because someone
21 could claim an agricultural RLA and if the outlined requirements are met no hearing at the ZBA would be
22 necessary and an RLA would exist which would trigger the need for a wind farm separation. He said that
23 rather than let other cases like Case 645-S-09 get started he felt that it was worth floating a text amendment
24 case to attempt to close the hole in the Ordinance. He said that he may find out that he has misjudged what
25 he believes will be the reaction of the Environment and Land Use Committee and if he has misjudged it then
26 he will deal with the consequences but he believes that they will agree with him in that there is a hole in the
27 Ordinance and it needs to be fixed. He said that at the same time that he believes that there is a hole in the
28 wind farm separation for RLAs he knows that there are at least two or three instances where not as good of
29 job in drafting the original wind farm ordinance was done as should have been. He said that in regard to
30 Item #2 of Part B. it was very clear throughout the four ZBA hearings regarding the wind farm amendment
31 that every requirement for a wind farm is a standard condition that could be waived and it is written as such.

32 He said that what was forgotten was to change the reference in Section 9 of the Zoning Ordinance to refer
33 to not only Subsection 6.1.3. but to also include Subsection 6.1.4. and all the other changes that were being
34 done to the standard conditions at the time. He said that in his mind the Board will be correcting an over
35 sight because staff and the Board were very clear that any requirement for a wind farm is a standard
36 condition that can be waived by the County Board. He said that a waiver requires two specific findings
37 which in fact are two of the five findings that are required for a variance. He said that in terms in the
38 deliberation that the Board has to do in regards to a waiver it is significant deliberation because a waiver
39 cannot be approved without justification as to why the Board is approving it therefore he does not want
40 anyone to believe that approving a waiver is an easy thing to do. He said that approving a waiver is much
41 easier than a variance and much easier than re-advertising the special use permit when something is found
42 that needs to be waived.

43
44 Mr. Hall stated that staff has determined that Item #1 under Part B of Case 658-AT-09 is not necessary

1 therefore it has been withdrawn and no longer part of the case.

2
3 Mr. Hall stated that Part A. Item #1 is a bit of housekeeping because when the wind farm amendment left the
4 Zoning Board of Appeals and went to the Environment and Land Use Committee they changed some things
5 including the shadow flicker requirement. He said that the shadow flicker requirement, included in
6 paragraph 6.1.4.M., and the final state of paragraph 6.1.4.M. means that subparagraph 6.1.4.A.1.c. does not
7 make sense therefore rather than to ask a wind farm developer to request a waiver of something that doesn't
8 make any sense it is better to amend the Ordinance. He said that the reason why there is Part A and Part B is
9 because Part B changes those parts of the ordinance that apply within one-and-one half miles of a zoned
10 municipality and the County has to give the municipality the opportunity to protest or not protest. He said
11 that Part A applies to only those areas more than one-and-one half miles from a zoned municipality although
12 municipalities can still comment but it is hoped that the County will not have to slow down and wait for that
13 comment. He said that he is hoping that Part A could be recommended at tonight's hearing so that it could
14 go to the Committee of the Whole in January and then the full County Board by the end of the month. He
15 said that townships have the right to protest on both Part A and Part B and in fact, as far as he knows, any
16 township that contacts staff about this text amendment will have their statutory 30 days in which to protest.
17 He said that if the Board takes action on Part A at tonight's meeting the townships will have 30 days to
18 protect before this case goes to the County Board and if the townships indicate that they want to protest the
19 County Board can deal with that protest at the County Board meeting if things progress as he hopes.

20
21 Mr. Hall stated that the new Supplemental Memorandum dated January 14, 2010, also lays out another
22 version of this amendment and he wanted to offer this version to the Board. He said that as far as staff
23 knows there are no existing RLAs in any of the areas proposed for wind farms therefore ultimately what the
24 text amendment is about is making the RLA wind farm separation apply only to RLAs that are already in
25 existence. He noted again that the Gerdes RLA still gets the benefit of the separation and is not part of this
26 amendment and in fact it is the only RLA that he is aware of that either exists or is proposed in the area of a
27 proposed wind farm. He said that whatever happens with this amendment the Board would at least limit the
28 application of the wind farm separation to RLAs that existed on the date of adoption of this amendment,
29 which he hopes to be January 21, 2010, would close the hole in the ordinance which was his ultimate goal in
30 proposing the amendment.

31
32 Mr. Hall stated that Attachment A of the Supplemental Memorandum dated January 14, 2010, proposes two
33 alternatives to what went out in the original memorandum. He said that the 3,500 feet separation was a
34 product of the "side transition surface" that applies to airports and that is a slope of seven horizontal feet for
35 each vertical foot. He said that the "side transition surface" that IDOT regulates for airports goes up to a
36 height of 150 feet and staff took that same proportion of 7:1 multiplied by the maximum height of a 500 feet
37 wind tower and achieved the 3,500 feet separation. He said that he knows of no wind farm tower in the state
38 of Illinois that is 500 feet tall and truly he knows of no wind farm tower in Illinois which is more than 400
39 feet tall. He said that not only does the 3,500 feet separation create a situation that places neighbors in
40 conflict but is probably much greater than it has to be. He said that the County should have slowed down,
41 even though at the time it would have been difficult to slow down the wind farm amendment, and put in a
42 formula for the separation based on the height of the wind farm towers. He said that Attachment A of the
43 new memorandum proposes the following: For any conforming restricted landing area or conforming
44 residential airport that existed on {the date of adoption} there shall be a separation of seven horizontal feet

1 for each one foot of overall wind farm tower height and the separation shall extend from the exterior above-
2 ground base of the nearest wind farm tower to the center and ends of the runway. He said that he believes
3 that the Board could take the approach that this is not a substantive change from what the legal
4 advertisement indicated and regardless what the Board recommends to close the hole is not terribly
5 important and can be subject to more or less criticism later but personally he believes that Attachment A is
6 an improvement. He said that Attachment C of the Supplemental Memorandum dated January 14, 2010,
7 goes further and he would not recommend that the Board go with that alternative. He said that Appendix E
8 from the IDOT regulations is attached to the Supplemental Memorandum dated January 14, 2010, and it
9 illustrates that restricted landing areas already have a "side transition surface" of 4:1, which is much steeper
10 than the "side transition surface" for airports. He said that Attachment C suggests that the 3,500 feet
11 separation could be divided into two different separations, 7:1 for residential airports seven times the height
12 of the wind farm towers and for restricted landing areas the ratio of 4:1 would be applied for four times the
13 overall wind farm tower height. He said that should there ever be an existing RLA that is effected by a wind
14 farm instead of having a separation similar to that for an airport they would receive a lesser separation, for
15 example, for a wind farm tower that has a height of 500 feet there would be a 2,000 feet separation from that
16 RLA. He said that for a 400 feet wind farm tower, which is believed to be more typical in Illinois, there
17 would be a 1,600 feet separation. He said that if the RLA is on an 80 acre parcel a typical 80 acre parcel is
18 1,300 feet wide on its own so the size of the separation becomes much less of an issue although it still
19 provides a very significant separation. He said that if the Board believes that something this refined is what
20 the County should have then the case could be re-advertised. He said that the Board could re-advertise this
21 case in the January 17th News Gazette and have a special ZBA meeting on February 1st and get an alternative
22 version to the County Board within the same time frame. He said that staff will later recommend that the
23 January 28, 2010, ZBA meeting be cancelled due to lack of items for the agenda other than one of the cases
24 on the agenda tonight if they are continued. He said that the re-advertisement option does not require any
25 additional ZBA per diems, something that has to be carefully monitored, but does require re-advertisement
26 and would result in a more refined amendment but his main concern is to get this changed as soon as
27 possible. He said that the Board needs to be careful in not rushing this too much because it is not intended
28 to create any unnecessary ill will amongst the public but this is a very serious topic and he believes that
29 ELUC will agree. He said that he believes that ELUC will appreciate getting this corrected as soon as
30 possible and before he advertised Case 658-AT-09 he reviewed it with the Chair of ELUC and the Chair was
31 comfortable with this case proceeding.

32
33 Mr. Bluhm asked the Board if there were any questions for Mr. Hall.

34
35 Mr. Palmgren stated that it was his understanding that there are no pending wind farm permit applications
36 but it has been discussed that the wind farms will have wind towers that are 500 feet in height.

37
38 Mr. Hall stated that this is not his understanding and he is not aware of any wind farm in Illinois that has a
39 wind tower that is more than 400 feet in height but he has not done an exhaustive search.

40
41 Mr. Palmgren stated that he was under the impression that the wind farm that has been proposed would have
42 500 feet wind towers.

43
44 Mr. Hall stated that he cannot comment on any proposed wind farms.

1
2 Mr. Palmgren asked if the County requirements for the RLAs are different from the State.
3
4 Mr. Hall stated no.
5
6 Mr. Palmgren asked Mr. Hall if existing non-conforming RLAs would be grand-fathered.
7
8 Mr. Hall stated that when Case 642-AT-88 was being presented staff notified every existing RLA that staff
9 was aware of and requested that they come to the office to document their existence and they would be
10 treated as a nonconforming of record RLA. He said that any truly nonconforming RLAs that would have
11 any concern about this are those that never bothered to comply with the Zoning Ordinance and anyone else
12 who is nonconforming with the Zoning Ordinance does not get the protection of the Zoning Ordinance.
13
14 Mr. Palmgren asked Mr. Hall how many nonconforming, nonregistered RLAs there are in the County.
15
16 Mr. Hall stated that it is unknown but there was a count that was taken in 1988 and it unknown how
17 exhaustive that procedure was when it was completed.
18
19 Mr. Palmgren stated that if there is an existing RLA that did not register in 1988 and desires to register now
20 would need to apply for a special use permit and prove that it will be for the public good before it is
21 approved.
22
23 Mr. Hall stated yes.
24
25 Mr. Palmgren stated that a tower up to 500 feet in height is allowed under small wind.
26
27 Mr. Hall stated no, not unless the Board approves a variance from 150 feet up to 500 feet.
28
29 Mr. Palmgren stated that perhaps it is big wind tower that allows up to 500 feet in height.
30
31 Mr. Hall stated that big wind tower requires a special use permit and has almost the same standards as a
32 wind farm.
33
34 Mr. Palmgren stated that he favors the 7:1 for all RLAs.
35
36 Mr. Hall stated that the County only has one residential airport that he is aware of and it is his understanding
37 that IDOT no longer supports the idea of a residential airport. He asked Mr. Palmgren if he could comment.
38
39 Mr. Palmgren stated that it depends on who you get to talk to at IDOT. and what day of the week it is. He
40 said that he has had a lot of discussion with Dale Rusk at IDOT and some days Mr. Rust is okay with it and
41 others he indicates that he wishes that IDOT. would have never done it. Mr. Palmgren stated that there are a
42 number of residential airports in Illinois but Champaign County only has one and it will probably be the
43 only one in Champaign County. He said that Aero-Place Subdivision was originally set up as a residential
44 RLA and then the term was changed to a residential airport because IDOT had brought forth a different

1 classification and encouraged the owner at the time to apply for the new classification.

2
3 Mr. Hall stated that there is less of a concern with residential airports because there are fewer of them and it
4 is much less likely that they will be proposed.

5
6 Mr. Palmgren stated that there are fewer residential airports in this area right now but there is a trend for
7 more nationwide due to the closing of many small airports. He said that in various areas of the country
8 where the area is heavily populated the residential airports are a big thing.

9
10 Mr. Bluhm asked Mr. Hall if the measurements for separation of 4:1 and 7:1 are from the base of the tower.

11
12 Mr. Hall stated yes.

13
14 Mr. Bluhm asked Mr. Hall if the blade sticking into that separation is considered.

15
16 Mr. Hall stated that the height goes to the tip of the rotor therefore the way that the separation is written we
17 do not take into account the direction or any part of the rotor. He said that it could be easily done but it
18 would create a verification problem when the hearing is at the ZBA but if that is a concern of the ZBA then
19 he would suggest that the Board add some distance to the wind tower base that would be sufficient to
20 provide for the arc of the rotor.

21
22 Mr. Bluhm stated that if the tip of the blade was used then the pattern of the rotor is being encompassed.

23
24 Mr. Hall stated that he tends to think that 3,500 feet to the base of the tower should be enough.

25
26 Mr. Thorsland stated that it would be easier if the Board would defer to Attachment A and use the 7:1 ratio.

27
28 Mr. Hall stated that we are not creating a sloped surface like IDOT has because IDOT. He said literally we
29 are saying that it has to be this far away so that we have this buffer around the land use and the way that this
30 amendment is drafted it could be that far away and if the rotor is perpendicular to that separation it could
31 extend in there as much as 150 feet which only leaves 3,300 feet of separation.

32
33 Mr. Thorsland stated that if the Board went to the trouble of adopting the two different standards for the two
34 different types of airports there would be a catch but to keep it easier the Board could default to the larger
35 ratio of 7:1 and it would take care of Mr. Hall's concerns. He said that Mr. Palmgren has indicated that a
36 new application for a residential airport will be rare.

37
38 Mr. Bluhm stated 4:1 would be closer and he would rather see it go to the tip of the blade.

39
40 Ms. Capel asked if the tip of the blade is being considered for the height.

41
42 Mr. Hall stated yes.

43
44 Mr. Bluhm stated that this is what he was originally asking Mr. Hall and Mr. Hall indicated the rotor.

1
2 Mr. Hall stated that he believed that the rotor was the entire attachment.
3
4 Mr. Bluhm stated no. He said that the hub is in the middle and the blades are beyond the hub.
5
6 Mr. Hall stated that the hub and the blades make up the rotor.
7
8 Mr. Palmgren asked Mr. Hall to indicate the width of a rotor on a 500 foot tower.
9
10 Mr. Hall stated that generally the maximum is 340 feet.
11
12 Mr. Palmgren stated that 340 feet is a pretty fair distance.
13
14 Mr. Hall stated that the wind turbine developers know the orientation of the turbine in the beginning
15 therefore perhaps it would make more sense to have the separation based from the runway to the arc of the
16 rotor.
17
18 Mr. Palmgren stated that this comes down to safety and the more distance the better.
19
20 Mr. Bluhm asked Mr. Palmgren if he agreed with Mr. Thorsland's recommendation of 7:1.
21
22 Mr. Palmgren stated that he prefers 7:1 versus 4:1.
23
24 Mr. Thorsland asked Mr. Hall if the case would need to be re-advertised.
25
26 Mr. Bluhm stated that if the tip of the blade is being included in the 7:1 then you are pretty well getting the
27 sweep of the rotor.
28
29 Mr. Thorsland stated that he likes simple.
30
31 Mr. Bluhm stated that since the terminology has been clarified he prefers the 7:1.
32
33 Mr. Schroeder asked if there was going to be a map that airports will have that will determine where all of
34 the wind farm towers are located. He asked how the aircrafts will identify the wind towers.
35
36 Mr. Palmgren stated that there is a section map and generally the wind farm towers are indicated in a group
37 and not individually. He said that generally in populated areas a pilot has to fly 500 feet above the ground
38 level and he could see how a 500 foot tower could cause some problems. He said that he had a friend tell
39 him that he was flying just above the cloud deck and as he was approaching he could see something coming
40 out of the clouds and it was the blade from a 500 foot wind tower. He said that it is ultimately the pilot's
41 responsibility to stay away from the towers because they towers are there and they cannot move.
42
43 Mr. Bluhm asked the Board if there were any additional questions for Mr. Hall and there were none.
44

1 Mr. Bluhm called Ms. Sherry Schildt to testify.
2

3 Ms. Sherry Schildt, who resides at 398 CR 2500N, Mahomet stated that she was interested in the separation
4 and the rationale for changing it because she remembered something from the wind farm hearings and she
5 went back and checked the record. She said that the rationale in the memorandum and the preliminary
6 finding of fact indicates that wind farm towers provide tremendous economic benefit to the landowner and
7 more importantly to the local school system and eliminating such possible income would be injurious to the
8 district. She said that the March 12, 2009, minutes indicate that there was an exchange between Ms. Schertz
9 and Mr. Hall about taxes and the minutes indicate the following: Mr. Hall stated that the tax implications
10 are not relevant to the material facts of what the Board needs to be concerned about which are to protect the
11 public health, safety and welfare of the neighbors of the wind farm. Ms. Schertz stated that testimony is
12 being given about the tax benefits but the Board is not supposed to consider it. Mr. Hall stated that it is not
13 material to the standards required in the *Ordinance* to protect the public health, safety and welfare. He said
14 that it may be considered in the facts regarding a specific wind farm when it is proposed but it is immaterial
15 to what the *Ordinance* should require. He said that he is aware that the Board has heard a lot of testimony
16 regarding about it and staff will present the Board with a finding of fact which outlines material evidence to
17 the amending of the *Zoning Ordinance*. He said that a lot of time should not be spent discussing tax issues
18 because it is irrelevant to what belongs in the *Zoning Ordinance*. Ms. Schildt said that she was confused by
19 the rationale that the County should defer to the wind farm developers in regard to the wind towers because
20 of the financial benefit and she asked if there was a recent change in the policy.
21

22 Mr. Hall stated no. He said that he remembers saying that very thing and he would say it again, in the case
23 of a wind farm amendment, that the idea is to protect the public health, safety and welfare. He said that in
24 this case he would still argue that unnecessarily reducing wind farm towers is injurious to the district and it
25 may contradict what he said in March.
26

27 Ms. Schildt stated that at the March 26, 2009, public hearing a memorandum was submitted by Mr.
28 Palmgren which discussed his concerns and pointed out that there should be a separation of 3,500 feet. She
29 said that she was concerned about reducing the 3,500 feet and doing away with the safety issue. She said
30 that the March 26, 2009, minutes indicates the following: Mr. Palmgren commented that in regard to
31 Paragraph 6.1.4.C.10, he does like the 3,500 feet separation from the exterior above-ground base of a wind
32 tower to any restricted landing area or residential airport. He said that this is fine for the side but it should
33 be specified as to how close the turbines can be at both ends of the runway. He said that he feels that a
34 7,500 feet separation, using the 15:1 ratio, as stated in his attachment to the March 20, 2009, Supplemental
35 Memorandum, should be added to indicate how close a turbine can be located from the front and rear of the
36 runway. Mr. Hall stated that Paragraph 6.1.4.C.10 established a minimum and a greater separation off the
37 end of his runway is something that staff would catch during the review of the wind farm that will be located
38 near his subdivision. He said that he would prefer not to keep adding statements. Mr. Palmgren agreed.
39

40 Ms. Schildt stated that she was concerned that the Board was going to do away with the safety standards that
41 were agreed upon by all parties at that time. She submitted copies of the minutes from the March 12, 2009,
42 and March 26, 2009, public hearings.
43

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

1
2 Mr. Bluhm asked if staff had any questions for Ms. Schildt and there were none.
3
4 Mr. Bluhm called Mr. Jeff Tock to testify.
5
6 Mr. Jeff Tock, attorney for Robert and Barbara Gerdes in Case 645-S-09. stated that the January 14, 2010,
7 Supplemental Memorandum indicates that the proposed amendment is not intended to apply to any RLA for
8 which application has been made prior to adoption of the amendment. He said that the language for the
9 proposed amendment does not incorporate any reference to any applications that may be outstanding but
10 refers to any conforming restricted landing area or residential airport which existed on the date of adoption
11 of the amendment. He asked if the RLA does not exist, does “exist” mean to have approval of a special use
12 permit or does “exist” mean to have a grass runway that is functional. He said that there is ambiguity in the
13 language and he requested that it get further clarification so that the ordinance, as revised, will clearly
14 include the Gerdes application for the RLA that has been continued to April 15th.
15
16 Mr. Hall stated that the language could indicate that any application that was made by January 1, 2010,
17 would serve the purpose.
18
19 Mr. Tock agreed.
20
21 Mr. Bluhm asked if it would be better to use January 14, 2010.
22
23 Mr. Hall stated that he has no problem with going back to January 1, 2010, and he believes that it is a good
24 idea but it is up to the Board.
25
26 Mr. Bluhm asked the Board if there were any questions for Mr. Tock and there were none.
27
28 Mr. Bluhm asked if staff had any questions for Mr. Tock and there were none.
29
30 Mr. Bluhm called Mr. Jed Gerdes to testify.
31
32 Mr. Jed Gerdes, who resides at 1448 CR 2700E, Ogden stated that in discussing changing the setbacks from
33 3,500 feet to 7:1 a lot of things that people forget is the turbulence that is created by the wind towers that
34 effect flight. He said that the setbacks that have been reviewed are setbacks for towers that do not create
35 turbulence that would affect flight and narrowing it down to the smallest possible amount would definitely
36 affect the flight more than would a pole out there and this is a serious issue which should be taken into
37 consideration. He asked the Board if they have ever had anyone try to buy them off. He said that since the
38 last public hearing regarding his case he was contacted by Horizon Wind Energy and they wanted to speak
39 to his family although they could not because they were busy hauling grain.
40
41 Mr. Bluhm requested that Mr. Gerdes keep his testimony to only relevant information.
42
43 Mr. Gerdes stated that his testimony is relevant to the ZBA because Horizon asked his family if they could
44 buy them off and if his family did not agree Horizon would just go to the ZBA and request waivers or

1 reduce the setbacks to an RLA. He said that Mr. Hall indicated that in 1988 staff requested that owners of
2 RLAs register with the County and most of those owners that are still alive probably don't know that this is
3 even going on. He said that there is a new generation in the County that has inherited these RLAs without a
4 clue that any of this is going on and therefore the County is subjecting a lot of existing RLAs to something
5 that they have no clue about until a wind tower is constructed. He said that he believes that the County
6 should notify all the owners of existing RLAs in the County about the amendment before it is adopted and
7 having a double standard is dangerous. He said that Trisler RLA that was mentioned at the last meeting is
8 being decommissioned this year and those pilots will be looking for somewhere to fly out of. He said that
9 the purpose of the Ordinance is to protect the safety and welfare of the public not to see how many wind
10 turbines can be developed in the County. He said that if there is favoritism in the County then it is no
11 different than the U of I Trustees and the Admission's Administration giving favor to some students who
12 have political connections over others and such double standards are very dangerous.

13
14 Mr. Bluhm asked the Board if there were any questions for Mr. Gerdes and there were none.

15
16 Mr. Bluhm asked if staff had any questions for Mr. Gerdes and there were none.

17
18 Mr. Bluhm asked the audience if anyone desired to sign the witness register to present testimony regarding
19 Case 658-AT-09.

20
21 Mr. Bluhm called Mr. Terry Ladage to testify.

22
23 Mr. Terry Ladage, who resides at 344 CR 1300N, Champaign stated that he originally attended the meeting
24 for Case 645-S-09 but as a pilot he can relate to the conversations that have taken place at tonight's hearing
25 and would be happy to entertain any questions from the Board members. He said that he brought a copy of
26 the Illinois Department of Transportation's Administrative Codes for airport markings, approach angles, and
27 side slope angles that have been previously discussed.

28
29 Mr. Palmgren stated that it is his understanding that he owns an existing RLA.

30
31 Mr. Ladage stated yes. He said that he lives west of Champaign on the current Litchfield RLA, in existence
32 since 1980, and his home residence is based at that location. He said that the RLA has gone through the
33 certification process through the FAA and the IDOT. therefore he is well versed in what is being discussed
34 this evening.

35
36 Mr. Palmgren asked Mr. Ladage if his RLA was registered with the County in 1988.

37
38 Mr. Ladage stated that he cannot answer Mr. Palmgren's question because the actual owner and name of that
39 operation is with some other party, of which he is a partner with, who handles all of the paperwork that is
40 coming forth from Champaign County Board members, etc. He said that the issue that concerns him is the
41 stipulated 20:1 glide slope ratio off of the ends of the runway. He said that as he hears the numbers that are
42 being presented this evening with regard to the possibility of as much as a 500 foot wind generator there
43 would be a 10,000 foot, almost two miles, difference from one end and the other end. He said that when you
44 are looking at a traffic pattern altitude of 800 feet and a possibility of the turbines being at a height of 500

1 feet there is a minimum clearance issue of 300 feet given cloud obstructions overhead. He said that pilots
2 subjected to those types of conditions, even though it has already been admitted that it is truly the pilot's
3 responsibility to maintain safe operations, there is still going to be some circumstances that mandate those
4 operations given types of weather conditions, turbulence and vertigo challenges. He requested that the
5 Board consider the most distance possible for the benefit of everyone's safety.

6
7 Mr. Bluhm asked Mr. Ladage if the 20:1 glide slope would be clear of obstruction.

8
9 Mr. Ladage stated yes.

10
11 Mr. Bluhm asked Mr. Hall if such was noted in the diagram.

12
13 Mr. Hall stated that the IDOT diagram for an RLA indicates 15:1.

14
15 Mr. Ladage stated that the document that he has is dated 1985 therefore it could have changed.

16
17 Mr. Hall stated that it is 20:1 off of an airport.

18
19 Mr. Thorsland stated that the County has an Ordinance for the wind farm and when the wind farm
20 application comes to the Board it will be reviewed as to where the wind towers will be located in reference
21 to the location of any existing RLAs. He said there will be a narrow angle of either 15:1 or 20:1 and no
22 tower would be allowed within this area. He said that the Board decides in the end whether or not the
23 particular site that the proposed wind farm will be located is a valid location and he believes that by the time
24 an actual wind farm application is received the Board will have a map that will show if an RLA is in the
25 area. He said that he would hope that the people in the area of the proposed wind farm will know enough to
26 come to the Board to indicate that they have an RLA. He said that he does not know how to address this
27 issue tonight and if the Board wants to apply the 7:1 for the residential airport to the sides at the 15:1 to the
28 end.

29
30 Mr. Hall stated that the 20:1 is for airports and an airport has a much greater separation of four miles. He
31 said that he has only ever suggested that the 7:1 ratio would apply.

32
33 Mr. Thorsland stated that he agrees that the 7:1 ratio is all that has been discussed but the Board has a
34 reasonable concern that 7:1 on the end would be a very different situation than on the sides.

35
36 Mr. Hall stated that in regards to the end of the runway is protected by IDOT with a distance of 3,000 feet at
37 a slope of 15:1.

38
39 Mr. Ladage stated that he is not certain about the 3,000 feet but he is certain about the 15:1 and 20:1
40 mandates that IDOT requires.

41
42 Mr. Palmgren agreed that it is 3,000 feet.

43
44 Mr. Hall stated that at 3,000 feet the protection is at a lower height therefore 3,500 feet would be more

1 protection for a tower height of 500 feet.
2
3 Mr. Thorsland stated that the ends are much shallower than the sides and if we use the 7:1 ratio you don't
4 get that end slope protection.
5
6 Mr. Bluhm stated that if the Board requires a 3,500 feet separation there is protection.
7
8 Mr. Thorsland stated that the Board is not requiring a 3,500 feet separation but 7:1.
9
10 Mr. Hall stated that perhaps this is justification for leaving it at 3,500 feet.
11
12 Mr. Thorsland stated maybe or just defer the end to I.D.O.T.
13
14 Mr. Bluhm asked the audience if anyone desired to present testimony in Case 658-AT-09 and there was no
15 one.
16
17 Mr. Bluhm closed the witness register.
18
19 Mr. Courson asked Mr. Hall if the County would have a map for the Board to use as a resource which will
20 indicate any existing RLAs during review of the wind farms.
21
22 Mr. Hall stated that it is the wind farms responsibility to know where the RLAs are located and they are
23 already doing that research.
24
25 Mr. Thorsland stated that he likes simple and 7:1 is simple. He said that he often makes the assumption that
26 people will not stick their head in the wrong thing therefore he assumes that the wind farm developers will
27 not stick a tower at the end of someone's RLA. He said that he firmly believes that the wind farm
28 developers will drive down every road to see what it is in the area. He said that when staff and the Board
29 receives the application he would assume that both are smart enough to know if the proposed location of the
30 wind turbines is a safe location and if not indicate such. He said that in order to keep it very simple the
31 Ordinance must be specific on the separation distances.
32
33 Mr. Hall asked Mr. Thorsland if he is suggesting that Champaign County adopt a wind farm separation that
34 goes a distance based on a slope of 15:1 off the end of the runway to a height of 500 feet.
35
36 Mr. Thorsland stated no because we can only enforce up to 3,000 feet because that is what IDOT requires.
37 He said that the County could follow IDOT up to 3,000 feet, 15:1, and then 7:1 on the sides and then that
38 becomes a special issue to look for when the wind farm application is received. He said that this will make
39 sure that the wind farm and the Board does not allow the tower to get in to that area, not by the Ordinance
40 but by common sense.
41
42 Mr. Hall stated that IDOT will not allow a wind tower to get closer than 3,000 feet and he still does not
43 understand what height the 7:1 is going to on the side.
44

1 Mr. Thorsland stated that the FAA indicates that 500 feet becomes their territory therefore the 7:1 would go
2 out to some imaginary 500 foot separation where the Board will not put anything there anyway.

3
4 Mr. Hall stated that he would think that a simple 3,500 foot separation would include essentially everything
5 that Mr. Thorsland has described and actually be much easier to implement.

6
7 Ms. Capel stated that she wants to base it on the height of the tower.

8
9 Mr. Bluhm stated that a 400 foot tower would require a 2,800 foot separation.

10
11 Mr. Thorsland stated that the minimum on the end should be 3,000 feet.

12
13 Mr. Bluhm stated that the minimum on the end is controlled by IDOT He said that if the wind farm
14 developer believes that they will locate a wind tower 3,001 feet from a runway they will be informed during
15 the special use permit process that the Board will not approve such a location.

16
17 Mr. Thorsland stated that he believes that the 7:1 and the 3,000 feet separation works but if in the future a
18 wind farm developer comes to staff indicating that they have efficient 200 foot towers then they may not
19 need to be 3,500 feet from the end of the runway and a 7:1 slope to the side. He said that he believes that
20 the IDOT 3,000 feet requirement to the end of the runway should always stand and after that intelligence
21 and common sense should prevail.

22
23 Mr. Bluhm stated that the Board needs to discuss the side slope because the end separation is regulated by
24 IDOT.

25
26 Mr. Thorsland asked if there are specific provisions in the Ordinance for deferral to IDOT.

27
28 Mr. Hall stated that there are specific provisions in the Ordinance for compliance with FAA and IDOT
29 requirements.

30
31 Mr. Palmgren stated that he would agree with the 7:1 side slope and defer to IDOT requirements at the end
32 of the runway.

33
34 Mr. Bluhm asked the Board if they were comfortable with the 7:1 side slope.

35
36 Mr. Hall stated that the way that it is written on Attachment A. of the Supplemental Memorandum dated
37 January 14, 2010, would work because it closes at the end and at that point it would overlap with the IDOT
38 protection.

39
40 **The Board agreed.**

41
42 Mr. Bluhm asked Mr. Hall if Case 658-AT-09 should be re-advertised.

43
44 Mr. Hall stated that he has always been a little uncomfortable with adopting the slope approach without re-

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1 advertising. He said that everyone on the Board understands that it is the same thing but when it comes to
2 wind farms there is enough area for disagreement that no new areas of disagreement should be created. He
3 said that he would feel more comfortable with the Board making a tentative selection at tonight's public
4 hearing and re-advertising the case in the Sunday News Gazette. He said that if the Board desires to
5 schedule a special meeting then the case can be before ELUC in February otherwise no special meetings will
6 be held and this case will continue for another month.

7
8 Mr. Bluhm asked Mr. Hall if he was attempting to get the whole package to ELUC at the same time.

9
10 Mr. Hall stated that he never intended to get the whole package to ELUC at the same time and always
11 intended for Part B to take longer.

12
13 Ms. Capel stated that as long as the January 1, 2010, date is inserted and no new applications are submitted
14 the Board could take some action tonight.

15
16 Mr. Hall stated that he would prefer that the Board continue this case so that Mr. Tock can review the
17 language before the Board makes an actual recommendation. He said that there is enough disagreement
18 already without adding more and he wants to make sure that everyone is on board with this so that there are
19 no chances of challenges in court. He said that he does not intend sending out notices to any RLA that he is
20 aware of because he did not do such for the wind farm amendment and he is not going to do it for this.

21
22 Mr. Hall stated that the Board could continue this case to the February 11, 2010, regular meeting in which
23 case it would be go before ELUC in March but everyday that the current regulations stay in place is an open
24 door for a new RLA application.

25
26 Mr. Bluhm asked Mr. Hall if the Board generally considers the application date of the amendment case.

27
28 Mr. Hall stated that if the Board takes action on Case 658-AT-09 tonight, with the recommendation of Mr.
29 Tock, and a new RLA application was received tomorrow morning that application would need to be
30 approved under the current rules. He said that no matter what the amendment indicates staff and the Board
31 must honor the rules that were in place when the application was made.

32
33 Ms. Capel stated that a special meeting should be scheduled.

34
35 Mr. Hall stated that if the Board is concerned about this possibility then it should schedule a special meeting.
36 He said that staff will send ELUC, prior to their February 4, 2010, meeting, a memorandum giving them a
37 heads up so that hopefully they will be prepared to deal with this case.

38
39 Mr. Palmgren asked Mr. Hall if the ZBA only forwards a recommendation for approval and ELUC goes
40 from there.

41
42 Mr. Hall stated yes.

43
44 **Ms. Capel moved, seconded by Mr. Palmgren to schedule a special meeting on February 1, 2010, at**

1 **6:30 p.m. in the Lyle Shields Meeting Room and to continue Case 658-AT-09 to that meeting. The**
2 **motion carried by voice vote.**

3
4 Mr. Bluhm informed the audience that Case 658-AT-09 has been continued to a special meeting on February
5 1st at 6:30 p.m. in the Lyle Shields Meeting Room. He said that if there is a conflict with the meeting room a
6 notice will be posted on the door as to the re-location of the special meeting.

7
8 Mr. Hall informed the audience that if they did not sign the witness register for Case 658-AT-09 to present
9 testimony but are interested in this case then he would appreciate an indication on the attendance record of
10 Case 658-AT-09 and they will be included in the next mailing.

11
12 Mr. Hall stated that each new re-advertisement includes new municipal and township notifications.

13
14 Mr. Bluhm stated that the Board will now hear Case 634-AT-08, Part B.

15
16 **7. Staff Report**

17
18 None

19
20 **8. Other Business**

21 **A. Cancellation of January 28, 2010, ZBA meeting**

22
23 **Ms. Capel moved, seconded by Mr. Palmgren to cancel the January 28, 2010, ZBA meeting. The**
24 **motion carried by voice vote.**

25
26 **9. Audience Participation with respect to matters other than cases pending before the Board**

27
28 None

29
30 **10. Adjournment**

31
32 The meeting adjourned at 9:27 p.m.

33
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39 Respectfully submitted

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44 Secretary of Zoning Board of Appeals

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