AS APPROVED APRIL 26, 2018

1	
2	

MINUTES OF REGULAR MEETING

CHAMPAIGN COUNTY ZONING BOARD OF APPEALS

1776 E. Washington Street

Urbana, IL 61801

DATE: March 15, 2018 PLACE: Lyle Shields Meeting Room

1776 East Washington Street

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

MEMBERS PRESENT: Catherine Capel, Frank DiNovo, Ryan Elwell, Debra Griest, Jim Randol,

14 Brad Passalacqua

MEMBERS ABSENT: Marilyn Lee

STAFF PRESENT: Connie Berry, Susan Burgstrom, John Hall

OTHERS PRESENT: Tim Osterbur, Jim Nonman, Tannie Justus, Ann Ihrke, Cindy Ihrke, Ted

Hartke, Jerry Perkins, Colleen Ruhter, Cindy Sheperd, Barton Pitts, Christine Walsh, Aaron Esry, Tim Montague, Patrick Brown, Phil Fiscella, Marcus

Ricci, Andy Robinson, Elise Doody-Jones, Max Kummerow

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 with one member absent.

Ms. Capel informed the audience that anyone wishing to testify for any public hearing tonight must sign the witness register for that public hearing. She reminded the audience that when they sign the witness register they are signing an oath.

3. Correspondence

None

4. Approval of Minutes (September 14, 2017, and February 15, 2018)

Ms. Capel asked the Board if there were any corrections or additions to the September 14, 2017, and

45 February 15, 2018, minutes.

Ms. Burgstrom stated that Mr. DiNovo has provided edits to the February 15, 2018, minutes via an email dated March 15, 2018. Ms. Burgstrom read Mr. DiNovo's edits as follows: page 4, line 24, insert "it"

3/15/18

- between "and" and "is"; and page 6, line 33, delete "and not such"; and page 11, line 33: delete the first
- 2 "existing"; and page 12, line 10 insert "or anywhere else" between "ditches" and "except"; and page 19, line
- 3 23, change "pile" to "pond"; and page 19, line 31, change "enforce" to "force"; and page 20, line 35, change
- 4 "of" to "over"; and page 21, line 1, change "Mr. DiNovo closed" to "he would close"; and page 21, line 20,
- 5 Delete "for" and "he"; and page 21, line 35, change "saying" to "say"; and page 23, line 30, insert "without
- 6 the petitioner's agreement" after "Board does not normally proceed"; and page 24, line 2, change "in" to
- 7 "to"; and page 24, line 20, insert "to believe" between "inclined" and "that".

8 9

Ms. Capel asked the Board if there were any additional corrections or additions to the September 14, 2017, and February 15, 2018, minutes, and there were none.

10 11

Ms. Capel entertained a motion to approve the September 14, 2017, and February 15, 2018, minutes, as amended.

14 15

Mr. DiNovo moved, seconded by Mr. Passalacqua, to approve the September 14, 2017, and February 15, 2018, minutes, as amended. The motion carried by voice vote.

16 17 18

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

- 20 895-AT-18 Petitioner: Champaign County Zoning Administrator Request to amend the
- 21 Champaign County Zoning Ordinance as follows: Part A: Amend Section 3 by adding definitions
- 22 including but not limited to "NOXIOUS WEEDS: and "SOLAR FARM"; Part B: Add paragraph
- 4.2.1 C.5 to indicate that SOLAR FARM may be authorized by County Board SPECIAL USE permit
- as a second PRINCIPAL USE on a LOT in the AG-1 DISTRICT or the AG-2 DISTRICT; Part C:
- Amend Section 4.3.1 to exempt SOLAR FARM from the height regulations except as height
- regulations are required as a standard condition in new Section 6.1.5; Part D: Amend subsection 4.3.4
- 27 A. to exempt WIND FARM LOT and SOLAR FARM LOT from the minimum LOT requirements of
- Section 5.3 and paragraph 4.3.4 B. except as minimum LOT requirements are required as a standard
- condition in Section 6.1.4 and new Section 6.1.5; Part E: Amend subsection 4.3.4 H. 4. to exempt
- 30 SOLAR FARM from the Pipeline Impact Radius regulations except as Pipeline Impact regulations
- are required as a standard condition in new Section 6.1.5; Part F: Amend Section 5.2 by adding
- 32 "SOLAR FARM" as a new PRINCIPAL USE under the category "Industrial Uses: Electric Power
- 33 Generating Facilities" and indicate that SOLAR FARM may be authorized by a County Board
- 34 SPECIAL USE Permit in the AG-1 Zoning DISTRICT and the AG-2 Zoning DISTRICT and add new
- 35 footnote 15. to exempt a SOLAR FARM LOT from the minimum LOT requirements of Section 5.3
- and paragraph 4.3.4. B. except as minimum LOT requirements are required as a standard condition
- in new Section 6.1.5.; Part G: Add new paragraph 5.4.3 F. that prohibits the Rural Residential
- 38 OVERLAY DISTRICT from being established inside a SOLAR FARM County Board SPECIAL
- 39 USE permit; Part H: Amend subsection 6.1.1 A. as follows: 1. Add SOLAR FARM as a NON-
- 40 ADAPTABLE STRUCTURE and references to the new Section 6.1.5 where there are existing
- references to existing Section 6.1.4; and 2. Revise subparagraph 6.1.1 A. 11c. by deleting reference to
- 42 Section 6.1.1A. and add reference to Section 6.1.1A.2; Part I: Add new subsection 6.1.5 SOLAR
- 43 FARM County Board SPECIAL USE Permit with new standard conditions for SOLAR FARM; Part
- 44 J: Add new subsection 9.3.1 J. to add application fees for a SOLAR FARM zoning use permit; and
- 45 Park K: Add new subparagraph 9.3.3 B.8. to add application fees for a SOLAR FARM County Board

3/15/18

SPECIAL USE permit.

Ms. Capel informed the audience that anyone wishing to testify for any public hearing tonight must sign the witness register for that public hearing. She reminded the audience that when they sign the witness register they are signing an oath. She asked the audience if anyone desired to sign the witness register and there was no one.

Ms. Capel asked the petitioner if he would like to make a statement regarding the case.

Mr. John Hall, Zoning Administrator, distributed new Supplemental Memorandum #4, dated March 15, 2018, to the Board for review. He said that attached to the memorandum is an email from Patrick Brown of BayWa-re Solar Projects LLC, providing input on the proposed reclamation plan and decommissioning requirements. He said that also attached to the memorandum is a comparison table for decommissioning requirements dated March 14, 2018. He said that table compares the site reclamation and decommissioning requirements with the State of Illinois Department of Agriculture Agricultural Impact Mitigation Agreement (AIMA) for Commercial Wind Energy Facility, and the BayWa-r.e. Solar Projects, LLC, proposal. He said that also attached to the new memorandum is a letter received on March 14, 2018, from Anne Bjornson-Parkinson indicating that she supports a solar farm in Champaign County and notes that quality of life is an issue. Mr. Hall said that the letter was sent to the County Board and forwarded to the Zoning Administrator. He said that public comments that are received during the time that the public hearings for Case 895-AT-18 are occurring shall become part of the

Mr. Hall stated that the last attachments are three different diagrams of the screening requirements based on the concerns mentioned in Supplemental Memorandum #3. He said that staff proposes to change the screening requirements that were included in the February 22, 2018, version of the amendment. He said that staff has been doing an analysis of conditions for the Sidney Solar Farm, and staff believes that the February 22, 2018, screening requirements were not adequate. He said that the Board does not have the screening requirement language in front of them yet, but the diagrams explain what staff is going to propose and the Board will have the revised language well before the March 29, 2018, public hearing.

Mr. Hall stated that the staff distributed an email from Peter Schmitt, Project Developer with United States Solar Corporation, indicating that his company agrees with the decommissioning language discussed by BayWa-r.e.

Ms. Capel asked the Board if there were any questions for Mr. Hall.

public hearing and will be included as a Document of Record.

Mr. DiNovo stated that at some point he would like to go through the text amendment provisions one by one, so that there is documentation of the reasoning for each provision. He said that this procedure would provide clarification for any future zoning administrator.

- 42 Mr. Hall stated that, outside of the public hearing, he has been trying to do this as well and documenting 43 every requirement, but he has not gotten to it. He said that he hopes to have this information in the
- Summary of Evidence, and he wished that he could say that he has committed this to memory and that
- 45 he could recite it, but he is sorry to say that he cannot. He said that a review of the provisions for the

3/15/18

text amendment is a large part of this case, and when the Board is ready to have that discussion, we can.

1 2 3

4 5 Ms. Capel informed the audience that anyone wishing to testify for any public hearing tonight must sign the witness register for that public hearing. She reminded the audience that when they sign the witness register they are signing an oath. She asked the audience if anyone else desired to sign the witness register, and there was no one.

6 7 8

Ms. Capel called Theodore P. Hartke to testify.

9 10

11

12

13

14 15 Mr. Theodore P. Hartke, who resides at 1183 CR 2300 East, Sidney, stated that he would mainly like to review the last 10 pages of Supplemental Memorandum #1, dated February 23, 2018, with the Board. He said that an email dated September 17, 2017, from himself to Mr. Hall, was his first email to staff after he learned that Champaign County was proposing to amend its ordinance to allow the construction of solar farms in the unincorporated areas of the County. He said that the purpose of his email to John Hall was to make him aware that there were some moratoriums in place in different areas to assure that everyone slows down and carefully thinks about things.

16 17 18

19

20

21

22

23

24

2526

27

28

29

30

31

32

33

34

35

36

37

38 39

40

41 42

43 44

45

Mr. Hartke stated that in another email to John Hall dated January 2, 2018, was immediately after he saw a Champaign County packet with an example ordinance for solar farms that was copied from an Ordinance from Kankakee County. He said that when he saw this packet of information, his attention was drawn to the part where they allowed a maximum noise level. He said that he and his family used to live in Vermilion County and wind turbines were constructed around their home. He said that they thought that the turbines would be quiet, as advertised, but once the turbines were started, his family suffered from severe sleep deprivation. He said that they got the wind turbine company to shut the turbines off for 51 nights for the first five months so that they could sleep in their house, but once they went public with their complaint regarding the fact that they were not getting sleep in their own home, the wind company refused to shut off the wind turbines. He said that the wind company eventually decided to complete a noise study at his home and the results indicated that the noise level was the very highest level allowable per the Illinois Pollution Control Board (IPCB) noise limits. He said that the wind company adjusted the maximum noise limit and did a surrogate study that would approximate that noise where it was measured at his house, but the IPCB noise levels, in regard to measuring, should be at the property line. He said that the noise level at his house was 45 to 46 dBA. He said that they abandoned their home in Vermilion County and moved to a double wide home where they lived for one and one-half years until they could afford to buy their new home. He said that their new home happens to be a few miles north of the proposed solar farm. He said that when he looks at the email that he sent to Mr. Hall, he noticed that Kankakee County had a maximum noise level of 50 dBA, and he is here to tell the Board that 50 dBA is extremely noisy for a noise source that will be on constantly when the sun shines. He said that he does believe that the solar panels are going to have inverters and transformers amongst the panels in the field, and he believes that it would be a travesty in having that noise interrupt or come into the backyards of the neighbors. He said that the neighbors probably have children, farm animals or pets, and a constant humming tonal type of noise wouldn't be bad for 20 minutes, but it would be terrible if it continues for 10 hours per day in the middle of summer when the wind is calm and there is no other noise to mask it. He said that in his time from going around and testifying about the noise levels at his previous home that he left behind, he has found that there are things that can be done to make it more tolerable and one of the most important things to do is to create a setback from the noise causing item, wind turbine or

3/15/18

1 transformer, and keep that distance far enough away from the neighbors so that noise has an opportunity 2 to dissipate, and at the property line have it at safe level that people can tolerate. He said that the World 3 Health Organization has a noise level of no more than 40 dBA, and Dr. Paul Schomer, from Champaign, 4 Illinois, has testified at many wind turbine hearings and he calls for a 39 dBA maximum noise limit. Mr. 5 Hartke said that Dr. Schomer indicates that in order to achieve a maximum 39 dBA noise level, you must 6 design for a 34 dBA to take care of some of the times when there is no wind to mask the noise or other 7 atmospheric conditions exist. Mr. Hartke stated that while the ordinance is open for amendment, it is 8 very important to put in a safe noise limit so that neighbors can use their backyards the way that they 9 always have for a long time. He said that it is not appropriate to suddenly intrude or interrupt, all day and night, into the confines of people's private property who are not leaseholders or party to any of the 10 negotiations and take away use of their land. He said that the solar companies can place the transformers 11 and inverters in the middle of their project and away from the fringes where homes may be located. He 12 said that the transformers and inverters are on the ground and could have walls, sheds, or bushes placed 13 around them to make the noise more tolerable or go away. 14

15 16

17

18

19 20

21

22

23

24

2526

27

28

29

30

31

32

33

Mr. Hartke stated that the same memorandum has a copy of the PowerPoint presentation titled Effects of Wind Turbine Acoustic Emissions. He said that in the summer of 2015, this presentation was provided in Boone County, Illinois, by Dr. Schomer. Mr. Hartke stated that Boone County, Illinois, put in onehalf mile setbacks to protect their citizens from wind turbines. He said that the slides of the presentation are numbered, and if the Board will review slide #22, Converting criterion (including tolerance) to distance, the noise from any machine, turbine or inverter for a solar panel, creates 72 dBA at the source, and for every doubling of the distance, the noise goes down 6dB. He said that this chart is a very easy way to determine how far away a noisy item needs to be from a property line to keep it from impacting the neighbors. He said that slide #13, Annoyance-the criterion, discusses how noise is in a quiet rural setting, and the Board may hear that people believe that 45 dBA is acceptable, but that is where there is other ambient noise, such as traffic, home air conditioners, etc. He said that he would like to make it clear that in the middle of the summer in the area of this solar farm, there is no traffic, no neighbors, or anything else other than a passing train, which only last 5 to 10 minutes, and during those times when there is no wind, no noise exists at the neighbors' homes. He said that if the County wants to be fair to the residents in the area of the proposed solar farm, a noise study would be required before the project begins and the County would only allow an increase of noise level at 5dB for the amount of humming and buzzing that the inverters and transformers will make near these homes. He said that slide #13 states that a quiet rural setting requires a 5 to 10 dB adjustment from a normal IPCB noise limit, which is where they came up with the not to exceed 39 dBA noise limit.

34 35 36

37

38 39

40

41 42

43 44

45

Mr. Hartke stated that his email to John Hall, dated January 2, 2018, discusses Dr. Schomer's presentation, and requests a setback that will achieve a maximum noise level not to exceed 39 dBA. He said that in his email, he discusses the HDR Engineering noise analysis for Invenergy's project in Champaign-Vermilion County, Illinois, which indicates that 40 dBA is sufficiently low to minimize or eliminate sleep interference. He said that page 2 of 3 of Attachment G to Supplemental Memorandum #1, titled HDR CLAIMS, indicates an area circled in red. He said that when Invenergy constructed the wind turbines near his previous home, HDR Engineering prepared an application for the County Board to approve and HDR stated the following in their sound analysis report: "with the conservative additions, the analysis indicates that the majority of locations would experience turbine sound levels of less than 40 dBA (outdoors). This level is sufficiently low to minimize or eliminate any potential for sleep

3/15/18

1 interference or indoor/outdoor speech interference, as defined by the US Environmental Protection 2 Agency." He said that 40 dBA is also the maximum noise limit from the World Health Organization 3 before adverse health effects begin. He said that the color chart on the same page is titled "Community 4 Response Prediction" and was created by Steven Ambrose, who is an acoustician and an Institute of 5 Noise Control Engineer's member, and all of the black dots on the chart represent a study that was done 6 by the EPA in the 1970's comparing the noise and frequency level of community complaints. He said 7 that the chart has dBA on the bottom row and the first red arrow which points up is the first noise level 8 where complaints begin. Mr. Hartke stated that at 33.5 dBA widespread complaints begin, and the black 9 arrow pointing at the box titled "LOAEL" (lowest observed adverse effect level) the 40 dBA corresponds with HDR's claims, and Dr. Schomer's 39 maximum decibel limit that he proposed for 10 wind turbines, and the 40 dBA is where the beginning of adverse maximum effects begin. He said that 11 the reason why it starts at 40 dBA is because it is constant noise that does not go away. He said that as 12 13 long as the sun is shining, there will be noise from the solar farm, and as long as the wind is blowing,

there will be noise from the wind turbines, which is day and night.

14 15 16

17

18 19

20

21

22

23

24

25

Mr. Hartke stated that the Kankakee ordinance allows a noise level of 50 dBA, which causes vigorous community action levels. He said that vigorous community action levels cause people to attack each other with knives, guns, and other types of violence, and this is because the noise is annoying and pestering the neighbors and it never goes away, which is similar to this. He said that if a husband was at a party with his wife and a stranger came up to the wife and continuously tapped her on the shoulder, not hurting her, just annoying her, and the wife finally says something to her husband, the husband would tell the stranger to stop doing it. He said that if the stranger continues to tap the wife's shoulder, but claims that he is not hurting her just annoying her, the husband will grow tired of it and there will be an argument and fight between the stranger and the husband. Mr. Hartke stated that this is the same scenario with this type of noise generated by the wind and solar farms, the buzzing and humming noise at night time will wear you down and finally get to you.

262728

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43 44

45

Mr. Hartke stated that he does not have the words to adequately explain what he and his wife went through before they finally decided to abandon their home due to the noise. He said that they would pull their kids out of bed, put on their clothes, and shove them out the door to go to school where they would flunk math tests, and he is embarrassed and ashamed to say that he was unable to protect them. He said that he was naïve and silly in believing that the wind company was going to be a good neighbor, and that is not something that he wants to see anyone else go through. He said that he and his wife purchased a home northeast of Sidney on CR 2300E, which is a few miles away from the proposed solar complex, and it worries him that the neighbors are going to go through the same thing that his family went through, just because someone thought that is was a good ideal to put a solar farm in that location that happens to have a huge upgraded substation. He said that at this moment in time, the Board can save those neighbors by making sure that those noise making items are far away from them and they can have their home and yard in peace and quiet. He said that this Board's only job is to protect health, safety and welfare, and it is not this Board's job to make solar or wind energy companies prosperous or farmers allowed to receive their \$800 or \$1,000 per acre income from their farm fields. He said that this Board's job is to protect the landowner's health, safety, and welfare and protect their use of their homes on property that they own, and that they can keep the enjoyment of their property. He said that if the neighbors are injured or hurt, this is not the last time that this Board will hear from him and he will find a way to make sure that the Board knows how good or bad of a decision was determined. He said that if

3/15/18

massive industrial use.

this Board makes this a great decision and they can see the possibility that he is right about the noise issue, he will forever be in their favor and he will work hard to support the Board. He said that if the Board's decision is a disservice to his neighbors, he will follow through with the opposite. He said that he is a licensed surveyor and many people hire him to divide property to house their animals/livestock and their homes and the zoning regulations have limited their lot size to three acres, and the reason for that lot size limitation is to preserve the best prime farmland, and not allow a lot of sprawl and uncontrolled development. He said that it is very inappropriate to have one project to come in, while the County has been doling out three acres at a time and making it very restrictive for a family to live in the country, and give up two square miles at the edge of Sidney where nearby residences are located, for a

Mr. Hartke stated that this afternoon he attended an informational meeting at the Illinois Brotherhood of Electrical Workers in Champaign, and during that meeting, the solar representative discussed how the solar panels are so much better than wind turbines, because they do not generate any noise. Mr. Hartke stated that after the informational meeting, he spoke with the applicant for the Sidney Solar Farm regarding his preference for a 39 dBA noise limit, and the applicant informed him that such a limit would not be agreeable. Mr. Hartke stated that on one hand the applicant is indicating that the solar panels are quiet, but on the other hand they are not going to agree to 39 dBA and will stick to the IPCB noise limits. Mr. Hartke said that he informed the applicant that the IPCB noise limit is not acceptable, because that is the noise level which made his family abandon their home. He asked the Board to be very wary about these types of things and to take them into consideration as they move forward. He said that he has not thought about everything that he wanted to present to the Board, but he would be more than glad to answer any questions that the Board may have. He requested the opportunity to cross-examine or question the applicant when they indicate their intent for the area.

Ms. Capel asked the Board if there were any questions for Mr. Hartke.

Mr. DiNovo asked Mr. Hartke if the black squares on the chart prepared by Mr. Ambrose indicate data points.

Mr. Hartke stated that each black square represents an EPA study done for different towns or villagesthat had a noise issue.

Mr. DiNovo stated that at a 40 dBA standard, 9 out of 27 studies indicated that there were widespreadcomplaints.

Mr. Hartke stated yes. He said that the 45-degree angle line stands for the percentage of people who were highly annoyed. He said that he understands that some people are more sensitive to noise than others, including himself, and the chart indicates that at 40 dBA, 25% of people will be highly annoyed by noise.

42 Mr. DiNovo asked Mr. Hartke to indicate the distance from his home to the proposed solar farm.

44 Mr. Hartke stated that his property is four to five miles from the proposed location of the solar farm.

AS APPROVED APRIL 26, 2018

ZBA

3/15/18

1 Mr. DiNovo asked Mr. Hartke if he has heard any humming noise from the existing transformers at the substation.

3

- 4 Mr. Hartke stated that next to the substation is what he would call a junk yard because it has an old semitrailer with graffiti on it, piles of rock and old concrete, etc., and it is one of the messiest lots in Sidney.
- 6 He said that he has done some investigation in getting the site cleaned up, and when he was at that site,
- 7 he did hear a fair amount of humming noise from the substation.

8 9

Mr. DiNovo asked Mr. Hartke if he can hear the humming noise from the substation at his current residence.

10 11

12 Mr. Hartke stated no.

13

- Mr. DiNovo stated that his residence is approximately six miles northeast of the substation. He asked
- 15 Mr. Hartke if he can hear the grain dryers running at Frito-Lay.

16

17 Mr. Hartke stated yes.

18

Mr. DiNovo stated that when he sits on his back porch, he can clearly hear the grain dryers running atFrito-Lay.

21 22

23

24

25

Mr. Hartke stated that they can hear the grain dryers, but they are not at a level that has caused him to be annoyed by them. He said that it would be appropriate for the Board to require that the applicant provide the data sheets for the transformers and inverters. He said that the applicant could provide the data sheet on the exact type of equipment that they will be installing in this solar farm, or a like kind similar in noise level, and the Board could review that noise level with the noise distance chart.

262728

Mr. Passalacqua stated that the wind farm provided those data sheets and their product's noise level still made Mr. Hartke's family abandon their home.

293031

32

33

34

35

36

37

38 39 Mr. Hartke stated that the wind company and the ordinance indicate that the wind turbine was not to exceed the IPCB noise standards. He said that the reason why they have an upper limit of the 45 to 46 dBA which ran his family out of their home, is because agricultural land is classified as Class C land, but his residential property is classified as Class A land. He said that there is a very high noise threshold allowance in IPCB rules that allows a certain amount of noise for Class C down to Class A, and it is inappropriate. He said that the IPCB noise limits only cover the octave band limits that are audible. He said that the wind turbines rumble and thump because the blades flex in and out of the wind. He said that every time the blades flex forward or backwards, they create an air pressure pulse, and air pressure pulses are noise and are more like a vibration level, and that low frequency noise turns into a thump or rumble noise that could be heard in his bedroom.

40 41

42 Mr. Passalacqua stated that rumbling and thumping noise was not measured.

43

Mr. Hartke stated that the rumbling and thumping noise is not subject to any laws whatsoever, if you are using IPCB limits. He said that Dr. Schomer, who is 90 years old, lives in Champaign and was a

3/15/18

1 graduate student and one of the four people who established the noise levels for IPCB in the 1960's or 2 1970's before any wind turbines were ever dreamed of. He said that the noise standards were never 3 considered to be applicable to things like wind turbines or anything that is highly impulsive, and the 4 closest thing that they had at the time was forging operations where they had heavy metal stamping. He 5 said that forging operations will vibrate and have a pounding sound and they are classified as highly 6 impulsive and have a 5 dBA penalty. He said that somehow wind turbines are not classified as being 7 highly impulsive, and he does not mean to imply that solar panels will cause thumping or rumbling, 8 because they are two separate items. He said that while the Board is working on the solar ordinance, 9 since it is with the wind turbine language, he would like to see the noise limit apply to the wind turbines, inverters for solar panels, and anything industrial that will be next to residential homes. He said that 10 tractors in a field can be noisy, but the noise limits should only be applied to something that occurs 24-11 12 hours per day on a seven day per week occurrence, and not applicable to any temporary interruption.

13 14

Ms. Capel asked the Board if there were any additional questions for Mr. Hartke.

15 16

Mr. Hartke stated that he expected questions from the audience regarding his testimony.

17 18

Ms. Capel stated that due to the nature of the case, no cross-examine is allowed.

19 20

Mr. Hartke stated that he would like the opportunity to present questions to the applicant.

21 22

Ms. Capel stated that Mr. Hartke could provide his questions to the Board and the Board could ask the applicant.

23 24

Mr. Hall clarified that the applicant for the text amendment is the Zoning Administrator.

25 26 27

Mr. Hartke stated that when the solar farm applies for the Special Use Permit, the audience will be able to pose questions directly to their representative.

28 29 30

Mr. Hall stated yes, because that will be an administrative hearing and cross-examination will be allowed.

31 32 33

Mr. Hartke thanked Mr. Hall for his clarification.

34 35

Ms. Capel called Ann Ihrke to testify.

36 37

38 39

40

41

Ms. Ann Ihrke, who resides at 1440 N 1800 East Road, Buckley, stated that she had two very important points to make as the Board is writing a solar ordinance for Champaign County, and hopefully revisiting your requirements for wind turbines. She said that the Board's job as a member of the zoning board is to promote the public health, safety, comfort and general welfare, along with conserving the values of properties throughout the County. She said that in view of what Ted Hartke has presented, any decibel levels over 39 dBA would not meet the above criteria for health, safety and general welfare; therefore,

42

43 your ordinance should put restrictions on the decibel levels for both solar and wind at 39 dBA. She said

44 that in order to write an ordinance that addresses the concerns of all citizens living in the county, it is

45 your duty to research current literature, take statements under oath, and then begin the writing process,

3/15/18

and this should not be pressured by outside sources or rushed. She said that you will have some citizens write or speak publicly at your meetings in favor of wind and solar projects. She asked the Board to keep in mind that a majority of these speakers will have likely signed easement contracts and stand to gain financially. She said that the Board will probably not see as many speaking of their own objections; however, note that many persons are unaware of a projects' pending construction and are therefore blindsided when told that their non-participating property is affected. She said that the ordinance should

Ms. Capel stated that in order to assure accurate transcription, she requested that Ms. Ann Ihrke submit a copy of her written statement to staff, and Ms. Ihrke agreed.

require full notice to the public prior to any contracts for land use being signed, giving the public ample

Ms. Capel asked the Board if there were any questions for Ms. Ihrke, and there were none.

Ms. Capel called Cindy Ihrke to testify.

time to voice their concerns.

Ms. Cindy Ihrke, who resides at 1458 N 1700E Road, Roberts, stated that owning property is one of the most important rights we have in this country; therefore, property values and the right of its enjoyment should be protected for each landowner. She said that she would like to present the Board with several articles and studies pertaining to zoning effects on property values. She said that since wind and solar projects are both industrial scale entities, she would ask the Board to consider them as equally impactful on property values. She said that zoning offers property owners stability and certainty in land values over time, and in giving agriculturally zoned land special permits to build industrial scale electrical generating projects, you are changing the entire area. She said that this affects property taxes, view shed, property enjoyment and general harmony within the area. She said that this issue is becoming more and more concerning and now we are beginning to see a variety of court cases against counties "taking" property without compensation.

Ms. Ihrke stated that she is submitting a few sample articles that can be placed on the record. She said that the first article is about citizens in Cass County, Indiana, where they are suing Cass County over unreasonable setbacks of wind turbines, 1,000 feet from homes, which she believes is similar to Champaign County's current wind ordinance. She said that in their suit, they stated that measuring setbacks from homes and not their property lines is unreasonable and interferes with the enjoyment of their property, and their Fifth Amendment right.

Ms. Ihrke stated that the second article talks about how Shelby County in North Carolina in 2015 changed their zoning ordinance to no longer allow permit solar facilities in residential and rural zones as a special use. She said that the council and residents were concerned that solar projects would harm the value of surrounding properties. She said that before the council voted in favor of the amendment to change their zoning, one of the board members stated that it sets people up for failure to tell them that it is an allowable use in R-20, rural zoning, and when they use the Findings of Fact they will have to indicate that it will harm the value and it is not in harmony, which hurts a potential customer who would have located in a place where the Findings of Fact would not have been negatively answered. She said that they are basically saying that if they would allow solar companies to stay away from residential areas and rural residential areas, it would be beneficial to the solar company and also protect homes.

3/15/18

1 2

5

7

Ms. Ihrke stated that she is also submitting 3 additional sources on how industrial scale energy projects 3 negatively affect property values, one of which is from Eon Energy Research Center, that there are 4 indeed significant negative impacts on surrounding property values. She said that she marked the points of interest in these sources and would hope that the Board would take the time to look into these further. 6 She said that lastly, she does have samples of real property value guarantees for wind and solar for the Board's consideration to add to their current zoning. She said that if anything, this will allow non-8 participating landowners protection for their lifetime investments. She said that she has not looked at 9 many solar contracts, but has looked at many wind contracts, and typically many of the people who are signing the contract for the wind turbines on their property end up waiving their zoning rights, setbacks, 10 noise and shadow flicker limits. She said that when the Board writes the language in to their ordinance, 11 12 they will be protecting the people who are not signing contracts and who do not have a vested interest.

13 14

Ms. Capel asked the Board if there were any questions for Ms. Cindy Ihrke, and there were none.

15 16

Ms. Capel stated that in order to assure accurate transcription, she requested that Ms. Cindy Ihrke submit a copy of her written statement to staff, and Ms. Ihrke agreed.

17 18 19

Ms. Capel called Tannie Justus to testify.

20 21

Ms. Tannie Justus, who resides at 2268 CR 900N, Homer, stated that she is sure that the Board has seen a map of the proposed solar farm in rural Sidney.

22 23 24

25

Ms. Capel clarified that the Board is currently working on a text amendment for the Zoning Ordinance, and not a Special Use Permit case for a solar farm; therefore, the site map is not available for the Board at this hearing.

26 27 28

Ms. Justus stated that she has a copy of a map indicating the proposed solar farm near Sidney and she indicated the location of her property.

29 30 31

Ms. Capel requested Ms. Justus to pass the map to the Board for review.

32 33

34

35

36

37

38 39

40

41

42

43 44

45

Ms. Justus stated that she would like to thank the Board for the time given to discuss the proposed solar farm around the southern Sidney area. She said that to begin with, at this time she is not against the use of solar energy. She said that she believes that with such a world in turmoil, having multiple sources of energy, independent of other countries, is a good thing, as is not placing our entire source of energy in one or two baskets. She said that in time, solar may well prove it can help, possibly offering a cleaner footprint, and she feels that it deserves a chance. She said that she would be a hypocrite to denounce the project, just because it is coming to her back door, front door, side door and yes, the other side too. She said that a chance to be heard, understood, and made all right in the end is what she seeks, because she has put 35 years of blood, sweat and tears into her property, her piece of heaven, as she likes to say. She said that she needs to know that they and the property are afforded certain protections before she can totally can be on board. She will admit that her first response was to beat the drums and jump on the shut it down band wagon, but then a cooler head prevailed and fairness means facts, so that is what she is after. She said that she is very concerned about her property value going down. She said that all her

3/15/18

- 1 family and friends are sorry for them and think that it is awful, but no one has said that they wished that 2 it was their place that they chose to surround. She said that they use the equity in the property for loan
- 3 purposes for their trucking business, and do not want to suffer a loss of that ability.
- 4 Ms. Justus stated that she has questions, such as, will their satellite television, phones, radio, or Wi-Fi be
- 5 adversely affected. She said that water is a concern, and asked if wells will be drilled. She asked if a
- 6 field tile is broken or any land contour changed, would that bring damaging water in their direction
- 7 during the construction and life of the project, and how will those issues be handled. She asked if the
- 8 temperature would raise on their ground once the panels were constructed, and what weed control
- 9 measures will be used. She asked if chemicals are used for weed control, what kind of assurances will
- they have to cover over spray damage on their property. She asked if from start to finish, what is the 10
- expected time frame to deal with the construction noise, dirt, and extra traffic. She said that she would 11
- 12 like assurances that they will be shielded in all directions from noise, glare, or view of the panels. She
- 13 said that they would like screening to be a plant screen, as they do not want to see the fencing around the
- 14
- whole property. She said that more questions will come later, but a face to face meeting and a contact
- 15 phone number for BayWa r.e. would be appreciated.

16 17

18

19

20

Ms. Justus stated that she sees this project right now as a win for the leasing landowners, the solar company, and the governing bodies, but she is not sure it is much of a win for the homeowner stuck in the middle. She said that for them it seems to be more of a try and make it tolerable situation, and she would like to move closer to the win column. She wished the best of luck to us all in figuring out that point and thanked the Board once again for the opportunity to make her feelings heard.

21 22 23

Ms. Capel asked the Board if there were any questions for Ms. Justus, and there were none.

24 25

26

Ms. Capel stated that in order to assure accurate transcription, she requested that Ms. Justus submit a copy of her written statement to staff. Ms. Capel also asked Ms. Justus to submit a copy of the map that she referred to during her testimony, and Ms. Justus agreed.

27 28

Ms. Capel called Andy Robinson to testify.

29 30 31

Mr. Robinson was not present.

32 33

Ms. Capel called Cindy Shepherd to testify.

34 35

36

- Ms. Cindy Shepherd, who resides at 2010 Burlison, Urbana, stated that she would like to provide a little context to the decision that the Board is making, and encouraged the Board to obtain information from other counties and states that have successfully incorporated solar, included large scale community solar,
- into their energy mix. She said that along with a large number of people from throughout the state of 38
- 39 Illinois, for the last two or three years, she has been involved with Illinois Clean Jobs Coalition, which
- 40 helped Illinois pass legislation that made possible more renewable energy, investment energy, and jobs
- 41 for Illinois people through the passage of the Future Energy Jobs Act, which is what has made
- 42 community solar possible. She said that Illinois faces a problem with pollution from coal and fossil fuel
- fired power plants that not only affects the atmospheric carbon levels, but also affects our communities 43
- 44 throughout Illinois where power plants are sited. She said that renewable energy is a way to address
- pollution, asthma rates, low birth weights, children's health rates and many other health problems with 45

3/15/18

coal and fossil fuel fired power plants.

Ms. Shepherd stated that she heard the statement from previous testimony that the Board is in charge of the health, safety, comfort and general welfare of the people of this county, but that health, safety, comfort and general welfare is something that happens across the state and renewable energy is a way to improve those things in a big way. She said that she has sympathy for those whose health and safety were compromised by a wind farm that was not well done, and she knows that this Board will protect the residents of Champaign County from those kinds of consequences during the adoption of the solar ordinance. She said that there is a large scale solar farm at the University of Illinois and tours are available. She said that while visiting the University of Illinois solar farm you can hear the kind of noise that is generated, and she does not feel like it is at a level of mildly annoying. She said that inverters and transformers do not operate during the night, so the idea that neighbors would be robbed of sleep due to the solar plant is not something that needs to be included in the ordinance, but she encourages the Board to find out about those things.

Ms. Shepherd stated that the decommissioning cost for a wind farm is different than the decommissioning cost for a solar farm, because a solar farm is basically steel poles screwed into the ground with glass panels on top of them. She said that to decommission a solar farm, the glass panels must be recycled and the steel poles pulled up and recycled as well. She said that the ground that has laid fallow for 20 years may have been planted with native plants that are low profile, but beautiful. She said that the land is in better condition than it was prior to the installation of the solar farm. She said that the loss of farmland is also something that can be addressed by making sure that the ground underneath is not paved or graveled over. She said that Minnesota has solar ordinances that require that the plantings underneath be pollinator friendly and attractive. She said that she personally believes that solar farms are great looking and might be something that could grow on people after a while. She said that when she sees a solar panel, it is not spewing carbon or other contaminants into the air causing asthma or illnesses that will compromise the health of her children or grandchildren, not now or 20 years from now. She encouraged the Board to write the best solar ordinance that they can based on the scientific information and the experience of other areas in our country who have brought renewable energy into their portfolios, because this is the best way to protect the health, safety, comfort and general welfare of all our residents and put Champaign County on the forefront of being a leader for clean renewable energy.

Ms. Shepherd noted that she does not have any financial stake in any solar farms.

Ms. Capel asked the Board and staff if there were any questions for Ms. Shepherd.

37 Mr. Passalacqua asked Ms. Shepherd if she had solar panels on her home.

39 Ms. Shepherd stated yes.

Ms. Capel called Tim Montague to testify.

Mr. Montague deferred his testimony at this time, and requested the opportunity to speak after Mr.Patrick Brown.

3/15/18

1 Ms. Capel called Patrick Brown to testify.

2

4

5

6

7

8

9

10

11

12

13

14 15

16

17

18

19 20

21

22

23

24

25

Mr. Patrick Brown, Director of Development for BayWa-r.e. Solar Projects, whose address is 17901 Von Karman Avenue, Suite 1050, Irvine, California, thanked the Board and staff for their time and research regarding this project. He said that he feels bad that Mr. Hartke and his family had the terrible experience that they did regarding a wind farm near their previous home. He said that he worked on his agency's wind farm projects previously and he has done a lot of research and understands the concerns and issues that a lot of people present tonight have regarding wind farm development. He noted that this is not a wind farm ordinance and anything that is being brought up about wind and how it is like solar is not correct. He said that the development of wind farms versus solar farms is totally different and any suggestions about the noise ordinance remedies are great, but he would ask staff and the Board to perhaps table and pick it up in a different ordinance amendment, because the world cannot be fixed with one ordinance. He said that that the mission before the Board currently is to draft the first solar ordinance for Champaign County and do the best job that the Board can do so that it protects the community and the best interests of the County. He said that Champaign County wants industry to come in and do projects, but if the Board wants to put something in place for Champaign County that is so onerous that no developer wants to come here, then go ahead and make the ordinance as hard as possible so that the Board never has to deal with anything like this again. He commended staff regarding all the changes that have been made to the solar ordinance so that it meets the goals of serving everyone and not just one side versus another. He said that he originally came tonight thinking that he would only be addressing decommissioning, but he would like to address a few things that were mentioned by the witnesses. He thanked Ms. Capel for noting to the audience that the proposed BayWa-r.e. solar project is not part of this public hearing tonight and that the Board is only reviewing the solar ordinance itself. He said that he has not had a chance to meet with many of the community members, although he did speak to a few tonight, but there is still a lot of work to do on that project and it would be unfair to start cooking it before it is out of the package, so to speak.

262728

29

30

31

32

33

34

35 36

37

38 39

40

41 42

43 44

45

Mr. Brown stated that according to data from the Solar Energy Industries Association (SEIA), the trade organization for solar across the United States, indicates that there have been 53.1 gigawatts of community solar installed across the United States, which is a tremendous amount of data that is out there. He said that he does not want to sit here and have a big discussion about noise and all these different other things, because that time will come later with additional facts, but it is good for the community to come forward with issues that need to be discussed. He said that Mr. Hartke is very concerned about the noise generated by the solar farm, because he had a bad experience and wants to make sure that it doesn't happen to others. Mr. Brown stated that he does not want to come before the Board and tell them that all these people are wrong, because he does not have any facts or studies in front of him, but there is a lot of information out there and he knows exactly where it is. He said that he did not bring any of this information with him because he didn't believe that this topic would be discussed, but he will follow up with it and send the technical information to staff. He said that it would be good for staff to look at the information for the 53.1 gigawatts that are out there in Virginia, North Carolina and California, because there are solar projects everywhere in communities. He said that perhaps staff could call some of the counties in these states and discuss the number and type of complaints that they receive regarding the solar farms, because this is staff's best metric rather than taking his word for it. He said that he does have more of a social science background, but he has done a lot of technical noise studies. He said that he comes from a county where the rural dBA noise limit, per

3/15/18

the ordinance, is 45 dBA at night and 50 dBA during the day, which is very low, at least from his experience as a land use planner and developer who has prepared and paid for these noise studies. He said that the County should take a break and do some research prior to the next public hearing and come back with the results. He said that he is going to do a noise study and acoustical analysis on the subject property. He said that he will get the spec sheets from the manufacturer and crunch it into a scientific model that spits out exactly what the dBA is, and it is not hard to do, but he has to say that the noise is not as doom and gloom as what is being told tonight.

Mr. Brown stated that there was some concern mentioned about property values, and he would punt this subject to staff and request that they speak to other county tax assessors across the United States who have solar projects. He said that this subject comes up all the time, but no one can present a peer review journal article with facts, but if one is discovered he would like to see it. He said that there is so much review that goes into land prices that you cannot pick one variable and determine that this is the reason why a land's value has gone up or down. He said that if a peer review journal article can be found regarding property values and wind and solar farms, he would like to read it, but it doesn't exist.

Mr. Brown stated that they understand that decommissioning is required, and they are not backing away from it, but engaging in it. He said that the landowners that they currently have under contract also want decommissioning security so that they have a guarantee that BayWa-r.e. will not leave their property in a way that they cannot live with. He said that the issue for BayWa-r.e. is the funding. He said that these projects are very competitive and they are not just competing against other solar projects, but against other types of energy that is out there, such as coal, nuclear and wind projects, so everything that they do has to be ultra-competitive. He said that our government is currently putting a tariff on steel, aluminum, solar modules, etc., so everything that they do is always going against them, so to manage costs he had to mention this. He said that the way that the ordinance is currently written, it states that a letter of credit is required on day one and in the next twelve years the letter of credit will be replaced with cash, and by year twelve, if it is \$2 million dollars, there will be \$2 million dollars in cash for the next 25 years that the power plant is operating. He said that this process severely hinders the financial economics of the project and it would be the equivalent of someone taking their money out of their 401K for retirement and putting it in a coffee can in the backyard and earning no interest on it. He said that they must borrow the capital and lock it in place, and it costs money to borrow that money and do absolutely nothing with it

Mr. Brown stated that he has been doing this for a while and he has always been focused on the salvage value of these projects, but it dawned on him that he should focus on the actual value of the project. He said that the proposed project that we are not supposed to talk about tonight is approximately \$185 million, and in year 15 it is not going to be worth \$0, but at least \$100 million in actual value, not salvage value. He said that we are always talking about the salvage value at the end of life for the solar farm when nobody wants to operate, but then there is the actual value, which is at the beginning of life. He said that at year 15, if Champaign County sees the proposed project is not operating, he should be called and he will gladly take over the \$100 million project himself, because it is a gold mine. He said that even if it is a 2 megawatt project, it has a lot of value because it is an operating solar plant. He said that he knows that the ZBA is going to make a recommendation to the Environment and Land Use Committee (ELUC) and then to the County Board for a final decision, but there really is a lot of value to this and to hinder a project based on what is going to happen 40 years from now is not fair, and it will

AS APPROVED APRIL 26, 2018

ZBA

3/15/18

hurt the economics of the project and that is one of the main reasons why we are doing the project, other than the intrinsic values.

Ms. Capel asked the Board and staff if there were any questions for Mr. Brown.

Mr. Passalacqua asked Mr. Brown if the solar plant generates noise.

Mr. Brown stated that the solar plant does generate noise.

10 Mr. Passalacqua asked Mr. Brown if the noise exceeds 39 dBA.

Mr. Brown stated that he is not going to get into a discussion regarding 39 dBA, because he believes that it is ludicrous and he can present evidence of this. He said that if you go outside at night, you will not find anywhere that is 34 or 39 dBA. He said that ambient noise is pretty high already due to wind, so he would like staff to do the research. He said that he has done a lot of projects where it meets the 45 dBA early in the morning and the noise making sources can be moved or mitigated, but to put an arbitrary number, based upon no personal experience from being an actual acoustician, would be foul in this case. He said that the County needs to do the research and an acoustical analysis of the proposed project, where it is going to placed. He said it should be allowed by the applicant, and the discretion of the Board approving the permit should have the authority to say, yes, this works in this case. He said that he has seen situations where they had to mitigate a mountain, because the ordinance stated that there had to be a 45 dBA at night, so if you shoot a gun at night you would have to install a 100-foot fence to protect a mountain that nobody lives on. He said that there is a lot that goes into noise ordinances, and he means this from both sides of the fence, as staff trying to figure out how to mitigate things that do not exist, and as a developer trying to do what is actually feasible. He said that the project does make noise and there are data sheets to prove it and he is not running from it, but a noise study will be provided to show what

it will be in this location. He said that the Board can go down to the solar farm at the University of
Illinois and listen to it; it is not doom and gloom, it is not wind turbines and they do not put out dBC low
frequency noise that runs people out of their homes. He said that these are dBA rated and it is direct

sound pressure and he is sure that the Zoning Administrator will have more information on that at the

31 next meeting.

Ms. Griest stated that she is a big stickler for the decommissioning. She said that she heard Mr. Brown's sales pitch and perspective as he believes the Board should see it, but she has a couple of questions for Mr. Brown. She asked Mr. Brown to indicate who owns the solar panels and the equipment that he is talking about decommissioning at the end of the 20 or 40 years.

Mr. Brown stated that at the end of the day there would be an equity investor or owner.

Ms. Griest stated that there will be debt leveraged against it, so it is not free and clear and available forthe decommissioning costs.

Mr. Brown stated that each deal is structured differently, but there is a point in the deal where it is paid off.

3/15/18

Ms. Griest stated that in the first 12 years, if the life expectancy is 20 to 40 years, it is unrealistic to expect that it would be paid off, especially if the business deal is structured as most are structured, which is to maximize the return every year that they can and as early as they can. She asked Mr. Brown if he can say that this equity, that he claims to be available for the decommissioning, is actually free and clear to be utilized for that purpose.

Mr. Brown stated that he cannot speak to that because every deal is structured differently.

Ms. Griest stated that she will take that as Mr. Brown cannot comment, but her interpretation is probably not.

Mr. Brown stated that it depends on every deal and the revenue stream of the contract. He said that some of the contracts are only for 10 years; therefore, the debt is structured on 10-year basis, but the value of the project is still the same.

Ms. Griest stated that if BayWa-r.e. files for bankruptcy, the County doesn't own that value, but the creditors do own that value and if BayWa r.e. and their creditor walks away, the County is stuck with a facility that must be reclaimed, thus the whole purpose and her rationale for the decommissioning agreement. She said that unless Mr. Brown can address this issue satisfactorily for her, she is strongly opposed to any type of failure to include a decommissioning component to where BayWa-r.e. is at financial risk just like the County, and that BayWa-r.e. is mitigating that financial risk to Champaign County and its taxpayers. She said that she just wants Mr. Brown to know how she feels about salvage value and actual value, because it all may be true but it is not accessible to the County because the County doesn't own it and if BayWay-r.e. filed bankruptcy the court would own it and not the County. She said that this did not work for her, and that is her point. She said that Mr. Brown referred to the 51.3 gigawatts nationally. She asked Mr. Brown if he had a breakdown by state as to where those gigawatts are and how many of them are in Illinois and on best prime farmland.

Mr. Brown stated that SEIA has a breakdown on their website indicating where the 51.3 gigawatts are by state, which would include Illinois. He said that there would have to be an analysis based upon where they are in Illinois and if they are located on best prime farmland. He said that the analysis could be broken down to indicate which counties in Illinois are part of the 51.3 gigawatts.

Ms. Griest stated that if Mr. Brown could provide this documentation by state and the counties in Illinois, she would be interested in reviewing that data.

Mr. DiNovo asked Mr. Brown to indicate the typical contract language with the landowners regarding decommissioning.

- Mr. Brown stated that, as a developer, they try to push the county, if they do not have an existing
 ordinance, to have a decommissioning requirement. He said that they do not want to get into a case
 where he has to do a decommissioning agreement with the county and one with 13 different landowners.
 He said that a decommissioning agreement in the ordinance is cleaner and everyone is taken care of, so
- they try to push it to some sort of an authority to basically be in charge of it and they will fund it and
- make the agreement with the authority. He said that some landowners do not ask for a decommissioning

3/15/18

agreement, and others do ask for it and other things. He said that each negotiation is different, because some landowners want a guarantee that all the tiles at the end will be inspected with a survey and the next landowner won't even mention the tiles. He said that every landowner agreement is different and generally, every landowner wants to make sure that it doesn't get left on their property at the end of the day.

Mr. DiNovo asked Mr. Brown if they would prefer having decommissioning framework in place by the local government as a benchmark that they can use with the landowners.

Mr. Brown stated yes. He said that most landowners are not set up to pull on a bond or hold a letter of credit, because it is not practical. He said that having a local government agency issuing the permit and being responsible for holding that letter of credit makes it easier for the landowner to know that they are covered.

Mr. Elwell asked Mr. Brown to indicate the projected cost of decommissioning for future solar farms, would it be the \$2 million dollars that he previously mentioned. He said that he comes from a life in real estate, and when you foreclose on a property, there is an inherent value to that property.

Mr. Brown stated that he cannot give Mr. Elwell a basic number or metric to use, because every project is different due to the location, such as, the desert or farmland with field tiles that require repair. He said that is why the County requests a plan and an updated cost estimate every three years so that it can be updated, because it isn't going to stay constant. He said that the recent tariff on steel and aluminum has made his scrap value go up 25%, but in six years, it could go down 25%. He said that they will be building something with craftsmanship and precision, which is why it is very expensive to install and you are taking it down with a wrecking ball, basically. He said that once you start decommissioning, it is easy to rip out and smooth out the land, but it is easier to determine decommissioning costs when you have a design for the project. He said that a 1-megawatt project would be a lot easier to tear out than a 150-megawatt project and he wished he had a metric to provide the Board with and that he had a model, but it doesn't exist and it is on a case by case basis.

Mr. Passalacqua asked Mr. Brown if the glass on the solar panels is recyclable and reusable or is it hazardous.

Mr. Brown stated that it is recyclable, but he does not know if it is reusable. He said that it was mentioned earlier about the degradation of the material over a certain time, because it does degrade and break down over time due the exposure to the sun. He said that he does not have any information on the substrate because it is super thin, but they are recyclable and there is only one manufacturer that does have a hazardous chemical that is used during the making process and that is used for larger solar modules, but they also have a recycling program. He said that it isn't like the module would break and leak out hazardous material.

Mr. Passalacqua asked if the module is a HazMat.

Mr. Brown stated that it is not considered a HazMat. He said that the state of California tried to go through that a couple of years ago and it was determined that the material that they used in the

3/15/18

1 manufacturing process, Cadmium Telluride (CdTe), is not hazardous but you wouldn't want to put it in 2 your mouth or anything. He said that it isn't a liquid that leaks on the ground.

Mr. Passalacqua asked Mr. Brown if the piece in the field does not have hazardous material.

Mr. Brown stated that the glass would have to be removed and a lot of effort would have to be made to degrade it in the ground.

Mr. Passalacqua stated that his point is, that through the recycling process, they are dealing with some portion of HazMat material.

Mr. Brown stated yes, if you buy First Solar modules, but every other module manufacturer does not use that chemical in their manufacturing process. He said that if you buy a First Solar module, they will recycle it for you. He said that he would like to bring a module to the next public hearing so that the Board could see one.

Mr. Hall stated that he would have to leave that panel as a Document of Record, but he is welcomed to do so.

Mr. Hall stated that maybe he is easy, but he is beginning to think that photovoltaic solar is so unlike other types of solar energy and so unlike wind farms. He said that it takes a lot to break out of that mold of thinking that when we did the wind farm, we had 500-foot tall towers with mechanical devices that did not have a very long warranty, were susceptible to a lot of natural damage, and were capital intensive. He said that the County Board decided that eventually, when it came down to it, an escrow account is the most reliable way to make sure that there is money for decommissioning that project, when and if it ever becomes necessary. He said that the County Board also allowed the escrow account to be converted back to a letter of credit for refurbishing that plant when those very expensive turbines need to be replaced. He said that the escrow account has that arguing for it, that it can be drawn against in 40 to 50 years in the future, and it should be there to be drawn against if and when the plant needs refurbished. He said that if there is no other way that is as reliable as an escrow account, he could draft changes that would put off the date that the escrow account has to be there, maybe to year 20, but he cannot see any way that at some point there is not going to have to be an escrow account for decommissioning a solar farm in Champaign County. He said that in going back to actual value versus salvage value, he is guessing that Mr. Brown is indicating that if they need to decommission the solar farm at year 10, the solar panels are resalable. He asked Mr. Brown if anyone is willing to buy a 10-year old solar panel, if it has a 20-year warranty to begin with.

Mr. Brown stated yes, they have a 20-year warranty that is backed by a big company that actually has to have the money to back the warranty. He said that manufacturing warranties is a big deal; he worked for a company before which had a hard time backing warranties because they didn't have the capital in the bank. He said that having a warranty with a Tier 1 module manufacturer is worth something. He said that these projects, in his case, are almost \$200 million, and the financing that goes in place is checked, double-checked, and triple-checked on these projects. He said that these are invested over a long period of time; they are not just a short-term investment where they are going to dump it and go bankrupt. He said that the revenue stream and the merchant future curve prices have to be there in place for these

3/15/18

power plants to even get the initial day one financing. He said he hears the comments from the Board tonight and he respects them; he'll have to come back on those. He said he has to ask, if the project has a red line through it – it's not going to happen – then allow the solar project to put in a financial instrument that is used in every other type of development that is used across the United States and the world, to secure that future action. He said that a bond or a letter of credit are very common instruments. He said that asking for cash halfway hurts the model really bad as well. He said that if they request not to put the money up, give them a certain amount of time, maybe that is not going to work. He asked that they be allowed to use a letter of credit for the entire time; otherwise, it's the same thing – you're taking the money out of your bank account, putting it in a coffee can, and at year one, instead of paying a low rate of return for a financial instrument from a major financial institution, he thinks that should at least be allowable. He said that a county can call on a letter of credit or performance bond; any agency in the state that does a major freeway project, bridge, or major capital improvement project requires a bond from the contractor to ensure that they are going to get it done. He said it is done in every capital improvement project, so he thinks it is reasonable to say that the county should trust a letter of credit or some financial instrument, that the county might name, such as requiring an A+ credit rated, however you want to do it, there are a lot of big banks out there that are willing to float these letters of credit and the county will have their assurance that they can pull them.

John Hall stated that he admits not knowing much about this stuff, but he believes a letter of credit is only as sound as your company is sound, and a bond is only as sound as the bonding company is. He said that he believes that is why an escrow account is so firm; it is a perfected account, so that no one else has any claims on it; it is for Champaign County's use in case they need to. He said that maybe Champaign County is not big enough to accept anything less than that, then that might be to Champaign County's detriment; but that is why we have it the way we have it. He said he would be happy to try to work with Mr. Brown to come up with an alternative, but he cannot, in good faith, recommend that this Board send anything less than an escrow account at some point in time. He said that Mr. Brown might convince the County Board that their company just isn't big enough to do this project if the Board does not accept anything less than an escrow account. He said that the decision to have an escrow account was a decision made by the County Board; the members that drove that decision are no longer on the County Board. He said that is sort of our situation in a nutshell; the county in the past has wanted almost absolute reliability. He asked Mr. Brown if the definition of "Tier 1" could be documented.

Mr. Brown stated that Bloomberg sends out a list of Tier 1 module manufacturers and that list is updated quarterly. He said that he would be happy to send a copy of that list to the Board for review.

Mr. Hall asked Mr. Brown if he would normally submit the warranty information on the solar panels as part of an application, just to prove that the panels are warrantied.

Mr. Brown stated that he could provide those warranty sheets from the manufacturer.

Mr. Hall stated that the more we can document these things which may be useful in proving that we don't need an escrow account set up at year 12, maybe it can be pushed off, and perhaps not even require a 100% letter of credit in the beginning. He said that the State of Illinois has set a much lower standard and perhaps Champaign County would be willing to go along with the structure of the Agriculture Impact Mitigation Agreements, but that is so different than what we currently have and he would never

3/15/18

recommend a structure like that for a wind farm. He said that for a solar photovoltaic farm, where there are panels that are not mechanical but have chemical reactions occurring, maybe there is good justification to require something less than what we require for a wind farm, but his concern is that ultimately, we are going to want an escrow account at some point.

4 5 6

7

8

9

10

1

2

3

Mr. Brown stated that perhaps a letter of credit up to a certain point in time and then conversion to whatever time period this Board feels is necessary. He said that anything helps, but his company has modeled this, and every other agency just requires a letter of credit. He said that it was about 20 basis points, or \$1 million difference, which isn't a little bit of money. He said that it still achieves the same thing and you have the money at the end, so if we can agree on some period in time where it flips, then that would be amenable to them.

11 12 13

Mr. Randol asked Mr. Brown if the ILEPA has any requirements that Baywa r.e. must follow.

14

15 Mr. Brown stated that he has never had anything to do with the EPA.

16 17

Ms. Capel asked the Board and staff if there were any additional questions for Mr. Brown, and there were none.

18 19

Ms. Capel called Tim Montague to testify.

20 21 22

23

24

25 26

27

28

29

Mr. Tim Montague, Commercial Solar Developer for Continental Electrical Company, whose office is located at 815 Commerce Drive, Suite 100, Oak Brook, IL, and who resides at 2801 Park Ridge Drive, Urbana, thanked the Board and staff for their diligence in this matter because this is a very important project and a good solar ordinance will mean the life or death of renewable solar energy in Champaign County. He stated that for all intents and purposes, Champaign County has a failed wind farm ordinance, because our County is surrounded by sizable wind farm developments and Champaign County is not host to any sizable wind farm developments and only has a small number of utility scale wind turbines. He said that Champaign County has fantastic wind and outside of the IEBW meeting, the wind speed was tracked at 50 miles per hour.

30 31 32

33

34

35

36

37

38

39

40

- Mr. Montague stated that Mr. Brown submitted a document from the North Carolina Clean Energy Technology Center, which is Attachment C. of Supplemental Memorandum #2, dated March 1, 2018, and included in that document is a map which indicates the megawatts of solar in the United States, as of March 2017. He said that the map only indicates the top 10 states and Illinois is not indicated, but currently Illinois has 100 megawatts. He said that funding is now available in Illinois through the Future Energy Jobs Act (FEJA) for the expansion or addition of 3,000 megawatts of solar, including roof top, community solar, and utility scale. He said that the map references who has really worked hard and long in finding good ways to protect its residents' health, but the goal is to fulfill their renewable portfolio standard of 25% clean power, which is the whole point of FEJA and why we are here today. He said that California has 20,000 megawatts and in Illinois, they plan to install 3,000 megawatts. He said that the state of New York has 1,176 megawatts, and anyone studying the industry should review this reference list and find the ordinances for these places. He said that Illinois is not an expert on zoning for solar
- 42 43
- 44 farms because it is so new and the wind farms are ahead by a decade. He said that a solar farm is not a
- 45 wind farm; the impact on the visual and sound environment is completely different and it is very

3/15/18

unfortunate that we have conflated the two. He said that this Board is taking in a lot of information and this process is not easy and he commends the Board for their diligence in committing to this matter.

2 3 4

5

6

7

8

9

10

1

Mr. Montague invited the Board and staff to visit the University of Illinois solar farm, which is a 20-acre, 5-megawatt, utility scale solar farm, and is very similar to what the three solar developers are proposing. He said that the University of Illinois provides tours which take the public behind the fence, but the public could drive up to the farm via the access road. He said that the scheduled tours allow the public to become immersed in the equipment. He said that the inverters and transformers are similar to the proposed projects, and from personal experience, Mr. Montague can indicate that the noise coming from the equipment is far surpassed by the environment around them. He said that the wind, traffic, and other sounds from human activity surpass any noise from the equipment.

11 12 13

14 15 Mr. Montague stated that the other testimony that has been provided regarding the impacts of wind farms is spot on, and he completely agrees that those impacts are significant, but tonight we are not discussing wind farms. He said that the Board needs to be careful to not conflate the wind farm and solar farm facilities, because they are like apples and oranges and are completely different.

16 17 18

19 20

21

22

23

24

25 26

27

28

29

30

31

32

33

34

35

36

37

38 39

40

41

42

Mr. Montague stated that Mr. Brown's letter dated March 13, 2018, regarding Draft Solar Ordinance – Decommissioning Requirements Section 6.1.5.P, includes the kind of subtleties that will make or break your ordinance. He said that if we are not careful, and depending on what Champaign County wants, do we want Champaign County to participate in the Renewable Portfolio Standard (RPS) that Illinois is going to achieve 25% clean power by 2025. He said that if we want Champaign County to participate in anything other than roof top solar, which is currently 1 megawatt thanks to Scott Tess, Sustainability Manager for the City of Urbana, and the ordinance is too onerous on the developers, they have the rest of the state of Illinois to pursue, as we have seen with the wind farm developers. He said that if you talk to wind farm developers they will tell you point blank that the Champaign County Wind Farm Ordinance is too prohibitive so they went elsewhere. He said that the Ordinance is a failed ordinance and it isn't just due to one clause, or the decommissioning requirements, or the setback requirements, but it is a failed ordinance unless the intent was not to have renewable energy in Champaign County. He said if that is the case, then the ordinance is a tremendous success. He invited the Board to review a document titled, "Decommissioning Solar Panel Systems" prepared by New York State Research and Development Authority (NYSERDA), which reviews the different strategies and financial tools that states can use in working with developers, but this document will not provide a model ordinance. He thanked staff for the table of fee schedules from different counties, but it appears to be all over the place, which indicates that every county is making this up as they go. He said that unfortunately, Illinois does not have a good model ordinance, but it will eventually happen, although it may be too late, and the decision to use the wind ordinance instead of creating an ordinance from scratch makes it difficult to adopt a model ordinance. He said that he does not know what the tactics are for identifying the exact language that protects the citizens of Champaign County from negative impacts from renewable energy projects and that also doesn't shut out development. He said that the reason why this is so important is because we are all paying into FEJA, which accumulates to \$200 million dollars per year in cash subsidies that are paid out to project owners; therefore, as citizens of Illinois we are getting short changed from the system if we cannot benefit.

43 44 45

Ms. Capel asked the Board and staff if there were any questions for Mr. Montague, and there were none.

3/15/18

1

Mr. Hall asked Mr. Montague to submit a copy of the NYSERDA fact sheet to staff.

3 4

Mr. Montague agreed.

5

Mr. Hartke requested the opportunity to ask Mr. Montague questions.

6 7 8

- Mr. Hall informed Mr. Hartke that he could propose the questions to the Board and request Mr.
- 9 Montague's response to those questions.

10

11 Mr. Hartke requested the opportunity to re-address the Board.

12

Ms. Capel informed Mr. Hartke that she will call him back to the witness microphone after all the otherwitnesses have been called.

15

Ms. Capel called Phil Fiscella to testify.

16 17 18

19

20

21

22

23

24

25

Mr. Phil Fiscella, whose address is 505 West Green Street, Champaign, stated that if anyone is interested in taking a tour for the University of Illinois Solar Plant, they should contact Morgan White, University of Illinois Director of Sustainability, at 217-333-2668 or at mbwhite@illinois.edu. He said that since he does purchase debt that ends up in bankruptcy court, and the Board expressed concern about that occurring, bankruptcy court is not a black hole and if a solar company goes bankrupt, the court administers the asset and would probably try to keep it running as a solar farm and would auction it off as a solar farm. He said that another solar company would probably come in and continue to operate it as a solar farm, but if it were a non-operating solar farm, the court could decide to terminate the leases and the underlying metal and scrap value would still be there and the salvage value would not disappear.

262728

Ms. Griest stated that she would disagree, because if there was debt leveraged against those, the debtholder could repossess them. She said that to say that as a blanket statement that the salvage value would be there is not something that she could support in a decommissioning agreement.

30 31 32

29

Mr. Fiscella asked Ms. Griest if the debtholder were to repossess the girders, panels, etc., wouldn't that effectively remove some of the problem.

33 34 35

36

37

Ms. Griest stated yes, but there is no guarantee that they would do that. She said that Mr. Fiscella has obviously not seen the blighted sites where the developer of other large facilities had gone bankrupt and walked away leaving the local government with a rusting hulk. She said that Champaign County has made a commitment to protect the County from that happening in the future. She said that Mr.

made a commitment to protect the County from that happening in the future. She said that Mr.
 Montague asked the Board if Champaign County desires to have renewable solar energy or not, but she

- said it is a mixed bag because Champaign County has the best productive agricultural ground in the world and to take it for a use that is not optimal for that ground may not be in the best interest of the
- 42 County. She said that she does love roof top solar, but to take hundreds of acres of highly productive
- farm ground out of production is counter-intuitive to everything that the Environment and Land Use
- 44 Committee (ELUC) has previously told the ZBA is their responsibility. She said that she is a hard sale
- 45 on this.

3/15/18

Mr. Fiscella stated that he understands Ms. Griest's point. He said that it is interesting that the State of Illinois has seen fit to subsidize these in such a way that economically the free market is pushing it in that direction; it is a complicated problem.

Ms. Griest stated that Champaign County is one of the unique areas in the nation and within the state where the productivity of the farm ground is so high. She said that Champaign, Douglas, and Piatt counties have some of the best farmland in the world and are unique from possibly Sangamon County or as you get farther south, where there is less glacial drift, where there is less productive ground, which are much better suited for taking out of agricultural production.

Mr. Hall stated that at the next meeting, he intends to distribute an analysis to the Board regarding the possible conversion of best prime farmland, and once we add up the number of by-right lots that can be created out of 1,200 acres of best prime farmland and multiply those by three acres per lot, it is going to be multiples of land more than what a 1,200 solar farm would actually disturb, much less convert. He said that it is true that Champaign County places a high value on best prime farmland, but not so high that we have stopped by-right development.

Mr. DiNovo stated that there are two distinct issues when you talk about farmland preservation. He said that one is, how much land is available for farm operators to make use of for their livelihood, and the other is how much of the soil resource remains in place. He said that a large scale solar farm is highly relevant to the first consideration and is less relevant to the second consideration because it is less disruptive of the underlying soil structure and is not like converting similar acreage to single family homes where the soil structure was destroyed. He said that the County has never been clear when they talk about preserving best prime farmland and what it is that they actually mean; do they mean both of those things, are they both equally important, is one more important than the other. He said that clarity on that would be most helpful.

Mr. Passalacqua stated that they had enough interest in the preservation of best prime farmland to make the ZBA spend one year evaluating the Land Evaluation and Site Assessment System (LESA). He said that the County has been compared to the sun resources in southern California, which happens to be a sunny desert. He said that he likes lobster, but we are not going to grow lobster here. He said that he likes the idea of solar panels on top of the roof at Kraft Foods, but not necessarily on top of what used to be soybeans or around Ms. Justus' house. He said that the developers would be hard pressed in convincing him of no escrow and lesser setbacks; it isn't going to happen.

Ms. Capel called Andy Robinson to testify.

Mr. Andy Robinson, who resides at 508 South Prospect, Champaign, stated that he supports solar energy and recently added a roof top solar system to his home and his kids mentioned on the first sunny afternoon that they were vacuuming with sunshine. He said that solar energy is a visible statement to the younger generations and they really do recognize the benefits. He said that his church recently added roof top solar panels and they are extremely excited about that project, but it only covers 70% of their electricity use so they are looking to purchase the other 30% of their electrical use annually from a local solar farm. He said that homes have a solar bill of rights in Illinois that protects a homeowner's right to

3/15/18

1 put a solar panel on their roof despite what local homeowner associations may say to the contrary and it 2 would be interesting if in the future there is a statewide solar bill of rights as well which protects 3 landowners in using their land as they see fit. He said that he did visit the University of Illinois Solar 4 Farm and he highly recommends the tour, or you can stand outside of the chain link fence along Windsor 5 Road to view and listen to the solar panels. He said that the solar panels on his roof do not make a 6 sound, and the two three-phase transformers that are outside the door of this building do not make a 7 sound, and he bets no one even noticed them when they walked in the door. He said he agrees with the 8 previous statement that comparing solar farms to wind farms is like comparing apples to oranges, 9 because they are two totally different animals. He said that there are videos available for viewing on the News Gazette and University of Illinois websites regarding the installation of the University of Illinois 10 solar farm and he found it interesting that they drilled steel poles into the ground and attached the solar 11 panels to those steel poles. He said that he previously had concerns that there would be concrete put into 12 the ground that would be hard to dig up afterwards and would damage the soil, or that they would scrape 13 off the topsoil and sell it, or put down a lot of gravel. He said that the only gravel that was placed was in 14 15 the center of the solar farm for an access road, which is no different than what most farm fields would have. He said that he was pleased to see that they preserved the soil completely, and really the soil is 16 17 being productive, it is just resting. He said that he would be interested in reading more about how laying 18 fallow farm fields is beneficial to farm production. He said that Minnesota has been a leader in solar farms and they have great examples of native pollinator plantings underneath, such as native wild 19 20 flowers, and there is a really good website: www.ruralsolarstories.org, which is a rural collective 21 demonstrating the benefits of prairie plants on water retention and bees. He said that every subscriber of 22 the solar farm gets a jar of honey from the solar farm and they employ bee farmers for the farm, so not 23 only are you employing locally, but you are helping bees and local pollinators, bees and butterflies, 24 throughout the state.

25 26

27

28

29

30

31

Mr. Robinson stated that a chain link fence that is required by electrical code anyway is plenty for safety. He said that the U of I Solar Farm only has a chain link fence and you can see the panels on a rolling hillside and if they were on flat ground, you wouldn't see them at all. He said that he wonders if a solid wall or fence would be overkill and added expense to these projects, because currently utility projects that are in rural areas do not require anything other than a chain link fence. He said that he wonders why sight lines are such a big deal for solar farms when it doesn't seem to be for other industries that are already out there. He noted that he appreciates all the work that the Board is doing on this project.

32 33 34

Ms. Capel asked the Board and staff if there were any questions for Mr. Robinson, and there were none.

35 36

Ms. Capel called Theodore Hartke to the witness microphone.

37 38

39

40

41

42

Mr. Theodore P. Hartke stated that he had a hard time sitting quietly in the audience, and wanted to point out a few things that were stated. He said that Mr. Brown indicated that wind is bad, but don't change your wind ordinance. Mr. Hartke stated that he believes that Mr. Brown is trying to make sure that the changes that are occurring to the ordinance are solar related only. Mr. Hartke stated that he believes that the Board has the ordinance open and the Board is talking about land use and renewable energy, which is all under the same category in the ordinance.

43 44 45

Ms. Capel informed Mr. Hartke the specific request is to amend the ordinance for solar only.

3/15/18

Mr. Hartke stated that if the solar ordinance is amended, and a safe noise limit is established from his input and what his experience has been, then that noise limit should be blanket for any noise producing item that is all day.

Ms. Capel informed Mr. Hartke that this would be under a different amendment.

Mr. Hartke stated that Mr. Brown stated that a huge company backed the warranty for the solar panels. He reminded the Board that Solyndra was a huge company that went bankrupt and went out of business very quickly; TerraForm Power now owns the Invenergy Wind Farm located in Champaign County and TerraForm Power's parent company is called SunEdison, which is completely bankrupt and all TerraForm Power assets are not owned by another investment company. He said that Mr. Brown stated that early in the morning, the solar farm will produce 45 dBA and then Mr. Montague indicated that the solar farm does not make noise, and somewhere in between is perhaps the truth. He said that Mr. Brown and Mr. Montague discussed background noise and how the ambient noise is already noisier than the noise that the solar panels will make, but Mr. Hartke has heard all of these things before and he does not live in a house next to the wind turbines any more. He said that he is here to testify that near his home when the turbines were not running, his ambient noise was in the magnitude of 25 dBA, and when we have a 25 dBA measurement in a rural area it is because it is absent of dogs barking, traffic, home air conditioners, grain bin dryers, etc. He said that in the morning when the sun comes up and it hits the solar panels making a noise of 45 dBA, they will wake you up inside your home and that will be a problem. He said that he will guarantee that 45 dBA at sunrise in the morning will wake these people up out of bed and they will not be able to sleep in on Saturday morning or any other morning during the summer time. He said that as a way to keep the solar farm company from declaring that the County is unfairly making an ordinance that excludes solar panels, he suggested that the Board allow a maximum of 5 dBA increase in the noise compared to the ambient levels. He said that Richard James, an engineer and acoustician from Michigan, and other acousticians agree that typically you will not have complaints if a new noise source does not increase the ambient noise level by more than 5 dBA, and this would be a fair way to treat all citizens in Champaign County.

Mr. Hartke stated that he would like to come clean about a few things; he owns an engineering and surveying company and all of his engineers and surveyors did all of the surveying and construction layout for the entire University of Illinois Solar Farm. He said that it was a good money making endeavor and his company established the GPS machine control points and data that allowed the installers to use their tractors with the auger bits for every single panel on that entire project. He said that his surveyors laid out the access roads and all of the transformer inverters at the ends of those rows and some of the cables that are underground, and he is very familiar with the entire project. He said that his company could have potential in doing surveying for this particular solar project, but his first responsibility as a licensed engineer and land surveyor in the state of Illinois is to protect the health, safety, and welfare of the public and this is what his license is for. He said that if he thought that something is going to harm people, whether it is a flaw on a bridge construction project or the State Farm Center that they surveyed, if he sees something he will say something, because he takes his license and his livelihood seriously and he takes it to heart. He said that at his office in Ogden, he has 7.98 kW on the rooftop of his office and he is not an anti-solar person. He said that the inverter is located in the warehouse behind his office and is indoors and it makes a humming noise when it runs. He said that the

3/15/18

noise from the inverter does not bother him because there are only 8 kW of power feeding that small inverter, which is twice the size of a computer pc. He said that he feels that there are at least two or three sales people who are trying to sell the Board something, and he would like the Board to create a situation where what they are selling does not cause the Board to give away the use and enjoyment of an unsuspecting neighbor. He said that he was one of those neighbors in 2009 and he would not want anyone to go through what he and his family had to go through, and he would feel like a failure if he could not convince this group to stop this from continuing. He thanked the Board for their time, but he does not envy their jobs at all because the Board has some very hard decisions to make.

Ms. Capel asked the Board and staff if there were any questions for Mr. Hartke, and there were none.

Ms. Capel asked the audience if anyone else desired to sign the witness register to present testimony regarding this case.

Ms. Capel called Tim Osterbur to testify.

Mr. Tim Osterbur, who resides at 302 Witt Park Road, Sidney, asked the Board if the Village of Sidney's one and one-half mile jurisdiction covers the solar farm or is it strictly the County's jurisdiction.

Mr. Hall stated that the County has the zoning jurisdiction up to the Village of Sidney's municipal boundary. He said that state law does not give municipalities or township plan commissions protest rights on special use permits, which is what the solar farm case will be, but the County has always asked municipalities if they have comments on a special use permit in their extra-territorial jurisdiction. He said that in this instance, staff has gone beyond that by writing in the standard conditions that when a special use permit is received for a solar farm that is within one and one-half mile of a municipality, it has to be documented that the municipality knows about it and before the County Board votes; the standard condition is to receive a non-opposition letter from that municipality. He said that even if the municipality is opposed, the County Board can vote over and above that opposition, but we are trying to make sure that municipalities have as much of a chance to comment on a solar farm.

Mr. Osterbur asked Mr. Hall if he could indicate how the solar farm will affect the taxing value of the land.

Mr. Hall stated that there is legislation that is going to adopt a uniform lower rate of taxation, but he is not familiar with it. He said that Mr. Osterbur could discuss this with his township assessor or the County Supervisor of Assessments.

Mr. Osterbur stated that he did speak with the township assessor and she indicated that it would go from land to lot value, but she also stated that there was legislation to change that.

42 Ms. Capel asked the Board and staff if there were any questions for Mr. Osterbur, and there were none.

Ms. Capel asked the audience if anyone else desired to sign the witness register to present testimonyregarding this case.

3/15/18

Ms. Capel called Max Kummerow to testify.

Mr. Max Kummerow, who resides at 3604 S. Vine Street, Urbana, stated that it's a real dilemma and this hearing really outlines it. He said that globally, we are warming up and the southern half of Florida is going to be under water, and locally we have impacts from trying to fix that. He said that if we don't get to solar we are going to be putting coal mines by Homer, so that is a balancing act and he hopes that the Board can minimize the impacts locally and maximize the benefits globally, good luck.

Ms. Capel asked the Board and staff if there were any questions for Mr. Kummerow, and there werenone.

Ms. Capel asked the audience if anyone else desired to sign the witness register to present testimonyregarding this case.

16 Ms. Capel called Elise Doody-Jones to testify.

Ms. Elise Doody-Jones, who resides 2025 Burlison, Urbana, stated that she is new to the area and that she moved here because Champaign-Urbana is a pleasant part of the state of Illinois. She said that there are exciting things happening in the area and she personally sees solar as a huge job creation possibility, and as a way of saving soil. She said that often she sees farmers tilling to the very edge of their land and this is an opportunity to save that soil. She said that she did take a tour of the solar farm at the University of Illinois and when you read about things going on across the country underneath these kinds of solar panels, such as, chicken farms and pollinator plantings, it is exciting and it would be a shame if Champaign County did not take part in that, and a wider portfolio of energy would be a good thing for the county. She said that one of the reasons why she and her family moved down here is because there are interesting things happening here and the county has diversity in so many things, other than just farming corn and soybeans, and she is hoping that the Board will find a way to bring solar into this county as well. She said that she did take part in community solar and she does have solar panels on her roof and there are so many opportunities here to grow solar beyond roofs. She said that hopefully solar can be moved to parking lots that are eyesores. She wished the Board luck in approving a reasonable solar ordinance.

Ms. Capel asked the Board and staff if there were any questions for Ms. Doody-Jones, and there were

37 Mr. DiNovo requested a short recess.

The Board recessed at 9:06 p.m.The Board resumed at 9:11 p.m.

42 Ms. Capel asked Mr. Hall to review the screening information that is before the Board.

- Mr. Hall stated that there are folks here tonight who will have a solar farm on all sides of their property,
- and the amendment that was dated February 22, 2018, was not adequate and would have required, at a

1

2

3

4

5

6

7

8

9

10

11

12

13

14 15

16 17

18

19 20

21

22

23

24

25

3/15/18

minimum, an opaque fence. He said that if someone bought a lot in the country and constructed their dream home, and suddenly a solar farm is on all four sides, an opaque fence would be 10 feet from your property line and would surround your property. He said that this type of scenario is not what people buy into when they purchase their dream property and he understands their concerns. He said that staff believes that instead of requiring an opaque fence, a vegetative screening should be required for any part of the solar farm that is visible within 1,000 feet from a dwelling. He said that on the handout indicating required solar farm screening when located on the opposite side of the street from a residential property, there are two views shown, the close-up view so that the Board can appreciate the 25 feet yards, and the bottom view illustrating the proposed requirement for vegetative screening 1,000 feet down the road in both directions from that home. He said that as a practical matter, he does not believe that someone can actually encompass 2,000 feet in your view, so maybe that is overkill, but it is our revised starting point. He said that it could be that 500 feet on either side of the house is adequate, and he doesn't know if you can actually see 1,000 feet in a panoramic view like that. He said that the vegetative buffering would be the classic evergreen plants spaced such that there will be a 50% screen within four years. He said that as a practical matter, the required fence for the solar farm can be no closer than 10 feet to the right-ofway line, which means that there is no more than 15 feet of vegetation there unless you establish a greater setback from the street. He said that for screening a solar photovoltaic farm, all the applications that he has seen have a maximum height of 8 feet, and the applications that the Department of Planning and Zoning has currently are generally less than 8 feet and are somewhere between 4 feet and 8 feet. He said that at the beginning of the day they are 8 feet and at the end of the day they are less than 8 feet, so screening up to 7 feet is all that should be necessary and it is a happy happenstance that native plants grow to 7 feet tall once they are established, so this is an instance where natural species would be a great buffer around this part of the solar farm that we want to screen. He said that it is difficult to get prairie plants well established, but even if we go with evergreens, the standard is 50% screening within 4 years and we never require a 100% vegetative screen in year one or two. He said that it is expected that the vegetative screens will take a few years to develop fully.

262728

29

30

31

32

33

34

35

36 37

38 39

40

41

42

43 44

45

Mr. Hall stated that the other illustrations show a solar farm completely around a property. He said that the February 22, 2018, version of the amendment, referring to the separation distance of a solar farm from a dwelling, indicated that no part of the solar farm equipment could be closer than 100 feet and no closer than 50 feet to the property line. He said that version of the amendment was faulty because we are not intending to require it to be 50 feet from the property line in all places. He said that we are going to revise that to specify that it be no closer than 50 feet to an adjacent lot that is 3 acres or less in area. He said that we are not intending that standard to apply to agricultural areas, but to lots that are 3 acres or less in area. He said that there is a lot of information in these illustrations and Ms. Burgstrom has done a great job in placing a lot of information on these illustrations, but sometimes there is so much information that it is sometimes very subtle. He said that if the solar farm is across from a dwelling, 1,000 feet in either direction, it should be screened with vegetation, and around the property with the dwelling the required fence shall be 25 feet from the property line and then vegetative screen would be within that 25 feet. He said that the vegetative screen, regarding prairie grass, only has to be 10 feet deep, but they could choose to do the 25 feet or even grow crops in that area, but that is up to the ZBA. He said that he does not believe that growing crops in this area would be desired because it would be terrifically inefficient, but the point is that we are trying to establish a minimum amount of screening that will sufficiently minimize the visual impact, and at this point he is prepared to define that screen for a photovoltaic solar farm. He said that the proposed screening is not proposed to be adequate for any

AS APPROVED APRIL 26, 2018

ZBA

3/15/18

other type of solar farm, and frankly he does not believe that we will see any other type of solar farm in east central Illinois, but a solar photovoltaic solar farm is so unlike the other types of solar farms that we want to specify when a standard is sufficient for solar photovoltaic solar farm but perhaps not sufficient for other types of solar farms. He stated that the third drawing shows a home surrounded by a solar farm on all 4 sides.

6 7

8

Mr. DiNovo stated that at a sufficiently acute angle, a chain link fence is going to go a long way towards obscuring what is behind it. He said that when you are going out 1,000 feet and across a 60 feet road right-of-way, at some point that angle is getting to be so acute.

9 10 11

Mr. Hall stated that you can still see that it is a chain link fence.

12

- 13 Mr. DiNovo stated that you can still see that it is a chain link fence, but you can't see what is behind it.
- He said that people may have different feelings about how solar panels look, and so we need to screen the fence.

16 17

Mr. Hall stated that the fence is necessary for security, and no one that he knows wants to live surrounded by chain link fence.

18 19 20

21

22

23

Mr. DiNovo stated that there is a balance to be struck here as well, in particular to the fence setbacks, because this does require more land consumption for the same amount of energy generation, and every step that we take in this direction comes at the cost of less efficient use of the land. He said that evergreen plantings will complicate the ability to control weeds, and if noxious weeds are to be kept under control, someone is going to have to go out there and spray.

24 25

Ms. Capel stated that they could plant clover.

27

28 Mr. DiNovo asked Ms. Capel if clover would keep out the noxious weeds.

29

30 Ms. Capel stated that it would have to be sprayed and monitored.

31

Mr. DiNovo stated that given the time available, he does not know if the Board wants to go through the entire amendment.

34 35

Mr. Hall stated that the meeting began early, so the meeting will not end until 10:00 p.m.

36

37 Ms. Griest stated that the meeting started early due to the time change.

38

Mr. Hall stated that the time change would have started the meeting at 7:00 p.m., but the Board voted to begin tonight's meeting early to provide additional time to review the amendment, so anything that the Board discusses tonight would be good.

42

43 Mr. DiNovo stated that currently there is one set of standards regardless of the size of the project.

44

45 Mr. Hall asked Mr. DiNovo to indicate what standards he is discussing.

3/15/18

Mr. DiNovo stated all of these requirements.

Mr. Hall stated that Mr. DiNovo is incorrect. He said that the road standard has the provision for small community solar farms to be exempt from the road use agreement if the highway authority goes along with it.

Mr. DiNovo stated that with that exception, all of the requirements here are irrespective to the size of the project and it occurs to him that some of the cost requirements do not necessarily scale and would be maybe manageable for very large projects, but burdensome for small ones. He said that the small ones probably pose fewer problems than the large-scale projects.

Mr. Hall requested an example.

Mr. DiNovo stated that he would draw a distinction between a development that occurs on a single tract of land and single landowner versus multiple tracts with multiple landowners, which is a better analog for wind farms. He said that a single tract is more like a normal zoning issue, one use and one parcel, some of the concerns regarding decommissioning and farmland impacts could be handled in the contract between the landowner and the solar company. He said that some of this stuff seems paternalistic, like when the County tells the landowner what kind of steps they have to take protect their interest in the future use of their land; he thinks they are perfectly capable of negotiating their own contracts for impacts on farm tile, regrading and preventing compaction.

Ms. Capel stated that they did say that they used something like the county ordinance for the basis of their negotiations.

Mr. DiNovo stated that he can see that in regard to decommissioning, and when we are dealing with large multi-parcel projects, the uniform standards may be appropriate, as we are talking about 5% of Sidney Township. He said that on a single tract of land, it seems that a lot of those concerns could be left up to the landowner and the developer to work out between themselves.

Mr. Hall stated that the two types of solar farms are the utility scale solar farm and the community solar farm. He said that Champaign County will probably see only one utility scale solar farm, and we could see community solar farms literally cheek by jowl, all on separate parcels, limited by the capacity of that 3-phase line. He said that those are all individual projects that are 20 to 50 acres in size, but there could 3, 4, or 5 of those unless the County adopts a standard that they do not want to do that, although he does not know why the County would. He said that there could be a lot of acreage developed as community solar farms and he could not imagine why the County would not require a site reclamation plan.

Mr. DiNovo stated that he cannot imagine who would have a stronger interest in having a strong site reclamation plan than the landowner, and who would be in a better position to see that those provisions are attended to.

Mr. Hall stated that he cannot believe that Mr. DiNovo is even saying such a thing. He said that if the Board wants to recommend that then that is fine, but he would be very much opposed to it.

3/15/18

Mr. DiNovo stated that the Board generally shies away from paternalistic regulations, and we tend to say that proper zoning regulation is when what landowner A. is doing affects landowner B. He said that it is entirely proper for the Board to be concerned about farm tiles that serve upland sites and cross a given site, but farm tiles that only serve the land in question is not this Board's problem.

Mr. Hall stated that it will be a very rare instance when this Board truly knows what is served by any farm tile.

Mr. DiNovo stated that it depends on the size.

Mr. Passalacqua stated that as he drives around the County and views what landowners have done on their own devices, and Mr. DiNovo suggests that the decommissioning be left up to those said landowners, he couldn't believe what Mr. DiNovo just said either.

Mr. DiNovo stated that perhaps he is wrong about the current County Board, but in the past, there was a very clear idea that the zoning regulations did not protect people from their own foolishness.

Mr. Hall stated that these regulations are not intended to protect an individual from their own foolishness, but to protect the public from that foolishness.

Mr. DiNovo stated that he is not sure that he understands the protection of the public interest when someone allows someone else to screw up their land. He said that he can see that there is public interest if the landowner uses their land badly and inefficiently, but are we ready to open the door and say that it is up to the County to go around and decide if people are using their land wisely, and if they are not, step in and regulate it. He said that seems like quite a stretch, because there are all kinds of ways that people use their land unwisely, but they do not necessarily directly harm anyone, and he is uncomfortable with opening the door up to say that we should criticize people for orienting their home wrong on their property.

Mr. Passalacqua stated that this Board has spent many Thursday nights reviewing where people place their sheds along the property line.

Mr. DiNovo stated that the Board seldom denies those types of cases, and that is because the Board can never find that they cause any harm to anyone else, and that is the question that hinges on all those cases.

Mr. Randol asked Mr. Hall if the solar farms that are being discussed are on single farms or are we discussing solar farm development that takes up hundreds and thousands of acres.

Mr. Hall stated that most of the solar farms that this Board will see will be these 2-megawatt community solar farms. He said that there may be two or three independent 2-megawatt solar farms side by side on a 50-acre tract of land that takes up half of that farm. He said that most solar farms will not be next to an adjacent dwelling, but they may be visible from that dwelling. He said that most of the solar farms will be these small community solar farms on individual properties.

AS APPROVED APRIL 26, 2018

ZBA

3/15/18

1 Mr. Randol stated that it appears that Mr. DiNovo is stating that if Mr. Randol and his neighbor wanted 2 to put a solar farm on their properties, then zoning doesn't have anything to do with it.

Mr. DiNovo stated that if a landowner leases their 30-acre property to a solar farm developer, they are perfectly capable of deciding what they need for that land regarding reclamation agreements and grading.

Mr. Randol stated that this Board must protect the neighbors and the rest of the community from the effects of what they do on their property.

Mr. Passalacqua stated that it wouldn't be any different if they wanted to put in oil derricks, or a coal mine, or graze horses on the property.

Mr. DiNovo stated that he is only saying that if this Board can identify a way that landowner B. can hurt landowner A., then there is justification for a regulation, but if the only issue is what happens to landowner B., then he does not see where this Board needs to step in and regulate it.

Mr. Hall stated that most of these standards have to do with environmental reviews that the County is obligated to do. He said that the County does not have to require submission of annual maintenance, but if that is not required, the County will have no idea if they are taking care of that thing or not, and once the County Board indicates that they are not concerned about decommissioning, then they don't have to have a submission of annual maintenance. He said that if the County Board is concerned about the decommissioning, then they better be requiring submission of annual maintenance documents so that the County Board knows that it is being taken care of. He said that we need to have these environmental reports submitted to meet the County's obligations, and if the County Board does not want to worry about decommissioning agreements for these smaller community solar farms, then that is easy enough to amend, but he has no reason to believe that the County Board will not want that. He said that even if this Board would recommend that the County Board not ask for a decommissioning agreement, he cannot believe that the County Board would not still ask for it.

Ms. Griest stated that she would like to go on record that she has seen the agreement that one of the solar companies is putting out to the small landowners, and there is no decommissioning, restoration or removal provision in that agreement. She said that in so many cases, this Board does need to be a little paternalistic in educating those landowners about what they do not know should be in their agreement with the solar company. She said that she looks at Mr. DiNovo's point a little differently in that, in a perfect world the landowner does have the best interest of the highest and best use of their property, but this is not a perfect world and this Board sees too much of the non-perfect. She said that there is nothing that prevents or prohibits the developer from purchasing the land in lieu of leasing it to circumvent all those regulations, especially if the Board states that if it is one unit they do not have to comply. She said that she disagrees with Mr. DiNovo's position.

Mr. DiNovo stated that it might be helpful for the Board to identify questions that the Board would like staff to investigate. He asked if there is any readily available data about the noise that is generated by the inverters and transformers of the solar farm.

Mr. Hall asked Mr. DiNovo to specify what he means by data.

3/15/18

Mr. DiNovo stated he means what kind of noise is generated and what kind of noise levels are generated. He said that the Board has heard conflicting claims about the kind of noise that might be generated.

Mr. Hall stated that staff included three or four references with the preliminary memorandum making it very clear that noise is not considered to be a special problem for solar farms. He said that staff has not provided information from the manufacturer's data sheets.

Mr. DiNovo stated that part of the problem with the wind farms is the low frequency sound that maybe partially propagated through the ground. He said that as he recalls from previous work on the airport, intermittent noise is worse than continuous noise, because continuous noise becomes part of the background and people get used to it, whereas, intermittent noise is more disruptive and there is no opportunity for people to get used to it. He said that noise at night is considered worse than noise during the day, and we are not talking about nighttime noise here. He asked staff if a noise complaint has been submitted regarding a substation.

Mr. Hall stated not that he is aware of.

Mr. DiNovo asked if any of these facilities have ever come to the end of their useful life and have been decommissioned.

Mr. Hall stated not that he is aware of.

Mr. Randol moved to continue the discussion of Case 895-AT-18 to the March 29, 2018, meeting.

Mr. Hall asked the Board if they desired to begin the March 29, 2018, meeting at 6:30 p.m.

28 Mr. Passalacqua stated no.

Mr. DiNovo stated that he would be interested to know an estimate of the salvage value of a solar array, under current prices for recycled steel and so on.

Mr. Hall stated that this data will need to be submitted during the special use permit process for a solar farm. He asked Mr. DiNovo why he would want this information for the text amendment.

Mr. DiNovo stated that the worst-case scenario is that for some reason one of these solar farms becomes uneconomic to operate and no one wants to run it anymore. He said that he is not worried about bankruptcy, because if the facility is economic someone will step up to acquire it as the creditors are not

39 going to want it to sit there and they will find someone to sell it to. He said that the solar farm might

- become uneconomic for some reason, because they are obsolete, because the nature of the electricity market changes, etc., so in that event, in the absence of any other provision for decommissioning, the
- 42 economics of the situation is that there is 40 acres of best prime farmland with junk sitting on top of it.
- He said that there is certain amount of salvage value and there is a certain value in recovering the ground
- so that it could be put back into production, so that people will want to farm that land again. He said
- 45 that there is a residual value in the land itself and there is salvage value, but is that enough to satisfy the

AS APPROVED APRIL 26, 2018

ZBA

3/15/18

1 Board's concerns regarding decommissioning or not.

2

Mr. Passalacqua stated that he cannot see how putting the land back into row crops is going to give the County a dime towards decommissioning.

4 5 6

7

Mr. DiNovo stated that it doesn't matter. He said that if a private party is willing to go on the land and take off the solar panels so that the ground could be put back into production, then the County should be cool with that.

8 9

Mr. Hall stated sure the County would be cool with that, and if they wanted to go in a remove all the 500 feet tall wind farm towers and their concrete foundations, the County would be cool with that too.

12

- Mr. DiNovo stated that no one is likely to go to the expense to remove the wind farm towers to farm the small patch of ground that they sit on, but given the way that the solar photovoltaic arrays are
- 15 constructed and given the fact that there is salvage value in the materials, he could see someone coming in there and removing them.

17

Mr. Hall stated that Mr. DiNovo is really asking why is requiring a decommissioning plan so expensive, because you are just removing some photovoltaic panels and pulling up posts up out of the ground; what is the big deal.

21 22

Mr. DiNovo stated exactly.

23 24

Mr. Hall stated that a decommissioning plan should be required to ensure that the decommissioning gets done.

252627

28

29

Mr. DiNovo stated that we need to take in account the residual value of the underlying land and he thinks this notion that somehow people are going to walk away from these solar panels and let them sit there is crazy. He said that a landowner is not going to let 40 acres of good farmland just sit there if they can recover it inexpensively enough.

30 31 32

33

Mr. Randol stated that it doesn't have to be a 40-acre parcel, because he can tell this Board where a cell tower was abandoned and sat on the property for over 15 years or more before anything was done with it.

34 35

Mr. DiNovo stated that a cell tower is a much bigger thing to remove; there is a huge difference.

36

Ms. Capel stated that Mr. Randol had made a motion to continue discussion to the March 29, 2018,meeting.

39

Mr. DiNovo seconded the motion to continue the discussion of Case 895-AT-18 to the March 29,
 2018, meeting. The motion carried by voice vote.

42

43 Ms. Capel entertained a motion to continue Case 895-AT-18 to the March 29, 2018, meeting.

44

45 Mr. Randol moved, seconded by Ms. Griest, to continue Case 895-AT-18 to the March 29, 2018,

7	_	
	_	/۱

3/15/18

1 meeting. The motion carried by voice vote.

2

Ms. Capel noted that the meeting will begin at 7:00 p.m.

4

6. New Public Hearings

5 6 7

None

8

9 7. Staff Report

10

11 None

12 13

8. Other Business

A. Review of Docket

14 15

Mr. Hall asked the Board to indicate any additional known absences from future meetings, and there werenone.

18

Ms. Capel asked Mr. Hall if Case 895-AT-18 were continued at the March 29, 2018, meeting, would the
 next hearing date be April 12th.

21 22

23 24 Mr. Hall stated that staff can contact the petitioners for Cases 888-V-17 and 892-S-17, and if they are amenable to being pushed off to a later meeting date, then the April 12th hearing may be available, but the petitioner has been waiting a long time for that docket date. He said that it is possible that Case 895-AT-18 would have to be continued to the April 26th meeting.

252627

Mr. Passalacqua stated that continuing Case 895-AT-18 to the April 26th meeting would be better than getting behind on more than one case.

28 29 30

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

31 32

32 None3334 10. Ac

34 35

36 Ms. Capel entertained a motion to adjourn the meeting.

37

Ms. Griest moved, seconded by Mr. Randol, to adjourn the meeting. The motion carried by voice vote.

40

41 The meeting adjourned at 9:50 p.m.

Adjournment

42

43 Respectfully submitted

AS APPROVED APRIL 26, 2018

ZBA

3/15/18

Secretary of Zoning Board of Appeals

32