



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

## INDEX

Witness	Examination
---------	-------------

Merrill Read. . . . .	4
Elizabeth Reddington. . . . .	5
Andrew Lines. . . . .	12
By Kristine Donarski . . . . .	24
By Connie Stetson. . . . .	26
By Colette Sutton. . . . .	27
By Jeanette Reeder . . . . .	32
By Nanette Gillan. . . . .	34
By Aubrey Gibaldi. . . . .	35
By Oliver Davis. . . . .	37
Franklin Lombardo . . . . .	39
By Connie Stetson. . . . .	43
By Dan Schafer . . . . .	45
By Jeanette Reeder . . . . .	46
By Neil Gillan . . . . .	47
By Lori Fry. . . . .	49
By Connie Stetson. . . . .	50
By Nanette Gillan. . . . .	52
By Brian Dickinson . . . . .	53
By Jeanette Reeder . . . . .	54

INDEX (continued)	
Witness	Examination
Lei Zhao. . . . .	55
By Kristine Donarski . . . . .	59
By Oliver Davis. . . . .	60
By Jeanette Reeder . . . . .	61
Merrill Reed. . . . .	65
By Connie Stetson. . . . .	65
By Lori Fry. . . . .	66
Elizabeth Reddington. . . . .	67
By Colette Stetson . . . . .	69
By Aubrey Gibaldi. . . . .	70
Crane Schafer . . . . .	75
By Brian Dickinson . . . . .	78
By Colette Sutton. . . . .	79
Aubrey Gibaldi. . . . .	81
By Connie Stetson. . . . .	85
By Oliver Davis. . . . .	86
By Connie Stetson. . . . .	87
Elizabeth Reddington. . . . .	88
By Connie Stetson. . . . .	89
End . . . . .	102

1 MR. WELBERS: That brings us to Bureau  
2 Solar 2. Which is tabled; is that correct?

3 I don't have to read all of this.

4 MS. DONARSKI: You'll need to untable.

5 MR. WELBERS: Did I table it? Was I the  
6 one to do it?

7 MS. DONARSKI: I'll have to double-check  
8 the minutes.

9 MR. WELBERS: I guess whether I did or  
10 not, I can make a motion to bring this  
11 application, Bureau Solar 2, off the table and  
12 back for consideration tonight.

13 Is there a second for that?

14 MR. JENSEN: I second that.

15 MR. WELBERS: Mr. Jensen is the second for  
16 that.

17 All in favor.

18 (All those simultaneously  
19 responded.)

20 MR. WELBERS: So we are back to continue  
21 some fact-finding information on this  
22 application.

23 MERRILL READ,

24 being first duly sworn, testified as follows:

1 MS. NEMETH: State your name and address  
2 for the record, please.

3 MS. READ: I'm Merrill Read, with Pivot  
4 Energy. My address is 666 West Lake Street,  
5 Chicago, Illinois, 60606.

6 COURT REPORTER: I'll go ahead and swear  
7 you in, as well.

8 ELIZABETH REDDINGTON,  
9 being first duly sworn, testified as follows:

10 MS. NEMETH: State your name and address  
11 for the record.

12 MS. REDDINGTON: Elizabeth Reddington,  
13 444 West Lake, Suite 2300, Chicago, Illinois,  
14 60606.

15 MS. READ: We have some handouts for the  
16 presentation.

17 MS. SMITH: Kris, can they speak up?

18 MS. DONARSKI: Yes, we need you to speak  
19 louder because they're not hearing what you're  
20 saying.

21 MS. READ: I am bringing some handouts  
22 over to you.

23 MS. NEMETH: Excuse me. Can you spell  
24 your last name, please?

1 MS. REDDINGTON: Yes. It's  
2 R-E-D-D-I-N-G-T-O-N.

3 MS. NEMETH: Thank you.

4 MS. READ: We have extras.

5 MR. WELBERS: Do we have to mark these?

6 MS. DONARSKI: I'll mark them.

7 MR. WELBERS: Did we have any other  
8 exhibits?

9 MS. DONARSKI: We do, and I have a list.  
10 So I'm marking them.

11 MR. WELBERS: So this is -- you'll give it  
12 a number?

13 MS. DONARSKI: I'll give it a number.

14 MR. WELBERS: Thank you. Fair enough.

15 MS. READ: Okay. We are ready.

16 MR. WELBERS: Okay. Go ahead.

17 MS. READ: All right. So some of you may  
18 have seen me from last month's meeting. So what  
19 we'll do today is a recap of kind of the summary  
20 of the solar project called Bureau Solar 2, LLC,  
21 and then we have some experts here tonight to  
22 testify about a couple of questions that came up  
23 last time. So I'll bring them up as we go  
24 through the presentation.

1 All right. So next page, please. And  
2 please note that it's double-sided. We printed  
3 a lot, so we tried to be good about that.

4 All right. So I'll tell you a little bit  
5 about what we're proposing. This is Bureau  
6 Solar 2, LLC. It is going to be on two pieces  
7 of land that are both Agriculturally zoned.  
8 Solar is a Conditional Use on agricultural  
9 fields.

10 So what we are proposing is 29.3 acres of  
11 a community solar garden of a 40-acre parcel  
12 total. The setbacks on this property will be  
13 80 feet from both of the county roads, because  
14 it's on a corner, and then we'll be 50 feet from  
15 all other property lines to the south and to the  
16 east.

17 We'll have an 8-foot game fence  
18 surrounding the entirety of the project, as well  
19 as a 16-foot wide gravel access road that will  
20 access the site from County Road 2200 North.

21 This is a 5-megawatt community solar  
22 system that will generate approximately  
23 10.59 gigawatt hours per year, which is the  
24 estimation of powering 1460 homes.

1           These projects do not require utilities.  
2           So there's no sewage, waste, irrigation, potable  
3           water services or trash recycling or natural gas  
4           needs for these. The only utilities that we do  
5           use are the existing infrastructure along County  
6           Road 2200 North. It's the existing Ameren poles  
7           that are already there. So they interconnect  
8           right where we meet the road there.

9           Next page, please.

10          We just had a closer version of the site  
11          plan so you could see it a little bit better.

12          You can skip to the next page.

13          So something very unique about this site  
14          that has not been really done in Illinois is  
15          dual-use crop production. So we had a community  
16          meeting back in May, where we invited all of the  
17          neighbors within a thousand feet of the property  
18          to come and learn more about solar and this  
19          specific project and ask any questions that they  
20          might have.

21          Liz Novotny, the County Board rep for this  
22          District came, as well as the landowners. At  
23          that meeting we decided -- we had talked about  
24          how creativity can be a part of these projects,



1 Because on 98 percent of all of our sites we do  
2 sheep grazing. That's how we take care of all  
3 of the vegetation onsite.

4 But for this project, what we're going to  
5 be proposing is crop production between the  
6 rows. So the picture that I have right here,  
7 some of you might be able to follow along in  
8 your packet, is an example of that.

9 What we're looking to do is have the  
10 wonderful landowners farm hay or alfalfa between  
11 the rows, as well as crop corn around the  
12 remaining 10 acres that are not fenced in. So  
13 we're very excited about this. It's only been  
14 done in a couple of other places. This is a way  
15 that we can preserve the agricultural land and  
16 continue to farm. We'll also have the dual use  
17 of producing energy.

18 We actually have piloted this on one of  
19 our projects in Colorado. Here, the picture I  
20 was showing before, is Jack's Solar Garden in  
21 Longmont, Colorado, where they're actually  
22 doing, like, legit row crops between the arrays.  
23 So there are people on the site every day doing  
24 the row crops. But in this case, it will be a

1 little less intense because we'll have the hay  
2 or alfalfa rather than row crops.

3 You can go to the next page, please.

4 A little bit about property taxes, just  
5 because I know there's some newer folks in the  
6 room tonight. So this proposed project, without  
7 the -- like, the site without the array, brings  
8 in a current total of \$1900 per year in property  
9 taxes. Over the 20-year span of just the  
10 parcels would be about \$38,000 over 20 years.  
11 But with the increased property values brought  
12 in by the solar project, in one year alone the  
13 property taxes would increase to \$26,000. And  
14 over the 20-year total of the lifespan of the  
15 project, that would be just under \$321,000 over  
16 those 20 years. So a very significant increase.

17 Next page, please.

18 The goal of all these projects for  
19 community solar is to save people money. So we  
20 have here -- again, I can't present this -- but  
21 it's our subscriber statement estimation. So  
22 with a project like this, an average Ameren  
23 customer spends on average \$154 per month to pay  
24 for their utility bill. An average subscriber

1 to a community solar project would save about  
2 \$15.50 per month. On an annual process for one  
3 customer that's subscribed to the project, they  
4 would save \$184 in one year. Across the 100 --  
5 or 1,460 customers that this project is  
6 estimated to serve, across all those customers,  
7 in one year we would save 2,000- -- \$200,070 in  
8 one year, and over the 20 years of that lifespan  
9 of the project across those customers it would  
10 be just under \$5.5 million saved.

11 So that's money not going into Ameren's  
12 pockets and staying in your community that you  
13 can spend at the local stores, save and build a  
14 garage. We saw a lot of those being proposed  
15 tonight.

16 So there's a lot of different options and  
17 open storage for a lot of people who are not  
18 able to pay for their utility bills and  
19 struggling to make that payment.

20 So that's a little bit about Bureau Solar  
21 2. We will be happy to take questions after we  
22 have our experts come up.

23 So our first expert we'll have come up is  
24 from CohnReznick, and he can tell you a little

1 bit about himself and his findings that he found  
2 for property values.

3 ANDREW LINES,  
4 being first duly sworn, testified as follows:

5 MS. NEMETH: Please state your name and  
6 address for the record.

7 MR. LINES: Andrew Lines, L-I-N-E-S.

8 I have kind of a little bit of a longer  
9 deck, but I'll try to get through it somewhat  
10 briefly.

11 I am a principle with CohnReznick. I'm a  
12 certified general real estate commercial  
13 appraiser. I have been appraising here in the  
14 state of Illinois for almost 20 years.

15 I run a group of appraisers nationwide.  
16 We do a lot of different things. I have  
17 appraised everything from small homes to the  
18 Sears Tower and everything in between.

19 About eight years ago I was asked to  
20 prepare an impact study to see whether or not  
21 solar farms might injure adjacent property  
22 values. So a lot of what I am about to tell you  
23 is over the last eight years' gathering this  
24 information and this data.

1 I have a -- I'm not only a certified  
2 general real estate appraiser, I'm also an MAI,  
3 which is a designation given by the Appraisal  
4 Institute, and I am also a counselor of real  
5 estate, which is more e-i-e-i-o's after my name.

6 When I first set out to figure this out,  
7 the first thing I wanted to know is what  
8 everybody else said. I thought, let's start  
9 there.

10 So on Page 1, 2, 3 -- 4 of my deck there  
11 is a brief summary of four important academic  
12 studies that are out there. One was an opinion  
13 survey of assessors done by some people at the  
14 University of Texas, Austin. Of 400 responses  
15 received, only 18 of those assessors had  
16 experience in valuing homes near solar, and 17  
17 out of the 18 had found no impact.

18 The study noted that future research can  
19 conduct analysis on home sales data to collect  
20 empirical evidence of actual property value  
21 impacts. And so that's what I have done, and  
22 I'll get to that.

23 The University of Rhode Island was the  
24 next largest study, and that looked at about

1 70,000 test sales in the New England  
2 marketplace. It found no negative impact to  
3 homes in rural locations. It defined rural as a  
4 place with less than 850 persons per square  
5 mile. Which is actually quite dense, when you  
6 think about it. But it found no evidence of  
7 differential property value impacts in rural  
8 areas or based on the solar installation size.

9 Next was a report done by the University  
10 of Georgia Institute of Technology. This looked  
11 at 450 solar farms in North Carolina. It found  
12 no direct negative or positive spillover effect  
13 of a solar farm construction on nearby  
14 agricultural land values.

15 And then finally, the largest study of its  
16 kind was the Berkeley National Lab study -- I  
17 call it the BNL study -- which was performed and  
18 released last year. It looked at 1.8 million  
19 sales in California, Connecticut, Massachusetts,  
20 Minnesota, North Carolina and New Jersey. While  
21 it did find a very small impact of 1.7 percent  
22 across the entire study, three of the states had  
23 zero percent impact. And those three states  
24 were 70 percent of all the data.

1           So that's what other academics said.

2           Then, if you go to the next slide, what I  
3           have done as a real estate appraiser -- the  
4           methodology comes from a specific textbook  
5           called Real Estate Damages. It was written by a  
6           PhD named Randy Bell, who's also an MAI like  
7           myself. So we studied test areas and control  
8           areas. I'm looking at homes that are  
9           immediately next to solar and I'm comparing them  
10          with very similar homes that are located away  
11          from solar. It definitely makes sense.

12          When we looked at their unit metrics, we  
13          compared them simply. There's no artificial  
14          adjustments made to any of the data. And we see  
15          whether it's positive or negative. We find if  
16          it was negative over and over again, that that  
17          could indicate there is a trend.

18          The textbook says if a legitimate  
19          detrimental condition exists, there will likely  
20          be a measurable and consistent difference  
21          between the two sets of market data. And if  
22          not, there will likely be no significant  
23          difference.

24          So we need to see this over and over again

1 in order to clarify and confirm that there is  
2 some kind of negative trend.

3 So, again, test sales located -- this is  
4 the next slide -- located directly adjacent to  
5 the existing solar farm, we are predicating this  
6 on the theory that the closer you are to the  
7 solar farm, the more impact it will have.

8 We only look at homes that are sold after  
9 the construction of the solar farm is complete.  
10 Generally people aren't really happy about  
11 construction itself, but we want to make sure  
12 that we're thinking about what the long-term use  
13 is over the 20 years when construction is not  
14 occurring. We only look at arm's-length  
15 transactions. We don't look at distressed  
16 sales.

17 Our control sales data, the homes that we  
18 are comparing the test sales to, we make sure we  
19 bracket the subject test sales in terms of  
20 construction, age and size, including acreage,  
21 to the test sales. We make sure we try to keep  
22 it in the surrounding townships, so that the  
23 school districts are the same. We only look at  
24 properties that sold within 18 months of the



1 test sale transaction. Again, arm's-length  
2 transactions and not distressed sales.

3 Next slide.

4 So we gathered very specific empirical  
5 data on 40 established solar farms all across  
6 the U.S., with several here in Illinois, as well  
7 as some in the adjacent Midwest states. We  
8 found no measurable and consistent difference in  
9 property values, no difference in unit sale  
10 prices, conditions of sale, overall  
11 marketability or rate of depreciation. We  
12 studied marketing times, as well as unit sale  
13 prices.

14 We also found that solar facilities don't  
15 deter new development. And we performed before  
16 and after construction property value analyses,  
17 where we tracked appreciation rates of these  
18 homes that are directly next to solar.

19 And we find, when we compare them with the  
20 Federal Housing Price Index, the FHFA index,  
21 that those appreciation rates are consistent  
22 with the ZIP code that that particular house is  
23 in.

24 I'll show you some examples. If you keep

1 going, the first one we did in Stephenson  
2 County. This is a small community solar  
3 project. There was a row of homes that backed  
4 up to the solar facility. So it would be seen  
5 in several of the homes' backyards.

6 We found two that had sold after the  
7 construction of that community solar. When we  
8 compared them to a group of 14 homes in the  
9 general area, we found that there was no  
10 negative differential between their unit sale  
11 prices.

12 We also confirmed with the broker that  
13 sold the two homes, a woman named Julie Wenzell  
14 (phonetic), who indicated that the property of  
15 the solar farm did not impact the sale price of  
16 either properties.

17 Next slide.

18 We also looked at the Grand Ridge Solar  
19 Farm, which is a little closer to here, in  
20 LaSalle County. It's a larger utility-scale  
21 project than the one that's proposed for Bureau  
22 County.

23 Again, we looked at a home that is about  
24 500 feet away from the solar farm. It looks

1 directly at it. There's virtually no screening  
2 in between it. We felt, when we compared this  
3 house with other homes in the township, that  
4 there wasn't a negative inclination. So it had  
5 a sale price that was actually a higher unit  
6 sale price than the comparable data that we  
7 identified.

8 Next.

9 There's a couple examples of some larger,  
10 much larger utility-scale projects. We looked  
11 at one in Michigan called Assembly Solar Farm,  
12 which is 239 megawatts.

13 We looked at a home that is surrounded by  
14 solar on virtually all four sides. Not only did  
15 this home sell, but when we compared this  
16 homestead to other homesteads in that particular  
17 rural area, we did not find a negative  
18 differential.

19 The slide after that contains information  
20 about that test sale, as well as the control  
21 sale data that we used. You'll notice that the  
22 number of beds, the number of bathrooms, the  
23 year built and the acreage are all very  
24 consistent across the two data sets.

1           If you go to the slide after that, we see  
2           a different home that also sold at the Assembly  
3           Solar Farm. This one backed up to the solar  
4           farm. It's a nice picture and aerial of the  
5           house and the solar farm that exists right by it  
6           during the winter when there's no trees.  
7           There's barely any screening in between this  
8           particular house that sold and the solar farm  
9           itself.

10           Again, we compared this house to 18  
11           different sales in the same township and found  
12           that there was a 2 percent difference between  
13           the data sets, and that was positive in favor of  
14           the test sale.

15           We also did a before-and-after analysis,  
16           on the next slide, of this home. It sold in May  
17           2021 for 215,000. It sold again in March 2023  
18           for 250,000, indicating a 16 percent increase,  
19           or about a 0.7 percent per month increase, in  
20           one sale between the next, the house being  
21           exactly the same.

22           And the FHFA home price index for that ZIP  
23           code in that same time period was a monthly  
24           appreciation rate of 0.67 percent. So this home

1 sells and is appreciating at the same rate as  
2 every other house within that ZIP code.

3 Next slide.

4 We do another example of a very large  
5 200-megawatt project in Randolph County,  
6 Indiana, called Riverstart. Another example of  
7 a home that has solar in multiple directions but  
8 sold at a price that was consistent with the  
9 comparable data.

10 I have examples of what the home looked  
11 like, where it's located. You can see the solar  
12 in the background. Then I have another page  
13 which shows the homes in relationship to the  
14 home that sold, and you can see the homes that  
15 are very consistent with one another.

16 If you want to skip a little bit, I'll  
17 show some examples of some new development that  
18 occurred to solar that exists.

19 So a concern that some folks have is that  
20 you won't be able to develop a house once a  
21 solar farm is there, on acres that you might own  
22 next to it. We don't find that to be the case.  
23 We see individuals spending a lot of money and  
24 building really nice homes directly within

1 eyesight of solar.

2 In this case, I have one in Marion County,  
3 which is south of Indianapolis. And this one  
4 was a \$450,000 house that was built 150 feet  
5 from an existing solar farm.

6 A couple slides later we have an example  
7 of a subdivision that's going in next to an  
8 existing solar farm, with homes that are backing  
9 up with no screening and are generally within a  
10 hundred feet of the existing solar array. And  
11 those homes are selling at prices that are  
12 completely consistent with the other prices  
13 within the subdivision. And actually, all of  
14 the homes along the solar have all sold at this  
15 point. They went like hotcakes.

16 If you go to the next slide after that, we  
17 talked about some of our confirmations. So not  
18 only do we do all that empirical data search and  
19 evidence, but we also confirmed, ourselves, with  
20 county assessors who we know have solar in their  
21 backyards, who have them in their counties.

22 Assessors are great because they see these  
23 transactions sometimes a lot faster than we do  
24 as real estate appraisers or even brokers.

1           So we had interviews with over 65  
2           assessors in 17 states, and that includes a  
3           number of different assessors here in Illinois,  
4           and all of them say the same thing, which is  
5           that they don't see a negative trend. Not only  
6           that, we asked them if anybody in their  
7           districts have ever fought their assessment by  
8           the fact that they are now next to a solar farm,  
9           and no one is going to fight their assessments  
10          either.

11          Last slide.

12          Based on my examination, on my team's  
13          examination, and looking at other academic  
14          studies and examining all of the studies that we  
15          have done personally, and talking to assessors  
16          and market brokers, and looking at before-and-  
17          after sale conditions and studying all of these  
18          unit prices' marketability, we don't see any  
19          negative impact that you might see over and over  
20          again with relationship to the solar farms'  
21          proximity to adjacent homes.

22          That was a lot. Thank you for listening  
23          to me, and I'm happy to answer any questions  
24          after we wrap up everything.

1 MR. WELBERS: The proper thing is to let  
2 people ask you on your expertise in your  
3 testimony.

4 MR. LINES: Will do.

5 MR. WELBERS: First, do you have any?

6 MS. DONARSKI: I have a question.

7 EXAMINATION

8 BY MS. DONARSKI:

9 Q. Have you been out to the site and seen the site  
10 where this is being proposed?

11 A. Yes, I have driven by the site.

12 Q. Okay. And is it your testimony that the  
13 character of the neighborhood there would be  
14 similar to the ones that you portrayed here in  
15 your presentation?

16 A. I think a couple of the ones, especially with  
17 regards to new development, are definitely in  
18 areas that are trending towards suburban and are  
19 in the path of development, but several of the  
20 other of the initial ones that I have discussed  
21 are clearly in rural areas.

22 Q. Okay. And when you have the solar or a more  
23 industrial use, does that cut down on the number  
24 of people looking to buy in that area? Or is



1           that part of your study, like the number of  
2           possible buyers, potential buyers?

3   A.    So I don't know if I would classify it as  
4           industrial the way that you have.

5   Q.    Okay.

6   A.    But I would say that markets are typically  
7           defined in terms of all of the demand generators  
8           that are happening in a particular area.  And  
9           each market is different in how it attracts  
10          outside buyers, depending on how close they are  
11          to other things and the scarcity of homes in  
12          that general area.

13                I would say one thing that I do see is  
14                that there is an attraction to areas that have  
15                strong school districts.  Most families try to  
16                go to really nice school districts.  And a  
17                commonality of good, strong school districts is  
18                that they are typically well-funded.

19                So a solar facility has a really great way  
20                of being able to add a lot of money to a school  
21                system without putting any kind of pressure, in  
22                terms of the number of students that are going  
23                to school or the need for additional civil  
24                services.

1 MS. DONARSKI: Okay. Thank you.

2 MR. WELBERS: You're good?

3 MS. DONARSKI: Uh-huh.

4 MR. WELBERS: Go ahead, Connie. Connie  
5 Stetson.

6 MS. STETSON: Connie Stetson.

7 EXAMINATION

8 BY MS. STETSON:

9 Q. You were here last month, correct, with  
10 GreenKey?

11 A. Yes, I was.

12 Q. You were in the audience when they came?

13 A. That's correct.

14 Q. Why didn't you stand up and give your  
15 presentation at that time?

16 A. I was not retained to do that.

17 Q. So you had to be paid to stand up and talk?

18 A. This is what I do for a living, as a --

19 Q. You were in the audience last month. Pivot  
20 asked for a property value. They asked, and you  
21 didn't stand up and say anything. But now  
22 you're here because they're paying you to be  
23 here. But you were here. You could have done  
24 that.

1 A. Again, I was retained by a different solar  
2 developer and was here for them the last time I  
3 was here.

4 Q. So you have to be paid to speak.

5 MS. STETSON: That's all.

6 MR. WELBERS: Other questions of this  
7 witness?

8 State your name, please.

9 MS. SUTTON: Colette Sutton.

10 EXAMINATION

11 BY MS. SUTTON:

12 Q. Just some statistical questions. Is this a  
13 qualitative or a quantitative study?

14 A. So we do a paired sales research. So we're  
15 able to look at a number of different homes and  
16 look at their unit prices per square foot.

17 This isn't a hedonic model or a regression  
18 analysis in the way that some of the other  
19 academic studies that I mentioned earlier are.

20 Q. Can you describe for me in the -- did you  
21 personally do these studies or is this an  
22 analysis of prior studies done?

23 A. So the studies that I have talked about today I  
24 have done with my team.

1 Q. Okay. So you did Freeport; is that correct?

2 A. That's correct.

3 Q. That's my -- my excuse -- no excuse, but my  
4 concern about that one is that your control area  
5 was 14 homes.

6 A. Okay.

7 Q. Those 14 homes -- I'll get the dates wrong, but  
8 you may remember. Those 14 homes ranged in age  
9 from 1959 to 1990-something. I don't have the  
10 study with me, but I read pieces of it --

11 A. Okay.

12 Q. -- that you were kind enough to give to me.

13 I just have some questions about the  
14 validity of the sampling. Because the sampling  
15 goes from two, in the study, and a control group  
16 of 14 that ranges in age from '59 to -- the  
17 dates are wrong, '90-something. Okay. And so I  
18 think -- and probably your statistician can  
19 probably look that over, but I think there's  
20 some errors in --

21 MR. WELBERS: Questions you have? Do you  
22 have some questions based on that? You laid  
23 groundwork.

24 Q. (By Ms. Sutton:) Yeah, control group, does he

1       have a control group here that matches -- I  
2       guess what I'm asking, first of all, was this a  
3       statistical study that was quantitative in  
4       nature?

5   A.   So this is a study that was done, it's a paired  
6       sales technique, which, again, is in the  
7       appraisal -- State appraisal book that I  
8       mentioned. This is appraisal theory. The  
9       statistical analysis can come from looking at  
10      all the data itself, but it is -- you're right,  
11      it is a -- it's not a quantitative analysis, in  
12      the way that you're asking, but it's not  
13      necessarily a regression study and not the --  
14      the other way that you're thinking about this.

15               With regards to the median ages of the two  
16      controls' data sets, we make sure that the  
17      control group brackets the ages of the test  
18      sales themselves. So that's why there is that  
19      difference in terms of the entire control group.

20               MR. LINES: Can I have that report?

21               MR. WELBERS: Which one would you like?

22               MR. LINES: One on the top. Actually, you  
23      have it there.

24   Q.   (By Ms. Sutton:) And that was the only one I

1 could see the ages of the control group homes.

2 It was in their packet, not the one  
3 that --

4 A. It's a lot of information. It's a  
5 plus-hundred- page report.

6 So both of the test sales had year-  
7 builds, respectfully, of 1977 to 1979, and the  
8 control set had a range of 1957 to 1993, which  
9 is in between those two -- in between those two  
10 numbers. So 1977 to 1979 is not a new house.

11 So generally speaking, when you look at  
12 the MLS, you start looking at homes, you realize  
13 that new construction homes literally are the  
14 last five years of construction, sometimes only  
15 three, depending on where you're looking at.  
16 Then the ages of the homes start to increase in  
17 size. So when you're talking about a recently-  
18 built home, you might be considering about 10 or  
19 15 years, but anything above that would be in a  
20 different cohort that's generally a larger age  
21 range.

22 Q. I have no question, except that my question is  
23 sampling validity, and I think there's a problem  
24 of sampling validity when I looked at the study.

1 But I don't have a question at this point with  
2 regard to that.

3 My other question was, in this study what  
4 were the controls that were in place for  
5 extraneous features, such as interest rates, the  
6 2020 pandemic? Were those controls in place  
7 when you made the analysis?

8 A. So again, our control properties tend to be in  
9 the same, exact township, in the same school  
10 districts. So they have the same underpinnings  
11 in terms of the marketplace. We don't make  
12 adjustments for any of the other extraneous  
13 things that you might think of: whether or not  
14 they have a small swimming pool or a larger  
15 swimming pool.

16 What we make sure that we do is that we  
17 adjust the properties back to the same  
18 transaction date using the FHFA price index. So  
19 that brings all of the control sales back to the  
20 same, exact date as the test sale. So if the  
21 test sale occurred in the middle of the pandemic  
22 and you had sales on both sides, we're using the  
23 index to bring those back to the same date.

24 Q. And the reason why I used the pandemic is

1 because, you know, you're talking about  
2 marketing. It was vastly different at that  
3 time. So that was my only question. Thank you.

4 MR. WELBERS: Other questions of this  
5 witness?

6 Way in the back. State your name for the  
7 court reporter.

8 MS. REEDER: Jeanette Reeder.

9 MR. WELBERS: Go ahead with your question.

10 EXAMINATION

11 BY MS. REEDER:

12 Q. Have you done any studies locally with any of  
13 the solar farms that are going, like, in Putnam  
14 County and --

15 A. I haven't looked at any in Putnam County to  
16 date.

17 Q. There's two or three of them just right down in  
18 Putnam County. There's a couple up here in Lee  
19 County. These are all older sales. I mean,  
20 you're going back to 2000 --

21 MR. WELBERS: Be careful not to testify.  
22 You can do that next. He answered your question  
23 that he didn't look at Putnam County.

24 You looked at LaSalle, you had a LaSalle



1 County.

2 MR. LINES: That's correct.

3 Q. (By Ms. Reeder:) Do you have any more recent  
4 data?

5 A. So we look at solar farms all across the United  
6 States, not just here in the heartland of  
7 Illinois. We are left with looking at solar  
8 facilities that have transactional data right  
9 next to them. There are an increasing number of  
10 solar facilities that are being constructed, and  
11 we're aware of that, but we only have so many  
12 hands and we do other things, other than this,  
13 as well.

14 So, you know, we are still actively  
15 collecting data on a varied amount of solar  
16 farms across the country. We have looked at all  
17 of the larger utility-scale projects that have  
18 been completed over the last three years, and we  
19 haven't found any transactions yet in terms of  
20 those specific ones that have recently come  
21 online that are the larger solar farms in the  
22 state of Illinois.

23 Q. So no, there's no local data on what the trends  
24 are within, like, say 20 miles?

1 A. I haven't looked at any of the solar farms  
2 within 20 miles.

3 MR. WELBERS: Any other questions of this  
4 witness?

5 Nanette.

6 MS. GILLAN: Nanette Gillan.

7 EXAMINATION

8 BY MS. GILLAN:

9 Q. So would you say the majority of your customers  
10 are renewable energy companies? That's who you  
11 work for primarily?

12 A. No.

13 Q. Do you work for down-home people like us?

14 A. I have worked for a variety number of companies  
15 and different people in different situations.

16 Q. Are you aware that the one property that you  
17 listed, the 2098 North 15th Road over by Grand  
18 Ridge, when it was originally listed May 13th of  
19 2016 it was listed for 225,000, and yet five  
20 months later it sold for only 186,000?

21 A. I am aware that the listing price was very  
22 high, and we've spoken with the broker about  
23 that.

24 Q. And you don't think that had anything to do

1 with the solar farm being by it?

2 A. Listing prices aren't the only informational  
3 data points that are out there. We make sure we  
4 look at sales.

5 Q. That's a lot of money. \$40,000 drop. I mean,  
6 I wouldn't think a realtor would let them list  
7 it at that inflated price if it was truly  
8 inflated.

9 A. That's what the real estate broker told us.

10 MS. STETSON: Do you have that in writing?  
11 I'm sorry.

12 MR. LINES: I do not have that in writing  
13 on me, but it is in our notes.

14 MR. WELBERS: We have someone else in the  
15 back with a question.

16 MS. GIBALDI: Aubrey Gibaldi. We're over  
17 by the corner of that area right over in 2200  
18 and 1950 E Street.

19 EXAMINATION

20 BY MS. GIBALDI:

21 Q. Markets obviously show an improvement over time  
22 with real estate properties, but we had a huge  
23 pandemic that surged the price of, like, homes  
24 across the country. So is it possible that your

1 suggestion that these properties are still  
2 inflated in price could not be attributed to the  
3 fact that it has anything to do with your solar  
4 farm and that it is just overall because of the  
5 pandemic, and that the small growth that you  
6 actually are proposing is much smaller than it  
7 would be if there was no pandemic influence?

8 A. So the theory here is that no matter what the  
9 market is -- if all of the homes that we are  
10 looking at in the same time period are all  
11 equally being affected by the underlying market,  
12 interest rates, increase of people applying out  
13 of urban areas because of the pandemic -- so all  
14 of them have the same underlying market status,  
15 they are all being influenced the same way, then  
16 we would see some kind of negative trend with  
17 the homes that are right next to the solar if  
18 all of the homes are transferring at the same  
19 rate.

20 So we have looked at, now, homes that have  
21 sold in the mid-2000s, in the early-2010s, in  
22 the middle-2010s, right up until the pandemic,  
23 during the pandemic, after the pandemic, more  
24 recently, and we are not finding a trend that is

1 negative based on the fact that the home is next  
2 to a solar facility.

3 MR. WELBERS: Any other questions for this  
4 witness?

5 (No verbal response.)

6 MR. WELBERS: Does our Board have any  
7 questions for this witness?

8 (No verbal response.)

9 MR. WELBERS: Yes, sir. State your name,  
10 too.

11 MR. DAVIS: My name is Oliver Davis.  
12 She's my wife, live at the same place.

13 EXAMINATION

14 BY MR. DAVIS:

15 Q. All the studies, for the exception of one -- or  
16 with the exception of one, had neutral data.

17 Are there any that you all did that had  
18 negative data that you didn't list?

19 A. So again, we found some that have a negative,  
20 if you look in the report. And you guys have  
21 the full report here.

22 So we do list some that are negative, to a  
23 degree, in terms of the differential and the  
24 unit sale prices. But what we don't see is that

1           these are overwhelmingly negative. And you're  
2           talking about three or four in a group of 15 or  
3           20, and not more than half.

4   Q.    So there's none that were significantly  
5           different that you didn't list here?

6   A.    Correct.

7           MR. WELBERS: Any other questions?

8                           (No verbal response.)

9           MR. WELBERS: I think you're dismissed,  
10           sir.

11           MR. LINES: Thank you, sir.

12           MR. WELBERS: You can sit down.

13                   Do you have another witness for us?

14           MS. READ: I do. Thank you.

15                   All right. So while Liz is handing these  
16           out, what you'll be seeing is two different  
17           memos. So one is -- we have the expert who  
18           wrote, is the top one, and the other one is CPP  
19           Wind Engineering Consultants that also weighed  
20           in.

21                   So we have an expert on wind that can come  
22           up here, and I'll give him a little introduction  
23           and then fill in any blanks that I missed, and  
24           we'll go from there.

1           But Franklin Lombardo is our wind expert.  
2           He is an associate processor from the University  
3           of Illinois, Urbana-Champaign. He has a PhD in  
4           wind science and engineering, a BS in civil  
5           engineering, is a board member of the American  
6           Association for Wind Engineering from 2017 to  
7           2021, and we retained him to produce a relevant  
8           literature review of wind-related solar studies,  
9           as well as studies of the specific effects of  
10          our project, Bureau Solar 2.

11                           FRANKLIN LOMBARDO,

12          being first duly sworn, testified as follows:

13           MS. HENKEL: Please state your name and  
14           address for the record.

15           MR. LOMBARDO: Sure. Frank Lombardo,  
16           3916 Rockdale Drive, Champaign, Illinois, 61822.

17           Okay. So, yeah, let me give you a little  
18           more background -- my own background.

19           So as Merrill mentioned, I'm a professor  
20           at the University of Illinois. My research  
21           background is wind engineering. So what that  
22           means is, I study wind characteristics, wind  
23           loading on structures, and I do a lot of studies  
24           on wind damage, I do a lot of work on extreme

1 wind events, tornados, thunderstorms,  
2 hurricanes.

3 And so I was asked by Pivot to basically  
4 take a look at the literature view and see if  
5 there are any wind effects downstream of a large  
6 solar array.

7 So first, it's definitely a valid concern,  
8 right? I'll talk about in the report, we do see  
9 speedups in the vicinity of things like solar  
10 panels, of things like buildings. And really  
11 there hasn't been an in-depth study of what the  
12 wind effects look like far downstream from the  
13 array.

14 A lot of the work is on the wind loading  
15 of the solar panels and the flow right into the  
16 solar array because there's concerns about the  
17 wind loading, want to see how to design these  
18 panels.

19 But the literature shows that really there  
20 are speedups around sharp objects. If you go,  
21 like, around -- you know, you stand on the side  
22 of a building, you see the speedups around sharp  
23 edges and sharp corners, but those speedups are  
24 generally localized and really behind.



1           And given, really, the large number of  
2 panels and the size of the panels it allows, the  
3 momentum of the wind is sort of taken away. And  
4 in the wake of those panels, the wind is  
5 actually slowed down quite a bit. Then  
6 eventually further downstream it will pick up  
7 momentum and will regain basically the original  
8 characteristics that it sees before it actually  
9 hits the solar array.

10           So if you have the slides -- I kind of put  
11 together basically just one slide that kind of  
12 shows what I'm talking about. Really the major  
13 takeaways of this, so here, the figure there on  
14 the right-hand side, basically shows sort of the  
15 wind flow around the solar panel. So the wind  
16 here is left to right.

17           And before the panel, basically the wind  
18 has a -- it basically increases with height,  
19 zero at the ground and then it picks up speed as  
20 you kind of move away from the effects of the  
21 surface. Then as the wind hits the panel, you  
22 see sort of some speedups basically around the  
23 edges and around the corners, both kind of above  
24 and below the panel. And then really kind of in

1 the wake of the panel there, you see some  
2 slowdowns, and this basically increases  
3 downstream.

4 A lot of studies and literature basically,  
5 sort of, use a reference height to sort of  
6 normalize these findings. So for example, here,  
7 this is kind of downstream at five -- that's  
8 basically five times the panel height. So if  
9 the panel is 8 feet, basically that's 40 feet  
10 downstream, and you're still seeing a slowdown  
11 of the wind speed in the wake. That continues  
12 quite a ways downstream.

13 So basically I really focused on this  
14 130-foot distance, which was basically from the  
15 last solar panel array to the next adjacent  
16 property. So that was kind of the distance that  
17 I focused on. So really it's likely that the  
18 wind speeds are going to be reduced at that  
19 130-foot point, and especially at heights  
20 relevant to agriculture.

21 The base is as low as 15 feet, and we  
22 really didn't find that the speed or any wind  
23 shear, which is really how the wind changes with  
24 height, would increase at that distance

1 downstream.

2 Again, there are speedups, there are  
3 ranges of high wind shear, but those are really  
4 limited to right near the solar panels  
5 themselves, and those effects sort of diminish  
6 as you move away.

7 Yeah, I think that's really all I had to  
8 say. Happy to take questions.

9 MR. WELBERS: Kris?

10 MS. DONARSKI: I have none.

11 MR. WELBERS: Go ahead, Connie.

12 MS. STETSON: Connie Stetson.

13 EXAMINATION

14 BY MS. STETSON:

15 Q. From my understanding, these are a pivot,  
16 right?

17 A. Yes.

18 Q. So you're showing this picture as it sits up  
19 here. What about if it goes like this?

20 A. Yeah, so we -- a lot of the research has been  
21 on -- hasn't looked at a flat panel. But really  
22 the worst-case scenario would be when it's  
23 tilted. So we focused on basically when the  
24 panels are tilted, basically at the maximum

1 tilt, around 50 degree tilt.

2 Q. So when it goes flat it's -- you're talking it  
3 could do, like, a wind shear-type?

4 A. No, you wouldn't see -- you would see a wind  
5 shear close to the panel. So if you think about  
6 a flat -- if you think about a flat panel, think  
7 about it almost like the roof of your house, you  
8 can speed up immediately over the top, you would  
9 get it on the bottom as well. But again, those  
10 effects would be diminished downstream as you  
11 move away from panels themselves.

12 Q. So you have got a cornfield right next to it.  
13 What about the corn next to that?

14 A. Yeah, so we looked at that. We looked at  
15 basically the wind shear with height, and we  
16 found -- we did a -- it's in the report. We did  
17 a computational study, a computer study,  
18 basically simulation, and found that basically  
19 there's little or no change in the wind profile  
20 with height. We compared upstream of the solar  
21 array to at that 130-foot distance.

22 So immediately behind the solar array,  
23 within 20 to 30 feet, there's basically a huge  
24 reduction in wind speed, and then that slowly

1 starts to pick up as you move downstream.

2 So there is -- generally, if you look at  
3 sort of the boundary there, there is a wind  
4 shear anyways because the wind fields the  
5 effects of friction near the ground and then it  
6 speeds up as you move up.

7 MR. WELBERS: State your name for the  
8 court reporter and then ask your questions.

9 MR. SCHAFER: What's that?

10 MR. WELBERS: State your name for the  
11 court reporter.

12 MR. SCHAFER: Dan Schafer.

13 EXAMINATION

14 BY MR. SCHAFER:

15 Q. Those panels laying flat, it's got to be almost  
16 like a parking lot. There's not going to be  
17 nothing to slow the flow of the air across when  
18 they're laying flat.

19 A. I mean, they have to -- the wind will make  
20 contact with the panels.

21 Q. But there will be no friction to really slow it  
22 down?

23 A. Well, the panel themselves, I mean, the wind  
24 will be significantly slowed in that array. I

1 mean, there's way more friction in that array --  
2 well, right over the top, sure. But within that  
3 whole array there's a lot of friction slowing  
4 the wind down.

5 MR. WELBERS: Good?

6 (No verbal response.)

7 MR. WELBERS: State your name for the  
8 court reporter.

9 MS. REEDER: Jeanette Reeder.

10 EXAMINATION

11 BY MS. REEDER:

12 Q. Has the study been done -- was this just on,  
13 like, one band of panels?

14 A. Yes. So, great question, and it's true. So  
15 the literature is limited on studies of -- most  
16 of the studies have focused on either a single  
17 solar panel or multiple rows, no more than about  
18 five rows of panels. And again, the focus has  
19 really been on the loading of the panels  
20 themselves and not what happens in the wake of  
21 the panels downstream.

22 So there hasn't been a -- basically a  
23 study on a solar array of this scale because it  
24 really hasn't been the focus. They are really

1 looking at what's going on right near the  
2 panels, and you don't need a large-scale array  
3 to know what happens there.

4 Q. And how many are we talking about in this  
5 proposed -- because this is the first I have  
6 heard of them, coming in here. But how many are  
7 we talking about? How many rows?

8 A. Merrill may be able to answer that a little bit  
9 better than me.

10 MS. READ: Could I answer? Merrill Read.

11 MS. DONARSKI: Well. . .

12 MR. WELBERS: This witness doesn't know  
13 the answer, but Merrill will have a follow-up.  
14 We'll ask her that when she comes back.

15 Any other questions? Yes.

16 MR. GILLAN: Neil Gillan.

17 EXAMINATION

18 BY MR. GILLAN:

19 Q. Have you seen any of these -- have you seen any  
20 of these go through a storm? In other words,  
21 have you seen the solar panels where they have  
22 been blown away?

23 A. Yes.

24 Q. Okay.

1 A. Not here, but in Puerto Rico there was a  
2 large-scale solar array after a hurricane that  
3 took significant damage where they have been.

4 But in anything else, I have not seen  
5 that. I have seen tornado damage of solar  
6 panels. They have not been blown away. They  
7 have been significantly damaged but still  
8 attached to the support.

9 Q. Okay. Would you want to live due west of a  
10 solar array?

11 A. I wouldn't be worried about west, given that  
12 the easterly winds are --

13 Q. I live east of it.

14 A. East, okay.

15 Q. My apologies.

16 MS. READ: This is a different project.

17 MR. WELBERS: This is a different project.

18 MR. GILLAN: I know, but I'm asking  
19 your --

20 Q. (By Mr. Gillan:) You study wind, and I'm  
21 asking, would you want to live to the west of  
22 that project --

23 A. I mean, I would be --

24 Q. -- or east, rather?



1 A. No, I wouldn't be terribly concerned. I mean,  
2 I think -- you wouldn't see -- I mean, close to  
3 the ground you're going to be subjected to a lot  
4 of turbulence anyways, but I wouldn't be worried  
5 about it at all, especially at those distances.

6 If my house was butted up right against  
7 the solar array, yeah, I may have some concern,  
8 but further downstream I wouldn't be concerned.

9 MR. WELBERS: Lori. State your name too,  
10 please.

11 MS. FRY: Lori Fry.

12 EXAMINATION

13 BY MS. FRY:

14 Q. Neil just asked about wanting to live east.  
15 What about south? You stuttered a little bit.  
16 No, I wouldn't want to live there.

17 What about south?

18 A. South, yeah, again --

19 Q. On top of a hill, when it's already windy and  
20 right next to it.

21 A. I mean, I wouldn't be concerned about the  
22 array. I would be concerned about living on top  
23 of a hill, for sure, because there are speedups  
24 with wind flow over hills.

1 Q. So with solar panels it would be worse?

2 A. No, because basically the solar panels allow  
3 wind to go through them. They have -- wind can  
4 pass underneath and wind gets slowed down  
5 underneath the panels as well. And the hills,  
6 there's really -- the wind can only go in one  
7 direction. It has to go up or around. So you  
8 get significant speedups with hills.

9 With, you know, solar panels, basically  
10 the wind is getting -- the momentum is getting  
11 taken away by the panels themselves, the  
12 supports, and so there's really a significant  
13 slowdown there.

14 MR. WELBERS: Connie, go ahead.

15 MS. STETSON: Connie Stetson.

16 EXAMINATION

17 BY MS. STETSON:

18 Q. So you're talking glass flying around, correct?

19 A. Uhm. . .

20 Q. On something like this, you're talking glass  
21 flying around next to these homes; is that  
22 correct?

23 A. No.

24 Q. Well, aren't they made out of glass?

1 MS. READ: Sure.

2 A. Yeah, I mean --

3 Q. (By Ms. Stetson:) A high wind -- you just  
4 said, I wouldn't live next to them. I wouldn't  
5 live next to them because of the wind. You just  
6 said that; is that correct?

7 A. I don't think I said that.

8 Q. Did I hear that right?

9 MR. WELBERS: Clarify what you said. You  
10 said if you were extremely proximal, like if  
11 your home was here and the panel was here.

12 A. If my home was sitting right next to -- up  
13 against the fence, sure.

14 Q. (By Ms. Stetson:) You wouldn't live in a place  
15 like -- I just -- because you're talking -- you  
16 know, some places they are talking surrounding  
17 the house, and you're saying the wind could be a  
18 problem with this?

19 A. No, I mean, it would -- immediately downstream,  
20 if you're sitting next to -- if you're on the  
21 fence, basically, the wind is significantly  
22 reduced. It's just not an ideal place to be.

23 Q. When a storm -- a wind -- a high wind comes,  
24 you're saying, more or less, I don't think I

1 would want to live there?

2 A. No, that's not true. I mean. . .

3 Q. I think that's what he said.

4 A. The solar panels are designed to withstand high  
5 wind.

6 Q. I have seen pictures on the internet with  
7 damage, like crazy.

8 A. Sure, sure. I don't know anything about how  
9 they were --

10 Q. The glass has to go somewhere.

11 A. I don't know how they were -- those particular  
12 panels were designed to be constructed. But, I  
13 mean, they are designed to withstand extreme  
14 winds.

15 I understand what you're saying, yes.

16 Q. So, you know, some people talk about the noise  
17 next door. I'm talking this wind is real.

18 MS. STETSON: Thank you.

19 MR. WELBERS: Other questions for this  
20 witness?

21 Nanette, go ahead.

22 MS. GILLAN: Nanette Gillan.

23 EXAMINATION

24 BY MS. GILLAN:

1 Q. So you said you have only basically done  
2 testing on when there's five rows. So you  
3 really can't give an answer on, like -- I don't  
4 know how many rows this one is going to have.  
5 But, like, ours has a lot.

6 So that's going to make a big difference  
7 then, right? I mean, if you have only tested on  
8 five, you can't say --

9 A. I can't say, right. I have no idea if it's  
10 going to make a difference or not, yeah.

11 MS. GILLAN: Thank you.

12 MR. WELBERS: Other questions for this  
13 witness, the wind expert?

14 MR. DICKINSON: Brian Dickinson.

15 EXAMINATION

16 BY MR. DICKINSON:

17 Q. Have you guys had any studies with derechos?  
18 Our area saw one a few years ago. We're  
19 probably going to see more as global  
20 temperatures rise. It's a new area. Have you  
21 guys had any focus with that?

22 A. Me personally, no. So no focus on solar  
23 panels. Certainly on derechos and the damage  
24 they cause to buildings, for example, but

1 nothing on solar panels, but certainly an area  
2 of research that I do it on.

3 MR. WELBERS: State your name one more  
4 time.

5 MS. REEDER: Jeanette Reeder.

6 EXAMINATION

7 BY MS. REEDER:

8 Q. Do you have any information on, like, winter  
9 conditions, snow? With the wind, is it going to  
10 act like a snow fence, where so far out from it  
11 the snow is going to pile more? Is that a  
12 factor because of the wind shear going through  
13 there?

14 A. Good question. I do not know the answer. I  
15 haven't done any studies on, for example, snow  
16 drifts in and around solar arrays.

17 MR. WELBERS: Are we good?

18 (No verbal response.)

19 MR. WELBERS: Board, any questions of the  
20 wind expert? I already asked that once, didn't  
21 I?

22 You can sit down.

23 Do you have another one?

24 MS. READ: One more.

1           The last expert that we have today to  
2           testify is Lei Zhao. He's our heat island  
3           expert. He's an assistant professor in the  
4           Department of Civil and Environmental  
5           Engineering, Institute for Sustainability,  
6           Energy and Environment, and the National Center  
7           of Supercomputing Applications at the University  
8           of Illinois, Urbana-Champaign. He has a PhD  
9           degree in atmospheric physics from Yale  
10          University, and is the recipient of the U.S. NSF  
11          CAREER Award, the Timothy Oke Award (2023) from  
12          the International Association for Urban Climate,  
13          and the American Geophysical Union (AGU) Global  
14          Environmental Changer Early Career Award from  
15          2023.

16                 Bring him up.

17                         LEI ZHAO,

18           being first duly sworn, testified as follows:

19                 MS. NEMETH: Please state your name and  
20                 address and spell your name for the record,  
21                 please.

22                 MR. ZHAO: Sure. First name is Lei,  
23                 L-E-I, last name, Zhao, Z-H-A-O. Address,  
24                 311 Lake Falls Boulevard, Savoy, Illinois,

1 61874.

2 All right. Hi, everyone. So my name is  
3 Lei. I'm an assistant professor in civil and  
4 environmental engineering at UIC, University of  
5 Illinois, Urbana-Champaign.

6 So my group research area is heat island,  
7 climate impacts, climate risks, climate  
8 adaptation. What that means is, we try to study  
9 and model, simulate, climate change and a  
10 variety of different engineering strategies, how  
11 that affects the local climate.

12 So I was asked to provide an impact  
13 assessment report on this proposed project,  
14 major focus on the heat island effects. So this  
15 is actually a very good question, because this  
16 is actually a hot research area in the past  
17 several years.

18 I do summarize a number of most-recent  
19 public peer-reviewed literature in my full  
20 assessment report. Although I only summarize  
21 the most recent one, but there's actually a  
22 majority of the published literature show a  
23 consensus, an agreement, on the temperature  
24 effects of solar farm or solar gardens.



1           We did this assessment in two major ways.  
2           One is literature review. The second is our own  
3           modeling. So I will explain one by one.

4           The first one is, we conduct a studies-  
5           related review on the modeling studies of  
6           simulating the temperature effects after  
7           implementation of a solar farm across sales.  
8           What I mean by across sales, is the  
9           literature shows a very small scale, for  
10          example, just rooftop solar roof; or community  
11          or broader scale, like solar farm, solar garden;  
12          or even a global scale, so basically turn all  
13          the possible ceilings or roofs or land into  
14          solar or ways of renewable energy systems and  
15          their impacts.

16          So basically there's a great agreement  
17          that it's very unlikely the solar farm or solar  
18          roof can cause a local warming, or heat island,  
19          impact. Actually, the majority of our study  
20          finds that there is a slight cooling effect.  
21          The mechanism behind this is because the solar  
22          farm or the solar panels, solar PV, converts  
23          sunlight to electricity that would be otherwise  
24          absorbed by the ground to heat up the area.

1           So that part of the solar heating was  
2           turned into electricity. This is especially the  
3           case when the electricity is not consumed right  
4           onsite, which applies to this proposed project.

5           And I -- what I show you in the slides  
6           here is a modeling study conducted in Phoenix  
7           and Tucson. Just very quickly to explain, the  
8           color bar, particularly the reddish color, shows  
9           the warming effect and the bluish color shows  
10          the cooling effect.

11          The color picture shows the impact area  
12          between the high temperature, or human perceived  
13          temperature, basically, that effects you can see  
14          is all -- almost all bluish color, so it  
15          means -- although it's very slight, there is a  
16          slight cooling effect.

17          We also used our own model to simulate the  
18          proposed project, and we also found this very  
19          consistent with the literature. The proposed  
20          project actually will have a slight cooling  
21          effect.

22          Another thing I want to mention is, this  
23          proposed project also proposed to have -- they  
24          propose to farm hay or vegetation between the

1       arrays. This will also have the cooling  
2       benefits by enhancing the evapotranspiration.  
3       The evapotranspiration is cooling. Basically  
4       you have more water from the soil, which  
5       evaporates, and causes an enhanced evaporative  
6       cooling effect.

7               By the way, the study that I -- the model  
8       they use is WRF, which is basically the -- WRF  
9       stands for Weather Research and Focus Model.  
10       It's basically, we are really to see the weather  
11       forecast every day. That's the model  
12       produced for predicting or forecasting the  
13       weather for people.

14               Yeah, so the conclusion is based on the  
15       literature review and our own modeling study  
16       analysis, our modeling analysis, we find the  
17       proposed project is very unlikely to cause any  
18       local warming or island effects. Actually, it  
19       will cause a slight cooling benefit.

20               I'm happy to address any questions. Thank  
21       you.

22               MR. WELBERS: Kris?

23                               EXAMINATION

24       BY MS. DONARSKI:

1 Q. I have one question for you.

2 A. Yes.

3 Q. On your presentation here, you had two --  
4 Phoenix and Tucson. Those are desert or arid  
5 climates. Is the research different in more,  
6 like, Midwest farmland than in a dessert and  
7 arid lands?

8 A. Very good question.

9 Short answer, no. The reason is, the  
10 underlying physics, it's a subsurface end  
11 balance. Those physics apply in all locations.  
12 Actually, in my full report we have studies on  
13 all different areas. These slides we happen to  
14 show those two studies which, yeah, the scale  
15 matched more.

16 MS. DONARSKI: Okay.

17 MR. ZHAO: But very good question. Thank  
18 you.

19 MS. DONARSKI: Thank you.

20 MR. WELBERS: Questions? In the back,  
21 state your name.

22 MR. DAVIS: Oliver Davis.

23 EXAMINATION

24 BY MR. DAVIS:

1 Q. So under the images, it says, in Figure 2, it's  
2 referencing solar roofs. So does this study  
3 only consider solar roofs or was it also in  
4 solar farms?

5 A. Yeah, very good question. This study, this  
6 particular study, only solar roofs. But in the  
7 full reports, we look at the studies across all  
8 kinds of solar panels. So rooftop solar farms,  
9 solar gardens, or even the solar arrays.

10 Q. So solar gardens of the same size?

11 A. Yes, exact, yeah.

12 MR. WELBERS: Next question.

13 MS. REEDER: Jeanette Reeder.

14 EXAMINATION

15 BY MS. REEDER:

16 Q. Do you have the studies on the different graphs  
17 and stuff that you prepared, where you were  
18 looking at different types of property, or is  
19 this it?

20 A. The property, you mean?

21 Q. Well, like the solar fields, instead of a roof,  
22 like how much condensation does --

23 A. Oh, I see.

24 Q. Do you have -- is there somewhere we can access

1           that information?

2   A.    Oh, yes.  Actually, this is a very active study  
3           field.  You actually can find hundreds of papers  
4           across even crop lands, land cover, urban ones,  
5           which is a built environment, cropland, which  
6           is, like, different types of cropland, also even  
7           forests, even a lake, even seashore.  So there  
8           are all kinds of studies.

9                    In my full report, I summarize all of  
10            them.  This is really a very active research  
11            field actually.  But yeah, we do -- I think  
12            online you can usually find the majority of the  
13            studies.

14                   MR. WELBERS:  Other questions?

15                                (No verbal response.)

16                   MR. WELBERS:  No questions.

17                   Questions from the Board?

18                                (No verbal response.)

19                   MR. WELBERS:  You can sit down then.

20                   MR. ZHAO:  Thank you.

21                   MR. WELBERS:  Merrill, you can return and  
22            discuss a few questions.

23                   MS. READ:  All right.  So we are on the  
24            last slide.  All right.  So just to kind of

1 close everything up that you just heard.

2 Thank you to all of our experts for coming  
3 and answering everyone's questions.

4 I just want to summarize the overall  
5 benefits of this project. So first of all, it  
6 complies with the standards in Bureau County's  
7 Ordinance and will not negatively affect  
8 property values, create an increase in wind  
9 shear to neighbors, or produce a heat island  
10 effect.

11 Then also, the economic benefits that I  
12 mentioned earlier to the community. So that  
13 includes economic savings to the residents and  
14 the businesses in this area, which could be  
15 subscribers. We have a handout, if people are  
16 interested in learning more about subscribing to  
17 projects and how that works. But that's a great  
18 way to save money on your utility bills every  
19 year.

20 Property tax increase is significant.

21 Encourages workforce development training  
22 and development programs.

23 As I mentioned last time, but I'll bring  
24 it up now to, part of Pivot's culture is to

1 donate to the communities that we're building  
2 projects in. So that includes a \$5,000-per-  
3 megawatt donation that we will pay out to an  
4 organization or nonprofit that's doing great  
5 work in the community surrounding energy burden  
6 reduction, workforce development or agricultural  
7 development and saving different portions of  
8 land for agricultural. We know that's important  
9 here in Bureau County, thus why we're doing  
10 crops between the rows.

11 Then also, using local contractors to  
12 contribute to the local economy and have a job  
13 to work on.

14 Then also we're looking to preserve  
15 farmland and agricultural practices and will be  
16 a harmonious neighbor to the surrounding area  
17 and also bolster the existing distribution grid  
18 for further expansion and allowing different  
19 types of energy to be on the grid.

20 Now we're happy to answer any questions  
21 from Liz or I.

22 I know one of the questions earlier was  
23 about how many panels, I think, and so I have it  
24 on my site plan. Let me read it. 11,520, which



1 would be about 50 rays -- 50 rows, which I think  
2 was one of the questions.

3 AUDIENCE MEMBER: 11,000 how many?

4 MS. REEDER: 11,500 individual panels.

5 So, like, by row it would be about 50 rows going  
6 north-south.

7 MERRILL READ,  
8 having been previously duly sworn, testified as  
9 follows:

10 EXAMINATION

11 BY MS. STETSON:

12 Q. You said expansion. You're possibly going to  
13 expand on this property?

14 A. No. So we're -- what we have proposed is all  
15 that we're building. It pretty much takes up  
16 all the land. With all the setbacks that we  
17 have, we wouldn't be able to build anymore. But  
18 we integrate and interconnect right to the  
19 existing infrastructure, but just basically  
20 making it a more reliable grid because you're  
21 adding more different types of energy reduction,  
22 so making it more reliable.

23 Q. So you're not going to expand to make it  
24 bigger?

1 A. No.

2 Q. So you're not going to ask the neighbor next to  
3 them?

4 A. No.

5 MR. WELBERS: Lori?

6 EXAMINATION

7 BY MS. FRY:

8 Q. How many jobs is it going to give?

9 A. About 50 for a project this size.

10 Q. Okay. And how many businesses do you think  
11 that a farmer uses on that property?

12 A. For, like, just farming?

13 Q. Yeah.

14 A. I would have to guess, but I'm sure themselves,  
15 farming it, and then getting seed, and then they  
16 already have the equipment. I would have to ask  
17 -- the farmer is here.

18 Q. You have the fertilizer company, you have the  
19 small-town guy that's making some money, you  
20 have the seed guy, you have --

21 MR. WELBERS: Lori.

22 A. I do have the farmer right here. He can answer  
23 that question.

24 Q. (By Ms. Fry:) Yeah, there's a lot of people

1           that get hurt too.

2           MR. WELBERS:  Lori, when it gets to the  
3           case that you're interested in, or even this  
4           one, you can testify.  I think this witness  
5           probably isn't an expert on agriculture.  So you  
6           want to be careful that you're -- in order to  
7           testify, you would come up to the same stand,  
8           you know.  We have to maintain some sort of  
9           order.

10           I think it's safe -- are you an expert on  
11           farming?

12           MS. REDDINGTON:  I am not an expert on  
13           farming, but I am here as the Applicant and can  
14           expand on the job creation that the project  
15           brings, if that's okay.

16           MR. WELBERS:  Go ahead, do that.

17                           ELIZABETH REDDINGTON,  
18           having been previously duly sworn, testified as  
19           follows:

20           MS. REDDINGTON:  So we hire from the  
21           beginning of the project lifecycle all the way  
22           to the end.  We're going to be hiring fencing  
23           laborers, electricians, mechanical and laborers.  
24           There's also going to be salespeople that are

1 selling subscriptions to the local area. We are  
2 also increasing the need for more utility  
3 workers because of the increase of clean  
4 renewable energy in the state of Illinois.

5 Also, development work. So we have our  
6 civil firm here that will be doing the civil  
7 engineering work. Also the union laborers and  
8 prevailing wage requirements that we have, we  
9 have a local partner here that can speak on  
10 behalf of the project as well. So it's good-  
11 paying jobs that come on to the site for the  
12 construction.

13 And then upon the commissioning of the  
14 system and the commercial operations of the  
15 system, we will have ongoing maintenance at the  
16 site. So snow removal, there will be vegetative  
17 maintenance, in the event that there needs to be  
18 mowing, and we also employ people to come out to  
19 the site to clean the panels. There's going to  
20 be planned maintenance, unplanned maintenance,  
21 where we will deploy electricians on the site to  
22 ensure that they are working properly.

23 So there is certainly a benefit and people  
24 hired as a result of this project.

1 MR. WELBERS: Question?

2 MS. SUTTON: Colette Sutton.

3 EXAMINATION

4 BY MS. SUTTON:

5 Q. So what you're saying about hiring is that post  
6 construction you will be incrementally using  
7 contract laborers? They are not full-time  
8 employees?

9 A. No, so we -- it's -- we all -- all of our labor  
10 is contracted, if that answers your question.

11 Q. Right. So contracted for the job and it's  
12 done, right? You have an electrical outage,  
13 they come in for a contracted period and then  
14 they're gone?

15 A. Yes, but this system, with the length of time  
16 it will be operating in, it will be annual and  
17 yearly maintenance that we contract with.

18 Q. So you have full-time employees for annual and  
19 yearly maintenance for what period of time?

20 A. So this system can operate up to 40 years.  
21 Right now it's contracted, or would be  
22 contracted, to operate for 20 to 25.

23 Q. Okay. But during that period of time, how many  
24 full-time employees do you have for maintenance?

1 A. So roughly for two to four times a year  
2 maintenance call, and that's just the bare  
3 minimum. There could be more visits to the  
4 site. There's usually two people that would  
5 come to the site each time.

6 Q. Two people?

7 A. (Nods head.)

8 Q. Two to four times a year?

9 A. Uh-huh.

10 Q. Eight people.

11 MS. GIBALDI: Aubrey Gibaldi.

12 EXAMINATION

13 BY MS. GIBALDI:

14 Q. So I'm a little confused. So the proposed  
15 benefits that you have as far as savings go,  
16 those only apply to people that buy into a  
17 subscription for your energy. So all of the  
18 benefits, basically, you have to be kind of  
19 bought into this, correct, with a subscription?

20 A. People can choose to be a subscriber to the  
21 community solar garden.

22 Q. So if your --

23 A. So if you elect not to subscribe, then you  
24 wouldn't get the benefit of the electricity.

1 Q. So what you're saying is, there is no benefit  
2 to any of the property adjacent to this area?  
3 If they are not subscribing to whatever this --  
4 Pivot Energy, there's no benefit?

5 A. Only if you elect to be a subscriber. I think  
6 that the most localized residents would see an  
7 increase in property taxes, which helps  
8 different tax levies in your district, like  
9 school districts, your firehouse, road  
10 commissions. So that is where most localized  
11 folks would benefit.

12 Q. So no electricity savings unless you're in a  
13 subscription, but increased --

14 A. You have to be a subscriber.

15 Q. -- property taxes and potential property  
16 devaluation?

17 A. The trends have shown that there is no decrease  
18 in property values, but you have to --

19 Q. That's actually not what you have put on the  
20 thing.

21 A. In order to benefit from the community solar  
22 garden, you would have to choose. We don't  
23 force people to be a subscriber to the garden.

24 Q. Right.

1 A. So you would have to elect to be a subscriber.

2 Q. I just want to go back to the materials that he  
3 provided for us to read. One of the studies did  
4 show an incremental decrease in valuation of the  
5 property because of the solar farms.

6 So you saying that there's no value  
7 decrease is incorrect, and I want that to be  
8 stated, because there is, due to your research  
9 in one of these studies, a decrease in value in  
10 some of these properties that you put forth in  
11 this study.

12 MR. WELBERS: If you're not totally  
13 familiar, you don't have to answer.

14 A. Yeah, and just to clarify questions about  
15 property taxes. It's not an increase in  
16 property taxes for you, as a Bureau County  
17 resident. We are the ones that bear an increase  
18 in property taxes. The landowner does not pay  
19 an increase in property taxes. We take on any  
20 additional assessed value for property taxes  
21 because of the use that we're proposing on this  
22 site.

23 So it's not an increase in property taxes  
24 for local residences. It's an increase in



1 property tax revenue to the county.

2 MR. WELBERS: Any other questions for  
3 these witnesses?

4 (No verbal response.)

5 MR. WELBERS: Board?

6 (No verbal response.)

7 MR. WELBERS: Okay. You have completed  
8 what you need to do. Now you can relax a little  
9 bit.

10 Now the next part is for the Interested  
11 Parties to come up and testify what they want  
12 to, and we still have a little time but we are  
13 going to run out.

14 MS. DONARSKI: Right, and we'll continue.

15 MR. WELBERS: We still have the other  
16 case.

17 MS. DONARSKI: They are going to have to  
18 come back, because we are not going to get it  
19 started.

20 MR. WELBERS: All right. Okay. For those  
21 who would like to testify in this application,  
22 this application, Bureau Solar 1 (sic), now is  
23 your time to do that. You'll come up, be sworn  
24 in, be subject to questions by others as well.

1 Who would like to go first?

2 AUDIENCE MEMBER: Can I ask a question  
3 real quick, just about how everything works?

4 MR. WELBERS: Yes.

5 AUDIENCE MEMBER: So if we are not going  
6 to go through the Cherry one tonight and it goes  
7 to next time again, is -- why do we always get  
8 put at the end of the agenda? If we're  
9 continuing every time, we get put at the end and  
10 then we get bumped and then we get bumped.

11 I have been to probably eight of these  
12 meetings now. I mean, I love seeing you guys,  
13 but at some point we'd like to be done. I just  
14 heard her mention that we will probably be  
15 continued, so I'm just wondering if we can be  
16 first at the next meeting.

17 MS. DONARSKI: I gave the Cherry the -- we  
18 have three ultimate dates, not until next month.  
19 Two of them are next week and the one is the  
20 following week. And they opted to come tonight  
21 rather than just to ask to come next week. So  
22 that was their choice.

23 So as we continue, there will be no other  
24 ones added. We have three more dates to finish

1 these two up.

2 AUDIENCE MEMBER: Okay. So we'll get  
3 through it.

4 MR. WELBERS: Okay. Would you like to  
5 testify?

6 MR. SCHAFER: No.

7 MR. WELBERS: Questions?

8 MR. SCHAFER: Comment.

9 MS. DONARSKI: He's got to --

10 MR. SCHAFER: Then that's all right.

11 MR. WELBERS: We don't bite. Just follow  
12 the procedure and make your comment. This is a  
13 public meeting. This is your chance to put it  
14 in here, whatever you would like the County  
15 Board to consider.

16 MR. SCHAFER: Can I make a comment from  
17 here?

18 MS. DONARSKI: Well. . .

19 CRANE SCHAFER,  
20 being first duly sworn, testified as follows:

21 MS. NEMETH: Please state your name and  
22 address for the record.

23 MR. SCHAFER: Crane Schafer, 609 East  
24 Peru, here in Princeton.

1 MR. WELBERS: Your comment, Mr. Schafer?

2 MR. SCHAFER: I'm wore out.

3 I'm the guy that's going to be planting  
4 the seeds, making certain that -- I mentioned  
5 this last meeting, making certain that  
6 everything is going properly.

7 I have a neighbor directly to the south of  
8 me that is really a super successful farmer.  
9 He's got a million dollar, at least, grain setup  
10 right across -- handshake across the fence row  
11 from me. I understand everybody's got concerns.  
12 This guy has not once called me up. I have  
13 lived out there all my life. He knows me. Or  
14 said, Crane, what are you thinking of? Or,  
15 You're going to destroy my grain setup. Not  
16 once has he said anything like that.

17 The other comment I want to make is, I  
18 just came back from visiting my grand- -- this  
19 doesn't have anything to do with any of you  
20 guys, but I'm going to tell you.

21 I just came back from visiting my six  
22 grandchildren. I got one on the way. The  
23 biggest -- I can't -- I can't think of a better  
24 way to leave the Schafer name on this property

1 than to have this kind of operation after I'm  
2 gone, because it's a contract, to continue on.

3 And the other thing I was going to say, in  
4 fact, about that, I have already talked to the  
5 individual -- I'm going to be 71 here pretty  
6 quick. And I have already talked to the  
7 individual who I want to take -- who I am  
8 confident can take care of this property and  
9 maintain this for my grandchildren. I'm just  
10 not going to walk -- well, walk away is kind of  
11 strong.

12 When I'm gone, I want it to continue on as  
13 when I had it.

14 And I better quit with that.

15 MR. WELBERS: Is that all you would like  
16 to say?

17 MR. SCHAFER: That's not all I would like  
18 to say.

19 MR. WELBERS: Is that all you are going to  
20 say? It's your chance. And, unfortunately, you  
21 also can -- there will be some questions that  
22 they'll ask of you. So if you would like to  
23 just let that happen, we'll do that.

24 MR. SCHAFER: Well, I have received one

1 objection in the community. One. And this  
2 particular individual is right across the road  
3 and has solar panels on their machine shed.  
4 Solar. And then there's this large sign right  
5 across the road, the ditch, from me, from my 40,  
6 advertising solar.

7 I'm not sure why that is creating, "I  
8 don't want you to do this." That's -- I don't  
9 know if you understand what I'm saying, but  
10 that's where I'm coming from.

11 If you have got a question, ask me. Ask  
12 away.

13 MR. WELBERS: Okay. One at a time. Any  
14 questions for Mr. Schafer?

15 Go ahead.

16 MR. DICKINSON: Brian Dickinson.

17 EXAMINATION

18 BY MR. DICKINSON:

19 Q. I heard what you said about the future. What  
20 is that to not inspire all the farmers to do  
21 what you're doing and it's now solar panel city  
22 and no more corn or vegetation in the next 50  
23 years?

24 A. I'll answer that.

1 Q. Okay.

2 A. Because I used to farm. I used to raise  
3 cattle. I was trying to raise cattle, farm, and  
4 I sold insurance for Country Financial for 45  
5 years. I just retired last April. I can't -- I  
6 couldn't do it all, and I couldn't start farming  
7 right now. Farming has passed me by. I can  
8 plant hay seed. I can rent a corn planter to do  
9 that outside row. And it was my idea to keep  
10 this as farm related as I possibly could without  
11 farming 3,000 other acres.

12 So yeah, you know, other people can do it  
13 too. It's just the way I -- my life went on,  
14 you know, what I was trying to do anyway.

15 MR. WELBERS: Other questions of  
16 Mr. Schafer?

17 MS. SUTTON: Colette Sutton.

18 EXAMINATION

19 BY MS. SUTTON:

20 Q. I'm just wondering if your contract with the  
21 company will allow you to plant something other  
22 than hay or vegetation-type product? Will you  
23 be able to grow short-stature corn, for example,  
24 between your rows at some point?

1 MS. REDDINGTON: Are we allowed to answer  
2 that?

3 MR. WELBERS: Go ahead.

4 MR. SCHAFER: I'll get out of the way  
5 here.

6 MS. REDDINGTON: The only limitation that  
7 we would see in a choice of seed mix would be to  
8 ensure that nothing would shade the panels. So  
9 as long as this species that you're talking  
10 about wouldn't shade our panels, we would  
11 definitely explore that option.

12 And then the only other limitation that we  
13 have would be anything from the County  
14 Ordinance. So if they have further height  
15 restrictions or anything like that, it would be  
16 imperative to follow the law.

17 MS. SUTTON: So hypothetically he could  
18 grow beans, soybeans?

19 MS. REDDINGTON: Yeah.

20 MS. SUTTON: Wheat?

21 MS. REDDINGTON: Yeah, because that is  
22 definitely shorter than -- nothing tall, like  
23 really, really high, tall corn.

24 MS. SUTTON: And that revenue would



1 interplay to him?

2 MS. REDDINGTON: Yes. It's his land.

3 MS. SUTTON: Thank you.

4 MR. WELBERS: Technically it's Mr. Schafer  
5 on the plate here. Are there any other  
6 questions for him?

7 Technically the answer was that he  
8 wouldn't know, but anyway.

9 MR. SCHAFER: Yeah, sorry. I apologize.

10 MR. WELBERS: It's all right.

11 MR. SCHAFER: I wasn't going to talk this  
12 long.

13 MR. WELBERS: That's okay.

14 Any other questions? If not, we'll let  
15 him sit down and see who else would like to  
16 testify.

17 (No verbal response.)

18 MR. WELBERS: Thank you, Mr. Schafer.

19 MR. SCHAFER: Thank you.

20 MR. WELBERS: Do you have a question? You  
21 want to be the next to testify? Come on up.

22 AUBREY GIBALDI,  
23 being first duly sworn, testified as follows:

24 MS. NEMETH: Please state your name and

1 address for the record.

2 MS. GIBALDI: Aubrey Gibaldi. We live at  
3 22043 - 1950 E Street. So we're about, I would  
4 say, probably maybe 500 or 600 feet just west of  
5 where this proposed solar farm would be going.

6 We actually didn't know about this. We  
7 just moved in, in August of last year. So when  
8 you guys came in March, we didn't know that  
9 because we bought the house in August.

10 So going back to what this gentleman said  
11 about how it affects property and how it affects  
12 buyer interest, if me and my husband would have  
13 known that this was going here, we wouldn't have  
14 bought this house. And we are one of -- I don't  
15 know how many people, but I don't think there's  
16 been many people moving to Princeton, Illinois.

17 We moved from Orlando, Florida. The  
18 reason why we chose Princeton was because it's a  
19 really cute, quaint town, and we wanted  
20 somewhere to, like, raise a family with.

21 When we bought our beautiful 1850s  
22 farmhouse, we had a vision for that, and one of  
23 the things that we liked going to our farmhouse  
24 was the drive and we get to go underneath the

1 red bridge and go to our house every day, and  
2 then some idiot -- sorry -- hit the bridge and  
3 now we don't get that drive. So now we take  
4 this path, this road, every single day multiple  
5 times a day where this solar farm is going up.  
6 That's not something that we want to look at.  
7 We can see this from our house. I can see it  
8 from our porch. We literally look at this every  
9 day. When I go water my begonias, I will see  
10 this.

11 I don't want to see this. I don't want to  
12 live someplace that has a solar farm right  
13 there. It's not because I don't understand or  
14 don't agree with the benefit of having this kind  
15 of green energy, because I understand it. But I  
16 do think there are better areas for this energy  
17 to be applied to, places that don't necessarily  
18 jut up against multiple residences.

19 I think that the data, you know, you can  
20 skew data any way you want to get -- you know,  
21 when you sample size something, you can pretty  
22 much tell whatever story you want to with data.  
23 It's qualitative rationalization or something.  
24 I don't remember the right word.

1           But where we are at in this area, we  
2           wouldn't have moved here. And I don't really  
3           want it. I'm not -- I would not be happy about  
4           living somewhere right next to this.

5           MR. WELBERS: Would you mind telling me  
6           your address one more time?

7           MS. GIBALDI: Yeah. 22043 - 1950 E  
8           Street. It's the Matson house, with the little  
9           monument. Right there.

10          MR. WELBERS: I'm just trying to get an  
11          idea of where it is in relation.

12          MS. GIBALDI: It's the next road,  
13          literally.

14          AUDIENCE MEMBER: 2200 and 1950, at the  
15          corner.

16          MS. READ: 1950?

17          MS. GIBALDI: That's the one street and  
18          then it's 2200. So that block right past that  
19          station. We're right here.

20          MS. READ: Up there, okay. So you're  
21          definitely -- I think you might be further than  
22          500 feet, because the nearest residence is at  
23          least 600.

24          MS. GIBALDI: It's still in my eyesight.

1 I can still see it. I see Dan Schafer's cows  
2 and I can see the property right next to his,  
3 which is that solar farm.

4 MR. WELBERS: Okay. I understand where  
5 you are.

6 Okay. Anything else you would like to  
7 say?

8 MS. GIBALDI: No, that's it.

9 MR. WELBERS: Questions?

10 MS. DONARSKI: No questions.

11 MR. WELBERS: Connie.

12 EXAMINATION

13 BY MS. STETSON:

14 Q. So the realtor didn't know at the time that  
15 this was going on when you bought that house?

16 A. No.

17 Q. This is -- I'm just saying, this has happened a  
18 lot. I know two people, myself, other than you  
19 that different things -- I do know that, and it  
20 is wrong.

21 A. The Ollie's went up since we have been here,  
22 which is fine. Great. That's closer to town.

23 But one of the things we bought our house  
24 for is -- because I don't know if there's going

1 to be any, like, sort of like, big lighting,  
2 lighting this thing up or anything like that --  
3 but, I mean, like, we bought it for the dark  
4 sky. I mean, like, and we purposefully bought  
5 away from the town so that way we didn't have to  
6 be near anything industrial. We bought it for  
7 the views and the silence. We bought it for the  
8 quiet road that not many people drive on,  
9 because we want, you know, a family, and I don't  
10 want my kids running around with a busy road,  
11 with maintenance vehicles or anything, whether  
12 they come from that area or not. I don't want  
13 my kids wanting to go look at the solar panels.  
14 I just don't want to raise a family near that.

15 MR. WELBERS: Any other questions of this  
16 witness?

17 MR. DAVIS: This is more so a comment to  
18 answer the lady's question.

19 Sorry. Oliver Davis.

20 We specifically asked our realtor before  
21 purchasing the home if anything was going to be  
22 built up in that surrounding area, and he said  
23 no. Because otherwise we wouldn't have  
24 purchased the home, like she said.

1 MR. WELBERS: So you're basically  
2 expanding on your wife's testimony. That wasn't  
3 a question, but that was an expansion of her  
4 testimony.

5 MS. STETSON: Connie Stetson.

6 EXAMINATION

7 BY MS. STETSON:

8 Q. You said that you -- they had a meeting in  
9 March and you bought the house in August. So  
10 there was a meeting. To me, the realtor  
11 probably -- somebody in that area had to have  
12 known that that was happening. Somebody had to  
13 have known.

14 MR. WELBERS: Is that a question?

15 Q. (By Ms. Stetson:) Nobody told you?

16 A. Nobody told us anything.

17 Q. So the meeting was held in March and you bought  
18 the house in August?

19 A. And the first we heard of this was last week.

20 MR. WELBERS: Does our Board have any  
21 questions?

22 (No verbal response.)

23 MR. WELBERS: You have a question?

24 MS. REDDINGTON: I just had an answer,

1 because she had questions about lighting and  
2 noise.

3 MR. WELBERS: Go ahead.

4 MS. DONARSKI: Well. . .

5 MR. WELBERS: Lay it in.

6 MS. REDDINGTON: Well, are we --

7 MR. WELBERS: You can talk about -- she  
8 brought up lighting and noise. Go ahead and  
9 talk about lighting and noise.

10 ELIZABETH REDDINGTON,  
11 having been previously duly sworn, testified as  
12 follows:

13 MS. REDDINGTON: So there's no proposed  
14 lighting. We do not need lighting. So there  
15 won't be lighting.

16 And noise cannot be heard from outside of  
17 the property fence. All of our equipment is  
18 located centrally in the array, and so there is  
19 no decibel increase outside of the array. So  
20 nothing can be heard outside of the fence line.

21 MR. WELBERS: Okay. Thank you.

22 Would someone else like to testify in this  
23 case?

24 (No verbal response.)



1 MR. WELBERS: Really?

2 Do you?

3 MS. STETSON: No. I have a question for  
4 her. She just mentioned noise. We had someone  
5 from the other -- GreenKey mention something  
6 about the noise. I just have a couple questions  
7 for her.

8 MR. WELBERS: Come on back up.

9 MS. REDDINGTON: Okay.

10 EXAMINATION

11 BY MS. STETSON:

12 Q. So is it with the string inverters, is that  
13 what you have on that?

14 A. Yes, we are proposing string inverters.

15 Q. Okay. So it says it's 60 decibels?

16 A. Yes.

17 Q. Is that correct? That means it has to be --  
18 it's 40 foot from Class A and 80 foot Class A --  
19 80 foot at night.

20 So is it 80 feet from all the houses that  
21 you are --

22 A. We are more than 80 feet from houses.

23 Q. What did you just say to the lady that was just  
24 up there? That there was no noise outside the

1 fence?

2 A. Uh-huh.

3 Q. Which is 50 feet?

4 A. I guess if you were -- I'll try to answer it  
5 this way: if you were to stand at our fence,  
6 you would not hear anything from the inverters,  
7 the string inverters.

8 Q. Okay. Because with the engineer that did the  
9 noise last meeting, it was 80 feet at least.

10 A. So if you think of a normal conversation that  
11 we're having right now, if the microphone would  
12 be off, our inverters are quieter than a normal  
13 human conversation.

14 MR. WELBERS: Are you done with questions?

15 MS. STETSON: Uh-huh.

16 MR. WELBERS: Is everyone done with  
17 questions? We can close this case out tonight.

18 Is there something we needed to read into  
19 the record or anything?

20 MS. DONARSKI: I have all of the  
21 conditions. I need to read that aloud into the  
22 record.

23 MR. WELBERS: Let's do that right now. We  
24 have got time. We can close this one out and

1 then we can go to the next one when we schedule  
2 the next date.

3 MS. DONARSKI: These are the standard  
4 conditions for Bureau Solar 2 that were placed  
5 by the Planning Commission. I'll read them out  
6 loud.

7 Number 1, The Conditional Uses, including  
8 the placement of all components of the proposed  
9 Bureau Solar 2, LLC, (BS2) electric generating  
10 facility approved by Bureau County, shall be  
11 constructed as set forth in the applications  
12 filed with Bureau County on March 11, 2024, and  
13 shall comply with all requirements of the Bureau  
14 County Zoning Ordinance.

15 2, All conservation practices, (such as  
16 grassed waterways, filter strips, terraces,  
17 grasslands) which are damaged by construction of  
18 the proposed solar power facility, including but  
19 not limited to access road construction,  
20 underground transmission cable installation, and  
21 heavy equipment shall be restored by the owner  
22 of the solar power facility to their  
23 pre-construction condition using original design  
24 specifications and vegetative cover. Care

1 should be taken to try to maintain the integrity  
2 of these practices for erosion control, flood  
3 control, and water quality.

4 3, The owner of the solar power facility  
5 shall implement erosion control standards for  
6 all excavation activities to maintain water  
7 quality and minimize erosion impacts.

8 4, The owner of the solar power facility  
9 shall enter into a Road Use Agreement with the  
10 governing road authority, unless the road  
11 authority provides a written waiver of this  
12 requirement.

13 5, The owner of the solar power facility  
14 shall enter into a decommissioning plan with the  
15 County to ensure that the facility is properly  
16 decommissioned upon end of project life or  
17 facility abandonment.

18 6, The solar power facility shall be in  
19 compliance with all applicable County, state,  
20 and federal regulatory standards (including  
21 applicable building codes and electrical codes),  
22 FAA requirements, EPA regulations (hazardous  
23 waste, construction, stormwater, et cetera).

24 7, The location of all proposed access

1 points shall be identified and approved by the  
2 governing road authority prior to the granting  
3 of a building permit to accommodate road and/or  
4 drainage improvements within the existing and/or  
5 future right-of-way.

6 8, The Petitioner, Owner and/or Operator  
7 of the solar power facility shall construct said  
8 solar power facility in substantial accordance  
9 with submitted Conditional Use Permit  
10 applications and all accompanying documents.

11 Nothing contained herein shall be deemed  
12 to preclude the agricultural use of the balance  
13 of the subject property not occupied by the  
14 solar power facility. Said agricultural use  
15 will be considered as being the principal use of  
16 the subject property notwithstanding adoption of  
17 a Conditional Use Ordinance and the construction  
18 and operation of a solar power facility on a  
19 given lot or parcel of land, at locations  
20 approved by the County Board pursuant to  
21 Conditional Use approval on a Site Plan Map.

22 9, Solid Waste. All solid waste, whether  
23 generated from supplies, equipment, parts,  
24 packaging, or operation or maintenance of the

1 facility, including old parts and equipment,  
2 shall be removed from the site immediately and  
3 disposed of in accordance with all federal,  
4 state and local laws.

5 10, The owner of the solar power facility  
6 shall submit to the Bureau County Zoning  
7 Enforcement Officer, the jurisdictional fire  
8 district and the jurisdictional ambulance  
9 service, a copy of the solar power facility's  
10 site plan, Standard Operating Procedures and  
11 Standard Operating Guidelines for the solar  
12 power facility so that the local fire protection  
13 district and rescue units that have jurisdiction  
14 over the site may evaluate and coordinate their  
15 emergency response plans with the owner and/or  
16 operator of the solar power facility. In  
17 addition, the owner of the solar power facility  
18 shall provide training for, and the necessary  
19 equipment to, local emergency response  
20 authorities and their personnel so that they can  
21 properly respond to a potential emergency at the  
22 solar project. Nothing in this section shall  
23 alleviate the need to comply with all other  
24 applicable fire, life safety and/or emergency

1 response laws and regulations.

2 11, Additional Terms and Conditions.

3 A, Technical submissions as defined in the  
4 Professional Engineering Practice Act of 1989  
5 and contained in the application filed for  
6 Conditional Use shall bear the seal of an  
7 Illinois professional engineer for the relevant  
8 discipline.

9 B, The Conditional Use Permit granted to  
10 the Applicant shall bind and inure to the  
11 benefit of the Applicant, its successors and  
12 assigns. If any provision of this Ordinance is  
13 held invalid, such invalidity shall not affect  
14 any other provision of this Ordinance that can  
15 be given effect without the invalid provision  
16 and, to this end, the provisions in this  
17 Ordinance are severable.

18 C, A violation of the terms and conditions  
19 herein shall constitute a violation of the  
20 Conditional Use granted herein and shall be  
21 grounds for revocation of the Conditional Use by  
22 the Zoning Enforcement Officer.

23 D, The owner of the solar power facility  
24 shall supply written proof of an approved

1 entrance, from the appropriate governing road  
2 authority to the Zoning Enforcement Officer  
3 prior to the issuance of any building permits  
4 for the proposed solar power facility.

5 E, The owner of the solar power facility  
6 shall, at the owner's expense and in  
7 coordination with the County, develop a system  
8 for logging and investigating complaints related  
9 to the solar power facility. The owner of the  
10 solar power facility shall resolve such  
11 complaints on a case-by-case basis and shall  
12 provide written confirmation to the Bureau  
13 County Zoning Office.

14 12, Floodplain Ordinance Compliance. All  
15 parts of the solar power facility shall be in  
16 compliance with all requirements of the Bureau  
17 County Flood Damage Prevention Ordinance  
18 (Floodplain Ordinance).

19 13, All components of the proposed solar  
20 facility, including the perimeter fencing, shall  
21 meet the setback requirements as stated in  
22 Article 3.41-4 v.3 of the Bureau County Zoning  
23 Ordinance.

24 Number 14, After the solar power facility



1 is completed and operational, the owner of the  
2 solar power facility shall, at their expense,  
3 hire a third party, qualified professional, to  
4 complete a sound pressure analysis of the  
5 existing conditions to demonstrate compliance  
6 with Illinois Pollution Control Board  
7 Regulations. This analysis will be completed  
8 and returned to the Zoning Enforcement Officer  
9 within 60 days. All analyses and studies are  
10 subject to approval of the Zoning Enforcing  
11 Officer and are a matter of public record.

12 MR. WELBERS: So those are the  
13 stipulations.

14 MS. DONARSKI: Correct.

15 MR. WELBERS: Now, the member who was --  
16 inspected this was Troy Quest, who is not with  
17 us tonight. Traditionally the inspecting member  
18 is the one that would be the first option to  
19 introduce a motion. There's a very serious  
20 illness for one of his children.

21 So Jim stood in for us, but -- and I know  
22 you got brought up to speed, but you may not  
23 necessarily be prepared to make a motion.

24 Does any member care to make a motion

1 regarding this?

2 Keep in mind, this is a Conditional Use,  
3 and this is a public hearing to gather  
4 information and everyone's feelings on it, which  
5 has been done, Callie's recorded, for the  
6 benefit of the County Board, who ultimately  
7 decides the future of this.

8 But we either -- here on our Board, either  
9 recommend it or non-recommend it or something to  
10 close the case out and send this information to  
11 the County Board.

12 Any member care to make a motion?

13 (No verbal response.)

14 MR. WELBERS: I will stand in for Troy.  
15 Because I did go up and take a look at the  
16 project and -- the area of the project on my  
17 own. I wasn't asked to.

18 And I would move to recommend this to the  
19 County Board to let them build and operate this  
20 5-megawatt AC commercial solar energy facility  
21 for the purpose of generating electric power on  
22 a 29.3-acre portion of the adjacent property.  
23 And with the stipulations that have just been  
24 read into the record.

1 So that's a motion. Is there a second?

2 MR. STUTZKE: Second.

3 MR. WELBERS: Michael is the second.

4 Go ahead and call the roll.

5 MS. NEMETH: Mr. Jensen?

6 MR. JENSEN: Yes.

7 MS. NEMETH: Mr. Stutzke?

8 MR. STUTZKE: Yes.

9 MS. NEMETH: Mrs. Smith?

10 MS. SMITH: Yes.

11 MS. NEMETH: Mr. Forristall?

12 MR. FORRISTALL: Yes.

13 MS. NEMETH: Mr. Welbers?

14 MR. WELBERS: Yes.

15 (By voice vote five ayes.)

16 MR. WELBERS: So this goes to the County  
17 Board recommended. Again, it's ultimately their  
18 decision, not ours. And that will take place --  
19 we just did earlier -- the 11th of June, right  
20 here, at 6:30 p.m. is when their meeting starts.

21 So with that said, I need to introduce a  
22 motion to table Cherry Solar 1. Until when?

23 MS. DONARSKI: I just want to double-check  
24 with them.

1 Thursday, May 23rd?

2 AUDIENCE MEMBER: Yes.

3 MS. DONARSKI: Okay. Thursday, May 23rd,  
4 at 6:00 p.m.

5 MR. WELBERS: 6:00 p.m.

6 MS. DONARSKI: 6:00 p.m.

7 MR. WELBERS: I introduced a motion to  
8 table Cherry Solar 1 until Thursday, May 23rd,  
9 at 6:00 p.m., right here in this room at the  
10 Bureau County Courthouse.

11 Is there a second to that motion?

12 MS. SMITH: I'll second that motion.

13 MR. WELBERS: Shirley Ann Smith is the  
14 second.

15 All in favor.

16 (All those simultaneously  
17 responded.)

18 MR. WELBERS: Any opposed.

19 (No verbal response.)

20 MR. WELBERS: Is there a motion to  
21 adjourn?

22 MR. STUTZKE: So moved.

23 MR. WELBERS: Michael Stutzke is the  
24 second.

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

All in favor of that.

(All those simultaneously  
responded.)

(The hearing was concluded at  
9:51 p.m.)

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24

Now on this 16th day of May, A.D., 2024, I do  
signify that the foregoing testimony was given  
before the Bureau County Zoning Board of Appeals.

Barry Welbers, Chairman

Kristine Donarski,  
Zoning Enforcement Officer

-----  
*Callie S. Bodmer*

Callie S. Bodmer  
Certified Shorthand Reporter  
Registered Professional Reporter  
IL License No. 084-004489  
P.O. Box 381  
Dixon, Illinois 61021