

STATE OF ILLINOIS)
)SS
COUNTY OF BUREAU)

In the Matter of the Petition

of

Ladd Solar 2, LLC
and
Ladd Solar 3, LLC

Hall Township
Bureau County, Illinois

Testimony of Witnesses
Produced, Sworn and
Examined on this 15th day
of October, A.D., 2024,
before the Bureau County
Zoning Board of Appeals

Present:

Troy Quest
Bill Jensen
Shirley Ann Smith
Barry Welbers, Chairman

Cecilia Nemeth, Secretary
Kristine Donarski, Zoning Enforcement Officer

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1 MR. WELBERS: We are no longer in recess.
2 Did we determine if we are with Ladd Solar 2 or
3 3?

4 MS. DONARKSI: Oh, I --

5 MR. WELBERS: At any rate, we're doing
6 them on a combined basis anyhow.

7 So where's the list of witnesses? Is that
8 here?

9 As I recall, we finished with --

10 MS. NEMETH: Karen.

11 MR. WELBERS: -- Karen.

12 MS. DONARSKI: Why don't you see if she
13 has anything, if she's finished.

14 MR. WELBERS: Do you have more, Karen?

15 MS. NERAD: Yes, I have more.

16 MR. WELBERS: We'll just pick up right
17 where we left off. If you would like to pick
18 back up, I presume the court reporter would like
19 to swear you in and all that and then we'll do
20 it.

21 KAREN NERAD,
22 being first duly sworn, testified as follows:

23 MS. NEMETH: State your name and address
24 again for the record, please.

1 MS. NERAD: Karen Nerad, 17867 Illinois
2 Highway 89, Arlington, Illinois, 61312.

3 MS. NEMETH: Thank you.

4 MR. WELBERS: Go ahead, tell us what you
5 would like.

6 MS. NERAD: I don't know the lady's name
7 down there.

8 MR. WELBERS: Shirley Ann.

9 MS. SMITH: Shirley Ann.

10 MS. NERAD: Okay. I remember you asking
11 me at the last thing that if we lose to
12 SolarKey -- I don't know how it was worded, but
13 if we lose to SolarKey -- or to GreenKey, that
14 would we agree if they would agree on a culvert.

15 We went -- we do agree. We went ahead and
16 we put the culvert in ourself. Okay. I do
17 agree if -- for reimbursement if this is allowed
18 in there.

19 And I do have papers here of what it cost
20 and everything. I'm missing one because I'm
21 waiting back on a check from Pottinger Concrete
22 that put it in, so. And I don't have a lot of
23 copies because, like I said, I just got this.
24 So I don't know -- I've got, like, five copies,

1 I believe.

2 MR. WELBERS: Okay.

3 MS. NERAD: Like I said, I'm waiting on a
4 check back from Pottinger Concrete.

5 This paper here I believe is for the
6 culvert that we had paid for. Like I said, we
7 do need something, an access or something, to
8 get in, for farmers to come in and farm our
9 three and a half acres.

10 So like I said, when she had asked me if
11 they -- SolarKey -- or GreenKey, I'm sorry,
12 agrees to put it in -- or, you know, reimburses
13 us; that's if we lose.

14 So, I mean, that's all I've got to say.

15 MR. WELBERS: Okay.

16 MS. NERAD: I just wanted to add that in.

17 And I brought in to Kris the flash drive
18 of the solar down in Granville.

19 MR. WELBERS: Okay.

20 MS. NERAD: And I brought in a copy of all
21 the emails. She's got all of them. And a copy
22 of all the pictures of the solar panels with the
23 garbage around it and everything. So I brought
24 all the evidence in that you had asked for.

1 MR. WELBERS: Okay. Is there -- that's
2 all you have to say?

3 MS. NERAD: That's all I have to say.

4 MS. DONARSKI: I do have a question.

5 EXAMINATION

6 BY MS. DONARSKI:

7 Q. So, Karen, you handed me two different invoices
8 here. What's the difference between these?
9 What's the two different -- what's the two
10 invoices?

11 A. Can I defer this to my husband? He can answer.
12 He's the one that dealt with it.

13 MR. WELBERS: Okay. In your case, you
14 don't know. Let's make sure there's no other
15 questions for you, but then we'll have Tim come
16 up and talk about it.

17 MS. DONARSKI: When he comes up, we can
18 ask him. Thank you.

19 MR. WELBERS: Chris.

20 EXAMINATION

21 BY MR. NOLL:

22 Q. Karen, has your vegetative screening been put
23 into the actual application? And so you're
24 asking for reimbursement for the access to be

1 added to that?

2 A. Right, right, to the vegetative screening, yes.
3 I did turn the proposal in when I got up and
4 spoke two weeks ago. Yes, that was turned in.
5 That was agreed upon us, me and GreenKey, like I
6 said, only if we lose to this.

7 So now I'm just adding about the culvert.

8 MR. WELBERS: Okay.

9 MS. NERAD: Yeah, that's it.

10 MR. WELBERS: Any other questions? Do you
11 have questions, sir?

12 EXAMINATION

13 BY MR. JACOBI:

14 Q. Ms. Nerad, did you say there's a third invoice?

15 A. Yes.

16 Q. So there's one more?

17 A. There's from Pottinger Concrete. There's a
18 check. I have not gotten an invoice yet. I
19 have got the check -- I don't have it; the bank
20 has it. I have to get it when it comes back --
21 for what we paid for the labor and everything.

22 Q. Do you know about how much that was?

23 A. It was \$1500.

24 Q. On the third check?

1 A. On the third one.

2 MR. WELBERS: Are there any other
3 questions for Karen?

4 (No verbal response.)

5 MR. WELBERS: Okay. Let's have your
6 husband come up.

7 TIM NERAD,
8 being first duly sworn, testified as follows:

9 MS. NEMETH: State your full name and
10 address for the record, please.

11 MR. NERAD: Tim Nerad, 17867 Illinois
12 Highway 89, Arlington.

13 MS. NEMETH: Thank you.

14 MR. NERAD: This is pretty simple. I went
15 up to buy a culvert. Bureau County said they
16 didn't have -- they were out of them. So they
17 said, You're going to have to go get your own.
18 So I went to UECO here to get them a culvert.

19 And after dealing with Menards and
20 everything else, I thought a thousand dollars
21 would cover it. So I took a thousand dollars to
22 buy a culvert. Well, it come up to be \$1600.
23 So this is cash; this is check. That's the
24 only -- that's why I got two invoices.

1 MS. DONARSKI: Okay. Thank you.

2 MR. WELBERS: It's all for one culvert?

3 MR. NERAD: It's one culvert, yes.

4 MR. WELBERS: Okay. Is there anything
5 else you would like to say while you're here, or
6 just clarifying what it's about?

7 MR. NERAD: No. That's why I got two
8 receipts.

9 MR. WELBERS: Any questions to clarify
10 that?

11 EXAMINATION

12 BY MR. JACOBI:

13 Q. And you still have one more for \$1500 that's
14 not in this pile?

15 A. No. This is just the culvert. Then there's
16 the dirt, then there's the rock, and the
17 installation of all that to cover it all over.
18 This is just the culvert.

19 Q. Is that 1500? I am just trying to get, like,
20 the final.

21 A. The 1500 was for the dirt and the excavation
22 work and all that.

23 Q. So if I added it up, 1500 even, \$3,179.15, is
24 that the total cost of the culvert?

1 A. Yes.

2 MR. JACOBI: Okay. Thank you.

3 MR. WELBERS: Any other questions?

4 (No verbal response.)

5 MR. WELBERS: Thank you, sir.

6 MR. NERAD: Thank you.

7 MR. WELBERS: Who would like to testify
8 next?

9 Tim, come on back up.

10 MR. PRATT: I, too, just have a little bit
11 of cleanup to do after my testimony.

12 TIM PRATT,
13 being first duly sworn, testified as follows:

14 MR. PRATT: Tim Pratt, 32267 - 1800 North
15 Avenue, Arlington, Illinois, 61312.

16 MS. NEMETH: Okay.

17 MR. JACOBI: Mr. Chairman, just a point of
18 clarification here. So Mr. Pratt has already
19 testified, and we cross-examined him, and I
20 thought that was the end of Mr. Pratt's
21 testimony.

22 I just don't want things to become
23 repetitive. You know, we're on our fourth
24 night.

1 MR. WELBERS: I understand your concern.
2 We'll let him speak. And your concern is on the
3 record, too. I suspect he won't be repetitive,
4 but we'll see.

5 MR. PRATT: I don't have a PowerPoint with
6 me.

7 I do want to clear up just one thing.
8 When we talked last, we talked a little bit
9 about -- well, we talked a lot of about
10 vegetative screening and property values.

11 And for the last five weeks, I have been
12 in communication with Reuben, trying to find out
13 if GreenKey would offer some vegetative
14 screening. And finally today, 2 o'clock, when
15 he got into Chicago from his flight, he did call
16 and let me know that they would not put
17 vegetative screening on the west or the north
18 side of the property. Which, you know, that's
19 their prerogative.

20 But when we did the presentation -- when I
21 had the presentation, I did talk about the
22 Illinois General Assembly, and in the Illinois
23 Assembly's 55 ILCS 5, County's Code, it talks
24 about how a county may require it.

1 I don't know when is the time to bring
2 that up. But now that I have a final "no" from
3 GreenKey, I'm just asking again if -- you know,
4 if there's any way the County can see fit to
5 require vegetative screening around our property
6 so we don't have to -- you know, number one,
7 we're worried about the glare, which vegetative
8 screening takes care of. We're worried about
9 the visual aspect, because we feel that it is
10 detrimental to the property. You know, so we're
11 asking for vegetative screening to hide it.

12 So that's why I'm back up here.

13 MR. WELBERS: Okay.

14 MR. PRATT: I feel that's -- because
15 during the presentation I did have an exhibit
16 that showed some emails between Reuben and
17 myself. This just is a finalization to that.

18 MR. WELBERS: Yes, okay. I think you're
19 clear.

20 You had requested vegetative screening
21 around, in your direction, and your testimony
22 here is that that's been declined?

23 MR. PRATT: That has been declined.

24 MR. WELBERS: And you're submitting this

1 from the Illinois General Assembly that says
2 that the County could require it, regardless of
3 what they said?

4 MR. PRATT: Yes.

5 MR. WELBERS: Pretty much what you said?

6 MR. PRATT: That is, yes.

7 MR. WELBERS: Any questions on that?

8 MS. SMITH: I have one.

9 MR. WELBERS: Go ahead.

10 EXAMINATION

11 BY MS. SMITH:

12 Q. Were you given a reason why not?

13 A. Cost, I think Reuben was -- what he brought up
14 mostly was the cost. There's three -- there's
15 three homes within a half a mile. And during my
16 part of the presentation, we talked about that
17 half mile distance and how homes within that
18 half mile, vegetative screening helped with the
19 property values, helped with glare. We talked
20 about those things.

21 And there's three homes that are, you
22 know, within that distance to the north and the
23 west.

24 MR. WELBERS: Okay. Good with that?

1 MS. SMITH: Yes. Thank you.

2 MR. WELBERS: Any other questions?

3 (No verbal response.)

4 MR. WELBERS: Okay, sir. Thank you.

5 Mr. Dunseth coming next.

6 JIM DUNSETH,

7 being first duly sworn, testified as follows:

8 MS. NEMETH: State your full name and
9 address for the record, please.

10 MR. DUNSETH: My name is James Dunseth. I
11 live at 32555 - 1800 North Avenue, Arlington,
12 Illinois, 61312.

13 Good evening, ladies and gentlemen. I
14 have lived at this location since 1969. I'm not
15 comfortable with a solar farm being this --
16 within 1320 feet of my house to the corner of
17 that northwest property.

18 I concur with supporting Mr. Pratt's
19 concerns about I would like to see vegetative
20 screening on the north side and the west side if
21 we lose and you win.

22 I'm not comfortable -- I know you say --
23 you folks say that you are going to get solar
24 panels from someplace else other than China, but

1 I can't buy into that, because you don't know
2 where they're going to come from. And usually a
3 contractor gets where they're the cheapest from.
4 Right now that might be China. China is not our
5 friend. We are making those poor people over
6 there work to build panels, and they're not
7 treated very well. So we're not good to them
8 either.

9 Bureau County has 193 days of sunshine a
10 year as an average. Tucson, Arizona, has 350
11 days a year of sunshine on the average. Seems
12 to me that might be a better place than taking
13 up our good farm ground. There's a lot of open
14 ground out there in Arizona. I have been there.
15 I have family out there. So I have been through
16 the state. Without taking up good farm ground.

17 Illinois is number two in corn production,
18 according to the USDA surveys, and number one in
19 soybeans. A lot of our community -- small,
20 rural community banks depend on agricultural
21 business and supporting, like, fertilizer,
22 chemicals, seed salesmen. All this is trickled
23 down. It's going to be affected if we keep
24 putting solar farms on good farm ground.

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815.453.2260

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1 The green vegetation growing there, corn
2 or soybeans, uses photosyntheses to feed itself.
3 It produces oxygen. It takes carbon dioxide out
4 of the air. So we keep covering the farm ground
5 up with all these solar panels, we're taking
6 away oxygen part of the year.

7 And I know, they are going to say, yes,
8 we're going to put some vegetation out there.
9 But it's still not going to be as efficient as
10 the corn or soybeans would be.

11 So that is pretty much my presentation.
12 Any questions from the audience?

13 MR. WELBERS: Start with Kris. Do you
14 have any questions?

15 MS. DONARSKI: I do.

16 EXAMINATION

17 BY MS. DONARSKI:

18 Q. Just for the record, is your home north? south?
19 east? west? Where does it lay in relation to
20 the proposed solar farm?

21 A. Northwest of the proposed site.

22 Q. Northwest, okay. Thank you.

23 A. Yes, ma'am.

24 MS. DONARSKI: Thank you.

1 MR. WELBERS: Is that all you have?

2 MS. DONARSKI: That's all I have.

3 MR WELBERS: Anyone else have questions
4 for Jim?

5 (No verbal response.)

6 MR. WELBERS: You guys, anybody here?

7 (No verbal response.)

8 MR. WELBERS: Okay, Jim. Thank you.

9 MR. DUNSETH: Thank you for your
10 attention.

11 MR. WELBERS: You next?

12 CHRIS NOLL,
13 being first duly sworn, testified as follows:

14 MS. NEMETH: Please state your name and
15 address.

16 MR. NOLL: Chris Noll, 17594 Illinois
17 Highway 89, Arlington, Illinois.

18 My name is Chris Noll. My wife, Sandra,
19 and I reside at 17594 Illinois Highway 89, our
20 home of almost 50 years, our entire married
21 life, and immediately across Route 89 from the
22 proposed solar facility.

23 We oppose this siting for not only
24 detraction to our quality of life, but also for

1 safety, health, welfare and financial reasons.
2 We support the Village of Ladd's refusal to
3 grant a siting Variance and applaud the
4 Village's decision to protect the best interests
5 of its residents and the long-term growth of the
6 Village.

7 We chose to live at our present home
8 because of the rural agricultural environment.
9 However, if this siting is approved, instead of
10 views of dewy fields, frosty vegetation and
11 beautiful sunsets, we will see glaring, hot
12 glass and steel.

13 I provided pictures of the site from our
14 home:

15 The first picture is from our front yard;

16 The second picture is southwest from our
17 picture -- from a window in our home;

18 This third is directly west from our home;

19 The fourth is northwest from our home.

20 You can see the site from 21 different windows
21 in our house.

22 That glare upon our home would be a
23 significant nuisance and detraction to our
24 quality of life.

1 The glare may also present a safety hazard
2 to traffic on Route 89. The highway carries
3 significant traffic, including grain trucks and
4 school buses, that could be impacted by the
5 glare from the solar arrays, particularly in the
6 morning as the sun rises and hits the solar
7 panels facing west -- or facing to the east.

8 I have included excerpts about this issue
9 from several consultants' web pages,
10 recommending site evaluations of this risk. All
11 of them noting that antiglare features of these
12 panels are not a hundred percent effective and
13 there will always be some glare. Screening,
14 distancing and positioning of the panels are the
15 recommended solutions to this issue.

16 The first document I have is from Pager
17 Power, which has undertaken over 900 solar
18 facility sitings and does glare assessments.
19 The highlighted area on here indicates about
20 where solar panel antiglare features are not
21 effective.

22 And further down it talks about where
23 dwellings, or residences, within a kilometer,
24 which is six-tenths of a mile, would be affected

1 by the glare from these panels. It also talks
2 about roads also within that same distance being
3 affective by glare.

4 The next document I have is by Elliot
5 Bailey, who is an expert on solar panel glare.
6 He has written an article discussing the visual
7 impairment of the glare caused by solar panels.
8 He talks about how the antiglare features are
9 not a hundred percent effective. He also talks
10 about how these can be handled.

11 The next issue I have -- or next document
12 I have is by Matthew Svetzs of Penn State
13 University, and he is commenting on glare from
14 solar panels. He talks about screening being
15 very important to reduce glare, and he's also a
16 strong advocate to municipalities and zoning
17 authorities should adopt ordinances requiring
18 glare assessments before placing a solar site.

19 The last document I have is also by a
20 consultant to the solar industry, talking about
21 how glare can affect motorists, residences, and
22 about how those can be ameliorated.

23 Solar arrays also produce heat. The
24 effect of a large array is a heat island that

1 can cause temperatures around the array to
2 increase by as much as 5 to 7 degrees. That
3 heat would be pushed toward our home by the
4 prevailing winds and also towards the Nerads'
5 home from the solar panels to the west of their
6 home.

7 I have included a University of Maryland
8 study of this phenomenon, talking about how the
9 heat is produced and that they are continuing
10 their studies that will focus on determining far
11 away from solar facilities you need to be for
12 these temperature increases and how to mitigate
13 the impacts of those temperature increases. The
14 last thing we need in the summer is more heat.

15 In addition to the visual and quality
16 detractor to our home environment, the site may
17 expose us to a health threat from
18 electromagnetic radiation. Solar facility
19 developer websites acknowledge that solar sites
20 do emit electromagnetic energy. They generally
21 downplay the risk by claiming that there is no
22 evidence of harm from these emissions. However,
23 two health agencies consider the issue unclear.

24 I have included excerpts from two websites

1 referring to the National Institute of Health,
2 Dr. Fauci's organization, and the World Health
3 Organization. The NIH states that there is a
4 direct correlation between EMF and certain
5 cancers. The World Health Organization states
6 that there is some correlation between EMF and
7 hypersensitivity. They further reference a
8 study in Australia that showed increased health
9 issues and the possible risk of cancer to people
10 near solar facilities. WHO is concerned enough
11 about the link between EMF exposure and health
12 risks that they have ongoing research into the
13 long-term impact of exposure to weak EMF.

14 I'm not trying to say the facility itself
15 will cause that damage by itself, but I'm saying
16 the cumulative effect: the power lines, all the
17 other EMF that we have in our homes that are
18 adding to it, which makes it more risky for
19 people near the site.

20 The next document that I have included is
21 from the NIH site, which talks about
22 epidemiological studies and the correlation to
23 cancer.

24 I have also included the WHO article about

1 electromagnetic hypersensitivity and their need
2 for a wholistic assessment of a variety of
3 relevant and reliable studies to provide the
4 most reliable answer about the adverse health
5 effects to long-term exposure to weak
6 electromagnetic fields.

7 I also have two other organizations. The
8 Electromagnetic Radiation Research Trust is an
9 independent body. The aim of the organization
10 is to provide facts about electromagnetic
11 radiation and our health to the public and the
12 media. This is a charitable organization
13 supported by donations.

14 And they have an interview with Dr. Paul
15 Heroux, who is a scientist with McGill
16 University, and he talks about electromagnetic
17 fields have been shown to cause biological
18 damage and even cancer in his epidemiological
19 study.

20 I also have the International Commission
21 on the Biological Effects of Electrical Magnetic
22 Fields. This a multidisciplinary consortium of
23 scientists, doctors and related professionals
24 who are involved in research related to the

1 biological and health effects of electromagnetic
2 frequencies. They have ongoing research into
3 the cumulative effects of long-term exposure to
4 low-level EMFs.

5 So there is quite a bit of concern in the
6 scientific community about the buildup of all
7 this.

8 The proposed site is also an avenue for
9 surface stormwater runoff and springtime
10 flooding from the site, as well as the fields on
11 the eastern side of Route 89. Water from the
12 fields surrounding our home and the Ladd
13 Elevator pass through a culvert under Route 89
14 and across the proposed site. If the site
15 impedes this runoff, it would cause significant
16 harm to our home from flooding. It would also
17 cause excess water to accumulate over Route 89
18 at the elevator.

19 The AIMA application only refers to
20 underground drainage tile repair and does not
21 address this surface water runoff.

22 Additionally, improper control of this
23 flow through the site could harm the area
24 watershed and water table with sediment and

1 pollution. The risk of pollution is enhanced by
2 the use of glyphosate for vegetation control and
3 materials and chemicals used to maintain and
4 clean the solar equipment.

5 Included is a copy of a website article
6 covering recent water management violations,
7 including two in Illinois, of improper runoff
8 from solar sites.

9 Swinerton Builders, located in Perry and
10 White Counties in Illinois, were fined by the
11 EPA, were not maintaining runoff of waters
12 through their sites.

13 I have also included an article by Rose
14 Boghos, in conjunction with the South Carolina
15 Department of Health and Environmental Control,
16 where she is talking about solar panels are
17 touted as being safe to be around crops.
18 However, this claim is misleading. It's not
19 uncommon for glass panels to become cracked or
20 broken due to natural events like storms. When
21 rain falls on a broken solar panels, it carries
22 lead and other metals, like carcinogenic
23 cadmium, copper, or aluminum, down into the soil
24 below.

1 We have been ensured by GreenKey that they
2 will not use solar cells using cadmium, but we
3 also have heard that their source of cells
4 depends on availability and price. So I don't
5 know how those two statements come together.

6 Over time, polluted soil is washed into
7 nearby water sources -- streams, lakes and
8 wells. In this way, lead and other metals
9 spilled from solar farms can contaminate not
10 just the groundwater immediately below, but also
11 our crops and drinking water supply. Despite
12 the potential for public health risk, this
13 problem is not being addressed with the strength
14 or urgency needed.

15 I have also included a picture showing the
16 proposed site. If you look at the red figure
17 that's in the middle of that, this is about
18 where the culverts cross Route 89, where the
19 water crosses over. That's also where GreenKey
20 is proposing to build its entrance and its
21 connection to Illinois Power. That's why I have
22 the concern about interrupting the water flow.

23 If you also look at the picture in the
24 upper area, that's the Nerads' farm. The

1 smaller farm to the south is mine. And if you
2 look at the whitish blobs to the right of my
3 house, that's the water flowing from the fields
4 to the rear of my home, and hence to that red
5 mark and under Route 89. And then the water
6 continues to flow through the site and south
7 towards Ladd.

8 The proximity of the site will cause
9 financial harm to our property as well. A
10 recent limited study by a solar advocate,
11 Lawrence Berkeley National Laboratory, found an
12 overall reduction of 2.3 percent in value for
13 residences near solar facilities.

14 The University of Rhode Island also
15 studied housing prices in proximity to solar
16 sites and found an overall 1.7 decline in
17 property values.

18 These studies were used by the site
19 developer to defend property devaluation as
20 negligible in previous hearings. These were
21 used in the Cherry hearings. However, the
22 slight decline referenced by Berkeley was an
23 average of the six states in the study. If you
24 look into the detail of the study, it actually

1 talks about a much steeper, 5 to 6 percent,
2 decline for properties within a half mile
3 proximity in the more comparable rural areas of
4 the study. Proximity, or the distance, to the
5 solar farm is the most important detriment to
6 the property devaluation. More distance reduced
7 the property value decline, while vegetative
8 screening and compensation for property decline
9 were mentioned but not measured in the study.

10 The Rhode Island study details states that
11 homes within a tenth of a mile, which is
12 500 feet -- which are both the Nerads' home and
13 my home -- suffer a 7 percent decline in value.

14 So there's quite a bit of difference
15 between what the detail says and what that
16 overall top average says.

17 Opponents who support alternative siting
18 and greater distancing estimate property value
19 loss of up to 30 percent. That was seen in the
20 Fetzer independent studies submitted during the
21 Zearing Solar hearings.

22 A third study was presented during these
23 hearings by CohnReznick. The report purports to
24 be a neutral study, showing no decline to

1 property values due to proximity to a solar
2 facility. However, we heard in Mr. Pratt's
3 testimony at the last hearing that:

4 CohnReznick has significant ties to the
5 solar industry. They are not independent;

6 That the quotes that were provided in the
7 study when Mr. Pratt attempted to confirm them
8 with these same assessors and people said that
9 they were incomplete or conflicting;

10 It shows property examples in the study
11 that were primarily at greater distances and
12 screened by buildings or mature vegetation from
13 the solar site. Which is not applicable to the
14 properties that are being -- that are close to
15 this site.

16 All of which should place some doubt on
17 the study's findings.

18 Now, in the last hearing they offered a
19 fourth study, authored by Simeng Hao and Gilbert
20 Michaud, that has been offered, suggesting that
21 solar sites add property value. I didn't hear
22 any testimony on this, but I understand it's
23 been submitted.

24 The study also has problematic issues.

1 The study is being published on behalf of the
2 International Solar Alliance. They are not
3 independent parties. Even the authors, one of
4 which, Mr. Hao, works for a solar developer.
5 Professor Michaud is working on a grant from the
6 United States government and the Department of
7 Solar Energy Technologies and has worked on
8 utility-scale solar projects in the Great Lakes
9 Region.

10 Lastly, the study is based on the use of
11 data from Zillow, using their Zestimator
12 algorithm to value property. However, Zillow's
13 own site warns that their data is limited in
14 accuracy.

15 On-market values, they -- in their
16 database, they have two different property
17 values. They have on-market, which is where the
18 owners of the property have entered supplemental
19 information as to when they have made upgrades
20 in their property, how many bedrooms, bathrooms,
21 all of that information. It's rather extensive
22 information. So those estimates are quite
23 accurate.

24 However, off-market properties are where

1 the owners have not entered that supplemental
2 information. And those are very inaccurate.

3 What you will find out on Zillow's site --
4 and I have the table in these notes -- is
5 on-market homes account for about 2 percent of
6 the total database. So the most accurate data
7 they have is only 2 percent of their day.

8 Off-market is 98 percent of the homes,
9 which is the less accurate.

10 As an example, in the total national
11 database that Zillow has, on-market homes are
12 1.6 million; off-market is 97.5 million homes.

13 If you look at it and you say, I want
14 5 percent accuracy of the home value, the
15 on-market homes are 84 percent accurate; the
16 off-market homes are only 36 percent accurate.

17 And I have shown in the table that those
18 same things hold out for 10 percent accuracy and
19 20 percent accuracy, and I have also shown the
20 Illinois information.

21 That tells me that they're using very
22 inaccurate information in their study. Because
23 what they're doing is, they're using the Zillow
24 database as the initial valuation for the home,

1 comparing that to the real sale price when it
2 takes place. But if you're dealing with
3 inaccurate data to start with, you can't have an
4 accurate result as to the difference.

5 Chances are, if they haven't used updated
6 information from the owners, they're severely
7 undervaluing the homes in that off-market.
8 Hence, you would see a great gain when you
9 once -- when you sell it against that estimate.

10 I also want to note that the state
11 legislature, as Mr. Pratt has already mentioned,
12 in House Bill 4135 is in progress to increase
13 the siting distances back to 500 feet.

14 The three primary reasons the House Energy
15 and Environmental Committee cited to advance the
16 Bill were visual impairment, health risks and
17 property value decline.

18 I have included copies of my sources.

19 First, on Lawrence Berkeley, I have a USA
20 Today article, and there they are talking about
21 the difference between the 2.3 percent overall
22 average; but for homes within a half mile of
23 large-scale projects compared to homes two to
24 four miles away, Berkeley found a reduction in

1 home sale prices in Minnesota of 4 percent;
2 North Carolina, 5.8 percent; and New Jersey,
3 5.6 percent.

4 These three states much more rural than
5 the other three states of California,
6 Connecticut and Massachusetts, which were
7 included in the study to get the overall lower
8 average.

9 I have also included a copy of the
10 University of Rhode Island report summarization,
11 which talks about homes within a tenth of a mile
12 of the installation declining by 7 percent,
13 versus the 1.7 percent overall average that was
14 quoted.

15 It talks about the biggest issue of
16 contention between residents and solar
17 developers is siting, according to the author of
18 the article. The easiest and cheapest locations
19 for installing solar arrays are on farmland and
20 forested properties, and yet those are the areas
21 particularly prized by residents, who would
22 prefer that the installation take place on
23 previously-developed properties.

24 Also in the article, when it talks about

1 that type of installation, it says: In those
2 circumstances, the researchers found that
3 housing prices within a mile of the solar
4 installation declined by 5 percent.

5 So you can see there will be an impact to
6 the people around the solar facility.

7 I have also included a Farm Journal
8 article in which they interviewed several
9 property valuation experts, including Patricia
10 McGarr, who is the National Director of
11 CohnReznick Advisory's Valuation Practice. And
12 she has stated that she believes solar
13 developers are starting to address the issues of
14 land value. It's now common practice for
15 developers to include vegetative screening as a
16 visual buffer between adjacent properties and to
17 account for aesthetic concerns. They are also
18 starting to address the drainage problems.

19 Howard Halderman, who is CEO of Halderman
20 Real Estate and Farm Management, his takeaway
21 was that properties immediately adjacent to a
22 solar farm may see a negative decline, but
23 tactics to hide the solar farm from view could
24 help offset these issues.

1 Rich Kirkland, of Kirkland Appraisals, he
2 said he believes that issues can arise if a
3 solar development is situated too close to a
4 property, or if nothing is done to conceal it
5 from view. "In rural and suburban areas, I'm
6 not finding any consistent negative impact...as
7 long as there's at least a hundred feet from the
8 solar farm and the property, and enough
9 landscaping to hide the panels."

10 Then I have also included an article by
11 Elizabeth Weintraub, reviewed by Doretha Clemon
12 and fact-checked by Katie Turner. This is
13 talking about the limitations of the Zillow
14 Zestimator. These people are assessors and
15 property valuation experts. It states right
16 here that Zillow never claims to be a hundred
17 percent accurate.

18 Then I have also included the article
19 about the Illinois Legislation, co-authored by
20 Anthony DeLuca and Charlie Meier. Mr. DeLuca is
21 quoted as saying, "We don't know what the health
22 concerns might be of a solar farm. We don't
23 like the way they look. We are concerned about
24 how it might impact property values. Those are

1 the three most common concerns I would hear."

2 Mr. Meier said, "They worry about their
3 health. They don't want this right behind their
4 house. They don't want it right on the edge of
5 their property line. Counties and the voters
6 and the Illinois residents that live there
7 should have the right to help decide where
8 they're going to be set."

9 We do not believe that the Applicant has
10 fulfilled the requirements of the Bureau County
11 Zoning Ordinance 10.52. This is the part of the
12 Ordinance that allows the Board to issue a
13 Variance over Ladd's objection.

14 The property -- the first issue to be
15 addressed is whether the property can yield a
16 reasonable return without that Variance. This
17 is farmland. It can continue to be farmed. It
18 can be cash rented or it can be sold. There is
19 no impediment to a reasonable return by refusing
20 this site.

21 Additionally, the enforcement of the
22 setback does not create plight to the site. The
23 land would remain as the same farmland it has
24 been without peril or risk.

1 For all of the aforementioned reasons, we
2 ask the Board to deny this siting. We oppose
3 this siting on prime agricultural property close
4 to residences. We believe the State regulation
5 has overcompensated to the benefit of the wind/
6 solar industry with its siting mandates. The
7 State also missed an opportunity to prioritize
8 brown field, industrial and nonarable sites as
9 preferred siting before allowing the conversion
10 of productive farmland or sites on otherwise
11 unproductive property.

12 Such prioritization would put to use
13 otherwise unproductive property and make it
14 attractive for additional development by
15 extending utilities and services to that
16 property, while preserving productive farmland.
17 It would also be less obtrusive to homeowners.
18 Local boards are much closer to the citizens
19 they serve and are better able to represent the
20 needs unique to their areas than a one-size-
21 fits-all approach at the State level.

22 We need to return this authority to the
23 local level and enact a more equitable approach
24 that allows for the safe and intelligent

1 development of wind and solar, while not
2 wantonly consuming productive farmland, nor
3 adversely affecting residents.

4 Two recent articles in the Wall Street
5 Journal highlight the peril of our State's
6 short-sighted strategy to promote solar and wind
7 power to the exclusion of other sources of
8 energy and agriculture.

9 The first article -- and I have attached
10 copies of both -- informs that China has
11 installed more solar facilities than any other
12 country in the world, but now finds itself at
13 risk of not having sufficient farmland to feed
14 its citizens. This has a cascading effect of
15 China buying foreign farmland and other
16 countries, like Brazil, destroying valuable
17 ecology to create new farmland.

18 The second article explains that
19 overreliance of wind and solar increases the
20 risk that when nature does not cooperate that
21 power shortages will occur.

22 In conclusion, we urge the Board to deny
23 this solar siting based on:

24 The Village of Ladd's refusal to grant a

1 setback Variance;

2 The failure of the Applicant to fulfill
3 the requirements for a Variance to the Setback
4 Ordinance;

5 And the numerous issues we have raised
6 which detract from nearby residents' quality of
7 life and our safety, health, welfare and
8 financial wellbeing.

9 In the event this Appeals Board (or the
10 full Board) will not deny the siting for these
11 reasons, we request the Board exercise its
12 authority by Illinois law to stipulate that the
13 site provide vegetative screening of the site
14 from all affected properties, access to the
15 Nerads' farmland, and to safely preserve the
16 runoff waterway through the site.

17 Thank you.

18 MR. WELBERS: Okay. We'll see if there's
19 some questions. Kris?

20 MS. DONARSKI: I need a few minutes to
21 kind of put -- that's a lot of information to
22 process. So I would like to -- come back to me,
23 if you want to go on?

24 MR. WELBERS: Any questions?

1 MR. JACOBI: Yeah, a couple questions,
2 Mr. Noll.

3 EXAMINATION

4 BY MR. JACOBI:

5 Q. Thank you very much for your presentation.
6 Obviously a very thorough display of information
7 here. There's a lot of articles and studies and
8 newspaper references to experts in the field in
9 your packet; is that a fair characterization?

10 A. Yes.

11 Q. You rely on those experts' opinions in
12 furtherance of your testimony here today?

13 A. Yes.

14 Q. You don't have an MAI real estate license; is
15 that correct?

16 A. No, I do not.

17 Q. Do you have an engineering degree?

18 A. No, I do not. That's why I rely on those
19 experts.

20 Q. And that's just the -- yeah, that's the point
21 I'm trying to make, so thank you. Your
22 testimony here is -- relies on the experts?

23 A. Although I do have extensive financial
24 experience.

1 Q. But in terms of the engineering concepts you
2 introduced, the property valuation concepts you
3 introduced today, those are things you would
4 rely on your experts to develop your testimony
5 here today?

6 A. They are all from their own reports. They are
7 documents that you submitted.

8 Q. Yeah, right. A number of these concepts have
9 been addressed throughout the hearing, and I
10 don't want to spend a lot of time repeating what
11 we have already done. I do have a couple of
12 articles that may assist that haven't been
13 introduced related to some of these concepts
14 though. The first relates to EMF.

15 MR. JACOBI: Maybe I can ask you,
16 Mr. Noll, to pass down six copies.

17 I have two here for you, Kris, and one for
18 Madam Court Reporter.

19 MR. NOLL: Is one of these for Kris?

20 MR. JACOBI: I got her one already, yeah.
21 So you can keep one.

22 Q. (By Mr. Jacobi:) So, Mr. Noll, like you, I
23 don't have an engineering degree. I also rely
24 on the opinions of experts. So I think it's

1 relevant to introduce this study on EMF, which
2 you raised concern on.

3 The study is titled "Electromagnetic
4 Fields Associated with Commercial Solar
5 Photovoltaic Electric Power Generating
6 Facilities" --

7 A. Are you testifying or are you asking a
8 question?

9 Q. I'm just introducing the exhibit.

10 -- from the Journal of Occupational and
11 Environmental Hygiene. I'll mark this as our
12 next exhibit.

13 Mr. Noll, just directing you to the
14 abstract, I'll just read for the record and then
15 I'll ask that you confirm that I have read it
16 correctly. I'm going to start about halfway
17 down the abstract. Quote: This study
18 characterized magnetic and electric fields
19 between the frequencies of --

20 A. Where is that?

21 Q. It's about halfway down.

22 A. What page?

23 Q. First page. Well, it's the second page of the
24 exhibit. The abstract is the italicized

1 paragraph at the top here. So if you start at
2 the beginning, it's going to be your second
3 page. Underneath the title, it's the italicized
4 paragraph, abstract summarizing the contents of
5 article here.

6 I'm starting with about halfway down, with
7 the words "this study." "This study
8 characterized." Are you with me?

9 A. No.

10 MR. DUNSETH: Mr. Chairman?

11 MR. WELBERS: Yes, sir.

12 MR. DUNSETH: That gentleman up there is
13 the one testifying. Now this gentleman is
14 trying to testify.

15 MR. WELBERS: I'm following your
16 observation. It does seem to be accurate.

17 I was following, to wait to see if he had
18 a question. My expectation is he's laying some
19 groundwork for a question he wants to ask
20 Mr. Noll regarding EMFs, but I'm -- we'll let
21 him do it. I understand what you're saying.

22 MR. JACOBI: What I'm doing, just so
23 everyone is clear, is introducing an article
24 that is in rebuttal to the testimony that we

1 received from Mr. Noll and asking him to confirm
2 that there's this evidence in the literature as
3 well.

4 MR. WELBERS: It seems like more of a
5 closing argument that you would do that.

6 MR. JACOBI: I mean, I can --

7 MR. WELBERS: Of course, evidence is hard
8 to introduce in a closing argument too. That's
9 usually just arguing what's already there.

10 So go ahead and ask him to verify what it
11 is you would like him to verify about your
12 article.

13 MS. DONARSKI: Do we not have a -- we have
14 a portion in our procedure for rebuttal that's
15 separate from testimony, isn't that correct,
16 after all the testimony is done?

17 MR. WELBERS: There is, yes.

18 MS. DONARSKI: Okay. I'm just making
19 sure.

20 MR. WELBERS: I think that's how he's --
21 that's what he's trying to do.

22 MR. JACOBI: That would also be an
23 opportunity to do this, but I think what the
24 cross-examination here is supposed to

1 demonstrate is that, you know, there is
2 scientific literature what is relevant to
3 Mr. Noll's testimony in rebuttal to Mr. Noll's
4 testimony. I think that's an appropriate use of
5 cross-examination. But I can do it either way.

6 MR. WELBERS: Go ahead and do what
7 you're -- you may want to verify that this
8 article is -- that he agrees this article says
9 what you say.

10 MR. JACOBI: Yeah.

11 MR. WELBERS: So let's let him do that.
12 It doesn't mean he necessarily agrees with your
13 article.

14 MR. JACOBI: No, and I anticipate that he
15 wouldn't.

16 MR. WELBERS: You're asking him to agree
17 that the article says what you say it says.

18 MR. JACOBI: Mr. Noll has testified
19 concerns about EMF. I have an article about
20 EMF. I'm just introducing that in response to
21 Mr. Noll's testimony.

22 MR. WELBERS: Go ahead and do that.

23 Q. (By Mr. Jacobi:) So I'm reading from the
24 abstract, just to establish the article's

1 abstract. Quote, This study characterized
2 magnetic and electric fields between the
3 frequencies of 0 hertz and 3 gigahertz at two
4 facilities --

5 Those are solar facilities.

6 -- two facilities operated by the Southern
7 California Edison Company in Porterville,
8 California, and San Bernardino, California.
9 Static magnetic fields were very small compared
10 to exposure limits established by IEEE, and
11 ICNIRP. The highest 60-hertz magnetic fields
12 were measured adjacent to transformers and
13 inverters, and radiofrequency fields from 5 to
14 100 kilohertz were associated with the
15 inverters. The fields measured complied in
16 every case with IEEE controlled and ICNIRP
17 occupational exposure limits. In all cases,
18 electric fields were negligible compared to IEEE
19 and ICNIRP limits across the spectrum measured
20 when compared to the FCC limits (of greater than
21 0.3 megahertz).

22 Did I read that accurately?

23 A. Yes.

24 Q. Okay. You would agree that this article

1 disagrees with the information that you
2 presented on --

3 A. Uh-huh.

4 Q. -- EMF earlier?

5 A. It's also quite a bit older.

6 Q. But you would agree that this peer-reviewed
7 article disagrees with the literature that you
8 prepared earlier?

9 A. Yes, but it's also older. So it's subject to
10 review and revision. The information I'm
11 stating is 2018; this is 2015.

12 Q. One more.

13 Did any of the articles that you presented
14 cite to the article that I just entered as an
15 exhibit?

16 A. No.

17 Q. Okay. One more for you. Pass those six down
18 the line.

19 Okay. I have introduced as our next
20 exhibit an article titled "Analysis of the
21 Potential for a Heat Island Effect in Large
22 Solar Farms."

23 MR. DUNSETH: I raise the same question
24 again, Chairman.

1 MR. WELBERS: He's going to introduce it
2 one way or another.

3 MR. DUNSETH: It's rebuttal. It's not the
4 time for it. What the heck?

5 MR. JACOBI: There's a lot of flexibility
6 in direct testimony here. This will only take a
7 second. I just want to establish the article.

8 MR. WELBERS: Put it in the record. Then
9 we'll move on.

10 Q. (By Mr. Jacobi:) Again, I'm going to read a
11 couple sentences from the abstract. I'm going
12 to start about halfway down, with the words
13 "both of the field data."

14 And, Mr. Noll, I'm introducing this
15 exhibit in relation to the concerns that you
16 raised on heat islands.

17 A. I understand, and this is going to be the same
18 issue. This is quite dated. It says
19 specifically in the article that I submitted
20 that this new research contradicts previous work
21 and modeling studies predicting that solar panel
22 installation would decrease --

23 Q. I suppose that's part of the creditability
24 analysis, but at this moment I just want to

1 introduce this exhibit into evidence.

2 A. So you're testifying again.

3 MR. WELBERS: No, he's entering an
4 exhibit. I guess he's asking you if it says --
5 if it says what he reads that it says. But he's
6 entering it as a rebuttal exhibit.

7 MR. NOLL: I don't understand why I have
8 to respond to what he's reading.

9 MR. WELBERS: I guess you don't have to if
10 you don't want to.

11 Q. (By Mr. Jacobi:) I'm going to read it, and
12 then you can tell me if I have read it
13 accurately.

14 MR. WELBERS: If you choose to.

15 MS. DONARSKI: It doesn't mean anything.

16 MR. NOLL: Wouldn't you ask the legal
17 person?

18 MR. JACOBI: I'm just entering a rebuttal
19 exhibit into evidence. This is nothing unusual
20 for an evidentiary hearing. It's totally in
21 line with the Rules of Evidence of Illinois.
22 This should only take a second. We're fighting
23 about it more than it takes for me to read the
24 two sentences.

1 MR. WELBERS: Read the two sentences.

2 Q. (By Mr. Jacobi:) Quote, Both the field data
3 and the simulations show that the annual average
4 of air temperatures in the center of PV fields
5 can reach up to 1.9 degrees Celsius above the
6 ambient temperature and that this thermal energy
7 completely dissipates to the environment at
8 heights of 5 to 18 meters. The data also show a
9 prompt dissipation of thermal energy with
10 distance from the solar farm with the air
11 temperatures approaching (within 3 degrees
12 Celsius) the ambient at about 300 meters away
13 from the perimeter of the solar farm. Analysis
14 of 18 months of detailed data showed that in
15 most days, the solar array was completely cooled
16 at night, and, thus, it is unlikely that a heat
17 island effect could occur.

18 Did I read that accurately?

19 A. Yes.

20 For the record, these are quite dated, and
21 the study that I cited is more current.

22 Q. So you would agree then that more recent
23 studies are more credible than older studies?

24 A. Yes.

1 MR. JACOBI: Okay. Thank you. That's all
2 I have. Thank you, Mr. Chairman.

3 MR. WELBERS: Are you ready yet, Kris?

4 MS. DONARSKI: I did have a question.

5 EXAMINATION

6 BY MS. DONARSKI:

7 Q. Mr. Noll, on these pictures that you included
8 in your packet here, the views from your home,
9 do you -- in regards to that, do you have a
10 vegetative screening agreement with GreenKey?

11 A. Yes.

12 Q. Okay. Then where would that vegetative
13 screening be placed?

14 A. It would be on the east side of Route 89 -- no
15 -- west side. I'm sorry. West side of
16 Route 89, along the perimeter fence,
17 approximately 640 feet from the southernmost
18 edge to, I'm guessing about 300 feet north of my
19 property.

20 Q. Okay. So would that vegetative screening
21 essentially block the views of this field from
22 your windows then?

23 A. It would for the very first photograph.

24 Q. Okay.

1 A. It would not for the other three. Because the
2 other three are from a second story. So I don't
3 anticipate that they will grow that high.

4 Q. Okay. My next question for you is for the
5 diagram that you showed with the red dot in the
6 middle of it. And so you feel that the location
7 of that dot is the approximate location of the
8 drainage tile that goes under Route 89 --
9 culvert, excuse me?

10 A. Correct.

11 Q. How large of a culvert do you think that is?

12 A. There's actually two of them. One I would
13 guess is probably a 20-inch pipe and the other
14 one is much larger. It's like 3 or 4 feet.

15 Q. Okay. And then what is the difference in
16 elevation, let's say, from the road of
17 Illinois 89 there and the field? Does it go
18 down then to --

19 A. The road is elevated and it drops into a
20 ditch --

21 Q. Okay.

22 A. -- on both sides of the road.

23 Q. Okay. And --

24 A. I would guess it's maybe 5 or 6 feet

1 difference.

2 Q. Okay. My next question is, have you ever -- in
3 your talks with GreenKey, ever asked them where
4 that proposed entrance and the gates would be in
5 location -- in relation to your property?

6 A. Yes, I have.

7 Q. Okay.

8 A. And in those discussions, they have attempted
9 to assure me that they will not interrupt that
10 culvert regarding the water flow. Although,
11 they can't be certain at this point, nor can the
12 Department of Transportation, because they only
13 have preliminary approval from IDOT for
14 conceptual entrance at that point. They don't
15 have the detailed plan of what's actually going
16 to take place there.

17 Q. And have you been told how far along they are
18 in that process of that approved entrance at
19 all?

20 A. My understanding, they cannot do that until
21 they get approval here.

22 Q. Okay. And do you know if the proposed entrance
23 is north or south or appears to be right over
24 the top of the culverts?

1 A. I cannot say that specifically.

2 Q. Okay.

3 A. I know it's in that area.

4 MS. DONARSKI: Okay. That's all I have
5 right now. Thank you.

6 MR. WELBERS: Does anyone else have
7 questions of Mr. Noll?

8 Go ahead, Tim.

9 EXAMINATION

10 BY MR. PRATT:

11 Q. Mr. Noll, thank you for your communication on
12 our concerns here. I have got a question.

13 Well, the first exhibit that you were
14 handed, the abstract, do you -- did it say in
15 there that they are looking at the occupational
16 exposure limits because occupational exposure
17 limits are much higher, I believe, than
18 residential exposure limits?

19 A. I am not qualified to answer that.

20 Q. I thought that's what was brought up in the
21 abstract. You know, it seems like in past
22 testimony, when an exhibit has been given like
23 that, it was -- the wording was occupational
24 limits, not residential. So I just wanted to

1 see if that was the case here too.

2 The second exhibit that you were handed,
3 it was talking about heat -- is that heat
4 fields? Is that what the proper terminology is?

5 A. Heat islands.

6 Q. Heat islands, exactly. Thank you.

7 If a car, you know, which is glass, the
8 windshields and side windows, sits in the sun
9 very long on a sunny day, does it get hot?

10 A. Yes.

11 Q. Is a solar panel, is the panel made of glass
12 and the sun going to be beating on this during
13 the day?

14 A. Yes.

15 Q. So if the heat island is not caused -- I guess
16 I don't understand where that heat is going
17 then. You know, if it's beating on these, it
18 just seems it is going to heat up and cause
19 excess heat.

20 Do you think that would be the case? I
21 mean, we -- I know you're not an expert here,
22 but in what you have researched.

23 A. My belief, this is my opinion, 27,000 solar
24 panels there all building up heat during the day

1 and a westerly wind blowing, that's all going to
2 go towards my property and the Nerads' property
3 and at sometime during the night it will
4 disperse into the air, and then the next day it
5 will start up again.

6 Q. Okay. And one more question on the drainage
7 that was brought up. I know it's been a concern
8 of yours for a while now, and I think rightfully
9 so. This seems like this solar field or solar
10 project, you know, kind of drains not only to
11 the east, which would be around your house, but
12 also to the south, and especially to the south
13 and west, where there's waterways and there's
14 actually a wetland.

15 You have mentioned, you know, a number of
16 times you're concerned about, you know, the
17 drainage. Is -- I mean, if there is a problem,
18 is there a number for you to call? I mean, how
19 would you contact -- how would GreenKey be
20 able -- how would you be able to contact them to
21 let them know that something's happened?

22 A. Well, I asked that question of Reuben when he
23 was on the stand, and the answer I was given is,
24 I would have to contact the County.

1 I have done subsequent research, and as I
2 understand, if this thing is approved, that
3 GreenKey would have to establish a response
4 system for people to make complaints to, and
5 they would have to keep the County fully
6 informed of the responses.

7 Q. Okay. Again, I hadn't realized that they had
8 an emergency plan of any type. I have seen some
9 other proposed --

10 A. I only understand that's what's supposed to
11 happen.

12 MR. PRATT: Okay. That's all I have.
13 Thank you.

14 MR. WELBERS: Karen.

15 MS. NERAD: Karen Nerad.

16 EXAMINATION

17 BY MS. NERAD:

18 Q. Chris, I have a question for you. You're
19 talking about drainage flowing down into your
20 property. You know, you have got the culvert
21 underneath your house.

22 You brought up the Ladd Elevator, correct?

23 A. Yes.

24 Q. The Ladd Elevator, during storms, whether it's

1 winter or rain and you get a lot of it, and
2 across from our house, a little bit north of it,
3 right by -- almost, south a little bit, from the
4 Ladd Elevator, it completely floods; 89 does.
5 Besides the ditch, too.

6 The only way they get that water off the
7 road is they bring IDOT out.

8 A. That's correct.

9 Q. Okay.

10 A. And they pump it out of there to your --

11 Q. IDOT puts the plows down and they push that
12 towards the Ladd Elevator in that ditch.

13 A. They have also put --

14 Q. And us.

15 A. They have also put pumps there that have pumped
16 it across the road onto your property.

17 (Indiscernible crosstalk.)

18 Q. Okay. Does --

19 MS. DONARSKI: One at a time, because the
20 court reporter can't take it down.

21 MR. NOLL: I was answering.

22 MS. DONARSKI: I know. But one at a time.

23 Thank you.

24 Q. (By Ms. Nerad:) Okay. But doesn't -- okay.

1 The pumps -- regardless, whatever, if the pumps
2 are there. My question is, doesn't that drain
3 down into your -- that's going to go south, all
4 that drainage and that water.

5 A. Yes, it's --

6 Q. So how do they get water out of there?

7 A. It goes into the ditch and through that culvert
8 under the road.

9 Q. Okay.

10 A. If the culvert is interrupted, it would all go
11 to my house.

12 Q. But that's a lot of water.

13 A. Oh, yes.

14 Q. I have seen it. I mean, I live right across
15 from it, and I see those IDOT trucks come and
16 push that water.

17 A. Well, in springtime there's a literal river
18 flowing across that site from the water going
19 through those culverts. Because as I said, it's
20 drainage from the entire eastern side of the
21 road, as well as the west side on the site.

22 Q. Okay. And so when it comes down that way and
23 it goes through your culvert, like you said,
24 and, like, into your -- I believe into your

1 house or --

2 A. That's where it would go, yes.

3 Q. Okay. But doesn't it also go more south, like
4 down towards Ladd?

5 A. After it goes under the road -- my house is on
6 the east side. The site is on the west. It
7 goes under the road through the culvert, onto
8 the proposed site, and then flows through the
9 site down towards Ladd.

10 MS. NERAD: Okay. That's all I have.

11 MR. WELBERS: Other questions?

12 (No verbal response.)

13 MR. WELBERS: We'll get Tim first and then
14 Sue.

15 MR. NERAD: Tim Nerad.

16 EXAMINATION

17 BY MR. NERAD:

18 Q. Chris, you said in your -- you said earlier in
19 regards to GreenKey that if there's an issue
20 that we could call GreenKey. Did they say what
21 would happen if GreenKey is not there, since a
22 hundred solar companies went bankrupt this year
23 already?

24 A. I didn't get my information from GreenKey. I

1 got my information from other documentation.

2 Q. Oh. I thought you got it from -- I
3 misunderstood.

4 A. If you read the minutes of the Cherry Solar
5 site, you would see in there, there's
6 stipulations about having an emergency response.
7 There's also about the reporting back to the
8 Board and about having to have a phone number.

9 So I haven't had direct communication,
10 other than just casual conversation about it
11 with GreenKey.

12 Q. Okay. I misunderstood.

13 MR. WELBERS: Sue.

14 MS. PRATT: Sue Pratt.

15 EXAMINATION

16 BY MS. PRATT:

17 Q. Mine was very similar to Tim's, in that I'm
18 trying to figure out if I understood correctly.

19 So you said that when you talked to
20 Reuben, if there was an issue that Reuben had
21 told you that you would need to contact the
22 County, correct?

23 A. Well, when Reuben was up here on the stand
24 testifying, I asked the question about who would

1 I call --

2 Q. Okay. Right.

3 A. -- if I was flooding.

4 Q. Okay. So --

5 A. It was --

6 Q. Had Reuben ever talked to you about what the
7 plan was or that there would be a plan that they
8 would establish?

9 A. Casually, but not in detail.

10 MS. PRATT: Okay.

11 MR. GRANDON: Let me ask a question.

12 EXAMINATION

13 BY MR. GRANDON:

14 Q. Mr. Pratt (sic), I remember casually talking to
15 you --

16 A. Mr. Noll.

17 Q. Mr. Noll. I have been doing that all day, for
18 some reason.

19 I remember casually saying, If you have an
20 issue, you have my phone number and you can call
21 me, correct? Do you remember that conversation?

22 A. Yes.

23 Q. Thank you.

24 A. But I didn't know what I could do for more

1 consequences.

2 Q. Right. So as a representative of the solar
3 facility, we will have our phone numbers
4 available for you to call. I conveyed that to
5 you. Do you remember that conversation?

6 A. Yes.

7 MR. GRANDON: Okay. Thank you.

8 MR. WELBERS: Any other questions?

9 (No verbal response.)

10 MR. WELBERS: Does our Board have any
11 questions?

12 (No verbal response.)

13 MR. WELBERS: Thank you, sir.

14 Who would like to testify next? Do you
15 have something, Brad?

16 MR. BASTION: No, thanks.

17 MR. WELBERS: Tim, Reuben, Kelten and Ben
18 Jacobi, you have all had a chance to testify.

19 Are we done with testifying? Are we done
20 with all of our witnesses that intend to testify
21 tonight?

22 MR. JACOBI: We do have a couple rebuttal
23 items when the direct testimony is concluded.

24 MR. WELBERS: Kind of looks like it is.

1 So let's go on with your rebuttal items.

2 KELTEN SHARP,

3 being first duly sworn, testified as follows:

4 MS. NEMETH: State your name and address
5 for the record.

6 MR. SHARP: Kelten Sharp, 2618 Queen
7 Avenue North, Minneapolis, Minnesota, 55411.

8 So I think the main rebuttal points, and,
9 you know, mostly just referencing some more
10 recent testimony. From Mr. Noll, as far as the
11 panel toxicity goes, the reference to leaking
12 materials from modules, the solar modules that
13 would be procured for this site do not have
14 liquid components to them, and broken modules
15 will be replaced as part of the ongoing
16 operations and maintenance.

17 And then the toxicity component. Again,
18 GreenKey has agreed that they are not going to
19 procure cadmium modules. And the amount of lead
20 in these panels is isolated to the solder, which
21 is similar to how a lot of our everyday
22 electrical components are soldered.

23 And that solder is miniscule in comparison
24 to -- I think I gave the example before, it

1 would take 700 modules' worth of that solder to
2 add up to one singular shotgun shell. Which I
3 would assume, around these parts of the country,
4 as well as up in Minnesota, there's lot of those
5 sitting around. I know I grew up on a rural
6 farm, and those are in the ground all over the
7 place.

8 The next one is glare. Mostly just
9 personal testimony here. I have solar on my
10 home. From my second story window looking out,
11 it's on my garage within 50 feet from my
12 upstairs window. I look at it, you know,
13 multiple times throughout the day. There's not
14 glare that is impeding my ability to live there
15 or enjoy that property.

16 I also, you know, my garage door is here.
17 Modules are here. I drive in multiple times
18 throughout the day, and there's not glare that's
19 impeding my ability to drive within that space.
20 So as far as safety risk from that standpoint, I
21 personally have not experienced any glare from
22 solar that would impede or cause safety
23 concerns.

24 And then the last one, I just want to make

1 note that I actually visited the Granville site
2 today just to, you know, make sure that what we
3 had all heard played last week wasn't, you know,
4 out of context.

5 Our firm actually did the final
6 engineering plans for that site. And from the
7 testimony, I believe that was given last week,
8 we weren't sure on the distance. The distance
9 from the fence to that equipment is 10 to
10 15 feet, depending on where you're at along the
11 fence line there. The fence line is somewhat
12 diagonal.

13 So that distance I stood at today as well.
14 The sound that I heard was equivalent to a
15 dishwasher running in my kitchen from my living
16 room, which is similar distance from me to the
17 third row here. As I backed away from that, at
18 50 feet, which, you know, from our drawings was
19 roughly where those power poles are in line --
20 so if anybody wants to go visit, you can kind of
21 stand in line with the power poles -- I could
22 not hear those pieces of equipment anymore.

23 Those are all in relation to the set
24 standards for solar sites by the State. So by

1 the time you kind of get far enough to not hear
2 those anymore, you're well within still the
3 setbacks that we're proposing on this site.

4 Additionally, for this facility, it's kind
5 of unique that the Granville solar site has the
6 string inverters located that close to the fence
7 lean. Most of the solar sites that we develop
8 have centrally-located inverters, and GreenKey
9 has indicated that's the plan for this site. So
10 you would be looking at, you know, 250 feet,
11 300 feet interior to even where the ones on the
12 Granville site are located.

13 Then the last piece, just touching on
14 drainage. So I know Mr. Noll testified that,
15 from a drainage standpoint, that AIMA only
16 regulates underground subsurface drain tile
17 damage and repairs. That is true that the AIMA
18 focuses on that, but the stormwater permit that
19 this project will be required to obtain is a
20 State level permit, and that does not allow us
21 to increase runoff from the site.

22 And in most cases, honestly I -- I guess
23 all cases you cannot increase. Some cases
24 require a stormwater basin to hold that water

1 back. In this case, because we're changing
2 agricultural farmland to permanent vegetative
3 cover, that deep-rooted vegetative cover
4 actually holds more water in that per-acre area
5 than bare soil cropland or row crops.

6 Both of those, I think we -- referencing
7 my previous testimony, curve numbers is how we
8 design all of these, and that's based off of
9 empirical data. So what you'll see is less
10 stormwater runoff from this property if it is
11 put into permanent vegetative cover when
12 compared to agricultural row crop of either
13 soybeans or corn.

14 So that is all I have.

15 MR. WELBERS: Start there.

16 EXAMINATION

17 BY MR. NOLL:

18 Q. Point of clarification. I did not use the word
19 leaking in my testimony. If anything, leaching
20 would be the appropriate term, and that is what
21 the article that I submitted refers to, is that
22 rain water on broken solar panels would leach
23 materials into the soil.

24 A. Okay.

1 Q. Do you feel your personal experience with glare
2 on your home is more relevant than the experts
3 that I submitted?

4 A. I was providing an additional standpoint of
5 having personal experience with solar in a
6 different setting. In addition to my expert
7 testimony that I have given, I also have
8 personal experience of having solar on my own
9 personal private property.

10 Q. And as far as the stormwater, the point of the
11 article that I submitted about the firm that
12 violated the stormwater, that is the concern
13 with that site, is that if you go in there and
14 change it, we don't know if the stormwater will
15 be handled appropriately or not, whether you
16 have a permit or not.

17 A. So the article that was submitted --

18 Q. Swinerton was being fined by the EPA for
19 violating the stormwater permits.

20 A. Correct. And that was for their lack of
21 implementing a stormwater pollution prevention
22 plan.

23 Q. No.

24 A. Yes.

1 Q. No, it was for failure to have people there.

2 A. Which is part of the stormwater pollution
3 prevention plan.

4 Q. Yes, they had the plan, but they just didn't do
5 it.

6 A. Right, so then they were fined because they
7 were not fully meeting the conditions of that
8 permit.

9 Q. Exactly.

10 And I don't see anything in your
11 maintenance schedule that has qualified
12 individuals going out to the site to make sure
13 you're in compliance with your stormwater
14 permit?

15 A. So the stormwater permit --

16 Q. If you have it --

17 A. The stormwater permit is specifically during
18 construction. That requires the ongoing
19 checking by a stormwater professional. Beyond
20 that, the operation and maintenance plan does
21 require that we still do not increase the runoff
22 rate from the site. And for us to close that
23 permit, the vegetation has to have been
24 established to the 70 percent condition for the

1 State to allow us to submit a notice of
2 termination.

3 Q. And who is making that determination? The same
4 people that are out there mowing the grass?

5 A. So that component is all part of the
6 construction phase of the project.

7 Q. I'm saying after that.

8 A. After that you have permanent vegetation, so it
9 would be like --

10 Q. So nobody's paying any attention to it after
11 that point?

12 A. I would argue that it's not "nobody is paying
13 attention to it." Your stormwater design at
14 that point is fully implemented because you have
15 permanent vegetation coverage.

16 Q. But part of the Swinerton suit was the EPA
17 found they did not have qualified individuals
18 out there maintaining the site and allowed the
19 stormwater runoff to take place.

20 A. During construction.

21 Q. I don't believe so.

22 A. I have been involved with those specific
23 things, because we are very aware of that, to
24 make sure that we are making our clients aware

1 of the things that have happened that put big
2 spotlights on solar projects and how not to do
3 that.

4 And we have very clear engineering notes
5 of "contractors shall," which legally binds them
6 to doing that, as part of stamped engineering
7 plans. If they don't, they're in conflict with
8 that, and that's where the fines come in.

9 But they weren't upkeeping their things
10 like stormwater BMPs, which include silt fence,
11 fiber log, vegetation management, establishment
12 of that vegetation during the construction
13 phase.

14 MR. NOLL: That's all I have.

15 MR. WELBERS: Jim.

16 EXAMINATION

17 BY MR. DUNSETH:

18 Q. Sir, your panels at your house, how are they
19 set in relation to the sun? Are they facing
20 north? south? east? west? How are they facing?

21 A. So they are fixed on my roof, facing south.

22 Q. Facing which way?

23 A. South.

24 Q. Which direction is that?

1 A. What do you mean?

2 Q. What direction are they facing?

3 MR. WELBERS: South is what he said.

4 A. They're facing the south.

5 Q. (By Mr. Dunseth:) Okay. I didn't catch that.

6 I'm sorry.

7 A. Nope, all good.

8 Q. Okay. This is mine. Your proposed panels are
9 going to be facing east and rotating to the
10 west. Route 89 runs down the east side of that.
11 So your point of view is not going to be the
12 same as our situation.

13 A. Depending on where you're driving from, I would
14 agree, yes, there's multiple angles of this
15 site.

16 Q. I understand you're not having a problem, but
17 you're not going to be in the same relationship
18 as what this is going to be.

19 A. Not on all roads of this site, correct.

20 MR. DUNSETH: Thank you.

21 MR. WELBERS: Karen?

22 EXAMINATION

23 BY MS. NERAD:

24 Q. I have a couple questions for you. First of

1 all, is there lights on those solar panels at
2 night, by any chance?

3 A. I will have to defer to Reuben, but most of the
4 solar developments that I have been involved in
5 do not have lighting as part of their facility.

6 Q. Okay. Second of all, you said about -- my
7 question is, so if there's a storm out there,
8 the wind that we get, okay, and I know you got
9 7-foot fences with 12-foot panels -- or
10 12 foot. . .

11 There's a storm, who is going to pick up
12 this glass from these broken solar panels? If
13 there's a storm with the wind, they will be
14 blowing in my yard. You can't tell me, with a
15 chain link fence, with the wind we get, that
16 these panels, the glass -- because you're saying
17 they're made out of glass -- that they're going
18 to come through the fence.

19 A. I guess I don't fully understand how you're
20 proposing that would happen. I guess, can you
21 explain the context a little bit more?

22 Q. Okay.

23 MR. DUNSETH: Can I add?

24 MS. NERAD: Go right ahead.

1 MR. DUNSETH: I would like to bring up a
2 film that I got concerning a tornado that went
3 through that would substantiate what Mrs. Nerad
4 is talking about, how this is going to scatter,
5 if I may.

6 MR. WELBERS: Go ahead. Let's present it.
7 Put it in the record. We'll have to get a copy
8 of it.

9 MR. DUNSETH: I don't know how I'm going
10 to do that.

11 MS. NERAD: I can get a copy and send it
12 to you.

13 MR. DUNSETH: James Dunseth again.

14 This is taken off the Weather Channel.
15 This is what she's referring to, sir. Tornado
16 went through in Florida.

17 (A video was shown.)

18 MR. SHARP: So I'm watching a video of a
19 TV that's showing a solar array that was hit by
20 a tornado, and there is glass on part of it that
21 has been hit by the tornado, which is also a
22 natural disaster.

23 MR. WELBERS: So that's the question
24 apparently that Karen is asking you, if

1 something like that happens and the glass is
2 over on their property --

3 I think you asked who cleans it up?

4 MS. NERAD: Right. And there's a lot of
5 glass.

6 MR. SHARP: So my understanding is that
7 that would be a question that Reuben would be
8 able to address better, just because he is going
9 to have more of the operation and maintenance
10 component of it.

11 I will say that the site in that case has
12 been hit by a natural disaster, and just like
13 you may have glass or damage from your own
14 residential properties, GreenKey would need to
15 address that in some way with their emergency
16 response plan, which would be provided
17 throughout the rest of the design implementation
18 process here as they go and get a building
19 permit, assuming this gets approved.

20 MR. JACOBI: And their insurance.

21 MR. SHARP: Yeah.

22 Q. (By Ms. Nerad:) My next question is, you went
23 out to the Granville site?

24 A. Yes.

1 Q. Which site? There's two of them. You didn't
2 say which one.

3 A. So you had referenced in your testimony that it
4 was the one near Mennie.

5 Q. Yes.

6 A. So that's the one that's south of I-71 there?

7 Q. Yes.

8 A. Yes, that was the one that I was at. I wanted
9 to make sure we were at the same site.

10 Q. Okay. First of all, I was not -- and I didn't
11 say this. You said -- I was not up by the fence
12 when I videoed that solar. So I -- like you
13 said, you know, you said maybe, what -- what did
14 you say? 30 feet? 20, 30 feet?

15 A. So I think during your testimony you had
16 referenced this distance here, right?

17 Q. Right, yes.

18 A. So that is the distance that I was at during
19 part of my, you know, testifying here that I was
20 this far away from that same equipment. And at
21 that point, it was nearly inaudible around the
22 sounds of the roadway and everything else.

23 By the time I got 50 feet, which is
24 further than the distance we are now, I could

1 not hear it.

2 Q. With the roadway there, I did not -- I waited
3 until there was no cars on Route 71 -- that is
4 Route 71.

5 A. Yup.

6 Q. And that thing was loud.

7 A. So there was -- there were times while I was
8 out there -- because I was out there for about
9 20 minutes, to make sure that I got a good
10 understanding of the different components.

11 There was times where there was not
12 traffic and then there were times that there
13 were. And there were times where I was standing
14 at the fence line, which is 20 to -- or 10 to 15
15 feet. And then I was back -- there's actually a
16 row of trees, if you remember. In the front
17 there's a vegetative screening.

18 Q. Yeah, but they were -- they stood, what, 3-foot
19 tall, if that.

20 A. So when I was out there, they are here
21 (indicating), at this point.

22 MR. JACOBI: For the record, where?

23 MR. SHARP: Shoulder height. I'm 6 foot,
24 2.

1 Q. (By Ms. Nerad:) The trees were, are you
2 saying?

3 A. The top of the trees were, yes.

4 Q. Whoa. Not the ones I saw. The ones I saw --

5 A. The ones I was standing next to were up to my
6 shoulder.

7 Q. The ones I was standing next to for the
8 vegetative screening --

9 A. And, you know, there was a long row of them.
10 There may have been a couple that were shorter
11 because they were being replaced as part of the
12 maintenance of that. But most of them were at
13 this height (indicating), which again, shoulder
14 height on a 6 foot, 2 person.

15 Q. Where I was standing at -- I'm just saying,
16 where I was standing --

17 A. I was just testifying that I was also out there
18 and --

19 MR. WELBERS: One at a time, please.

20 A. I'm just testifying that at those distances, I
21 did not hear anything that was audible at the
22 50-foot distance. And I wasn't anywhere near
23 the property line at that point.

24 Q. (By Ms. Nerad:) So did you tape it, that we

1 can hear it, at 50 feet?

2 A. I am not going to put my recording into record
3 because of my own personal, I guess, opinion on
4 the fact that turning up and down the sound on a
5 phone can vary the audible perception
6 considerably because it's technologically
7 recorded. I can play it, but I can play it all
8 the way turned down at a lower volume and all
9 the way up, and it's going to sound very
10 different.

11 Q. So that's what I was going to say. So these
12 people in here have no idea what you heard and
13 what I heard, where I played mine. So there's
14 two different things here, where mine is
15 evidence and I played it for them.

16 A. We also have different hearing. I think that
17 would be pretty apparent just from -- in
18 general, everybody has different hearing. So I
19 would encourage people to go visit the site, if
20 they can, and experience it for themselves.

21 But from my personal testimony, standing
22 where I was, again, not any louder than a
23 dishwasher in a room adjacent.

24 Q. So I have another question, and I don't know if

1 this is going to refer to you or which one of
2 these guys here, who it's going to refer to.

3 At one point in time, I don't remember
4 whose testimony it was, that they said that
5 they're going to clean these solar panels with
6 water. Okay. You know, I don't know how often
7 they're going to clean them or what. My
8 question is, where is the water coming from?

9 Myself, Jim Dunseth and Chris Noll are all
10 on wells. So my question is, if you're out
11 there every day cleaning these, where's this
12 water going to come from? Are you going to
13 drain our wells? And if so, who is responsible
14 for that?

15 MR. JACOBI: I want to jump in -- I want
16 him to answer that question, but I also want to
17 make sure that we're keeping the
18 cross-examination within the scope of the
19 rebuttal testimony. Just trying to get through
20 this tonight.

21 MR. WELBERS: That is a little bit
22 different than what we have heard before. Is
23 that your argument, that this is outside of
24 rebuttal?

1 MR. JACOBI: Outside of what he testified
2 about. Kind of getting into new stuff.

3 It's an important question, so I don't
4 want to stop him, but I just want to keep us
5 within the timeframe tonight.

6 MS. NERAD: Well, that is an important
7 question because it's our farm.

8 MR. JACOBI: I will let him answer.

9 MR. WELBERS: Karen, his argument was,
10 this is rebuttal. All of the testimony has been
11 given. You know, everybody said they were done.
12 So now this is his rebuttal. And, of course,
13 you guys can rebut some things too. We still
14 have that to do.

15 But he's trying to say that, as you start
16 talking about draining wells, that was never
17 part of the real testimony before. And so now
18 it's introduced -- you don't introduce new
19 evidence in the testimony. But he has agreed to
20 let his witness answer the question.

21 MS. NERAD: Okay. Because my concern was
22 when they had brought up about cleaning the
23 panels with water.

24 A. So I guess I'll answer a couple components of

1 that. Daily cleaning is most likely not part of
2 the operation and maintenance plan. That's --
3 like you indicated, a lot of water, right?

4 So it will be, you know, up to GreenKey to
5 determine that maintenance plan, but trucking
6 the water in would be their current solution of
7 how to do -- procure water for this thing to do
8 the cleaning activities, so.

9 Q. (By Ms. Nerad:) And we have your word on that?

10 A. That is my current understanding of the
11 operation and maintenance of this specific
12 facility.

13 MS. NERAD: Okay. No further questions.

14 MR. WELBERS: Are there any other
15 questions for -- go ahead, Tim.

16 EXAMINATION

17 BY MR. PRATT:

18 Q. Just quick, just to -- for my own
19 understanding. When -- I don't know if it
20 matters, but does it matter, when the panels are
21 tilted, how the sun will be upright? I'm
22 assuming there's always a lowest point at some
23 point where the panels are?

24 A. As far as ground clearance?

1 Q. For ground clearance, yes.

2 A. Yes.

3 Q. 4 feet? 5 feet?

4 A. So it's going to vary depending the racking;
5 essentially, the components that hold it up. I
6 think the lowest I have seen is about 18 inches,
7 just to ensure that the equipment is high enough
8 for mowing. Oftentimes that, what we call the
9 leading edge, is defined by the grass height or
10 the vegetation.

11 Q. I assumed it would be, you know, probably
12 2 feet or so.

13 So that leads me then, the panels you have
14 on your garage roof, how high are they from the
15 lowest edge to the ground?

16 A. So I have 3 modules in portrait, and those
17 start at roughly 7 feet from the ground and then
18 go up.

19 So from my second story, is my reference
20 point of just looking out at those.

21 Q. So somewhere 2 feet here and 7 foot here, so
22 you're --

23 A. So you're still within the face of a solar
24 array, yeah.

1 Q. Yeah, but it seems like you -- you know, the
2 lower -- you know, if they were down at
3 18 inches in front of your garage, just seems
4 like maybe you would have more glare. I don't
5 know.

6 And how many panels again do you have on
7 your roof?

8 A. So I have nine on my garage roof.

9 Q. Nine panels the size of what's proposed?

10 A. Roughly similar, yes.

11 Q. And I appreciate that you don't have any glare,
12 I understand that, but the difference between
13 nine thousand and twenty-seven thousand (as
14 said), 18 inches, you know, could there
15 potentially be more glare having 27,000,
16 18 inches from the ground if you were driving
17 there?

18 A. I guess, putting --

19 Q. If that was in front of your garage, would you
20 potentially have more glare?

21 A. I guess, putting additional rebuttal testimony
22 in, I have also driven next to many solar
23 facilities and have not experienced an issue
24 with glare, including tracker sites.

1 Q. Okay. I just wanted to find out because I was
2 just wondering -- I don't have solar panels on
3 my garage. I don't have a garage, so I don't
4 have panels on my garage. So I don't have
5 anything to compare it to.

6 MR. PRATT: Thank you very much.

7 MR. SHARP: No problem.

8 MR. WELBERS: Go ahead.

9 EXAMINATION

10 BY MR. NOLL:

11 Q. This is just out of curiosity, Kelten. You
12 mention the screens come down 18 inches. We
13 have significant snow drifting out here. What
14 happens when the panels try to come down and
15 there's snow under there?

16 A. So there's multiple snow and weather condition
17 sensors on facilities -- solar facilities and
18 different, you know, programming mechanics that
19 essentially the long-term owner-developer
20 defines many of that.

21 Much of that is proprietary to each owner
22 and operator. So there's a high probability
23 that GreenKey would operate it, if they were
24 experiencing snow drifts, to avoid going into

1 the snow essentially.

2 Q. So they wouldn't completely cycle? They would
3 set them at a higher height?

4 A. Yes. It does reduce production benefits, but,
5 you know, does have the ability to not go full
6 tilt.

7 MR. WELBERS: Other questions?

8 (No verbal response.)

9 MR. WELBERS: Do you have any, Kris?

10 EXAMINATION

11 BY MS. DONARSKI:

12 Q. So how -- I'm just processing all this. So how
13 is someone at that remote location going to know
14 if we have got a 3-foot snow drift under this
15 portion of the panels? How is that controlled?

16 A. So I'm not going to testify that this will be
17 included, but one of the engineering solutions
18 that has been deployed in the past is a sensor
19 that actually reads the snow depth on the end of
20 some of the tracker rows to remotely be able to
21 say, Hey, this is closer than what we want.

22 MS. DONARSKI: Okay. Thank you.

23 MR. WELBERS: Anything else?

24 MS. SMITH: I just have a couple.

EXAMINATION

1
2 BY MS. SMITH:

3 Q. Maybe it's not the right person to ask, but we
4 were referring to glare. I have been driving
5 around, looking at some different farms,
6 individuals and the farms.

7 Some have a dull-looking panel. Some have
8 a shiny-looking panel. Can you explain the
9 difference and why --

10 A. So my understanding --

11 Q. -- and what these would be?

12 A. Yeah, so my understanding is the cadmium
13 modules, that we are not procuring, it's an
14 older technology, and some of the older modules
15 didn't have as dense of an absorption rate.
16 That's some of the advancement in technology
17 that we have seen over the last ten-ish years.

18 So the more matte finish is most similar
19 to the modules that would be procured for this
20 site.

21 Q. So the shiny ones, you're saying, have cadmium?

22 A. Perhaps.

23 Q. Perhaps.

24 A. And they're typically an older style module.

1 Q. Then I have noticed, since we have had some
2 storms around, there are some missing panels on
3 some of the -- I'm not talking about the farms
4 or the gardens, whatever, but individual ones.
5 And it's been months and there's still missing
6 panels.

7 So if there is a storm, how is that
8 addressed?

9 A. I think, obviously, module procurement can be
10 interesting at times with some of just the
11 tariffs and all of that going on.

12 That, I guess, is up to each individual
13 person. I think probably the personal sites,
14 they may just design --

15 Q. I'm talking about the farm, if it happened on
16 the farm.

17 A. If it happened on the farm, that would be
18 outlined in GreenKey's operation and maintenance
19 plan on the replacement of those modules and
20 essentially removal of the damaged ones.

21 Q. So if there would be a tornado and the picture
22 that he -- I didn't see, but I saw down in
23 Florida with a hurricane. I mean, it's gone.

24 So is that -- is there insurance that

1 covers that?

2 A. Yes.

3 Q. That would cover all these people?

4 A. Uh-huh, yeah.

5 MS. SMITH: Okay. That's all I have.

6 MR. JACOBI: Required by the County.

7 MS. SMITH: Okay. That's all. Thank you.

8 MR. SHARP: Thank you.

9 MR. WELBERS: Do you have anything else
10 for this witness?

11 (No verbal response.)

12 MR. WELBERS: You can sit down.

13 MR. SHARP: Thank you.

14 MR. WELBERS: Do you have another rebuttal
15 witness?

16 MR. JACOBI: One more.

17 REUBEN GRANDON,
18 being first duly sworn, testified as follows:

19 MS. NEMETH: State your name and address
20 for the record, please.

21 MR. GRANDON: Thank you. Reuben Grandon,
22 R-E-U-B-E-N, G-R-A-N-D-O-N, 3519 Northeast 15th
23 Avenue, 325, Portland, Oregon, 97212.

24 Good evening. I think, picking up on what

1 Shirley was just asking, I wanted to talk about
2 the panels as well. I want to testify in my
3 rebuttal about the procurement of the panels.

4 So as, you know, Kelten just testified, we
5 are committed to not procuring panels that have
6 cadmium in them, a toxic chemical. That's just
7 reiterating my testimony that's on the record
8 from prior hearings.

9 Again, at this point in time we have not
10 procured our panels. But if I could use an
11 analogy, if you were thinking about buying a
12 house in the next year or two, you might have an
13 idea how many bedrooms you want, how many
14 bathrooms you want, the size of the property.

15 And we have committed on the record to the
16 type of panel that we're looking to procure, but
17 yet it's too early to go out and buy that panel.
18 So once we are closer to the building permit
19 process, we will enact that procurement process.

20 But just want to reiterate, we have stated
21 on the record, we are not buying cadmium, and we
22 have stated the type of panel that we intend to
23 use for these facilities.

24 Just to piggyback off of what Kelten was

1 talking about with cleaning the panels, it is
2 water and it is trucked in. So we don't have
3 any water rights with our agreement with the
4 Gillan family. We don't have the ability to
5 drill a well if we wanted to. So we will be
6 trucking in the water to do the panel cleaning,
7 but also the vegetative screening that we have
8 committed to Mr. Noll and Mr. and Mrs. Nerad.

9 Just, yeah, also wanted to talk about the
10 culvert. I do have a prepared statement for
11 that. Mrs. Nerad had asked that we build the
12 new culvert on either 1800 or on Illinois 89.
13 My understanding is, the purpose was to provide
14 access for farm equipment to a portion of the
15 Nerad property that is north of their home.
16 This portion is bordered by both 1800 and 89
17 public roads.

18 Today we heard testimony and saw the
19 receipts that the total for that is
20 approximately \$3,179 for the full culvert, and
21 it sounds like it has been installed already.
22 We are agreeable, as a condition of approval for
23 our land use application, to reimburse that full
24 amount up to \$3200 for the cost of the culvert

1 that's on the Nerad property if construction of
2 the solar facility commences on the solar
3 property.

4 I do have to reiterate for the record that
5 the Solar Ordinance does not require us to
6 provide this accommodation, and we believe that
7 there are alternative ways to access the Nerads'
8 property, including from an existing property --
9 or excuse me, an existing driveway on the Nerad
10 property on 89. The solar farm will not
11 interfere with any activity on the Nerad
12 property.

13 Also, we cannot -- the culvert is a little
14 nuance, because we cannot commit to doing the
15 work ourselves because that will require us to
16 contract for the work on the Nerads' property.
17 However, as a showing of good faith and in the
18 spirit of compromise before this ZBA, we will
19 commit to the reimbursement that I just
20 described.

21 I also feel the need to address the email
22 that Mrs. Nerad read to the Board at our last
23 hearing a couple weeks ago. I previously
24 emailed with Mrs. Nerad to work out the

1 landscape plan for the vegetative screening and
2 to try to work out a compromise regarding the
3 culvert and the access. I did not communicate
4 with Mrs. Nerad prior to the last hearing where
5 Mrs. Nerad testified. As a result, I did not
6 realize how my email came across to her, and I
7 learned that it came across wrong and I regret
8 that. I really did not mean to upset anyone,
9 and I was just trying to work out a compromise.

10 Again, we do want to work out a solution.
11 We are still committed to being a good neighbor,
12 as I said in the first hearing here in August.
13 Can you believe it's been that long? But
14 sometimes tone or communication gets lost in
15 email. And I have tried getting ahold of the
16 Nerads, but didn't have any luck getting in
17 touch by phone.

18 So up until that point, I felt that we had
19 worked well with the Nerads and had an open and
20 honest dialogue with them. We communicated by
21 email this fall regarding the landscape plan.
22 We worked in good faith and came to a solution.
23 I worked hard to ensure that the outcome of the
24 vegetative screening for the Nerad parcel met

1 their expectations. And I believe Mrs. Nerad
2 testified to that effect at the last hearing,
3 that the landscape plan did meet the
4 expectations that were outlined.

5 After hearing Mrs. Nerad's testimony at
6 the last hearing about the culvert, I went and
7 spoke to our design team and project team to see
8 if we could just offer to reimburse for the
9 culvert costs. And it was described -- or
10 excuse me. It was decided that we can.

11 So just, again, we're happy to provide the
12 reimbursement for the culvert costs up to \$3,200
13 for their costs incurred upon commencement of
14 construction of the solar facilities.

15 MR. WELBERS: Anything else?

16 MR. GRANDON: Yeah, I just had a more
17 general statement, but do want to reiterate that
18 we intend to fully comply with every regulation
19 in the Bureau County Zoning Ordinance, every
20 regulation by IDOT concerning access or
21 drainage, and every stormwater pollution
22 prevention plan by the EPA for Illinois. So we
23 intend to fully comply and have described in our
24 land use application materials that we will

1 comply with all of the regulations that are
2 established.

3 I think, going back to the panel
4 procurement process as well, I do just want to
5 also express that the panels we are suggesting
6 are the same as panels that have been approved
7 by this body for a different solar farm. So we
8 are not suggesting a deviation from what's been
9 approved multiple times by this body.

10 With that, I'm ready for questions.

11 MR. WELBERS: Are you good? Anything to
12 clarify?

13 MR. JACOBI: No. Thank you.

14 MR. WELBERS: Do you have any questions,
15 Kris?

16 MS. DONARSKI: I have none.

17 MR. WELBERS: Anyone else, questions? Go
18 ahead, Karen.

19 EXAMINATION

20 BY MS. NERAD:

21 Q. Okay. You said you apologize, you're sorry for
22 what you wrote, but the fact remains, when
23 you're writing somebody, don't you think before
24 you write? Because --

1 MR. WELBERS: Don't beat the witness up.
2 Just ask your question.

3 Q. (By Ms. Nerad:) Okay. All right. Because it
4 still remains -- and I understand you
5 apologized, and that's fine. That is fine. But
6 still, to write, "We would agree to this in good
7 neighbor agreement with you. In exchange, we
8 would ask that you no longer oppose the
9 project." That's just not right saying that. I
10 mean --

11 MR. WELBERS: Do you have a question for
12 him regarding that?

13 Q. (By Ms. Nerad:) So why would you write that?
14 Why would you --

15 A. Yeah, I think you might be paraphrasing the
16 email a little bit. And I agree, I might have
17 been able to write it a little bit better. But
18 in my experience, it's not uncommon to have a
19 good neighbor agreement with a neighbor, where
20 the developer works out a solution that
21 addresses a neighbor's concern and in exchange
22 there sometimes is a compromise, where the
23 neighbor might agree not to continue to further
24 oppose the project.

1 I wish that we would have talked about
2 something more detailed in person or on the
3 phone in order to reach a better compromise.
4 And I do agree that I probably could have worded
5 the email better, but I was trying to work on
6 finding a practical solution to move us forward.

7 I think the bottom line is, we do have a
8 good solution now. I think you guys have
9 already done the culvert already, and we're
10 willing to pay for that reimbursement amount, as
11 you described by your testimony today.

12 MS. NERAD: Okay. I have a question, and
13 I don't know if this is allowed in here. Okay.

14 MR. WELBERS: I guess, try it and see.

15 MS. NERAD: I'm going to try it and see.

16 MR. WELBERS: Because otherwise I wouldn't
17 know.

18 Q. (By Ms. Nerad:) Okay. GreenKey is from
19 Oregon, the state of Illinois -- or the state of
20 Oregon, correct?

21 A. GreenKey Development is registered to do
22 business in the state of Illinois. Myself, I
23 work out of the GreenKey Solar office in
24 Portland, Oregon.

1 Q. Okay. You kind of answered it, because I was
2 going to say, why are you choosing Bureau
3 County, Illinois, instead of staying in Oregon?

4 A. Yeah, that's a fair question. You know, the
5 market for these types of projects, which is all
6 that we do, it shifts depending on where there
7 is an opportunity to do solar. We have done a
8 lot of solar in Oregon and we're active in other
9 states as well.

10 Q. So can I ask you how many you have won in
11 Oregon?

12 A. How much projects we have worked on in Oregon?

13 Q. Yes.

14 A. It's in the dozens. I don't have the number
15 off the top of my head.

16 MS. NERAD: Okay.

17 MR. WELBERS: Any other questions of this
18 witness? You have none? None?

19 (No verbal response.)

20 MR. GRANDON: Okay. Thank you.

21 MR. WELBERS: Well, those are your
22 rebuttal witnesses.

23 Any of you folks who have testified want
24 to rebut anything else, or have you said

1 everything that you need to say? Everybody
2 good?

3 (No verbal response.)

4 MR. WELBERS: What would you like to do
5 now?

6 MS. DONARSKI: Well, we are going to need
7 to recess the hearing until we can have a full
8 panel to vote, and our next date that we have
9 available is Tuesday, October 29th. So I would
10 say that we would recess until Tuesday,
11 October 29th.

12 MR. WELBERS: Are we all agreeable with
13 that?

14 MR. JACOBI: I mean, I think the
15 alternative is that we close tonight. We have a
16 quorum to vote. We'd entertain a vote.

17 MS. DONARSKI: Well, here's the other part
18 of it is, we have a 30-day window, and our next
19 board meeting is 28 days from tonight. If there
20 is an ice storm, a power outage, a something,
21 then we're done and we have to start all over.
22 So by extending until -- for two weeks, it will
23 give us a little bit more of a window in there,
24 and it would give you a full vote. And if -- we

1 have a chance of having a tie vote, and then it
2 will go to the County Board and then they'll
3 send it back, and so then that's going to take
4 us a couple more months anyway.

5 So I'm just trying to look ahead.

6 MR. JACOBI: No, I know, I know.

7 MS. DONARSKI: It's not that I want to
8 come back for another night. I'm just saying,
9 that would give us a full Board to vote on and
10 also would give us the opportunity to fine-tune
11 those extra conditions, the one that Reuben
12 just, you know, put out there tonight, that we
13 would have that all printed in there. Because I
14 would read that into the record before we vote
15 on it.

16 MR. JACOBI: Okay.

17 MS. DONARSKI: It won't delay you for
18 getting to the County Board. It would still be
19 the same meeting as if it was tonight.

20 MR. JACOBI: No, I know. Yeah, I know. I
21 think we're just eager to close the evidentiary
22 hearing and, you know, get whatever the
23 recommendation is so that we can --

24 MR. WELBERS: Well, all that would be left

1 if we come back on the 29th of October is the
2 closing argument for yourself and anyone else
3 that wants to do that. No more evidence is
4 going to be presented.

5 MS. DONARSKI: And I would read the
6 stipulations into the record.

7 MR. WELBERS: You would read the
8 stipulations once they are all developed.

9 MS. DONARSKI: Correct.

10 MR. WELBERS: And the 30-day window,
11 that's really a State regulation.

12 MS. DONARSKI: It's a State regulation
13 that the County Board --

14 MR. WELBERS: Once we close one of these
15 hearings, it has to be voted on by the County
16 Board within 30 days.

17 MS. DONARSKI: Of the recommendation.

18 MR. WELBERS: So we're 28 days from the
19 County Board. If something adverse happened,
20 that we got to 31, by State regulation we would
21 have to start over.

22 MR. JACOBI: I mean, we would waive -- if
23 we took a vote tonight and we -- and the County
24 Board was 28 days from today, and there was a

1 problem with the County Board meeting on that
2 day and had to continue, I mean, we would waive
3 the 30 days. We won't hold the County to that.

4 MS. DONARSKI: Well, it's a State law. We
5 don't have any say on that. That's a State law.
6 We have to vote on it.

7 MR. JACOBI: Yeah, but I'm the one
8 enforcing it.

9 MS. DONARSKI: Our Ordinance enforces it.

10 MR. JACOBI: Yeah, no, I know. I'm just
11 trying to find the most efficient path here. I
12 mean, we'll do what the Board wants to do, but
13 I'm suggesting -- and I'm not even suggesting
14 it's our preference, but, you know, we would be
15 prepared to take the vote tonight.

16 MS. DONARSKI: Okay. I'll get up and I'll
17 read all of these Ordinances and I'll just, I'll
18 wing it. I'll just wing it, how's that?

19 MR. JACOBI: I'm just suggesting whatever
20 is easiest for the Board.

21 MS. DONARSKI: Do you want me to read
22 these? I'll read them all into the record.

23 MR. QUEST: I don't believe she's
24 prepared.

1 MR. WELBERS: What's that?

2 MR. QUEST: I don't believe she's
3 prepared.

4 MR. WELBERS: What do you guys want to do?

5 MS. SMITH: I don't -- I think we should
6 wait.

7 MR. WELBERS: What do you want to do,
8 Bill.

9 MR. JENSEN: Well, I think we need to be
10 accurate and make sure that we have all of our
11 ducks in a row.

12 MR. WELBERS: And you?

13 MR. QUEST: I believe that she has some
14 preparation yet with what's been put into the
15 record tonight. I don't think --

16 MR. WELBERS: The Board prefers to go on
17 Tuesday, the 29th.

18 MS. DONARSKI: Thank you.

19 MR. WELBERS: You don't have to do it.

20 So we will recess these two cases until
21 Tuesday, October 29th, 7:00 p.m., here. Resume
22 by any closing arguments you have got, and then
23 this Board will vote on the two Conditional Use
24 recommendations and the two --

1 MS. DONARSKI: Variations.

2 MR. WELBERS: -- Variations at that time,
3 and hopefully it's closed.

4 MR. JACOBI: Can we have the record closed
5 on evidence on both Ladd 2 and 3?

6 MR. WELBERS: The record is closed on
7 evidence now. Yeah, I think I already said
8 that.

9 MR. JACOBI: Yeah, I just --

10 MR. WELBERS: All that's left is the
11 closing arguments. No new evidence is to be put
12 in.

13 MS. DONARSKI: And stipulations will be
14 read.

15 MR. WELBERS: Stipulations will be read
16 once they are all documented. Most of them are
17 because they came from the Planning Commission,
18 but there's a couple things that come from this
19 hearing.

20 MS. DONARSKI: Correct.

21 MR. WELBERS: But yes, no new evidence.
22 If there's something new, I don't know what it
23 would be that comes to mind, it would -- the
24 evidentiary part is closed.

1 MR. JACOBI: Okay. I just --

2 MR. WELBERS: Closing arguments are just
3 that, they are arguments. They are based on
4 things that have been put into the record, but
5 nothing new.

6 MR. JACOBI: So I'm going to cut my
7 engineer loose so he doesn't have to show up
8 next time.

9 MR. WELBERS: He doesn't have to show up.

10 MR. JACOBI: He's expensive.

11 MR. WELBERS: I would actually think you,
12 as the attorney, could make the closing
13 arguments if Reuben doesn't want to come from
14 Oregon. There's no new testimony needed from
15 him.

16 MR. JACOBI: Very good.

17 MR. WELBERS: He wouldn't have to come.

18 MR. JACOBI: I will not make that decision
19 on behalf of Reuben.

20 MR. WELBERS: No, of course not. No,
21 wouldn't want you to. And he may want to come.
22 You know, it is a long way from Oregon. That's
23 a lot of travel.

24 So we're recessed. I think I said

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everything I was supposed to say here.

7 o'clock, October 29th.

MS. DONARSKI: Right here in this room.

MR. JACOBI: Same place.

MR. WELBERS: Same place. Closing arguments, stipulations, and the Board will vote. Hopefully we'll have all five members so there's no potential for a deadlock.

(The hearing was recessed at
9:16 p.m.)

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Now on this 15th day of October, 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

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