

STATE OF ILLINOIS)
)SS
COUNTY OF LEE)

In the Matter of the Petition
 of
South Dixon Solar Development
Lee County, Illinois

Testimony of Witnesses
Produced, Sworn and
Examined on this 7th day
of December, A.D., 2020,
before the Lee County
Zoning Board of Appeals

Present:

Craig Buhrow
Glen Hughes
Gene Bothe
Rex Meyer
Bruce Forster, Chairman

Alice Henkel, Secretary
Dee Duffy, Zoning Enforcement Officer

Honorable Judge Tim Slavin, Facilitator

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1 JUDGE SLAVIN: Good evening, everyone.
2 Welcome back. I call out of recess Lee County
3 Zoning Board of Appeals Hearing on Petition
4 Number 20-P-1558, South Dixon Solar, LLC's,
5 request for a Special Use Permit to construct a
6 solar energy system in South Dixon Township.

7 For those of you who are not on Zoom but
8 may be otherwise listening, the Zoom meeting ID
9 is 915-3923-9145 --

10 MS. DUFFY: Judge.

11 MR. BOONSTRA: We don't have YouTube going
12 yet.

13 MS. HENKEL: We should be good.

14 JUDGE SLAVIN: I'll start again, ladies
15 and gentlemen. We weren't on the YouTube feed,
16 so I'll start again.

17 I call out of recess the Lee County Zoning
18 Board of Appeals hearing on Petition 20-P-1558,
19 South Dixon Solar, LLC's, request for a Special
20 Use Permit to construct a solar energy system in
21 South Dixon Township.

22 For those of you who are listening but had
23 not yet written down the Zoom meeting, list --
24 listening on something other than Zoom,

1 obviously, the Zoom meeting ID is 915-3923-9154,
2 and the password is 209840.

3 As to YouTube, on your computer or
4 cellphone user browser, go to www.youtube.com,
5 and in the search bar type in "Lee" space
6 "County" space "IL", short for Illinois,
7 "Zoning" space "Board" space "of" space
8 "Appeals," and there's no need to be concerned
9 with upper or lower cases. Find the session you
10 want, which obviously would be -- well, not
11 obviously, but if you want tonight, find
12 December 7th, fill in it -- fill that in, in the
13 popup, and whala.

14 For technical assistance, you may feel
15 free to call 815.973.3449. That's Zoning
16 Officer Duffy's technical assistance line.

17 All right. I note for the record that in
18 personal attendance are the Chair of the ZBA,
19 Mr. Forster; Vice Chair, Mr. Buhrow; Mr. Bothe
20 is present, as is Mr. Hughes and Mr. Meyer.

21 The State's Attorney is in the back of the
22 room but not in it. Petitioner, Mr. Kyle Barry,
23 is present with one of his representatives --
24 his client's representatives. Alice Henkel, our

1 IT specialist, is present, as is Callie, our
2 ever-vigilant court reporter, and myself.

3 Ms. Duffy is hanging on the outside edge
4 of the room because, by my count, that is ten
5 people, the limit under the present mitigation
6 tier in Illinois.

7 In the rear jury room there is space for
8 more people.

9 Can somebody hear me and tell me how many
10 people are back in the jury room?

11 MS. DUFFY: (Indicating.)

12 JUDGE SLAVIN: And Ms. Duffy is holding up
13 her hand, five people.

14 So the total number in person, ten, and in
15 person in the building but not in this hearing
16 room is another five. I guess I won't keep
17 count of the people on Zoom.

18 All right. For those of you who are in
19 the hearing room or in the rear jury room, if
20 you would please take out your cell phones and
21 either turn them off or at least put them on
22 silent, that would be appreciated.

23 Mr. Barry, when we left off on Thursday,
24 you were in the midst of presenting your

1 evidence, and you may continue.

2 MR. BARRY: Thank you, Judge Slavin.

3 I'd like to present as our next witness
4 Jason Cooper.

5 MS. DUFFY: Can't hear him.

6 MS. HENKEL: It's on.

7 MR. HUGHES: It says it's on. It should
8 be -- huh, that's weird.

9 JUDGE SLAVIN: Want me to hit it again?

10 MS. DUFFY: Five.

11 JUDGE SLAVIN: It was green. I'll turn it
12 off and then I'll turn it on again.

13 MS. DUFFY: Do you want to turn it off,
14 Judge?

15 JUDGE SLAVIN: Yes, ma'am.

16 MS. DUFFY: Now try it. Number three.

17 JUDGE SLAVIN: Turn off five, go to three.
18 Turn off three.

19 All right. As I was saying, Mr. Barry,
20 before we had another microphone problem, you
21 may proceed.

22 MR. BARRY: Thank you, Judge Slavin.

23 I'd like to call as the Applicant's -- I
24 think we have got a --

1 MS. DUFFY: Yeah, we do.

2 Try number nine.

3 JUDGE SLAVIN: Nine, okay.

4 MS. DUFFY: Try that.

5 MR. BARRY: Thank you, Judge Slavin. As
6 the Applicant's next witness, I'd like to call
7 Jason Cooper.

8 JUDGE SLAVIN: Who is on Zoom?

9 MR. BARRY: Yes, he's participating
10 remotely.

11 JUDGE SLAVIN: Mr. Cooper, can you hear
12 me?

13 He said yes, but we couldn't hear him.

14 JUDGE SLAVIN: Okay. We need you to turn
15 on your audio.

16 MR. COOPER: Yes, I can hear you. Can you
17 hear me?

18 JUDGE SLAVIN: Yes. Okay. Great. Want
19 to raise your right hand for me, please.

20 (Jason Cooper was duly sworn.)

21 JUDGE SLAVIN: Thank you.

22 And you may inquire.

23 MR. BARRY: Thank you.

24 JASON COOPER (via Zoom),

1 having been duly sworn, was examined and
2 testified as follows:

3 DIRECT EXAMINATION

4 BY MR. BARRY:

5 Q. Could you please state your name for the record
6 and spell it.

7 A. Jason Cooper, J-A-S-O-N, C-O-O-P-E-R.

8 Q. Thank you.

9 Mr. Cooper, could you tell us a little bit
10 about your background, please?

11 A. Yes. I'm a licensed civil engineer in the
12 state of Illinois. I specialize in site
13 development, drainage design, erosion control
14 design, water quality design, and permitting for
15 renewable energy projects and commercial
16 developments.

17 My focus over the past five years has been
18 mainly in the Midwest, particularly in Illinois.
19 I have worked on over 100 solar project
20 developments to date, ranging in size from
21 1 megawatt to 500 megawatts.

22 Q. So have you performed any reviews for solar
23 energy projects then?

24 A. Yes.

1 Q. And how many of those would have been in
2 Illinois?

3 A. Over 50.

4 Q. Thank you.

5 A. Including the Paw Paw Community Solar Project
6 that's actually located in Lee County as well.

7 Q. Thank you.

8 Are you familiar with the South Dixon
9 Solar Project?

10 A. Yes. I have led and/or commissioned the
11 preparation of the zoning site plan, the
12 vegetative landscape buffer exhibit, glare
13 analysis, noise analysis, and the
14 decommissioning plan that are included in the
15 Special Use Permit application and that we will
16 be discussing here tonight.

17 MR. COON: Do you have the PowerPoint?

18 MS. HENKEL: I do not. Does Ms. Duffy
19 have the flash drive with the PowerPoint?

20 MS. DUFFY: What's that?

21 MR. COON: Do you have the PowerPoint? I
22 don't recall if we sent it to you.

23 MS. DUFFY: I did not receive it.

24 JUDGE SLAVIN: Let's go off the record,

1 take a break, you guys can get yourself
2 organized, unless -- if you don't have it, you
3 don't have it.

4 MR. BARRY: Yeah, we obviously have the
5 hard copy.

6 JUDGE SLAVIN: I understand. Off the
7 record.

8 (A discussion was held off the
9 record.)

10 (Petitioner's Exhibit Number 2
11 marked for identification.)

12 Q. (By Mr. Barry:) Thank you, Mr. Cooper. I
13 understand you have a PowerPoint presentation?

14 A. Yes.

15 Q. Okay. Let's turn to Page 2 of the PowerPoint
16 presentation.

17 Mr. Cooper, did you contribute to the
18 design of the site plan for the South Dixon
19 Solar Project?

20 A. Yes.

21 Q. And is that site plan Appendix D to the permit
22 application?

23 A. Yes.

24 Q. Okay. Can you tell us a little bit about how

1 you designed and prepared the site plan, please?

2 A. Yes. So the -- what you see on the PowerPoint
3 screen right now is a picture of the overall
4 site plan for the entire development. You can
5 see, there's a legend on the right side
6 highlighting the documents. And there will be
7 some blow-ups of this as well.

8 But what's shown there is, the black area
9 is where the solar panel arrays will be, the red
10 line is the project limits, the yellow stars are
11 site access locations, and then the light blue
12 is existing FEMA floodplain that is mapped.

13 So to start, I want to walk you through
14 kind of the process that we go through in
15 preparing these site plans. So the first step
16 that we do is, we create what we call a
17 constraints map base file, and what this base
18 file does is, it incorporates all existing
19 features that are available, such as wetlands,
20 streams, floodplains, existing topography,
21 overhead utility lines, we acquire the GIS
22 property information from the County as well to
23 get all the property owner information and
24 property lines incorporated, and then we go in

1 and put in the setback requirements that are
2 specified in the Lee County Zoning Ordinance.

3 What that does is, it gives us what we
4 call a buildable area, and once we have that
5 buildable area, we'll go through and we'll start
6 locating the solar arrays based on the
7 dimensions and specifications from the panel
8 manufacturers to locate those throughout the
9 site in an attempt to maximize the efficiency
10 and output of the solar farm, while minimizing
11 the impact to the existing site features and
12 maintaining setback requirements through the
13 County.

14 Once we have got the solar arrays laid
15 out, we'll then locate the equipment pads or the
16 inverters and transformers, and those are
17 located as centrally as possible to the project
18 in order to minimize any impacts via sound or
19 view from the outside of the solar development.

20 Once those equipment pads are located,
21 we'll then put in our access roads to provide
22 maintenance routes to all of those equipment
23 pads. Then finally, we'll put in the perimeter
24 security fence, as well as the access gates.

1 I'll flip through a few of these zoomed-in
2 site plans now on the presentation. These were
3 mainly included to reference back to if there
4 are any questions on specific areas of the site
5 plan, so that we can come back to them.

6 Once we've got the site plan completed, we
7 will go in and we actually analyze the existing
8 residents, both participating and
9 nonparticipating, and the existing vegetative
10 screening around those. And in areas and
11 instances where we are within 500 feet of an
12 existing residence and there's not an existing
13 screen in place, we'll go ahead and install a
14 landscape buffer, which you can see highlighted
15 on green here as proposed vegetative buffer, and
16 these are located throughout the site where you
17 see residents and buffers are required.

18 Q. Okay. Are you finished with the slides on the
19 site plan, Mr. Cooper?

20 A. Yes. The only other point that I will
21 highlight is, you can see we have avoided all of
22 the floodplains on the site plan, and that was
23 intentional for the development.

24 Q. Okay. Thank you.

1 Mr. Cooper, do you typically advise
2 clients to site facilities in a floodplain?

3 A. We do not.

4 Q. And I believe that the -- I think you called
5 out the floodplain on at least one of the site
6 plan maps, correct?

7 A. Correct, yup.

8 Q. And are there any panels located within the
9 floodplain for the South Dixon Project?

10 A. There are not, no.

11 Q. Thank you.

12 All right. I'd like to turn to the first
13 slide -- thank you -- after the site plan map.
14 It's called Landscape Buffers.

15 Mr. Cooper, did you prepare a landscape
16 buffer plan for the South Dixon Solar Project?

17 A. Yes, we prepared this -- the proposed plan for
18 vegetative buffer.

19 Q. Is that plan Appendix L to the permit
20 application?

21 A. Yes.

22 Q. Could you please provide an overview of the
23 details of the landscape buffer plan you
24 prepared?

1 A. Yes. So as noted previously in the site plan,
2 we went ahead and denoted on the site plan the
3 areas that would require additional screening
4 where there wasn't existing screening and
5 vegetation in place within 500 feet of the solar
6 arrays, and we developed a landscape -- a
7 typical landscape buffer plan, which you can see
8 here on the screen, that includes staggered rows
9 of evergreen trees and shrubs in approximately a
10 20-foot-wide buffer area, and specified that the
11 trees must reach a minimum height of 8 feet
12 within three years of planting, and with the
13 goal being to provide as close to a uniform
14 screening of the site in these locations as
15 possible.

16 Q. All right. Thank you.

17 Could you turn to the next slide, please,
18 Stormwater/Ground Cover.

19 Mr. Cooper, have you served as the
20 licensed engineer of record for civil
21 engineering design on utility-scale solar
22 projects?

23 A. Yes.

24 Q. Can you walk us through the industry standard

1 for stormwater management on utility-scale solar
2 projects?

3 A. Yes. I'd like to start by highlighting an
4 abstract that was issued by the American Society
5 of Civil Engineers a few years ago titled "The
6 Hydrologic Response of Solar Farms." A snip of
7 that is what you see on the slide here as well,
8 and this is an appendix in the packet as well.

9 The report analyzed the effects of solar
10 panels over vegetative ground cover, and
11 professional engineers and members of the
12 American Society of Civil Engineers analyzed
13 different spacings and elevation requirements
14 and modeled that in the stormwater runoff and
15 how that affected the stormwater volume and
16 runoff from the panels when elevated over an
17 existing grassy field.

18 And what the report concluded is that
19 solar panels that are installed, ground-mounted,
20 such as the South Dixon Project and elevated
21 above an existing grassy, pervious field, that
22 there would not be much, if any, of an impact --
23 sorry, much of an effect on the volume of
24 runoff, the peak discharge, nor the time to

1 peak.

2 So with that fundamental model, we leaned
3 on this. And as a professional engineer, I
4 agree with the findings of this abstract and the
5 models that were ran as a part of it.

6 I'm going to flip to the next slide, which
7 has a graphic that I would like to use in
8 highlighting our approach to modeling the
9 stormwater.

10 So when we get to the final engineering
11 portion of the project, the very first step to
12 modeling surface water and stormwater is to
13 analyze the existing ground cover. And so for
14 South Dixon and for many of our projects here in
15 the Midwest and in Illinois, the existing ground
16 cover is agricultural farmland. And so you can
17 see in this graphical exhibit the difference
18 between the ground cover agricultural versus a
19 well-managed solar farm.

20 So part of our, what we call best
21 management practices and approach to
22 establishing a better ground cover condition in
23 the proposed scenario is to install a local
24 prairie grass or pollinator mix that's a

1 well-vegetated ground cover. And by doing so,
2 we're actually increasing the infiltration of
3 the ground cover and decreasing the stormwater
4 runoff. This also helps to maintain the
5 existing soil on site and avoid any sort of
6 runoff in soil that may be, you know, in the
7 current condition running off into the drains --
8 the drains and streams as well.

9 So in addition to this, the other item
10 that we highly recommend as part of the final
11 engineering is what we call a 2G Hydrology
12 Study. And basically what the hydrology study
13 does is, it takes into account all of the land
14 that is draining -- surface draining through the
15 project and analyzes that for the 100-year storm
16 event to determine where the 100-year flood
17 elevation is, as well as the potential for
18 scour. And what that means is, the potential
19 for the velocity of the water running through
20 the area to erode any of the ground underneath
21 of the solar panels.

22 And so the goal of this is to determine
23 where there would be flooding, localized
24 hundred-year flooding, in addition to the FEMA

1 map floodplains, because there will be areas of
2 localized flooding, whether there's low
3 depression areas or areas within these
4 agricultural fields that may pond up during a
5 100-year event that aren't mapped during -- by
6 FEMA.

7 During the final engineering process, this
8 will allow us to recommend solar panels not be
9 located in those areas and/or provide mitigation
10 efforts to ensure that there are no impacts to
11 the stormwater runoff during the proposed
12 design.

13 Q. Thank you, Mr. Cooper.

14 You referenced the American Society of
15 Civil Engineers Hydrology Abstract. Is that
16 abstract Appendix T, as in Thomas, to the
17 application?

18 A. Yes.

19 Q. Thank you.

20 Mr. Cooper, are you familiar with the
21 South Dixon Project's drainage tile repair plan?

22 A. Yes. Yes, the plan is Appendix K to the permit
23 application. It essentially incorporates all of
24 the AIMA requirements, which is part Appendix U

1 to the application, and outlines the methods and
2 requirements for drain tile repairs caused by a
3 project's construction activities. The
4 project's next witness, Tom Huddleston, is
5 actually going to cover the drain tile response
6 in more detail.

7 I would also like to highlight that the
8 portion of the stormwater and ground cover that
9 I just discussed here is in regards to the
10 surface water runoff, and Tom Huddleston will be
11 discussing drain tile and subsurface drainage.

12 Q. Thank you.

13 Now, you mentioned an acronym, AIMA. Is
14 that the Agricultural Impact Mitigation
15 Agreement?

16 A. Yes.

17 Q. And, again, I think you said that's Appendix U
18 to the application, correct?

19 A. Correct.

20 Q. All right. Thanks.

21 Let's turn to the next slide, please.

22 Okay. Mr. Cooper, did you perform a glint
23 and glare analysis or commission the preparation
24 of a solar glint and glare analysis for the

1 South Dixon Solar Project?

2 A. Yes.

3 Q. And is the solar glint and glare analysis that
4 was prepared for the project Appendix N, as in
5 Nancy, in the application materials?

6 A. Yes.

7 Q. Okay. Mr. Cooper, could you please discuss the
8 analysis and the methodology that was used to
9 prepare the glint and glare study?

10 A. Yes. Yes, the glare analysis utilized is a
11 software called the Solar Glare Hazard Analysis
12 Tool, or SGHAT. The analysis takes into account
13 all of the locations of the proposed solar
14 arrays based on the site plan previously noted
15 this evening.

16 And the model analyzes every hour of the
17 day throughout the year, assuming full sun and
18 no clouds, and it extrapolates that against the
19 range of the tracking system which follows the
20 sun throughout the day and analyzes whether at
21 any point during that year there is any glare
22 along the points of analysis.

23 The study analyzed the Dixon Municipal
24 Airport, as well as two-way traffic along

1 adjacent roadways. The study concluded that in
2 no instance along these observation points was
3 there reflective glare potential for an issue or
4 hazard.

5 Q. Mr. Cooper, are you familiar with the Lee
6 County Solar Ordinance's requirements for
7 aviation and solar glare?

8 A. Yes.

9 Q. And is that provision or those requirements
10 found in Section 4.1(J) of the Solar Ordinance?

11 A. Yes.

12 Q. Does the glint and glare analysis demonstrate
13 that the South Dixon Solar Project will comply
14 with Section 4.1(J) of the Solar Ordinance?

15 A. Yes. The glare study analyzed the adjacent
16 roadways and municipal airport and confirmed
17 that in no instance along those observation
18 points was reflective glare an issue or hazard.

19 Q. Thank you.

20 Let's turn to the next slide, please.

21 Mr. Cooper, did Kimley Horn prepare a
22 noise analysis for the South Dixon Solar
23 Project?

24 A. Yes.

1 Q. And is that noise analysis Appendix N, as in
2 Nancy, in the permit application?

3 A. Yes.

4 Q. All right. Could you please discuss the
5 analysis and the methodology used to prepare it?

6 A. Yes. I'd like to start by talking about what
7 you see on the screen here. It's an exhibit
8 showing common environmental noise levels and
9 the decibel level generated by those.

10 So the decibel, or dBA, is the typical
11 unit used to describe noise levels, and the Lee
12 County Zoning Ordinance specifies that a maximum
13 50 decibels is allowed at the property line next
14 to residents.

15 So you can see, for reference down here,
16 we have got rustling of leaves at approximately
17 15 decibels, all the way up to the top for a jet
18 engine at 140. Around the 45- to 50-decibel
19 levels would be the noise that you would expect
20 to hear from a running refrigerator. So
21 relatively quiet noise per the environmental
22 noise levels.

23 So I'm going to go to the next slide and
24 talk a little bit more about the noise analysis

1 and the software that was utilized to analyze
2 the noise.

3 A software called Sound Plan was utilized
4 to predict the maximum noise levels at the
5 residential land uses surrounding the
6 development. And the way that this noise
7 analysis works is that we take into account all
8 of the existing equipment that's going to be
9 located interior to the site, the inverters and
10 transformers, which you can see here highlighted
11 by the red dots on the map, and the Sound Plan
12 Noise Analysis, we then input in the
13 manufacturer's specification for anticipated
14 noise levels at 1 meter away from the equipment
15 and then extrapolate that out through the
16 software to determine the anticipated noise
17 levels further out from the equipment.

18 What the report analyzed, that the
19 anticipated noise levels range between 37 and
20 46 decibels at the residential property lines --
21 actually, at all the property lines surrounding
22 the solar farm. These predicted noise levels
23 are below the noise level limits of 50 dBA, per
24 the Lee County Ordinance. The noise analysis

1 also confirmed that we are below the Illinois
2 Pollution Control Board's octave band sound
3 pressure level requirements. So both of these
4 were met at the property line, based on the
5 noise analysis, and are not expected to be
6 exceeded, based on the study.

7 I would like to add that in addition to
8 the original noise analysis that was completed,
9 our team completed a supplemental noise
10 analysis. The original report focused mainly on
11 the Lee County requirements for the study. They
12 did confirm that the IPCB, or the Illinois
13 Pollution Control Board, requirements had been
14 met, but in order to provide a more
15 comprehensive analysis, we went ahead and
16 provided the additional memo and study in order
17 to highlight the breakdown of the octave band
18 requirements that are required by the Illinois
19 Pollution Control Board. And, again, we were
20 able to confirm that, you know, both Lee County
21 and the IPCB requirements are met for the
22 maximum dBAs allowed at the property lines.

23 Q. Okay. Thank you, Mr. Cooper.

24 I want to take a step back and ask a

1 couple quick questions about the slide that's up
2 on the screen right now.

3 I see a bunch of circles. Do those
4 circles identify the sources of noise emission
5 in the project?

6 A. Yes. So the circles are actually highlighted
7 bands of levels of dBA. So the red circles are
8 obviously the closest concentration to the
9 equipment, so the highest dB(E) levels. So it
10 is accurate to say that those are the locations
11 of the equipment.

12 Q. And just to be clear, when you refer to the
13 equipment, what are you referring to?

14 A. The inverters and transformers which will be
15 used to transform the electricity into the
16 appropriate use to be able to interconnect into
17 the grid.

18 Q. So the inverters and transformers are the
19 equipment associated with South Dixon Solar that
20 will generate noise, generally speaking,
21 correct?

22 A. Correct. Correct.

23 Q. And just to summarize then, your study, which
24 again is included in Appendix N to the permit

1 application, concluded that the sources of noise
2 emission for the South Dixon Solar Project will
3 not exceed the Lee County or Illinois Pollution
4 Control Board limitations, correct?

5 A. Yes.

6 MR. BARRY: All right. Judge Slavin,
7 this --

8 Q. (By Mr. Barry:) Well, before I -- before I ask
9 the judge a procedural question, Mr. Cooper, you
10 mentioned that you have a new document that you
11 wanted to submit that addresses in more detail
12 the Illinois Pollution Control Board noise
13 limits.

14 Would you describe that as illustrative in
15 nature?

16 A. I'm not sure I follow the question. It's a --
17 it's a one-page memo that documents in more
18 detail what was provided in the original report.
19 So it provides more detail.

20 Q. Okay. Thank you.

21 MR. BARRY: Judge Slavin, I'm going to --
22 at the end of Mr. Cooper's testimony I'm going
23 to ask a question about entering some of these
24 documents into the record.

1 This is a new document, so this is
2 distinguishable from the other ones. So is it
3 okay -- should I just wait and ask about that
4 with the rest of the remaining documents?

5 JUDGE SLAVIN: That's entirely up to you,
6 but I do want to be able to display it on the
7 screen, out of fairness to everybody.

8 MR. BARRY: Okay. Well, we'll have to
9 talk about how to do that then, unless,
10 Mr. Cooper, are you able to display the one-page
11 supplement on your screen?

12 THE WITNESS: Possibly. Can you see the
13 site plan right now?

14 MR. BARRY: Well, we see the noise
15 analysis map.

16 THE WITNESS: Okay. It did not change to
17 the site plan?

18 MR. BARRY: No.

19 THE WITNESS: Okay. Yes, I can certainly
20 bring it up and present it. Would you like me
21 to try and do that now?

22 MR. BARRY: Sure.

23 THE WITNESS: Okay. Let's see how
24 efficient I can be. All right. Let's see, come

1 down here to -- do you now see the new one-page
2 memo with octave band breakdown?

3 MR. BARRY: We can, yes.

4 THE WITNESS: Yes, so it's a one-page
5 memo. So this is the extent of the addition.

6 JUDGE SLAVIN: When the time comes, I'll
7 mark that Petitioner's 3.

8 MR. BARRY: Thank you.

9 Q. (By Mr. Barry:) Is there anything more you
10 would like to say about the memo, or should we
11 move to the next topic?

12 A. I'm going to move to the next topic.

13 Q. Okay. Thank you.

14 So let's go to the last slide in your
15 presentation, and it covers the decommissioning
16 plan?

17 A. Yes. Can you see the slide now?

18 Q. We can, yes.

19 All right. Mr. Cooper, did you prepare a
20 decommissioning plan for the South Dixon Solar
21 Project?

22 A. Yes.

23 Q. Is the decommissioning plan you prepared for
24 the project Appendix R in the application

1 materials?

2 A. Yes.

3 Q. All right. Could you please discuss the plan
4 and the methodology you used to prepare it?

5 A. Yes. So the components of a solar farm
6 development are relatively simple. You have got
7 the PV, or photovoltaic, equipment, which is
8 essentially your modules on the racking and the
9 piles to mount it above the ground. You have
10 got the internal power collection system, which
11 is the routing of the wiring, any sort of earth
12 work that's needed to install the entrances,
13 access roads, and fences. So those are the
14 components that can typically be expected to be
15 installed as part of a solar farm development.

16 What the decommissioning plan does is, it
17 specifies what these components are that are
18 going to be installed, and then it specifies
19 also what the process will be to decommission
20 and/or recycle those, essentially the process to
21 remove the solar farm at the end of its life
22 cycle and return the field back to its existing
23 condition as an agricultural field.

24 Within this decommissioning plan, it

1 denotes what permits will be required through
2 the State and the County, the process for
3 removing, and what is expected to remove each
4 component of the solar farm, and then how to
5 restore the site back to its existing condition.

6 In addition, prior to the building permit
7 being issued by the County, a decommissioning
8 cost will need to be submitted. That will be
9 prepared and completed prior to the building
10 permit once final engineering has been done.
11 That cost estimate will be reviewed and
12 approved by the County, and then a financial
13 assurance via financial surety and/or bond will
14 be required to be submitted to the County in
15 accordance with the Lee County Ordinance.

16 Q. All right. Mr. Cooper, speaking of the Lee
17 County Ordinance, are you familiar with the Lee
18 County Solar Ordinance's requirements for
19 decommissioning?

20 A. Yes.

21 Q. And I believe those requirements were set forth
22 in Section 4.3 of the Ordinance. Does that
23 sound right?

24 A. Yes, it does. And the decommissioning plan has

1 been modeled to make sure that each issue noted
2 in the Lee County Ordinance is addressed.

3 Q. Okay. So just to confirm, is the
4 decommissioning plan you prepared, which is
5 Appendix R to the application, consistent with
6 and in compliance with Section 4.3 of the Lee
7 County Solar Ordinance provisions?

8 A. Yes.

9 MR. BARRY: All right. Judge Slavin,
10 that's all I have for Mr. Cooper for right now.

11 Might I suggest that we take a brief --
12 have a brief discussion off the record to talk
13 about the exhibits?

14 JUDGE SLAVIN: No, but I'd like Ms. Duffy
15 to make copies of your Petitioner's 3.

16 MR. BARRY: I'm sorry, of Petitioner's
17 what?

18 JUDGE SLAVIN: Ms. Duffy is right in the
19 door. She can make copies of your Petitioner's
20 3.

21 MR. BARRY: I actually have, I believe,
22 about ten copies of it.

23 JUDGE SLAVIN: Oh. Are they all marked?

24 MR. BARRY: No.

1 JUDGE SLAVIN: Well, let's do that. Why
2 don't you mark them or somebody mark them
3 Petitioner's 3.

4 (Petitioner's Exhibit Number 3
5 marked for identification.)

6 MR. BARRY: And then I would also like to
7 request entry into evidence of the PowerPoint
8 presentation.

9 JUDGE SLAVIN: Not until everybody's had a
10 chance to question the witness.

11 MR. BARRY: Okay.

12 JUDGE SLAVIN: Just, Dee, if you don't
13 mind, just mark on them Petitioner, P-E-T,
14 hashtag 3, all of them.

15 All right. I'll let -- I'll excuse
16 Ms. Duffy from that.

17 Mr. Boonstra, if you can hear me, do you
18 have any questions of this witness?

19 Mr. Boonstra? Do you have any questions of this
20 witness?

21 MR. BOONSTRA: No, sir. Thank you.

22 JUDGE SLAVIN: Okay. Thank you.

23 Skip Ms. Duffy.

24 How about you, Mr. Forster?

1 MR. FORSTER: No questions.

2 JUDGE SLAVIN: Mr. Buhrow?

3 MR. BUHROW: Yes.

4 EXAMINATION

5 BY MR. BUHROW:

6 Q. Mr. Cooper, I think you mentioned in your
7 experience the largest solar farm you had was
8 500 megawatts; is that correct?

9 A. Yes.

10 Q. Where was that one located?

11 A. Spotsylvania County, Virginia.

12 Q. Okay. In the wetlands -- you covered a lot of
13 material here.

14 In the wetlands that are in that project,
15 do you -- is it possible to run cables through
16 those, connecting cables, or not?

17 A. So in the event we need to go through a
18 wetland, the typical process is to either
19 directional drill underneath of those or do a
20 boring underneath so that they are not impacted
21 if they are federally-regulated wetlands.

22 Q. Okay. Thank you.

23 A. Yes, sir.

24 Q. Let's see, does the -- getting onto some of the

1 other areas. The grass type -- you had an
2 infiltration study. Does the grass type that's
3 used in the project have any bearing on the
4 infiltration rate for the water that you know,
5 or have you seen that in your study?

6 A. It's a very small impact. It can, but
7 obviously the more dense the vegetation and
8 thicker of the grass and the root system, it
9 will have a nominal impact.

10 But in regards to the stormwater analysis,
11 the way that the GR 55, which is the requirement
12 that we follow on the engineering side for
13 ground cover and the actual analysis, it doesn't
14 breakdown by -- I guess, by plant type. It's
15 really just a managed turf or a prairie grass
16 are your options for ground cover.

17 Q. While we're talking about grass, the noise
18 study, is that taken -- we have seen where the
19 noise levels vary with the type of material. Is
20 that taken with bare ground or with a grass on
21 it?

22 A. Yes, it was analyzed with no site constraints
23 whatsoever. So no bare ground and then, you
24 know, no trees or anything else were included in

1 order to be conservative with the analysis.

2 Q. Okay. And in your buffers, the evergreens, is
3 that one row or more than one row of evergreens?

4 A. It was two rows staggered.

5 Q. Okay. Oh, and the other thing was the
6 inverters. Roughly how many inverters and how
7 many transformers are in this project?

8 A. I believe it's around 200, but I don't know if
9 that's 100 percent accurate. I think that when
10 Tyler, the witness previous to me, spoke, he
11 said there was about one per 20 acres, so I
12 believe it's around 200.

13 Q. Okay. What about the transformers then,
14 roughly?

15 A. They are usually on the same -- the same pad --

16 Q. Oh, okay.

17 A. -- is my understanding.

18 MR. BUHROW: Okay. That concludes my
19 questions. Thank you.

20 JUDGE SLAVIN: Thank you.

21 Mr. Bothe?

22 MR. BOTHE: No questions.

23 JUDGE SLAVIN: Mr. Hughes?

24 MR. HUGHES: Yes, just a couple questions.

EXAMINATION

1
2 BY MR. HUGHES:

3 Q. Let's go to the decommissioning plan. In the
4 decommissioning plan, you're dealing with the
5 different components here. What -- for the
6 photovoltaic equipment, what's the primary --
7 what's the general decommissioning process
8 there? What's anticipated in that process?

9 A. Yeah, so the equipment and the modules are --
10 to install these is relatively simple: you have
11 got the pile that's driven into the ground, and
12 then the racking comes prefabricated, and you
13 bolt the racking on; and then the module is
14 assembled the same way, with bolts and screws,
15 that a couple of laborers can do. They're
16 relatively, I'll say, speaking, you know, not
17 that heavy either.

18 So the process to take apart a solar, you
19 know, photovoltaic module would be to unbolt it,
20 unrack it, and then stack it and ship it out,
21 and it -- you know, our report recommends that
22 they be recycled per the manufacturer's
23 recommendations or to the maximum extent
24 possible, and then they be shipped off site to

1 the closest recycling facility at the time.

2 Q. Generally what would be those manufacturer's
3 recommendations for recycling?

4 A. I'm not able to speak to that in detail.

5 Q. Okay. The other piece would be relative to the
6 transformers and the inverters. What's the
7 primary process for decommissioning those and --
8 well, let's leave it at that part of the
9 question?

10 A. Yeah, similarly, they would not be broken down
11 on site. They would be shipped out and either,
12 you know, reutilized and refurbished and/or
13 recycled.

14 Q. Would it be more likely that they would be
15 reutilized and refurbished or would they be
16 recycled?

17 A. I'm not 100 percent sure, but I do know that
18 all of the equipment that are in those is fairly
19 valuable, so I imagine it would -- you know, if
20 it's still useful, it would be refurbished.

21 Q. Okay. Any idea what the process is for
22 recycling, if you would need to recycle those?

23 A. Unfortunately, I do not know. I'm sorry.

24 MR. HUGHES: Okay. Thank you. That's

1 all.

2 JUDGE SLAVIN: Mr. Meyer?

3 EXAMINATION

4 BY MR. MEYER:

5 Q. Any of the solar panels or anything, do they
6 have to be placarded when they're removed from
7 the site for transportation?

8 A. I'm sorry, I'm not sure.

9 MR. MEYER: No other questions.

10 JUDGE SLAVIN: All right. Mrs. Duffy, if
11 you can hear me in the doorway, do you have any
12 questions?

13 MS. DUFFY: I don't have any questions.

14 JUDGE SLAVIN: Okay. Very good.

15 We'll move to Interested Parties.

16 I think I'll start with the Zoomers on the
17 screen, Alice.

18 Those of you that have a question of
19 Mr. Cooper, if you would -- if you're on the
20 videoconferencing, if you could, on the bottom,
21 find the Participants logo, click on that, and
22 then you'll see a dropdown -- I think it's a
23 dropdown menu that says a number of things,
24 including "raise hand." If you would raise your

1 hand, that would indicate to me that you have a
2 question, and I'll start going across the top
3 until I get done with the Zoomers.

4 Okay. I see in the top left, Wendy. It
5 just says "Wendy's iPad." Wendy, if we can --
6 can't see you.

7 MS. HENKEL: She's on mute.

8 MS. EISELE: Yes, I'm here.

9 JUDGE SLAVIN: Okay. Very good.

10 There's no way we're going to remember
11 from session to session, Wendy. So would you
12 state your name, please.

13 MS. EISELE: Wendy Eisele.

14 JUDGE SLAVIN: And, Wendy --

15 MS. EISELE: E-I --

16 JUDGE SLAVIN: -- do you live within the
17 footprint of the proposed solar development?

18 MS. EISELE: I do not, but I do live in
19 Dixon.

20 JUDGE SLAVIN: Do you live within a mile
21 and a half of the boundary of the footprint?

22 MS. EISELE: Probably just outside a mile
23 and a half.

24 JUDGE SLAVIN: Do you live in Lee County?

1 MS. EISELE: Yes, I do.

2 JUDGE SLAVIN: Okay. Do you have
3 questions for Mr. Cooper?

4 MS. EISELE: Yes, please.

5 EXAMINATION

6 BY MS. EISELE:

7 Q. Wondering, on the solar panels that are along
8 the roads, how far back those are set from the
9 road?

10 A. So the County requirement is a minimum of 50
11 feet, and then we have added an additional 15
12 feet to the panels. So at the closest spot,
13 they would be 65 feet off of the roadway.

14 Q. Okay. Thank you.

15 And have you done any studies on the
16 effects of blowing snow or drifting around the
17 panels in the winter?

18 A. So we haven't done any studies, but it's my
19 understanding that's typically incorporated into
20 the operations and maintenance plan for the
21 solar farm's portion of the project.

22 Q. Okay. So I'm just concerned, you know,
23 obviously it's Illinois, so --

24 JUDGE SLAVIN: Please just ask a question.

1 Q. (By Ms. Eisele:) Yes. Just -- all right. I'm
2 moving on.

3 Will the presentation be available online?

4 JUDGE SLAVIN: I don't think he knows the
5 answer to that, but we'll have Ms. Duffy address
6 that.

7 MS. DUFFY: I can put it online.

8 JUDGE SLAVIN: Just questions that the
9 witness testified about -- material the witness
10 testified about, please.

11 MS. EISELE: Oh, okay. Sorry. I thought
12 that was materially --

13 JUDGE SLAVIN: He doesn't run the website.
14 I'm sure --

15 Q. (By Ms. Eisele:) Okay. How is money set aside
16 for the decommissioning project?

17 A. So the County has a requirement for how that
18 financial surety needs to be established, and
19 it's in the Ordinance. So they'll require it to
20 be, I believe it's via bond, and maybe the
21 County Board members can specify in more detail,
22 but it will need to be established. In
23 addition, the Agricultural Impact Mitigation
24 Agreement also requires that surety be in place

1 prior to the start of the project.

2 MS. EISELE: All right. Thank you so
3 much. That's all I have.

4 THE WITNESS: Absolutely.

5 JUDGE SLAVIN: Thank you.

6 Any further raised hands? I -- people
7 sort of jump around, but, Mr. John Thompson,
8 you're in the upper left now.

9 Mr. Thompson, your name is John Thompson;
10 is that correct?

11 MR. THOMPSON: Yes, that's correct.

12 JUDGE SLAVIN: Can you move a little
13 closer to your microphone, please?

14 MR. THOMPSON: Sure. That's correct.

15 JUDGE SLAVIN: Do you live within the
16 footprint of the proposed solar development?

17 MR. THOMPSON: No, I do not.

18 JUDGE SLAVIN: Do you live within a mile
19 and a half of any of its boundaries?

20 MR. THOMPSON: No, I do not.

21 JUDGE SLAVIN: Do you live in Lee County?

22 MR. THOMPSON: Yes.

23 JUDGE SLAVIN: Okay. Thank you. Why
24 don't you go ahead and ask a question of

1 Mr. Cooper.

2 EXAMINATION

3 BY MR. THOMPSON:

4 Q. Okay. My question, Mr. Cooper, is related to
5 your role as the project site developer, in
6 other words, to do the site design, and I'm --
7 I'd like to know if you did -- either did an
8 inventory, and to what extent you did, of how
9 many nonparticipating residents there are in the
10 project area? And then in addition to that --

11 JUDGE SLAVIN: Well, just one at a time.
12 He can only answer one question at a time.

13 A. Yeah, so I'm actually the project's civil
14 engineer. The developer is Duke Renewable
15 Energy, and Tyler Coon testified last week to
16 that, and I believe another member of the Duke
17 Renewable team will be --

18 JUDGE SLAVIN: Well, he's just asking you,
19 Mr. Cooper. Did you identify --

20 THE WITNESS: Oh, no. I personally did
21 not, no.

22 JUDGE SLAVIN: Just listen to the
23 question.

24 Okay. Mr. Thompson, another question?

1 Q. (By Mr. Thompson:) Have you done such an
2 analysis in other projects --

3 A. No.

4 Q. -- on nonparticipating residents, inventory
5 dealing with those folks?

6 A. No, but it's not typically our role as a civil
7 engineer.

8 Q. Okay. You mentioned the glint and glare impact
9 studies --

10 A. Yes.

11 Q. -- were conducted chiefly to analyze any
12 effects at what you referenced, I believe, as --
13 what did you call them -- observation points or
14 something like that, roadways, et cetera.

15 So are there areas on the site where glint
16 and glare would pose a significant impact? And
17 if there are, would they be anywhere where there
18 would be typically, you know, residential areas
19 that --

20 JUDGE SLAVIN: Let's just try and ask one
21 question at a time. He doesn't know which
22 question to answer first.

23 So are there any areas that would have --
24 in the project area that would have glare

1 impacts, Mr. Cooper?

2 A. So our study analyzed the requirements per the
3 Lee County Ordinance, and it identified no areas
4 where there would be any sort of issue for glare
5 to the public.

6 Q. Okay. I understand your answer.

7 Does the Lee County Ordinance reference
8 any glare outside of the areas that you would
9 have been analyzing based on the Ordinance?
10 That's kind of a catch-22 question.

11 A. Okay. Yeah, so the Ordinance states that we
12 need to ensure that -- I can read it. That any
13 glare produced does not have a significant
14 adverse impact on neighboring or adjacent uses
15 either through siting or mitigation.

16 Q. Okay.

17 JUDGE SLAVIN: Any other questions,
18 Mr. Thompson?

19 MR. THOMPSON: No, I don't believe so.

20 JUDGE SLAVIN: Thank you.

21 Erin Thompson.

22 MS. THOMPSON: Yes, hello. Can you hear
23 me?

24 JUDGE SLAVIN: Yes. Erin, would you state

1 your name, please? Erin Thompson, correct? I'm
2 sorry.

3 MS. THOMPSON: Yes, Erin Thompson.

4 JUDGE SLAVIN: And, Erin, do you live
5 within the boundaries of this proposed project?

6 MS. THOMPSON: Yes, I do.

7 JUDGE SLAVIN: Okay. Go ahead and ask a
8 question of Mr. Cooper.

9 EXAMINATION

10 BY MS. THOMPSON:

11 Q. Okay. So my question is that -- the vegetative
12 barrier that's provided will be in place. My
13 question is, can -- will residents be allowed to
14 plant additional vegetation on that property,
15 such as additional shrubs, flowers, something
16 like that, to further improve what they're
17 having to look at?

18 A. I don't know that I can answer that, as not
19 being the developer and owner, but maybe when
20 Duke Renewable Energy comes up, they can. I do
21 not --

22 JUDGE SLAVIN: Please just answer the
23 question, Mr. Cooper.

24 A. I don't know.

1 MS. THOMPSON: Okay. That was my only
2 question.

3 JUDGE SLAVIN: Okay. Thank you.

4 MS. THOMPSON: Thanks.

5 JUDGE SLAVIN: Denise Burrs, if you can
6 hear me. Ms. Burrs, would you state your name,
7 please.

8 MS. BURRS: Denise Burrs.

9 JUDGE SLAVIN: And do you live within the
10 project boundary, Ms. Burrs?

11 MS. BURRS: I do not.

12 JUDGE SLAVIN: Do you live within a mile
13 and a half of any of its boundaries?

14 MS. BURRS: I do not.

15 JUDGE SLAVIN: Do you live in Lee County?

16 MS. BURRS: Yes, I do.

17 JUDGE SLAVIN: Okay. Why don't you go
18 ahead and ask Mr. Cooper any questions you have.

19 MS. BURRS: Thank you.

20 EXAMINATION

21 BY MS. BURRS:

22 Q. I have two questions about the landscape
23 buffer. One, if you can scroll back to there,
24 I'd appreciate it.

1 I know it's hard to see the small print on
2 small screens, but what does it say
3 underneath -- oh, I can't even move my window
4 out of the way. But what does it say when it
5 says -- Evergreen, 15-foot height, max, is that
6 what it says?

7 A. Yes.

8 Q. So what has to happen to keep it 15 foot or
9 less?

10 A. So there's a combination of ways. It can be a
11 specified species, what would essentially be
12 classified as a shrub but to everyone it would
13 look like an evergreen tree, or there's also the
14 option for operations and maintenance to trim
15 the trees so that they don't grow that high.

16 I would say more times than not it's the
17 latter, of specifying a species that gets to
18 that height and then typically stops.

19 Q. And how -- is there any requirement for the
20 height of the shrub when it's initially planted?
21 I mean, you have 11 trees in a 100-foot space --

22 JUDGE SLAVIN: Just ask a question.

23 MS. BURRS: Okay.

24 A. Yeah, so there's not a requirement, but we do

1 specify that they must be at 8 feet within three
2 years. So the species, you know, must grow that
3 quickly to be at that height within three years
4 of planting.

5 Q. (By Ms. Burrs:) Okay. And then my other
6 question has to do -- or another question about
7 the landscape buffer. Is there any study or
8 consideration for wildlife movement, such as
9 coyote? fox? deer? I mean, the chain link fence
10 probably is not a problem for deer, but smaller
11 animals?

12 A. No.

13 Q. Has that ever been an issue on any of the other
14 projects you have done?

15 A. Not to my knowledge, no.

16 Q. Okay. And then my last question is, you worked
17 in other counties and other states. Are Lee
18 County Ordinances generally less or more strict
19 in their requirements than other counties?

20 A. I would say they are very similar.

21 MS. BURRS: All right. Thank you. That's
22 all I have.

23 JUDGE SLAVIN: Thank you.

24 I'm still working across the top. A.

1 Lusz, I think that's Mr. Lusz, Adam Lusz. Can
2 you hear me?

3 MR. LUSZ: Yes. Good evening. Can you
4 hear me?

5 JUDGE SLAVIN: Yup. Would you state your
6 name, please.

7 MR. LUSZ: Adam Lusz.

8 JUDGE SLAVIN: And, Mr. Lusz, do you live
9 within the project boundaries of the proposed
10 solar SES?

11 MR. LUSZ: No, I do not.

12 JUDGE SLAVIN: Do you live within a mile
13 and a half?

14 MR. LUSZ: Yeah, I would say so.

15 JUDGE SLAVIN: Okay. Go ahead, questions
16 of Mr. Cooper.

17 EXAMINATION

18 BY MR. LUSZ:

19 Q. Mr. Cooper, on your slides, if you would be
20 able to forward through -- on your slides, you
21 were the one that applied setbacks to different
22 properties of nonparticipating residents,
23 correct?

24 A. That was Tyler Coon, in the last testimony.

1 Q. The site plan design though, on your site plan
2 that you have here --

3 A. Yes.

4 Q. -- you applied setbacks to different residents
5 that are shown here, correct?

6 A. Not different residents, but setbacks are
7 included, yes.

8 Q. Okay. On this slide that you have here
9 there's, it looks like, a house potentially
10 that's next -- on 20- -- that's Highway 26, and
11 there's the river essentially that flows
12 through, and there's a large setback around that
13 residence that your cursor is by. What is that
14 setback? On your site plan there, what's that
15 setback?

16 A. What's the dimension?

17 Q. Yeah. How far is that setback right there on
18 that property?

19 A. I'm not sure, off the top of my head. I would
20 have to look into it a little more.

21 Q. Is that setback more excessive than other
22 properties that are within the site plan?

23 A. It appears so.

24 Q. Okay. Is that a landowner that's a

1 participating landowner on that site right there
2 in this project?

3 A. I'm not certain. I'm looking at it, and I
4 honestly am not sure.

5 Q. How many different setbacks were applied when
6 you did your site plan here?

7 A. So we followed all of the Lee County Ordinance
8 setbacks, which, off memory, is, you know, 50
9 feet from the property lines, there's no
10 setbacks for residents that are zoned -- you
11 know, zoned Agricultural. If they are zoned
12 Residential, there's a 100-foot setback -- or,
13 sorry, a 300-foot setback.

14 For the parcels though, all of our
15 residents that are nonparticipating have a
16 100-foot residential setback from the property
17 line. So any nonresidential property, we
18 implemented a 100-foot setback, which is in
19 addition to the requirements in the Lee County
20 Ordinance and actually not required if they are
21 zoned Agricultural.

22 Q. Was there a consistent setback applied to every
23 residence that's within the site plan?

24 A. Yes, that was the intent.

1 Q. Is there more setback to some properties and
2 less to others?

3 A. There could be, yes, based on just the layout
4 and how the solar farm -- and we were maximizing
5 the space for it.

6 Q. Would it also be based on a negotiation that
7 was done with the participating landowner?

8 A. Not to my knowledge.

9 Q. So to your knowledge, there's not a larger
10 setback because that's a participating landowner
11 versus a nonparticipating landowner getting a
12 smaller setback?

13 A. Correct. In fact, in most cases it's the
14 opposite.

15 Q. Where?

16 A. I guess I'm saying -- in most instances, I
17 should say, not cases, on this particularly.

18 Q. In reference to other projects, you're saying,
19 has nothing -- what you're talking about then
20 does not apply to this project?

21 A. Yes. Yes, I mistakenly said that, you're
22 correct.

23 Q. Are there any other participating landowners on
24 this site plan that have larger setbacks offered

1 to them than just the Hermes residence that we
2 were just looking at?

3 A. Not to my knowledge.

4 Q. Can you pull up the site plan that goes to the
5 southeast corner of this project?

6 (Witness complies.)

7 Q. So in the southeast corner here, I believe this
8 to be the Book residence here. It looks like
9 the southwest corner, southeast corner here, to
10 the right of your site, there's a residence
11 there that has a massive setback.

12 A. Are you talking about the residentially-zoned
13 properties along the southeast corner?

14 Q. No.

15 A. That's a required setback that has to be met
16 because they're zoned differently.

17 Q. What is the setback around this property, if
18 you move your cursor to the right?

19 A. Here?

20 Q. To your right, actually. There you go, right
21 next to your -- there you go. There's a
22 residence there. What is the setback that was
23 offered to that residence right there?

24 A. So it's my understanding that residence is not

1 part of the development, and our lease area
2 actually ends at the red line. So we were --
3 we're not able to use that land. So there's
4 really no setback there.

5 Q. So you were instructed then to set back from
6 that residence there, that's a -- do you know
7 who may own that residential site there?

8 A. I do not, no.

9 Q. Okay. Are you familiar with the Book family
10 being a participating landowner on this site?

11 A. I am not, no.

12 Q. Are you familiar with the Book family, that
13 that -- are you familiar that would be their
14 home residence?

15 A. No.

16 Q. Okay. On your site plan, are there gravel
17 roadways that are going to be within the site
18 plan?

19 A. So they will either be native compacted ground
20 or gravel roadways. That will be determined by
21 the final geotech report.

22 Q. When does that report come?

23 A. It's typically part of the final engineering
24 process required for us to do our final

1 engineering.

2 Q. How much gravel is part of the plan to be
3 hauled into the site?

4 A. That's not known at this time.

5 Q. Are you familiar with the Illinois Association
6 of State Floodplain Managers?

7 A. I'm familiar with the acronym, yes.

8 Q. Are you a member of that association?

9 A. I am not, but members of our team are.

10 Q. You talked about being a part of Spotsylvania
11 County; is that correct?

12 A. Go ahead. Yes.

13 Q. And you were involved in that project then?

14 A. Yes.

15 Q. Did that site have flood issues?

16 A. It's still in design.

17 Q. So there's no ground broke on that project at
18 all?

19 A. Not to my knowledge.

20 Q. Any other projects in that county?

21 A. Not that I can speak to, no.

22 Q. Okay. Have you studied any large solar sites
23 that have been installed? Have you studied the
24 stormwater that comes off of those to date?

1 A. No.

2 Q. On your decommissioning plan, what dollar
3 amounts are on there per megawatt for
4 decommissioning costs?

5 A. Those have not been determined yet. They will
6 be done prior to the building permit.

7 Q. So the study then on decommissioning is not
8 complete?

9 A. It's a decommissioning plan and cost estimate,
10 but the cost estimate won't be complete until
11 final engineering.

12 Q. Have you done decommissioning plans for other
13 solar?

14 A. Yes.

15 Q. In your studies, what are average costs
16 associated with decommissioning on a
17 per-megawatt basis?

18 A. It varies drastically on the site location. I
19 can't specify an accurate number for that.

20 Q. How about a high-end number and then a low-end
21 number?

22 MR. BARRY: Objection.

23 A. I can't --

24 MR. BARRY: Answer if you can.

1 A. I can't.

2 Q. (By Mr. Lusz:) You were commissioned to know
3 the decommissioning cost though, correct?

4 A. No. We were commissioned to prepare a
5 decommissioning plan.

6 Q. Okay. Fair enough.

7 MR. LUSZ: I have no further questions.

8 THE WITNESS: Thank you.

9 JUDGE SLAVIN: Thank you.

10 Jennifer Lawson. Can you hear me,
11 Jennifer?

12 MS. LAWSON: Yes, I can. Can you hear me?

13 JUDGE SLAVIN: Great. Would you state
14 your name, please. Obviously it's -- that's a
15 stupid -- is your name Jennifer Lawson?

16 MS. LAWSON: Yes, sir.

17 JUDGE SLAVIN: Do you live within the
18 proposed project boundary?

19 MS. LAWSON: I live adjacent to the
20 project.

21 JUDGE SLAVIN: Within a mile and a half?

22 MS. LAWSON: Yes, definitely.

23 JUDGE SLAVIN: Okay. Go ahead, ask your
24 questions.

EXAMINATION

BY MS. LAWSON:

Q. How are the solar panels secured?

A. It's my understanding that they are bolted into the racking and attached.

Q. I meant physically to the ground, how are they secured to the ground?

A. Through a pier or I-beam that's pushed into the ground.

Q. Okay. So they are -- there is no wind analysis done in regards to this area?

A. Yes, there will be a structural analysis done and design for the steel and all of the structural racking as part of the final engineering.

Q. Okay. Thank you.

The last question I had was in regards to -- kind of bounces off what Adam was asking about a follow-up for stormwater. IEPA has stormwater pollution prevention plans. So will there be a follow-up stormwater prevention and analysis in regards to what you're doing for this project?

A. Yes, we will be required by the State to

1 prepare a stormwater prevention plan and an
2 erosion control plan as part of the final
3 engineering.

4 MS. LAWSON: Okay. That's all I have.
5 Thank you.

6 JUDGE SLAVIN: Thank you.

7 All right. Back room, are there any
8 questions?

9 MR. BOONSTRA: Yes.

10 JUDGE SLAVIN: Okay. Good evening. Do
11 you want to state your name for us, please.

12 MS. JOHANNSEN: Martha Johannsen.

13 JUDGE SLAVIN: And, Martha, do you live
14 within the boundary of this proposed project?

15 MS. JOHANNSEN: No.

16 JUDGE SLAVIN: Do you live adjacent --
17 within a mile and a half adjacent to it?

18 MS. JOHANNSEN: Yes.

19 JUDGE SLAVIN: Go ahead, ask your question
20 of Mr. Cooper.

21 Mr. Cooper, before she asks, are you able
22 to hear her answers?

23 THE WITNESS: Yes.

24 JUDGE SLAVIN: Okay. Go ahead.

EXAMINATION

BY MS. JOHANNSEN:

Q. Will there be any topsoil removed during your construction?

A. The intent is to have all topsoil remain onsite in accordance with AIMA. And so, no, the intent is to have topsoil remain onsite.

Q. But will that be moved from one site -- one place to another place?

A. The goal of our engineering and final engineering plan is to minimize earthwork, but that won't be determined until the final engineering.

Q. Since there are 25 different landowners, is it possible that the topsoil from Landowner 1 could then be moved to Landowner 2?

A. Yes.

Q. So that if the CPI for Landowner 1 is 143 and the CPI for Landowner 2 is 120, then Landowner 2 would benefit from this?

A. I can't answer -- I can't answer that.

Q. Will the topsoil also be removed during deconstruction?

A. No. No, the intent is to have all topsoil

1 remain in place to the maximum extent possible.

2 Q. How much sunlight does the ground beneath the
3 panels receive?

4 A. I don't know the answer to that.

5 Q. How large are these panels?

6 A. I don't believe the final specifications have
7 been determined for them.

8 Q. On the plan it calls for, there will be nothing
9 over 30 feet in height but the panels will only
10 be 10 feet. What will possibly be between 10
11 and 30 feet in height on the site?

12 A. Nothing on the site will be between those
13 ranges, outside of the proposed substation.

14 Q. How heavy is a panel?

15 A. I don't know the answer to that.

16 Q. How is the electric energy stored?

17 A. I don't know the answer to that.

18 Q. For those individuals that are completely
19 surrounded on the site, will there be glare from
20 the panels?

21 A. No. Our analysis analyzed that -- completed
22 that and determined there would be no issues or
23 hazards from glare.

24 Q. Is noise emitted 24 hours per day?

1 A. No. When the sun is not shining, none of the
2 equipment will be operating to produce the
3 sun -- or turn the sunlight into energy. So the
4 equipment will only be running during the day.

5 Q. Would the noise emitted be higher than that of
6 soybeans and corn growing?

7 A. I don't know the answer to that.

8 Q. How many poles are on each panel?

9 A. How many poles to hold --

10 Q. The panel is attached to a racking. How many
11 poles are in the ground?

12 A. It's determined during the final engineering
13 based on -- it varies based on the soil types
14 and then the equipment that's being racked to
15 them.

16 Q. What would these poles be made out of that go
17 into the ground?

18 A. They are typically steel I-beams.

19 Q. Will the poles be anchored in the ground
20 somehow or just a pole put into the ground?

21 A. Depends on final engineering, but most of the
22 time they're just pushed into the ground.

23 Q. Have any solar sites been deconstructed yet?

24 A. Not to my knowledge, in the U.S.

1 MS. JOHANNSEN: Thank you.

2 JUDGE SLAVIN: Thank you.

3 Other questions from the back room?

4 Hi, there. State your name for us,
5 please.

6 MS. SHIPPERT: Angela Shippert.

7 JUDGE SLAVIN: And, Angela, again, remind
8 us, do you live within the project boundary?

9 MS. SHIPPERT: Adjacent to. Adjacent to.
10 I'm sorry.

11 JUDGE SLAVIN: Within a mile and a half?

12 MS. SHIPPERT: Yes.

13 JUDGE SLAVIN: Okay. Go ahead, question.

14 EXAMINATION

15 BY MS. SHIPPERT:

16 Q. Mr. Cooper, what are the common materials used
17 in the manufacturing of bifacial solar panels?

18 A. I do not know the answer to that.

19 Q. Could any of the ingredients in the solar
20 panels be considered toxic or hazardous waste?

21 A. I do not know the answer to that, but somebody
22 else that's testifying at a later time may be
23 able to speak to it.

24 Q. Is lead a common ingredient in bifacial solar

1 panels?

2 A. I do not know.

3 Q. Is cadmium a common ingredient in bifacial
4 solar panels?

5 A. I do not know.

6 Q. Okay. What is the closest recycling facility
7 to this project?

8 A. I do not know at this time.

9 Q. What is the closest landfill to this project?

10 A. I don't know.

11 Q. Okay. How many metric tons of hazardous waste
12 will this solar property generate?

13 MR. BARRY: Object to the form of the
14 question.

15 JUDGE SLAVIN: I'll overrule.

16 If you can answer, answer the question.

17 A. I don't believe any, but I don't know.

18 Q. (By Ms. Shippert:) How many tons of recycling
19 would be generated from this project?

20 A. We won't know until the final layout is
21 complete.

22 Q. How long is the lifespan of a bifacial solar
23 panel?

24 A. I don't know.

1 Q. Okay. Where do these panels commonly go once
2 they're at the end of their lifespan?

3 A. We recommend that they go to be recycled per
4 the manufacturer's specifications.

5 Q. Are the costs of recycling those panels higher
6 than the costs of the initial manufacturing of
7 these panels?

8 A. That I don't know.

9 Q. Have these panels ever known to be broken by
10 wind, tornado, derecho, hail, et cetera?

11 A. I don't know.

12 Q. Is it possible if those were broken that
13 hazardous material could be released into the
14 ground or surrounding environment?

15 A. Not that I'm aware of.

16 Q. Are these panels known to leak or leach if
17 there's damage to them?

18 A. Not that I'm aware of.

19 Q. Okay. Roughly how many panels would go into
20 this project?

21 A. I don't know, off the top of my head.

22 Q. All right. If the -- if Duke were to go
23 bankrupt, who would be responsible for the
24 recycling or removal of these panels?

1 A. The decommissioning plan surety would provide
2 the funding for that to be accomplished, but
3 ultimately who would be responsible, I'm not
4 sure. I believe it would be the County, through
5 the Ordinance.

6 Q. Is there a potential for -- is there a
7 potential, if Duke goes bankrupt, that our local
8 community would have to pay for those removal
9 costs?

10 A. No. The financial surety should cover the
11 costs to decommission the solar project.

12 Q. Whom is the surety covered by?

13 A. I don't know.

14 Q. Thank you.

15 What year was the first solar panel
16 project that you engineered?

17 A. What year -- what year was the first solar
18 project I worked on?

19 Q. Yes.

20 A. 2013.

21 Q. Thank you.

22 What is the best possible backing that
23 could go behind these panels for optimum output?

24 A. I'm not sure I understand the question.

1 Backing behind the panels?

2 Q. That you're aware of, is it more productive for
3 these panels to have a white or light backing
4 rather than a green or earth backing?

5 A. Yes, for the bifacial panels.

6 Q. For bifacial panels, why would this group
7 select a project that has green space behind it,
8 given that white or light backing is better for
9 this panel type?

10 A. I can't speak to the decision behind the panel
11 selection.

12 Q. Thank you.

13 Do you know how many landowners are within
14 1.5 miles of this project?

15 A. I do not.

16 Q. How can this project claim local support when
17 only one landowner in this project lives within
18 the solar project boundary?

19 A. I can't speak to that.

20 Q. Has Duke Energy surveyed all the residents of
21 South Dixon Township about this project?

22 A. I don't know. I would have to defer to Duke.

23 MS. SHIPPERT: I have no further
24 questions.

1 JUDGE SLAVIN: Thank you.

2 Anybody else in the back room?

3 Good evening. Help us with your name,
4 please.

5 MR. SHIPPERT: My name is Brad Shippert.

6 JUDGE SLAVIN: And, Brad, you live
7 adjacent to the project?

8 MR. SHIPPERT: Adjacent to.

9 JUDGE SLAVIN: Within a mile and a half?

10 MR. SHIPPERT: Yes.

11 JUDGE SLAVIN: Okay. Go ahead, questions.

12 EXAMINATION

13 BY MR. SHIPPERT:

14 Q. Okay. Are the inverters or transformers that
15 you named here, are they air-cooled or are they
16 filled with oil and are they oil-cooled?

17 A. I don't know the answer to that, I'm sorry.

18 Q. Around the residences that are listed here,
19 will the chain link fence be on the property
20 line or set back from the property line?

21 A. Typically set back from the property line.

22 Q. So then the landscape buffer would be within
23 the chain link fence, correct?

24 A. No. No. The chain link fence will be set back

1 far enough so that the buffer is not -- is on
2 the property leased by the developer. It will
3 not be on the adjacent land. It will be outside
4 the fence.

5 Q. Oh, be outside the fence, not within the
6 boundary?

7 A. It will go property line, landscape buffer,
8 then fence. So it will be between the fence and
9 the adjacent residence, the landscape buffer
10 will be.

11 Q. Has there been any consideration to the effects
12 of a windbreak of this landscape buffer?

13 A. Can you provide a little more context of a
14 windbreak?

15 Q. Well, specifically concerned about the effects
16 of snow drifting, a windbreak would affect snow
17 drifting. So, I guess, my question is, an
18 evergreen will slow the wind, those landscape
19 buffers commonly used as a windbreak. Has that
20 been a consideration in the construction of
21 this?

22 A. No, not at this time.

23 Q. Okay. Hold on here.

24 Would the nonparticipating residents of

1 the area be able to request additional landscape
2 buffers?

3 A. That would be up to Duke Renewable Energy and
4 the landowners to discuss.

5 Q. Can you repeat the software that developed the
6 glitch/glare study analysis?

7 A. Yeah. The Solar Glare Hazard Analysis Tool, or
8 SGHAT is the general nomenclature for it.

9 Q. Okay. Did that glint/glare study have an
10 analysis on the effects of any of the
11 residences -- I'm sorry, taking into
12 consideration the glint and glare from the
13 residences?

14 A. The analysis analyzed the adjacent roadways and
15 5 feet off of those. So any single-floor
16 residence would have been analyzed as part of
17 that, and no glare intended -- or anticipated.

18 Q. So what would define as, like, a significant
19 glint or glare issue? What's the parameters
20 behind that?

21 A. It's broken down into different -- yellow and
22 green, I believe, are the different colors.

23 Let me pull this up quick and I can talk
24 about it a little more.

1 So green glare is glare with low potential
2 to cause an afterimage, flash blindness, when
3 observed prior to a blink.

4 And then yellow glare is glare with
5 potential to cause an afterimage, flash
6 blindness, when observed prior to a typical
7 blink response.

8 So think about when you're in a dark room
9 and somebody takes a picture with a camera and
10 you see that white light. That's the type of
11 analysis that would be a yellow glare study and
12 the one that would be analyzed. So that's the
13 type of analysis that was done, and in no
14 instance was that a potential issue or hazard.

15 And think about that as, you know, if
16 there was a glare and you were to get that
17 response when driving or doing something, that
18 could affect you. And so the analysis confirmed
19 that that was not anticipated anywhere where the
20 observation points were.

21 Q. So then, in other words -- well, I guess that's
22 not a question.

23 Final question, I guess, I have here is
24 that there was some setbacks from the wetlands.

1 What was the setback distance from designated
2 wetlands?

3 A. Yeah, so it was -- there's not a required
4 setback, but we put in a constructability
5 setback of 25 feet from all the wetlands.

6 Q. And that 25 feet is regardless of what kind of
7 wetland, it's just wetland in general, correct?

8 A. Yes. At this time, that's our setback, yes.

9 MR. SHIPPERT: That's all the questions I
10 have.

11 JUDGE SLAVIN: Thank you.

12 Any other folks in the back jury room --
13 former jury room? I'm sorry, just didn't hear
14 you, Charlie.

15 MR. BOONSTRA: There's one coming.

16 JUDGE SLAVIN: Okay.

17 MS. HENKEL: Judge, I have another one on
18 Zoom.

19 JUDGE SLAVIN: Okay.

20 MS. HENKEL: And then a repeat on Zoom.

21 MR. FITTS: I want to ask him.

22 JUDGE SLAVIN: Well, let's start with your
23 name.

24 MR. FITTS: Oh, okay. Charles Fitts.

1 JUDGE SLAVIN: And, Mr. Fitts, do you live
2 inside the boundary of this proposed project?

3 MR. FITTS: No.

4 JUDGE SLAVIN: Do you live within a mile
5 and a half of any boundary?

6 MR. FITTS: Yes.

7 JUDGE SLAVIN: Okay. Go ahead. What's
8 your question of Mr. Cooper?

9 EXAMINATION

10 BY MR. FITTS:

11 Q. Okay. What percent or how many acres are under
12 the panels and the -- anyway, looking at that
13 maps, it looked like it's almost --

14 JUDGE SLAVIN: That's a statement. Let's
15 just ask him a question, and I'll try and help.

16 Mr. Cooper, how many acres are under the
17 proposed panels?

18 MR. FITTS: Yeah.

19 THE WITNESS: I don't know the answer to
20 that.

21 MS. DUFFY: He doesn't know.

22 Q. (By Mr. Fitts:) Oh, well, it looks like --

23 JUDGE SLAVIN: Just questions. Let's not
24 start this again, Mr. Fitts. Remember, we just

1 ask questions now.

2 MR. FITTS: What did he say?

3 MS. DUFFY: Just ask the question.

4 MR. FITTS: Oh, he don't know?

5 MS. DUFFY: No.

6 Q. (By Mr. Fitts:) Okay. Those papers that I got
7 the other day and then the one tonight, they got
8 the boundary line running across the Three Mile
9 Branch, and it's in the floodplain. And
10 somebody just asked the question, there could be
11 vegetation 20 -- well, I don't know what you
12 call them, wetland or floodplain. The
13 floodplain is more than 25 feet, and I heard it
14 was 25 feet back from a wetland. I don't know
15 what the difference is. There is a difference?

16 JUDGE SLAVIN: I think the question is, is
17 there a difference between -- Mr. Cooper, is
18 there a difference between a wetland and a
19 floodplain?

20 THE WITNESS: Yes, there is a difference.
21 But the setback is a minimum of 25 feet from the
22 wetland, and we will not be building in a FEMA
23 floodplain.

24 MS. DUFFY: So the setback is 25 feet.

1 MR. FITTS: From the --

2 MS. DUFFY: But they're not going to build
3 in a floodplain.

4 Q. (By Mr. Fitts:) Yeah, I know, but the red line
5 goes across --

6 JUDGE SLAVIN: You're telling him.

7 Q. (By Mr. Fitts:) In some places they are not
8 going to build panels there --

9 JUDGE SLAVIN: You're doing it again.

10 (Indiscernible crosstalk.)

11 JUDGE SLAVIN: You're doing it again.

12 You're doing it again.

13 Q. (By Mr. Fitts:) Inside the --

14 JUDGE SLAVIN: Just ask him a question,
15 please.

16 MS. DUFFY: Just ask a question.

17 Q. (By Mr. Fitts:) Why is some of the floodplain
18 inside the solar farm if they're not going to
19 build panels there?

20 A. So the project area that's being leased, a
21 portion of the floodplain area is being leased
22 for the solar farm development, but just because
23 it's being leased doesn't mean that solar panels
24 will be installed there, and we will not be

1 installing any panels within the floodplain,
2 even if it is within the red project boundary.

3 MR. FITTS: What did he say?

4 MS. DUFFY: Just because they leased that
5 land doesn't mean they are going to build panels
6 on it. They can't build panels on the --

7 Q. (By Mr. Fitts:) Is the landowner getting paid
8 for that because it's inside the red line?

9 A. I don't know the answer to that.

10 MS. DUFFY: He doesn't know the answer.

11 MR. FITTS: Well, I don't either.

12 Q. (By Mr. Fitts:) Well, I'm concerned about the
13 Five Mile Branch because I'm sick of all the
14 flooding --

15 JUDGE SLAVIN: Well, you're telling us
16 things now. Just questions. If you heard my
17 speech a couple nights ago --

18 Q. (By Mr. Fitts:) Did you -- when you did your
19 analysis of the flooding or the -- well, okay.
20 The panels are -- they are not porous. The
21 rain, when it hits, the rain runs off the
22 panels. It don't fall underneath the panels.

23 JUDGE SLAVIN: I think the question,
24 Mr. Cooper, is, when it rains does the rain fall

1 off the panels?

2 Q. (By Mr. Fitts:) It rolls off the panels, it
3 don't --

4 JUDGE SLAVIN: You're telling him things.

5 Q. (By Mr. Fitts:) -- soak through.

6 JUDGE SLAVIN: You know, if I am going to
7 help you, then you've got to be quiet while I'm
8 trying to help.

9 When it rains, does the rain roll off the
10 panels?

11 THE WITNESS: Yes.

12 Q. (By Mr. Fitts:) Right. Does it?

13 A. I can -- I understand where the question is
14 going.

15 JUDGE SLAVIN: No, just answer the
16 question, please.

17 A. Yes, it rolls off the panels.

18 Q. (By Mr. Fitts:) That's what I'm asking you.
19 The panel, does the water soak through the panel
20 and fall on the ground underneath the panel or
21 does it run off like a roof?

22 A. It runs off the panel to the ground underneath.

23 MS. DUFFY: I'm sorry, I didn't hear that.

24 JUDGE SLAVIN: It runs off the panel to

1 the ground underneath, was the answer.

2 Q. (By Mr. Fitts:) It soaks through the panel?

3 A. No.

4 Q. It runs off like a roof. So actually, the --

5 JUDGE SLAVIN: You're telling him things.

6 Q. (By Mr. Fitts:) -- it's like a small city
7 covering 300 -- 3,000 --

8 JUDGE SLAVIN: Sir, you have got to ask
9 him questions and not give a speech. As I
10 indicated on Thursday night, if you want to get
11 put under oath and tell the Board things, you'll
12 have your chance. Now is just the time for
13 questions.

14 MS. DUFFY: Do you have any more
15 questions?

16 Q. (By Mr. Fitts:) Okay. Another question. Did
17 you contact -- when you made your study of the
18 runoff, did you contact the tollway and talk to
19 them and make the decision after you talked to
20 them, or did you contact the tollway commission
21 because --

22 JUDGE SLAVIN: Not "because." Just, did
23 you contact the tollway commission when you did
24 the drainage study?

1 THE WITNESS: The drainage study has not
2 been completed. It will be completed prior to
3 final engineering.

4 MS. DUFFY: The study, it hasn't been
5 completed yet.

6 Q. (By Mr. Fitts:) Oh, well, I'm -- well, I'm
7 concerned about the Five Mile Branch because
8 I'm -- we get a lot of flooding --

9 JUDGE SLAVIN: You have told us that, but
10 now is the time for questions.

11 Q. (By Mr. Fitts:) Okay. Well, you haven't
12 completed your water runoff thing. I guess I
13 have no more questions. That --

14 JUDGE SLAVIN: Okay. Very good. Thank
15 you.

16 Back to the Zoom board. I understand
17 somebody had their hand raised.

18 MS. HENKEL: Laborers Jamie.

19 JUDGE SLAVIN: Jamie from Laborers' Union,
20 I think it was.

21 MR. LAWSON: Yes.

22 MS. HENKEL: He'll have to speak up.

23 MR. LAWSON: Can you hear me?

24 JUDGE SLAVIN: Not quite. Can you get

1 closer to the mic?

2 MR. LAWSON: I'm close --

3 MR. FITTS: Can I ask one more question?

4 MS. DUFFY: I don't think so.

5 JUDGE SLAVIN: No. You said you were
6 done.

7 Jamie, Laborers Union.

8 MR. LAWSON: Yes. Can you hear me?

9 JUDGE SLAVIN: Yes. Would you state your
10 name, please.

11 MR. LAWSON: Jamie Lawson.

12 JUDGE SLAVIN: Jamie, do you live within
13 the footprint of the proposed development?

14 MR. LAWSON: Yes, I do.

15 JUDGE SLAVIN: Question of Mr. Cooper.

16 EXAMINATION

17 BY MR. LAWSON:

18 Q. Question, Mr. Cooper. When asked by Angela
19 Shippert what was in the panels, you said you
20 didn't know, but then when asked by Angela
21 Shippert, if they broke, would contaminants be
22 spilled into the ground, you said not that
23 you're aware of. How can you be aware of
24 something if you don't know what's in them?

1 A. I have been informed that there's no hazardous
2 materials in there, in the panels. I don't
3 necessarily know exactly what materials are in
4 there, but I have been told no hazardous
5 materials are able to leach out of the panels.

6 Q. Okay. What -- you stated several times that
7 noise will not exceed a certain decibel. What
8 if they do? What's -- what's our recourse if
9 noise exceeds a decibel or if trees don't get
10 8 foot within the three years that they are
11 supposed to? What do we do then?

12 A. I believe the County has the jurisdiction to
13 enforce that be corrected per the Special Use
14 Permit and/or revoke the permit.

15 Q. Revoke the permit after the project is built
16 and the trees are planted?

17 A. Well, they have the power to enforce it, and
18 yes.

19 Q. Okay. So what happens if they revoke it with
20 the panels already up? What happens then? Do
21 the panels stay?

22 A. I believe they would decommission it and pull
23 the bond that's been established and take the
24 solar farm down.

1 Q. Okay. Thank you.

2 The floodplain that you spoke of, is that
3 the hundred-year floodplain?

4 A. Yes.

5 Q. Thank you.

6 If wetlands -- you're not going to build
7 within 25 foot of a wetland or a creek or
8 floodplain, I guess. If there's trees or timber
9 in that wetland or floodplain that can possibly
10 block the solar from getting through the panels,
11 would they be removed?

12 A. It would depend on permitting and the final
13 engineering.

14 Q. Okay. And then, are there any -- is there any
15 sound produced from the panels as they're
16 tracking the sun throughout the day, squeaking
17 or turning?

18 A. It's my understanding that the sound produced
19 from them tracking is minimal and is negligible
20 compared to the sound from the inverters, which
21 is why those were analyzed as part of our
22 analysis, because they generate the most noise
23 that would be produced from the solar project.

24 MR. LAWSON: Okay. Thank you. That's all

1 I have. Thank you.

2 JUDGE SLAVIN: Thank you.

3 I see one more raised hand -- well, no, I
4 see a couple more.

5 Ms. Burrs, you have already had a chance
6 to ask questions, I can remember that, and as I
7 indicated Thursday night, everybody gets just
8 one chance.

9 Mr. Apple, can you hear me?

10 MR. APPLE: Yes. Can you hear me?

11 JUDGE SLAVIN: Yup, sure can.

12 Would you -- obviously your name is Brad
13 Apple?

14 MR. APPLE: Yes.

15 JUDGE SLAVIN: And do you live within the
16 project -- proposed project boundary?

17 MR. APPLE: No. I'm adjacent to it.

18 JUDGE SLAVIN: Within a mile and a half?

19 MR. APPLE: Yes.

20 JUDGE SLAVIN: Okay. Questions of
21 Mr. Cooper.

22 EXAMINATION

23 BY MR. APPLE:

24 Q. Okay. On the presentation that you have up

1 right now, there's dark-shaded panels and light-
2 shaded panels.

3 Is there any difference in the panels, or
4 is it just something with the presentation?

5 A. Yeah, no, that's just a plot style. They are
6 all the same.

7 Q. Okay. My other question, you stated that the
8 tiles, if damaged, will be repaired. How will
9 you know if you hit one of these main plastic
10 tiles when you're driving the posts in until we
11 do have a problem with water backing up?

12 A. Tom Huddleston will speak to that when he
13 testifies.

14 MR. APPLE: Okay. That's all I have.

15 JUDGE SLAVIN: Thank you. I don't see any
16 other raised hands.

17 Alice, do you see anything?

18 MS. HENKEL: (Shakes head.)

19 JUDGE SLAVIN: Okay. In the back room,
20 any other questions?

21 Okay. Very good. You -- I usually say
22 you may step down, but you can turn yourself
23 off, Mr. Cooper, and it's break time. Let's
24 come back, oh, five of. That clock doesn't

1 appear to be right. Let me check my cell phone,
2 which, of course, is always right. Yeah, five
3 of.

4 (A recess was taken at 7:45 p.m.
5 and proceedings resumed at
6 7:56 p.m.)

7 JUDGE SLAVIN: All right. Back on the
8 record. Oops, lost a lawyer. Some would say
9 that's a good thing.

10 All right. Mr. Barry, you may continue.

11 MR. BARRY: Thank you, Judge Slavin.

12 Really quickly, for housekeeping purposes,
13 I'd like to ask entry into evidence of
14 Mr. Cooper's PowerPoint presentation.

15 JUDGE SLAVIN: Not only that, but if I
16 didn't state before, Petitioner's 1, 2, and 3
17 are admitted. I see no reason not to.

18 (Petitioner's Exhibits Number 2
19 and 3 admitted into evidence.)

20 JUDGE SLAVIN: All right. Mr. Huddleston,
21 want to step up and raise your right hand,
22 please.

23 (Tom Huddleston was duly sworn.)

24 THE WITNESS: May I take my mask off?

1 JUDGE SLAVIN: You absolutely may, but I'm
2 going to move over and I don't want you to be
3 offended.

4 THE WITNESS: You're fine.

5 TOM HUDDLESTON,
6 being first duly sworn, was examined and
7 testified as follows:

8 EXAMINATION

9 BY MR. BARRY:

10 Q. Good evening, Mr. Huddleston. Would you please
11 state your name for the record.

12 A. Yes, sir. Tom Huddleston.

13 MR. BARRY: And do we need to spell that?

14 A. Yes, sir. H-U-D-D-L-E-S-T-O-N.

15 Q. (By Mr. Barry:) Thank you.

16 Can you tell us a little bit about your
17 background, please?

18 A. Yes, sir. I'm a drain tile contractor. I own
19 Huddleston McBride Drainage Company and another
20 group of companies. My partner and I have owned
21 the companies for 47 years. I'm a third
22 generation drain tile contractor.

23 We basically install, repair, maintain,
24 and do drain tile investigations and

1 evaluations.

2 Q. Okay. Thank you.

3 Mr. Huddleston, the South Dixon Solar
4 project is required to do a drain tile survey.
5 Could you describe how a drain tile survey is
6 conducted?

7 A. Yes, sir. They are rather typical, although we
8 add a little intensity to these type of surveys.
9 The survey is very typical to what we do when we
10 first go into a field to do new drainage work.
11 We model the soils and the topography and the
12 farm itself and the immediate watershed. Then
13 we come in and dig slit trenches adjacent to the
14 areas where we believe there are drain tiles.

15 When we encounter a drain tile, if we hit
16 it, we repair it back to its original state. If
17 we don't hit it, we dig down to it, and we
18 either feed a tracer cable up the drain tile and
19 electronically locate it or we hand probe them
20 out.

21 Q. All right. Thank you.

22 Mr. Huddleston, how can a solar energy
23 system be constructed to protect the integrity
24 of the existing drain tile system?

1 A. Well, the drain tile investigation is rather
2 intensive, and we'll locate all the drain tiles
3 that are locally within the area. We also give
4 dominance or focus to drain tiles which we call
5 mutual drains, legal mutual drains, and those
6 are drain tiles that traverse through the solar
7 farm that actually benefit the lands of others.
8 In accordance with the Illinois Drainage Code
9 and with farm applications, it's very important
10 that we maintain the flow for others to continue
11 to benefit.

12 So we'll know where all the drain tiles
13 are, we'll have them GPS'd in a very tight
14 coordinate. We'll submit those plans in AutoCAD
15 to the engineer, and the engineer will place
16 them on his plans. Then when they design the
17 actual piles and the trenching, we'll know
18 exactly where the drain tiles are located in
19 accordance with their improvements.

20 Q. Okay. Mr. Huddleston, are you familiar with
21 the Illinois Department of Agriculture's
22 Agriculture Impact Mitigation Agreement for
23 solar project?

24 A. Yes, sir, I am.

1 Q. And is it also referred to commonly as an AIMA?

2 A. Yes, sir.

3 Q. And does the AIMA include requirements for
4 repair of drain tile if damaged during
5 construction of a solar project?

6 A. Yes, sir, it does.

7 Q. And are there techniques that are covered in
8 the AIMA for repair of drain tiles?

9 A. Yes, sir. There's some typicals that are in
10 the appendices, in the back of the actual
11 Ordinance itself, but there's also industry
12 standards that most drain tile contractors use
13 to repair drain tiles.

14 Q. And have you been involved in repairing drain
15 tiles in connection with wind and solar projects
16 in Illinois?

17 A. Yes, sir, I have.

18 Q. Can you tell us a little bit about, generally
19 speaking, how repair of drain tiles works
20 associated with a solar project?

21 A. Yes, sir. After we have located the drain
22 tiles and we do some evaluation, we understand
23 the condition of the drain tiles and we
24 understand the function and the benefit of those

1 drain tiles.

2 So after the design is in place and we
3 understand where the improvement conflicts are
4 going to be carried through the project, we then
5 go in and modify the routing and replace, in
6 many cases, like-kind to the existing drain tile
7 to make sure that they're not in conflict with
8 any of the improvements.

9 Q. And so is it fair to say then when you repair
10 drain tiles associated with solar projects, you,
11 to a certain extent, help in the design of the
12 new drain tile system going forward after those
13 repairs?

14 A. Yes, sir, that's correct.

15 Q. How will the solar energy system operator know
16 when a drain tile is damaged?

17 A. So the process is that, once we locate the
18 drain tiles and we understand exactly where
19 their locations are, we'll understand exactly
20 where the conflicts are. So we'll have all the
21 piles, which are the actual posts that are
22 hammered into the ground, we'll have them staked
23 on site. Then we'll go in after they're staked
24 and make sure that all the drain tiles are

1 rerouted properly so they will not be in
2 conflict.

3 Q. And so when you do that, what's the process for
4 repairing -- typically for repairing the drain
5 tiles that are damaged?

6 A. Well, there's several processes. One is what
7 we call like-kind replacement, and that's where
8 we actually take the existing tile out and put
9 in a new dual-wall polyethylene pipe. Still
10 perforated, but a new polyethylene drain tile.

11 In other occurrences, we may loop the
12 drain tile around the particular pile or the
13 drainage trench itself.

14 Q. And is the goal to make the drain tile system
15 after the repairs are conducted at least as good
16 as or better than what it was before?

17 A. The goal is to make it better and to assure
18 that we can extend its life and longevity
19 through the life of the solar project itself.
20 It's also important, again, that we maintain the
21 mutual drains, which we will give particular
22 credence to, to make sure that it continues to
23 flow. We also install riser pipes or
24 observation ports on the drain tiles prior to

1 them egressing our site and going into the land
2 of others so that other landowners will have an
3 observation point, they will be able to observe
4 the flow and be able to witness where the drain
5 tile location is.

6 Q. For the wind and solar projects you worked on
7 before where you engaged in drain tile repair,
8 were you successful in improving the overall
9 drainage system associated with those projects
10 after the repairs were made?

11 A. Yes, sir.

12 Q. Mr. Huddleston, what is the long-term impact on
13 agricultural land and soils with having a solar
14 farm sited in an area that's been used for
15 agriculture?

16 A. Our company is very passionate about
17 agriculture. We have been in the ground and in
18 the fields for a long period of time. We're
19 always looking at new innovative ways to improve
20 drainage. We farm our land in Illinois pretty
21 hard. It can take it, but we farm it pretty
22 hard.

23 I think that 35 years, in terms of
24 agricultural history, is a very short period of

1 time. And to allow agriculture land to rest by
2 being re-vegetated, by adding root and organic
3 nutrients to the soils, by completely
4 eliminating soil erosion, and by rebuilding and
5 modifying the drainage systems, when the farm
6 comes out of solar, it will be considered prime
7 farmland and it will be ready for future
8 generations.

9 Q. Thank you, Mr. Huddleston. Would you like to
10 make any other comments about drain tile repair
11 or construction associated with solar farms?

12 A. No, sir, not at this time.

13 MR. BARRY: Okay. Thank you.

14 Judge Slavin, that's all I have for the
15 witness.

16 JUDGE SLAVIN: All right. Questions of
17 Mr. Huddleston.

18 Mr. Boonstra, if you can hear me?

19 MR. BOONSTRA: No questions, Judge. Thank
20 you.

21 JUDGE SLAVIN: Thank you.

22 Ms. Duffy?

23 MS. DUFFY: No questions, Judge.

24 JUDGE SLAVIN: Very good.

1 Zoning Board. Mr. Forster?

2 MR. FORSTER: No questions.

3 JUDGE SLAVIN: Mr. Buhrow?

4 EXAMINATION

5 BY MR. BUHROW:

6 Q. Mr. Huddleston, the AIMA was addressed here a
7 minute ago. What's the time frame, is there
8 one, in the AIMA for when the repairs need to be
9 done after they're found?

10 A. No, sir. Actually, the AIMA was written with
11 the intent to maintain the prime farmland
12 resource of the land itself. So the timing is
13 not so important as the end product.

14 For us to be able to properly ensure that
15 the drain tiles are rerouted, we need to do it
16 when the actual piles and the actual
17 improvements can be staked. We think there's
18 less chance for error then because the operators
19 that are installing the new drain tiles know
20 exactly where all those improvements are.

21 So it's normally done right after the
22 construction staking and right prior to the
23 actual piles being hammered into the ground.

24 MR. BUHROW: Okay. Thank you.

1 THE WITNESS: Yes, sir.

2 JUDGE SLAVIN: Thank you.

3 Mr. Bothe?

4 MR. BOTHE: Nothing.

5 JUDGE SLAVIN: Mr. Hughes?

6 MR. HUGHES: Nothing at this time.

7 JUDGE SLAVIN: All right. Mr. Meyer?

8 EXAMINATION

9 BY MR. MEYER:

10 Q. How long ago were you approached by South Dixon
11 Solar to work on this project?

12 A. When was I contacted?

13 Q. (Nods head.)

14 A. Within the last 30 days.

15 Q. Okay. What level of accuracy do you use with
16 your GPS when you are surveying? Like, what's
17 the accuracy in feet or inches?

18 A. It's sub-inch.

19 Q. RTK?

20 A. It's within inches.

21 Yes, sir, we use a Tremble subscription
22 system, which is basically triangulation off
23 cell towers. So it's extremely accurate.

24 We found that accurate GPS's are a lot

1 better than probing. So we locate everything
2 pretty tight when we leave the site.

3 MR. MEYER: Okay. No other questions.

4 JUDGE SLAVIN: Thank you.

5 All right. People on Zoom, if you have a
6 question of Mr. Huddleston, if you'll click the
7 "raise hand" button. If you're
8 videoconferencing, go to "Participant," go to
9 the icon that says "raise hand," and then do
10 that.

11 If you're -- I think I forgot to say
12 before, if you're only teleconferencing, meaning
13 you're just on your phone without video, you go
14 to your key pad and you hit star, or asterisk,
15 nine and that should raise your hand as well.

16 And before I forget and Alice gives me the
17 look that I would deserve, someone in the last
18 Zoom questioning asked if Mr. Cooper's
19 PowerPoint -- it's not really a PowerPoint
20 because it wasn't displayed as a PowerPoint --
21 if a hard copy of his summary would be on the
22 website, and the answer from Mrs. Duffy is that,
23 yes, it will.

24 So with that, what have I got for raised

1 hands?

2 MS. HENKEL: Nothing so far.

3 JUDGE SLAVIN: Strain my neck.

4 MS. HENKEL: No one has raised -- oh,
5 there we go.

6 JUDGE SLAVIN: We have got one hand on the
7 upper left. I think it's Mr. Lusz.

8 Mr. Lusz, you testified -- we know your
9 name. And you indicated before that you live
10 within a mile and a half of the boundary of this
11 project; is that right?

12 MR. LUSZ: Yes, sir.

13 JUDGE SLAVIN: Okay. Questions of
14 Mr. Huddleston.

15 EXAMINATION

16 BY MR. LUSZ:

17 Q. Mr. Huddleston, are you contracted then to
18 carry out this survey that you're talking about
19 for this project?

20 A. I'm not under contract to do that yet, but I
21 plan on being contracted for it.

22 Q. What assurance do we have that you're actually
23 going to complete that survey and that it would
24 be a part of this site plan?

1 A. I can't answer that.

2 Q. Do we have any assurances that it will actually
3 be completed then?

4 A. I can't answer that.

5 Q. Would you design a subsurface drainage system
6 differently within an SES from -- as compared to
7 farming the land conventionally?

8 A. When you say SES, are you referring to the Soil
9 Conservation Service?

10 Q. The soil energy system.

11 A. Oh.

12 Q. Would you design -- if you had a blank slate,
13 would you design the subsurface drainage
14 differently within an SES compared to
15 conventional farming?

16 A. Yes, sir, only from a geometrics standpoint.
17 So we would install the drain tiles, rather than
18 in a random polygon fashion, we would install
19 them along an A/B line or geometrics that are
20 within the actual grid of the improvements.

21 Q. And would you then follow the path of the water
22 off the panel with that subsurface drainage?

23 A. No, sir.

24 Q. What would you do in a layout?

1 A. These drain tiles were originally -- some of
2 them were installed over a hundred years ago,
3 put in place by farmers and tilers in areas
4 which are hydric or wet, and that is for soil
5 groups that have an elevated or high water
6 table. And it's that high water table that
7 prevents the farmers from coming in and farming
8 that area at the same time that he can farm the
9 wet areas, so as a drain tile contractor, we
10 also want to dry those wetter areas out quickly
11 so that the farmer can farm the entire property
12 from one end to another early and then harvest
13 at a later time.

14 So the drain tile placement is really
15 based on the hydric soils and the topography of
16 the ground.

17 Q. Is it in -- and you explain that as it pertains
18 to farming row crops, correct?

19 A. Yes, sir.

20 Q. Now, how would you apply drainage though to
21 solar? How does that change with solar to
22 minimize surface water runoff?

23 A. Well, my intent would be to replace the
24 existing system and continue the existing

1 benefits. So I would just slightly move the
2 drain tiles off their original route so they're
3 not in conflict with any of the improvements,
4 but I would leave them in the same general area,
5 within 10 feet in most cases.

6 Q. So in an SES, or in a solar energy system, you
7 have long miles -- mile-long rows of solar
8 panels that act like a roof. The water runs off
9 and that soil saturates at the bottom of that
10 panel.

11 In your assessment, if you're going to put
12 subsurface drainage in, would you -- how would
13 you address where the water is running off of
14 these panels? How would you go about it, I
15 mean?

16 A. That's not really a concern. When the water
17 comes off the panels, it falls into a vegetative
18 state. A very thick vegetation is planted, and
19 that vegetation equally disperses those flows to
20 the soil structure itself.

21 I can tell you that the permeability of
22 the soils in solar will greatly improve, and
23 that is because we don't have any compaction
24 from farm equipment and we also have root

1 structures which help break the land up and make
2 it more permeable.

3 Q. And there's a scientific study that's been done
4 on that as it applies to a solar energy system?

5 A. Yes, sir.

6 Q. Do you have any references?

7 A. No, sir. The scientific studies are what
8 prairie grasses and what crop rotation, how it
9 can benefit farmland and drainage.

10 MR. LUSZ: Very good. I don't have any
11 further questions. Thank you.

12 THE WITNESS: Thank you.

13 JUDGE SLAVIN: Thank you.

14 Denise Burrs. Denise, you asked questions
15 before, and you live in Lee County; is that
16 correct?

17 MS. BURRS: Yes.

18 JUDGE SLAVIN: I'm sorry if I can't
19 remember it. Within the project boundary?

20 MS. BURRS: No.

21 JUDGE SLAVIN: Within a mile and a half of
22 any boundary?

23 MS. BURRS: No.

24 JUDGE SLAVIN: Okay. Just Lee County.

1 Thank you. Questions of Mr. Huddleston.

2 EXAMINATION

3 BY MS. BURRS:

4 Q. I understand you to say that the soil would be
5 better having rested when used as you said, but
6 are there any long-term studies that show that?

7 A. Not that I know of with solar, but there are
8 many studies that state that crop rotation is
9 good for the soil nutrients and for the
10 farmability of the soil itself. So we're
11 basically rotating in grasses the same as what a
12 farmer might have done 50 years ago when he
13 rotated in alfalfa or other grasses.

14 Q. Okay. But when a farmer is rotating something
15 in, he's not alternating strips of land between
16 what may be dry and what may be wet. So are
17 there any -- you're saying that there are no
18 studies for -- of solar farms for the long-term
19 viability of the soil?

20 A. No, ma'am, none on solar farms, that I know of.

21 MS. BURRS: Thank you. That's all.

22 JUDGE SLAVIN: Thank you.

23 I don't see any other hands.

24 Folks in the back room, questions?

1 reputable?

2 A. They're a big name and they have a lot of
3 resources and they have built a lot of
4 successful projects.

5 Q. What type of resources are you referring to?

6 A. They have a strong engineering team, they have
7 environmentalists, they have construction
8 managers, they have the full gamut. They're
9 pretty much an in-house facilitation.

10 Q. Okay. So the project is leased for 35 years.
11 What is the longevity of a piece of tile of the
12 style that you're using?

13 A. The tile that we modify and replace, which is
14 polyethylene pipe, has a 50-year warranty on it.

15 Q. So if this project were to be renewed, the
16 longevity of the tile is not as long as the
17 renewed contract; is that correct?

18 A. I'm not sure -- I'm not exactly sure. I know
19 that we asked the materials supplier, which is
20 Advanced Drainage Systems which is in Mendota,
21 they have material engineers, and I asked them
22 how long -- can they give us a warranty for 50
23 years, because most solar plants are within a
24 50-year window, and they said they would. I'm

1 sure they would warranty the pipe for longer
2 than that, particularly the type of pipe we're
3 using, which is a dual-wall polyethylene pipe,
4 which is much heavier than the pipe we're using
5 in typical agricultural construction.

6 Q. So potentially this style of tile could be
7 outdated sooner than this particular project
8 ends, given two consecutive leases?

9 A. I don't know the answer to that.

10 Q. Mr. Huddleston, do you have a degree?

11 A. In drain tiling?

12 Q. What --

13 A. No.

14 Q. -- is your degree in?

15 A. No, ma'am. I'm an agricultural engineer.

16 Q. Agricultural engineer, okay.

17 Are you considered an expert in
18 agriculture agronomy or a related science?

19 A. No, ma'am.

20 Q. Okay. Are you aware that almost 800,000
21 bushels of corn could be produced on 3,838 acres
22 of farmland?

23 A. That sounds reasonable.

24 Q. Are you aware that corn is the third most

1 important food crop of the world measured by
2 production volume, behind wheat and rice?

3 A. I'm not sure of that.

4 Q. Do you know that over 200,000 bushels of
5 soybeans could be produced on 3,838 acres of
6 farmland?

7 A. No, ma'am.

8 Q. Are you aware that one acre of soybeans
9 converts to 40,000 servings of tofu?

10 A. I am sorry, I didn't hear you.

11 Q. Are you aware that one acre of soybeans
12 converts to 40,000 servings of tofu?

13 A. No, ma'am.

14 Q. Where does Duke propose that Americans find
15 other food sources?

16 MR. BARRY: Your Honor, I don't want to
17 cut --

18 JUDGE SLAVIN: Sustained.

19 He's not a representative of -- he doesn't
20 work for Duke, Ms. Shippert.

21 MS. SHIPPERT: Okay.

22 JUDGE SLAVIN: He's very clearly testified
23 about drainage and drain tiles.

24 MS. SHIPPERT: And agriculture, correct?

1 JUDGE SLAVIN: I'm not --

2 MS. SHIPPERT: It says that on the slide
3 deck.

4 JUDGE SLAVIN: I let it go a little bit
5 there, but the purpose of his testimony is
6 clear. I don't want to go too far astray.

7 MS. SHIPPERT: Okay. Can I ask a
8 different question?

9 JUDGE SLAVIN: Of course.

10 Q. (By Ms. Shippert:) If you were to find -- I'll
11 ask a different question.

12 Where would you propose that another 4,000
13 acres of farmland would be able to be developed?

14 A. I can't answer that.

15 MS. SHIPPERT: No further questions.

16 JUDGE SLAVIN: Thank you.

17 Other folks in the back room?

18 There we go. Refresh our recollections
19 with your name, please.

20 MS. JOHANNSEN: Pardon?

21 JUDGE SLAVIN: Refresh our recollections
22 with your name, please.

23 MS. JOHANNSEN: Martha Johannsen.

24 JUDGE SLAVIN: Thank you. And you live

1 either in the project or within a mile and a
2 half; is that correct?

3 MS. JOHANNSEN: Within a mile and a half.

4 JUDGE SLAVIN: Thank you. Questions of
5 Mr. Huddleston.

6 EXAMINATION

7 BY MS. JOHANNSEN:

8 Q. It's my belief that during deconstruction that
9 the land would be disturbed and --

10 JUDGE SLAVIN: That's a statement.

11 MS. JOHANNSEN: I know.

12 JUDGE SLAVIN: You're not under oath.
13 Just ask him a question.

14 Q. (By Ms. Johannsen:) Would the equipment
15 driving over the land to deconstruct be
16 beneficial to this land being not used for 35
17 years?

18 A. I'm sorry, I don't understand the question.

19 Q. Okay.

20 JUDGE SLAVIN: If you try to just rephrase
21 that. The question -- I'll try and help.

22 The question is, when decommissioning
23 is -- when the project is decommissioning, would
24 heavy equipment be driving through the project?

1 THE WITNESS: Yes, ma'am, there will be.

2 JUDGE SLAVIN: Okay. And would that heavy
3 equipment then compact the soil?

4 THE WITNESS: Yes, ma'am, it would.

5 Q. (By Ms. Johannsen:) And would this also --
6 with the roads being torn apart, would this also
7 affect the soil?

8 MR. BARRY: I object to the form of the
9 question. It is an assumption.

10 JUDGE SLAVIN: I'm not sure what that
11 means.

12 MR. BARRY: The roads would be torn apart,
13 the decommissioning doesn't involve --

14 JUDGE SLAVIN: Mr. Barry.

15 Are you aware that during the
16 decommissioning the roads would be -- the roads
17 between the arrays and solar panels would also
18 be removed?

19 THE WITNESS: Yes, the roads would be
20 removed, along --

21 JUDGE SLAVIN: Would that compact the soil
22 any further?

23 THE WITNESS: Yes.

24 Q. (By Ms. Johannsen:) And I -- does the sun

1 reach completely under the panels?

2 A. I can't answer that.

3 Q. Okay. Typically there is a thunderstorm that
4 occurs at least once or twice a year with heavy
5 rainfall. What would happen if the vegetation
6 is not yet planted with this heavy rainfall to
7 prevent the runoff?

8 A. Well, it would be the same condition that
9 persists now under agriculture, but my
10 understanding is that there would be a cover
11 crop put in fairly soon before actual piles were
12 driven so that the land will be stabilized.

13 MS. JOHANNSEN: Okay. Thank you.

14 JUDGE SLAVIN: Thank you.

15 Anybody else in the back room?

16 MS. JOHANNSEN: Yes.

17 JUDGE SLAVIN: And your name is Brad
18 Shippert; is that right?

19 MR. SHIPPERT: Could you repeat that?

20 JUDGE SLAVIN: I'm sorry. And your name
21 is Brad Shippert, correct?

22 MR. SHIPPERT: Correct, yup.

23 JUDGE SLAVIN: All right. Go ahead.

24 Questions.

EXAMINATION

1
2 BY MR. SHIPPERT:

3 Q. Mr. Lusz might have asked this question, I was
4 busy jotting notes. Are you the general
5 contractor involved with the construction and
6 maintenance of this project?

7 A. No, sir.

8 Q. In your experience with projects similar to
9 this, how deep are the pylons typically driven;
10 the pylons being for the support structure of
11 the cells?

12 A. Depends on the structural analysis, and I am
13 not -- I don't know the answer to that.

14 Q. Will a farmer or neighboring landowner have a
15 contact person if problems such as field tile
16 problems arise?

17 A. Yes, sir.

18 Q. Okay. This is going to be a statement but in a
19 question form. As you may know, tile problems
20 do take months or years to truly rear their ugly
21 heads. How will unknown, preexisting conditions
22 be addressed during the construction of this
23 project?

24 A. I'm sorry, can you state that again?

1 Q. How will unknown, preexisting tile
2 conditions -- say if we have a damaged tile that
3 we are unaware of right now, because sometimes
4 these problems take a year --

5 JUDGE SLAVIN: Why don't you just ask the
6 question. How would preexisting, unknown broken
7 tile be taken care of?

8 THE WITNESS: Our intent is to locate
9 other drain tiles and evaluate them and rebuild
10 them prior to the actual improvements being put
11 in. Although, if there is a failure or a break
12 in a drain tile, we would be able to get a
13 small, mini excavator up the alleyways to be
14 able to make a repair.

15 Q. (By Mr. Shippert:) Then who will determine the
16 rerouting of drain tile around, like, the pylons
17 that are given?

18 A. Typically a drain tile contractor.

19 Q. And is older clay tile dealt with differently
20 than the standard plastic tile? Like, if you
21 come across the clay tile line, do you replace
22 the whole clay tile line or do you just replace
23 the bad section?

24 A. Sometimes we do. It depends on the condition

1 of the drain tile itself.

2 Q. Okay. If you relocate drain tiles, who will
3 return the drain tile to the landowner's
4 previous state and desired location, or does the
5 tile get left to your desired location?

6 A. Well, our new location or modification will be
7 only several slightly -- several feet off the
8 original route itself so that it can continue to
9 perform the same benefits. So I don't think
10 there's going to be any difference in the
11 drainage of the field. I think it will probably
12 be better, because a lot of the drain tiles will
13 actually deepen and lay within the pipe. Many
14 of the tiles may even have silt in them at this
15 time, and they would be new pipe when we finish.

16 So it would continue -- the intent is to
17 continue the existing benefit that the landowner
18 enjoys at this time.

19 Q. What factual evidence do you have regarding
20 your statement that the land would -- or land
21 productivity would be improved after 35 years?

22 A. That's my opinion from my experience and
23 working in farmland for the last 45 years.

24 Q. Okay. And what qualifications do you have to

1 make statements regarding the agronomics, the
2 soil health, and crop productivity before and
3 after 35 years of solar production?

4 A. Just my experience in being in the ground for
5 45 years.

6 MR. SHIPPERT: Thank you. That's all the
7 questions I have.

8 JUDGE SLAVIN: Thank you.

9 Other folks back there where Mr. Shippert
10 is going, questions?

11 Okay. Mr. Boonstra is shaking his head
12 no.

13 I'm going to take one last look at the
14 Zoom board. Mr. Apple, I see your hand raised.
15 Can you hear me?

16 MR. APPLE: Yes. Can you hear me?

17 JUDGE SLAVIN: Yup, sure can. I'll let
18 you know if we can't hear you.

19 MR. APPLE: Okay.

20 JUDGE SLAVIN: Your name is obviously Brad
21 Apple. And help me remember where you live in
22 relation to this project.

23 MR. APPLE: Directly adjacent.

24 JUDGE SLAVIN: Okay. Questions of

1 Mr. Huddleston.

2 EXAMINATION

3 BY MR. APPLE:

4 Q. Yes. In the event that a tile is damaged, as
5 Mr. Shippert referred to, and water does back up
6 and do damage, are you guys going to be
7 responsible for the repairs if damages are
8 observed here?

9 MR. BARRY: I'm just going to object to
10 the extent that it calls --

11 JUDGE SLAVIN: For a legal conclusion.

12 MR. BARRY: -- for a legal conclusion.

13 JUDGE SLAVIN: If Mr. Huddleston knows or
14 he's guaranteeing something, he can answer.

15 MR. BARRY: Understood.

16 THE WITNESS: I'm sorry, Judge?

17 JUDGE SLAVIN: You can answer if you know
18 the answer to the question.

19 A. The -- could you restate the question? Sorry.

20 JUDGE SLAVIN: That's okay.

21 Q. (By Mr. Apple:) If a tile is damaged and water
22 backs up onto our property and causes damage,
23 will you be responsible for the repairs?

24 A. I will not be, but the developer of the project

1 would be.

2 MR. APPLE: Okay. That's all I got.

3 JUDGE SLAVIN: Thank you.

4 I don't see any other hands raised, unless
5 I'm missing one. I'm craning my neck.

6 All right. Folks, thank you very much.
7 That will conclude tonight's session, and I
8 recess it until tomorrow night, that's Tuesday,
9 December 8th, 6 o'clock, here at the Old Lee
10 County Courthouse.

11 MR. BARRY: Thank you.

12 JUDGE SLAVIN: Thank you.

13 (The hearing was recessed at
14 8:32 p.m.)

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On this 7th day of December, A.D., 2020, I do
signify that the foregoing testimony was given
before the Lee County Zoning Board of Appeals.

Bruce Forster, Chairman

Dee Duffy,
Zoning Enforcement Officer

Callie S. Bodmer

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