

1 PLACE: Halifax County Historic Courthouse
2 Halifax, North Carolina
3 DATE: May 28, 2015
4 TIME: 6:00 p.m. - 8:15 p.m.
5 DOCKET NO: SP-5272, Sub 0
6 BEFORE: Hearing Examiner Sam Watson, Presiding
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9 IN THE MATTER OF:

10 Sunflower Solar, LLC.

11 Application for a Certificate of Public Convenience
12 and Necessity to Construct a 20-MW Solar Facility in
13 Halifax County, North Carolina.
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A P P E A R A N C E S:

FOR SUNFLOWER SOLAR, LLC:

Steven Levitas, Esq.

Kilpatrick Townsend

4208 Six Forks Road

Suite 1400

Raleigh, North Carolina 27609

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P R O C E E D I N G S

EXAMINER WATSON: Good evening. Let's come to order please and go on the record. My name is Sam Watson, and I am General Counsel for the North Carolina Utilities Commission. I've been designated by the Chairman as the Hearing Examiner for this matter tonight.

The Commission now calls for hearing Docket Number 5272, Sub 0, the Application of Sunflower Solar, LLC, for a Certificate of Public Convenience and Necessity to Construct a 20-Megawatt Solar PV Facility in Halifax County, North Carolina.

On March 3, 2015, Sunflower Solar, LLC, filed an Application seeking a Certificate pursuant to G.S. 62-110.1(a) for construction of a 20-megawatt solar PV electric generating facility to be located near the interconnection of Dickens Wildwood Road and Highway 301 in Halifax County, North Carolina. Together with the Application, Sunflower Solar filed a registration statement for the facility. On March 18, Sunflower Solar filed a corrected registration statement noting that it had inadvertently filed with its Application the registration statement for a

1 different facility.

2 On March 24, 2015, the Commission issued an
3 Order Requiring Publication of Notice requiring
4 Sunflower Solar to (1) publish notice of the
5 Application in the manner required by G.S. 62-82(a)
6 and file an Affidavit of Publication with the
7 Commission, and (2) mail a copy of the Application and
8 notice to the electric utility to which Sunflower
9 Solar plans to sell and distribute the electricity and
10 file a signed and verified Certificate of Service that
11 the Application and notice have been provided to the
12 utility.

13 On April 20, 2015, Sunflower Solar filed a
14 corrected map showing the location of the proposed
15 facility.

16 On April 20 and 30, 2015, the Commission
17 received a complaint by email from Mr. Paul Walden.
18 On May 12, 2015, a further letter of complaint was
19 filed in this docket by e-mail by Mr. Jim Manley.

20 On May 13, 2015, based upon the complaints
21 and the record herein, the Commission issued an Order
22 Scheduling Hearing, setting this docket for hearing on
23 this date, at this time, and in this place, and
24 establishing a procedural schedule to prefile direct

1 expert testimony and to allow for intervenors to
2 participate in the docket.

3 On May 18, 2015, Sunflower Solar filed the
4 direct testimony and exhibits of Mr. Georg Veit --

5 MR. VEIT: Veit (pronounced Vite).

6 EXAMINER WATSON: Veit?

7 MR. VEIT: Yes.

8 EXAMINER WATSON: Thank you. -- Mr. Richard
9 Kirkland and Mr. Tommy Cleveland.

10 On May 19, 2015, Sunflower Solar filed
11 Affidavits of Publication stating that it had
12 published it in the *Daily Herald* of Halifax four times
13 between April 24 and May 15, 2015, the notice of its
14 Application, and on May 17, 2015, the notice of the
15 hearing as required by the Commission's Orders.

16 Although not present, the Public Staff's
17 right to intervene and participate is recognized
18 pursuant to G.S. 62-15(d) and Commission Rule
19 R1-19(e). No other parties have intervened in this
20 matter.

21 This brings us up to the hearing before us
22 tonight.

23 Pursuant to G.S. 138A-15(e), I'll note that
24 I do not have any known conflicts of interest with

1 respect to this docket.

2 I will now call upon the parties and/or
3 counsel for the parties to announce their appearances
4 for the record. I'll ask the Applicant to introduce
5 itself for the record.

6 MR. LEVITAS: Thank you, Mr. Watson. I'm
7 Steve Levitas representing the Applicant, Sunflower.

8 EXAMINER WATSON: All right. Thank you
9 Mr. Levitas. So let's go briefly over the format for
10 this hearing tonight. The purpose of the hearing is
11 two-fold. First, we're here to receive testimony from
12 the public regarding the proposed facility and whether
13 it should be awarded a Certificate of Public
14 Convenience and Necessity. Second, we're here to
15 receive evidence from the Applicant.

16 The public testimony is taken under oath and
17 transcribed by the Court Reporter. What is said under
18 oath becomes an official part of the record in this
19 matter and will be considered when a determination is
20 made. A final determination will not be made here
21 tonight.

22 The Commission functions like a court. You
23 will have to come up and be sworn. We'll ask you to
24 step up to the podium here. Additionally, counsel for

1 the Applicant and myself, the Hearing Examiner, will
2 have the opportunity to ask questions based on the
3 testimony that you provide.

4 So this is the public's opportunity to
5 present evidence, opinions or other thoughts on the
6 project and the Application; this is not a time for
7 you to ask questions of the Applicant.

8 There was a list distributed earlier for
9 members of the public who wish to testify to sign up.
10 I have that here with me now. So I'll proceed first
11 on that list and then I'll ask again to make sure
12 there isn't anyone else who didn't get signed up who
13 wishes to speak.

14 Following the public testimony portion of
15 the hearing, we'll receive expert testimony from the
16 Applicant in support of its Application. In this
17 matter the Applicant has prefiled its direct
18 testimony; those testifying from the public are not
19 formal parties to this matter and will not have the
20 opportunity to ask questions of the Applicant's
21 witnesses. However, the Hearing Examiner may ask some
22 questions in response to testimony provided by the
23 public, and the Applicant may choose to address new
24 matters in its testimony that were spoken of here

1 tonight.

2 The Applicant has indicated that its
3 representatives will remain in the room following the
4 conclusion of tonight's hearing and be available to
5 discuss issues, or answer questions at that time, that
6 you might have. Finally, it's noted that the full
7 contents of the docket including the Application, the
8 letters of complaint, and, once transcribed, the
9 transcript of tonight's hearing, are all available for
10 public view on the Commission's website at
11 www.ncuc.net.

12 So, with that behind us, I will ask one at a
13 time, folks to come forward, and I will call out the
14 names of the folks I already have here, and stand at
15 the podium. The microphones are not turned on so
16 don't worry about the microphone there. But it's your
17 opportunity to tell me what you think about the
18 Application and whether the Commission should grant it
19 or not, and just generally what you're thoughts are.
20 And, again, when you're done then the Applicant,
21 Mr. Levitas, might ask you some questions; I might ask
22 some questions, and we just appreciate you coming
23 tonight.

24 So let's begin with Mr. Jim Manley. If you

1 would come to the front and I'll swear you in.

2 **JIM MANLEY;** was duly sworn and

3 testified as follows:

4 EXAMINER WATSON: So let's begin with your
5 name and address for the record.

6 THE WITNESS: My name is Jim Manley. My
7 address is 1008 Chesapeake Place in Greenville, North
8 Carolina.

9 EXAMINER WATSON: All right. And if you
10 want to make a statement, please go right ahead.

11 **DIRECT STATEMENT**

12 BY MR. MANLEY:

13 Yeah. I am concerned that the project
14 before you faces the farm in a black community that's
15 been established for approximately 100 years. This
16 project proposes to put fencing and panels in front of
17 this community without regard to any interface with
18 members of the community or any other responsible
19 African American people that I'm aware of in this
20 county.

21 There is a document that was submitted by a
22 law firm in Raleigh and I don't have the name but the
23 document was in the -- I have the document -- and what
24 it says was African American communities supports this

1 project and it went on to name James Pearce, who was
2 the Chairman of the Board of Commissioners; the
3 current Chairman of the Board of Commissioners; two
4 people from the college in Halifax County; and Angela
5 Bryan. And my comments to this is James Pearce, who
6 was the Chairman of the Board of Commissioners at the
7 time, now works for this company that is proposing
8 this project. And to me that's a clear conflict of
9 interest or it appears to be anyway. Other people
10 that were named have no connections to this community.
11 And I dare say that the President of Halifax Community
12 College, who has been in the area probably a couple of
13 years, has no idea where this community is let alone
14 can he make a recommendation in terms of supporting a
15 project development right in front of this community.

16 I'm concerned, one, because of where it's
17 being placed. And I think solar companies in general
18 have taken an unfair advantage of black communities.
19 And you only need to go to Scotland Neck and you'll
20 see one of the largest projects probably in this
21 county that's built right on top of -- a totally black
22 community surrounds it. Secondly, I'm concerned that
23 this county would consider a project of this magnitude
24 without publishing it some place so that the

1 landowners in the county would have some input.

2 I'm not sure that they're meeting their
3 requirements of publishing due dates and meetings
4 prior to the meetings so that the people are aware of
5 the meetings. We had a meeting here that was canceled
6 in the earlier part of May because of a lack of
7 members of the committee. And one of the committee
8 members encouraged one of the community people not to
9 come back because it was a done deal. And my comment
10 is, if this is a done deal, then this whole committee
11 is just a sham. And why they're running people back
12 and forth for meetings if the project has already been
13 approved under the table, so to speak.

14 My niece, who lives in the family house, has
15 expressed some concern that there is a water runoff
16 problem already from the Pierce's farm over to our
17 adjoining property and that becomes another issue once
18 you place all of these panels. And we're not sure how
19 the vegetation that's proposed is going to absorb this
20 water flow. There is a path on our property that we
21 share jointly with Pierce. Since our property adjoins
22 Pierce's property, that a fence will be placed per the
23 instructions of these documents, that will be placed
24 to surround this project, and we have to ensure that

1 this fence does not impinge on our property lines.

2 There are questions about what kind of
3 impact this project is going to have on the property
4 values of the adjacent properties. I've seen
5 documents which indicate that it's got no impact on
6 property values. Now, for all of the analysis that
7 I've seen, they all talk about projects in Raleigh
8 which is in Wake County and they talk about projects
9 in Mecklenburg County. And everybody knows this, to
10 compare Halifax County, in terms of geographical area
11 and population, to Mecklenburg County is a joke.
12 Sure, property values in Mecklenburg County will
13 probably remain the same because of the geographical
14 size of the county and the population of that county.
15 And Halifax County is a very large county, very small
16 population.

17 And, in addition to that, one of the studies
18 even indicates that no official studies have ever been
19 done which would indicate what happens to the
20 property, adjacent properties once these -- this type
21 of solar farm is put up. All of their references
22 refer to solar panels on top of houses and that it
23 doesn't impact neighboring houses. And this has
24 nothing to do with that. We're talking about a

1 20-megawatt project going into a black neighborhood.
2 And nobody knows what the health impact is going to be
3 because there have been studies done that shows that
4 electromagnetic forces have caused Leukemia in
5 developing children. And there are other studies
6 which says that just to the contrary. But there are a
7 number of concerns about this project being placed
8 where it is and I don't know if I've covered all of my
9 concerns or not but I think I've covered the major
10 ones.

11 EXAMINER WATSON: You mentioned a document
12 submitted by a Raleigh law firm.

13 THE WITNESS: Yes. Hold on one second.

14 EXAMINER WATSON: Thank you.

15 THE WITNESS: I got a package from this firm
16 in Raleigh, Kirkpatrick Townsend (sic), Attorney at
17 Law, and in this package were three documents. One
18 talks about questions that I had raised; another one
19 is talking about appraisals. And in these
20 documents -- all of these documents recommend that the
21 project go forth even though in the appraisal they
22 state that they've never seen the property, never done
23 an appraisal. In the second document, on this one it
24 says -- bear were me just one second, I have just got

1 to find the page -- no research has been found
2 specific to ground mounted and solar PV and property
3 values. But yet when you look at this assessment
4 that's being done here, and thus recommending the
5 project that comes from Kirkpatrick (sic) Townsend and
6 Stockton, they're all saying there's no depreciation
7 of adjoining properties. They've got all of these
8 comparison studies where they've gone out and talked
9 to people, real estate people, and taken anecdotal
10 information from them that says property values have
11 not decreased. But yet the document says even though
12 property values have not decreased, we don't verify
13 the accuracy of the information, nor have we done any
14 studies, nor have we ever seen the property, but there
15 are a basic -- number of assumptions. If this was
16 done correctly, if this is correct, then, yes, we
17 recommend the project. And I say if this is what is
18 driving this committee to accept this proposal, then
19 I'd say that this is worthless paper. And I'm sure it
20 was done because it was sent to black people by saying
21 let's volumize this thing because they're not going to
22 read it anyway. And I take that as an insult to my
23 intelligence.

24 EXAMINER WATSON: Let me -- Mr. Levitas, it

1 sounds like he's referring to the testimony that was
2 filed in this docket and the attachments.

3 MR. LEVITAS: That's correct.

4 EXAMINER WATSON: Okay. I just want to make
5 sure I had for the record, when you were talking about
6 the document submitted, that I understood which
7 documents you were referring to. All right. Before
8 we move on, any other comments that you want to make?

9 THE WITNESS: Not at this time.

10 EXAMINER WATSON: All right. If you'll wait
11 right there. Do you have any questions, Mr. Levitas?

12 MR. LEVITAS: Yes, I do.

13 EXAMINATION

14 BY MR. LEVITAS:

15 Q Mr. Manley, I'm Steve Levitas. I introduced
16 myself earlier. That's my law firm. We're the
17 ones that sent you those materials.

18 A Okay.

19 Q That certainly wasn't our intent to insult your
20 intelligence. We were trying to be inclusive and
21 share with you exactly what we filed with the
22 Commission.

23 A I appreciate you being inclusive but I've got to
24 tell you I take this as an insult.

1 Q Well, it is the material that we were required to
2 file with the Commission and we wanted you to be
3 aware that we made that filing. So I'm sorry if
4 you were insulted. Let me ask you, first of all,
5 are you aware that the Applicant has committed to
6 install and maintain a significant vegetative
7 buffer between your family's home and the first
8 line of solar panels?

9 A Yes, I am.

10 Q And does that -- have you evaluated the effect of
11 that in terms of site lines or aesthetics or
12 other concerns that you have?

13 A Let me say this, I don't live on the property,
14 and while that might be acceptable to me, I don't
15 speak for this entire community. And even though
16 that map has been redrawn from the first one I
17 saw -- and I understand that that was not the
18 first proposal that was submitted -- but even
19 though this map has been redrawn and it takes
20 away some of those panels from in front of the
21 houses in this community, I still don't think
22 that the project is a viable project to be put in
23 this community. I mean, you know, I can't tell
24 Pierce what to do with his property, I mean, it's

1 his. I guess he can do whatever he wants to do
2 with it. But by the same token, on the opposite
3 side of 301 there is open farm land that this
4 project could be moved across 301 and it would
5 not create any problems from this community. And
6 I find it offensive that you go into a black
7 community and throw up a project and you don't
8 talk to anybody in the community in terms of
9 whether or not it's going to be acceptable to
10 them or whether or not the -- I mean, you could
11 have probably had this thing done about without
12 problems if you'd just spoken to the people in
13 the community. You could have appeased them and
14 nothing would have been said about it.

15 Q Okay. We appreciate that. And I think there
16 have been some efforts to contact you and other
17 members of the community in recent weeks. But
18 let me --

19 A (Interposing) Yes, after the first meeting.

20 Q -- but let me continue with my questions. So
21 with respect to property values, you're talking
22 about your reaction to our experts' testimony,
23 have you consulted with any appraiser or obtained
24 any expert opinion concerning the potential

1 impact of this facility?

2 A No, I have not.

3 Q Okay. And you mentioned electromagnetic
4 radiation studies, which studies were you
5 referring to?

6 A I'm referring to the ones that you sent.

7 Q Well, I think -- I think you -- well, I may have
8 misunderstood you. I thought you said that there
9 were studies that indicated that there were
10 adverse impacts of electromagnetic radiation.
11 And I'm wondering whether any of those related to
12 ground-mounted solar facilities --

13 A (Interposing) Yes. Here is your memorandum;
14 this is in your package. And if you will look in
15 your package at the memo --

16 Q Which page are you looking at?

17 A I am looking at the page that says "memo". And
18 the fourth paragraph down here --

19 EXAMINER WATSON: All right. Hang on. Hang
20 on. Hang on.

21 BY MR. LEVITAS:

22 Q Are you referring to Exhibit 3 to Mr. Cleveland's
23 testimony.

24 A I am.

1 EXAMINER WATSON: All right. I need you to
2 move back to the podium so we can get you on the
3 recorder.

4 THE WITNESS: I just wanted to point out
5 where I am. And if you'll look at this paragraph, I
6 mean, that's your own -- that's your own document.

7 BY MR. LEVITAS:

8 Q So I don't know if you were able to read this
9 entire document, but the paragraph that you cite
10 deals with electromagnetic fields associated with
11 power lines close to residences.

12 A Yeah.

13 Q And then if you continue on through that document
14 to the end, to the conclusion, let me just read
15 that to you.

16 EXAMINER WATSON: Where are you reading
17 from?

18 MR. LEVITAS: I'm reading from Exhibit 3 to
19 Mr. Cleveland's testimony. And this is a memo that
20 was part of the communication from the United States
21 Department of Energy and it was from several authors
22 of the National Renewable Energy Laboratory. And at
23 the end of that report after they had mentioned that
24 there are some cases where power lines can be a

1 problem.

2 BY MR. LEVITAS:

3 Q Let me just read this to you, Mr. Manley. It
4 says, "Evidence that EMF from power lines can
5 lead to adverse health effects in humans is
6 relatively weak, and is based on exposure to
7 high-voltage power lines to close proximity
8 (within 150 feet) to residences. Large solar
9 photovoltaic arrays would not likely lead to
10 these levels of exposure anywhere outside the
11 perimeter of the system. Based on the available
12 literature, there is little cause for concern of
13 adverse impacts due to projected electromagnetic
14 fields at homes near the proposed installation".
15 I just wanted to be sure you're aware of that.
16 You don't really need to respond, but I will ask
17 you a follow-up question. Do you have any basis
18 for refuting or disputing the conclusion of the
19 memorandum I just read to you from the U.S.
20 Department of Energy?

21 A No, I have no basis, but I find that -- I mean,
22 it's contradictory. You can find in here
23 anything to support any opinion you want to take.
24 You've got both sides of the argument covered

1 very clearly in here. You've got a side for me
2 and you've got a side for you.

3 Q Well, I want the record -- the document to speak
4 for itself. What I just read to you is the
5 conclusion of the authors and it specifically
6 concluded that there is not an electromagnetic
7 field problem with these types of facilities.

8 I want to move on to another
9 topic. You mentioned Mr. James Pearce, and I
10 believe you said that he's an employee of my
11 client. I don't expect you to know all of the
12 corporate arrangements but the Applicant here,
13 Sunflower, is owned by a company called Geenex,
14 which built another facility in Halifax County.
15 And do you have some reason to believe that
16 Mr. Pearce is an employee of Geenex or a
17 contractor with Geenex?

18 A Just bear with me for a second because that is
19 contained in this document, in one of the
20 documents.

21 Q Well, let me -- I may be able to help you out.
22 Are you referring to the Center for Energy
23 Education on whose board Mr. Pearce serves?

24 A Yes. And so if that's the center for -- what did

1 you call it?

2 Q The Center for Energy Education.

3 A The Center for Energy Education -- if the County
4 Commissioner leaves the position and takes a job
5 with you who is sponsoring The Center for --

6 Q -- Energy Education.

7 A -- Energy Education, then what does that look
8 like to you? Doesn't it look like there's some
9 collusion there.

10 Q No, it doesn't. I happen to be a member of that
11 board as well. And I don't know if you know
12 this, it's a non-profit organization whose
13 mission is to create jobs and help with education
14 in the county and it's --

15 A (Interposing) And this position is a non-paid
16 position?

17 Q Nonpaying position, yes.

18 EXAMINER WATSON: Well, let me sort of cut
19 this off by saying that I represent the North Carolina
20 Utilities Commission and that's whose making the
21 decision at this point in the proceeding so this is
22 not -- I don't represent the county. So the County
23 Commissioners or whoever else might have something to
24 say about it is somebody entirely different and

1 they're not involved in the decision-making that the
2 Commission will have. So I've never heard of
3 Mr. Pearce and he's certainly not on my Commission.
4 So this really is sort of outside of where I need to
5 to go because whoever he works for or represents is
6 completely independent of the Commission who's going
7 to be making the decision at this part of the
8 proceeding.

9 BY MR. LEVITAS:

10 Q Well, I'll move on. Just a couple of more
11 questions, Mr. Manley. You expressed some
12 concerns about stormwater, in fact, there's
13 stormwater runoff at the site. Have you done any
14 kind of evaluation or consulted with any expert
15 about potential stormwater runoff?

16 A Why would I have to do that? I can see the
17 stormwater runoff. I mean, I don't need to talk
18 to an expert to determine if there's going to be
19 stormwater runoff when I can see stormwater
20 runoff right now.

21 Q Well, you suggested that you thought that the
22 installation might exacerbate that problem, and I
23 wondered if you just had any evidence to support
24 that --

1 A (Interposing) Well, this Commission decided last
2 week that they were going to go back and take a
3 look at this issue. So, obviously, it's an area
4 of concern otherwise they wouldn't have
5 postponed, I'm sure, their decision last week on
6 the basis of going back and looking at this
7 issue; and to your question, no, I have not.

8 Q That's okay. I'm just trying to determine what
9 the basis for your opinions might be.

10 EXAMINER WATSON: And I'm just trying to
11 straighten out that the one that you're talking about
12 that postponed their decision last week is not the
13 Utilities Commission. We may be using their room but
14 you're talking about a whole different group of folks.

15 THE WITNESS: I understand. I'm talking
16 about a different committee. But that committee
17 postponed the decision last week because of this
18 issue.

19 EXAMINER WATSON: Right. Well, that's that
20 committee and that committee will still have the
21 opportunity to do whatever that committee is doing and
22 so I'm not that committee.

23 THE WITNESS: I fully understand that.
24

1 BY MR. LEVITAS:

2 Q Excuse me. Mr. Manley, I just wondered, are you
3 aware that the State Environmental Department
4 requires that this project and others like it
5 obtain a permit related to stormwater runoff to
6 ensure that the project complies with state
7 regulations on stormwater?

8 A Well, I'm sure that was the intent of the
9 decision at Tuesday's meeting.

10 Q And, finally, I'm sensitive and I know that the
11 Applicant is to your comments about race and I
12 just wanted to ask you, I assume that you're
13 aware that there are hundreds of facilities,
14 solar facilities, that have been installed and
15 are being installed in North Carolina today.
16 We're -- in fact, if I told you that we're in the
17 top five of all states in the country in terms of
18 solar installations; were you aware of that?

19 A I've seen the data.

20 Q Yeah. And do you have any reason to think that
21 those hundreds of facilities have been
22 disproportionately installed in African American
23 communities as opposed to white communities?

24 A I can only go by what I've seen. And I tell you,

1 you're putting one in an African American
2 community right here in between Halifax and
3 Weldon and somebody has already placed one 16
4 miles away that completely encompasses an African
5 American Community. And I'm sure, if I would
6 have looked at others throughout the state, I'd
7 find a similar pattern.

8 Q But you don't have any -- you haven't done that
9 analysis?

10 A No, I have not done that analysis.

11 MR. LEVITAS: I don't have any further
12 questions.

13 EXAMINER WATSON: Thank you.

14 **EXAMINATION**

15 BY EXAMINER WATSON:

16 Q Mr. Manley, can you -- I've got a picture of the
17 map that shows where the project is located, but
18 I have -- I've only heard vague references to the
19 residential area and I'm trying to figure out
20 where on the map is the particular residential
21 area that you're referring to. Is it --

22 A (Interposing) Can I approach you?

23 Q Well, what road are we talking about that the
24 houses are on?

1 A Well, on the road you're talking about is 1602.
2 If you look at the -- at the beginning of this
3 project from 301 down 1602 which is --

4 VOICE: 1621.

5 A -- Reeses Store Road.

6 Q I'm sorry.

7 VOICE: 1621.

8 A 1621.

9 Q Well, wait a minute. Let me try this another
10 way. What I see on the map is there's two parts
11 to this project. One that's on the east side of
12 301 and one that's on the west side of 301; is
13 that correct?

14 A I'm talking about the one on the west side of
15 301.

16 Q Okay. And then there are some residences on sort
17 of the north side of the area that's on the west
18 side of 301?

19 A And that is correct.

20 Q I see it listed as Lily Lane.

21 A Yeah, that is an area that this project is going
22 in front of.

23 Q Okay. Thank you. And you said you're from
24 Greenville and you don't live on the property and

1 I was curious what your relationship was to the
2 neighborhood?

3 A This is my family's property. There are five of
4 us who were left with this property when my
5 parents died. Five siblings share ownership of
6 this property. And now a couple of the siblings
7 have died and their ownership pieces have been
8 transferred to their kids. And my niece, who
9 sits here, is one of the owners of the property
10 as well because her mom was one of the recipients
11 of this property when our parents passed.

12 Q Okay. And when you say "this property" you're
13 referring to a number of parcels where residences
14 are located?

15 A I am -- no, I'm referring to the parcel that
16 where the road bends, where 1621 bends --

17 Q Okay.

18 A -- all along that red line where the blue margin
19 is to the very south of that is our family
20 property.

21 Q Okay. All right. Thank you. So that would be
22 along, let's see, it looks like it's labeled as
23 White Hill Road.

24 A A portion of that road is White Hill Road; that's

1 correct. And the portion that's designated as
2 White Hill Road is the portion that's paved and
3 maintained by the state. That portion is quite a
4 ways down and then the other path is a farm path
5 which just allows access to the farm land.

6 Q Okay. And you also mentioned something about a
7 fence impinging on property lines but, of course,
8 all of the project and fencing and whatever will
9 be on the Pierce property?

10 A That's right. That's right. But all I'm saying
11 is that our property -- well, this red line is
12 drawn here around White Hill Road --

13 Q Yes, sir.

14 A -- our property adjoins Pierce's there. And
15 we've just got to make sure that that fence stays
16 on the Pierce side and not on our property side.

17 Q Okay. And then, although this is more of just
18 sort of a statement than a question, and I
19 probably you should hold it til later but, again,
20 just a reminder that we don't take the place of
21 whatever county meetings are necessary. So, if
22 there are county approvals -- you talked about
23 county commissioner meetings, you know, those are
24 completely separate and they'll also still have

1 to be completed. So even if the Utilities
2 Commission were to approve the construction, the
3 project, the developer would still have to get
4 any other approvals that are necessary including
5 those from the county or other state agencies.
6 So this is just one approval along the way that
7 the Applicant will need to get in order to be
8 able to build their property.

9 A I fully understood.

10 EXAMINER WATSON: All right. Thank you very
11 much. Thank you for coming tonight.

12 (The witness is excused.)

13 EXAMINER WATSON: Paul Walden.

14 PAUL WALDEN; was duly sworn and
15 testified as follows:

16 EXAMINATION

17 BY EXAMINER WATSON:

18 Q If I could get you to state your name and address
19 for the record that would be great.

20 A My name is Paul Walden and I reside at 1800
21 Reeses Store Road, Halifax, 27839. And on your
22 map that's 16 -- that's Route 1621.

23 Q Okay. And that's the one that comes off of 301
24 and interconnects with the Lily Lane and White

1 Hill; that would be the 1621 we're talking about?

2 A You've got it.

3 Q Okay. Thank you. All right. Then you may
4 proceed with your comments.

5 A Because Mr. Manley did an outstanding job of
6 focusing on community concerns I think I'll take
7 a different side. You know, when I first learned
8 of these solar farms and looked at the cost
9 associated with it, I could not understand how
10 the magnitude of these investments were
11 completely going underneath the -- under the
12 radar, so to speak. And I was that guy that sent
13 that --

14 Q I remember. And if I could get you to face me so
15 that the microphone picks you up, instead of
16 facing the audience, that would be helpful.

17 A You've got it, sir. I was the individual
18 obviously that sent that inquiry into the North
19 Carolina Utilities -- what caught -- questions
20 that come to my mind is there is roughly 723,000
21 square miles in Halifax County; why these two
22 locations? Yeah. What is unique to 301,
23 two miles south of Weldon, Dickens Wildwood Lane
24 (sic), and the original proposal that I saw, both

1 were on the east side of 301. The initial one
2 that, when I made my inquiry to the state,
3 indicated the second was to be roughly a mile
4 east of the intersection of 301 and White Hill
5 Road which would put it in the middle of nowhere,
6 and exactly where it should be, exactly where it
7 should be. And, basically, my concern is I don't
8 know -- Mr. Manley is way out in front of me on
9 his leg work and the details -- but I haven't
10 seen anything that says that there's a health
11 issue involved. But what I do know is that
12 investments of this magnitude being -- having
13 spent 38 years on Wall Street, right -- should be
14 on the front page of the newspaper every day.
15 Right? And as a citizen here in the community,
16 unless you looked at the detail and the
17 classified ads on a Sunday, you would have never
18 known these projects were going up. And that's
19 basically the presentation that I want to make
20 and I'm open for questions.

21 Q Well, just so that I'm clear, your letter raised
22 the issue about the building in an African
23 American community, correct?

24 A Well, I didn't say that specifically.

1 Q Okay.

2 A Right. My thing was that it was being
3 constructed in what I perceived to be a
4 neighborhood that didn't have an active voice, so
5 to speak.

6 Q Well, at the risk of allowing you to be a little
7 repetitive of Mr. Manley, what are your concerns
8 other than the fact that you thought that there
9 should have been more attention given to the
10 project? What real -- what other concern about
11 having it located here?

12 A Is the -- my concern is -- the one that caught my
13 attention initially is that what organizations
14 are investing hundreds of millions of dollars in
15 enterprises that I perceive to be completely
16 under the radar.

17 EXAMINER WATSON: Okay. All right. Any
18 questions, Mr. Levitas.

19 MR. LEVITAS: No, sir.

20 BY EXAMINER WATSON:

21 Q So you -- your -- so you live in one of the
22 houses on the west side of 301?

23 A That is correct.

24 EXAMINER WATSON: Okay. All right. Well,

1 thank you very much. Those were the -- that's the
2 only question that I had. Thank you very much.

3 THE WITNESS: Thank you.

4 (The witness is excused.)

5 EXAMINER WATSON: Charles Copeland.

6 CHARLES COPELAND; was duly sworn and
7 testified as follows:

8 EXAMINATION

9 BY EXAMINER WATSON:

10 Q If you would repeat your name and address were
11 for the record for me?

12 A Charles E. Copeland, 2523 Reeses Store Road,
13 Halifax, North Carolina.

14 Q All right. And if you have a statement you'd
15 like to make.

16 A Yes, sir. Thank you for giving me the
17 opportunity to address you.

18 Q Well, we appreciate all of you coming tonight.

19 A Okay. I have some concerns. First of all, when
20 these particular letters came to my address, I
21 talked to several neighbors and they didn't know
22 anything about this particular project. And
23 there was a meeting scheduled here, the first
24 meeting, but they didn't have the meeting because

1 one of the board members did not show up. They
2 need at least five board members to proceed so
3 they rescheduled it for the 26th in which I
4 attended.

5 Q Which was two days ago?

6 A Yes, sir. And one of my questions is why this
7 particular spot? Because I live right there as
8 you come around the curve of 1621, and I grew up
9 in this community. And I was, you know,
10 wondering why that particular spot because the
11 original map showed that the fence and the solar
12 panels were coming right up to the edge of Reeses
13 Store Road.

14 Q Now, is Reeses Store Road, is that 1621?

15 A 1621; yes, sir.

16 Q Okay. Thank you. And so you're on the right as
17 you come around that curve off through --

18 A Right. Yes, sir.

19 Q All right. Thank you.

20 A And, again, I was wondering why that particular
21 spot. And my other concern was why wouldn't
22 somebody from the particular company come around
23 and ask the community in reference to this
24 particular project because the community didn't

1 know anything about it. And my next question is,
2 they say the community will benefit from this
3 particular project, but my question is who's
4 going to benefit from it, the landowner and the
5 company that's installing the solar farm?

6 Because we're on Roanoke Electric Corporation and
7 I was told they're not involved in this
8 particular project, Dominion Power is and we're
9 not on Dominion Power. So as far as who's going
10 to benefit, that's the question I'm asking; is it
11 going to benefit the community?

12 Q Okay.

13 A Another question I have, I was told that these
14 particular panels were going to be approximately
15 six feet high and they will be track -- they will
16 actually track the sun. So in the morning when
17 the sun rises on the east side and sets on the
18 west side, and I was told that it would not have
19 any effect as far as sun glare, and my question
20 is will there be any sun glare as far as when
21 these solar panels track the sun going down on
22 the west side.

23 Q Okay.

24 A And the size of the panels, okay -- my next

1 question is, what is the lifespan of these
2 particular panels? Because I know with this
3 technology things change. Right now I was told
4 that it was only six feet high. Well what
5 happens when they come up with a new design or
6 new model, will that size actually increase, get
7 tall and get wide or whatever. And, again, what
8 effect will it have as far as the sun hitting
9 those particular panels? And the only other
10 question I have is jobs. This particular project
11 don't look like it would create any jobs in the
12 community anyway so, I mean, it's not really
13 going to affect the community as far as jobs --

14 Q Okay.

15 A -- economics, you know, because we're not going
16 to benefit from that.

17 Q All right. Anything else? I don't want to cut
18 you off.

19 A The other question I have is taxes. And
20 supposedly they did a property survey and then a
21 particular, what they call a land value or
22 whatever. And, if you put the solar panels up,
23 what will that do to the property value of the
24 community? And if it increases the property

1 value that means we're going to have to pay more
2 taxes. And, again, this particular solar farm is
3 not going to benefit us and I don't feel it's
4 right if our property value increases that we
5 should have an increase in property taxes.

6 Q Okay. To the extent that you don't get answers
7 to those questions tonight, again, the
8 representatives of the Company will be here after
9 we finish and perhaps you can ask them those
10 questions directly then if you haven't gotten
11 answers to them yet.

12 EXAMINER WATSON: All right. Any questions?

13 MR. LEVITAS: No questions.

14 A But the only other comment I have is, again, why
15 this particular spot?

16 BY EXAMINER WATSON:

17 Q Okay. And when you first started you mentioned
18 receiving letters in the mail.

19 A Right, sir.

20 Q Those are letters from the county talking about a
21 county meeting?

22 A Yes, sir.

23 Q Okay. All right.

24 A Yes, sir. And the other members in the

1 neighborhood didn't know anything about this
2 particular project that was going to be put right
3 there on the corner of their property.

4 EXAMINER WATSON: All right. Great. Thank
5 you very much.

6 THE WITNESS: Thank you, sir.

7 (The witness is excused.)

8 EXAMINER WATSON: And the last name that I
9 have is William Hodge.

10 WILLIAM HODGE; was duly sworn and
11 testified as follows:

12 EXAMINER WATSON: If you could state your
13 name and address for the record.

14 MR. HODGE: My name is William Hodge. I
15 live at 425 Rightmyer Drive in Roanoke Rapids.

16 EXAMINER WATSON: Okay. All right. And
17 then you may proceed with whatever comments.

18 **DIRECT STATEMENT**

19 BY MR. HODGE:

20 I'm a little different from the other
21 gentleman. Paul Walden is my friend. And I got
22 involved because one Sunday morning -- and I never
23 really do read the help wanted ads, I'm retired, and I
24 put that behind me -- but I was just looking there and

1 saw a solar complex was coming. And I looked it up
2 and it was two miles south of Weldon, and I knew
3 that's where Paul lived and so I kind of -- well, the
4 next time I saw him I teased him a little bit, you're
5 going to have some new sunlight in the area. And we
6 had that discussion and he asked me if I could dig a
7 little deeper and see who is behind that.

8 And so I guess my only comments are Halifax
9 County is a tier one county. Greenex Corporation
10 (sic) has brought us a wonderful opportunity to get
11 involved in solar energy. But I also have some
12 connections in Scotland Neck and in Scotland Neck
13 SunEnergy1 was the company who had the solar farm
14 there. And I will tell you that none of the people in
15 the neighborhood -- and it was a greater residential
16 area that was only built a couple of miles from the
17 city limits, the place where the solar farm was built
18 and it's a 20 megawatt I believe, similar-sized
19 complex as being discussed here. It was only a couple
20 of miles from the city limits, therefore, the zoning
21 laws and who was controlling the land and who had to
22 zone it was a little complicated. But making a long
23 story short, none of the people there knew anything
24 about it, didn't know when it was coming. And even

1 after it was built, our Senator Angela Bryant got
2 together people from the public Utilities Commission
3 who came there, the people from the North Carolina --
4 from NC State that deals with all of the energy, and
5 they came and made a nice presentation to about, I'm
6 going to guess, 35 people that lived in the area and
7 answered a lot of the questions which should have been
8 answered beforehand. They should have known what it
9 was.

10 One of the big questions was, why were all
11 the lights on at night? And, you know, once they got
12 everybody together, it was a simple question, but they
13 were just going as fast as they could working maybe 20
14 hours a day trying to construct the project before the
15 end of the year. And so there was just no information
16 that flows. And so that is in the African American
17 community now. Watch out, you go to bed, you wake up
18 in the morning and there's a solar farm next door.

19 So I do know that Greenex (sic) is here --
20 when Paul asked me to research that -- there are many
21 other projects they're looking at here in Halifax
22 County. And there is an 80 -- I was surprised at how
23 big that project will be and that's gonna be just down
24 the road in Enfield if everything goes right.

1 So my suggestions would be to make sure, as
2 the previous speakers have said, that if we get a
3 little bit more publicity people know what's coming
4 next door, it's explained a little better -- they did
5 invest some money to put a facility here to help us
6 with the education of the youth about that and maybe
7 there could be jobs. We know once they're built
8 there's not very many jobs. They just kind of sit
9 there and do their thing for 20 years. But I do
10 think, I touched base with the Utilities Commission
11 and they ran up all the statutes that's in the paper,
12 so they're doing it as you see fit as the Legislature
13 has told you, that's my best guess. But really that
14 leaves out the person next door. As the first speaker
15 said, the landowner knows what's going on, he knows
16 what's in store for him for the next 20 years. The
17 solar farm person, you don't even know it's Geenex
18 until you go to the Secretary of State's website and
19 look up who formed the LLC. So it is kind of
20 convoluted to say whose the owner, or whose land is
21 it, where it at, and what's going to happen, and maybe
22 if that information was a little bit more put out in
23 the open to Halifax County and the people that live
24 here are going to have a solar farm for a neighbor

1 would feel much better about it, and that's what I
2 have to say.

3 EXAMINER WATSON: Okay. Any questions,
4 Mr. Levitas?

5 MR. LEVITAS: No. Thank you.

6 EXAMINER WATSON: All right. Thank you very
7 much.

8 (The witness is excused.)

9 EXAMINER WATSON: All right. Now, I know
10 there were some folks that came in after we started;
11 is there anyone else that would like to testify? Yes,
12 sir, come on up front. Let me swear you in.

13 VOICE: May I give her my card which has my
14 name and spelling and what all?

15 EXAMINER WATSON: All right. That would
16 probably be helpful. Thank you.

17 VOICE: I'm J. Rives Manning, Jr.

18 EXAMINER WATSON: Just a minute.

19 VOICE: Yes, sir.

20 J. RIVES MANNING, JR.; was duly sworn and
21 testified as follows:

22 EXAMINER WATSON: Now you may proceed.
23
24

1 DIRECT STATEMENT

2 BY MR. MANNING:

3 I'm J. Rives Manning, Jr. That's spelled
4 R-I-V-E-S. And I'm a resident of Roanoke Rapids,
5 North Carolina. I'm a property owner in Halifax
6 County. I farmed, I own farm property. I'm very
7 familiar with the tax evaluations. Now, I also serve
8 as a County Commissioner in Halifax County, have been
9 for 12 years.

10 The question was raised while ago about tax
11 values; how it would affect it. On farm land, it's
12 actually appraised twice. Every time they do a
13 reevaluation. It's the best use value is established,
14 and that is on this particular property somewhere in
15 the neighborhood of \$3000 an acre. Then they have
16 what they call land use evaluation which comes in and
17 it's based upon the use of the land without regard to
18 any location factors. Your best use would be applied
19 location factors whereas, as an example, if it was --
20 is a hard surface road there, and it's a U.S. highway,
21 so it is worth more per acre than a piece that's 500
22 or 1000 yards from the highway and has no road
23 frontage. So it affects the value. All right. The
24 land use value takes all the location factors away

1 from it and then that's applied. That's what the
2 property -- they pay tax on. The best and current use
3 would be somewhere in the neighborhood of \$3,000 an
4 acre. The land use evaluation would be somewhere in
5 the neighborhood of \$600 an acre because it takes the
6 location factor away from it. A farm piece of
7 property in Glenview, which is 25 miles from Roanoke
8 Rapids, would be the same value land use as a piece of
9 property right there in Roanoke Rapids on 301 on the
10 other side of Weldon such as this is.

11 All right. Using the land use evaluation,
12 if this property changes hands or changes use, goes
13 away from farm land to a commercial use, then the \$500
14 an acre evaluation disappears. The land use value
15 disappears because it's no longer farm land. It goes
16 to \$2000 to \$3000 an acre which is the appraised
17 value. So basically the person is going to pay six,
18 seven times more taxes on that. Also, there is a
19 penalty. When you convert the property, you pay the
20 difference in price between the \$500 or \$600 and the
21 \$3000, the difference in the tax rate times the tax
22 rate for that year plus for the three previous years.
23 So, as an example, the rate at \$3,000 an acre, \$0.68
24 of it which is our tax rate, would run \$20.40 on

1 the -- tax. \$500 an acre value at \$0.68 is \$3.40 an
2 acre. So you're talking about \$17 difference per year
3 for the first year and then the difference of three
4 times that so we're talking about a total of \$68 that
5 the man is going to have to pay back. The landowner
6 is going to have to pay additional taxes to the
7 county. Each piece of property is appraised by the
8 county every eight years and so it doesn't change
9 their location -- the value of an adjoining piece of
10 property whether it be farm land or whether it be a
11 solar farm.

12 We have a number of solar farms in the
13 county already in multiple areas and they're not an
14 eyesore, they're not a problem, and I feel like it
15 would be an asset and would aid the tax base in
16 Halifax County for this to be approved, and I
17 recommended it.

18 **EXAMINATION**

19 BY EXAMINER WATSON:

20 Q All right. Let me just make sure, clarify
21 something you said.

22 A Yes, sir.

23 Q The concern that I heard Mr. Copeland make was --
24 the concern that I had heard earlier had to do

1 with property values and the concern that the
2 property value on adjoining land would decrease
3 so that, for example, they wouldn't be able to
4 sell it for as much because it's next to the
5 solar farm. But what I heard Mr. Copeland's
6 concern being he was sort of concerned about the
7 opposite that the value for tax purposes for his
8 adjoining property would increase because it's
9 next to the property the solar farm is on. And
10 what you're saying is that the change in the tax
11 value of the property only affects the property
12 which has been improved, not the -- so the tax
13 value of adjoining properties won't change except
14 in the normal course of the eight year
15 reevaluations?

16 A Yes, that is correct. Yes, sir.

17 EXAMINER WATSON: Okay. All right. Any
18 other questions?

19 MR. LEVITAS: No, sir.

20 MR. MANLEY: I want to --

21 EXAMINER WATSON: Just, just, just -- all
22 right.

23 THE WITNESS: Are you through with me?

24 EXAMINER WATSON: Yes, sir. Thank you very

1 much.

2 THE WITNESS: Thank you very much.

3 (The witness is excused.)

4 EXAMINER WATSON: All right. I'm going to
5 let you take up whatever questions you have with him
6 outside.

7 MR. MANLEY: Outside.

8 EXAMINER WATSON: You raised your hand, did
9 you want to testify?

10 VOICE: Yes, I do.

11 EXAMINER WATSON: All right. Then come on
12 up front.

13 **TERRI MEDLIN;** was duly sworn and

14 testified as follows:

15 EXAMINER WATSON: Thank you very much.

16 **EXAMINATION**

17 BY EXAMINER WATSON:

18 Q Now, if you'll give us your name and address.

19 A My name is Terri Medlin. It's spelled T-E-R-R-I,
20 last name is spelled M-E-D-L-I-N. I reside at
21 2556 Reeses Store Road, Halifax, North Carolina
22 27839-9193.

23 Q And are you --

24 A (Interposing) I am.

1 Q -- the niece that was referred to earlier?

2 A Yes, I am the center of it so, I believe, I need
3 to speak.

4 Q You may proceed.

5 A I live in the house in the corner where the
6 panels is going to reflect in my house and I
7 think I have an opinion of it. I guess
8 Mr. Manning said it's not an eyesore. I beg his
9 opinion. That's his opinion. I will look at
10 this for the rest of my life. Now, I have vinyl
11 siding; I have energy windows. Put this up there
12 because they said this is the best way to go
13 energy wise. Now, I find out that this is not
14 the best way. Due to the sun coming in some
15 time, it may melt my vinyl siding, my
16 energy-efficient windows. And the panels are
17 going to rise up because I can tell you where the
18 sun sets up and shines right in my house; my
19 plants just love it. And this is what I have to
20 look at for the remainder of my life. When I
21 come outside and sit on my front porch, and I beg
22 the difference of what they were talking about
23 300 feet. Guess what? I walked it off. It's
24 still too close to me.

1 The water runoff has been a
2 problem since the farm been has there. In the
3 beginning, we put a drainage system there as it
4 was off of Pierce's land because it's an elevated
5 land and it runs off on our land. So we have a
6 system, it runs off of the drain pipe, it flows
7 out, it goes down probably next to the Walden
8 land, it runs out into a little pond somewhere
9 down there through the woods.

10 The next one I can speak on is the
11 church. The church had the same type of runoff.
12 Most people don't see that. But we have what you
13 call a ditch and it runs off the land now. The
14 water runs off, run into the ditch and runs
15 around.

16 These are my concerns. My concern
17 is why this community? I was told that it comes
18 up to Weldon -- we fit right in the case where
19 Old Dominion wants it. Somebody didn't tell us
20 that 100 years ago when we were out farming and
21 doing it. Yes, Pierce had tractors; we had
22 mules. Nobody told us that. Nobody still came
23 out to say, we want to put up a solar farm. When
24 you put something on the back page of the

1 newspaper, and not many people do newspapers.

2 Now, I can tell you how many elder people we've
3 got out there. They didn't come because I don't
4 know what a solar farm is, but I do. Now like I
5 say, it affects me and only me. You can sit up
6 here and talk all day along, it's not an eyesore.
7 I beg the difference. I have to look at it when
8 I come in, when I wake up.

9 Now, if the sun naturally shines
10 in my window, when that panel raises up and
11 starts collecting, at some point I'm going to get
12 something else. Until facts are proven that I
13 don't die from this, you don't know this. Right
14 now, I am in good health. You don't know that
15 once this comes down into our water supply, in
16 our wells, we do have wells out there. I'm not
17 in the city where everybody is on city water.
18 All of this should be taken into consideration.

19 I looked at the land, the wires
20 that come across and you can look at it. Sure, I
21 know where the power stations are. And I can
22 also look across the road. No human beings live
23 over there, nothing but deers; the substation is
24 right there. That's the way to do it. I've seen

1 it backed up but that's because we came down, I
2 came down and spoke on behalf and they have been
3 backing it and doing it. What about my aged
4 neighbors who don't know this and still set out
5 there with them. And it's not because they're
6 ignorant, it's due to the fact that they're old
7 and they don't know who the Utilities Commission
8 is, they don't know what an Energy Education Fund
9 is. It's due to the simple -- they're not dated.
10 And, like I say, yes, I do have something to say
11 because it affects me directly and I thank you.

12 Now, I'm open for you, sir.

13 Q Well, let me ask one question first. So on our
14 map, if you are coming off of 301 onto Reeses
15 Store Road and you get to the curve in the
16 road --

17 A (Interposing) That's where I am.

18 Q -- you're the house on the left side of the road?

19 A Right in the curve.

20 Q Okay. Whereas, we had the gentleman earlier is
21 across the street from you on the right side of
22 the road?

23 A That is correct.

24 EXAMINER WATSON: All right. Thank you very

1 much. Any questions?

2 MR. LEVITAS: I do have a few questions for
3 you, Ms. Medlin. Thank you.

4 EXAMINATION

5 BY MR. LEVITAS:

6 Q I think I understood you to say that you had a
7 concern about some light reflecting off of the
8 panels into your house and maybe even destroying
9 your siding and your windows?

10 A Okay. Let me go back to that. I said, when it
11 first came out vinyl siding was the best thing to
12 place on your house; the energy efficient windows
13 was the best way to go. Now it comes to light
14 that sometimes the sunlight can start to scorn
15 your house with the energy windows. Now I've got
16 panels out there, I mean, that's been a proven
17 fact. So I'm asking now, what is it going to do?

18 Q So my question to you is do you have any reason
19 to believe that sunlight from these panels is
20 going to reflect onto your house?

21 A Yes.

22 Q What is your reason?

23 A The reason is, I think they said it's supposed to
24 be 300 feet, I don't have the 300 feet from the

1 buffer to push it back. I don't have that
2 part because I'm right there.

3 Q Have you seen the current buffer that's proposed
4 for the property?

5 A I've seen it.

6 Q Have you measured the distance from your house to
7 the first panel inside of that buffer, on the
8 outside of the buffer?

9 A No, but a six-foot fence -- I'm 5'2" -- I can't
10 see over that. I'm 5'2" -- you tell me you're
11 going to put a six-foot fence up there, going to
12 be a buffer, then after that you're going to
13 plant shrubs to go around there; in between that
14 fence you're going to put slats so that makes it
15 impossible for me to see at all. So that means I
16 am in prison with the walls. And the reason I
17 say that is because I've worked there 25 years in
18 prison so I know what walls are.

19 Q So you're concerned about the fence? But I was
20 asking you about the light. Do you have any
21 reason to believe --

22 A (Interposing) Yes. I'm concerned about the
23 lights. What would it do? For 25 years the wear
24 and tear, what would it do?

1 Q But my question -- I'm sorry, Ms. Medlin, my
2 question is do you have any reason to believe
3 that these panels are going to reflect light onto
4 your house?

5 A Yes.

6 Q What is the basis for the reason?

7 A The basis is because it was explained to me that
8 when they're collecting the sun, the sun rises up
9 in the east and sets in the west, at that point
10 we're going to start coming up, we're going to
11 start collecting. As the sun goes down, my
12 assumption is that the panel will go down. It
13 won't keep rising up like this, it will
14 eventually go down. And if that's possible, if
15 that's what I was told was correct, at some point
16 it should sit right up to my house.

17 Q And you indicated you made an assumption, so if
18 the developer could show you that the panels will
19 not be operated in a way that will reflect light
20 onto your house, would that address that concern?

21 A That's one of them.

22 Q Okay. I just wanted to get to that issue. And I
23 thought I heard you say that there were some
24 people, maybe some elderly folks in the

1 neighborhood --

2 A (Interposing) Yes.

3 Q -- who had not benefited by the buffer. Are you
4 saying that their houses are closer to the
5 project and are not as buffered as --

6 A (Interposing) Some of them are not going to even
7 get that 300 feet like I am because the way it is
8 set, the way Pierce's land comes -- it's a small
9 ditch that separates us.

10 Q Okay.

11 A And this is the thing I'm talking about. It's
12 not a wide space, it's what separates us. And
13 the same thing about it -- now, they assure me on
14 the White Hill Road, they're not going to be
15 graded, that they must use the road 301 to enter
16 and exit that property, ingress and egress that
17 property so I'm satisfied with that.

18 Q And you talked about the stormwater, I gather
19 you've got a problem there now with the Pierce's?

20 A We have a problem. Pierce knows about the
21 problem. Pierce even came to Halifax to solve
22 the problem and it was brought up that the land,
23 that the problem he wants to solve, it belongs to
24 the Pierce's and the Manley's. So, therefore, we

1 came up, he came up, and he put another storm
2 drain. We already had one storm drain there as
3 an existing, then you put another storm drain,
4 I'm sorry, this a way --

5 EXAMINER WATSON: Can I get you to turn back
6 around to me?

7 THE WITNESS: Okay.

8 EXAMINER WATSON: Thank you.

9 A This one storm drain is this a way. That wasn't
10 good enough. Then he came and put another storm
11 drain in front of that storm drain that helped
12 with the water run again. So the water runs into
13 the big one and the water runs into that one and
14 that runs off.

15 BY MR. LEVITAS:

16 Q Does it flood your property or impact your
17 property?

18 A No, it's not -- no, it's not -- it doesn't flood
19 it, but in the past over the years on this path
20 it has caused mudholes and everything that you
21 have to go fix if you want to go down there and
22 what not. So this is why we went back and asked
23 permission to -- do you think it's all right if I
24 go? -- sure you need to start repairing the road,

1 too; I repair it so why not go on and do it.

2 EXAMINER WATSON: So this path that's
3 mentioned a couple of times is actually a dirt road
4 for driving on?

5 A Right. On one half it is operated by the state,
6 but at the time when the road was coming through,
7 the White Hill Road, they said no. So at that
8 point where his land started that's where the
9 road ends because you've got to get permission
10 for the state to come and bring the road through.
11 So this is why it is a dirt path.

12 EXAMINER WATSON: Thank you.

13 BY MR. LEVITAS:

14 Q So that dirt path, that is affected by the runoff
15 from the Pierce property?

16 A Yes.

17 Q And so if the developer of the solar farm could
18 figure out a way to make that situation better
19 rather than worse --

20 A (Interposing) Are you talking about
21 compromising? Are we talking about compromising?
22 Yes, I will have to see that first. But like you
23 say we still got this barrier that's going to be
24 here; this wall, I'm not even going to go with

1 that because, like I say, walls is less
2 attractive and I'm against it. I'm not for it
3 because it affects my community, the substation
4 is going to come up right outside of Washington
5 Avenue. Now, let's back this up. If you had of
6 came earlier and presented more information and
7 people been exposed to it, yes. Educate,
8 dialogue with people, I can go with that, but
9 when you put it on the back page of something
10 you're suppose to read it for the people -- I
11 read the paper every day front and back. When
12 I'm not at work I look at it on the computer but
13 that's just me; I do that. Not everybody reads
14 the newspaper. The *Daily Herald* is not a very
15 large paper so not everybody read that. But,
16 like I said, if we had education, dialogue, who
17 knows where we would be now.

18 MR. LEVITAS: Thank you. I don't have
19 anything further.

20 EXAMINER WATSON: I think you answered my
21 questions. Thank you very much.

22 THE WITNESS: Thank you.

23 (The witness is excused.)

24 EXAMINER WATSON: All right. Anyone else?

1 All right. Come on forward then. And just so I get a
2 sense of where we are, is there anyone else that wants
3 to speak?

4 (No response.)

5 TONY BROWN; was duly sworn and
6 testified as follows:

7 EXAMINER WATSON: If you would give us your
8 name and address.

9 MR. BROWN: My name is Tony Brown. Tony
10 Brown. I'm actually the County Manager for Halifax
11 County. My home address is 1017 Green Street, no -E-
12 on the end, Roanoke Rapids, North Carolina 27870.

13 EXAMINER WATSON: All right. And then
14 whatever comments you want to make.

15 **DIRECT STATEMENT**

16 BY MR. BROWN:

17 First, and I'm not really here to take a
18 position, but I wanted to just, for the record, put
19 out there that since Geenex has been partnering with
20 the county, with respect to what they're bringing to
21 the county, I can say they've been a good corporate
22 citizen. And I think every time we've had concerns
23 that have come up, they have positively addressed
24 those concerns. And I think they have gone above and

1 beyond and addressed the concerns so I think just by
2 virtue of having this hearing and hearing some of the
3 comments they are being made, I think they will react
4 to that. And I think they will try to do whatever
5 they can, within their control, to address and fix the
6 concerns they have.

7 One thing I want to mention on behalf of the
8 county, and I actually agree with the comments they're
9 making about being -- providing the education,
10 information upfront, being transparent with telling
11 the folks what's going on. On behalf of the County, I
12 am going to work with our planning department to
13 address setting up some type of an ordinance for the
14 creation of solar farms in the county, to address
15 these things that we're talking about, and I think
16 going forward that will be -- that ordinance being in
17 place, that will allow and also require information to
18 be presented prior to getting to this particular
19 environment here. So just, for the record, we are
20 going to address that from the county perspective so
21 we won't have these problems going forward. So I just
22 wanted to put that out there.

23 I'm not really here to take a position but I
24 wanted to make sure that both sides were aware that we

1 appreciate Geenex being here and I appreciate hearing
2 the concerns of those that have those concerns, and
3 within the county's purview, we're going to address
4 that as well.

5 VOICE: We can't hear you.

6 EXAMINER WATSON: Okay. Thank you.

7 Mr. Levitas, any questions?

8 MR. LEVITAS: No.

9 EXAMINATION

10 BY EXAMINER WATSON:

11 Q Can I -- I was going to ask the Applicant later
12 but since I've got you, you might know better.

13 A Sure.

14 Q I keep hearing about these meetings; what
15 approvals, zoning, otherwise, what approvals are
16 required from the county?

17 A There's a -- on Tuesday there was a Board of
18 Adjustment meeting and I was not in attendance in
19 that meeting. Probably someone else that was in
20 that meeting, I think my Assistant County Manager
21 is here, and was in the meeting --

22 Q Well, but I guess my question is, you mentioned
23 the Board of Adjustment is that because they
24 had -- is there a -- is there a --

1 A (Interposing) Conditional use permit, that's
2 part of --

3 Q Thank you. So there is a permit?

4 A Right. Certain departments, they have to meet
5 locally before this goes forward as well.

6 Q Okay. So there is a permit from the county in
7 order to basically to install solar panels on
8 what was farm land?

9 A Yes, sir.

10 Q Okay. All right.

11 A In our current ordinance that's how it has to
12 happen. If we upgrade it and did a specialized
13 solar farm type ordinance there would be more
14 conditions added to that so it would be above and
15 beyond what the current one requires.

16 Q Okay. And what notice is provided to the
17 community of this hearing on the conditional use
18 permit?

19 A I'm not sure off the top of my head.

20 VOICE: (Inaudible)

21 Q Okay. That's all right.

22 A I don't know off the top of my head, but I can
23 have my Assistant County Manager come forward and
24 she can tell you.

1 Q No, no. That is fine. Just since I had you I
2 would ask if you knew.

3 A Okay.

4 EXAMINER WATSON: All right. Any other
5 questions, Mr. Levitas?

6 MR. LEVITAS: No, sir.

7 EXAMINER WATSON: Thank you very much.

8 (The witness is excused.)

9 EXAMINER WATSON: All right. Anyone else?
10 Do you need a break, Madam Court Reporter? All right.
11 Why don't we proceed now then with the Applicant's
12 testimony. And if you would call your witnesses and
13 have them go through the same drill.

14 MR. LEVITAS: The first witness I'll call is
15 Georg Veit.

16 **GEORG VEIT;** was duly sworn and
17 testified as follows:

18 **DIRECT EXAMINATION**

19 BY MR. LEVITAS:

20 Q Mr. Veit, would you state your full name and
21 address for the record, please?

22 A My name is Georg Veit (pronounced Gairg Vite),
23 Georg Veit (pronounced George Veet). The address
24 is 5960 Fairview Road in 28210 Charlotte, North

1 Carolina.

2 Q And, Mr. Veit, did you cause to have prefiled on
3 May 18th, 10 pages of direct testimony in
4 question and answer form along with three
5 exhibits consisting of 16 pages.

6 A Yes, I did.

7 Q Are there any corrections that you want to make
8 to your testimony at this time?

9 A Yes, there are.

10 Q Would you explain what those are?

11 A The first change would be to Exhibit 1 of the
12 testimony is, it's a version of the Application
13 that was filed on March 2nd, and that version of
14 the exhibit was amended on March 18th to provide
15 the correct Registration Statement and Exhibit --
16 that Application was further amended on
17 April 20th with the corrected site map --

18 Q (Interposing) Thank you.

19 A -- further modified with my testimony to add the
20 additional buffer, the buffer zone.

21 Q Buffer zone.

22 A And then Exhibit 2 does not show the full extent
23 of the setback of the property as shown on the
24 amended Application.

1 EXAMINER WATSON: Exhibit 2 does or does not
2 show the full extent?

3 A It does not show the full extent so we actually
4 set it back a bit further.

5 EXAMINER WATSON: Okay.

6 BY MR. LEVITAS:

7 Q Maybe you can explain that a little further. How
8 has the buffer or setback been increased or
9 modified relative to the exhibit that was
10 included with your testimony?

11 EXAMINER WATSON: And we're talking about
12 the part that's on the west side of 301 down off of
13 White Hill and 1621?

14 A That's correct.

15 EXAMINER WATSON: Okay.

16 A And what was increased was the buffer of the
17 south where we increased the distance to the
18 property line.

19 BY MR. LEVITAS:

20 Q Now, with those corrections, if I were to ask you
21 the same questions that appear in your prefiled
22 testimony today, would your answers be the same?

23 A Yes, then the testimony would be as it is.

24 MR. LEVITAS: If I could move into evidence

1 now Mr. Veit's testimony consisting of 10 pages, three
2 exhibits of 16 pages?

3 EXAMINER WATSON: Let's see, I suppose first
4 it will be so marked and then we'll -- let's move it
5 all at the end.

6 MR. LEVITAS: Okay. That will be fine.
7 Thank you very much.

8 (Per Examiner Watson on page 94, the exhibits and
9 testimony is received into evidence.)

10 Veit Exhibits 1 - 3

11 (Identified and Admitted)

12 (WHEREUPON, the prefiled direct
13 testimony of **GEORG VEIT** is copied
14 into the record as if given orally
15 from the stand.)
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May 18 2015
Jun 10 2015

1 **Q. Please state your name and address for the record.**

2 A. My name is Georg Veit. My business address is 7804 C Fairview Road, #257,
3 Charlotte, North Carolina 28226.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am a Manager of Sunflower Solar, LLC ("Sunflower Solar"). Sunflower Solar is
6 an affiliate of Geenex Solar, LLC ("Geenex"), which develops solar generating
7 facilities.

8 **Q. Please discuss your credentials.**

9 A. I have over six years of experience in the solar industry and lead Geenex's
10 development of utility scale solar generating facilities. My experience covers all
11 facets of project management, including commercial development, project finance,
12 environmental permitting, process design, construction management, and
13 operations. In the past, I led the efforts to develop HXOap Solar One, a 20 MW
14 project located in Halifax County, which achieved commercial operation in
15 December 2014. Initially, I gained my experience through the development and
16 ownership of several solar systems in Germany. I earned a master degree in
17 Philosophy from Freie Universität in Berlin, Germany.

18 **Q. What is the purpose of your testimony?**

19 A. The purpose of my testimony is to support Sunflower Solar's application for a
20 Certificate of Public Convenience and Necessity ("CPCN").

21 **Q. Please describe the proposed facility for which Sunflower Solar seeks the**
22 **CPCN.**

1 A. The proposed facility is described in detail in the application for the CPCN filed in
2 this docket (the "Facility"), which is attached hereto as Exhibit 1. The Facility will
3 be located approximately two miles south of the town of Weldon on a parcel just
4 east of the intersection of Dickens Wildwood Road and Highway 301 and south of
5 the intersection of Lilly Lane and Highway 301, Halifax County, North Carolina.
6 Sunflower Solar is leasing the real property from the current owners and currently
7 owns 100% of the project. As proposed, the Facility will consist of approximately
8 ninety-thousand (90,000) 310 to 330 w photovoltaic (PV) modules (or the
9 equivalent) affixed to racks, which will be supported by piles driven in the ground.
10 They system will utilize inverters ranging from one (1) to two and a half (2 ½) MW.
11 The Facility will be surrounded by chain link fencing. It is anticipated that the
12 Facility will be commissioned in June 2016.

13 **Q. To whom will Sunflower Solar sell the power generated by the Facility?**

14 A. Sunflower Solar will sell the output of the Facility to Dominion North Carolina
15 Power pursuant to a negotiated power purchase agreement.

16 **Q. Please explain the steps that Sunflower Solar plans to take to minimize the**
17 **disturbance to neighbors during the construction of the Facility.**

18 A. Geenex has developed, and is developing, numerous solar facilities in North
19 Carolina and elsewhere. It strives to be a good neighbor through the permitting,
20 design, and construction of the Facility; and to address concerns raised by
21 neighboring property owners. During construction, we take measures to ensure that
22 appropriate sedimentation and erosion control measures are in place; we maintain,
23 to the greatest extent possible, a trash and litter-free construction site; and we

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1 operate heavy machinery during limited hours, typically from 7:00 am to 7:00 pm.

2 In the case of the Facility, we plan to exceed the setback zoning requirements to
3 include an additional voluntary buffer with vegetative screening along Reese's Store
4 Road and parts of White Hill Road as further shown in Exhibit 2.

5 **Q. Please explain the steps that Sunflower Solar plans to take to maintain the**
6 **Facility over the course of its operating life.**

7 A. Geenex and Sunflower Solar take great pride in the operation of facilities to ensure
8 that they are well-maintained and orderly. With respect to maintenance of the site,
9 once the facility has been constructed, Sunflower Solar will complete final grading,
10 comply with all environmental and land use requirements, and perform final
11 landscaping. The service roads will be graded and any disturbed land will be tilled
12 and re-seeded for stabilization. The site will be completely fenced.

13 **Q. How will the community benefit from this facility?**

14 A. First and foremost, the Facility will provide 44,000 MWh a year of emission-free
15 renewable energy. The addition of this renewable energy to Dominion North
16 Carolina Power's system has the potential to cause Dominion North Carolina Power
17 to defer the addition of fossil fuel-fired generation to its generating fleet. Second,
18 the energy generated by the Facility will be consumed by residences that are located
19 on the same feeder line. Serving the load nearest to the Facility from energy
20 generated by the Facility minimizes the loss of power that occurs in the
21 transmission and distribution lines when these residences and business are served
22 by generation that is located many miles away. Finally, the Facility will involve
23 significant economic development benefits in Halifax County. It is anticipated that

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1 this Facility will create 120 local construction jobs for approximately five months
2 and will utilize local businesses during construction. In addition, the project will
3 provide additional tax base to local governments resulting in approximately
4 \$35,000 of dollars of additional personal property tax revenue annually.

5 **Q. Are there any additional benefits that will result from the construction and**
6 **operation of the Facility?**

7 A. In 2007, with the enactment of Session Law 2007-397 ("Senate Bill 3"), North
8 Carolina became the first state in the southeastern United States to adopt a
9 renewable energy and energy efficiency portfolio standard ("REPS"). As required
10 by Senate Bill 3, by 2021, investor-owned utilities, including Dominion North
11 Carolina Power, are required to meet up to 12.5% of energy needs for retail sales
12 through renewable energy resources or energy efficiency measures.
13 Compliance with these REPS requirements is demonstrated through the purchase of
14 renewable energy certificates ("RECs"). The Facility will provide a significant
15 source of RECs for use by electric power suppliers to comply with their REPS
16 obligations. It is anticipated that the Facility will provide 44,000 RECs annually.
17 In addition to facilitating the compliance of the electric power suppliers in North
18 Carolina with their REPS obligations, the Facility will promote the various
19 objectives of Senate Bill 3, including: (1) diversifying the resources used to meet
20 the energy needs of North Carolina consumers; (2) providing greater energy
21 security through the use of indigenous resources; and (3) encouraging private
22 investment in renewable energy. Finally, the electric utilities in North Carolina

1 have acknowledged the generation benefits of distributed base load power to
2 stabilize the grid.

3 **Q. How and why did Geenex select the location of the Facility?**

4 A. When Geenex entered the market in 2012 and began looking at different sites for
5 utility-scale solar projects, we were fortunate to discover and acquire control of the
6 former airport in Halifax County, which is an excellent site for solar. In the course
7 of successfully developing a 20 MW project on that site, we developed excellent
8 relationships with elected officials and other community leaders in Halifax County
9 and committed to leading and investing in energy education and training in the
10 region. As a result, we have looked for additional solar development opportunities
11 in Halifax County and the surrounding area.

12 **Q. How does Geenex generally select sites for its facilities?**

13 A. In general, Geenex selects sites in two ways. First, Geenex evaluates certain criteria
14 for potential sites, including territory, potential for interconnection, size of the
15 property, and topography. Based on these criteria, Geenex performs a GIS
16 evaluation to identify potential parcels. Geenex then calls the land owners of
17 identified parcels to determine interest. Second, as a result of our successful solar
18 project located at the former county airport and our community involvement,
19 Geenex is approached by landowners, either directly or indirectly, to inquire about
20 potential opportunities. Geenex will then evaluate the screening criteria. If a parcel
21 does not pass this initial screen, Geenex will not pursue the parcel further.

22 **Q. Does Geenex consider the race or other characteristics or residents in the**

1 **surrounding community in selecting sites for its facilities?**

2 A. Absolutely not. Our site selection, including the selection of the Sunflower Solar
3 site, is in no way based on the property owner's or surrounding citizens' race.
4 Geenex does not consider race, color, national origin, or income in selecting its
5 sites. Site selection is based solely upon the screening factors related to the
6 property discussed above. In addition, Geenex is committed to assisting low-
7 income and minority communities by promoting economic development and
8 creating jobs above the local median wage.

9 **Q. With respect to the Facility in this proceeding, how did Geenex select the site?**

10 A. Geenex was contacted by the landowner. After being contacted by the landowner,
11 Geenex evaluated each site criterion and determined that the parcel was feasible for
12 a solar facility. Geenex negotiated and entered into a lease agreement with the
13 landowner. Following the lease execution, Geenex initiated development of the
14 site.

15 **Q. Has Geenex taken any steps to gain support for its solar projects from Halifax**
16 **County and its citizens?**

17 A. Yes. Geenex and Halifax County seek to promote local economic development and
18 create jobs above the median average wage in the County. Halifax County selected
19 Geenex to construct and develop a 20 MW solar project at the former county
20 airport. Geenex has a long-term plan, which consists of a strong local presence and
21 base in Halifax County and this region of the State. We believe that community
22 support is essential for a company and industry to be successful. To accomplish

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1 this objective, we believe that it is important for the community to understand and
2 embrace what we do. Geenex is therefore leading the efforts to build the Center for
3 Energy Education, a non-profit dedicated to the advancement of renewable energies
4 by creating awareness in the community; providing information, training, and
5 education to students; and serving as a hub for the industry in eastern North
6 Carolina. Geenex's unique commitment to Halifax County is an example of how
7 Geenex goes above and beyond normal business activities to be a good corporate
8 citizen that values and promotes the interests of local residents.

9 **Q. Has Geenex's development of solar projects in Halifax County been supported**
10 **by members of the African-American community?**

11 A. Yes. Geenex has developed an excellent relationship with the Halifax Board of
12 Commissioners, which includes, and has included, several members of the African-
13 American community. Mr. James Pierce, former Chairman of the Board, supported
14 our initial project in the County and now serves as Vice-Chairman of the Board of
15 the Center for Energy Education (the "Center"), which I chair. Mr. Vernon Bryant,
16 current Chairman of the Board of Commissioners, and Mr. Tony Brown, the
17 Halifax County Manager, have both been strong supporters of solar development in
18 Halifax County and of Geenex's efforts in particular.

19 Geenex also has strong ties to Halifax Community College. Its President, Dr. Ervin
20 Griffin, spoke at the ground breaking of the Center and Dr. Deryl Fulmer of the
21 College faculty recently joined the Board of the Center. State Senator Angela
22 Bryant also spoke at the Center groundbreaking.

23 **Q. Have you read the comments filed by Paul Weldon and Jim Manley in this**

1 **docket?**

2 A. Yes.

3 **Q. What is your response to these comments?**

4 A. Geenex and Sunflower Solar are open to hearing the concerns of neighbors and
5 working cooperatively to ensure that any impact to neighbors caused by the
6 construction of the Facility is minimized and that the Facility makes a positive
7 contribution to the community. With respect to adequate public disclosure,
8 Sunflower Solar seeks to be open and transparent with the surrounding community
9 in connection with its development plans. As required by applicable laws and
10 regulations, Sunflower Solar notified the public of its plans to construct the Facility.
11 I have also reached out to both Mr. Weldon and Mr. Manley, via phone
12 conversations and email, in an attempt to address their concerns.

13 **Q. Do you believe the project will have any adverse impacts on public health or**
14 **the environment?**

15 A. No. The Facility will be required to meet environmental standards and obtain
16 applicable permits from North Carolina Department of Environmental and Natural
17 Resources, including a Stormwater Management Permit and an Erosion and
18 Sedimentation Control Plan and Stormwater General Permit Coverage for
19 Construction-Related Activities. In addition, Sunflower Solar will work with the
20 local government to secure any and all necessary local approvals for the project.
21 To the best of my knowledge, solar facilities such as the one proposed here do not
22 create a potential for adverse impacts to public health. The testimony of Sunflower

1 Solar's consulting engineer, Tommy Cleveland, supports this conclusion.

2 **Q. How do you respond to the comments about impacts to the neighbors' view-**
3 **shed and property values?**

4 A. Geenex has directly addressed this potential impact to neighboring landowners by
5 voluntarily implementing a buffer zone and a vegetative screen. The voluntary
6 buffer will significantly exceed Halifax County's mandatory setback requirements,
7 which are: 40 feet for the front, 30 feet for the rear, and 15 feet for the sides of any
8 Agricultural/Residential property. The vegetative screen will be planted along the
9 fence line bordering Highway 301 and the voluntary buffer. The screen will consist
10 of short shrubs that grow to a mature height of 6 to 10 feet. Geenex will consider
11 four species of evergreen trees for the vegetative screen: American Holly, Red Tip
12 Photinia, Leyland Cypress, or Wax Myrtle varieties. As set forth in his pre-filed
13 testimony, Sunflower Solar's consultant, Mr. Richard Kirkland, has concluded that
14 the Facility will not have an adverse impact on neighboring property values.

15 **Q. Do you have any further response to the comments about the Facility?**

16 A. As previously noted, Geenex did not consider race or other discriminatory factors in
17 in selecting the site for the Facility. In addition, Geenex is not aware that its
18 facilities or other solar facilities in North Carolina have been disproportionately
19 sited in low-income or minority communities.

20 **Q. What is your recommendation with respect to the application for a CPCN?**

21 A. It is my recommendation that the Commission issue an order awarding the CPCN
22 for the Facility.

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1 | **Q. Does this conclude your testimony?**

2 | A. Yes.

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May 18 2015
Jun 10 2015

1 BY MR. LEVITAS:

2 Q Mr. Veit, do you have a summary of your testimony
3 to present today?

4 A Yes, I do.

5 Q Let me distribute copies of that and then I'll
6 ask you to read that into the record.

7 MR. LEVITAS: Would you like a hard copy?

8 EXAMINER WATSON: That would be great.

9 Thank you.

10 BY MR. LEVITAS:

11 Q Please proceed.

12 (WHEREUPON, the summary of GEORG
13 VEIT is copied into the record.)
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**SUMMARY OF TESTIMONY OF GEORG VEIT
DOCKET NO. SP-5272, SUB 0**

My name is Georg Veit, and I am a Manager of Sunflower Solar, LLC. Sunflower Solar is an affiliate of Geenex Solar, LLC, which develops solar generating facilities.

On March 3, 2015, Sunflower Solar filed an application for a Certificate of Public Convenience and Necessity ("CPCN") to construct a 20 MW solar photovoltaic energy facility two miles south of the town of Weldon in Halifax County, North Carolina. The purpose of my testimony is to support Sunflower Solar's application for a CPCN.

I have over six years of experience in the solar industry and lead Geenex's development of utility scale solar generating facilities. My experience covers all facets of project management, including commercial development, project finance, environmental permitting, process design, construction management, and operations. In the past, I led the efforts to develop HXOap Solar One, a 20 MW project located in Halifax County, which achieved commercial operation in December 2014. Initially, I gained my experience through the development and ownership of several solar systems in Germany. I earned a master degree in Philosophy from Freie Universität in Berlin, Germany.

Geenex has developed, and is developing, numerous solar facilities in North Carolina and elsewhere. It strives to be a good neighbor through the permitting, design, and construction of the Facility; and to address concerns raised by neighboring property owners.

The Facility will have a number of positive benefits to the public and the environment. First, the Facility will provide 44,000 MWh a year of emission-free renewable energy. Second, the energy generated by the Facility will be consumed by residences that are located on the same feeder line, which will minimize the loss of power. Finally, the Facility will involve significant economic development benefits in Halifax County. It is anticipated that this Facility will create 120 local construction jobs for approximately five months and will utilize local businesses during construction. In addition, the project will provide additional tax base to local governments resulting in approximately \$35,000 of dollars of additional personal property tax revenue annually.

Geenex had developed strong relationships with elected officials and other community leaders in Halifax County. In 2012, Geenex acquired control of the former airport in Halifax County and successfully developed a 20 MW project on that site. Following this project, we have looked for additional solar development opportunities in Halifax County and the surrounding area.

Geenex generally selects sites in two ways. First, Geenex evaluates certain criteria for potential sites, including territory, potential for interconnection, size of the property, and topography. Based on these criteria, Geenex performs a GIS evaluation to identify potential parcels. Geenex then calls the land owners of identified parcels to determine interest. Second, as a result of our successful solar project located at the former county airport and our community involvement, Geenex is approached by landowners, either directly or indirectly, to inquire about potential opportunities. Geenex will then evaluate the screening criteria. If a parcel does not pass this initial screen, Geenex will not pursue the parcel further.

Geenex does not consider race, color, national origin, or income in selecting its sites. Our site selection, including the selection of the Sunflower Solar site, is in no way based on the property owner's or surrounding citizens' race. Site selection is based solely upon the screening factors related to the property. Geenex is also committed to assisting low-income and minority communities by promoting economic development and creating jobs above the local median wage.

With respect to the site for this proposed facility, Geenex was contacted by the landowner. After being contacted by the landowner, Geenex evaluated each site criterion and determined that the parcel was feasible for a solar facility. Geenex negotiated and entered into a lease agreement with the landowner. Following the lease execution, Geenex initiated development of the site.

Geenex has taken a number of steps to gain support for its solar projects from Halifax County and its citizens. We believe that community support is essential for a company and industry to be successful. To accomplish this objective, we believe that it is important for the community to understand and embrace what we do. Geenex is therefore leading the efforts to build the Center for Energy Education, a non-profit dedicated to the advancement of renewable energies by creating awareness in the community; providing information, training, and education to students; and serving as a hub for the industry in eastern North Carolina.

Geenex and Sunflower Solar are open to hearing the concerns of neighbors and working cooperatively to ensure that any impact to neighbors caused by the construction of the Facility is minimized and that the Facility makes a positive contribution to the community. With respect to adequate public disclosure, Sunflower Solar seeks to be open and transparent with the surrounding community in connection with its development plans. As required by applicable laws and regulations, Sunflower Solar notified the public of its plans to construct the Facility. I have also reached out to both Mr. Weldon and Mr. Manley, who filed comments on our application, via phone conversations and email, in an attempt to address their concerns.

I do not believe that the Facility will have any adverse impacts on public health or the environment. The Facility will be required to meet environmental standards and obtain applicable permits from North Carolina Department of Environmental and Natural Resources. In addition, Sunflower Solar will work with the local government to secure any and all necessary local approvals for the project. To the best of my knowledge, solar facilities such as the one proposed here do not create a potential for adverse impacts to public health. The testimony of Sunflower Solar's consulting engineer, Tommy Cleveland, supports this conclusion.

To address concerns related to view shed and property values, Geenex has directly addressed this potential impact to neighboring landowners by voluntarily implementing a buffer zone and a vegetative screen. The voluntary buffer will significantly exceed Halifax County's mandatory setback requirements, which are: 40 feet for the front, 30 feet for the rear, and 15 feet for the sides of any Agricultural/Residential property. Sunflower Solar's consultant, Mr. Richard Kirkland, has concluded that the Facility will not have an adverse impact on neighboring property values.

It is my recommendation that the Commission issue an order awarding the CPCN for the Facility. This concludes my summary.

1 MR. LEVITAS: Mr. Veit is available for
2 questions.

3 EXAMINER WATSON: All right. Did you have
4 any other questions you wanted to follow up with from
5 what you've heard tonight?

6 MR. LEVITAS: Well, thank you, maybe just
7 one or two.

8 BY MR. LEVITAS:

9 Q Mr. Veit, you heard my exchange with Ms. Medlin
10 about the sunlight issue?

11 A Uh-huh.

12 Q Is there any possibility that this facility will
13 reflect sunlight onto Ms. Medlin's property or
14 her home?

15 A No.

16 Q And are you committed to taking whatever steps
17 are necessary to ensure that that doesn't occur?

18 A Yes.

19 Q And with respect to stormwater runoff, are you
20 also committed to ensuring that this site does
21 not make stormwater runoff problems worse than
22 they are today?

23 A Yes, but obviously we cannot do anything for what
24 that has been before.

1 Q And I know you said this already in your
2 testimony but just to reiterate, are you
3 committed to further dialogue and interaction
4 with the neighboring community to try to address
5 their concerns the best you can?

6 A Absolutely, yes.

7 MR. LEVITAS: That's all I have.

8 EXAMINATION

9 BY EXAMINER WATSON:

10 Q I have questions about the some specific things I
11 heard. There was a mention of transformers. Are
12 there going to need to be a transformer located
13 near the site because of the new solar panels?

14 A No.

15 Q Okay.

16 A I mean, not the substation. A transformer
17 obviously has to be --

18 Q My correction, yes. Not a substation so there
19 won't need to be a new substation but there will
20 obviously need to be transformers and those will
21 be on the poles, correct?

22 A Correct.

23 Q Okay. How -- let me go down my list, I'm sorry.
24 I thought I read somewhere in the Application

1 that these were fixed tilt. Are they fixed tilt
2 panels or are they going to be following the sun?

3 A Currently the proposed way will be single access
4 trackers.

5 Q Single access trackers, okay. And I also heard,
6 I thought, Ms. Medlin was commenting on the fence
7 that was proposed, the 6-foot high fence that's
8 often used as a visual buffer between the solar
9 panels and adjoining property owners, but it
10 sounded to me like she was objecting to some of
11 the aspects of that fence. I suppose, I guess
12 again the question would be whether there are
13 other things that you could do in continuing to
14 talk to the local residents that would address
15 perhaps some concerns about the visibility of the
16 fence or the lack of visibility because of the
17 fence.

18 A Absolutely. I mean, first of all, I want to
19 clarify that the fence is not all the way to
20 Mr. Pierce's property line but way back to where
21 the buffer zone is, that's where the fence will
22 be placed. And, in addition, there will be
23 vegetative screening and we would love to discuss
24 the nature of that specific screen with the

1 neighbors.

2 Q Okay. Why -- I saw in the map attached to
3 someone else's testimony the larger overall
4 parcel that is apparently owned by Mr. Pierce.
5 Why did you choose to separate the groups of
6 solar panels like you did on either side of 301
7 with the east side, west side, north of 1621,
8 south of 1621? Why pick the particular places to
9 put the solar panels?

10 A That's where -- the property outlines that
11 Mr. Pierce was willing to lease to us.

12 Q Okay.

13 A The other pieces in the middle that is left open,
14 he was not willing to lease.

15 Q Okay. Well, those were some of the questions
16 that I had. I guess one -- well, are there --
17 all right. So going back to the larger piece of
18 property, it looked like there were some ponds
19 and streams on the larger piece of property. Are
20 there any streams, wetland areas, that sort of
21 stuff in the areas that are proposed that the
22 panels are going to be built on?

23 A At the moment we're still reviewing the wetland
24 issue but so far nothing has come up.

1 Q Okay. Because I saw that that had been mentioned
2 by the Clearinghouse and so I was wondering if
3 there were any wetlands issues on the areas you
4 were considering building the panels?

5 A The Clearinghouse is something I think about that
6 like logical conditions and these are currently
7 under review.

8 EXAMINER WATSON: Okay. All right. Any
9 questions on my questions?

10 MR. LEVITAS: No, sir.

11 EXAMINER WATSON: All right. Thank you very
12 much. Again, I would appreciate y'all being, staying
13 afterwards and being willing to continue to meet with
14 the neighbors.

15 MR. VEIT: That will be great.

16 (The witness is excused.)

17 MR. LEVITAS: I'd next like to call Richard
18 Kirkland.

19 RICHARD KIRKLAND, JR.; was duly sworn and
20 testified as follows:

21 DIRECT EXAMINATION

22 BY MR. LEVITAS:

23 Q Good evening, Mr. Kirkland. Could you state your
24 full name and address for the record, please?

1 A Sure. Richard Kirkland, Jr., 9408 Northfield
2 Court, Raleigh, North Carolina 27603.

3 Q Mr. Kirkland, did you cause to have prefiled on
4 May 18th in this proceeding three pages of direct
5 testimony in question and answer format along
6 with two exhibits consisting of 20 pages?

7 A I did.

8 Q Do you have any corrections to make to that
9 testimony at this time?

10 A I actually have some modifications to the impact
11 statement that's attached to that.

12 Q That would be Exhibit 2 of your testimony?

13 A I believe so.

14 Q All right. What would those modifications be?

15 A Well, the first one would be actually your
16 reference to the fixed panel. That was in my
17 report. It should be a tracking system. The
18 next change would be on page four. I was
19 provided with a new map today that show larger
20 buffers and so I've gone through and remeasured
21 distances from homes to panels. They're all much
22 greater than reported in the report.

23 Q And I --

24 EXAMINER WATSON: (Interposing) And you

1 said -- I'm sorry -- you said page 4.

2 BY MR. LEVITAS:

3 Q I'm looking at page 3, Mr. Kirkland. Do you mean
4 page 3 of the report?

5 A Yes, I'm sorry, page 3.

6 EXAMINER WATSON: Thank you.

7 BY MR. LEVITAS:

8 Q Are there specific -- well, just to get these
9 into the record then, could you identify the
10 specific parcels where the distance from the
11 homes or the panels has changed from what's shown
12 in your report. Will you just indicate those by
13 parcel number and how the distance is changed in
14 light of your further analysis?

15 A Parcel nine, that one goes from about 1100 feet
16 to about 1400 feet.

17 EXAMINER WATSON: And, again, this is the
18 distance from the home that's on that parcel to the
19 nearest solar panel?

20 A Yes, sir.

21 EXAMINER WATSON: Okay. From 1100 to, I'm
22 sorry, what was it?

23 A 1400.

24 EXAMINER WATSON: Okay. Thank you.

1 A The next parcel down, parcel 10 goes from 1025 to
2 1325.

3 A Parcel 11 goes to 930 feet.

4 BY MR. LEVITAS:

5 Q That's from 280 feet?

6 A Yes, sir. Going down to parcel 13, that one
7 increases to 535 feet.

8 Q Would you mind, just so it's in the record, would
9 you state the original distance and then the new
10 distance?

11 A I might need you to say that. I scratched it.

12 Q Oh, okay. Which parcel are you on?

13 A This is number 13.

14 Q So then your report showed 930 feet.

15 A Yeah, that one actually shifted because it was
16 measured from the wrong point.

17 Q So that's actually been reduced?

18 A That one did decrease, yes.

19 EXAMINER WATSON: To what?

20 A 535.

21 EXAMINER WATSON: Thank you.

22 A I also looked at an oversight in this --

23 EXAMINER WATSON: Wait a minute. So is that
24 all the changes to that?

1 A Those are all the changes to that. I was
2 actually going to add three parcels to that list.

3 EXAMINER WATSON: Okay. Because I was
4 looking for Ms. Medlin's property on there.

5 MR. LEVITAS: I think that's one of the ones
6 he intends to add.

7 EXAMINER WATSON: Okay. Thank you.

8 A Yeah, the Manley property, I've got a tax number
9 for it if you need it, but I've measured it out
10 at 510 feet.

11 EXAMINER WATSON: Okay.

12 A And then there is some --

13 EXAMINER WATSON: (Interposing) Now, the
14 Manley property, that's the one that Ms. Medlin lives
15 on?

16 MR. LEVITAS: Why don't you read it, if you
17 have the tax parcel ID?

18 A The tax parcel number is 1201620.

19 MR. LEVITAS: And we believe that's Ms.
20 Medlin's home.

21 EXAMINER WATSON: Okay. Thank you. And
22 that distance is?

23 A 510 feet.

24 EXAMINER WATSON: Thank you. And that's

1 with the new buffer?

2 A That's with the new buffer.

3 EXAMINER WATSON: Okay.

4 A I've also looked at adding another one that just
5 doesn't have a house on it. These are the fields
6 just south of the Manley tract. It's owned by
7 the Turner's, but again there's no house on that
8 to measure from. And then I went further down on
9 White Hill Road, the closest house on White Hill
10 Road is tax number 1200234, I guess the
11 Anderton's own that, that's 546 feet.

12 EXAMINER WATSON: Okay.

13 BY MR. LEVITAS:

14 Q And, Mr. Kirkland, I was looking for it, I'm not
15 able to point my finger to it exactly, but do you
16 recall, I'm not sure -- I think it may have been
17 in your report that you made a reference to the
18 solar panels being less than 12 feet in height?

19 A Yes, that would be on the first page.

20 Q That's on page 1 of Exhibit 2 to your testimony?

21 A Yes, the second to last paragraph.

22 Q And have you determined that the actual height of
23 those panels would be considerably less than 12
24 feet?

1 A Well, with it being a tracking, it will be more
2 like six and a half feet. It will be
3 significantly shorter.

4 Q So any further corrections that you would
5 identify at this time?

6 A No.

7 Q So with those corrections, if I were to ask you
8 the same questions that appear in your prefiled
9 testimony today, would your answers be the same?

10 A They would.

11 Q Do you have a summary of your testimony
12 available?

13 A I do.

14 Q I'm going to ask you to read that into the record
15 as soon as I hand it out.

16 EXAMINER WATSON: All right. So we'll mark
17 those exhibits and have the testimony entered into the
18 record as if given orally from the stand. And that's
19 what I should have said with regard to Mr. Veit.

20 MR. LEVITAS: Okay. So Mr. Veit's testimony
21 is --

22 EXAMINER WATSON: (Interposing) Will be,
23 no -- so his testimony will be copied into the record
24 as if given orally from the stand. It's only the

1 exhibits that need to be marked and moved into
2 evidence.

3 MR. LEVITAS: Okay. Thank you.

4 Kirkland Exhibits 1 and 2

5 (Identified and Admitted)

6 (WHEREUPON, the prefiled direct
7 testimony of **RICHARD KIRKLAND,**
8 **JR.**, is copied into the record as
9 if given orally from the stand.)

96

1 **Q. Please state your name and address for the record.**

2 A. My name is Richard Kirkland. My business address is 9408 Northfield Court,
3 Raleigh, North Carolina 27603.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am Chief Executive Office and President of Kirkland Appraisals, LLC.

6 **Q. Please discuss your credentials.**

7 A. I have nineteen (19) years of experience in commercial real estate appraisals. I am
8 a North Carolina State Certified General Appraiser and Member of the Appraisal
9 Institute. I have conducted commercial real estate throughout North Carolina. I
10 typically appraise office buildings, retail buildings, subdivision analysis, farm land,
11 and conservation easements; and conduct impact analysis studies. For the last four
12 years, I have been researching and visiting solar farms and studying whether or not
13 solar farms have any impact on adjoining property values. This study has focused
14 on North Carolina and includes paired sales analysis, a breakdown of adjoining uses
15 to solar farms, proximity to existing residences, and typical landscape screens. I
16 earned a Bachelor of Arts degree in English from the University of North Carolina
17 at Chapel Hill. A summary of my qualifications is attached as Exhibit 1.

18 **Q. What is the purpose of your testimony?**

19 A. The purpose of my testimony is to provide an expert opinion on the potential
20 impacts, if any, of the proposed solar facility on adjacent property values.

21 **Q. Please describe the proposed facility for which Sunflower Solar LLC seeks the**
22 **CPCN.**

1 A. The proposed facility is described in detail in the application for the Certificate of
2 Public Convenience and Necessity ("CPCN") filed in this docket (the "Facility").
3 The Facility will be located approximately two miles south of the town of Weldon
4 on a parcel just east of the intersection of Dickens Wildwood Road and Highway
5 301 and south of the intersection of Lilly Lane and Highway 301, Halifax County,
6 North Carolina. Sunflower Solar LLC is leasing the real property from the current
7 owners and currently owns 100% of the Facility. As proposed, the Facility will
8 consist of approximately ninety-thousand (90,000) 310 to 330 w photovoltaic
9 ("PV") modules (or the equivalent) affixed to racks, which will be supported by
10 piles driven in the ground. They system will utilize inverters ranging from one (1)
11 to two and a half (2 ½) MW. The Facility will be surrounded by chain link fencing.
12 It is anticipated that the Facility will be commissioned in June 2016.

13 **Q. Have you read the comments filed by Paul Weldon and Jim Manley in this**
14 **docket?**

15 A. Yes.

16 **Q. What is your response to these comments?**

17 A. With respect to the specific concerns related to the impact of the Facility on
18 adjacent property values raised in Mr. Weldon's and Mr. Manley's submissions to
19 the Commission, it is my professional and expert opinion that the Facility will have
20 no impact on the market values of the surrounding properties. It has been my
21 experience that most neighbor concerns are related to the appearance of solar farms
22 and the possible negative effects on property values. As outlined above, I have
23 found solar farms to have no measurable impact on property values, and any

1 appearance concerns are typically alleviated with buffering and landscaping. A
2 copy of a report supporting my conclusions and opinion is attached as Exhibit 2.

3 **Q. Could you summarize the findings and conclusions of your report?**

4 A. My report concludes that the solar farm proposed at the subject property will not
5 substantially injure the value of adjoining or abutting property, and that the
6 proposed use is in harmony with the surrounding area. These conclusions are based
7 on: (1) a series of matched-pair analyses of properties located across North
8 Carolina, showing that being located next to a solar farm has no impact on the value
9 of residential or agricultural property; (2) a harmony of use analysis finding that the
10 proposed solar farm will be compatible with nearby residential and agricultural uses
11 in terms of appearance, noise, odor, traffic, and the presence (or absence) of
12 hazardous materials; and (3) an informal survey of real estate professionals who
13 have sold properties located near other solar farms in North Carolina, indicating that
14 solar farms do not diminish the market value of adjoining land.

15 **Q. What is your recommendation with respect to the application for a CPCN?**

16 A. It is my recommendation that the Commission issue an order awarding the CPCN
17 for the Facility.

18 **Q. Does this conclude your testimony?**

19 A. Yes.

1 A Do you still need me to read this?

2 MR. LEVITAS: Yes, please. I would
3 appreciate it.

4 (WHEREUPON, the summary of RICHARD
5 KIRKLAND, JR., is copied into the
6 record.)
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**SUMMARY OF TESTIMONY OF RICHARD KIRKLAND
DOCKET NO. SP-5272, SUB 0**

My name is Richard Kirkland, and I am Chief Executive Office and President of Kirkland Appraisals, LLC.

On March 3, 2015, Sunflower Solar filed an application for a Certificate of Public Convenience and Necessity ("CPCN") to construct a 20 MW solar photovoltaic energy facility two miles south of the town of Weldon in Halifax County, North Carolina. The purpose of my testimony is to support Sunflower Solar's application for a CPCN.

I have nineteen years of experience in commercial real estate appraisals. I am a North Carolina State Certified General Appraiser and Member of the Appraisal Institute. I have conducted commercial real estate appraisals throughout North Carolina. I typically appraise office buildings, retail buildings, subdivision analysis, farm land, and conservation easements; and conduct impact analysis studies. For the last four years, I have been researching and visiting solar farms and studying whether or not solar farms have any impact on adjoining property values. This study has focused on North Carolina and includes paired sales analysis, a breakdown of adjoining uses to solar farms, proximity to existing residences, and typical landscape screens. I earned a Bachelor of Arts degree in English from the University of North Carolina at Chapel Hill.

With respect to the specific concerns related to the impact of the Facility on adjacent property values raised in Mr. Weldon's and Mr. Manley's submissions to the Commission, it is my professional and expert opinion that the Facility will have no impact on the market values of the surrounding properties. It has been my experience that most neighbor concerns are related to the appearance of solar farms and the possible negative effects on property values. I have found solar farms to have no measurable impact on property values, and any appearance concerns are typically alleviated with buffering and landscaping.

I have prepared a report supporting my conclusions and opinion, which is attached to my pre-filed testimony. My report concludes that the solar farm proposed at the subject property will not substantially injure the value of adjoining or abutting property, and that the proposed use is in harmony with the surrounding area. These conclusions are based on: (1) a series of matched-pair analyses of properties located across North Carolina, showing that being located next to a solar farm has

no impact on the value of residential or agricultural property; (2) a harmony of use analysis finding that the proposed solar farm will be compatible with nearby residential and agricultural uses in terms of appearance, noise, odor, traffic, and the presence (or absence) of hazardous materials; and (3) an informal survey of real estate professionals who have sold properties located near other solar farms in North Carolina, indicating that solar farms do not diminish the market value of adjoining land.

It is my recommendation that the Commission issue an order awarding the CPCN for the Facility. This concludes my summary.

1 EXAMINER WATSON: Do you have any other
2 questions you want to ask him?

3 MR. LEVITAS: Thank you. I do have a
4 question or two.

5 BY MR. LEVITAS:

6 Q Mr. Kirkland, I believe you were present in the
7 hearing room during Mr. Manley's testimony during
8 the public hearing, were you not?

9 A Yes, sir.

10 Q And during his testimony he offered some critique
11 of your report and your conclusions concerning
12 the absence of impact to solar facilities on
13 property values. Do you have any response to the
14 comments that he made?

15 A Sure. First of all, I believe he noted or
16 referenced to my report that there are no
17 studies. I do say that, that there are no
18 national studies and, therefore, I had to do my
19 own. That's why this -- I present the study in
20 my report. I guess, second, it was referenced
21 that I did not do an appraisal and that's not
22 what you would do in an impact analysis. An
23 impact analysis would follow paired sales
24 analysis which is how the appraisal institute

1 teaches you to look at these types of issues.

2 You don't appraise a specific property. You look
3 at the measure of where these differences would
4 come from.

5 Q And he also talked about the potential
6 differences in the validity of your analysis in
7 rural versus urban areas. Are you confident in
8 your conclusions with respect to property of the
9 sort involved here?

10 A Sure. The best comparable sales that I looked at
11 were actually in Goldsboro. This is not in Wake
12 County or in Raleigh, but in Goldsboro. But I've
13 looked at solar farms in Currituck, North
14 Hampton, I've looked at Pasquotank, Pitt; I've
15 been around eastern North Carolina looking at
16 these facilities and they're located in very
17 similar locations.

18 EXAMINER WATSON: And are these the utility
19 scale, ground-mounted systems?

20 A These are generally -- most of these are in the 4
21 to 5-megawatt range. I've looked at one as big
22 as 80 megawatts previously in Currituck.

23 EXAMINER WATSON: Okay. But I know there
24 was some comment about rooftop versus --

1 A (Interposing) That's not in my report. I have
2 not looked at any rooftop facilities in this
3 analysis.

4 EXAMINER WATSON: Okay. Thank you.

5 BY MR. LEVITAS:

6 Q And in those projects that you've evaluated
7 across rural eastern North Carolina, have you
8 consistently concluded that a solar farm would
9 have no adverse effect on neighboring property
10 values?

11 A I have.

12 MR. LEVITAS: I have nothing further.

13 EXAMINER WATSON: And have you testified in
14 other proceedings before the Commission?

15 A I did last night actually which was the first
16 time.

17 EXAMINER WATSON: Okay. All right. I think
18 those answered the questions that I had. Let me make
19 sure. I'm good. Thank you.

20 MR. LEVITAS: Thank you.

21 EXAMINER WATSON: Thank you very much.

22 (The witness is excused.)

23 MR. LEVITAS: We'll next call Tommy
24 Cleveland.

1 THOMAS HILBURN CLEVELAND, III; was duly sworn and
2 testified as follows:

3 DIRECT EXAMINATION

4 BY MR. LEVITAS:

5 Q Good evening, Mr. Cleveland.

6 A Good evening.

7 Q Could you state your full name and address for
8 the record, please?

9 A Sure. Thomas Hilburn Cleveland, III, 4141 Laurel
10 Hills Road in Raleigh.

11 Q You're my neighbor.

12 A Oh!

13 Q Mr. Cleveland, did you cause to have prefiled in
14 this proceeding on May 18th four pages of direct
15 testimony in question and answer format along
16 with three exhibits consisting of 38 pages?

17 A Yes, I did.

18 Q Are there any corrections you wish to make to
19 that testimony at this time?

20 A No, there are not.

21 Q So if I asked you the same questions today that
22 appear in your prefiled testimony would your
23 answers be the same?

24 A Yes.

1 EXAMINER WATSON: All right. So we'll copy
2 that testimony into the record as if given orally from
3 the stand and mark those exhibits as prefiled.

4 Cleveland Exhibits 1 - 3

5 (Identified and Admitted.)

6 (WHEREUPON, the prefiled direct
7 testimony of **THOMAS HILBURN**

8 **CLEVELAND, III**, is copied into the
9 record as if given orally from the
10 stand.)
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1 **Q. Please state your name and address for the record.**

2 A. My name is Tommy Cleveland. My address is 4141 Laurel Hills Road, Raleigh,
3 NC 27612.

4 **Q. By whom are you employed and in what capacity?**

5 A. I am the Renewable Energy Project Coordinator for the North Carolina Clean
6 Energy Technology Center at North Carolina State University (the "Center").
7 However, I am testifying in this matter as a consulting engineer to the applicant,
8 Sunflower Solar, LLC.

9 **Q. Please discuss your credentials.**

10 A. As the Renewable Energy Project Coordinator, I lead the Center's solar energy
11 testing and demonstration program, conduct renewable energy site assessments, and
12 provide technical support to a wide variety of solar projects and stakeholders across
13 North Carolina and beyond. From 2008 to 2012, I taught the solar energy course in
14 the Mechanical and Aerospace Engineering Department at N.C. State University,
15 and am now teaching solar courses in the Environmental Technology and
16 Management Department. Since 2007, I have been a licensed professional engineer
17 (PE) in North Carolina. I graduated *Sum Cum Laude* with a B.S. in Mechanical
18 Engineering and a minor in Business Management and a M.S. in Mechanical
19 Engineering from N.C. State University.

20 **Q. What is the purpose of your testimony?**

21 A. The purpose of my testimony is to provide an expert opinion on the potential
22 impacts, if any, of the proposed solar facility on human health.

1 **Q. Please describe the proposed facility for which Sunflower Solar LLC seeks the**
2 **CPCN.**

3 A. The proposed facility is described in detail in the application for the Certificate of
4 Public Convenience and Necessity ("CPCN") filed in this docket (the "Facility").
5 The Facility will be located approximately two miles south of the town of Weldon
6 on a parcel just east of the intersection of Dickens Wildwood Road and Highway
7 301 and south of the intersection of Lilly Lane and Highway 301, Halifax County,
8 North Carolina. Sunflower Solar LLC is leasing the real property from the current
9 owners and currently owns 100% of the Facility. As proposed, the Facility will
10 consist of approximately ninety-thousand (90,000) 310 to 330 Watt photovoltaic
11 ("PV") modules (or the equivalent) affixed to racks, which will be supported by
12 piles driven in the ground. The system will utilize inverters ranging from one (1) to
13 two and a half (2 ½) MW. The Facility will be surrounded by chain link fencing. It
14 is anticipated that the Facility will be commissioned in June 2016.

15 **Q. Have you read the comments filed by Paul Weldon and Jim Manley in this**
16 **docket?**

17 A. Yes.

18 **Q. What is your response to these comments?**

19 A. With respect to the specific concerns related to the impact of the Facility on human
20 health raised in Mr. Weldon's and Mr. Manley's submissions to the Commission, it
21 is my professional and expert opinion that the Facility will have no adverse impact
22 on human health. Because solar systems do not burn fossil fuels, they do not

1 produce the toxic air or greenhouse gas emissions associated with conventional
2 fossil fuel-fired generation technologies. In fact, the energy the solar systems
3 produce reduces the demand for electricity from fossil fuel-fired generation and
4 thereby reduces the pollution they emit. Because solar panels are encased in
5 tempered glass, or a combination of tempered glass and plastic, there is very little
6 risk that any material from the solar panels can be released into the environment.
7 The panels have an industry-standard 25 year performance warranty and there are
8 many panels over 30 years old still functioning well today. Further, the presence of
9 ground-mounted solar panels does not cause higher ambient temperatures in the
10 surrounding area. The strength of electromagnetic fields produced by solar systems
11 does not approach levels considered harmful to human health, as established by the
12 International Commission on Non-Ionizing Radiation Protection. Moreover, the
13 small electromagnetic fields produced by solar systems rapidly diminish with
14 distance and would be indistinguishable from normal background levels at a
15 distance of 100 feet.

16 **Q. Have you reviewed technical or scientific literature that supports your**
17 **opinions?**

18 A. Yes.

19 **Q. Could you identify and summarize the findings of that literature?**

20 A. I reviewed and relied upon the following literature: *Clean Energy Results –*
21 *Questions and Answers - Ground-Mounted Solar Photovoltaic Systems,*
22 Massachusetts Department of Energy Resources, Massachusetts Department of
23 Environmental Protection, Massachusetts Clean Energy Center, Dec. 2012; *Health*

1 *and Safety Concerns of Photovoltaic Panels*. The Good Company; U.S. Department
2 of Energy, Letter dated Nov. 12, 2009 and attached memorandum. The
3 Massachusetts regulatory agencies addressed a wide variety of questions concerning
4 the installation and operation of ground-mounted solar photovoltaic projects and
5 determined that there is no evidence that these projects cause adverse impacts to
6 human health. The Good Company, a sustainability consulting firm located in
7 Eugene, Oregon, found that the life-cycle impacts of solar photovoltaics, including
8 the installation and use of solar panels, are minimal. As found by the Brookhaven
9 National Laboratory and the Electric Power Research Institute, installed solar
10 panels pose minimum risk to human health and the environment. Finally, based on
11 a literature review, the Department of Energy determined that the health risks of
12 solar photovoltaic projects due to electromagnetic fields are minimal. The
13 Department of Energy found there is little cause for concern of adverse impacts
14 caused from electromagnetic fields at homes near solar photovoltaic projects. These
15 three articles are attached as Exhibits 1 through 3.

16 **Q. What is your recommendation with respect to the application for a CPCN?**

17 A. It is my recommendation that the Commission issue an order awarding the CPCN
18 for the Facility.

19 **Q. Does this conclude your testimony?**

20 A. Yes.

1 MR. LEVITAS: Thank you very much.

2 BY MR. LEVITAS:

3 Q Mr. Cleveland, do you have a summary of your
4 testimony?

5 A I don't have a copy of it.

6 Q Conveniently I do.

7 A Thank you.

8 Q If you could read your summary into the record at
9 this time.

10 A Yes.

11 (WHEREUPON, the summary of THOMAS
12 HILBURN CLEVELAND, III, is copied
13 into the record.)
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**SUMMARY OF TESTIMONY OF TOMMY CLEVELAND, P.E.
DOCKET NO. SP-5272, SUB 0**

My name is Tommy Cleveland, and I am the Renewable Energy Project Coordinator for the North Carolina Clean Energy Technology Center at North Carolina State University (the "Center"). I am testifying in this matter as a consulting engineer to the applicant, Sunflower Solar, LLC.

On March 3, 2015, Sunflower Solar filed an application for a Certificate of Public Convenience and Necessity ("CPCN") to construct a 20 MW solar photovoltaic energy facility two miles south of the town of Weldon in Halifax County, North Carolina. The purpose of my testimony is to support Sunflower Solar's application for a CPCN.

As the Renewable Energy Project Coordinator, I lead the Center's solar energy testing and demonstration program, conduct renewable energy site assessments, and provide technical support to a wide variety of solar projects and stakeholders across North Carolina and beyond. From 2008 to 2012, I taught the solar energy course in the Mechanical and Aerospace Engineering Department at N.C. State University, and am now teaching solar courses in the Environmental Technology and Management Department. Since 2007, I have been a licensed professional engineer (PE) in North Carolina. I graduated *Sum Cum Laude* with a B.S. in Mechanical Engineering and a minor in Business Management and a M.S. in Mechanical Engineering from N.C. State University.

With respect to the specific concerns related to the impact of the Facility on human health raised in Mr. Weldon's and Mr. Manley's submissions to the Commission, it is my professional and expert opinion that the Facility will have no adverse impact on human health. Because solar systems do not burn fossil fuels, they do not produce the toxic air or greenhouse gas emissions associated with conventional fossil fuel-fired generation technologies. In fact, the energy the solar systems produce reduces the demand for electricity from fossil fuel-fired generation and thereby reduces the pollution they emit. Because solar panels are encased in tempered glass, or a combination of tempered glass and plastic, there is very little risk that any material from the solar panels can be released into the environment. The panels have an industry-standard 25-year performance warranty and there are many panels over 30 years old still functioning well today. Further, the presence of ground-mounted solar panels does not cause higher ambient temperatures in the surrounding area. The strength of electromagnetic fields produced by solar

systems does not approach levels considered harmful to human health, as established by the International Commission on Non-Ionizing Radiation Protection. Moreover, the small electromagnetic fields produced by solar systems rapidly diminish with distance and would be indistinguishable from normal background levels at a distance of 100 feet.

I reviewed technical and scientific literature that supports my conclusions and opinion. This literature is attached to my prefiled testimony.

It is my recommendation that the Commission issue an order awarding the CPCN for the Facility. This concludes my summary.

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BY MR. LEVITAS:

Q Just one question. Ms. Medlin expressed some concern about potential impact of the solar farm to neighboring water supply wells. Is there any aspect of the solar installation, to your knowledge, that could have the potential to affect groundwater supplies?

A No, there is not. There is nothing that's released from the facilities or really even has a possibility to be released that could impact water sources.

EXAMINATION

BY EXAMINER WATSON:

Q So if a meteor fell from the sky and cracked one of these panels and then it rained, what is there to get out to cause problems?

A If it was to be broken open -- it's encapsulated again -- if it was to be broken open, there is crystalline silicon, tiny bits of boron and phosphorous which none of those would cause any trouble. Some varieties of panels have small amounts of lead in the solder. I don't know if it would be possible for that to come out. If it

1 did come out, it would be minute amounts compared
2 to what is already emitted from other products in
3 the environment and what's emitted from the coal
4 plants into the air daily.

5 Q Okay. Are you familiar with the number of
6 inverters and locations of inverters in this
7 project?

8 A Not the specifics but I'm familiar with the
9 design of this type of project and the inverters
10 for this -- what may be common for this kind of
11 project.

12 Q I probably should have asked sooner. Would
13 the -- so since you had testified about the
14 electromagnetic fields and radiation, that was
15 the reason why I asked.

16 A Yes.

17 Q So the fields, are the fields created at the
18 panels or is this more located where the
19 inverters are, or where the transformers, or
20 where -- what's the source of the -- and I guess
21 relative amounts of these fields that would be
22 generated from a solar farm like this?

23 A There are small fields generated from the DC
24 voltage and current in the panels and the wiring

1 of the panels but those are very small. You
2 know, some have larger fields generated at the
3 inverters. But even those fields are not very
4 large and diminish very quickly. I mean the
5 highest fields at the site would be -- at the
6 point of interconnection would be existing lines
7 or I guess in this case, this facility I believe
8 is bringing in new lines but on the poles of
9 existing lines. So, the fields coming off of
10 those existing lines would be larger than what's
11 coming from the -- the components of the plant
12 because of the high voltage of those lines
13 relative to the voltage internal to the solar
14 farm.

15 Q Okay. But even when you say high voltage we're
16 still talking about three-phase residential
17 voltage as opposed to 230 or 115 high voltage?

18 A Correct. In utility terms this is low voltage.

19 EXAMINER WATSON: Okay. Those were my only
20 questions. Can we go back to a witness that can
21 answer my question about the location of the inverters
22 and the points of interconnection on the map relative
23 to sort of where the panels are? Would that be
24 Mr. Veit or Mr. Cleveland?

1 MR. LEVITAS: Georg.

2 MR. VEIT: Yes.

3 MR. LEVITAS: You're excused.

4 EXAMINER WATSON: Thank you very much.

5 (The witness is excused.)

6 EXAMINER WATSON: All right. So I'll remind
7 you that you're still under oath.

8 (WHEREUPON, GEORG VEIT remains
9 under oath and testifies as
10 follows.)

11 **EXAMINATION**

12 BY EXAMINER WATSON:

13 Q And my question was, going back to my map and let
14 me pull my map back up here again so I'm looking
15 at Veit testimony and the amended map. All
16 right. So, since all I have on my map are red
17 lines and purple blobs, give me a general sense
18 of how many inverters -- and let's take them east
19 side -- well, I'll tell you what, since all of
20 the public witnesses have talked about the west
21 side, let's just talk about the area on the west
22 side of 301. How many inverters -- what is
23 the -- what is the capacity -- it's a 20-megawatt
24 facility so what is the capacity of the panels in

1 the section on the west side of 301?

2 A Well, first of all, since I am under oath and we
3 don't have a final site plan yet --

4 Q Okay.

5 A -- we're still in the process of evaluating the
6 site, topography and so forth.

7 Q Okay. And so the answers are going to be kind of
8 vague then. All right. Then what is the
9 anticipated split between east and west of this
10 20-megawatts?

11 A I would say there is 12-megawatt on the north and
12 8-megawatt on the south.

13 Q Okay. So south being the one I'm thinking on the
14 west side of 301?

15 A I'm sorry, yes.

16 Q That's okay. And so for that 8-megawatt group of
17 panels, how many inverters? Are these 500kV
18 or -- I'm sorry. What size inverters?

19 A They're 1.86.

20 Q Okay. So I need about five or six of them?

21 A That's correct.

22 Q Okay. And where are they expected to be -- so
23 Mr. Kirkland testified with regard to the
24 distance from the nearest houses to the panels.

1 Are the inverters going to be located on the side
2 of the arrays towards the homes, towards the
3 road, towards the middle, any idea? Is it going
4 to be -- is that going to be about the distance
5 from the homes to the inverters or is it going to
6 be farther?

7 A For sure the panels would be closer to the homes
8 than the inverters. And normally they would
9 alternate from west to east and they would
10 probably be a couple of hundred feet from the
11 border of the blue screen here.

12 Q And the reason I'm asking is that Mr. Cleveland
13 testified that the radiation would be at
14 background or within 100 feet. And then
15 Mr. Kirkland testified as to the distance from
16 the panels to the homes. And I was just trying
17 to get a sense of whether the inverters were
18 going to be closer or farther away than the
19 panels were.

20 A They are farther away than the panels are, and I
21 would believe that they would be further away
22 than this field that Tommy Cleveland explained
23 would be from the fence line.

24 Q Okay. And as I just discussed with

1 Mr. Cleveland, any additional lines that would
2 need to be run for interconnection are going to
3 be distribution voltage level lines --

4 A (Interposing) That's correct.

5 Q -- that would probably be an upgrade from single
6 phase to three phase to serve the solar farm?

7 A That's correct. They will be 34 --

8 Q (Interposing) KV.

9 A -- KV on the existing poles.

10 EXAMINER WATSON: Okay. All right. Thank
11 you very much for helping me with that.

12 (The witness is excused.)

13 EXAMINER WATSON: All right. Then at this
14 point then I will allow the testimony into the record.
15 Anything else for you for testimony?

16 MR. LEVITAS: Nothing further from us.
17 Thank you.

18 EXAMINER WATSON: All right. Then this will
19 conclude the evidentiary portion of the hearing. How
20 much time would the Applicant like within which to
21 file a proposed order after the conclusion of the
22 hearing tonight? Two weeks, three weeks, four weeks?

23 MR. LEVITAS: I am actually going to be on
24 vacation.

1 EXAMINER WATSON: Well, you don't have to
2 tell me that. Two weeks, three weeks, four weeks?

3 MR. LEVITAS: How about 30 days?

4 EXAMINER WATSON: All right. That will be
5 just fine.

6 MR. LEVITAS: Mr. Veit, is that okay for
7 you? Do you need it faster? Okay. I guess we're
8 doing it faster.

9 MR. VEIT: Three weeks.

10 MR. LEVITAS: Three weeks.

11 EXAMINER WATSON: All right. So I will note
12 that, although not present, the Public Staff has
13 expressed its interest in providing a recommendation
14 to the Commission on this and all applications. So,
15 with that in mind, I'll request that the Public Staff
16 file its recommendation regarding the Application
17 within that same three-week time frame.

18 Any other questions before we adjourn?

19 (No response)

20 If not, then we stand adjourned. Thank you
21 again for coming. Thank you to the public witnesses.
22 And, again, I just appreciate y'all sticking around in
23 case there are other questions and discussion that
24 might be fruitful tonight.

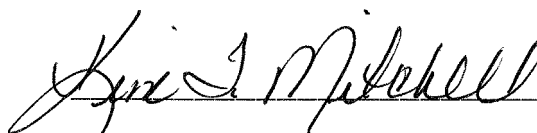
1 MR. LEVITAS: Thank you very much.

2 EXAMINER WATSON: Thank you.

3 (WHEREUPON, the proceedings adjourned at 8:15 p.m.)
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C E R T I F I C A T E

I, KIM T. MITCHELL, DO HEREBY CERTIFY that
the Proceedings in the above-captioned matter were
taken before me, that I did report in stenographic
shorthand the Proceedings set forth herein, and the
foregoing pages are a true and correct transcription
to the best of my ability.



Kim T. Mitchell
Court Reporter II