

1 PLACE: Held via Videoconference
2 DATE: Wednesday, July 22, 2020
3 TIME: 6:28 p.m. - 8:00 p.m.
4 DOCKET NO: SP-11723, Sub 0
5 BEFORE: Hearing Examiner Patrick Buffkin, Presiding
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8 IN THE MATTER OF:
9 Application of Apex Solar, LLC,
10 for a Certificate of Public Convenience and Necessity
11 to Construct a 30-MW Solar Facility in Cleveland
12 County, North Carolina
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7

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P R O C E E D I N G S

1
2 HEARING EXAMINER BUFFKIN: Let's come to
3 order and go on the record. My name is Patrick
4 Buffkin. I'm a Staff Attorney at the North Carolina
5 Utilities Commission and I have been designated by the
6 Commission as the Hearing Examiner for this matter.

7 The Commission now calls for hearing Docket
8 Number SP-11723, Sub 0, In the Matter of Application
9 of Apex Solar, LLC, for a Certificate of Public
10 Convenience and Necessity to construct a 30-megawatt
11 solar facility in Cleveland County, North Carolina.

12 Before we call our public witnesses, I'll
13 make some introductory comments on the procedural
14 background for this proceeding and the format for this
15 remote hearing.

16 On February 28, 2017, the Commission issued
17 an Order issuing a Certificate of Public Convenience
18 and Necessity, or a CPCN, to Apex Solar, LLC, whom
19 I'll refer to tonight as the Applicant. The CPCN
20 allowed the construction of a 30-megawatt solar
21 generating facility to be located on the west side of
22 Plainsview Church Road, approximately one half mile
23 west of the intersection with East Stage Coach Trail
24 in Lawndale, Cleveland County, North Carolina.

1 On September 13th, 2019, the Applicant filed
2 an amendment to its Application. The amendment states
3 that additional land has been added to the site of the
4 proposed facility. In addition, the Applicant filed
5 an updated site plan map showing the new boundaries of
6 the facility site, along with additional information
7 about the new owner of the Applicant, Silver Creek
8 Energy, LLC.

9 On September 18th, 2019, the Commission
10 issued an Order Requiring Publication of Notice
11 requiring the Applicant to (1) publish notice of the
12 amended Application in the manner required, pursuant
13 to the North Carolina General Statute 62-82(a), and to
14 file an Affidavit of Publication with the Commission;
15 and, secondly, that Order required the Applicant to
16 mail a copy of the amended Application and the Notice
17 to the electric utility to which the Applicant plans
18 to sell and distribute the electricity produced at the
19 facility, and file a signed and verified Certificate
20 of Service that the Application and the Notice have
21 been provided to the utility.

22 In addition, that Order directed the Chief
23 Clerk of the Commission to deliver copies of the
24 Notice to the Clearinghouse Coordinator of the Office

1 of Policy and Planning of the Department of
2 Administration, which we refer to as the State
3 Clearinghouse, for the distribution by the Coordinator
4 at the State Clearinghouse to state agencies having an
5 interest in this Application.

6 On or after September 26, 2019, the
7 following individuals filed complaints in this docket:
8 Carrie and Gene Daves, Ronald Ingram, Dana Donaldson,
9 Tom and Karen Bess, collectively, I refer to these
10 individuals as the Complainants.

11 On September 27th, 2019, the Applicant filed
12 a Verified Certificate of Service evidencing that the
13 Application and the Notice were mailed to Duke Energy
14 Carolinas, LLC, on September 18th, 2019.

15 On October 29th, 2019, the State
16 Clearinghouse filed comments of state agencies. The
17 cover letter indicates that, because of the nature of
18 the comments, no further State Clearinghouse review is
19 required for compliance with the North Carolina
20 Environmental Policy Act.

21 On October 31, 2019, the Applicant filed an
22 Affidavit of Publication evidencing that the Notice of
23 the amended Application for a CPCN was published in
24 *The Star*, a newspaper published in Cleveland County,

1 North Carolina, in the manner prescribed by the
2 Commission's 17 -- strike that -- in the -- in the
3 manner prescribed by the Commission's September 18
4 Order Requiring Publication of Notice.

5 On November 6th, 2019, the State
6 Clearinghouse filed additional comments of state
7 agencies. Again, the cover letter also indicates
8 that, because of the nature of the comments, no
9 further State Clearinghouse review is required for
10 compliance with the North Carolina Environmental
11 Policy Act.

12 In March of 2020, Governor Roy Cooper issued
13 a progression of Executive Orders that declared a
14 State of Emergency in North Carolina to coordinate the
15 response and protective actions to prevent the spread
16 of the coronavirus or COVID-19.

17 On May 5th, 2020, Governor Cooper issued
18 Executive Order No. 138 easing some restrictions on
19 business operations and mass gatherings, but still
20 limiting face-to-face meetings to no more than 10
21 people and requiring social distancing between
22 individuals of at least six feet.

23 On June 26th, 2020, based upon the
24 complaint, the complaints filed in this docket, and

1 the record herein, the Commission issued an Order
2 Scheduling Hearing and Requiring Public Notice,
3 setting this matter for remote hearing on this date,
4 at this time, and via this teleconference format.
5 That Order also established a procedural schedule for
6 the prefiling of direct expert testimony and allowed
7 for intervenors to participate in this proceeding.
8 That Order also required the Applicant to publish
9 notice of the hearing in the same newspaper which the
10 Applicant previously published notice of the
11 Application.

12 On July 2nd, 2020, the Applicant filed a
13 letter consenting to the conducting of a remote
14 hearing in this proceeding. And on the same day, the
15 Applicant filed the direct testimony of Richard
16 Kirkland, Chris Sandifer, and Cullen Morris.

17 On July 6, 2020, the Applicant filed the
18 revised testimony of Cullen Morris.

19 Also on July 6th, 2020, the Public Staff
20 filed a letter consenting to the conducting of this
21 remote hearing.

22 On July 10, 2020, the Public Staff filed the
23 testimony of Jay Lucas, an Engineer with the Public
24 Staff, Electric Division.

1 On July 16, 2020, the Applicant filed the
2 rebuttal testimony of Cullen Morris.

3 On July 17, 2020, the Applicant filed a
4 Certificate of Service demonstrating that Notice of
5 this hearing was served upon Duke Energy Carolinas,
6 LLC.

7 Also on July 17, 2020, the Applicant filed
8 several potential cross examination exhibits that may
9 be referred to at this hearing.

10 On July 20, 2020, the Applicant filed an
11 Affidavit of Publication evidencing that the public
12 notice for this hearing was published as required by
13 the Commission's June 26th Order scheduling this
14 hearing.

15 The Public Staff's right to intervention and
16 participation in this proceeding is recognized
17 pursuant to General Statute § 62-15(d) and Commission
18 Rule R1-19. No other parties have intervened in this
19 matter.

20 And with that background, that brings us up
21 to the hearing before us tonight.

22 Pursuant to the State Government Ethics Act,
23 I disclose on the record that I have no known conflict
24 of interest with respect to this matter.

1 And now I call upon counsel to enter their
2 appearances for the record, beginning with the
3 Applicant.

4 MS. KEMERAIT: Good evening. My name is
5 Karen Kemerait. I'm an attorney with Fox Rothschild
6 in Raleigh and I'm here on behalf of the Applicant,
7 Apex Solar, LLC.

8 HEARING EXAMINER BUFFKIN: Thank you,
9 Ms. Kemerait.

10 And appearances for the Public Staff?

11 MS. LUHR: Good evening. My name is Nadia
12 Luhr with the Legal Division of the Public Staff of
13 the Utilities Commission representing the Using and
14 Consuming Public.

15 HEARING EXAMINER BUFFKIN: Thank you,
16 Ms. Luhr.

17 Now let's briefly go over the format for
18 this hearing. The purpose of this remote hearing is
19 two-fold. First, we are here to receive testimony
20 from the public regarding the proposed facility and
21 whether or not the Applicant should be awarded a CPCN
22 for this facility. Secondly, we're here to receive
23 evidence from the Applicant as to why it should be
24 awarded a CPCN, and evidence from the Public Staff as

1 to its recommendation to the Commission as whether the
2 CPCN should be awarded to the Applicant.

3 Public testimony will be taken under oath
4 and transcribed by our court reporter. What is said
5 under oath becomes an official part of the record in
6 this matter and will be considered when a
7 determination is made; however, a final determination
8 will not be made tonight.

9 The Utilities Commission functions like a
10 court. Public witnesses will be asked to affirm that
11 the testimony they will give will be truthful prior to
12 providing their testimony. Additionally, counsel for
13 the Applicant, or the Public Staff, and me as Hearing
14 Examiner will have the option -- the opportunity to
15 ask questions based on the public testimony that you
16 provide.

17 This is the public's opportunity to present
18 evidence, opinions, and other thoughts on this
19 project. It is not a time to ask questions of or
20 cross examine the Applicant. For this remote hearing,
21 public witnesses were required to register in advance
22 with the Public Staff. We will proceed with the
23 individuals as identified by the Public Staff having
24 been preregistered.

1 Following the public testimony -- I
2 apologize for the background noise. Following the
3 public testimony portion of the hearing, we will
4 receive expert testimony from the Applicant in support
5 of its Application and from the Public Staff as to its
6 recommendation to the Commission. In this matter, the
7 Applicant and the Public Staff have prefiled testimony
8 and exhibits. Those testifying from the public are
9 not formal parties in this matter and will not have an
10 opportunity to cross examine the Applicant's
11 witnesses. However, as the Hearing Examiner, I may
12 ask some questions in response to the testimony
13 provided by the public witnesses, and the Applicant
14 may choose to address new matters in its testimony
15 that were spoken of here tonight. The Public Staff
16 will then be afforded an opportunity to provide expert
17 testimony on behalf of the Using and Consuming Public.

18 Finally, it is noted that the Commission's
19 actions do not preempt any other local, state, or
20 federal regulations or requirements. And the full
21 contents of this docket including the Application,
22 letters of complaint, and, once it's transcribed, the
23 transcript of tonight's remote hearing, are available
24 for public view on the Commission's website at

1 www.ncuc.net.

2 With that, are there any preliminary matters
3 that we need to take up -- take care of before calling
4 our first public witness?

5 MS. KEMERAIT: Not from the Applicant.

6 MS. LUHR: Not from the Public Staff.

7 HEARING EXAMINER BUFFKIN: Thank you both.

8 And with that, Ms. Luhr, if you would please call our
9 first public witness.

10 MS. LUHR: Thank you. I would like to call
11 Ms. Carrie Davies (sic).

12 MS. DAVES: Hello.

13 MS. LUHR: Hi, I hope I pronounced your name
14 correctly.

15 MS. DAVES: It's just Daves.

16 MS. LUHR: Okay. Thanks.

17 HEARING EXAMINER BUFFKIN: Ms. Daves, if you
18 would please state your name and address for the
19 record, and please spell your name for us so that the
20 court reporter can be sure to get it correct?

21 MS. DAVES: Okay. My name is Carrie,

22 C-A- --

23 COURT REPORTER: Excuse me. Excuse me. We
24 need to affirm her please.

1 HEARING EXAMINER BUFFKIN: Yes, ma'am. I'm
2 getting to that.

3 MS. DAVES: My name is Carrie --

4 HEARING EXAMINER BUFFKIN: The court
5 reporter and I travel around and she keeps me straight
6 at these hearings. So go ahead, Ms. Daves. If you
7 could give us your name and address for the record.

8 MS. DAVES: Carrie Daves, C-A-R-R-I-E
9 D-A-V-E-S, address is 3361 Fallston-Waco Road, listed
10 as Cherryville, North Carolina 28021.

11 HEARING EXAMINER BUFFKIN: Thank you.

12 CARRIE DAVES;

13 having been duly affirmed,

14 testified as follows:

15 HEARING EXAMINER BUFFKIN: Ms. Luhr, the
16 witness is available for testimony.

17 MS. LUHR: Thank you.

18 Ms. Daves, you may provide your statement
19 now.

20 DIRECT STATEMENT BY MS. DAVES:

21 I just wanted to say that me and my family
22 are opposed to this coming into our area and our
23 neighborhood, because it's really kind of a eyesore
24 around this area. That's part of the reason we moved

1 out here is because it was such a beautiful area with
2 all this, you know, open farmland, and it's a very
3 nice area. And I just feel like adding a solar farm
4 right in the middle of everything is just going to
5 give everything a very industrial feel, and I can't
6 help but feel it's going to cause our property values
7 to drop. And then there's also, you know, the issues
8 of environmental degradation, habitat loss for all the
9 wildlife around here, and we do have a lot of wildlife
10 here.

11 And then there's also the issue,
12 once you go solar farm that's the only thing you
13 can use that land for anymore is just for power
14 generation. You can't go back to being a farm.

15 And then there's also questions
16 which, you know, in the event of a natural
17 disaster if some of these panels get damaged and
18 the materials they use to make them with, you
19 know, heavy metals and stuff, is that going to
20 leak into our groundwater because most of us are
21 on well water around here. So you know, it's
22 just I don't feel like it's a good fit for our
23 neighborhood. That was really my whole spiel
24 about it.

1 HEARING EXAMINER BUFFKIN: Thank you,
2 Ms. Daves.

3 And, Ms. Luhr, do you have any questions for
4 this witness?

5 MS. LUHR: I do not have any questions.

6 HEARING EXAMINER BUFFKIN: Thank you. Any
7 questions on behalf of the Applicant?

8 MS. KEMERAIT: Yes, just a couple of
9 questions.

10 CROSS EXAMINATION BY MS. KEMERAIT:

11 Q Ms. Daves, again my name is Karen Kemerait and
12 I'm the attorney for the Applicant, Apex Solar,
13 and I just have a couple of questions for you.

14 Are you aware that the Cleveland
15 County Board of Adjustment approved a Conditional
16 Use Permit for the solar farm back in November of
17 2018?

18 A I was not aware of that.

19 Q So you were not aware that Cleveland County has
20 already made a determination that the solar farm
21 will not materially endanger the public health or
22 safety, that it will not injure the value of
23 adjoining or abutting property, and that the
24 solar farm will be in harmony with the area in

1 which it's to be located?

2 A No. I was not aware of that.

3 Q And then I -- because you weren't aware of the
4 Conditional Use Permit, were you aware from the
5 testimony that's been provided or any of the
6 materials that were submitted to Cleveland County
7 that a decommissioning plan had been submitted to
8 Cleveland County?

9 A No. I was not aware of that.

10 Q And so you are not aware that Apex Solar is going
11 to be required to decommission the solar farm
12 property when it's no longer in use as a solar
13 farm and return it to essentially it's
14 predevelopment condition?

15 A No. I was not aware of that.

16 Q And then the last question that I have is that
17 you did mention some concern about impact to
18 property values. You're not a North Carolina
19 certified real estate appraiser, are you?

20 A No.

21 Q That's all the questions. Thank you.

22 A Uh-huh (yes).

23 HEARING EXAMINER BUFFKIN: Ms. Daves, I have
24 one question very briefly.

1 EXAMINATION BY HEARING EXAMINER BUFFKIN:

2 Q Having heard the questions from the Applicant,
3 does this address your concerns about the
4 proposed facility?

5 A It does.

6 Q Thank you.

7 HEARING EXAMINER BUFFKIN: Any questions on
8 my questions?

9 THE WITNESS: No.

10 HEARING EXAMINER BUFFKIN: All right. Thank
11 you very much. Is there anything else, Ms. Daves?

12 THE WITNESS: No, that was all my points.

13 HEARING EXAMINER BUFFKIN: Thank you. Well,
14 we really appreciate you working with us and
15 participating in this hearing. This witness is
16 excused.

17 THE WITNESS: Thank you.

18 (The witness is excused)

19 HEARING EXAMINER BUFFKIN: If I may ask that
20 we stand at ease a very brief moment. I'll be right
21 back.

22 COURT REPORTER: Mr. Lucas, might I ask that
23 you mute your microphone, please.

24 (OFF THE RECORD)

1 HEARING EXAMINER BUFFKIN: Thank you all.
2 That should take care of our background noise problem.

3 And, with that, we're ready -- Ms. Luhr, if
4 you could call our next public witness, please.

5 MS. LUHR: Yes. I would like to call
6 Mr. Ronald Ingram.

7 MR. INGRAM: Hello.

8 HEARING EXAMINER BUFFKIN: Hi, Mr. Ingram.
9 Thank you for being with us.

10 MR. INGRAM: Thank you.

11 HEARING EXAMINER BUFFKIN: Would you please
12 state your name and address for the record, and spell
13 your name so us so the court reporter can get it
14 correct.

15 MR. INGRAM: Sure. My name is Ronald, last
16 name is Ingram, spelled R-O-N-A-L-D I-N-G-R-A-M. And
17 I live at 215 Charolais Drive, spelled
18 C-H-A-R-O-L-A-I-S Drive in Lawndale. I'm right across
19 the street from one of the largest parcels that will
20 be affected by this solar farm.

21 HEARING EXAMINER BUFFKIN: Thank you,
22 Mr. Ingram.

23 RONALD INGRAM;
24 having been duly affirmed,

1 testified as follows:

2 HEARING EXAMINER BUFFKIN: Thank you. You
3 may proceed to give any testimony you wish at this
4 time.

5 THE WITNESS: Hearing Examiner, if I may ask
6 a question of Ms. Kemerait before I begin?

7 HEARING EXAMINER BUFFKIN: Mr. Ingram, you
8 may state your question in your testimony, but our
9 format does not allow for conversations between you
10 and the Applicant's counsel at this time.

11 THE WITNESS: Okay. Very good.

12 DIRECT STATEMENT MR. INGRAM:

13 The original proposed site was 320.73
14 contiguous and noncontiguous acres. I'm since
15 learning tonight that they have amended and have added
16 additional acres to which we as the residents have
17 never been notified of this. I was aware -- have been
18 made aware that they did go before the Cleveland
19 County Board of Adjustment, of which I was at both
20 meetings, that they were awarded their Special Use
21 Permits. But how were they able to keep their Special
22 Use Permit without a new site plan for the additional
23 acres without the public being notified?

24 So since the time this project received its

1 Special Use Permits, the Board of Commissioners in
2 Cleveland County has revised its solar farm standards.
3 The new standards offer the county and citizens
4 greater protection and livability, both while the
5 project is in operation and its subsequent
6 decommissioning. The -- one of the things that the
7 new solar farm standards requires a surety bond for
8 the decommissioning of the sites that have received
9 their Special Use Permit after Apex Solar received
10 theirs. I'm not sure if they've had to go back to the
11 County since they have added additional acres. But I
12 as a resident have never been notified that they were
13 adding additional acres to this site.

14 Cleveland County currently has a solar farm
15 site on South Lafayette Street going towards South
16 Carolina. That is in a phase that has been
17 constructed but is not in operation. One of my things
18 is why should we have another solar farm in Cleveland
19 County when we have a portion of one that is not being
20 used at this time and, since it is not being used, the
21 County has not issued it a Certificate of Occupancy
22 and they have not had to install the proper screening
23 that is required for a solar farm that is in
24 operation. So at this time that portion of this solar

1 facility is setting without proper screening and the
2 only thing that we can see is the solar panels.

3 When I asked representatives of Cypress
4 Creek Renewables, who was the original constructor of
5 this site, the proposed operator that was seeking a
6 certificate, if they could possibly do the same they
7 said that this would not be the case, if it was
8 constructed it would be placed in operation. But I do
9 ask, I'm sure that those who constructed the solar
10 farm site on South Lafayette Street would not have
11 constructed it without the intent of placing it in
12 operation.

13 If the solar farm panels are so safe, we
14 were told at a meeting that we attended that
15 everything in the solar panels could be thrown in the
16 landfills. I find that hard to believe since they
17 contain lead, cadmium, and other chemicals that cannot
18 be removed without breaking the panels apart. And if
19 they're so safe, I -- this probably cannot be used as
20 part of the testimony, but Brunswick County requires
21 the land to be -- lands that have been decommissioned
22 for solar sites to be unused for 10 years.

23 That is my testimony this evening. And the
24 rest of it is pure opinion so I can't really say it

1 because it's not -- it's not testimony, it's just -- I
2 know that, as my other neighbor down the street is
3 concerned, yes no one wants to see it. I would like
4 to have renewable energy as much as anyone else, but I
5 really -- we are in the infancy in North Carolina in
6 solar farms, and Cypress Creek Renewables has never
7 decommissioned a site, and this would be one of their
8 larger sites in the state.

9 So my thing is going back to the safety.
10 How safe are these solar farms going to be once we
11 start to decommission them? And that is my biggest
12 concern is for land right across from where I live,
13 groundwater that we drink and our neighbors drink, how
14 will it be affected? Thank you.

15 HEARING EXAMINER BUFFKIN: Thank you,
16 Mr. Ingram. Any questions from the Applicant?

17 MS. KEMERAIT: Yes, just a couple of
18 questions.

19 CROSS EXAMINATION BY MS. KEMERAIT:

20 Q Mr. Ingram, again, I'm Karen Kemerait, the
21 attorney for Apex Solar, the Applicant, and I
22 just have a couple of questions similar to what I
23 asked Ms. Daves in regard to the Conditional Use
24 Permit that was approved by Cleveland County.

1 Are you aware that the Conditional -- that the
2 County in approving the Conditional Use Permit
3 found and concluded that the solar farm will
4 not materially endanger the public health or
5 safety?

6 A Yes, ma'am, I did, as I said before.

7 Q And you mentioned some concerns about safety.
8 Have you had an opportunity to read the testimony
9 that was filed in this docket by Cullen Morris
10 and Chris Sandifer?

11 A No, I haven't. I wasn't given it.

12 Q Their testimony deals with the safety issues that
13 you referenced. And then you also mentioned the
14 solar site located on South Lafayette Street, and
15 I believe that you stated that the Certificate of
16 Occupancy had not been issued because the solar
17 developer had not yet installed the screening.
18 Are you aware that the owner of that solar site
19 is not connected or affiliated in any way with
20 Apex Solar?

21 A Yes, ma'am, I am.

22 Q And then, finally, you mentioned the Brunswick
23 County Ordinance and I believe that you said that
24 the Brunswick County Unified Development

1 Ordinance has a provision that solar sites cannot
2 be used for 10 years after the solar farm has
3 ceased to operate. Have you actually reviewed
4 the Brunswick County Unified Development
5 Ordinance to look for that provision?

6 A No, ma'am, I haven't.

7 MS. KEMERAIT: That's all the questions that
8 I have.

9 A And she didn't answer mine so. (Laughter)

10 HEARING EXAMINER BUFFKIN: Let me say,
11 Mr. Ingram, our expectation is that the Applicant's
12 witnesses who will be getting on the stand here
13 shortly will respond to the testimony that they've
14 heard here tonight. So just hang tight. We'll work
15 on the answers to your questions in just a moment.

16 Let me go now to Ms. Luhr. Any questions
17 from the Public Staff?

18 MS. LUHR: I have no questions.

19 HEARING EXAMINER BUFFKIN: All right. I
20 think I got the answer to the question that had come
21 up in my mind, Mr. Ingram, but let me just be clear.

22 EXAMINATION BY HEARING EXAMINER BUFFKIN:

23 Q The facility that you were speaking of on South
24 Lafayette is separate and apart from the proposed

1 facility that we're talking about here tonight;
2 is that correct?

3 A That is correct, yes.

4 Q Okay. Thank you. I think part of what I
5 understood your concern to be was the
6 concentration of solar facilities in the
7 particular part of Cleveland County where you
8 reside; is that correct?

9 A That's correct. The additional acres. We were
10 never notified that this is going to be larger
11 than the original Conditional Use Permit of
12 320 -- 320.73 acres. We have never been notified
13 that they have added additional acres for this
14 proposed project.

15 Q But did you receive the notice of the hearing
16 tonight?

17 A Yes, we did.

18 Q Okay. Okay. Very good. That's helpful and
19 thank you for that. And lastly, you had alluded
20 to some opinions that you felt like maybe you
21 shouldn't be testifying to, I just wanted to
22 offer you the assurances that there's no limit on
23 the scope of your testimony tonight. You can
24 offer any opinions you like. So if there was

1 something that you left out that you feel like
2 should be heard and considered, you're more than
3 welcome to offer that in testimony now.

4 A No, it was basically the visibility. Just
5 basically what I said. I noted that before we
6 could go before the Board of Adjustment in which
7 we weren't really allowed to speak of unless we
8 had expert testimony, as we weren't allowed to
9 say it there, and the rest my testimony was
10 opinion so.

11 HEARING EXAMINER BUFFKIN: All right. Well,
12 thank you for that.

13 Ms. Kemerait, any questions on my questions?

14 MS. KEMERAIT: No further questions.

15 HEARING EXAMINER BUFFKIN: Thank you.

16 Ms. Luhr, any further questions?

17 MS. LUHR: No questions.

18 HEARING EXAMINER BUFFKIN: All right. Thank
19 you.

20 Mr. Ingram, thank you for participating in
21 our hearing tonight. You are excused but you are, of
22 course, welcome to stay on the line and hear the
23 testimony from the expert witnesses that is about to
24 begin now.

1 (The witness is excused)

2 HEARING EXAMINER BUFFKIN: Let me ask Ms.
3 Luhr, can you verify that these -- this is the end of
4 our list of public witnesses that preregistered?

5 MS. LUHR: Yes, this is the end of the list.

6 HEARING EXAMINER BUFFKIN: Great. Thank
7 you.

8 So with that, I will close the public
9 witness portion of the hearing and the Commission is
10 now prepared to receive evidence from the Applicant.

11 Ms. Kemerait, would you please call your
12 first witness?

13 MS. KEMERAIT: Yes. Thank you. I will call
14 Cullen Morris as the Applicant's first witness.

15 Mr. Morris, can you state your name and
16 address for the record, please?

17 MR. MORRIS: My name is Cullen Morris.
18 That's spelled C-U-L-L-E-N M-O-R-R-I-S. My business
19 address is 5003 South Park Drive, Suite 210, Durham,
20 North Carolina 27713.

21 MS. KEMERAIT: And, Mr. Morris, did you
22 cause to be prefiled on July the --

23 COURT REPORTER: Excuse me, Ms. Kemerait.
24 We need to get him affirmed please.

1 HEARING EXAMINER BUFFKIN: Thank you.

2 CULLEN MORRIS;

3 having been duly affirmed,

4 testified as follows:

5 HEARING EXAMINER BUFFKIN: Ms. Kemerait, the
6 witness is available.

7 MS. KEMERAIT: Thank you.

8 DIRECT EXAMINATION BY MS. KEMERAIT:

9 Q Mr. Morris, did you cause to be prefiled on
10 July 6th, 2020, eight pages of revised initial
11 testimony in the form of question and answer, and
12 one exhibit?

13 A Yes, I did.

14 Q And did you also cause to be prefiled on
15 July 16th, six pages of rebuttal testimony in the
16 form of question and answer and three exhibits?

17 A Yes.

18 Q If I were to ask you the same questions today
19 that appear in your prefiled testimony, would
20 your answers be the same?

21 A Yes.

22 MS. KEMERAIT: At this time I would move
23 into evidence the prefiled testimony and exhibits.

24 HEARING EXAMINER BUFFKIN: Ms. Kemerait,

1 let's clarify for the record, that is the corrected
2 direct testimony that was filed with the Commission on
3 July 6th; is that correct?

4 MS. KEMERAIT: That is correct.

5 HEARING EXAMINER BUFFKIN: Thank you.

6 BY MS. KEMERAIT:

7 Q And, Mr. Morris, do you have a summary of your
8 testimony to present today?

9 A I do.

10 Q Can you go ahead and read the summary of your
11 testimony, please?

12 A Yes.

13 (WHEREUPON, the summary of CULLEN
14 MORRIS is copied into the record
15 as read from the witness stand.)
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Summary of Testimony of Cullen Morris

My name is Cullen Morris, and my business address is 5003 Southpark Drive, Suite 210, Durham, North Carolina 27713. I am employed as a Principal by Cooperative Solar, LLC (“Cooperative Solar”), and I am engaged as a consultant for the Apex Solar, LLC project.

I filed both initial testimony and rebuttal testimony in the docket, and I will begin by summarizing my initial testimony and then summarize my rebuttal testimony.

In my initial testimony, I stated that previously on May 7, 2018, Apex Solar submitted an Application for a Certificate of Public Convenience and Necessity (“CPCN”) for a 30-MWAC photovoltaic (PV) system on property located on the west side of Plainsview Church Road, approximately 0.5 miles west of the intersection with East Stage Coach Trail, Lawndale, Cleveland County, North Carolina. On July 23, 2018, the Commission issued a CPCN to Apex Solar. Thereafter, on September 13, 2019, Apex Solar filed an Application to Amend its CPCN so that additional land could be added to the Apex Solar facility (the “Facility”). The Facility that is subject to the CPCN Amendment Application will be located on the west side of Plainsview Church Road, approximately 0.5 miles west of the intersection with East Stage Coach Trail, Lawndale, Cleveland County, North Carolina. The total acreage of the underlying tracts is 475 acres. The solar panels will be located on 321 acres of the parent tracts, and the area of disturbance will include 357 acres.

The Facility will consist of approximately (132,327) 345W photovoltaic (PV) modules affixed to metal racks, which will be supported by piles driven into the ground to minimize soil disturbance. The Facility will utilize (14) 2500kVa inverters. The solar panels do not contain any radioactive materials, hazardous chemicals, or other materials that could potentially cause harm to the environment or the surrounding community. The solar panels are non-combustible. They are safe and create no site emissions, odor, or dust. A solar facility is a low impact, passive use of the land. The Facility will be surrounded by chain link fencing and landscaped buffers.

Apex Solar plans to sell the electricity to Duke Energy Carolinas, LLC (“DEC”), and it is anticipated that the Facility will be placed in service in November 2021.

Apex Solar has already obtained a land use permit for the Facility. As part of the permitting process for the solar farm, a public hearing was held before the Cleveland County Board of Adjustment. After hearing all of the evidence during the public hearing, the Board of Adjustment found and concluded that the solar farm use will not materially endanger the public health or safety; the solar farm use will not substantially injure the value of adjoining or abutting property; the solar farm use will be in harmony in the area in which it is to be located; and the solar use will be in general conformity with the land development plan or other plans officially adopted by the Board of Commissioners. The Board of Adjustment therefore granted a Conditional Use Permit to Apex Solar.

Apex Solar will be a good neighbor during the permitting, design, and construction of the Facility, and will take a number of measures to minimize the disturbance to neighbors during the construction of the Facility. During construction, Apex Solar will ensure that appropriate sedimentation and erosion control measures are in place; Apex Solar will maintain, to the

greatest extent possible, a trash and litter-free construction site; and Apex Solar will operate heavy machinery during limited hours, typically from 7:00 am to 7:00 pm. Apex Solar will also ensure that the Facility is well-maintained and functions in an orderly manner. With respect to maintenance of the site, once the Facility has been constructed, Apex Solar will complete final grading, comply with all environmental and land use requirements, and install final landscaping. The site will be completely fenced. The Facility will be mowed on regular intervals every few weeks.

The community will benefit from the Facility because the Facility will provide 69,890,000 kWh per year of emission-free renewable energy. The addition of this renewable energy to DEC's system has the potential to cause DEC to defer, in part, the addition of fossil fuel-fired generation to its generating fleet. Also, the energy generated by the Facility has the potential to be consumed by residences or other buildings that are fed by the same transmission line. Serving the load nearest to the Facility from energy generated by the Facility minimizes the loss of power that occurs in the transmission and distribution lines when residences and business are served by generation that is located many miles away.

I have read the complaints filed in this docket. In regard to concerns about impacts to the viewshed and property values, the Facility will be fully screened from adjoining properties, and the Facility will be set back at least 50 feet from all adjacent property lines and at least 100 feet from any habitable dwelling or commercial structure. Due to the screening and the setbacks, the Facility will have no adverse visual impact on the adjacent properties. Also, as set forth in his pre-filed testimony, Apex Solar's expert consultant, Richard Kirkland, has concluded that the Facility will not have an adverse impact on adjacent property values. With respect to the concern about the decommissioning of the Facility, the site will be properly decommissioned. As part of Apex Solar's application for a Conditional Use Permit that was approved by Cleveland County, Apex Solar provided a decommissioning plan that provides that decommissioning will occur upon any of the following conditions: (1) the land lease ends; (2) the Facility does not produce power for a period of twelve months; and (3) the Facility is damaged and will not be repaired or replaced. In addition, Apex Solar's lease with the property owners requires Apex Solar to perform the following to decommission the project: (1) remove all non-utility owned equipment, conduits, structures, fencing, and foundations to a depth of at least three feet below grade; (2) remove all graveled areas and access roads unless the property owners request in writing for they remain in place; (3) restore the land to a condition reasonably similar to its condition before development, including replacement of top soil that was removed or eroded; (4) re-vegetate any cleared areas with warm season grasses that are native to the Piedmont region, unless requested in writing by the property owners to not re-vegetate due to plans for agricultural planting.

In my rebuttal testimony, I provided information that Apex Solar will comply with all provisions of the Cleveland County Solar Ordinance that was in effect when Apex Solar's Conditional Use Permit Application was approved on November 29, 2018 by the Cleveland County Board of Adjustment. I will refer to this Solar Ordinance as the "2018 Solar Ordinance". After the Conditional Use Permit was granted, Cleveland County revised its Solar Ordinance in 2019, and I will refer to the revised Solar Ordinance as the "2019 Solar Ordinance". Because the 2019 Solar Ordinance was not in effect when the Conditional Use Permit was granted, that ordinance does not apply to the Facility.

Even though the 2019 Solar Ordinance is not applicable to the Facility, Apex Solar will voluntarily comply with several of the provisions of that ordinance. Specifically, Apex Solar has voluntarily agreed to install opaque evergreen vegetation to reach a height of 20 feet. Apex Solar has also voluntarily agreed to comply with some of the decommissioning requirements of the 2019 Solar Ordinance. It is also important to note that the Environmental Management Commission is drafting decommissioning rules pursuant to 2019 House Bill 329 that will take effect in 2022. Apex Solar will comply with any applicable new regulations for disposal.

Apex Solar has agreed to exceed the setback and screening requirements for the Facility required by the 2018 Solar Ordinance in some locations of the Facility. Apex Solar is required to provide 50-foot setbacks to adjacent properties; but Apex Solar will provide a 70-foot setback in some locations of the Facility. Apex Solar has also agreed to exceed the Type A screening requirement and to install slatted fencing in some areas of the Facility. Throughout the project footprint, Apex Solar has volunteered a 150-foot setback from any habitable dwelling, even though the 2018 Solar Ordinance only requires Apex Solar to observe a 100-foot setback.

In addition to meeting and/or exceeding the requirements of the 2018 Solar Ordinance, Apex Solar will comply with other regulations. First, there will be a wetlands delineation and jurisdictional determination by the US Army Corps of Engineers pursuant to Section 404 of the Clean Water Act for the entirety of the Facility footprint. There will be 50-foot riparian buffers on both sides of any jurisdictional streams. Second, the entirety of the Facility will require an erosion and sedimentation control plan approved by the North Carolina Department of Environmental Quality in accordance with the Sedimentation Pollution Control Act. Third, the entirety of the Facility is subject to and will comply with the Endangered Species Act and the Fish and Wildlife Coordination Act. Collectively, these laws require coordination with US Fish and Wildlife Service and the North Carolina Wildlife Resources Commission to limit or prohibit adverse impacts to protected species. Fourth, the entirety of the Facility is subject to the North Carolina Environmental Policy Act and has been reviewed by the State Historic Preservation Office for any impact to important historical or cultural sites. Fifth, Apex Solar will adhere to state regulations for the application of herbicides or chemical mowing that is performed as part of the operations and maintenance of the facility, and Apex Solar will utilize only licensed contractors for those operations. Finally, the Environmental Protection Agency performs tests to determine whether toxic/hazardous materials are present and whether the materials can be disposed of in landfills. This test is called the Toxic Characteristic Leaching Procedure (TCLP) test. Solar panels pass that test and may be disposed of in landfills.

In summary, it is my recommendation that the Commission issue an order awarding the Amended CPCN for the Facility.

1 BY MS. KEMERAIT:

2 Q Thank you, Mr. Morris.

3 MS. KEMERAIT: The witness is available for
4 cross examination.

5 HEARING EXAMINER BUFFKIN: Thank you.
6 Questions from the Public Staff?

7 MS. LUHR: Thank you.

8 CROSS EXAMINATION BY MS. LUHR:

9 Q I just have one question. And this is -- this
10 will refer to Page 7 of your rebuttal testimony,
11 Mr. Morris. And on lines 9 through 13 you
12 discuss the decommissioning of solar panels and
13 we just heard from witness -- Public Witness
14 Ingram that he was concerned about the
15 decommissioning of solar panels and then being
16 placed into landfills and potentially having an
17 impact on groundwater. So in your opinion, this
18 EPA test that solar panels pass, which allows
19 them to be placed into landfills, does that
20 satisfy any concerns you would have about
21 groundwater or do you think there is still a
22 potential there for impact?

23 A Yes, ma'am. That test performed by the EPA does
24 assuage any concerns that I would have about any

1 groundwater contamination due to panels being
2 placed in landfills. Landfills are lined and
3 they are licensed to operate to contain materials
4 such as solar panels. Moreover, the materials
5 that the panels are made are are not water
6 soluble and so if -- you know, one of the public
7 witnesses made mention of some kind of disaster
8 that might damage panels. The panels, if they
9 are broken or if they lay on the ground, they do
10 not leach anything into the ground or the water,
11 and so there is no concern of groundwater
12 contamination from the panels whether they're in
13 a landfill or sitting on the ground.

14 MS. LUHR: Thank you. I have no other
15 questions.

16 HEARING EXAMINER BUFFKIN: Thank you,
17 Ms. Luhr. I have a few.

18 EXAMINATION BY HEARING EXAMINER BUFFKIN:

19 Q Mr. Morris, let's talk a little bit about
20 decommissioning. I noted in your prefiled
21 rebuttal testimony, and this is in Page 3
22 beginning in line 16, where you're discussing the
23 new requirements of what you've called the 2019
24 Solar Ordinance, and you stated that Apex Solar

1 will not meet every requirement of the 29 -- 2019
2 Solar Ordinance Section 12-160(i), which is the
3 decommissioning regulation. I wonder if you
4 could give us some more detail about what parts
5 of that new ordinance Apex is not volunteering to
6 comply with?

7 A I -- unfortunately I don't have the 2019
8 decommissioning requirements in front of me. But
9 I recall that the primary difference and the
10 primary piece that won't be -- we won't
11 voluntarily comply with is the requirement for a
12 decommissioning bond. That was not part of the
13 requirement in the 2018 Ordinance. We have not
14 chosen to voluntarily comply with that part of
15 the 2019 Ordinance.

16 Q And what factors were involved in Apex's decision
17 to not have a decommissioning bond?

18 A It's primarily a financial consideration. A
19 decommissioning bond is difficult to administer.
20 It's difficult to -- for someone to hold the
21 money in escrow. Decommissioning bonds are used
22 for other types of commercial development.
23 That's a commonly used tool to basically make
24 sure that the work is done, that the construction

1 is performed.

2 And so normally a decommissioning
3 bond is something that has a very short timeline.
4 So a developer of a shopping center, for example,
5 would have to put money into an account so that
6 if they didn't pave the parking lot or put in the
7 sidewalks that are required, the jurisdiction
8 could use the money to complete their job. That
9 money normally would sit maybe for six months to
10 a year during the construction and then after
11 that it would be released. And so what is being
12 contemplated here is a bond that would have to be
13 held in escrow for 30 years, 40 years, 50 years
14 perhaps, and maybe even longer than that, and so
15 there is a certain amount of administrative
16 burden that is placed on, you know, a title
17 company or a law firm.

18 In my experience, because I've
19 been doing this a while, we've actually reached
20 out to several different law firms asking if they
21 would hold in escrow a decommissioning bond, and
22 I do believe that there are some that will do it
23 but most of the feedback that I've been given is
24 that no one is interested in trying to manage

1 your escrow account for the next 40, 50 years.

2 So there really is -- there really
3 is an administrative burden. There's a cost
4 element. And then there's also an issue, at
5 least from the solar industry's perspective, an
6 issue of fairness. Other types of development
7 are not asked to hold or place a decommissioning
8 bond for the life of say a building. If you
9 built a Dollar General or you built a
10 Chick-fil-A, most developers do not have to put
11 money in an account to guarantee that that
12 building can be decommissioned at some unknown
13 time in the future.

14 Q Thank you. Also, in your rebuttal testimony, you
15 have committed on behalf of Apex Solar to certain
16 features of the layout and construction and
17 configuration of the facility. And I'll
18 summarize, and I know this, in summarizing I will
19 be less than completely accurate. But, in
20 general, what I understand your testimony to be
21 is that Apex Solar is committing to do certain
22 things that are required under the 2019 Solar
23 Ordinance or to go beyond the requirements of the
24 2019 Solar Ordinance in constructing and

1 configuring the site; is that correct?

2 A Yes, sir, that's correct.

3 Q Would Apex have any objection to those
4 commitments being incorporated into the
5 Commission's Certificate as expressed conditions
6 on the Certificate?

7 A No. Those are already conditions of our Special
8 Use Permit anyway. So it's fine if they are a
9 part of this process as well.

10 Q All right. And were you involved in the Special
11 Use Permit process?

12 A No, I was not. That was done by Cypress Creek
13 Renewables.

14 Q Do you have any testimony or opinions on why
15 Mr. Ingram and perhaps some of the people that
16 live near him didn't receive notice of the
17 Special Use Permit hearing?

18 A This is speculation, I think there may be some
19 confusion about the order in which some of these
20 events have happened or maybe there's confusion
21 about when this additional land was added. So
22 just to be clear, the Special Use Permit process
23 that Cypress Creek went through included all of
24 this land that we're talking about today. So

1 there never was an addition of land after that
2 Special Use Permit was granted, it's just that
3 the original CPCN did not include all of the
4 land, and so this was a fix being made to correct
5 the CPCN. But the zoning part of the process
6 always included all of the land that we're
7 talking about here today and so there was never a
8 need to go back to the County to add land. And
9 any notices that were sent about the original
10 Conditional Use Permit -- or sorry, Special Use
11 Permit, those were the notices for that process.
12 And so all of the adjoining land owners should
13 have been notified about that, those public
14 hearings. And I believe Mr. Ingram stated that
15 he was there for each of those meetings. And so
16 I think it's correct that all of the adjoining
17 landowners to the project footprint were notified
18 of the Special Use Permit process.

19 Q Thank you.

20 HEARING EXAMINER BUFFKIN: I have no further
21 questions. Any questions on my questions beginning
22 with the Applicant?

23 MS. KEMERAIT: No questions from the
24 Applicant.

1 HEARING EXAMINER BUFFKIN: Thank you,
2 Ms. Kemerait.

3 Ms. Luhr, any questions from the Public
4 Staff.

5 MS. LUHR: No questions from the Public
6 Staff.

7 HEARING EXAMINER BUFFKIN: Thank you.

8 And, Mr. Morris, we're going to get your
9 testimony into the record and then you'll be excused.

10 I'll ask counsel to help me out here.
11 Ms. Kemerait's motion on behalf of the Applicant is
12 that the prefiled direct testimony, the corrected
13 direct testimony of Witness Cullen Morris consisting
14 of eight pages and one exhibit which was filed with
15 the Commission on July 6th, 2020, will be admitted
16 into the record as if given orally from the stand.
17 And the exhibits will be identified as premarked and
18 filed with the Commission and also admitted into the
19 record.

20 Is that your motion, Ms. Kemerait? It looks
21 like you muted yourself.

22 MS. KEMERAIT: I apologize. That is my
23 motion. But, in addition, I made the motion to admit
24 into the record the prefiled testimony, rebuttal

1 testimony that was filed on July the 16th consisting
2 of six pages, rebuttal testimony, and three exhibits.

3 HEARING EXAMINER BUFFKIN: Thank you. Let's
4 take them one at a time. So the first, prefiled
5 corrected direct testimony as stated that's consisting
6 of eight pages and one exhibit. Is there any
7 objection that this testimony and the exhibit be
8 admitted into the record?

9 (No response)

10 Hearing none, it is so ordered.

11 (WHEREUPON, Morris Exhibit 1 is
12 marked for identification as
13 prefiled and received into
14 evidence.)

15 (WHEREUPON, the prefiled direct
16 testimony of CULLEN MORRIS, as
17 corrected, is copied into the
18 record as if given orally from the
19 stand.)

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-11723, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

**In the Matter of)
Application of Apex Solar, LLC, for a Certificate of)
Public Convenience and Necessity to Construct a 30-)
MW Solar Facility in Cleveland County, North Carolina)**

DIRECT TESTIMONY

OF

CULLEN MORRIS

ON BEHALF OF

APEX SOLAR, LLC

July 2, 2020

1 Q. **Please state your name and business address.**

2 A. My name is Cullen Morris. My business address is 5003 Southpark Drive, Suite
3 210, Durham, North Carolina 27713.

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

5 A. I am employed as a Principal by Cooperative Solar, LLC (“Cooperative Solar”).

6 Q. **Please briefly summarize your educational background.**

7 A. I received an engineering degree from Virginia Polytechnic Institute and State
8 University and a Masters in Energy Management from Duke University.

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

10 A. I bring years of project management experience to Cooperative Solar, which I
11 formed. Prior to forming Cooperative Solar, I spent three years building a deep
12 pipeline of solar projects for Strata Solar, LLC (“Strata Solar”). As Vice President
13 of Development for Strata Solar, I managed over 150 projects, more than 70 of
14 which have been built in North Carolina to date. This pipeline, totaling more than
15 1,200 MW, consisted of projects in every stage of the development process. I
16 have a thorough understanding of what it takes to develop and build a utility-scale
17 solar facility, such as the Apex Solar, LLC (“Apex Solar”) project.

18 Q. **How are you involved with the Apex Solar project?**

19 A. I am engaged as a consultant for the Apex Solar project.

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

21 A. The purpose of my testimony is to support Apex Solar’s Application for an
22 Amended Certificate of Public Convenience and Necessity (“CPCN”).

23 Q. **Did the Commission previously issue a CPCN to Apex Solar?**

1 A. Yes. On May 7, 2018, in this docket, Apex Solar submitted an Application for a
2 CPCN for a 30-MWAC photovoltaic (PV) system on property owned by Jean
3 Yancey Elliott, D. Leon Leonhardt, Dennis D. Peeler, and Elizabeth Faye Peeler,
4 and located on the west side of Plainsview Church Road, approximately 0.5
5 miles west of the intersection with East Stage Coach Trail, Lawndale, Cleveland
6 County, North Carolina. On July 23, 2018, the Commission issued a CPCN to
7 Apex Solar.

8 **Q. Since the Commission has already awarded a CPCN to Apex Solar, what is**
9 **the nature of this proceeding?**

10 A. On September 13, 2019, Apex Solar filed an Application to Amend its CPCN so
11 that additional land could be added to the Apex Solar facility (the "Facility").
12 The application to amend the CPCN is attached hereto as Exhibit 1. The high
13 resolution site plan attached to the Application shows the updated project
14 boundary and the additional land that is part of the Facility.

15 **Q. Please describe the proposed Facility for which Apex Solar seeks an**
16 **Amended CPCN.**

17 A. The proposed Facility is a 30-MW facility that is described in detail in the
18 Application to Amend the CPCN. The Facility will be located on the west side of
19 Plainsview Church Road, approximately 0.5 miles west of the intersection with
20 East Stage Coach Trail, Lawndale, Cleveland County, North Carolina. The total
21 acreage of the underlying tracts is 475 acres. The solar panels will be located on
22 321 acres of the parent tracts, and the area of disturbance will include 357 acres.

1 As proposed, the Facility will consist of approximately (132,327) 345W
2 photovoltaic (PV) modules (or equivalent) affixed to metal racks, which will be
3 supported by piles driven into the ground to minimize soil disturbance. The
4 Facility will utilize (14) 2500kVa inverters (or equivalent). The solar panels do
5 not contain any radioactive materials, hazardous chemicals, or other materials that
6 could potentially cause harm to the environment or the surrounding community.
7 The solar panels are non-combustible. They are safe and create no site emissions,
8 odor, or dust. A solar facility is a low impact, passive use of the land.

9 The Facility will be surrounded by chain link fencing and landscaped
10 buffers.

11 **Q. To whom will Apex Solar sell the power generated by the Facility?**

12 A. Apex Solar plans to sell the electricity to Duke Energy Carolinas, LLC (“DEC”).

13 **Q. When is the Facility expected to be placed in service?**

14 A. It is anticipated that the Facility will be placed in service in November 2021.

15 **Q. Has the North Carolina State Environmental Review Clearinghouse
16 reviewed Apex Solar’s Amended CPCN Application?**

17 A. Yes. The North Carolina State Environmental Review Clearinghouse has
18 reviewed Apex Solar’s Application under the provisions of the North Carolina
19 Environmental Policy Act. On November 6, 2019, the State Environmental
20 Review Clearinghouse filed a letter in the docket, stating that no further State
21 Clearinghouse review action is needed for compliance with the North Carolina
22 Environmental Policy Act.

1 **Q. Please explain the steps that Apex Solar will take to minimize the disturbance**
2 **to neighbors during the construction of the Facility.**

3 A. Apex Solar's parent company, Silver Creek Energy, LLC ("Silver Creek"), has
4 developed, and is developing, numerous solar facilities in North Carolina. Silver
5 Creek strives to be a good neighbor during the permitting, design, and
6 construction of the Facility, and by addressing concerns raised by neighboring
7 property owners. During construction, Apex Solar will ensure that appropriate
8 sedimentation and erosion control measures are in place; Apex Solar will
9 maintain, to the greatest extent possible, a trash and litter-free construction site;
10 and Apex Solar will operate heavy machinery during limited hours, typically from
11 7:00 am to 7:00 pm. The Facility will be fully screened from adjoining properties
12 with screening in compliance with Section 12-305 of the Cleveland County
13 Unified Development Ordinance. In addition, the Facility will be set back at least
14 50 feet from all adjacent property lines and at least 100 feet from any habitable
15 dwelling or commercial structure.

16 **Q. Has Apex Solar obtained a land use permit for the Facility?**

17 A. Yes. As part of the permitting process for the Apex Solar solar farm, a public
18 hearing was held before the Cleveland County Board of Adjustment. The Board
19 of Adjustment considered (1) whether the solar farm use will materially endanger
20 the public health or safety; (2) whether the use will substantially injure the value
21 of adjoining or abutting property; (3) whether the use will be in harmony in the
22 area in which it is to be located; and (4) whether the use will be in general
23 conformity with the land development plan or other plans officially adopted by

1 the Board of Commissioners. After hearing all of the evidence during the public
2 hearing, the Board of Adjustment found and concluded that the solar farm use will
3 not materially endanger the public health or safety; the use will not substantially
4 injure the value of adjoining or abutting property; the use will be in harmony in
5 the area in which it is to be located; and the use will be in general conformity with
6 the land development plan or other plans officially adopted by the Board of
7 Commissioners. The Board of Adjustment therefore granted a Conditional Use
8 Permit to Apex Solar.

9 **Q. Please explain the steps that Apex Solar plans to take to maintain the**
10 **Facility over the course of its operating life.**

11 A. Apex Solar will ensure that the Facility is well-maintained and functions in an
12 orderly manner. With respect to maintenance of the site, once the Facility has
13 been constructed, Apex Solar will complete final grading, comply with all
14 environmental and land use requirements, and install final landscaping. The
15 service roads will be graded and any disturbed land will be tilled
16 and re-seeded for stabilization. The site will be completely fenced. The Facility
17 will be mowed on regular intervals every few weeks.

18 **Q. How will the community benefit from the Facility?**

19 A. The Facility will provide 69,890,000 kWh per year of emission-free
20 renewable energy. The addition of this renewable energy to DEC's system has the
21 potential to cause DEC to defer, in part, the addition of fossil fuel-fired generation
22 to its generating fleet. Also, the energy generated by the Facility has the potential
23 to be consumed by residences or other buildings that are fed by the same

1 transmission line. Serving the load nearest to the Facility from energy generated
2 by the Facility minimizes the loss of power that occurs in the transmission and
3 distribution lines when residences and business are served by generation that is
4 located many miles away.

5 **Q. Have you read the comments filed by Carrie and Gene Daves, Ronald**
6 **Ingram, Dana Donaldson, and Tom and Karen Bess filed in this docket?**

7 A. Yes.

8 **Q. What is your response to their comments about impacts to the viewshed and**
9 **their property values?**

10 A. As mentioned previously, the Facility will be fully screened from adjoining
11 properties, and the Facility will be set back at least 50 feet from all adjacent
12 property lines and at least 100 feet from any habitable dwelling or commercial
13 structure. Due to the screening and the setbacks, the Facility will have no adverse
14 visual impact on the adjacent properties. Also, as set forth in his pre-filed
15 testimony, Apex Solar's expert consultant, Richard Kirkland, has concluded that
16 the Facility will not have an adverse impact on adjacent property values.

17 With respect to the specific concern about the decommissioning of the
18 Facility raised in the submission filed by Mr. Ingram, the site will be properly
19 decommissioned. As part of Apex Solar's application for a Conditional Use
20 Permit submitted to Cleveland County and approved by Cleveland County, Apex
21 Solar provided a decommissioning plan as required by Section 12-160(f) of the
22 Cleveland County Unified Development Ordinance. The decommissioning plan
23 provides that decommissioning will occur upon any of the following conditions:

1 (1) the land lease ends; (2) the Facility does not produce power for a period of
2 twelve months; and (3) the Facility is damaged and will not be repaired or
3 replaced. At a minimum, Apex Solar's lease with the property owners requires
4 Apex Solar to perform the following to decommission the project: (1) remove all
5 non-utility owned equipment, conduits, structures, fencing, and foundations to a
6 depth of at least three feet below grade; (2) remove all graveled areas and access
7 roads unless the property owners request in writing for they remain in place; (3)
8 restore the land to a condition reasonably similar to its condition before
9 development, including replacement of top soil that was removed or eroded; (4)
10 re-vegetate any cleared areas with warm season grasses that are native to the
11 Piedmont region, unless requested in writing by the property owners to not re-
12 vegetate due to plans for agricultural planting.

13 **Q. What is your recommendation with respect to Apex Solar's Application for**
14 **an Amended CPCN?**

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

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

18 A. Yes.

1 HEARING EXAMINER BUFFKIN: Then the other
2 pending motion on behalf of the Applicant is that the
3 prefiled rebuttal testimony of Witness Cullen Morris
4 consisting of six pages and three exhibits be admitted
5 to the record as if given orally from the stand. And
6 the exhibits identified as prefiled with the
7 Commission and admitted to the record. Is there any
8 objection to that motion?

9 (No response)

10 Hearing none, it is so ordered.

11 (WHEREUPON, Morris Rebuttal
12 Exhibits A, B and C are marked for
13 identification as prefiled and
14 received into evidence.)

15 (WHEREUPON, the rebuttal testimony
16 of CULLEN MORRIS is copied into
17 the record as if given orally from
18 the stand.)

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-11723, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

**In the Matter of)
Application of Apex Solar, LLC, for a Certificate of)
Public Convenience and Necessity to Construct a 30-)
MW Solar Facility in Cleveland County, North Carolina)**

REBUTTAL TESTIMONY

OF

CULLEN MORRIS

ON BEHALF OF

APEX SOLAR, LLC

July 16, 2020

1 Q. **Please state your name and business address.**

2 A. My name is Cullen Morris. My business address is 5003 Southpark Drive, Suite
3 210, Durham, North Carolina 27713.

4 Q. **Did you previously file testimony in this docket?**

5 A. Yes. I filed direct testimony in this docket on July 2, 2020.

6 Q. **Have you read the direct testimony of Public Staff Witness Jay B. Lucas filed
7 on July 10, 2020?**

8 A. Yes. I have read the testimony of Public Staff Witness Lucas.

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

10 A. The purpose of my testimony is to respond to information provided by Public
11 Staff Witness Lucas and to further support Apex Solar, LLC's ("Apex Solar")
12 Application for an Amended Certificate of Public Convenience and Necessity
13 ("CPCN").

14 Q. **Please address Public Staff Witness Lucas' testimony.**

15 A. I would like to address Public Staff Witness Lucas' testimony about Cleveland
16 County's Solar Ordinance that will apply to the Apex Solar facility (the
17 "Facility"). Apex Solar will comply with all provisions of the Solar Ordinance
18 that was in effect when Apex Solar's Conditional Use Permit Application was
19 approved on November 29, 2018 by the Cleveland County Board of Adjustment
20 (the authority having jurisdiction over land use matters in Cleveland County)
21 ("2018 Solar Ordinance"). The 2018 Solar Ordinance is attached hereto as
22 Exhibit A. After the Conditional Use Permit was granted, Cleveland County
23 revised its Solar Ordinance in 2019 ("2019 Solar Ordinance"). The 2019 Solar

1 Ordinance is attached hereto as Exhibit B. Because the 2019 Solar Ordinance was
2 not in effect when the Conditional Use Permit was granted, that ordinance does
3 not apply to the Facility.

4 **Q. Even though the 2019 Solar Ordinance is not applicable to the Facility, will**
5 **Apex Solar voluntarily comply with any of the provisions of that ordinance?**

6 A. Yes. Even though Apex Solar is not required to comply with the 2019 Solar
7 Ordinance, Apex Solar will voluntarily comply with the following provisions of
8 the 2019 Solar Ordinance:

9 1. Section 12-160(a): Apex Solar provided (and Cleveland County
10 approved) a site plan as indicated in that section. However, that site plan was not
11 signed and sealed by a professional engineer. Apex Solar will provide a site plan
12 signed and sealed by a professional engineer when applying for building and
13 electrical permits.

14 2. Section 12-160(b)(c): Apex Solar will install opaque evergreen
15 vegetation to reach a height of 20 feet.

16 3. Section 12-160(i): While Apex Solar will not meet every
17 requirement of this section, a decommissioning plan was provided to and
18 approved by Cleveland County. The decommissioning plan is attached as Exhibit
19 C. Apex Solar also notes the Environmental Management Commission is drafting
20 decommissioning rules pursuant to 2019 House Bill 329 that will take effect in
21 2022. Apex Solar will comply with any applicable new regulations for disposal.

22 **Q. Will the Facility exceed any of the setback or screening requirements for the**
23 **Facility required by the 2018 Solar Ordinance?**

1 A. Yes. Apex Solar will voluntarily exceed the setback and screening requirements as
2 follows:

3 1. On Parcel ID No. 35641, owned by Leon Leonhardt, Apex Solar is
4 required to provide a 50-foot setback from the security fencing to any non-
5 participating property. After consultation with adjoining property owners, Apex
6 Solar volunteered to adhere to a 70-foot setback along the northwest property
7 boundary with Charolais Drive.

8 2. Apex Solar is required to plant Type A screening as defined in
9 Section 12-305. More specifically, this requires Apex Solar to preserve existing
10 vegetation or plant evergreen vegetation, either of which must be opaque to 6 feet
11 in height and reach 20 feet at maturity. However, in addition to these requirements
12 and after consultation with adjoining property owners, Apex Solar volunteered to
13 preserve or plant three staggered rows of vegetation ranging from 6 to 8 feet in
14 height, along the northwest property boundary with Charolais Drive.

15 Apex Solar also volunteered to install slatted fencing along this parcel's
16 northeastern boundary with Fallston Waco Road.

17 3. On Parcel ID No. 35642, also owned by Leon Leonhardt, Apex
18 Solar is likewise required to meet the 50-foot setback and Type A screening.
19 However, along the western boundary of this parcel adjacent to Mr. Donaldson's
20 property, Apex Solar has volunteered to provide a 70-foot setback and a 150-foot
21 non-disturbance buffer, and to preserve or plant three staggered rows of vegetation
22 ranging from 6 to 8 feet in height.

1 4. On the portions of Parcel ID Nos. 35642 and 35649 located
2 southwest of Fallston Waco Road, all of which are owned by Leon Leonhardt, Apex
3 Solar must meet the standards of the Type A screening. However, in addition to
4 this requirement, Apex Solar volunteered to install slatted fencing along the
5 boundaries with Fallston Waco Road.

6 5. On the portion of Parcel ID No. 35649 located southwest of Fallston
7 Waco Road, Apex Solar must observe a 50-foot setback and meet the standards of
8 Type A screening. However, along this property's southern border, Apex Solar has
9 volunteered to observe a 70-foot setback and preserve or plant three staggered rows
10 of vegetation ranging from 6 to 8 feet in height.

11 6. Throughout the project footprint, Apex Solar has volunteered a 150-
12 foot setback from any habitable dwelling, even though the 2018 Solar Ordinance
13 only requires Apex Solar to observe a 100-foot setback.

14 **Q. In addition to meeting and/or exceeding the requirements of the 2018 Solar**
15 **Ordinance, are there other regulations to which Apex Solar will comply?**

16 **A.** First, there will be a wetlands delineation and jurisdictional determination by the
17 US Army Corps of Engineers pursuant to Section 404 of the Clean Water Act for
18 the entirety of the Facility footprint. There will be 50-foot riparian buffers on
19 both sides of any jurisdictional streams. Second, the entirety of the Facility will
20 require an erosion and sedimentation control plan approved by the North Carolina
21 Department of Environmental Quality in accordance with the Sedimentation
22 Pollution Control Act. Third, the entirety of the Facility is subject to and will
23 comply with the Endangered Species Act and the Fish and Wildlife Coordination

1 Act. Collectively, these laws require coordination with US Fish and Wildlife
2 Service and the North Carolina Wildlife Resources Commission to limit or
3 prohibit adverse impacts to protected species. Fourth, the entirety of the Facility
4 is subject to the North Carolina Environmental Policy Act and has been reviewed
5 by the State Historic Preservation Office for any impact to important historical or
6 cultural sites. Fifth, Apex Solar will adhere to state regulations for the application
7 of herbicides or chemical mowing that is performed as part of the operations and
8 maintenance of the facility, and Apex Solar will utilize only licensed contractors
9 for those operations. Finally, the Environmental Protection Agency performs
10 tests to determine whether toxic/hazardous materials are present and whether the
11 materials can be disposed of in landfills. This test is called the Toxic
12 Characteristic Leaching Procedure (TCLP) test. Solar panels pass that test and
13 may be disposed of in landfills.

14 **Q. What is your recommendation with respect to Apex Solar's Application for**
15 **an Amended CPCN?**

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

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

19 A. Yes.

1 HEARING EXAMINER BUFFKIN: Mr. Morris,
2 you're excused. Thank you.

3 (The witness is excused)

4 HEARING EXAMINER BUFFKIN: Ms. Kemerait,
5 your next witness please.

6 MS. KEMERAIT: Yes. Thank you. The
7 Applicant will now call Richard Kirkland.

8 Mr. Kirkland, can you state your name and
9 address for the record, please?

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

11 HEARING EXAMINER BUFFKIN: Yes. Please go
12 ahead.

13 MR. KIRKLAND: My name is Richard Kirkland.
14 My address is 9408 North Field Court, Raleigh, North
15 Carolina 27603.

16 HEARING EXAMINER BUFFKIN: Thank you,
17 Mr. Kirkland.

18 RICHARD KIRKLAND;

19 having been duly affirmed,

20 testified as follows:

21 DIRECT EXAMINATION BY MS. KEMERAIT:

22 Q And, Mr. Kirkland, did you cause to be prefiled
23 on July 6, 2020, five pages of testimony and one
24 exhibit, and the testimony was in the form of

1 question and answer?

2 A I did.

3 Q And if I were to ask you the same questions today
4 that appear in your prefiled testimony, would
5 your answers be the same?

6 A They would.

7 MS. KEMERAIT: At this time I'd move into
8 evidence the prefiled testimony and exhibit of Richard
9 Kirkland.

10 Q And, Mr. Kirkland, do you have a summary of your
11 testimony to present today?

12 A I do.

13 Q Can you proceed with reading your summary,
14 please?

15 (WHEREUPON, the summary of RICHARD
16 KIRKLAND is copied into the record
17 as read from the witness stand.)

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Summary of Testimony of Richard Kirkland

My name is Richard Kirkland, and my business address is 9408 Northfield Court, Raleigh, North Carolina 27603. I am the Chief Executive Officer and President of Kirkland Appraisals, LLC. I have twenty-four years of experience in commercial real estate appraisals. I am a member of the Appraisal Institute (designation #11796) and a North Carolina State Certified General Appraiser (#A4359). I have researched hundreds of solar farms in numerous states to determine the impact of these facilities on the value of adjacent property. This research has primarily been in North Carolina, but I have also conducted market impact analyses in Virginia, South Carolina, Tennessee, Texas, Oregon, Mississippi, Maryland, New York, and Montana. However, the study that I have performed for the Apex Solar, LLC (“Apex Solar”) project has focused on North Carolina properties, and includes paired sales analyses, a breakdown of adjoining uses to solar farms, proximity to existing residences, and typical landscape screens.

The proposed Facility will be located on the west side of Plainsville Church Road, approximately 0.5 miles west of the intersection with East Stage Coach Trail, Lawndale, Cleveland County, North Carolina. The total acreage of the underlying tracts is 475 acres. The solar panels will be located on 321 acres and the area of disturbance will include 357 acres. The adjoining land is a mix of agricultural and low density residential property, with a religious and commercial adjoining uses as well.

The Facility will consist of solar panels lower to the ground than a typical residential home. There will be grass growing under the solar panels to maintain very low impervious surface. The Facility will be surrounded by chain link fencing and landscaped buffers.

I have read the complaints filed in this docket. With respect to the specific concerns related to the impact of the Facility on adjacent property values, it is my professional and expert opinion that the Facility will have no impact on the property values of the surrounding properties. It has been my experience that most concerns from neighbors are related to the appearance of solar farms and the possible negative effects on property values. As I have mentioned, I have found solar farms to have no 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, and 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 solar farm 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 noise, odor, and traffic; 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.

In summary, it is my recommendation that the Commission issue an order awarding an Amended CPCN for the Facility.

1 BY MS. KEMERAIT:

2 Q Thank you, Mr. Kirkland.

3 MS. KEMERAIT: The witness is available for
4 cross examination.

5 HEARING EXAMINER BUFFKIN: Cross examination
6 by the Public Staff?

7 MS. LUHR: I have no questions.

8 HEARING EXAMINER BUFFKIN: Thank you.

9 Mr. Kirkland, I have one.

10 EXAMINATION BY HEARING EXAMINER BUFFKIN:

11 Q You heard Mr. Ingram's testimony tonight and his
12 concern was about the concentration of solar
13 facilities near the area where his home is
14 located. In your analysis of -- your appraisal
15 analysis, did you find suitable comparable
16 situations where perhaps residential property was
17 located by -- near two or more solar facilities?

18 A I looked at a number of situations where there
19 were probably residential homes adjoining two
20 solar farms, actually adjoining two different
21 solar farms, but specifically the proximity and
22 number of solar farms around them, I mean, that's
23 pretty common.

24 If I can look through my report

1 real fast. I've got a total of 16 solar farms
2 that I looked at in Cleveland County and
3 adjoining counties. Let's see, of those,
4 three -- I only found six solar farms in
5 Cleveland County. For comparison Nash County,
6 Johnston County -- there's a lot of counties that
7 have 20 or 30 or more solar farms. So the solar
8 farms in Cleveland County is actually very low.

9 Q So then is it your opinion, based on your
10 analysis, that the concentration of solar farms
11 in a relatively small area within a county does
12 not impact negatively the property values of the
13 adjoining properties?

14 A Yes. That is my opinion.

15 HEARING EXAMINER BUFFKIN: I have no further
16 questions. Questions on my questions by the Applicant
17 or the Public Staff?

18 MS. KEMERAIT: No questions from the
19 Applicant.

20 MS. LUHR: No questions from the Public
21 Staff.

22 HEARING EXAMINER BUFFKIN: Thank you. Hold
23 tight, Mr. Kirkland, one second. We have the pending
24 motion by the Applicant that the prefiled direct

1 testimony of Witness Richard Kirkland consisting of
2 five pages and two exhibits be admitted into the
3 record as if given orally from the stand and that the
4 exhibits be identified as prefiled with the Commission
5 and admitted to the record. Is there any objection to
6 that motion?

7 (No response)

8 Hearing none, it's so ordered.

9 (WHEREUPON, Kirkland Exhibits 1
10 and 2 are marked for
11 identification as prefiled and
12 received into evidence.)

13 (WHEREUPON, the prefiled direct
14 testimony of RICHARD KIRKLAND is
15 copied into the record as if given
16 orally from the stand.)

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-11723, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

**In the Matter of)
Application of Apex Solar, LLC, for a Certificate of)
Public Convenience and Necessity to Construct a 30-)
MW Solar Facility in Cleveland County, North)
Carolina**

DIRECT TESTIMONY

OF

RICHARD KIRKLAND

ON BEHALF OF

APEX SOLAR, LLC

July 2, 2020

1 Q. **Please state your name and business address.**

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

4 Q. **Please briefly summarize your educational background and work experience.**

5 A. I graduated from the University of North Carolina at Chapel Hill with a Bachelor
6 of Arts degree in English. I was a commercial appraiser for Hester & Company in
7 Raleigh, North Carolina from 1996 until 2003, and I have worked for Kirkland
8 Appraisals, LLC in Raleigh, North Carolina from 2003 until the present. A
9 summary of my qualifications is attached as Exhibit 1.

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

11 A. I am the Chief Executive Officer and President of Kirkland Appraisals, LLC.

12 Q. **Please discuss your credentials.**

13 A. I have twenty-four years of experience in commercial real estate appraisals. I am a
14 member of the Appraisal Institute (designation #11796) and a North Carolina
15 State Certified General Appraiser (#A4359). I have researched hundreds of solar
16 farms in numerous states to determine the impact of these facilities on the value of
17 adjacent property. This research has primarily been in North Carolina, but I have
18 also conducted market impact analyses in Virginia, South Carolina, Tennessee,
19 Texas, Oregon, Mississippi, Maryland, New York, and Montana. However, the
20 study that I have performed for the Apex Solar, LLC (“Apex Solar”) project has
21 focused on North Carolina properties, and includes paired sales analyses, a
22 breakdown of adjoining uses to solar farms, proximity to existing residences, and
23 typical landscape screens.

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

2 A. The purpose of my testimony is to provide expert opinions on the potential
3 impacts, if any, of the proposed Apex Solar farm on adjacent property values, and
4 whether the Apex Solar farm will be in harmony with the area in which it is to be
5 located.

6 **Q. Please describe the proposed facility for which Apex Solar, LLC seeks a
7 CPCN.**

8 A. The proposed facility is described in detail in the Application for an Amended
9 Certificate of Public Convenience and Necessity (“CPCN”) filed in this docket on
10 September 16, 2019, along with the high resolution site plan filed on September
11 13, 2019 (the “Facility”). The Facility will be located on the west side of
12 Plainsville Church Road, approximately 0.5 miles west of the intersection with
13 East Stage Coach Trail, Lawndale, Cleveland County, North Carolina. The total
14 acreage of the underlying tracts is 475 acres. The solar panels will be located on
15 321 acres and the area of disturbance will include 357 acres. The adjoining land is
16 a mix of agricultural and low density residential property, with a religious and
17 commercial adjoining uses as well.

18 It is my understanding that Apex Solar plans to sell the electricity to Duke
19 Energy Carolinas, LLC.

20 The Facility will consist of solar panels lower to the ground than a typical
21 residential home. There will be grass growing under the solar panels to maintain
22 very low impervious surface. The Facility will be surrounded by chain link
23 fencing and landscaped buffers.

1 It is anticipated that the Facility will be placed in service in November
2 2021.

3 **Q. Have you read the comments filed by Carrie and Gene Daves, Ronald**
4 **Ingram, Dana Donaldson, and Tom and Karen Bess filed in this docket?**

5 A. Yes.

6 **Q. What is your response to their comments?**

7 A. With respect to the specific concerns related to the impact of the Facility on
8 adjacent property values raised in submissions filed by Ms. Bess, Mr. and Ms.
9 Daves, and Mr. Ingram, it is my professional and expert opinion that the Facility
10 will have no impact on the property values of the surrounding properties. It has
11 been my experience that most concerns from neighbors are related to the
12 appearance of solar farms and the possible negative effects on property values. As
13 outlined above, I have found solar farms to have no impact on property values,
14 and any appearance concerns are typically alleviated with buffering and
15 landscaping. A copy of a report supporting my conclusions and opinion is
16 attached as Exhibit 2.

17 **Q. Please summarize the findings and conclusions of your report.**

18 A. My report concludes that the solar farm proposed at the subject property will not
19 substantially injure the value of adjoining or abutting property, and that the
20 proposed solar farm is in harmony with the surrounding area. These conclusions
21 are based on: (1) a series of matched pair analyses of properties located across
22 North Carolina, showing that being located next to a solar farm has no impact on
23 the value of residential or agricultural property; (2) a harmony of use analysis

1 finding that the proposed solar farm will be compatible with nearby residential
2 and agricultural uses in terms of noise, odor, and traffic; and (3) an informal
3 survey of real estate professionals who have sold properties located near other
4 solar farms in North Carolina, indicating that solar farms do not diminish the
5 market value of adjoining land.

6 **Q. What is your recommendation with respect to Apex Solar's Application for**
7 **an Amended CPCN?**

8 A. It is my recommendation that the Commission issue an order awarding an
9 Amended CPCN for the Facility.

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

11 A. Yes.

1 HEARING EXAMINER BUFFKIN: Thank you,
2 Mr. Kirkland. You're excused.

3 THE WITNESS: Thank you.

4 (The witness is excused)

5 HEARING EXAMINER BUFFKIN: Ms. Kemerait,
6 your next witness please.

7 MS. KEMERAIT: And the Applicant will call
8 our last witness, Chris Sandifer.

9 Mr. Sandifer, can you begin by stating your
10 name and address please?

11 MR. SANDIFER: My name is Chris Sandifer. I
12 live at 3118 Green Road, Spring Hope, North Carolina,
13 zip code 27882. Did you hear me?

14 HEARING EXAMINER BUFFKIN: Yes, and if you
15 could spell your name for us to make sure the court
16 reporter gets it right.

17 THE WITNESS: I spell my name
18 S-A-N-D-I-F-E-R.

19 HEARING EXAMINER BUFFKIN: Thank you.

20 CHRIS SANDIFER;
21 having been duly affirmed,
22 testified as follows:

23 HEARING EXAMINER BUFFKIN: Thank you.
24 Ms. Kemerait.

1 DIRECT EXAMINATION BY MS. KEMERAIT:

2 Q Mr. Sandifer, did you cause to be prefiled on
3 July 6, 2020, nine pages of direct testimony in
4 the form of question and answer?

5 A I did.

6 Q And if I were to ask you the same questions today
7 that appear in your prefiled testimony, would
8 your answers be the same?

9 A Yes.

10 MS. KEMERAIT: So at this time I would move
11 into evidence the prefiled testimony of Chris
12 Sandifer.

13 Q And Mr. Sandifer, do you have a summary of your
14 testimony to present today?

15 A I do.

16 Q Please go ahead and read it.

17 A Thank you.

18 (WHEREUPON, the summary of CHRIS
19 SANDIFER is copied into the record
20 as read from the witness stand.)

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Summary of Testimony of Chris Sandifer, PE

My name is Chris Sandifer. My business address is 3118 Green Road, Spring Hope, North Carolina 27882. I am licensed by the State of North Carolina as an Electrical Contractor with the Unlimited Classification, and I am registered by the State of North Carolina as a Registered Professional Engineer.

I am an engineer, electrical contractor, farmer, and land owner, and I have an abundance of experience with solar farm design, construction, operation, and maintenance. Consequently, I understand the labor, equipment, and procedures required for a safe and environmentally responsible decommissioning process that provides for the removal of a solar farm's facilities. I also understand the importance of having a steady and stable cash flow for a percentage of the farm business income.

The proposed facility is a 30-MW that will be located on the west side of Plainsville Church Road, approximately 0.5 miles west of the intersection with East Stage Coach Trail, Lawndale, Cleveland County, North Carolina. The total acreage of the underlying tracts is 475 acres. The solar panels will be located on 321 acres and the area of disturbance will include 357 acres. It is my understanding that Apex Solar plans to sell the electricity to Duke Energy Carolinas, LLC.

The Facility will consist of PV modules, commonly known as solar panels, mounted on metal racks. The racks are supported by metal piles that are driven into the ground to minimize soil disturbance. The solar panels do not contain any radioactive material, hazardous chemicals, or other material that could potentially cause harm to the environment or the surrounding community. The solar panels are non-combustible. They are safe and create no site emissions, odor, or dust. A solar facility is a low impact, passive use of the land.

Solar farms, such as the Apex Solar farm, convert sunlight into electricity that is sold to the local electric utility and delivered for use by electricity consumers near the solar facility. The sunlight is absorbed by the photovoltaic cells in the thousands of solar modules installed in the field. About fifteen percent of the energy in that sunlight is converted to direct current (DC) electricity, which flows through a combination of other solar modules and wiring into an inverter that converts the DC electricity to grid-synced alternating current (AC) electricity. The DC voltage is limited to 1,000 volts. A system of this capacity has large inverters spread around the field (*i.e.*, arrays) of solar modules. The output of these inverters is at a much lower voltage than the local utility distribution wires that it will feed into, so the energy passes through a transformer to increase the voltage from the volts coming out of the inverter up to the volts of the local distribution line. Before connecting to the utility line, the energy passes through an energy meter and is then sold to the local electric utility.

Solar facilities like Apex Solar do not present any harm to the surrounding properties or the environment. Solar farms do not release any substance into the air, water, or soil at or near the solar farm site. The power the solar farms generate offsets power production from existing fossil fueled generators that release pollutants into the

environment. Solar facilities such as the one proposed here are both safe and environmentally friendly.

The proposed Facility will not emit odor or generate dust (as even uses such as farming can do). There is no permanent on-site parking or loading areas proposed, as this is an unmanned facility with no enclosed structures. Sound during operation of the Facility will be indistinguishable from ambient background noise at the property lines. The proposed Facility will connect to and serve the existing power grid. Power distribution lines will be located underground, where practical, except for interconnection of the facility to the power grid.

Solar farms are safe, non-hazardous, unobtrusive, environmentally friendly, and advance the public necessity of providing renewable sourcing of electricity.

Because solar farms are unpaved, they have beneficial stormwater and ground water recharging effects.

Solar technology like that proposed for the Facility is not new, as solar panels have been in operation for more than fifty years in the United States. All electric components will have an Underwriters Laboratories (UL) listing and the installation will comply with the edition of the National Electrical Code in effect at the time of construction.

From my education and experience, I know that EMF is present wherever electricity is present. For example, EMF is produced by magnets, electric tools, computers, radio and television transmitters, mobile phones, and medical devices. EMF is produced by a variety of natural sources as well as the production and distribution of electrical power. Ordinary household appliances such as televisions and refrigerators produce EMF. EMF strength attenuates rapidly as the distance from the source increases. Solar PV panels produce weaker EMF than many household appliances, such as televisions and refrigerators.

Inverters used to convert electricity from DC to AC power, will be located in the interior of the solar facility. Although the inverters inside the solar farm facility produce EMF, the strength of the fields decline rapidly with distance such that EMF measured at the perimeter of the physical facility is generally immeasurable when compared to background EMF.

I have read the complaints filed in the docket. With respect to the specific concern related to safety of the Facility, it is my professional and expert opinion that the Facility will have no adverse impact on human health. Because solar farms do not burn fossil fuels, they do not produce the toxic air or greenhouse gas emissions associated with conventional fossil fuel-fired generation technologies. Instead, solar farms like the one proposed here supply clean renewable electricity that is beneficial to neighboring areas, and they do not present any harm to the public health or nearby properties. Solar energy is beneficial as it contributes to the stability and resiliency of the grid by decreasing upward pressure on utility rates by acting as a “hedge” against future increases in fuel costs. Solar energy has a direct impact on reducing emissions and reliance on non-renewable fuel sources. Also, the solar panels that comprise the solar arrays are made

primarily of glass, utilizing Thin Film technology. Thin Film solar modules are made by depositing photovoltaic materials into crystalline layers that are bonded in tempered glass.

With respect to the concern about the decommissioning of the Facility, it is my professional and expert opinion that the decommissioning of the Facility will have no adverse impact on human health or the environment. As part of Apex Solar's application for a Conditional Use Permit approved by Cleveland County, Apex Solar provided a decommissioning plan as required by the Solar Ordinance. The decommissioning plan provides that decommissioning will occur upon any of the following conditions: (1) the land lease ends; (2) the Facility does not produce power for a period of twelve months; and (3) the Facility is damaged and will not be repaired or replaced. At a minimum, Apex Solar's lease with the property owners requires Apex Solar to perform the following to decommission the project: (1) remove all non-utility owned equipment, conduits, structures, fencing, and foundations to a depth of at least three feet below grade; (2) remove all graveled areas and access roads unless the property owners request in writing that they remain in place; (3) restore the land to a condition reasonably similar to its condition before development, including replacement of top soil that was removed or eroded; (4) re-vegetate any cleared areas with warm season grasses that are native to the Piedmont region, unless requested in writing by the property owners to not re-vegetate due to plans for agricultural planting.

With respect to the specific concerns related to taking farmland out of production, it is my professional and expert opinion that solar farms, such as the one proposed here, allow property owners to maintain large areas of land while generating income from the property. At the end of the useful life of the solar farm, the land is easily restored for agricultural purposes.

In summary, it is my recommendation that the Commission issue an order awarding the Amended CPCN for the Facility.

1 BY MS. KEMERAIT:

2 Q Thank you, Mr. Sandifer.

3 MS. KEMERAIT: The witness is available for
4 cross examination.

5 HEARING EXAMINER BUFFKIN: Thank you,
6 Ms. Kemerait. Cross examination by the Public Staff?

7 MS. LUHR: I have no questions.

8 HEARING EXAMINER BUFFKIN: Thank you. I
9 have just a few, Mr. Sandifer.

10 THE WITNESS: Thank you.

11 EXAMINATION BY HEARING EXAMINER BUFFKIN:

12 Q You were listening when Mr. Ingram testified
13 earlier about his concern related to groundwater
14 and that a number of the people, perhaps all of
15 them nearby the solar facility, rely on wells
16 to obtain their drinking and the water they use
17 for other purposes. And I noted in your
18 testimony that you stated solar farms have
19 beneficial stormwater and groundwater recharging
20 effects.

21 Could you address Mr. Ingram's
22 concern and expand a little bit on your testimony
23 about the beneficial stormwater and groundwater
24 recharging effects that solar farms have?

1 A Yes, sir. The University of North Carolina, NC
2 State, has approved solar farms as being -- they
3 do not compact the soil so any water that
4 actually hits the panel runs off into water and
5 basically runs into what would be a pasture.
6 It's basically grass land that is under the
7 panels and around the panels. So they have that
8 effect of rather than water running off, like it
9 would be, say maybe a newly disked field or a
10 paved area or a building where the water is not
11 allowed to go back into the ground.

12 As far as the -- I have read
13 the -- CanadianSolar is providing these solar
14 panels. They are a polycrystalline and I --
15 they're called BiHiKu. That's the name of those
16 panels. And I've looked at the independent lab
17 reports for those panels, and those panels meet
18 all of the OSHR regulations requirements for
19 solar panels and to the point that they can be
20 put into landfills, a class three landfill which
21 is basically what -- it's not a hazardous waste.
22 It would be like the waste from a town or
23 something like that or a residence. It's not --

24 So there are -- the basic

1 component of these solar panels is polysilicon
2 crystalline and this -- silicon dioxide is where
3 it comes from. That's basically sand. So
4 basically the main component is sand.

5 The only hazardous component that
6 was in the panel itself was some milligram trace
7 of lead, much less than allowed to be put into
8 the landfill. But it's -- the -- it's used in
9 the salter to make the connections, but these
10 connections and all are sealed inside of glass
11 panels. And so if one of those glass panels is
12 damaged, then the monitoring system would
13 immediately notify the operator and it would not
14 sit out there.

15 I did the calculation on the --
16 how much lead we're talking about. There's going
17 to be like 100,000 panels out there. One box of
18 shotgun shells -- and I looked at that area from
19 Google Earth, and thankfully I actually drove by
20 there a couple of years ago, and it probably had
21 some hunters out there. It looked like a good
22 dove field to me if somebody wanted to shoot
23 doves. And if you've ever hunted doves you know
24 it takes -- that you have to shoot several times

1 to get a limit of dove. But one box of field
2 load shotgun shells would equal to the amount of
3 lead that would be in 25,000 panels. And if you
4 went out there and shot a box of shotgun shells,
5 that's just lead that's sprayed all over the
6 ground that's easily -- reacts with the
7 environment. The miniscule amount of lead that
8 are in these panels is self-contained. It's
9 segregated from the environment and it's not
10 going to leach into the soil.

11 The Characteristic Toxic Leach
12 Test that Mr. Cullen talked about earlier is the
13 one I'm referencing. I've seen those lab reports.
14 And I think from one of these panels they are
15 talking about three milligrams of lead is what
16 would be available. But, once again, that would
17 not be available to the general environment;
18 that's what's inside the panel.

19 Q Thank you for that. And so I think I've
20 understood your testimony to be speaking really
21 to the operational phase of the project as far as
22 the inability of what lead is there to leach
23 out into the environment. Now, once the facility
24 is decommissioned, let's suppose the panels and

1 some component parts do end up in a landfill, is
2 it possible for the lead or any other substances
3 to leach out and reach either the groundwater or
4 the drinking water once the facility components
5 are in the landfill?

6 A I understand the question. My simple answer is
7 no. And the first reason I would say that
8 these -- the components inside of one of these
9 solar panels, these are not cadmium telluride,
10 these are polysilicon. This is different. I
11 don't know if that's what the person that was
12 concerned about it was concerned about this type
13 of solar panel, but this is one that's primarily
14 made out of silicon dioxide, silicon. And the
15 lead is just - the amount of lead is so small. I
16 mean, there would be more lead in a television
17 set or something that was carried to the landfill
18 that was put in it and they don't -- they would
19 not ban those.

20 These panels right now are
21 95 percent recyclable and they're too valuable
22 not to recycle. I mean they're just too --
23 they're worth way more as recycle. So only
24 5 percent of the weight would probably ever go to

1 a landfill, that's not economically recyclable.
2 They are being recycled now. There are panels
3 that are damaged during transit, panels damaged
4 during construction, I mean, things happen, and
5 so those damaged panels are not carried to a
6 landfill now. They are already being recycled.
7 And as this industry matures there will be
8 probably even more people or businesses who would
9 recycle these.

10 So I'm saying, for two points,
11 it's not going to be put in a landfill. It's
12 going to be recycled because of just the value of
13 the components and they are too valuable to just
14 dispose of in a landfill. Aluminum, the glass,
15 all of that is -- the substrates, all of that has
16 a high value to it and will be recycled. So if
17 it is put into a landfill it would be much less
18 than the limit that would be allowed by any type
19 of class three landfill where there is
20 nonhazardous materials would be put in.

21 Did I ramble enough? Does that
22 make sense what I'm saying or do I need to
23 restate it?

24 HEARING EXAMINER BUFFKIN: No. I thank you

1 for that answer. That was the clarification that I
2 was looking for.

3 Any questions on my questions?

4 MS. KEMERAIT: Not from the Applicant.

5 Thank you.

6 MS. LUHR: Not from the Public Staff.

7 HEARING EXAMINER BUFFKIN: Thank you. Then
8 we have the pending motion by the Applicant that
9 Mr. Sandifer's prefiled direct testimony consisting of
10 nine pages and no exhibits be admitted to the record
11 as if given orally from the stand.

12 Did I get that correct, Ms. Kemerait? No
13 exhibits on this one?

14 MS. KEMERAIT: That is correct.

15 HEARING EXAMINER BUFFKIN: Is there any
16 objection to that motion?

17 (No response)

18 Hearing none, it is so ordered.

19 (WHEREUPON, the prefiled direct
20 testimony of CHRIS SANDIFER is
21 copied into the record as if given
22 orally from the stand.)

23

24

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. SP-11723, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

**In the Matter of)
Application of Apex Solar, LLC, for a Certificate of)
Public Convenience and Necessity to Construct a 30-)
MW Solar Facility in Cleveland County, North Carolina)**

DIRECT TESTIMONY

OF

CHRIS SANDIFER, PE

ON BEHALF OF

APEX SOLAR, LLC

July 2, 2020

1 Q. **Please state your name and business address.**

2 A. My name is Chris Sandifer. My business address is 3118 Green Road, Spring
3 Hope, North Carolina 27882.

4 Q. **Please briefly summarize your educational background.**

5 A. I received a Bachelor's of Science degree in electrical engineering from Clemson
6 University in 1975. I have received the Certified Energy Manager designation
7 from the Association of Energy Engineers.

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

9 A. I am licensed by the State of North Carolina as an Electrical Contractor with the
10 Unlimited Classification, and I am registered by the State of North Carolina as a
11 Registered Professional Engineer. The license and registration allow me to
12 perform acts and provide opinions in public forums that those without these
13 privileges may not lawfully perform or provide.

14 I grew up on a farm in South Carolina and currently live on my own farm
15 in Nash County, North Carolina. I have managed an additional 1,700 acres of
16 family-owned, traditional farm lands in Lee County, Nash County, Edgecombe
17 County, and Warren County in North Carolina. My family and I currently lease
18 approximately 100 acres in Lee County for solar energy production (three 5 MW
19 farms), on jointly owned property.

20 As an engineer, electrical contractor, farmer, and land owner, I have an
21 abundance of experience with solar farm design, construction, operation, and
22 maintenance. Consequently, I understand the labor, equipment, and procedures
23 required for a safe and environmentally responsible decommissioning process that

1 provides for the removal of a solar farm's facilities. I also understand the
2 importance of having a steady and stable cash flow for a percentage of the farm
3 business income.

4 I serve on the Nash County Planning Board. Nash County was one of the
5 first counties in North Carolina to consider and approve a photovoltaic (PV) solar
6 farm. Nash County has approved thirty-seven utility-scale solar farms to
7 date. The Board's experience with solar farms, as well as that of the Nash County
8 Planning Department, has been very positive, and Nash County looks forward to
9 more solar projects to benefit the community.

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

11 A. The purpose of my testimony is to provide my expert opinion on the potential
12 impacts, if any, of the proposed Apex Solar farm on human health and the
13 environment.

14 **Q. Please describe the proposed facility for which Apex Solar, LLC seeks an**
15 **Amended CPCN.**

16 A. The proposed facility is a 30-MW facility that is described in detail in the
17 application for an Amended Certificate of Public Convenience and Necessity
18 ("CPCN") filed in this docket on September 16, 2019, along with the high
19 resolution site plan filed on September 13, 2019 (the "Facility"). The Facility will
20 be located on the west side of Plainsville Church Road, approximately 0.5 miles
21 west of the intersection with East Stage Coach Trail, Lawndale, Cleveland
22 County, North Carolina. The total acreage of the underlying tracts is 475 acres.
23 The solar panels will be located on 321 acres and the area of disturbance will

1 include 357 acres. It is my understanding that Apex Solar plans to sell the
2 electricity to Duke Energy Carolinas, LLC.

3 The Facility will consist of PV modules, commonly known as solar
4 panels, mounted on metal racks. The racks are supported by metal piles that are
5 driven into the ground to minimize soil disturbance. The solar panels do not
6 contain any radioactive material, hazardous chemicals, or other material that
7 could potentially cause harm to the environment or the surrounding community.
8 The solar panels are non-combustible. They are safe and create no site emissions,
9 odor, or dust. A solar facility is a low impact, passive use of the land.
10 The Facility will be surrounded by chain link fencing and landscaped buffers.

11 It is anticipated that the Facility will be placed in service in November
12 2021.

13 **Q. How do solar farms, such as the Apex Solar farm, operate?**

14 A. Solar farms convert sunlight into electricity that is sold to the local electric utility
15 and delivered for use by electricity consumers near the solar facility. The sunlight
16 is absorbed by the photovoltaic cells in the thousands of solar modules installed in
17 the field. About fifteen percent of the energy in that sunlight is converted to
18 direct current (DC) electricity, which flows through a combination of other solar
19 modules and wiring into an inverter that converts the DC electricity to grid-
20 synced alternating current (AC) electricity. The DC voltage is limited to 1,000
21 volts. A system of this capacity has large inverters spread around the field (*i.e.*,
22 arrays) of solar modules. The output of these inverters is at a much lower voltage
23 than the local utility distribution wires that it will feed into, so the energy passes

1 through a transformer to increase the voltage from the volts coming out of the
2 inverter up to the volts of the local distribution line. Before connecting to the
3 utility line, the energy passes through an energy meter and is then sold to the local
4 electric utility.

5 **Q. How do solar farms affect the surrounding properties and the environment?**

6 A. Solar facilities like the one proposed here do not present any harm to the
7 surrounding properties or the environment. Solar farms do not release any
8 substance into the air, water, or soil at or near the solar farm site. They are widely
9 supported by leading environmental organizations. The power the solar farms
10 generate offsets power production from existing fossil fueled generators that
11 release pollutants into the environment. Solar facilities such as the one proposed
12 here are both safe and environmentally friendly.

13 The proposed Facility will not emit odor or generate dust (as even uses
14 such as farming can do). There is no permanent on-site parking or loading areas
15 proposed, as this is an unmanned facility with no enclosed structures. Sound
16 during operation of the Facility will be indistinguishable from ambient
17 background noise at the property lines. The proposed Facility will connect to and
18 serve the existing power grid. Power distribution lines will be located
19 underground, where practical, except for interconnection of the facility to the
20 power grid.

21 Solar farms are safe, non-hazardous, unobtrusive, environmentally friendly,
22 and advance
23 the public necessity of providing renewable sourcing of electricity.

1 Because solar farms are unpaved, they have beneficial stormwater and
2 ground water recharging effects.

3 Solar technology like that proposed for the Facility is not new, as solar
4 panels have been in operation for more than fifty years in the United States. All
5 electric components will have an Underwriters Laboratories (UL) listing and the
6 installation will comply with the edition of the National Electrical Code in effect at
7 the time of construction.

8 From my education and experience, I know that EMF is present wherever
9 electricity is present. For example, EMF is produced by magnets, electric tools,
10 computers, radio and television transmitters, mobile phones, and medical devices.
11 EMF is produced by a variety of natural sources as well as the production and
12 distribution of electrical power. Ordinary household appliances such as televisions
13 and refrigerators produce EMF. EMF strength attenuates rapidly as the distance
14 from the source increases. Solar PV panels produce weaker EMF than many
15 household appliances, such as televisions and refrigerators.

16 Inverters used to convert electricity from DC to AC power, will be located
17 in the interior of the solar facility. Although the inverters inside the solar farm
18 facility produce EMF, the strength of the fields decline rapidly with distance such
19 that EMF measured at the perimeter of the physical facility is generally
20 immeasurable when compared to background EMF.

21 **Q. Have you read the comments filed by Carrie and Gene Daves, Ronald**
22 **Ingram, Dana Donaldson, and Tom and Karen Bess filed in this docket?**

23 A. Yes.

1 **Q. What is your response to their comments?**

2 A. With respect to the specific concern related to safety of the Facility raised in the
3 submission filed by Mr. Ingram, it is my professional and expert opinion that the
4 Facility will have no adverse impact on human health. Because solar farms do
5 not burn fossil fuels, they do not produce the toxic air or greenhouse gas
6 emissions associated with conventional fossil fuel-fired generation technologies.
7 Instead, solar farms like the one proposed here supply clean renewable electricity
8 that is beneficial to neighboring areas, and they do not present any harm to the
9 public health or nearby properties. Solar energy is beneficial as it contributes to
10 the stability and resiliency of the grid by decreasing upward pressure on utility
11 rates by acting as a “hedge” against future increases in fuel costs. Solar energy
12 has a direct impact on reducing emissions and reliance on non-renewable fuel
13 sources.

14 Also, the solar panels that comprise the solar arrays are made primarily of
15 glass, utilizing Thin Film technology. Thin Film solar modules are made by
16 depositing photovoltaic materials into crystalline layers that are bonded in
17 tempered glass.

18 With respect to the specific concern about the decommissioning of the
19 Facility raised in the submission filed by Mr. Ingram, it is my professional and
20 expert opinion that the decommissioning of the Facility will have no adverse
21 impact on human health or the environment. As part of Apex Solar’s application
22 for a Conditional Use Permit submitted to Cleveland County and approved by
23 Cleveland County, Apex Solar provided a decommissioning plan as required by

1 Section 12-160(f) of the Cleveland County Unified Development Ordinance. The
2 decommissioning plan provides that decommissioning will occur upon any of the
3 following conditions: (1) the land lease ends; (2) the Facility does not produce
4 power for a period of twelve months; and (3) the Facility is damaged and will not
5 be repaired or replaced. At a minimum, Apex Solar's lease with the property
6 owners requires Apex Solar to perform the following to decommission the
7 project: (1) remove all non-utility owned equipment, conduits, structures, fencing,
8 and foundations to a depth of at least three feet below grade; (2) remove all
9 graveled areas and access roads unless the property owners request in writing that
10 they remain in place; (3) restore the land to a condition reasonably similar to its
11 condition before development, including replacement of top soil that was
12 removed or eroded; (4) re-vegetate any cleared areas with warm season grasses
13 that are native to the Piedmont region, unless requested in writing by the property
14 owners to not re-vegetate due to plans for agricultural planting.

15 With respect to the specific concerns related to taking farmland out of
16 production raised in the submissions filed by Mr. and Ms. Daves and Ms.
17 Donaldson, it is my professional and expert opinion that solar farms, such as the
18 one proposed here, allow property owners to maintain large areas of land while
19 generating income from the property. At the end of the useful life of the solar
20 farm, the land is easily restored for agricultural purposes.

21 **Q. What is your recommendation with respect to Apex Solar's application for**
22 **an Amended CPCN?**

1 A. It is my recommendation that the Commission issue an order awarding the
2 Amended CPCN for the Facility.

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

4 A. Yes.

1 HEARING EXAMINER BUFFKIN: And I believe,
2 Ms. Kemerait, correct me if I'm wrong, that concludes
3 testimony from the Applicant's witnesses?

4 MS. KEMERAIT: That is correct. That is the
5 Applicant's case.

6 HEARING EXAMINER BUFFKIN: Thank you. The
7 Commission will receive testimony from the Public
8 Staff. Ms. Luhr, you may call your witness.

9 MS. LUHR: Thank you. Mr. Lucas -- or the
10 Public Staff calls Jay Lucas to the stand.

11 MR. LUCAS: Yes.

12 HEARING EXAMINER BUFFKIN: I believe the
13 court reporter knows how to spell your name Mr. Lucas
14 so we'll dispense with that.

15 JAY LUCAS;

16 having been duly affirmed,

17 testified as follows:

18 Thank you, Mr. Lucas. Ms. Luhr.

19 DIRECT EXAMINATION BY MS. LUHR:

20 Q Mr. Lucas, will you state your business address
21 and present position for the record?

22 A My business address is 430 North Salisbury Street
23 in Raleigh, North Carolina. I am an Engineer
24 with the Public Staff's Electric Division.

1 Q Thank you. And, Mr. Lucas, on July 10, 2020, did
2 you prepare and cause to be filed testimony
3 consisting of seven pages, an appendix and three
4 exhibits?

5 A Yes.

6 Q And do you have any changes or corrections to
7 your testimony, appendix, or exhibits?

8 A No.

9 Q If you were asked the same questions today, would
10 your answers be the same?

11 A Yes.

12 MS. LUHR: We request that Mr. Lucas'
13 testimony be admitted into evidence as if given orally
14 from the witness stand and that his exhibits be
15 marked.

16 HEARING EXAMINER BUFFKIN: The Public Staff
17 has moved that the prefiled testimony of Witness Lucas
18 consisting of seven pages, one appendix and three
19 exhibits be admitted to the record as if given orally
20 from the stand. And the exhibits shall be identified
21 as premarked and admitted as filed with the
22 Commission. Is there any objection to that motion?

23 (No response)

24 Hearing none, it is so ordered.

1 (WHEREUPON, Lucas Exhibits 1, 2
2 and 3 are marked for
3 identification as prefiled and
4 received into evidence.)

5 (WHEREUPON, the prefiled direct
6 testimony and Appendix A of JAY
7 LUCAS is copied into the record as
8 if given orally from the stand.)
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BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. SP-11723, SUB 0

In the Matter of
Application of Apex Solar, LLC, for a)
Certificate of Public Convenience and)
Necessity to Construct a 30-MW Solar)
Facility in Cleveland County, North)
Carolina)

TESTIMONY OF
JAY B. LUCAS
PUBLIC STAFF – NORTH
CAROLINA UTILITIES
COMMISSION

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**DOCKET NO. SP-11723, SUB 0****Testimony of Jay B. Lucas****On Behalf of the Public Staff****North Carolina Utilities Commission****July 10, 2020**

1 **Q. PLEASE STATE YOUR NAME AND ADDRESS FOR THE**
2 **RECORD.**

3 A. My name is Jay B. Lucas. My business address is 430 North
4 Salisbury Street, Raleigh, North Carolina.

5 **Q. WHAT IS YOUR POSITION WITH THE PUBLIC STAFF?**

6 A. I am an engineer in the Electric Division of the Public Staff
7 representing the using and consuming public.

8 **Q. WOULD YOU BRIEFLY DISCUSS YOUR EDUCATION AND**
9 **EXPERIENCE?**

10 A. Yes. My education and experience are outlined in Appendix A of my
11 testimony.

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
13 **PROCEEDING?**

1 A. The purpose of my testimony is to make recommendations to the
2 Commission on the amended request for a certificate of public
3 convenience and necessity (CPCN) filed by Apex Solar, LLC
4 (Applicant), to construct a 30 megawatt AC (MW_{AC}) solar
5 photovoltaic (PV) electric generating facility near Lawndale, in
6 Cleveland County, North Carolina (the Facility).

7 Specifically, my testimony:

- 8 1. describes the Application;
- 9 2. discusses concerns raised by the complainants;
- 10 3. makes a recommendation regarding whether the Commission
11 should grant the requested CPCN; and
- 12 4. makes a recommendation regarding whether the Commission
13 should accept the Applicant's registration statement for a new
14 renewable energy facility.

15 **Q. PLEASE BRIEFLY DESCRIBE THE APPLICATION.**

16 A. The Applicant initially applied for a CPCN on May 7, 2018, and the
17 Commission granted the CPCN on July 23, 2018. On September 13,
18 2019, the Applicant filed a motion to amend its CPCN to change
19 ownership of the Applicant, change the Applicant's contact
20 information, and add additional land to the Facility on the west side
21 of Fallston Waco Road to bring the total leased area to 475 acres.
22 On November 5, 2019, the Applicant filed a registration statement to

1 have the Commission accept the Facility as a new renewable energy
2 facility.

3 **Q. HAS THE STATE CLEARINGHOUSE COMPLETED ITS**
4 **APPLICATION REVIEW?**

5 A. Yes. On October 29, 2019, and November 6, 2019, the State
6 Clearinghouse filed letters with the Commission responding to the
7 application with attached comments. Both letters stated the
8 following: “Because of the nature of the comments, it has been
9 determined that no further State Clearinghouse review action on your
10 part is needed for compliance with the North Carolina Environmental
11 Policy Act.”

12 **Q. PLEASE SUMMARIZE THE NATURE OF THE COMPLAINTS**
13 **RECEIVED IN RESPONSE TO THE APPLICANT’S REQUEST**
14 **FOR AN AMENDED CPCN.**

15 A. The Commission received four complaints in response to the
16 Applicant’s request for an amended CPCN, which were filed from
17 September 26, 2019, through November 1, 2019. The complaints
18 raised the following concerns:

- 19 i. Alteration of the landscape
- 20 ii. Safety
- 21 iii. Changes to Cleveland County’s solar ordinance

- 1 iv. Another solar facility in the county, owned by a different
2 entity, that is not operating
- 3 v. Decrease in land values
- 4 vi. Operation of the facility
- 5 vii. Decommissioning and disposal of solar panels
- 6 viii. Toxic materials in solar panels
- 7 ix. Loss of farmland

8 **Q. WHAT IS THE PUBLIC STAFF’S POSITION REGARDING THE**
9 **COMPLAINTS?**

10 A. The Public Staff has carefully reviewed the complaints. With regard
11 to the concerns listed above, the Public Staff believes that they are
12 more appropriately addressed through the local permitting process
13 and through the environmental permitting process. In its April 24,
14 2008 Order in Docket No. SP-231, Sub 0, the Commission discussed
15 local authority over the siting of facilities, stating that “such decisions
16 are, in most instances, best left to the local community through the
17 exercise of its zoning authority rather than made by the
18 Commission.”

19 The issues listed above are of the type that the Commission has
20 previously determined are best left to the purview of local zoning
21 boards and environmental regulators who have authority over such

1 matters and who are responsible for issuing specific permits that
2 apply to the Facility.

3 **Q. DOES CLEVELAND COUNTY HAVE A SOLAR ORDINANCE**
4 **THAT WILL APPLY TO THE FACILITY?**

5 A. Yes. Cleveland County has a solar ordinance, attached as **Lucas**
6 **Exhibit 1**, that will apply to the Facility. Cleveland County updated
7 this ordinance in 2019, but this update does not apply to the Facility
8 because it was not in effect when the Applicant's conditional use
9 permit was granted in 2018. **Lucas Exhibit 2** is the Cleveland
10 County ordinance on visual screens that applies to the Facility as
11 required by the solar ordinance. **Lucas Exhibit 3** is the
12 decommissioning plan for the Facility as required by the solar
13 ordinance.

14 **Q. WHAT IS THE PUBLIC STAFF'S RECOMMENDATION ON THE**
15 **APPLICATION FOR A CPCN?**

16 A. The Public Staff recommends that the Commission approve the
17 application and grant the certificate, subject to the following
18 conditions:

19 1. The Applicant constructs and operates the Facility in
20 strict accordance with applicable laws and regulations,
21 including any environmental permitting requirements;
22 and

1 2. The CPCN shall be subject to Commission Rule
2 R8-64 and all orders, rules, and regulations as are now
3 or may hereafter be lawfully made by the Commission.

4 **Q. WHAT IS THE PUBLIC STAFF'S RECOMMENDATION ON THE**
5 **APPLICANT'S REGISTRATION STATEMENT?**

6 A. The Public Staff recommends that the Commission accept the
7 Facility as a new renewable energy facility.

8 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

9 A. Yes, it does.

APPENDIX A

QUALIFICATIONS AND EXPERIENCE

JAY B. LUCAS

I graduated from the Virginia Military Institute in 1985, earning a Bachelor of Science Degree in Civil Engineering. Afterwards, I served for four years as an engineer in the Air Force performing many civil and environmental engineering tasks. I left the Air Force in 1989 and attended the Virginia Polytechnic Institute and State University (Virginia Tech), earning a Master of Science degree in Environmental Engineering. After completing my graduate degree, I worked for an engineering consulting firm and worked for the North Carolina Department of Environmental Quality in its water quality programs. Since joining the Public Staff in January 2000, I have worked on utility cost recovery, renewable energy program management, customer complaints, and other aspects of utility regulation. I am a licensed Professional Engineer in North Carolina.

1 BY MS. LUHR:

2 Q Mr. Lucas, would you please give your summary?

3 A Yes.

4 (WHEREUPON, the summary of JAY
5 LUCAS is copied into the record as
6 read from the witness stand.)
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Summary of Testimony of Jay Lucas
Docket No. SP-11723, Sub 0

The purpose of my testimony is to make recommendations to the Commission on the Public Staff's position on the registration statement and the amended request for a certificate of public convenience and necessity filed by Apex Solar, LLC, to construct a 30-megawatt solar facility near Lawndale, in Cleveland County, North Carolina.

After the applicant filed its request for an amendment, nearby land owners filed complaints against the solar facility primarily regarding concerns with land use issues, decommissioning, facility materials, and facility operation. However, the Public Staff believes that the concerns raised in the complaints are more appropriately addressed through the local permitting process and through the environmental permitting process. The Utilities Commission addressed a similar situation in Docket No. SP-231, Sub 0, and stated that "such decisions are, in most instances, best left to the local community through the exercise of its zoning authority rather than made by the Commission."

Cleveland County's 2016 solar ordinance applies to the facility and includes requirements for visual screens and a decommissioning plan.

I recommend that the Commission approve the amended application subject to conditions and accept the facility as a new renewable energy facility.

This completes my summary.

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MS. LUHR: The witness is available for cross examination.

HEARING EXAMINER BUFFKIN: Ms. Kemerait, any cross examination by the Applicant?

MS. KEMERAIT: No questions from the Applicant.

HEARING EXAMINER BUFFKIN: Thank you, Ms. Kemerait.

EXAMINATION BY HEARING EXAMINER BUFFKIN:

Q Mr. Lucas, I'll just ask a few questions. You've heard the other testimony here tonight including that of the public witnesses and those witnesses on behalf of the Applicant. Do you have any reaction to the issues discussed tonight related to the decommissioning of the facility?

A I don't have any opinion in addition to what's already been given. I did note that the 2016 Solar Ordinance of Cleveland County does require a decommissioning plan and the Applicant has indicated that it will conform to that decommissioning plan.

Q Thank you for that. Mr. Lucas, you appear in these types of proceedings frequently. Are you

1 familiar with other instances, other localities
2 where solar farms have been concentrated in a
3 certain area of the county?

4 A Yes.

5 Q Would you say that is common across the State?

6 A No. It is more common in eastern North Carolina,
7 more particularly the northeastern area that's
8 served by Dominion Energy North Carolina and in
9 the southeastern part of the State, south of
10 Fayetteville.

11 Q Are you aware of any local jurisdictions that
12 regulate the concentration of solar facilities
13 by, for example, limiting the number of Special
14 Use Permits that might be issued for a solar
15 facility in a given area?

16 A I'm somewhat familiar. Many counties have solar
17 ordinances. The only county I'm familiar with
18 that have limited panel construction is Currituck
19 County.

20 Q And when -- in these circumstances where you have
21 seen solar facilities concentrated in a
22 particular area of a county, have you become
23 aware of any adverse impacts to the adjoining
24 landowners in the nature of the concerns that

1 have been raised by public witnesses in this
2 proceeding?

3 A No, I have not.

4 Q And is it your opinion that this issue of
5 concentrating solar facilities in a given
6 locality is an issue that the Commission
7 traditionally has left to the locality to
8 regulate?

9 A Yes. It's traditionally been left to the local
10 communities to regulate?

11 Q Thank you. And then as to the issues that have
12 been raised by the public witnesses and spoken to
13 by the Applicant's witnesses related to
14 groundwater and drinking water, do you have any
15 reactions or do you want to provide any
16 additional testimony on those issues?

17 A I can't provide any additional testimony on those
18 two issues.

19 Q All right. Fair enough. Are you generally aware
20 of the regulatory scheme to protect the quality
21 of groundwater in the State?

22 A Yes, I am.

23 Q And what agency is tasked with regulating
24 groundwater in this State?

1 A That's the Department of Environmental Quality.

2 Q And in your experience as you have testified in a
3 number of these types of proceedings, how does
4 the Commission generally treat those types of
5 issues that are within the purview of the
6 Department of Environmental Quality?

7 A The Commission has not tried to interfere with
8 any regulatory responsibility of the Department
9 of Environmental Quality. It has let the
10 Department of Environmental Quality set the
11 standards for groundwater and groundwater
12 protection.

13 Q And are there any unique concerns or particular
14 features of this proposed facility that would
15 lead you to recommend the Commission do otherwise
16 in this case?

17 A No.

18 HEARING EXAMINER BUFFKIN: All right. That
19 concludes my questions. Any questions on my
20 questions?

21 MS. LUHR: None from the Public Staff.

22 MS. KEMERAIT: And not from the Applicant
23 either.

24 HEARING EXAMINER BUFFKIN: Thank you both.

1 And then we have -- we have Mr. Lucas' prefiled
2 testimony admitted to the record. And I believe we
3 can excuse this witness. Thank you, Mr. Lucas.

4 (The witness is excused)

5 HEARING EXAMINER BUFFKIN: And with that, we
6 conclude the evidentiary hearing.

7 Counselors, can we have proposed orders
8 filed with the Commission within 30 days of the
9 transcripts being made available?

10 MS. KEMERAIT: Yes, we can.

11 MS. LUHR: Yes.

12 HEARING EXAMINER BUFFKIN: Thank you both.
13 That is so ordered.

14 Then let me briefly, as we begin to conclude
15 this hearing, say again that we appreciate the
16 participation of the public witnesses in this remote
17 hearing this evening. We will now get back to our
18 office, well we won't go to our offices but normally
19 we would go back to our offices and the court reporter
20 would prepare a transcript and that transcript would
21 be distributed to the Applicant and the Public Staff.
22 And then as we've just discussed both the Public Staff
23 and the Applicant will have an opportunity to file
24 proposed orders with the Commission. Those filings

1 will be taken under advisement, and shortly thereafter
2 the Commission would issue an Order in this proceeding
3 resulting in the substantive issues related to the
4 Application, the amended Application for a CPCN.

5 So thank you again for the participation of
6 the public witnesses and for bearing with us through
7 some technical difficulties.

8 Do we have any other questions before we
9 adjourn this hearing?

10 MS. KEMERAIT: Not from the Applicant.

11 MS. LUHR: Not from the Public Staff.

12 HEARING EXAMINER BUFFKIN: All right. Thank
13 you both. That concludes our hearing. We stand
14 adjourned pending Commission Order.

15 (The proceedings were adjourned)

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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*_____

Kim T. Mitchell
Court Reporter