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PLACE: Via Videoconference  
DATE: Monday, May 17, 2021  
TIME: 2:02 p.m. - 4:58 p.m.  
DOCKET NO: EMP-114, Sub 0  
BEFORE: Commissioner Kimberly W. Duffley, Presiding  
Chair Charlotte A. Mitchell  
Commissioner Daniel G. Clodfelter

**IN THE MATTER OF:**

Application of Oak Trail Solar, LLC,  
for a Certificate of Public Convenience and  
Necessity to Construct a 100-MW Solar Facility  
in Currituck County, North Carolina

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A P P E A R A N C E S:  
FOR OAK TRAIL SOLAR, LLC:  
Merrick Parrott, Esq.  
Katherine Ross, Esq.  
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FOR THE USING AND CONSUMING PUBLIC:  
Reita D. Coxton, Esq.  
North Carolina Utilities Commission  
4326 Mail Service Center  
Raleigh, North Carolina 27699-4300

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## P R O C E E D I N G S

COMMISSIONER DUFFLEY: Good afternoon.

Let's come to order, please, and go on the record. I am Commissioner Kimberly W. Duffley, and with me today are Chair Charlotte Mitchell, and Commissioner Daniel Clodfelter.

I now call for hearing Docket Number EMP-114, Sub 0, In The Matter of the Application of Oak Trail Solar, LLC, for a Certificate of Public Convenience and Necessity to construct a 100-MW Solar Facility in Currituck County, North Carolina, to be Operated as a Merchant Generating Facility.

On September 17th, 2020, Oak Trail Solar, LLC, filed the Application for a Certificate of Public Convenience and Necessity with three confidential addendums, along with prefiled testimony of Matt Crook and Wyatt Toolson.

On September 29th, 2020, the Public Staff filed a notice required by Commission Rule R8-63(d) with respect to the completeness of the Application filed by Oak Trail Solar.

On December 14th, 2020, the Commission issued its Order Requiring Filing of Testimony, Establishing Procedural Guidelines and Requiring

1 Public Notice.

2 On February 22nd, 2021, Oak Trail Solar  
3 filed supplemental testimony of Matt Crook that  
4 contained confidential information.

5 On March 22nd, 2021, the Public Staff filed  
6 the testimony of Evan D. Lawrence, Utilities Engineer  
7 of the Electric Division, which contained confidential  
8 information.

9 On April 16th, 2021, the Applicant filed  
10 notice of change of ownership with a confidential  
11 amended Application and addendum to the direct  
12 testimony of Christopher Loehr and the supplemental  
13 testimony of Matt Crook.

14 On April 30th, 2021, Applicant filed  
15 rebuttal testimony and exhibits of Frank Bristol.

16 On May 3rd, 2021, both the Public Staff and  
17 the Applicant filed their consent to hold the expert  
18 witness hearing by remote means.

19 On May 5th, 2021, the Applicant filed a  
20 supplemental exhibit in connection with the rebuttal  
21 testimony of Frank Bristol filed on April 30th, 2021.

22 On May 12th, 2021, the Applicant filed a  
23 list of potential cross examination exhibits and  
24 indicated a copy of the potential exhibits were

1 provided to the Commission and the parties of record.

2 On May 14th, 2021, the Applicant filed a  
3 list of potential redirect exhibits and indicated a  
4 copy of the potential exhibits were provided to the  
5 Commission and parties of record.

6 On the same date, the Public Staff filed a  
7 revision to Evan Lawrence's testimony.

8 In compliance with the State Ethics Act, I  
9 remind all members of the Commission of our duty to  
10 avoid conflicts of interest, and inquire at this time  
11 as to whether any member has a known conflict of  
12 interest with respect to the matter before us this  
13 afternoon?

14 (No response)

15 Please let the record reflect that no  
16 conflicts were identified.

17 I will now call for appearances of counsel,  
18 beginning with the Applicant.

19 MS. PARROTT: Good afternoon. Thank you,  
20 Commissioner Duffley. I'm Merrick Parrott with Parker  
21 Poe Adams & Bernstein here today on behalf of the  
22 Applicant Oak Trail Solar, LLC.

23 MS. ROSS: Commissioner Duffley, this is  
24 Katherine Ross with Parker Poe Adams & Bernstein, also

1 appearing on behalf of the Applicant today.

2 COMMISSIONER DUFFLEY: Thank you.

3 Public Staff?

4 MS. COXTON: Reita Coxton on behalf of the  
5 Public Staff. With me is Evan Lawrence. We are  
6 representing the Using and Consuming Public.

7 COMMISSIONER DUFFLEY: Thank you,  
8 Ms. Coxton.

9 Do we have any preliminary matters before we  
10 begin?

11 COMMISSIONER CLODFELTER: Commissioner  
12 Duffley, I will also announce my appearance as well,  
13 because I've gotten the video to work.

14 COMMISSIONER DUFFLEY: I saw you when you  
15 did not have any conflicts with the State Ethics Act,  
16 so welcome.

17 MS. PARROTT: Yes, Commissioner Duffley, I  
18 would love to be heard on a couple of preliminary  
19 procedural matters, if I may?

20 COMMISSIONER DUFFLEY: Please go ahead.

21 MS. PARROTT: Thank you. First, Oak Trail  
22 consents to waiving confidentiality of certain  
23 exhibits that were filed in the docket as confidential  
24 exhibits, and I'll go over which ones they are.



1 Oak Trail consents to waiving  
2 confidentiality of the two System Impact Studies which  
3 were filed as Application Addenda 5 and 6; the  
4 Facility Study Report that was filed as Supplemental  
5 Application Addendum 1; and the LCOT calculations that  
6 were filed as Supplemental Application Addendum 2.

7 We do maintain confidentiality of the other  
8 confidential exhibits. Specifically, the estimated  
9 construction costs filed as Confidential Application  
10 Addendum 3, the Power Purchase Agreement filed as  
11 Confidential Supplemental Application Addendum 3, and  
12 Leeward's financial statements filed as Confidential  
13 Amended Application Addendum 2. We don't anticipate  
14 that these remaining confidential exhibits will be  
15 discussed during the hearing today. We discussed this  
16 with the Public Staff previously and believe they are  
17 in agreement.

18 Second, I'd like to -- sorry. Go ahead.  
19 Second, I'd like to confirm Oak Trail's order of  
20 witnesses. We'd first like to call Christopher Loehr,  
21 Oak Trail's finance expert. We would next like to  
22 call Mr. Matt Crook, Oak Trail's lead developer.  
23 After Public Staff's witness testifies, we would like  
24 to call Franklin Bristol, Leeward's Vice President of

1 Transmission to testify in rebuttal.

2 And just lastly, we would like to offer a  
3 brief opening statement and a brief closing statement  
4 at the appropriate time.

5 COMMISSIONER DUFFLEY: Thank you,  
6 Ms. Parrott. Ms. Coxton, do you have any response to  
7 the motion?

8 MS. COXTON: We don't have any objection.

9 COMMISSIONER DUFFLEY: No objection. And,  
10 Ms. Parrott, were you going to make a motion to screen  
11 share?

12 MS. PARROTT: I don't believe we will need  
13 to screen share but, if we do, we will make a motion  
14 prior to doing so.

15 COMMISSIONER DUFFLEY: Well, thank you for  
16 the information regarding the confidential documents  
17 and the waivers. Anything further?

18 (No response)

19 Ms. Parrott, you may make an opening  
20 statement.

21 MS. PARROTT: Thank you. Oak Trail Solar,  
22 LLC, is a merchant plant that will interconnect with  
23 Dominion's transmission system and PJM territory. Oak  
24 Trail is a late-stage development project that has

1 completed the interconnection study process and has  
2 entered into a fully executed Interconnection Service  
3 Agreement and a fully executed Interconnection  
4 Construction Service Agreement with PJM and Dominion.  
5 There are no affected systems costs assigned to the  
6 project and no contingent upgrades related to any  
7 earlier queued generators. The project also has a  
8 fully executed Power Purchase Agreement.

9 Oak Trail Solar proceeded through the CPCN  
10 process without the need for a further Clearinghouse  
11 review and without any public notice or -- excuse me,  
12 any public comments or intervenors.

13 The Public Staff is the only other party to  
14 docket. The Public Staff has indicated that it has  
15 concerns about the cost responsibility for potential  
16 affected system upgrades in Duke Energy Progress  
17 territory, but you will hear testimony as to why such  
18 concerns are not applicable to Oak Trail. The Public  
19 Staff has recommended approval of the CPCN for Oak  
20 Trail subject to four conditions related to affected  
21 systems costs and interconnection costs. The Staff's  
22 proposed conditions are what bring us here today.

23 You will hear from Oak Trail's witnesses why  
24 the recommended conditions from Mr. Lawrence are over

1 broad, unreasonable, and inappropriate for Oak Trail.  
2 You will hear that the conditions are not innocuous  
3 but, in fact, create uncertainty and are a substantial  
4 risk to this fully contracted project being able to  
5 timely proceed with construction financing and meet  
6 its obligations under its contracts, including the  
7 Interconnection Service Agreement, Interconnection  
8 Construction Service Agreement, and Power Purchase  
9 Agreement.

10           Finally, as set out in prefiled testimony,  
11 Oak Trail has proposed conditions for the Commission's  
12 consideration. Oak Trail's proposed conditions are  
13 based on a recent merchant plant CPCN Order for the  
14 Camden Solar Facility that was issued in Docket  
15 EMP-109, Sub 0. Oak Trail and Camden Solar are  
16 similarly situated specifically with respect to the  
17 issue of affected systems studies and the fact that  
18 Oak Trail and Camden both have executed  
19 Interconnection Service Agreements.

20           Thank you. And at the present time we are  
21 prepared to call our first witness.

22           COMMISSIONER DUFFLEY: Thank you,  
23 Ms. Parrott.

24           Ms. Coxton, did you wish to make an opening

1 statement?

2 MS. COXTON: No, ma'am.

3 COMMISSIONER DUFFLEY: Okay. Thank you.

4 Ms. Parrott, you may call your first  
5 witness.

6 MS. PARROTT: Thank you. I will call  
7 Mr. Loehr.

8 COMMISSIONER DUFFLEY: Good afternoon,  
9 Mr. Loehr. I'm going to give you the oath of  
10 affirmation.

11 CHRISTOPHER LOEHR;  
12 having been duly affirmed,  
13 testified as follows:

14 COMMISSIONER DUFFLEY: You may begin.

15 MS. PARROTT: Thank you.

16 DIRECT EXAMINATION BY MS. PARROTT:

17 Q Please state your name and business address for  
18 the record.

19 A Christopher Loehr. Business address is 6688  
20 North Central Expressway, Suite 500, Dallas,  
21 Texas 75206.

22 Q By whom are you currently employed and in what  
23 capacity?

24 A I'm the Chief Financial Officer for Leeward

1 Renewable Energy, LLC.

2 Q Did you cause to be prefiled three pages of  
3 direct testimony on April 16th, 2021, in Q and A  
4 form?

5 A That is correct.

6 Q Do you have any changes or corrections to your  
7 testimony?

8 A No, ma'am.

9 Q If I were to ask you those same questions today  
10 would your answers be the same as they appear in  
11 your prefiled testimony?

12 A That is correct.

13 MS. PARROTT: At this time, I would like to  
14 move that Mr. Loehr's prefiled direct testimony be  
15 copied into the record as if given orally from the  
16 stand, and that the exhibits to his testimony be  
17 marked for identification and included in the record.

18 COMMISSIONER DUFFLEY: (Muted).

19 MS. PARROTT: I believe you are muted. Is  
20 that --

21 COMMISSIONER DUFFLEY: I'm going to keep  
22 myself off of muting. Yes. So approved.

23 MS. PARROTT: Thank you.

24 (WHEREUPON, Loehr Amended

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Application Exhibit 1 and Loehr  
Confidential Amended Application  
Addendum 2 are marked for  
identification as prefiled and  
received into evidence.)  
(WHEREUPON, the prefiled direct  
testimony of CHRISTOPHER LOEHR is  
copied into the record as if given  
orally from the stand.)

PREFILED DIRECT TESTIMONY OF  
CHRISTOPHER LOEHR  
ON BEHALF OF OAK TRAIL SOLAR, LLC

NCUC DOCKET NO. EMP-114, SUB 0

1

**INTRODUCTION**

2

**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS**

3

**ADDRESS.**

4

A. My name is Christopher Loehr. I am the Chief Financial Officer for

5

Leeward Renewable Energy, LLC (“Leeward”). My business address is 6688 N.

6

Central Expressway, Suite 500, Dallas, TX 75206.

7

**Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL**

8

**EXPERIENCE.**

9

A. I have approximately 20 years of experience working in a strategy

10

and financial capacity in the field of large scale energy infrastructure. I joined

11

Leeward in 2012. I have a Bachelor of Science in Electrical Engineering and a

12

Bachelor of Arts in Economics from Rice University and a Master of Business

13

Administration from University of Chicago Booth School of Business.

14

**Q. PLEASE SUMMARIZE YOUR CURRENT EMPLOYMENT**

15

**RESPONSIBILITIES.**

16

A. My current responsibilities include managing project financing and

17

corporate financing for Leeward. In this capacity, I have raised approximately

18

\$600 million dollars in capital to support the construction and operation of

19

renewable energy generation. My responsibilities include directing all financing

20

activity for the Oak Trail Solar, LLC (“Oak Trail”) facility in Currituck County, NC



21 (the "Facility"). In addition, I oversee the accounting, tax and treasury functions  
22 for Leeward. I manage a team of finance and accounting professionals.

23 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS**  
24 **COMMISSION?**

25 A. No.

26 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

27 A. The purpose of my testimony is to provide the Commission with  
28 background information about Leeward's financial capabilities, and in particular  
29 the financing of the Facility.

30 **FINANCIAL CAPABILITY**

31 **Q. PLEASE DESCRIBE THE APPLICANT'S FINANCIAL**  
32 **CAPABILITY TO OWN AND OPERATE THE FACILITY.**

33 A. As discussed in Amended Application Exhibit 1, Oak Trail is a  
34 limited liability company organized for the development and ownership of this  
35 Facility. Oak Trail is a wholly owned indirect subsidiary of Leeward. Leeward  
36 has the financial capability and experience to build, own, and operate solar  
37 power generation facilities, including the Facility. A copy of Leeward's most  
38 recent balance sheet and income statement is included as **\*Confidential\***  
39 **Amended Application Addendum 2**. In addition, Leeward has the capability to  
40 arrange adequate assurances, guarantees, financing and insurance for the  
41 Facility's development, construction and operation. Leeward structures and  
42 arranges project financings through a dedicated in-house staff of finance  
43 professionals located in Dallas.

44 **Q. HOW WILL THE FACILITY BE FINANCED?**

45           A.     Leeward plans to use construction loan financing to finance the  
46 development and construction of the Facility. The estimated construction costs  
47 were provided, under seal, as **\*Confidential\* Addendum 3**. An additional third-  
48 party is often brought in later in the development cycle to provide tax-equity  
49 financing, which allows the project to more efficiently utilize the federal tax  
50 benefits associated with renewable energy projects.

51           **Q.     DESCRIBE LEEWARD’S EXPERIENCE WITH RAISING**  
52 **PROJECT FINANCING IN SUPPORT OF DEVELOPMENT.**

53           A.     Leeward (and its predecessor companies) has owned and operated  
54 a fleet of renewable energy assets in the United States for nearly twenty years.  
55 Leeward currently owns and operates a portfolio of 22 renewable energy projects  
56 across nine states, totaling more than 2 GW of installed capacity. Leeward has a  
57 strong track record of financing renewable energy projects in the United States,  
58 and its team of project finance professionals has raised billions of dollars of debt  
59 and equity financing. Leeward’s projects have been financed by a wide group of  
60 global institutions, including JP Morgan, Wells Fargo, Citibank, GE Energy  
61 Financial Services and Union Bank.

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

63           A.     Yes.

1 BY MS. PARROTT:

2 Q Mr. Loehr, have you prepared a summary of your  
3 testimony?

4 A Yes.

5 Q Would you please read it for the Commission?

6 A My name is Christopher Loehr. I am the Chief  
7 Financial Officer for Leeward Renewable Energy,  
8 LLC. My business address is 6688 North Central  
9 Expressway, Suite 500, Dallas, Texas 75206. I  
10 have approximately 20 years of experience working  
11 in a strategy and financial capacity in the field  
12 of large scale energy infrastructure.

13 I provided prefiled direct  
14 testimony in support of the Application on April  
15 16th, 2021. The purpose of my testimony is to  
16 provide the Commission with background  
17 information about Leeward's financial  
18 capabilities and, in particular, the financing of  
19 the facility.

20 Oak Trail is a wholly-owned  
21 indirect subsidiary of Leeward. Leeward has the  
22 financial capability and experience to build, own  
23 and operate solar power generation facilities,  
24 including this facility. A copy of Leeward's

1 most recent balance sheet and income statement is  
2 included as Confidential Amended Application  
3 Addendum 2. In addition, Leeward has the  
4 capability to arrange adequate assurances,  
5 guarantees, financing and insurance for the  
6 facility's development, construction and  
7 operation.

8 Leeward plans to use construction  
9 loan financing to finance the development and  
10 construction of the facility. An additional  
11 third party is often brought in later in the  
12 development cycle to provide tax equity  
13 financing, which allows the project to more  
14 efficiently utilize the federal tax benefits  
15 associated with renewable energy projects.

16 Leeward and its predecessor  
17 companies has owned and operated a fleet of  
18 renewable energy assets in the United States for  
19 nearly 20 years. Leeward has a strong track  
20 record of financing renewable energy projects in  
21 the United States, and has raised billions of  
22 dollars of debt and equity financing. Leeward's  
23 projects have been financed by a wide group of  
24 global institutions, including J.P. Morgan, Wells

1 Fargo, Citibank, GE Energy Financial Services and  
2 Union Bank.

3 Q Thank you.

4 MS. PARROTT: Mr. Loehr is now available for  
5 cross examination and questions from the Commission.

6 COMMISSIONER DUFFLEY: Ms. Coxton?

7 MS. COXTON: No cross examination by the  
8 Public Staff.

9 COMMISSIONER DUFFLEY: Chair Mitchell?

10 CHAIR MITCHELL: (Shakes head no).

11 COMMISSIONER DUFFLEY: Commissioner  
12 Clodfelter?

13 COMMISSIONER CLODFELTER: (Shakes head no).

14 COMMISSIONER DUFFLEY: Well, you seem to be  
15 off the hook this afternoon. I have no questions as  
16 well.

17 MS. PARROTT: In that vein, I would ask this  
18 Commission to excuse Mr. Loehr from the hearing if  
19 there are no questions?

20 COMMISSIONER DUFFLEY: He is so excused.

21 MS. PARROTT: Thank you, Mr. Loehr.

22 THE WITNESS: Thank you.

23 (The witness is excused)

24 COMMISSIONER DUFFLEY: Next witness?

1 MS. PARROTT: We would next call Mr. Matt  
2 Crook who I see on video.

3 Mr. Crook, please state your name and  
4 business address for the record?

5 MR. CROOK: My name is Matt Crook. My  
6 business --

7 COMMISSIONER DUFFLEY: We need to affirm.

8 MS. PARROTT: I apologize. Yes.

9 COMMISSIONER DUFFLEY: That's okay.

10 MATT CROOK;

11 having been duly affirmed,

12 testified as follows:

13 COMMISSIONER DUFFLEY: You may proceed.

14 MS. PARROTT: Thank you.

15 DIRECT EXAMINATION BY MS. PARROTT:

16 Q Mr. Crook, state your name and business address  
17 for the record.

18 A My name is Matt Crook. My business address is  
19 800 Town and Country Boulevard, Suite 500,  
20 Houston, Texas 77024.

21 Q By whom are you currently employed and in what  
22 capacity?

23 A Leeward Renewable Energy and I am a project  
24 developer.

1 Q Did you cause to be prefiled 12 pages of direct  
2 testimony on September 17th, 2020, in Q and A  
3 form?

4 A Yes.

5 Q If I were to ask you those same questions today,  
6 would your answers be the same as they appear in  
7 your prefiled testimony?

8 A Yes, with one update as to new permits.

9 Q Please describe that update.

10 A On pages 6 and 7, I discuss anticipated permits  
11 and approvals. Since my filing, the Currituck  
12 County Board of Commissioners has issued Oak  
13 Trail a Use Permit. That was on November 17th of  
14 2020. And then, also, the U.S. Army Corps of  
15 Engineers has provided an Approved Jurisdictional  
16 Determination for the facility.

17 Q Thank you. Did you also cause to be prefiled  
18 five pages of supplemental testimony on February  
19 22nd, 2021, in Q and A form?

20 A Yes.

21 Q If I were to ask you those same questions today,  
22 would your answers be the same as they appeared  
23 in your prefiled testimony?

24 A Yes, with one update.

1 Q And please describe that update.

2 A My supplemental testimony stated that Oak Trail  
3 had received a system impact study and a facility  
4 study from PJM. Since that filing, Oak Trail has  
5 entered into a fully executed Interconnection  
6 Services Agreement and a related fully executed  
7 Interconnection Construction Services Agreement  
8 with PJM and Dominion. There are multiple  
9 deadlines and payments under these agreements,  
10 including approximately a \$2 million payment for  
11 early engineering, construction and design work  
12 related to the interconnection switch yard, which  
13 is due in mid-June. Secondly, there's a posting  
14 of approximately \$5 million security that is due  
15 at the end of June. Third, there is a beginning  
16 of construction is a milestone for the switch  
17 yard to begin on August 1st of 2021. And,  
18 finally, a completion of all permits; state and  
19 local permits is required by the end of December,  
20 so December 31st of 2021.

21 Q Thank you. Did you cause to be prefiled four  
22 pages of supplemental testimony on April 16th,  
23 2021, in Q and A form?

24 A Yes.



1 Q And if I were to ask you those same questions  
2 today, would be your answers by the same as they  
3 appear in your prefiled testimony?

4 A Yes.

5 Q Do you have any changes or corrections to your  
6 testimony?

7 A No.

8 MS. PARROTT: At this time, I would move  
9 that Mr. Crook's September 17th, 2020 prefiled direct  
10 testimony, his February 22nd, 2021 prefiled  
11 supplemental testimony, and his April 16th, 2021  
12 prefiled supplemental testimony be copied into the  
13 record as if given orally from the stand, and that the  
14 exhibits to his testimony be marked for identification  
15 and included in the record?

16 COMMISSIONER DUFFLEY: Any objection?

17 MS. PARROTT: Thank you.

18 BY MS. PARROTT:

19 Q Mr. Crook, have you --

20 COMMISSIONER DUFFLEY: Excuse me. Any  
21 objection by Ms. Coxton?

22 MS. COXTON: No objection.

23 COMMISSIONER DUFFLEY: Without objection,  
24 that motion is allowed.

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MS. PARROTT: Thank you.

(WHEREUPON, Crook Supplemental Application Addendum 1, Crook Supplemental Application Addendum 2 and Crook Confidential Supplemental Application Addendum 3 are marked for identification as prefiled and received into evidence.)

(WHEREUPON, the prefiled direct testimony as amended from the stand, and prefiled supplemental testimony as amended from the stand, and prefiled supplemental direct testimony of MATT CROOK is copied into the record as if given orally from the stand.)

PREFILED DIRECT TESTIMONY OF  
MATT CROOK  
ON BEHALF OF OAK TRAIL SOLAR, LLC

NCUC DOCKET NO. EMP-114 Sub 0

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**INTRODUCTION**

**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

A. My name is Matt Crook. I am a project developer at First Solar, Inc. (“First Solar”). My business address is 11757 Katy Fwy, Suite 400, Houston, TX 77079.

**Q. WHAT IS YOUR RELATIONSHIP WITH THE APPLICANT IN THIS DOCKET?**

A. I am the lead project developer for the Oak Trail Solar, LLC (“Oak Trail”) solar facility (the “Facility”).

**Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL EXPERIENCE.**

A. I have over 8 years of experience in the renewable energy field. I have worked for First Solar since 2018 on the development of multiple solar energy projects throughout North Carolina and the southeast more generally. I earned a bachelor’s degree in political science from the University of North Carolina at Chapel Hill and a master’s degree in business administration from the UNC Kenan-Flagler Business School.

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Sep 14 2020

21 **Q. PLEASE SUMMARIZE YOUR CURRENT EMPLOYMENT**  
22 **RESPONSIBILITIES.**

23 A. My current responsibilities include managing new project  
24 identification, project development and acquisition activities for First Solar's solar  
25 energy business in the North Carolina and southeast region. This includes  
26 directing development activity for the Facility.

27 **Q. HAVE YOU PREVIOUSLY FILED TESTIFIED BEFORE THIS**  
28 **COMMISSION?**

29 A. No.

30 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

31 A. The purpose of my testimony is to provide the Commission with  
32 background information about Oak Trail, First Solar, and the Facility, and to  
33 expand on topics in the application ("Application") for a Certificate of Public  
34 Convenience and Necessity ("CPCN"), including the regulatory and permitting  
35 process for the Facility, the need for and impact of the Facility, and First Solar's  
36 technical and managerial capabilities.

37

38 **THE APPLICANT**

39 **Q. PLEASE PROVIDE INFORMATION ABOUT OAK TRAIL AND**  
40 **FIRST SOLAR.**

41 A. Oak Trail is a wholly owned indirect subsidiary of First Solar. Oak  
42 Trail is a limited liability company registered to do business in North Carolina.  
43 Oak Trail was organized for the development of the Facility in Currituck County,

44 North Carolina, which is the subject of the Application. First Solar is  
45 headquartered in Tempe, Arizona.

46 **Q. PLEASE DESCRIBE FIRST SOLAR'S EXPERIENCE**  
47 **DEVELOPING SOLAR ENERGY FACILITIES.**

48 A. First Solar and its affiliated companies develop, own and/or operate  
49 large-scale solar energy and advanced energy storage electric generation assets  
50 in North America, South America, Asia, Europe, and Australia. First Solar is one  
51 of the largest and most experienced PV solar developers in the world. Since its  
52 inception in 1999, First Solar has developed over 4.7GW of solar projects,  
53 constructed more than 5.4GW of solar, and operates over 3.8GW of solar  
54 internationally. In the US alone, First Solar has developed, or is in the process of  
55 developing over 60 projects.

56 **SITE AND FACILITY DESCRIPTION**

57 **Q. DESCRIBE THE PROPOSED LOCATION FOR THE FACILITY.**

58 A. The Facility includes approximately 878 acres of privately-owned  
59 land in Currituck County, North Carolina, near the unincorporated community of  
60 Moyock (the "Facility Site"). The color map at **Addendum 4 to Application**  
61 **Exhibit 2** accurately reflects the location of the proposed Facility. The property  
62 that makes up the Facility Site is currently used primarily for agricultural  
63 purposes.

64 Oak Trail has options for lease and purchase of the private land on the  
65 Facility Site. These real property agreements afford the company the right to  
66 develop and use the property for solar energy purposes, including the installation

67 of solar panels, inverters and the other elements of the Facility described in the  
68 Application and in my testimony.

69 **Q. PLEASE DESCRIBE THE BASIC COMPONENTS OF THE**  
70 **FACILITY.**

71 A. The Facility will consist of photovoltaic solar panels affixed to  
72 ground mounted racks supported on driven piles, inverters, a collection system,  
73 and interconnection facilities. The Facility will consist of approximately (185,280)  
74 120 Wp First Solar Series 4 PV modules (or equivalent), and approximately  
75 (257,090) 455 Wp First Solar Series 6 PV modules (or equivalent) affixed to  
76 ground mounted racks supported on driven piles. The Facility will utilize  
77 approximately (133) 840kW Toshiba Mitsubishi-Electric Industrial Systems  
78 Corporation inverters (or equivalent) and will be interconnected to the grid  
79 operated by Virginia Electric and Power Company ("VEPCO") d/b/a Dominion  
80 Energy North Carolina ("DENC"). A preliminary site layout, including all major  
81 components of the Facility, is included as **Addendum 4 to Application Exhibit**  
82 **2**, and meets the requirements of Rule R8-63.

83 **Q. HOW WILL THE FACILITY BE INTERCONNECTED TO THE**  
84 **GRID?**

85 A. A collection substation will be constructed on the Facility Site to  
86 facilitate interconnection of the Facility to the grid operated by DENC. The  
87 collection substation will occupy approximately two (2) acres of the Facility Site  
88 adjacent to the DENC 230kV transmission line. The collection substation will  
89 consist of circuit breakers, switching devices and auxiliary equipment, and will be  
90 fenced and locked in accordance with industry standards to provide safety and

91 security. A three breaker ring bus interconnection substation will be constructed,  
92 owned, and operated by DENC within the Facility Site and a short generator tie  
93 line will be necessary to connect this Facility to the transmission system. The  
94 power that is generated will flow into the adjacent 230kV transmission line. A  
95 diagram of the interconnection facilities was included with the Application as  
96 **Addendum 7 to Application Exhibit 2.**

97 **Q. WHAT IS THE FACILITY'S ANTICIPATED ELECTRICITY**  
98 **PRODUCTION CAPABILITY?**

99 A. The nameplate generating capacity of the Facility will be 100-MW<sub>AC</sub>  
100 with anticipated gross capacity of 245,000 MWh and net capacity of 218,460  
101 MWh per year. Solar is an intermittent energy source, and therefore, the  
102 maximum dependable capacity is 0 MW. Per the Interconnection Request with  
103 PJM Interconnection, L.L.C. ("PJM"), Oak Trail has been assigned 67.3 MW<sub>AC</sub> of  
104 capacity.

105 **Q. PLEASE DESCRIBE THE ANTICIPATED BENEFITS TO THE**  
106 **CURRITUCK COUNTY COMMUNITY.**

107 A. The Facility represents an investment of tens of millions of dollars  
108 into the Currituck County community. Oak Trail anticipates that the county will  
109 realize property tax revenues of approximately \$134,000<sup>1</sup> annually from the  
110 Facility. Also, landowners will receive payments for participation in the Facility.

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<sup>1</sup> This value is based on Oak Trail pursuing the unit-specific minimum offer price rule ("MOPR") process to participate in PJM's Reliability Pricing Model capacity market auction. Should the project elect to pursue an alternative path known as the Competitive Exemption, the property tax revenues associated with Oak Trail would increase for Currituck County to approximately \$577,000 annually from the Facility.

112 **ANTICIPATED LOCAL, STATE AND FEDERAL PERMITS AND APPROVALS**

113 **Q. DESCRIBE THE PERMITS AND APPROVALS YOU ANTICIPATE**  
114 **WILL BE NECESSARY TO COMMENCE CONSTRUCTION OF THE FACILITY.**

115 A. A Use Permit from Currituck County will be required. The Applicant  
116 has engaged with the county and has begun the Use Permit process, including  
117 hosting a community meeting. The Applicant will also have to obtain approval  
118 from Currituck County for a Major Site Plan. The Applicant anticipates that a  
119 building permit and an electrical permit from Currituck County will be required.

120 From the State, the Applicant anticipates that the Facility will require a  
121 Stormwater Management Permit from the Department of Environmental Quality  
122 and an Erosion and Sedimentation and Control Plan and Stormwater General  
123 Permit Coverage for Construction-Related Activities, as well as N.C. Department  
124 of Transportation Driveway Permit(s).

125 The Applicant does not anticipate that any federal permits will be required.  
126 To the extent that the United States Army Corps of Engineers determines that  
127 there are jurisdictional features on the site, the Facility will be designed to avoid  
128 them or will seek appropriate coverage under a Nationwide Permit Oak Trail  
129 anticipates it will file a certification of Exempt Wholesale Generator status  
130 pursuant to Section 32 of the Public Utility Holding Company Act of 1935 and will  
131 apply for Market Based Rates from the Federal Energy Regulatory Commission  
132 prior to commercial operation.

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135           **Q.     DOES CURRITUCK COUNTY REGULATE SOLAR FACILITIES**  
136 **THROUGH ITS ZONING ORDINANCE?**

137           A.     Yes, Currituck County’s Unified Development Ordinance (the  
138 “Ordinance”) includes use-specific standards for a Solar Energy Facility. The  
139 Facility is proposed to be sited on land that is zoned Agriculture (“AG”), and the  
140 Ordinance requires a Use Permit for solar projects in the AG zoning district. The  
141 Applicant will also have to obtain approval from Currituck County for a Major Site  
142 Plan before construction. As described above, Oak Trail has engaged with the  
143 county and has begun the Use Permit process, including hosting a community  
144 meeting. The Use Permit process will involve review by the County Planning  
145 Department and a quasi-judicial public hearing before the County Board of  
146 Commissioners. The Ordinance includes many use-specific standards for Solar  
147 Energy Facilities, such as acreage and height maximums, minimum setbacks,  
148 installation and maintenance of evergreen vegetative buffers, and ground water  
149 monitoring. The Use Permit application for Solar Energy Facilities must include a  
150 Solar Facility Impact Analysis, which is to include information on construction and  
151 operation activities and impacts on various resources such as geology,  
152 environmentally sensitive areas, soils, land use, socioeconomics, and health and  
153 safety, among others. The Applicant must also submit a decommissioning plan  
154 and comply with the established definition of abandonment for a solar farm and  
155 the procedure for removing an installed solar development, should the Facility be  
156 abandoned.

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**NEED FOR THE FACILITY**

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**Q. PLEASE EXPLAIN THE NEED FOR THE FACILITY.**

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A. Under North Carolina's Renewable Energy and Energy Efficiency Portfolio Standard ("REPS" or "Senate Bill 3"), investor-owned utilities in North Carolina are required to meet up to 12.5% of their energy needs through renewable energy resources or energy efficiency measures by 2021. Rural electric cooperatives and municipal electric suppliers are subject to a 10% REPS requirement since 2018. G.S. § 62-133.8(8) defines solar as a renewable energy resource. The Facility will provide a significant source of RECs for use by Electric Power Suppliers to demonstrate compliance with Senate Bill 3. This Facility is expected to generate approximately 218,460 RECs annually. North Carolina has also shown a commitment to clean energy through its Clean Energy Plan finalized by the North Carolina Department of Environmental Quality in October, 2019, which sets a statewide carbon neutrality goal by 2050.

In addition to North Carolina, demand for renewable power is expected to increase in the Southeast over the expected lifetime of the Facility. DENC's parent company, Dominion Energy, has established a company-wide commitment to achieve net zero carbon dioxide and methane emissions by 2050. Dominion Energy's commitment is consistent with state-level requirements set by the Virginia General Assembly through the Virginia Clean Economy Act ("VCEA"), which became law on July 1, 2020. The VCEA establishes a mandatory renewable portfolio standard aimed at 100% clean energy from Dominion Energy's generation fleet by 2045, requires the development of significant energy efficiency, solar, wind, and energy storage resources, and

183 requires the retirement of all generation units that emit carbon dioxide by 2045  
184 (unless such retirement would threaten grid reliability and security). Notably, the  
185 VCEA requires Dominion Energy to seek all necessary approvals for at least  
186 16,100 MW of new solar and onshore wind resources by December 31, 2035.

187 Furthermore, in its 2020 Integrated Resource Plan (“IRP”), DENC  
188 forecasts its load serving entity peak and energy requirements are estimated to  
189 grow at approximately 1.0% and 1.3% annually throughout the 15 year planning  
190 period. Each Alternative Plan in the IRP includes a large amount of solar  
191 resources, ranging from 11,520 MW to approximately 40,640 MW over the 25-  
192 year study period. DENC recommends Alternative Plan B, which calls for 15,920  
193 MW of solar over a 15 year period and 31,400 MW of solar over the 25-year  
194 period. DENC’s IRP also states it anticipates it will soon become a full  
195 participant in the Regional Greenhouse Gas Initiative, a regional effort to cap and  
196 reduce CO2 emissions from the power sector.

197 In addition to the needs of Dominion Energy, including DENC, significant  
198 need for solar developments exists in the PJM region. PJM is a regional  
199 transmission organization (“RTO”) that coordinates the movement of wholesale  
200 electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland,  
201 Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia,  
202 West Virginia and the District of Columbia. This region includes over 65 million  
203 people, and projections of load are increasing, as described in detail below.

204 Summer peak load in PJM is expected to grow by 0.6% per year over the  
205 next 10 years, and by 0.5% over the next 15 years. For the Dominion Virginia  
206 Power zone, summer peak load growth is expected to grow by 1.2% per year

207 over the next 10 years, and 1.0% per year over the next 15 years. The  
208 anticipated 10 year summer peak load growth in the Dominion Virginia Power  
209 zone represents 4.6% growth over the January 2019 load forecast report.

210 Winter peak load growth in PJM is projected to average 0.4% per year  
211 over the next 10 year period, and 0.3% over the next 15 years. Winter peak load  
212 growth for the Dominion Virginia Power zone is expected to grow by 1.4% per  
213 year over the 10 years, and 1.2% per year over the next 15 years. The  
214 anticipated 10 year winter peak load growth in the Dominion Virginia Power zone  
215 represents 15.7% growth over the January 2019 load forecast report. The PJM  
216 service area in Dominion Energy territory, including North Carolina, is expected  
217 to average between 1.2% and 1.4% per year over the next 10 years versus the  
218 PJM RTO load growth projections to average 0.6% over the next 10 years.

219 A significant benefit of this Facility is that it will be privately financed and  
220 constructed, and will not affect ratepayers. While evidence for need for this  
221 independent renewable facility is strong, any risk of default is on private  
222 financiers and not North Carolina retail electric customers.

223 **Q. HAVE YOU CALCULATED A LEVELIZED COST OF**  
224 **TRANSMISSION (“LCOT”) FOR THE FACILITY?**

225 A. Yes. Based on the costs identified in the System Impact Studies,  
226 which were included with the Application as **\*Confidential\* Addendum 5 and**  
227 **Addendum 6 to Application Exhibit 3**, the LCOT for the Facility is \$1.94.

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229

230 **Q. HOW DOES THE FACILITY'S LCOT COMPARE TO OTHER**  
231 **BENCHMARK LCOTS?**

232 A. This LCOT compares favorably to the average LCOTs identified in  
233 the 2019 Lawrence Berkeley National Laboratory Interconnection Cost Study  
234 ("LBNL Study") for solar in MISO (\$1.56), PJM (\$3.22), and EIA (\$2.21) that the  
235 Public Staff referenced and the Commission cited in its *Order Denying Certificate*  
236 *of Public Convenience and Necessity for Merchant Plant Generating Facility*  
237 issued on June 11, 2020 in Docket EMP-105 Sub 0.

238 **Q. ARE THERE ANY PPA AGREEMENTS, REC SALE**  
239 **CONTRACTS, OR CONTRACTS FOR COMPENSATION FOR**  
240 **ENVIRONMENTAL ATTRIBUTES FOR THE OUTPUT OF THIS FACILITY?**

241 A. Yes. Oak Trail has a fully-executed Power Purchase Agreement  
242 ("PPA") with a large Commercial and Industrial customer for the entirety of the  
243 Facility's output, as well as the Renewable Energy Credits generated by the  
244 Facility.

245 **MANAGERIAL AND TECHNICAL CAPABILITY**

246 **Q. PLEASE DESCRIBE FIRST SOLAR'S TECHNICAL AND**  
247 **MANAGERIAL CAPABILITY TO OPERATE A SOLAR POWER PROJECT.**

248 A. First Solar is an experienced operator of renewable energy  
249 generation facilities. First Solar is staffed with experienced industry personnel  
250 and currently operates more than 10,047 MW of renewable energy generation  
251 projects in North America. First Solar Energy Services ("FS Energy Services")  
252 will likely provide operations and maintenance ("O&M") services for the Facility.  
253 FS Energy Services has been recognized as the world's largest solar O&M

254 service provider for four consecutive years, according to Wood Mackenzie's 2019  
255 Global PV Operations and Maintenance Report. Notably, FS Energy Services  
256 was selected as the top O&M provider from 2014 to 2017 by GTM Research and  
257 SOLICHAMBA Consulting, the solar industry's only comprehensive analysis on  
258 global solar O&M services, markets, and competitors.

259 An asset manager based in Tempe, Arizona will have overall management  
260 responsibility for the Facility including all contract compliance. The asset  
261 manager will coordinate regional technicians to maintain and repair the Facility  
262 as necessary. Both the regional technicians and asset manager draw on the  
263 resources of First Solar for all other functions such as accounting, human  
264 resources, legal, finance and engineering.

265

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

267 A. Yes.

PREFILED SUPPLEMENTAL TESTIMONY OF  
MATT CROOK  
ON BEHALF OF OAK TRAIL SOLAR, LLC

NCUC DOCKET NO. EMP-114 Sub 0

**INTRODUCTION**

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**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.**

A. My name is Matt Crook. I am a project developer for Oak Trail Solar, LLC (“Oak Trail”). My business address is 800 Town and Country Blvd., Suite 500, Houston, TX 77024.

**Q. ARE YOU THE SAME MATT CROOK WHO CAUSED TO BE FILED PREFILED DIRECT TESTIMONY IN THIS MATTER ON SEPTEMBER 17, 2020?**

A. Yes.

**Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?**

A. The purpose of my testimony is to provide additional information in response to the Commission’s December 18, 2020 *Order Scheduling Public Witness Hearing, Revising Deadlines Related to Public Witness Hearing and Revising Required Public Notice*, which directed the Applicant to file additional testimony addressing issues related to interconnection costs and the Applicant’s plans to sell the energy and capacity generated by the Project.

**Q1. ARE THERE ANY NETWORK UPGRADES TO DENC’S OR ANY AFFECTED SYSTEM’S TRANSMISSION SYSTEM REQUIRED TO ACCOMMODATE THE OPERATION OF THE APPLICANT’S PROPOSED**

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22 **FACILITY? IF SO, PROVIDE THE AMOUNT OF NETWORK UPGRADES ON**  
23 **DENC'S OR ANY AFFECTED SYSTEM'S TRANSMISSION SYSTEM, IF ANY,**  
24 **REQUIRED TO ACCOMMODATE THE OPERATION OF THE APPLICANT'S**  
25 **PROPOSED FACILITY.**

26 A. There are no network upgrades to affected systems transmission  
27 systems. Since filing the application, Oak Trail received a Facility Study Report  
28 for PJM queue positions AD2-160 and AE2-253 in December, 2020, which  
29 details the network upgrades required on DENC's transmission system.  
30 **\*Confidential\* Supplemental Application Addendum 1.** As shown in the  
31 Facility Study Report, the estimated cost of the network upgrades is **\*BEGIN**  
32 **CONFIDENTIAL\*** [REDACTED] **\*END CONFIDENTIAL\***.

33 **Q2. IF THERE ARE ANY REQUIRED SYSTEM UPGRADES, DOES**  
34 **THE APPLICANT HAVE LEVELIZED COST OF TRANSMISSION (LCOT)**  
35 **INFORMATION FOR THE SYSTEM UPGRADES? IF SO, PROVIDE THE LCOT**  
36 **INFORMATION FOR ANY REQUIRED TRANSMISSION SYSTEM UPGRADES**  
37 **OR MODIFICATIONS.**

38 A. As described in my prefiled direct testimony, the LCOT for the  
39 Facility is \$1.94. The Applicant's LCOT analysis is detailed in **\*Confidential\***  
40 **Supplemental Application Addendum 2.** This LCOT compares favorably to  
41 the average LCOTs identified in the 2019 Lawrence Berkeley National  
42 Laboratory Interconnection Cost Study ("LBNL Study") for solar in MISO (\$1.56),  
43 PJM (\$3.22), and EIA (\$2.21) that the Public Staff referenced and the  
44 Commission cited in its *Order Denying Certificate of Public Convenience and*  
45 *Necessity for Merchant Plant Generating Facility* issued on June 11, 2020 in



46 Docket EMP-105 Sub 0. Further, the entire cost of the network upgrades will be  
47 borne by the Project and not reimbursed.

48 **Q3. IS THERE ANY INTERCONNECTION STUDY AVAILABLE FOR**  
49 **THE PROPOSED FACILITY? IF SO, PROVIDE ANY INTERCONNECTION**  
50 **STUDY RECEIVED FOR THE PROPOSED FACILITY. IF THE APPLICANT**  
51 **HAS NOT RECEIVED A STUDY, PROVIDE A DATE BY WHEN THE STUDY IS**  
52 **EXPECTED TO BE COMPLETED.**

53 A. As described in Exhibit 2 to the CPCN application and as  
54 referenced above, the Facility has received the following interconnection studies:  
55 (1) System Impact Study for PJM queue position AD2-160, provided as  
56 \*Confidential\* Application Addendum 5; (2) System Impact Study for PJM queue  
57 position AE2-253, provided as \*Confidential\* Application Addendum 6; and (3)  
58 Facility Study Report for PJM queue positions AD2-160 and AE2-253, provided  
59 as \*Confidential\* Supplemental Application Addendum 1 (collectively, the  
60 "Interconnection Studies").

61 **Q4. IS THE APPLICANT AWARE OF ANY SYSTEM OTHER THAN**  
62 **THE STUDIED SYSTEM THAT IS OR WILL BE AFFECTED BY THE**  
63 **INTERCONNECTION? IF YES, EXPLAIN THE IMPACT AND BASIS.**

64 A. Oak Trail is not aware of any system other than the studied system  
65 that is or will be affected by the interconnection. As shown in the Interconnection  
66 Studies, no Project-related impacts on an Affected System have been identified.

67 **Q5. IS THE APPLICANT PROPOSING TO SELL ENERGY AND**  
68 **CAPACITY FROM THE FACILITY TO A DISTRIBUTION UTILITY REGULATED**  
69 **BY THE COMMISSION? IF SO, PROVIDE A DISCUSSION OF HOW THE**

70 **FACILITY’S OUTPUT CONFORMS TO OR VARIES FROM THE REGULATED**  
71 **UTILITY’S MOST RECENT INTEGRATED RESOURCE PLAN (IRP).**

72 A. No.

73 **Q6. IS THE APPLICANT PROPOSING TO SELL ENERGY AND**  
74 **CAPACITY FROM THE PROPOSED FACILITY TO A DISTRIBUTION UTILITY**  
75 **NOT REGULATED BY THE COMMISSION BUT SERVING RETAIL**  
76 **CUSTOMERS IN NORTH CAROLINA (E.G. CO-OP OR MUNI)? IF SO,**  
77 **DISCUSS HOW THE FACILITY’S OUTPUT CONFORMS TO OR VARIES**  
78 **FROM THE PURCHASING DISTRIBUTION UTILITY’S LONG-RANGE**  
79 **RESOURCE PLAN.**

80 A. No.

81 **Q7. IS THE APPLICANT PROPOSING TO SELL ENERGY AND**  
82 **CAPACITY FROM THE PROPOSED FACILITY TO A PURCHASER WHO IS**  
83 **SUBJECT TO A STATUTORY OR REGULATORY MANDATE WITH RESPECT**  
84 **TO ITS ENERGY SOURCING (E.G., A REPS REQUIREMENT OR VIRGINIA’S**  
85 **NEW STATUTORY MANDATE FOR RENEWABLES)? IF SO, EXPLAIN HOW,**  
86 **IF AT ALL, THE PROPOSED FACILITY WILL ASSIST OR ENABLE**  
87 **COMPLIANCE WITH THAT MANDATE. IN ADDITION, PROVIDE ANY**  
88 **CONTRACTS THAT SUPPORT THAT COMPLIANCE.**

89 A. No.

90 **Q8. DOES THE APPLICANT HAVE A POWER PURCHASE**  
91 **AGREEMENT (PPA), REC SALE CONTRACTS OR CONTRACTS FOR**  
92 **COMPENSATION FOR ENVIRONMENTAL ATTRIBUTES FOR THE OUTPUT**  
93 **OF THE PROPOSED FACILITY? IF SO, PROVIDE ANY PPA AGREEMENTS,**

94 **REC SALE CONTRACTS, OR CONTRACTS FOR COMPENSATION FOR**  
95 **ENVIRONMENTAL ATTRIBUTES FOR THE OUTPUT OF THE FACILITY.**

96 A. Yes. As described in Application Exhibit 3 and my prefiled direct  
97 testimony, Oak Trail has a fully executed Power Purchase Agreement (“PPA”)  
98 with a large Commercial and Industrial customer for the entirety of the Facility’s  
99 output, as well as the Renewable Energy Credits generated by the Facility. The  
100 PPA is being provided as **\*Confidential\*** Supplemental Application  
101 **Addendum 3.**

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

103 A. Yes.

SUPPLEMENTAL PREFILED DIRECT TESTIMONY OF  
MATT CROOK  
ON BEHALF OF OAK TRAIL SOLAR, LLC

NCUC DOCKET NO. EMP-114, Sub 0

1

**INTRODUCTION**

2

**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS**

3

**ADDRESS.**

4

A. My name is Matt Crook. I am a project developer for Leeward

5

Renewable Energy, LLC (“Leeward”). My business address is 800 Town and

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Country Blvd, Suite 500, Houston, TX 77024.

7

**Q. WHAT IS YOUR RELATIONSHIP WITH THE APPLICANT IN**

8

**THIS DOCKET?**

9

A. I am the lead project developer for the Oak Trail Solar, LLC (“Oak

10

Trail”) solar facility (the “Facility”).

11

**Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL**

12

**EXPERIENCE.**

13

A. I have over 8 years of experience in the renewable energy field. I

14

began working with First Solar, Inc. in 2018 on the development of multiple solar

15

energy projects throughout North Carolina and the southeast more generally. I

16

transitioned to working with Leeward in connection with the development portfolio

17

sale from First Solar, Inc. to Leeward. I earned a bachelor’s degree in political

18

science from the University of North Carolina at Chapel Hill and a master’s

19

degree in business administration from the UNC Kenan-Flagler Business School.

20

**Q. PLEASE SUMMARIZE YOUR CURRENT EMPLOYMENT**

21

**RESPONSIBILITIES.**

22 A. My current responsibilities include managing new project  
23 identification, project development and acquisition activities for Leeward's solar  
24 energy business in the North Carolina and southeast region. This includes  
25 directing development activity for the Facility.

26 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS**  
27 **COMMISSION?**

28 A. No, but I filed prefiled testimony in the above-referenced docket on  
29 September 17, 2020.

30 **Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL**  
31 **TESTIMONY?**

32 A. The purpose of my supplemental testimony is to update the  
33 Commission with background information about Leeward, the new indirect  
34 upstream owner of Oak Trail, and to provide information on Leeward's technical  
35 and managerial capabilities.

36 **Q. DOES THE FACILITY REMAIN THE SAME AS DESCRIBED IN**  
37 **THE APPLICATION AND YOUR PREFILED TESTIMONY FILED ON**  
38 **SEPTEMBER 17, 2020?**

39 A. Yes. The only material update in the amended application is to the  
40 upstream ownership of Oak Trail. All other material information in the application  
41 remains the same.

42 **Q. PLEASE PROVIDE INFORMATION ABOUT OAK TRAIL AND**  
43 **LEEWARD.**

44 A. Oak Trail is a wholly owned indirect subsidiary of Leeward. Oak  
45 Trail is a limited liability company registered to do business in North Carolina.

46 Oak Trail was organized for the development of the Facility in Currituck County,  
47 North Carolina, which is the subject of the Application. Leeward is  
48 headquartered in Dallas, Texas.

49 **Q. PLEASE DESCRIBE LEEWARD'S EXPERIENCE DEVELOPING**  
50 **RENEWABLE ENERGY FACILITIES, INCLUDING SOLAR FACILITIES.**

51 A. Leeward and its affiliated companies have owned and operated a  
52 fleet of renewable energy assets in the United States for nearly 20 years.  
53 Leeward currently owns and operates a portfolio of 22 renewable energy projects  
54 across nine states, totaling more than 2 GW of installed capacity. Leeward and  
55 its affiliated companies also develop large-scale wind, solar, and advanced  
56 energy storage electric generation assets in North America. Leeward has  
57 approximately 14 GW of new wind, solar, and energy storage projects under  
58 development across the United States including an expansive development  
59 pipeline of solar projects across more than 20 states. Leeward acquired  
60 approximately 10 GW of development-stage solar projects from First Solar, Inc.,  
61 including Oak Trail. As part of the acquisition, approximately 50 development  
62 personnel from First Solar, Inc. became Leeward employees.

63 **Q. PLEASE DESCRIBE LEEWARD'S TECHNICAL AND**  
64 **MANAGERIAL CAPABILITY TO OPERATE RENEWABLE ENERGY**  
65 **FACILITIES, INCLUDING SOLAR FACILITIES.**

66 A. Leeward is an experienced operator of renewable energy  
67 generation facilities. Leeward is staffed with experienced industry personnel and  
68 currently operates more than 2 GW of renewable energy generation projects in  
69 North America.

Supplemental Prefiled Direct Testimony of Matt Crook  
Oak Trail Solar, LLC

70 NovaSource Power Services (“NovaSource”) will provide operations and  
71 maintenance (“O&M”) services for the Facility. NovaSource operates more than  
72 1,000 commercial, industrial, and utility scale solar projects totaling 3.5 GW  
73 production and operates across 5 continents and 22 US states.

74 A Leeward-affiliated asset manager will have overall management  
75 responsibility for the Facility including all contract compliance. The asset  
76 manager will coordinate regional technicians to maintain and repair the Facility  
77 as necessary. Both the regional technicians and asset manager draw on the  
78 resources of Leeward for all other functions such as accounting, human  
79 resources, legal, finance and engineering.

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

81 A. Yes.

1 BY MS. PARROTT:

2 Q Mr. Crook, have you prepared a summary of your  
3 testimony?

4 A Yes.

5 Q Would you please read it for the Commission?

6 A Yes. My name is Matt Crook. I'm a project  
7 developer for Leeward Renewable Energy, LLC. My  
8 business address is 800 Town and Country  
9 Boulevard, Suite 500, Houston, Texas 77024. I am  
10 the lead project developer for the Oak Trail  
11 Solar, LLC's solar facility. I have over eight  
12 years experience in the renewable energy field.

13 I provided prefiled direct  
14 testimony in support of the Application on  
15 September 17, 2020, and prefiled supplemental  
16 testimony on February 22nd, 2021, and April 16th  
17 of 2021.

18 The purpose of my testimony is to  
19 provide the Commission with the information about  
20 Oak Trail, Leeward, and the facility, and to  
21 expand on topics in the Application for a  
22 Certificate of Public Convenience and Necessity,  
23 including the regulatory and permitting process  
24 for the facility, the need for and impact of the



1 facility, information related to interconnection  
2 costs, the Applicant's plans to sell the energy  
3 and capacity generated by the facility, and  
4 Leeward's technical and managerial capabilities.

5 Oak Trail is a wholly-owned  
6 indirect subsidiary of Leeward. Oak Trail is a  
7 limited liability company registered to do  
8 business in North Carolina and was organized for  
9 the development of the facility in Currituck  
10 County, North Carolina, which is subject of the  
11 CPCN Application.

12 Leeward and its affiliated  
13 companies have owned and operated a fleet of  
14 renewable energy assets in the United States for  
15 nearly 20 years. Leeward owns and operates a  
16 portfolio of 22 renewable energy projects across  
17 nine states, totaling more than 2 GW of installed  
18 capacity. Leeward and its affiliated companies  
19 also develop large-scale wind, solar, and  
20 advanced energy storage electric generating  
21 assets in North America. Leeward has  
22 approximately 14 GW of new wind, solar, and  
23 energy storage projects under development across  
24 the United States, including expansive

1 development pipeline of solar projects across  
2 more than 20 states. Leeward acquired  
3 approximately 10 GW of development-stage solar  
4 projects from First Solar, Inc., including Oak  
5 Trail. As part of the acquisition, approximately  
6 50 development personnel from First Solar became  
7 Leeward employees.

8 Oak Trail has an agreement with  
9 NovaSource Power Services to provide operations  
10 and maintenance services for the facility.  
11 NovaSource operates more than 1000 commercial,  
12 industrial and utility-scale solar projects  
13 totaling 3.5 GW in production and operates across  
14 five continents and 22 U.S. States. Leeward will  
15 have an overall management responsibility for the  
16 facility including all contract compliance and  
17 will coordinate regional technicians to maintain  
18 and repair the facility as necessary. Leeward  
19 has all of the resources needed to develop,  
20 operate and maintain the facility such as  
21 accounting, human resources, legal, finance and  
22 engineering.

23 The facility includes  
24 approximately 878 acres of privately-owned land

1 in Currituck County, North Carolina. Oak Trail  
2 has options for lease and purchase of private  
3 land which afford the company the right to  
4 develop and use the property for solar energy  
5 purposes, including the installation of solar  
6 panels, inverters and other elements of the  
7 facility.

8 The facility will consist of  
9 photovoltaic solar panels affixed to  
10 ground-mounted racks supported on driven piles,  
11 inverters, a collection system, and  
12 interconnection facilities. A collection  
13 substation will be constructed to facilitate  
14 interconnection of the facility to the grid  
15 operated by DENC. A preliminary site layout,  
16 including all major components of the facility,  
17 was included as Application Addendum 4.

18 The nameplate generating capacity  
19 of the facility will be 100 MW<sub>AC</sub> with anticipated  
20 gross capacity of 245,000 MWh and a net capacity  
21 of 218,460 MWh per year. Solar is an  
22 intermittent energy source and, therefore, the  
23 maximum dependable capacity is 0 MW. Per the  
24 interconnection request with PJM, Oak Trail has

1           been assigned 67.3 MW<sub>AC</sub> of capacity.

2                       There are no network upgrades to  
3 affected system transmission assets. The final  
4 network upgrades required on DENC's system are  
5 reflected in the Facility Study Report that was  
6 included as Confidential Supplemental Application  
7 Addendum 1 and in the Interconnection Service  
8 Agreement that was included as Bristol Rebuttal  
9 Exhibit A. The levelized cost of transmission  
10 for the facility is \$1.94, which compares  
11 favorably to the average LCOTs identified in the  
12 2019 Lawrence Berkeley National Laboratory  
13 Interconnection Cost Study. Furthermore, the  
14 entire cost of the network upgrades will be borne  
15 by Oak Trail and not reimbursed.

16                       The interconnection studies are  
17 discussed on page 3 of my February 22nd, 2021  
18 supplemental prefiled testimony. The  
19 interconnection studies are (1) a System Impact  
20 Study for PJM queue position AD2-160, provided as  
21 Confidential Application Addendum 5; (2) a System  
22 Impact Study for PJM queue position AE2-253,  
23 provided as Confidential Application Addendum 6;  
24 and (3) a Facility Study Report for PJM queue

1 positions AD2-160 and AE2-253. In addition, the  
2 facility has a fully executed Interconnection  
3 Service Agreement. The facility was determined  
4 not to have any impacts on any affected systems,  
5 including DEP or any other North Carolina  
6 utility.

7 Oak Trail has a fully executed  
8 Power Purchase Agreement with a large commercial  
9 and industrial customer for the entirety of the  
10 facility's output, as well as the RECs generated  
11 by the facility. The PPA was provided as  
12 Confidential Supplemental Application Addendum 3.

13 As described on page 6 of my  
14 prefiled testimony, Oak Trail has engaged with  
15 Currituck County regarding all necessary county  
16 permits and approvals. On November 16, 2020, Oak  
17 Trail received a Use Permit from Currituck  
18 County. The Applicant has received an Approved  
19 Jurisdictional Determination from the U.S. Army  
20 Corps of Engineers. The Applicant is also aware  
21 of applicable state permits and approvals  
22 including those from North Carolina DEQ and North  
23 Carolina DOT.

24 The facility represents an

1 investment of tens of millions of dollars into  
2 the Currituck County community. Oak Trail  
3 anticipates that the County will realize property  
4 tax revenues of approximately \$134,000 annually  
5 from the facility. Also, landowners will receive  
6 payments for participating in the facility.

7 A significant benefit of this  
8 facility is that it will be privately financed  
9 and constructed and will not affect ratepayers.  
10 While evidence for need for this independent  
11 renewable facility is strong, any risk of default  
12 is on private financiers and not North Carolina  
13 retail electric customers. The facility will  
14 provide a significant source of RECs for use by  
15 electric power suppliers to demonstrate  
16 compliance with Senate Bill 3. This facility is  
17 expected to generate approximately 218,460 RECs  
18 annually. North Carolina has also shown a  
19 commitment to clean energy through its Clean  
20 Energy Plan finalized by the North Carolina DEQ  
21 in October of 2019, which sets a statewide carbon  
22 neutrality goal by 2050. The projected demand  
23 for renewable energy in North Carolina, DENC, and  
24 PJM generally, and the projected increase in

1 demand for solar specifically is discussed on  
2 pages 8 through 10 of my prefiled direct  
3 testimony.

4 Q Thank you, Mr. Crook.

5 MS. PARROTT: Mr. Crook is now available for  
6 cross examination and questions from the Commission.

7 COMMISSIONER DUFFLEY: Thank you.

8 Ms. Coxton?

9 MS. COXTON: No cross examination by the  
10 Public Staff.

11 COMMISSIONER DUFFLEY: Chair Mitchell?

12 EXAMINATION BY CHAIR MITCHELL:

13 Q Good afternoon. How are you this afternoon?

14 A Doing well.

15 Q Mr. Crook, I want to ask you a few questions  
16 about your testimony. So, a couple of things, I  
17 want to first just sort of -- your summary that  
18 you just provided, you indicated that the  
19 facility will provide a significant number of  
20 RECs for use and Senate Bill 3 compliance, but I  
21 thought I understood this deal to be one in which  
22 the facility would sell its output plus other  
23 RECs to a private purchaser. Is that not the  
24 case? Just help me understand what's happening

1 to the RECs here.

2 A The RECs are a part of the Power Purchase  
3 Agreement.

4 Q So the RECs are being sold to whoever is  
5 purchasing the output of the facility?

6 A Yes.

7 Q Okay.

8 A That's my understanding.

9 Q Okay. In your testimony filed on the 22nd of  
10 February of this year, you indicate that there  
11 are no other -- you're not aware of any other  
12 systems that will be affected by this facility.  
13 I'm sort of paraphrasing but it's page 3 of your  
14 testimony. When you are developing these  
15 facilities, just in general, when do you  
16 determine or when do you or when can you accept  
17 that decision as a final decision? In other  
18 words, when do you -- when is it that you have  
19 certainty that there will be no affected system  
20 with respect to the facility you're attempting to  
21 develop?

22 A That's a good question. And the dates kind of  
23 align. And I mentioned in my, I believe in my  
24 opening, but I would make a change to my



1 testimony in saying that we do now have an  
2 Interconnection Services Agreement and an  
3 Interconnection Construction Services Agreement.  
4 That was entered into in March and I believe my  
5 testimony was filed in February 22nd. So, yeah,  
6 within a week I would have changed my testimony  
7 to say we know versus a more not anticipated at  
8 this moment partly because -- and there are a  
9 couple of things here. First, we have a  
10 completed Interconnection Services Agreement. In  
11 order to receive that from PJM, they have an  
12 inter-operating agreement or an operating  
13 agreement with DEP and other utilities that they  
14 interconnect with that they're going to check  
15 with DEP before issuing an Interconnection  
16 Services Agreement to check to see if there's any  
17 affected systems.

18 In our facilities study and in our  
19 interconnection services -- I'm sorry, our System  
20 Impact Study, it both says there are no affected  
21 systems. Again, they have checked with DEP  
22 throughout their process of going through the  
23 studies for this facility and then they issue our  
24 Interconnection Services Agreement. It would not

1 have issued our Interconnection Services  
2 Agreement without calling out affected systems or  
3 any contingent systems, any other systems prior  
4 in the queue that might fade out and costs would  
5 be borne to this project. It would not have  
6 issued the Interconnection Services Agreement  
7 that they issued to us.

8 Q Okay.

9 A Secondly, and I'll just -- this will be the last  
10 point. We checked with DEP directly and asked  
11 them if there was any affected system upgrade  
12 cost to Oak Trail or our specific queue positions  
13 and they (1) have issued a study for the AD2  
14 cluster that says there are none and they  
15 confirmed that there are none for our second  
16 queue position for the AE2 cluster.

17 Q Thank you for that response. That's helpful. So  
18 just following up there because I'm hearing you  
19 say that the ISA really is the determinative  
20 agreement. Once that's been entered into or  
21 executed by PJM you all determine for that to be  
22 the final -- that document to sort of frame your  
23 obligations. The charges identified in that  
24 Agreement that the facility owner and the

1 interconnection customer will be responsible for  
2 are identified as estimated charges. And I want  
3 to refer you -- I think, I know your attorneys  
4 will want to know, but I think I'm referring to  
5 Schedule E is where the charges are identified,  
6 Schedule E to the ISA.

7 CHAIR MITCHELL: And, Ms. Parrott, if I've  
8 got that wrong just holler out so that your witness  
9 can be directed there.

10 BY CHAIR MITCHELL:

11 Q But really, Mr. Crook, my question is, the ISA  
12 identifies the charges as estimated. At what  
13 point are those -- when will you all know the  
14 final charges? And what -- how do you sell --  
15 when you go to get financing, how do you explain  
16 to your lenders that the charges are more than  
17 simply estimated, that you do have some certainty  
18 with respect to what you are going to owe under  
19 the Agreement?

20 A That's right. So the scope of the charges will  
21 not change. So what is being provided in the ISA  
22 and the ICSA is talking about the facility's  
23 costs and network upgrades included in that.  
24 There are no affected systems' costs that have

1           been identified and so they can't come back and  
2           say there are affected systems' upgrade costs  
3           because they are not identified. But what that  
4           is saying is there is cost true up throughout the  
5           process.

6                           I believe I mentioned in my  
7           opening statement that in about a couple of weeks  
8           we will owe about \$2 million in preliminary  
9           engineering work that Dominion is currently  
10          doing. These costs are trued up at the end. And  
11          so at the time of signing in March they're going  
12          to say here's what the estimated costs are for  
13          the facility, but costs can change, copper costs  
14          can change, things like that can change in which  
15          case the price could go down. The facility could  
16          actually cost less. It could cost a little bit  
17          more. But it's not going to increase  
18          exponentially because of an affected system,  
19          because that has been identified already as  
20          there's no affected system impacts to this  
21          facility.

22          Q       So what I hear you say then is the scope of the  
23          charges isn't going to change, but what happens  
24          is there's a true-up, and the estimated charges

1 are trued up to actuals and so what you all  
2 owe -- what the interconnection customer owes  
3 under the Agreement can go up or down based on  
4 what's actually spent to construct those  
5 facilities?

6 A That's right.

7 Q Correct me if I've misunderstood you, but that's  
8 what I'm hearing you say.

9 That's all for me.

10 A There's --

11 CHAIR MITCHELL: Thank you, Mr. Crook.

12 A Thank you.

13 COMMISSIONER DUFFLEY: Mr. Crook, did you  
14 want to finish your answer?

15 THE WITNESS: Yeah. I just wanted to also  
16 clarify that there's contingent projects either. So,  
17 if a project drops out of the queue or something like  
18 that, because we have an Interconnection Services  
19 Agreement, those projects were not identified as  
20 contingent to this project. So, even if an affected  
21 system -- you know, any scope, any additional scope  
22 besides our facilities would not be included in the  
23 cost trail.

24 COMMISSIONER DUFFLEY: Thank you.

1 Commissioner Clodfelter? You're on mute.

2 COMMISSIONER CLODFELTER: Mr. Crook's last  
3 answer buttoned up the one question I was going to  
4 ask; no contingent projects ahead in the queue. So  
5 I'm fine. No more questions. Thank you.

6 COMMISSIONER DUFFLEY: Thank you,  
7 Mr. Clodfelter or Commissioner Clodfelter.

8 So I do have a couple of questions for you,  
9 just to follow up to Chair Mitchell's question, and  
10 it's a hypothetical.

11 EXAMINATION BY COMMISSIONER DUFFLEY:

12 Q So, let's say in six months for some reason or  
13 another there was miscommunication and there are  
14 affected system costs, who would be responsible  
15 for those costs in that hypothetical?

16 A One, I'm not -- I don't believe there are any  
17 affected system costs so I'm going to say --

18 Q I do understand that. This is just a  
19 hypothetical question if there were. I  
20 understand your testimony is there are no  
21 affected system costs with respect to this system  
22 and you've shown documentation that you are using  
23 to support that. I'm just saying hypothetically.  
24 I'm just trying to understand where -- who bears

1 the risk if affected costs somehow materialize  
2 after you have started moving forward?

3 A So, in that question you're assuming that Duke  
4 Energy has made an error, that they have not  
5 followed their own process for identifying  
6 affected systems throughout the study process,  
7 and that PJM has not followed their process  
8 somehow with communicating with Duke Energy that  
9 hey this project is about to receive an  
10 Interconnection Services Agreement. You need  
11 review it to make sure it's not affecting your  
12 system. And that this project sited perfectly  
13 and having all of its things together, all of  
14 that, hypothetically, is done wrong.

15 I believe what would end up  
16 happening is Duke Energy would have to reopen.  
17 They would have to reopen and show and say, oh,  
18 this is why we made a big issue. We made a big  
19 error. At that point they would have to  
20 probably -- they could try and file something but  
21 they would basically have to reopen, which we  
22 probably would not entertain because if they  
23 followed their procedures the way that they  
24 should then this would probably be laid out

1            somewhere else, maybe in FERC or something like  
2            that. But I'm not probably the best to answer  
3            this question. My colleague Mr. Bristol can  
4            probably get into a little bit more detail with  
5            that. But I did want to preface that that  
6            hypothetical would require Duke Energy Progress  
7            to come back and say we did not follow our own  
8            standards. We did not go correctly. We did not  
9            do the procedure as correctly done. And I think  
10           that's a very highly unlikely hypothetical.

11    Q        Okay. Thank you for that answer. And then also  
12            following up on Chair Mitchell's question, we  
13            have some staff questions. Should -- in your  
14            opinion, should the Commission withhold issuing a  
15            CPCN to EMP Applicants until an ISA has been  
16            signed?

17    A        I can't opine about other projects. I just know  
18            the facts of our project in which we have an ISA.  
19            This is a later stage project in which case I  
20            think the conditions that are being added here  
21            really cause more questions and, because they  
22            cause more questions, that's more risk on the  
23            project for getting financing. We're in a  
24            critical juncture. I mentioned a pretty hefty



1 security, additionally \$2 million in cash that  
2 we're paying for work that's already being done.  
3 We have permits that have to be executed by the  
4 end of the year. These are things that are real  
5 to our project. As far as other projects, if  
6 they can verify and show how they don't affect or  
7 they don't have affected systems, then  
8 potentially, but I'd rather not kind of -- I  
9 mean, every case might be a little different, but  
10 if -- I believe the facts that we have, the fact  
11 that we're so later stage as a project, a stage  
12 that has a market participant, that has a fully  
13 executed PPA shows the viability of this project.

14 Q Thank you. If I could have you turn to your  
15 prefiled direct testimony on page 5.

16 A One moment. Sorry. And this is the testimony  
17 from September?

18 Q Yes.

19 A Page 5. Okay.

20 Q Down at the line 109, you testify about the  
21 County will realize property tax revenues of  
22 \$134,000 annually and then you put in a footnote  
23 that this \$134,000 is based upon, I assume it's  
24 the last RPM auction; is that correct?

1 A Yes. So, in order to enter into the auction, the  
2 current rules for PJM and that auction, and  
3 I'm -- from what we understand, from what we  
4 gather from our legal counsel, that the North  
5 Carolina tax exclusion for solar would be  
6 considered kind of an incentive. And so, the  
7 reason that there is a difference there is if we  
8 decide that we want to participate in the  
9 capacity market then we would be likely having to  
10 pay taxes, the full hundred percent of the  
11 property, business property tax, and that's the  
12 difference for why that number is different.  
13 That is our current understanding.

14 Q So I'm following up with you on that. So is this  
15 amount, the tax revenues that would go to the  
16 County, are they tied to the price, the clearing  
17 price of the RPM auction? So if the RPM auction  
18 price, you know they're getting ready to run  
19 another one, if that one goes significantly down,  
20 will that affect the revenues to the County?

21 A I think the only thing that would change the two  
22 different numbers is the cost of the facility, so  
23 the personal property and how that's taxed. So,  
24 the taxes, whatever they determine the property

1 to cost. And then, too, the optionality of  
2 whether we entered the capacity market or not.

3 Q Okay. Thank you. And could you, just for my own  
4 education, you stated that the revenues would  
5 increase if you choose the competitive exemption.  
6 Could you explain the competitive exemption for  
7 me?

8 A Sure. So the -- my understanding is in order to  
9 enter into the capacity market, there are rules  
10 that say you basically have to be at the same  
11 playing field as everybody else so take out any  
12 state subsidies or any negotiated subsidies, so  
13 different states allow for locality subsidies,  
14 things like that in order to be make sure that  
15 it's competitive. So that is I think what I mean  
16 by competitive exemption so you're basically  
17 saying there are no incentives or what PJM or  
18 FERC would consider as incentives for the  
19 project.

20 COMMISSIONER DUFFLEY: Thank you. I have  
21 nothing further. Are there any follow-ups from the  
22 Commissioners?

23 (No response)

24 If not, any questions on the Commission's

1 questions?

2 MS. PARROTT: I have just a couple of brief  
3 follow-up redirect questions if I may.

4 COMMISSIONER DUFFLEY: Yes. Ms. Coxton, do  
5 you have any questions before Ms. Parrott begins?

6 MS. COXTON: No questions.

7 COMMISSIONER DUFFLEY: Thank you.

8 EXAMINATION BY MS. PARROTT:

9 Q Mr. Crook, do you recall Chair Mitchell's  
10 questions related to estimated costs in the ISA?

11 A Yes.

12 Q And your testimony is that the scope is known but  
13 they are subject to true-up post construction; is  
14 that correct?

15 A That's correct.

16 Q And I believe this is clear but I want to make  
17 sure it is that the interconnection cost for the  
18 required PJM upgrades will be paid for entirely  
19 by Oak Trail, correct?

20 A That's correct.

21 Q And no interconnection costs for Oak Trail are  
22 passed to ratepayers?

23 A That's correct.

24 MS. PARROTT: No further questions from me.

1 Thank you.

2 I believe you're muted, Commissioner  
3 Duffley.

4 COMMISSIONER DUFFLEY: Thank you. Thank  
5 you, Mr. Crook.

6 THE WITNESS: Thank you.

7 (The witness is excused)

8 COMMISSIONER DUFFLEY: Ms. Parrott?

9 MS. PARROTT: We have no further witnesses  
10 in our case in chief.

11 COMMISSIONER DUFFLEY: Thank you.  
12 Ms. Coxton?

13 MS. COXTON: The Public Staff calls Evan  
14 Lawrence.

15 COMMISSIONER DUFFLEY: Hello, Mr. Lawrence.

16 MR. LAWRENCE: Hello. Can you hear me?

17 COMMISSIONER DUFFLEY: Yes.

18 EVAN D. LAWRENCE;

19 having been duly affirmed,

20 testified as follows:

21 DIRECT EXAMINATION BY MS. COXTON:

22 Q Please state your name, business address and  
23 present position?

24 A My name is Evan Lawrence. My address is 430

1 North Salisbury Street, Raleigh, North Carolina,  
2 and I'm currently a Utilities Engineer with the  
3 Public Staff's Energy Division.

4 Q Did you prepare and cause to be filed on  
5 March 22nd, 2021, testimony in this case  
6 consisting of 10 pages and an appendix?

7 A Yes, I did.

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

10 A Yes, with one exception.

11 Q Please discuss that.

12 A On page 6 of my testimony, line 29, the phrase  
13 "AC1" should instead read "AD2". Then the  
14 section of my testimony beginning on page 6, line  
15 30 with the words "if any network" and ending  
16 with page 7, line 9 should be removed.

17 Q Other than that change, do you have any other  
18 changes or corrections?

19 A I do not.

20 MS. COXTON: I move that the direct  
21 testimony of Evan Lawrence be copied into the record  
22 as if given orally from the stand and his Appendix be  
23 premarked as filed?

24 COMMISSIONER DUFFLEY: Any objection?

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(No response)

Without objection, the motion will be allowed.

(WHEREUPON, the prefiled direct testimony, as corrected, and Appendix A of EVAN D. LAWRENCE is copied into the record as if given orally from the stand.)

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**

**DOCKET NO. EMP-114, SUB 0**

**Testimony of Evan D. Lawrence**

**On Behalf of the Public Staff**

**North Carolina Utilities Commission**

**March 22, 2021**

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

3 A. My name is Evan D. Lawrence. My business address is 430 North  
4 Salisbury Street, Raleigh, North Carolina.

5 **Q. BRIEFLY STATE YOUR QUALIFICATIONS AND DUTIES.**

6 A. My qualifications and duties are included in Appendix A.

7 **Q. PLEASE STATE YOUR POSITION WITH THE PUBLIC STAFF.**

8 A. I am an engineer in the Electric Section – Operations and Planning  
9 in the Public Staff’s Energy Division.

10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
11 **PROCEEDING?**

12 A. The purpose of my testimony is to make recommendations to the  
13 Commission on the application, testimony, and related filings  
14 regarding a solar photovoltaic facility in Currituck County, North  
15 Carolina, that I describe in detail below.



1 **Q. PLEASE PROVIDE A BRIEF HISTORY OF THE APPLICATION.**

2 A. On September 17, 2020, Oak Trail Solar, LLC (Oak Trail or  
3 Applicant) filed an application for a certificate of public convenience  
4 and necessity (CPCN) to construct a 100-megawatt AC (MW<sub>AC</sub>) solar  
5 photovoltaic electric generating facility (Facility). The application  
6 included the testimony of Matt Crook and Wyatt Toolson.  
7 Contemporaneously with the application, the Applicant filed a  
8 Registration Statement for the Registration of a New Renewable  
9 Energy Facility (Registration).

10 On September 29, 2020, the Public Staff filed a Notice of  
11 Completeness, stating that it believed the Applicant had satisfied the  
12 filing requirements, and requesting that the Commission consider the  
13 application to be complete and issue a procedural order setting it for  
14 hearing, requiring public notice, and addressing any other procedural  
15 matters.

16 On December 14, 2020, the Commission issued its *Order*  
17 *Scheduling Hearings, Requiring Filing of Testimony, Establishing*  
18 *Procedural Guidelines, and Requiring Public Notice* (December 14  
19 Order). The December 14 Order required the Applicant to file  
20 supplemental testimony to answer questions raised by the  
21 Commission.

1 On December 16, 2020, the Commission issued its *Errata Order* to  
2 its December 14 Order amending the time of the expert witness  
3 hearing.

4 On December 18, 2020, the Commission issued its *Order*  
5 *Rescheduling Public Witness Hearing, Revising Deadlines Related*  
6 *to Public Witness Hearing, and Revising Required Public Notice*  
7 (December 18 Order).

8 On January 19, 2021, the State Clearinghouse filed comments. The  
9 cover letter indicated that because of the nature of the comments, no  
10 further action was required for compliance with the North Carolina  
11 Environmental Policy Act.

12 On January 25, 2021, the Applicant filed its Affidavit of Publication  
13 from the Daily Advance (Elizabeth City, North Carolina) stating that  
14 the publication of notice was complete on January 21, 2021.

15 On February 1, 2021, the Commission issued its *Order Canceling*  
16 *Public Witness Hearing*.

17 On February 22, 2021 the Applicant filed the Pre-filed Supplemental  
18 Testimony of Matt Crook, addressing the questions raised in the  
19 December 14 Order.

1 I. COMPLIANCE WITH THE DECEMBER 14 ORDER

2 Q. PLEASE DESCRIBE THE QUESTIONS IN THE DECEMBER 14  
3 ORDER.

4 A. In the December 14 Order, the Commission noted the increase in  
5 non-utility generation on the North Carolina system and recognized  
6 its statutory duty to examine the long-range needs for the generation  
7 of electricity in North Carolina. The Commission directed the  
8 Applicant to file additional testimony and exhibits addressing the  
9 following questions about the Facility:

- 10 1. Provide the amount of network upgrades on  
11 DENC's or any affected system's transmission  
12 system, if any, required to accommodate the  
13 operation of the Applicant's proposed facility.
- 14 2. Provide the Levelized Cost of Transmission  
15 (LCOT) information for any required  
16 transmission system upgrades or modifications.
- 17 3. Provide any interconnection study received for  
18 the proposed facility. If the Applicant has not  
19 received a study, provide a date by when the  
20 study is expected to be completed.
- 21 4. Are you aware of any system other than the  
22 studied system that is or will be affected by the  
23 interconnection? If yes, explain the impact and  
24 basis.
- 25 5. If the Applicant proposes to sell energy and  
26 capacity from the facility to a distribution utility  
27 regulated by the Commission, provide a  
28 discussion of how the facility's output conforms  
29 to or varies from the regulated utility's most  
30 recent Integrated Resource Plan (IRP).
- 31 6. If the Applicant proposes to sell energy and  
32 capacity from the facility to a distribution utility  
33 not regulated by the Commission but serving  
34 retail customers in North Carolina (e.g., a co-op  
35 or muni), discuss how the facility's output

- 1 conforms to or varies from the purchasing  
 2 distribution utility’s long-range resource plan.  
 3 7. If the Applicant proposes to sell energy and  
 4 capacity from the facility to a purchaser who is  
 5 subject to a statutory or regulatory mandate with  
 6 respect to its energy sourcing (e.g., a REPS  
 7 requirement or Virginia’s new statutory mandate  
 8 for renewables), explain how, if at all, the facility  
 9 will assist or enable compliance with that  
 10 mandate. Provide any contracts that support  
 11 that compliance.  
 12 8. Provide any Power Purchase Agreements,  
 13 Renewable Energy Credit (REC) sale contracts,  
 14 or contracts for compensation for environmental  
 15 attributes for the output of the facility.

16 **Q. DID THE APPLICANT PROVIDE LCOT CALCULATIONS FOR**  
 17 **NETWORK UPGRADES?**

18 A. Yes. Confidential Supplemental Application Addendum 1 of Matt  
 19 Crook’s Prefiled Supplemental Testimony included LCOT  
 20 calculations for the Facility. The LCOT for the Facility is \$1.94/MWh,  
 21 with anticipated network upgrade costs of **[BEGIN CONFIDENTIAL]**  
 22 **[REDACTED]** **[END CONFIDENTIAL]**.

23 **Q. DID THE APPLICANT PROVIDE ANY AFFECTED SYSTEM**  
 24 **STUDIES OR COSTS RELATED TO THE FACILITY?**

25 A. No. The Applicant is not aware of any impacts to affected systems at  
 26 this time. The completed interconnection studies also do not reflect  
 27 the need for affected system studies or upgrades. However, Duke  
 28 Energy Progress, LLC (DEP), has recently completed an affected  
 29 system study for the AG4 PJM interconnection cluster. The Facility  
 30 is part of PJM’s AD2 and AE2 interconnection clusters. ~~If any network~~

ktm

ktm

1 ~~upgrades for four to six other clusters (AB2, AC1, AC2, AD1, AD2,~~  
2 ~~and AE1) are necessary or need alteration, they may need to be~~  
3 ~~completed before the Facility can begin full operation. If generator~~  
4 ~~projects from these previous clusters do not come to fruition, the~~  
5 ~~planned upgrades could be pushed to later clusters. If projects from~~  
6 ~~these previous clusters do come to fruition, additional upgrades may~~  
7 ~~be needed for AD2 and AE2 that cannot be studied until there is more~~  
8 ~~certainty regarding the size and placement of the interconnected~~  
9 ~~generators.~~

10 **Q. DO YOU HAVE ANY CONCERNS RELATED TO THE USE OF THE**  
11 **LCOT?**

12 A. Yes. The Public Staff does not disagree with the LCOT calculation,  
13 but, because of the tentative nature of projects in the queue, costs  
14 can be shifted from one cluster to another. The Public Staff has  
15 highlighted this concern in previous testimony for multiple other  
16 applications for CPCNs by merchant generating facilities.

17 **Q. IS THE POTENTIAL FOR SYSTEM UPGRADE COST RECOVERY**  
18 **DIFFERENT FOR THIS FACILITY THAN FOR OTHER FACILITIES**  
19 **IN PJM'S NORTH CAROLINA TERRITORY?**

20 A. Yes. In previous cases that required affected system upgrades on  
21 the DEP transmission system, the contract between DEP and the  
22 generator allowed the generator to recover the costs paid to DEP. In

1 Docket No. E-100, Sub 170 (Sub 170 Proceeding), DEP and Duke  
2 Energy Carolinas, LLC (DEC), filed comments on October 7, 2020  
3 regarding their affected system study process and cost allocation. In  
4 this filing, DEC and DEP noted that, effective October 1, 2020,  
5 Section 6.1 of the DEP, DEC, and Duke Energy Florida “Affected  
6 System Operating Agreement Template” states that, “[t]he Affected  
7 System Network Upgrades shall be solely funded by Customer.” The  
8 Public Staff agrees with this change. Further, the Public Staff  
9 believes that if at any point in the future, costs for affected system  
10 network upgrades are not completely borne by the Applicant, the  
11 Commission should reopen this proceeding for granting of a CPCN  
12 in order to reevaluate the costs. Costs incurred by the Applicant for  
13 network upgrades to any transmission system under PJM control  
14 should not qualify for repayment, and should be borne solely by  
15 interconnection customers.

16 In short, if there are no cost impacts to the customers of electric  
17 public utilities, the Public Staff takes no issue with the application.

18 **Q. WHAT IS THE STATUS OF THE SUB 170 PROCEEDING?**

19 A. The Commission opened the Sub 170 Proceeding at the request of  
20 the Public Staff. The intent of this proceeding is to solicit comments  
21 or proposals to consider the appropriate changes or modifications to  
22 the affected system process to provide better cost certainty and align

1 the assignment or recovery of costs with cost causation principles.  
2 DEC, DEP, and Dominion Energy North Carolina (DENC) filed  
3 comments and provided information on their Open Access  
4 Transmission Tariffs (OATT). Each of the following parties filed reply  
5 comments: Geenex Solar, LLC; the Public Staff; The North Carolina  
6 Clean Energy Business Alliance and the North Carolina Sustainable  
7 Energy Association; DEC; and DEP. The deadline for filing  
8 comments and reply comments has passed.

9 **Q. WHAT IS THE PUBLIC STAFF'S RECOMMENDATION ON OAK**  
10 **TRAIL'S APPLICATION FOR A CPCN AND ASSOCIATED**  
11 **REGISTRATION?**

12 A. The Public Staff has reviewed the application, the Registration, the  
13 direct and supplemental testimony of Matt Crook, the direct  
14 testimony of Wyatt Toolson, and other evidence in the record and  
15 obtained through discovery. The Public Staff has also reviewed the  
16 comments and reply comments in the Sub 170 Proceeding. Based  
17 on this information, and subject to the Public Staff's understanding  
18 that DEP's and DENC's current interconnection procedures  
19 applicable to merchant generation do not provide for reimbursement  
20 for interconnection facilities or network upgrade costs, affected  
21 system costs, or other costs required to allow energization and  
22 operation of the Facility, the Public Staff recommends that the  
23 Commission issue the CPCN, subject to the following conditions:

- 1           i.       The Applicant shall file a copy of an executed Affected  
2           System Operating Agreement (ASOA) with the  
3           Commission at the same time such filing is made at  
4           Federal Energy Regulatory Commission (FERC) (at least  
5           61 days prior to commencing construction on the  
6           upgrades);
- 7           ii.       The Applicant shall file a verified statement acknowledging  
8           that, under Duke's Affected Systems Business Procedure  
9           and PJM's OATT, the Interconnection Customer is  
10          responsible for all affected system Network Upgrade  
11          Costs assigned to the Applicant's facility, if any, without  
12          reimbursement;
- 13          iii.       The Applicant shall notify the Commission of any change  
14          in the cost estimates for the construction of the Facility  
15          itself, interconnection facilities, network upgrades, or  
16          affected system costs within 30 days of becoming aware  
17          of such change; and
- 18          iv.       If, at any time, the Applicant seeks reimbursement for any  
19          interconnection facilities, network upgrade costs, affected  
20          system costs, or other costs required to allow energization  
21          and operation of the Facility (including as a result of any  
22          change to the DEP OATT or any other governing  
23          document(s)), the Commission weigh the costs to be



1                   borne by DEP’s retail and wholesale customers with the  
2                   generation needs in the state or region consistent with its  
3                   ruling in its Order Denying Application for a Certificate of  
4                   Public Convenience and Necessity for a Merchant  
5                   Generating Facility requested by Friesian Holdings, LLC,  
6                   in Docket No. EMP-105, Sub 0.

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

8   **A.    Yes, it does.**

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**JUN 14 2021**

## APPENDIX A

**QUALIFICATIONS AND EXPERIENCE**

## EVAN D. LAWRENCE

I graduated from East Carolina University in Greenville, North Carolina in May 2016 earning a Bachelor of Science degree in Engineering with a concentration in Electrical Engineering. I started my current position with the Public Staff in September 2016. Since that time my duties and responsibilities have focused on reviewing renewable energy projects, rate design, and renewable energy portfolio standards (REPS) compliance. I have filed affidavits in Dominion Energy North Carolina's 2017 and 2018 REPS cost recovery proceeding, testimony in DEP's 2019 REPS cost recovery proceeding, an affidavit in DEC's 2019 REPS cost recovery proceeding, testimony in New River Light and Power's most recent rate case proceeding, Western Carolina University's most recent rate case proceeding, and testimony in multiple dockets for requests for CPCNs. Additionally, I am currently serving as a co-chair of the National Association of State Utility and Consumer Advocates (NASUCA) DER and EE committee.

1 BY MS. COXTON:

2 Q Mr. Lawrence, have you prepared a summary of your  
3 testimony?

4 A Yes, I have.

5 Q Would you please read that for us?

6 A Yes. The purpose of my testimony is to provide  
7 the Public Staff's recommendations to the  
8 Commission on the Application for a Certificate  
9 of Public Convenience and Necessity filed by Oak  
10 Trail Solar, LLC, or the Applicant, for its  
11 proposed 100-megawatt merchant electric  
12 generating facility in Currituck County, North  
13 Carolina.

14 The proposed facility will  
15 interconnect with PJM. The Applicant has  
16 complied with all of the Commission's filing  
17 requirements to date. However, the Public Staff  
18 has concerns regarding the cost responsibility  
19 for potential effected system upgrades in the  
20 Duke Energy Progress territory.

21 I recommended the Commission  
22 approve the Application subject to the following  
23 conditions: (1) that the Applicant shall file a  
24 copy of its Affected System Operating Agreement;

1 (2) that the Applicant shall file a verified  
2 statement that it is responsible for its portion  
3 of any affected system upgrade costs; (3) that  
4 the Applicant shall notify the Commission of any  
5 significant changes in cost estimates; and (4)  
6 that the Commission shall consider any costs to  
7 be borne by DEP's customers if the Applicant  
8 seeks reimbursement.

9 This completes my summary.

10 MS. COXTON: The witness is available for  
11 cross examination.

12 COMMISSIONER DUFFLEY: Ms. Parrott?

13 MS. ROSS: Thank you. This is Ms. Ross.  
14 I'm going to take cross examination of Mr. Lawrence.  
15 Thank you.

16 COMMISSIONER DUFFLEY: Thank you.

17 CROSS EXAMINATION BY MS. ROSS:

18 Q Good afternoon, Mr. Lawrence.

19 A Good afternoon.

20 Q Starting off, I want to make sure we are on the  
21 same page, that you would agree that Oak Trail  
22 has a fully executed Interconnection Services  
23 Agreement, correct?

24 A Yes.

1 Q And this was filed in the docket as Bristol  
2 Rebuttal Exhibit A on April 30th, 2021?

3 A I believe so, yes.

4 Q Subject to check?

5 A Yes.

6 Q I figured I wouldn't have to say that too often  
7 in this hearing, but subject to check it was  
8 filed April 30th, 2021?

9 A (Nods head affirmatively).

10 Q And to your knowledge, was it filed with the  
11 Federal Energy Regulatory Commission?

12 A I am not aware to that extent. I do know that it  
13 does have to be approved by FERC.

14 Q So, subject to check we'll say it was filed with  
15 FERC?

16 A Yes.

17 Q I will probably fall into the bad habit of  
18 calling this the ISA or the IA, but I'll try to  
19 limit acronyms and hopefully we'll know what each  
20 other means. Before we get into the ISA, if we  
21 could turn to page 5 of your prefiled testimony.  
22 Do you have a copy of that there with you?

23 A Yes.

24 Q And looking, starting at line 10, is this a

1 listing of requests from the Commission in their  
2 Order of December 14th for information from the  
3 Applicant?

4 A That is correct.

5 Q And looking first just at lines 10 through 11, it  
6 says the Applicant is requested to *provide the*  
7 *amount of network upgrades on DENC*, and I'm going  
8 to pause there, skip the *or any other affected*  
9 *system's*, so it would read *provide the amount of*  
10 *network upgrades on DENC's transmission system,*  
11 *if any.* Did the Applicant provide that?

12 A Yes.

13 Q And that was approximately \$10 million, correct?

14 A Yes.

15 Q Subject to check if need be. And then going  
16 back, if we read those lines again with the part  
17 I skipped, it was to *provide the amount of any*  
18 *affected system's transmission system if any.*

19 Did the Applicant provide an amount of any  
20 affected system's transmission system?

21 A There was no known amount to provide so no. The  
22 Applicant can only provide what it has available.

23 Q And you would agree that sitting here today there  
24 are no known upgrades required on any affected

1 system to interconnect and operate Oak Trail?

2 A I agree.

3 Q And there are no affected system's provisions or  
4 terms in the executed Interconnection Services  
5 Agreement that's been provided?

6 A I agree with that. However, I do not believe  
7 that is the intent of the ISA or the fact that  
8 there is the absence of such language means that  
9 there will not be any affected system cost.

10 Q So, let's go through the process for a second.  
11 You would agree that the potentially affected  
12 systems are consulted during the PJM study  
13 process, correct?

14 A That is my understanding, yes.

15 Q And there's documentation filed in the record  
16 that PJM confirmed PJM consulted with Duke in  
17 compliance with its requirements during the study  
18 process, correct?

19 A Yes. There is a, I believe, an email you're  
20 referring to that has been filed in the docket  
21 stating such.

22 Q Sure. And I'll note that it's marked as Bristol  
23 Rebuttal Exhibit G if you want to turn to it.  
24 And you are aware that there's email confirmation

1 from Duke Energy that both of the Oak Trail queue  
2 positions have "no impact", correct?

3 A Yes. However, that does not allay my concerns.  
4 There are still other places in the Affected  
5 System Study Report. Duke has language in there  
6 that it reserves the right to re-study. And  
7 while it may not be listed now, you know, I  
8 haven't seen anything that says for sure that  
9 there's no other existing costs or upgrades will  
10 be required in the future for sure.

11 Q Understood. And before we move on to the AD2  
12 study and the studies, you have no information  
13 sitting here today that the -- Duke's statement  
14 that the project has no impact on its system is  
15 incorrect or has changed, do you?

16 A No. I don't believe that they provided any  
17 corrected statement.

18 Q And sitting here today, you don't have any  
19 information from anyone that Oak Trail's facility  
20 will have any impact on Duke's system, do you?

21 A No, I do not.

22 Q And sitting here today, you don't have any  
23 information that the costs, the interconnection  
24 costs in the executed ISA are not correct, do



1           you?

2       A     No, I have no information stating that they  
3           wouldn't -- that that would not be correct.

4       Q     Okay. Let's turn for a minute to the Affected  
5           System Studies that you mentioned. Setting a  
6           little background, you're aware that Duke Energy  
7           Progress published Affected System Studies for  
8           four of the PJM clusters listed in your  
9           testimony, correct?

10      A     Yes, I believe that is correct.

11      Q     Let's turn to Duke Energy Progress' Affected  
12           System Study for AD2.

13                               For the Commission and your  
14           benefit, this was the sixth attachment to the  
15           potential cross examinations that we provided. I  
16           understand that you have access to all of those  
17           potential exhibits and ask you to turn to that.

18                               COMMISSIONER DUFFLEY: Ms. Ross, do you want  
19           to mark it for identification?

20                               MS. ROSS: I would very much like to and we  
21           would request that this be marked as Lawrence Cross  
22           Examination Exhibit Number 1.

23                               COMMISSIONER DUFFLEY: So marked.

24   (WHEREUPON, Lawrence Cross

1 Examination Exhibit 1 is marked  
2 for identification.)

3 BY MS. ROSS:

4 Q Mr. Lawrence, are you at this AD2 study?

5 A Yes, I do have that in front of me.

6 Q Wonderful. If I can get you to turn to page 2,  
7 at the top it says "purpose" --

8 A Got it.

9 Q -- can you please read the second sentence  
10 beginning with "cluster"?

11 A It says *cluster AD2 includes generation*  
12 *throughout the PJM interconnection, but only*  
13 *those with an impact on DEP system were included*  
14 *in this study.*

15 Q And now the AD2 -- well, let me back-up. Listed  
16 below that on the chart are four queue positions  
17 in the AD2 cluster study, correct?

18 A Yes.

19 Q And it's your understanding that those are the  
20 four AD2 projects with an impact on the DEP  
21 system; is that correct?

22 A I believe that that's the four projects that DEP  
23 has noted at that time and with the parameters  
24 known that have an impact on the DEP system.

1           However, in the assumptions paragraph just below  
2           that it says *further, DEP retains the right to*  
3           *make modifications to power-flow cases as needed*  
4           *if additional information is available or if*  
5           *specific scenarios necessitate changes.* And to  
6           that, that creates uncertainty about the  
7           finalization of these costs and when these costs  
8           may be set. We've seen in other cases and Duke  
9           has stated as such that the affected system cost  
10          can transfer from one system to a -- or one  
11          cluster to the next, and so there is uncertainty  
12          there that I believe needs to be addressed.

13        Q     Now, Mr. Lawrence -- understood. Before we go  
14          too far, going back up to our second sentence in  
15          the purpose, it says *cluster AD2 includes*  
16          *generation throughout the PJM interconnection.* I  
17          think we all agree that the AD2 cluster in itself  
18          has generators that are multiple generation  
19          projects; is that fair?

20        A     Yes.

21        Q     And then the second clause of this says *but only*  
22          *those with an impact on the DEP system were*  
23          *included in this study.* So at the point in this  
24          study that this study is produced, the AD2

1 cluster is known, Duke is looking at those  
2 projects, and isn't it correct based on the  
3 purpose here that it produces a -- it produced  
4 this study and it only included the projects that  
5 had an impact on the DEP system?

6 A That is what that says; however I just point to  
7 that same sentence below in the assumptions  
8 tab --

9 Q And we're going to go there quickly. I just want  
10 to make sure that we're on the same page in  
11 regards to the sentence in the purpose.

12 So looking at the sentence that  
13 you -- well, before we go there, the queue  
14 position for Oak Trail is AD2-160, correct?

15 A That is one of the two. Yes.

16 Q Okay. Yes, the AD2 queue position for Oak Trail  
17 is AD2-160. And you would agree with me that it  
18 is not one of the four listed here on page 2?

19 A I agree it is not listed.

20 Q So turning to the sentence that you pointed out,  
21 *further, DEP retains the right to make*  
22 *modifications to power-flow cases as needed if*  
23 *additional information is available or specific*  
24 *scenarios necessitate changes.* Is it your

1 testimony here today that Duke has the right to  
2 make modifications related to any project or is  
3 it that the power-flow cases and the specific  
4 situations are to those four projects listed in  
5 this study?

6 A My point to that, I don't see anything in this,  
7 in the study or any documentation that I reviewed  
8 that says that it, DEP, does not have the ability  
9 to study more projects. I don't -- again, I  
10 don't believe that they are potential --  
11 intentionally leaving things out or misleading  
12 anybody, generators. However, this study does  
13 have these projects but there is some ambiguity  
14 introduced with that language.

15 Q Thank you. I appreciate that. Turning, if we  
16 may for just a minute, to testimony of your  
17 colleague Jay Lucas that was filed in the docket  
18 for Oak Solar, formerly Gaston Green Acre Solar  
19 which is EMP-112, on March 23rd, 2021.

20 For the Commission and your  
21 benefit, this is the 13th attachment to the  
22 potential cross exhibits we provided and we would  
23 request that this be marked as Lawrence Cross  
24 Examination Exhibit 2.

1                   COMMISSIONER DUFFLEY: It is so marked.  
2                                   (WHEREUPON, Lawrence Cross  
3                   Examination Exhibit 2 is marked  
4                   for identification.)

5 BY MS. ROSS:

6 Q I'll give you just a minute to get there if I  
7 can. Are you there with me, Mr. Lawrence?

8 A I am, yes.

9 Q Great. Turning to page 7 of that testimony,  
10 lines 17 to 19, Mr. Lucas testifies *on March 5th,*  
11 *DEP provided the Public Staff with its latest*  
12 *schedule for completing affected system studies;*  
13 *do you see where I am?*

14 A Yes.

15 Q And this was in response to the question, *what is*  
16 *the latest schedule for DEP's affected systems*  
17 *studies for other facilities in PJM territory,*  
18 *correct?*

19 A Yes.

20 Q And Mr. Lucas provided a schedule that is Lucas  
21 Exhibit 1 that I've asked you to turn to.

22 A Okay.

23 Q Now, this list was provided to the Public Staff  
24 by Duke Energy, correct?

1 A Yes.

2 Q And it is a list of specific queue positions that  
3 are pending Duke affected system studies,  
4 correct?

5 A That is correct.

6 Q And if you look at this with me there are four  
7 AD2 queue positions on the list, correct?

8 A I'm sorry, could you repeat the question?

9 Q Looking at the first page, there are four AD2  
10 queue positions on this list?

11 A And just to clarify, that is "A" and then "D" as  
12 in dog, 2?

13 Q Yes. "A" as in apple, "D" as in dog, 2.

14 A Yes, that is correct.

15 Q My southern accent might get in the way. And  
16 these four AD2 queue positions are the same four  
17 that were identified in Duke Energy Progress' AD2  
18 Affected System Study that we just discussed,  
19 correct?

20 A I believe that is correct.

21 Q Do you want to check?

22 A I can. Yes, that does appear to be correct.

23 Q And Oak Trail doesn't appear to be in the list  
24 Duke provided to Mr. Lucas, correct?

1 A No, but if they were not in the Affected System  
2 Study at the time I can't imagine why they would  
3 also -- why they would include them in this list.  
4 But my previous point still stands.

5 Q And looking down and skipping for a minute onto  
6 AE2 which is the other queue position for Oak  
7 Trail, correct?

8 A Yes.

9 Q And specifically AE2-253?

10 A Yes.

11 Q And if I could, looking at the list here that is  
12 Exhibit 1 to Mr. Lucas' testimony, there are a  
13 number of AE2 queue numbers here, correct?

14 A Yes, I do see several here.

15 Q Okay. Giving you just a minute to look through  
16 those, it is correct that Oak Trail's AE2-253  
17 queue position is not on this list, correct?

18 A It is not; however, I'd say that I have even more  
19 reservations about the finalization of those  
20 studies since there has been no study at all  
21 completed. At least with the AD2 cluster there  
22 has been a study completed but even with  
23 ambiguity around that I'd say that's amplified  
24 with a study that's, you know, a couple of



1 clusters away.

2 Q Understood. Going back to AD2 for just a minute,  
3 you would agree that the AD2 study process and  
4 the report that Duke produced does not include  
5 Oak Trail, correct?

6 A Correct. At this time it does not.

7 Q And if we could, sticking with Mr. Lucas'  
8 testimony --

9 (WHEREUPON, the Court Reporter  
10 requested the witness to repeat  
11 his answer for the record.)

12 THE WITNESS: I said that's -- I believe my  
13 last answer was that is correct at this time.

14 MS. ROSS: I may have been the one to cut  
15 you off. We're good?

16 THE WITNESS: Yes.

17 BY MS. ROSS:

18 Q If we could turn to page 8 of Mr. Lucas'  
19 testimony.

20 A Okay. I'm there.

21 Q Beginning at line 9, these are the recommended  
22 conditions. Again, this is for the Oak Solar  
23 project not to be confused with the docket that  
24 we are here today which is Oak Trail. So I will

1           try very hard to make sure we don't get that  
2           confusion. So this is the Oak Solar docket. Are  
3           these the Public Staff recommended conditions on  
4           page 8 starting at line 9?

5   A       Yes, they are.

6   Q       And are you familiar with these conditions?

7   A       I am familiar with them, yes.

8   Q       And none of these conditions require the filing  
9           of an Affected System Operating Agreement,  
10          correct?

11   A       That's correct.

12   Q       And none of these conditions mention anywhere in  
13          them affected systems, correct?

14   A       That's correct.

15   Q       And this testimony was filed March 23rd, 2021,  
16          correct?

17   A       Yes, that's correct.

18   Q       And is it correct that Oak Solar has an executed  
19          Interconnection Services Agreement?

20   A       I am not sure about that. Subject to check I --

21   Q       Subject to check. I'll indicate that it's PJM  
22          queue AB1-132 and it was filed as Exhibit 5 to  
23          prefiled supplemental testimony in the Oak Solar  
24          docket on February 25th.

1                   Now, we talked about AE2 and AD2  
2                   and we talked about the ISA at the beginning of  
3                   this. It is correct that the Interconnection  
4                   Services Agreement for Oak Trail includes no  
5                   upgrades to any affected systems that are  
6                   required to interconnect and operate Oak Trail,  
7                   correct?

8           A        I'm sorry, could you repeat the question?

9           Q        Sure. The Oak Trail ISA does not include any  
10           upgrades to any affected system that are required  
11           to interconnect and operate Oak Trail?

12          A        That is what the ISA says.

13                   MS. ROSS: Now, going to the conditions that  
14                   Mr. Bristol proposed which would be rebuttal testimony  
15                   on page 11, and we would request this be marked as  
16                   Lawrence Cross Exhibit 3.

17                   COMMISSIONER DUFFLEY: So marked.

18                                   (WHEREUPON, Lawrence Cross  
19                                   Examination Exhibit 3 is marked  
20                                   for identification.)

21          BY MS. ROSS:

22          Q        Are you with me?

23          A        Yes, I am.

24          Q        All right. And if I may have you turn to looking

1 at lines 239 to 255.

2 A Okay.

3 Q Have you read these proposed conditions?

4 A Yes, I have.

5 Q And is it correct that you didn't object that  
6 these conditions be placed on Oak Trail, your  
7 contention is that your proposed conditions,  
8 perhaps in addition to these, should be placed on  
9 Oak Trail?

10 A I'm sorry. Could you repeat that question?

11 Q Is it correct that you did not object to the  
12 conditions that Mr. Bristol's testimony sets  
13 forth, rather you contend that the conditions you  
14 have recommended, perhaps in addition to those  
15 recommended by Mr. Bristol, be placed on the CPCN  
16 for Oak Trail?

17 A That is correct. These are conditions that we  
18 have filed in other dockets, I believe as  
19 Mr. Bristol notes in his testimony, so --

20 MS. ROSS: And so now turning on that note  
21 to the conditions -- excuse me, the Certificate for  
22 Public Convenience and Necessity issued to Camden  
23 Solar in EMP-109, which I would point to the  
24 Commission and to the witness was the ninth attachment

1 to the potential cross exhibits we provided and --  
2 excuse me, we would request that be marked as Lawrence  
3 Cross Exhibit 4.

4 COMMISSIONER DUFFLEY: It shall be marked as  
5 Lawrence Cross Examination Exhibit Number 4.

6 MS. ROSS: Thank you. Apologies for not  
7 saying the full name.

8 (WHEREUPON, Lawrence Cross  
9 Examination Exhibit 4 is marked  
10 for identification.)

11 THE WITNESS: I've got that in front of me  
12 now.

13 BY MS. ROSS:

14 Q All right. And if I could, do you agree that the  
15 Camden Solar facility triggered no required  
16 affected system upgrades in its interconnection  
17 settings?

18 A That's my understanding, yes.

19 Q Okay. And would you agree that the Camden Solar  
20 facility had a fully executed Interconnection  
21 Agreement at the time the CPCN was issued?

22 A I do believe that is the case.

23 Q And now it is correct that Oak Trail is in the  
24 same position that Camden Solar was in when the

1 Commission entered the Order approving Camden  
2 Solar's CPCN, correct?

3 A To that extent, yes. However, these are  
4 different facilities and different areas,  
5 different cases. The facts of the case are  
6 different. When you point out those two facts  
7 there, yes, they are the same; however it's -- I  
8 don't believe it's appropriate to narrow down the  
9 whole case to those two facts.

10 Q Understood. And it's -- is it correct that the  
11 Camden Solar facility, if you know, is in Camden  
12 County, North Carolina, which is a good distance  
13 from the seam between Duke Energy Progress and  
14 Dominion, correct?

15 A Yes.

16 Q And it's fair to say that Oak Trail is in  
17 Currituck County, testing your geography, which  
18 is also a good distance from the seam between  
19 Duke Energy Progress and Dominion, correct?

20 A Yes. However, when these projects are connected,  
21 this project, Camden Solar was connected at the  
22 distribution level so that is substantially  
23 different than this project which is connected at  
24 the transmission level, and the transmission

1 system is designed to take energy across large  
2 areas and large distances fairly efficiently.  
3 So, the fact that one -- these two projects are  
4 different distances away, again, they are very  
5 different projects. So, I'm -- those are facts  
6 for each but I don't believe that they have much  
7 relation to each other.

8 Q And you would -- but you would agree that Camden  
9 Solar was part of an Affected System Study  
10 cluster; excuse me, a cluster of affected systems  
11 that was studied, correct?

12 A Yes, it was. And after the -- some time after  
13 the study and Duke revised its study, there have  
14 been changes made. And so it determined that  
15 while I believe that the Camden Solar project was  
16 MP -- AC1 Affected System Study, those upgrades  
17 were later moved to I believe the AB2.

18 Q So you would agree that the Camden Solar while  
19 attached -- interconnecting with a distribution  
20 system was studied in the same way that Oak Trail  
21 has been studied through the PJM cluster process  
22 and the Duke affected system process?

23 A Yes.

24 Q And if I could get you to turn to what we marked

1 as Lawrence Cross Examination Exhibit 4?

2 A I'm sorry, which document was that? I'm not  
3 marking them as we go.

4 Q Sure. This is the Camden Solar CPCN Order.

5 A Okay. I'm there whenever you're ready.

6 Q Bear with me while I get there as well.

7 COMMISSIONER DUFFLEY: While Ms. Ross is  
8 looking at the document, how are you doing, Kim  
9 Mitchell? When would you like a break?

10 (WHEREUPON, the Court Reporter  
11 indicated with a thumbs up.)

12 COMMISSIONER DUFFLEY: Okay.

13 BY MS. ROSS:

14 Q Thank you. So looking at the CPCN Order for  
15 Camden Solar, turning to the fourth page of that  
16 Order, there are four conditions that the  
17 Commission placed on Camden Solar, correct?

18 A That is correct.

19 Q And are these four conditions similar to those  
20 that have been proposed by Oak Trail through  
21 Witness Bristol's rebuttal?

22 A That is correct. But again, these are two very  
23 different projects.

24 Q And if I may get you to address -- at the



1 beginning there was a change to your testimony  
2 that was filed that removed prefiled testimony  
3 beginning at page 6, beginning on line 30, which  
4 started with any -- *if any network upgrades for*  
5 *four to six, other clusters are necessary to meet*  
6 *altercation.* Am I in the right place?

7 A Yes, yes.

8 Q And that revision to your testimony was filed on  
9 Friday, correct?

10 A Yes, that is correct.

11 Q And was it -- was your testimony -- it was filed  
12 and revised because that paragraph is not  
13 accurate, correct?

14 A That is correct, yes.

15 Q And if you look a little further down on page 7,  
16 line 13; do you see where I am?

17 A Yes.

18 Q You state that *because of the tentative nature of*  
19 *projects in the queue, costs can be shifted from*  
20 *one cluster to another.* Do you see that?

21 A Yes.

22 Q And it is correct that that sentence should also  
23 be struck from your testimony as not being  
24 accurate?

1 A No, that is incorrect. That sentence should  
2 stay. And as we've seen as Duke has filed in  
3 comments, I believe it is a document in these,  
4 it's E-100, Sub 170 comments. It stated  
5 themselves that they've moved costs from -- and  
6 upgrades from one cluster to another. So that  
7 sentence is still accurate.

8 Q And it would be correct that it would move --  
9 costs could move with respect to certain projects  
10 from one cluster to another, but it would not be  
11 correct that projects such as Oak Trail that had  
12 no upgrades required, upgrades to an affected  
13 system required through the study process, no  
14 costs could be attributed to them from one  
15 cluster to the next, correct?

16 A I disagree with that statement. I've not seen  
17 any evidence that states that these affected  
18 system costs are final. I've seen things that  
19 suggest that at this time this is the best known  
20 information, but I've seen things actually to the  
21 contrary of them being final, that the affected  
22 system costs and studies can change as more  
23 information becomes available. And I don't know,  
24 and the Public Staff, we aren't aware of at what

1 point that final date is, whether it's when  
2 facility is constructed, when further studies are  
3 completed, or if it is final now. You know, we  
4 just have not seen information that says when  
5 they are final.

6 Q Now, Mr. Lawrence, you would agree that if a  
7 later queued project is contingent on a prior  
8 queued project that that contingency would be  
9 reflected in the interconnection study reports  
10 for the later queued project?

11 A If a network upgrade is required for projects to  
12 connect, it is listed in there. Yes.

13 Q And there are no contingent upgrades related to  
14 earlier queued projects in any of the Oak Trail  
15 studies or in the executed ISA, correct?

16 A That is correct. None are listed at this time.

17 Q Bear with me one moment.

18 Thank you, Mr. Lawrence.

19 MS. ROSS: At this time, Commissioner  
20 Duffley, we have no further questions.

21 COMMISSIONER DUFFLEY: Thank you, Ms. Ross.

22 Ms. Coxton?

23 MS. COXTON: We have a few questions on  
24 redirect.

1 COMMISSIONER DUFFLEY: Okay.

2 REDIRECT EXAMINATION BY MS. COXTON:

3 Q Mr. Lawrence, would you remind us what your  
4 recommendation is in this docket?

5 A I'm sorry, I didn't -- I could not hear you.

6 Q Would you remind us what you're recommending in  
7 this docket?

8 A Yes. I am recommending that this certificate be  
9 approved and that it be approved with conditions  
10 that the Public Staff feels necessary to protect  
11 ratepayers.

12 Q And would you remind us what the Public Staff  
13 mission is?

14 A We have a duty to protect the Using and Consuming  
15 Public. And I believe in this case it would be  
16 ratepayers of Duke Energy Progress or any other  
17 that may be affected by these projects.

18 Q And I would like for you to go back just to two  
19 points that Ms. Ross mentioned. She discussed  
20 and distinguished between the current docket and  
21 two other EMP dockets, and so would you agree  
22 that the Public Staff's approach in evaluating  
23 EMP dockets is nuanced and ever-evolving based on  
24 how things in the industry are changing?

1 A Yes, absolutely. Every project is different.  
2 Every -- you know, we -- our process is evolving.  
3 We look at each project individually and decide  
4 on the recommendations that we believe are best.  
5 It's not a one-size-fits-all approach by any  
6 means. It's not meant to be. And we have to do  
7 what's best for ratepayers and what we feel is  
8 fair for the facility.

9 Q And would you agree that the -- our  
10 recommendations in this docket are intended to  
11 protect North Carolina retail ratepayers from  
12 uncertainty in the Affected System Study cost  
13 process?

14 A Yes, I would agree with that.

15 MS. COXTON: Nothing further.

16 COMMISSIONER DUFFLEY: Thank you. Chair  
17 Mitchell?

18 EXAMINATION BY CHAIR MITCHELL:

19 Q Good afternoon, Mr. Lawrence. I have a few  
20 questions for you and I will be quick. So let me  
21 get my notes together here.

22 So I'm going to start at the end  
23 here following up on a question your counsel just  
24 asked you. So in this case the Public Staff is

1 recommending that the CPCN Application be granted  
2 and you all have proposed several conditions that  
3 the Commission should attach to that approval.  
4 And I want to ask you about that fourth  
5 condition, which it's on page 10 of your  
6 testimony. It begins on page 10 if you want to  
7 look at it to refresh your recollection. But in  
8 short, the Public Staff recommends that if the  
9 Applicant seeks reimbursement for any cost  
10 associated with interconnection - I'm  
11 paraphrasing there - that the Commission weigh  
12 those costs to be borne by DEP's retail and  
13 wholesale customers with the generation needs and  
14 the state or the region consistent with its Order  
15 in the Friesian docket.

16 So, from a procedural standpoint,  
17 help me understand the Public Staff's  
18 recommendation. What are you all -- are you all  
19 envisioning filing a motion for reconsideration  
20 or the Commission exercising its authority under  
21 62-80? I mean, what does the Public Staff  
22 envision there with respect to that specific  
23 condition?

24 A Well, that of course plays into our

1 recommendations that the cost updates be filed.  
2 And so, through the cost updates we'd look and if  
3 we believe that at some point their costs rise to  
4 a need to be concerned that we, I don't believe,  
5 certainly would not limit ourselves to what we  
6 think would be appropriate. I'm not sure at this  
7 time that I can comment very much on what would  
8 be appropriate, what the appropriate amount would  
9 be, the appropriate procedure. It's difficult to  
10 say now, but I just think whether it would be  
11 through an informational filing or rise to the  
12 need of a motion for reconsideration. I believe  
13 that is something we would reserve.

14 Q Okay. And thank you, Mr. Lawrence. And I  
15 certainly don't expect the Public Staff to have a  
16 range of appropriateness or an articulated level  
17 of concern at this point, but I just was curious  
18 about what you all were envisioning from a  
19 procedural standpoint. It does seem though that  
20 you all are thinking about sort of an ongoing  
21 review or at least continuing to have oversight  
22 of costs associated with the project; is that  
23 correct with this project and with others, I  
24 assume?

1 A Yes. And it is my understanding that it is  
2 not already -- that may already be covered within  
3 the Statute. I, of course, am not an attorney  
4 but this is a way to at the bear minimum to put  
5 it on paper and to make an applicant aware of it.  
6 We don't -- we want to be upfront with them. We  
7 want -- we don't want some kind of situation to  
8 arise in the future and then all of a sudden  
9 someone be blindsided by something. We want to  
10 be fair and we want to be consistent. And this  
11 is one way to approach that.

12 Q Okay. Understood. Thank you for that response.  
13 We've talked some today about the Affected System  
14 Study costs that are identified for projects. I  
15 understand that none have been identified for  
16 this project. And I've heard you discuss or  
17 mention uncertainty with respect to certain costs  
18 or lack thereof associated with this project.  
19 And so, help me understand, at what point in time  
20 does the Public Staff consider costs to be final?  
21 Because right now I understand your testimony to  
22 be that there really -- at least with respect to  
23 this project, you all are not there yet. You  
24 don't consider these costs that are identified in



1 the ISA to be final. Would the -- will the  
2 Public Staff ever get to that place of feeling  
3 like the final costs have been identified for the  
4 project?

5 A Well --

6 Q And that's a complicated question and I  
7 apologize, but I think you can understand my  
8 concerns. Can you just speak to it?

9 A Yes. If it's okay with you I'd like to  
10 recharacterize the final costs as more of where  
11 we believe there is a small enough risk to  
12 ratepayers that we're comfortable with, because  
13 I'm not sure ever at what point there are final  
14 costs. However, with earlier queued projects  
15 such as the Camden Solar project, the project in  
16 EMP-112, Sub 0, there were studies that have been  
17 completed after those projects or clusters, and  
18 one was the AC1 cluster, and we're at the AD2,  
19 and "D" as in dog, cluster that has been  
20 completed, and we seem to be far enough removed  
21 from that that we're comfortable with no affected  
22 system cost being assigned there and for this  
23 project as well, you know.

24 On that front there is also an AE2

1 interconnection queue number and so that raises  
2 this to a little bit more of a concern. So once  
3 we're a couple studies past that we'd be  
4 comfortable and we can be comfortable with this  
5 project as well before that point through other  
6 means as well. That certainly isn't the only  
7 way.

8 There was some sort of  
9 verification from some party certifying that  
10 there wouldn't be costs passed onto ratepayers.  
11 We'd be comfortable at that point without having  
12 to know the certainty of the project costs or the  
13 affected system costs.

14 Q Okay. Can you speak a little -- just follow up  
15 there, Mr. Lawrence; verification, what are you  
16 envisioning there? What are you -- be specific  
17 about what you all would find helpful.

18 A Well, in my recommendations -- I'm sorry, I'm  
19 just reviewing to make sure. So, under the  
20 second one we asked for a verification stating  
21 the Applicant's understanding the costs are  
22 recovered are not -- sorry -- are not able to be  
23 recovered by ratepayers under the current OATT.  
24 You know, a verification from the Applicant

1           stating that they will not seek recovery of any  
2           potential costs. Again, understanding that right  
3           now there are none identified. Something from  
4           Duke Energy, a verified statement from them  
5           stating that the costs for this specific project  
6           are final as from an affected system point, and  
7           that there are a zero dollar cost and it will  
8           remain that way.

9       Q     Has the Public Staff had conversations with any  
10           of the utilities about that kind of statement? I  
11           mean, is that something that you all believe that  
12           the utilities would be willing to provide?

13       A     We have not. We are working with utilities,  
14           specifically, Duke Energy Progress through the  
15           kit meetings set up to further understand these  
16           issues and processes and the potential for cost  
17           shifting and when the final costs are. And so  
18           those conversations are being had but at this  
19           point we have not.

20       Q     Okay. Thank you. Mr. Lawrence, in your  
21           testimony on page 8 you reference the filing that  
22           DEC and DEP made at the FERC back last fall. And  
23           I guess Duke Energy Florida made the filing as  
24           well. It pertains to this ASOA template under

1 the OATT and essentially, just paraphrasing the  
2 filing, would provide that the affected system  
3 network upgrade costs shall be solely funded by  
4 the customer. Is there any -- can you provide us  
5 with a status update there? Has the FERC taken  
6 any action there or has any party taken any  
7 action at the FERC with respect to that revision  
8 sought by the Duke Utilities?

9 A I am not aware of any action that has been taken.  
10 I don't know that there hasn't been. I don't  
11 know that there has. I do know that since that  
12 provision has been made, so since October 1st  
13 Duke has filed were FERC the -- some Executed  
14 Affected System Operating Agreements with the  
15 language in it and those did come back without a  
16 problem. Duke does discuss that in their, I  
17 believe that is their reply comments in the  
18 E-100, Sub 170 docket. But that doesn't  
19 necessarily mean acceptance of that language to  
20 me. That means that no party challenged it. And  
21 so if a party were to challenge it in be the  
22 future, I don't know that FERC would not overturn  
23 that.

24 Q Okay. So that brings me to my next question. So

1           what if another party, wholly unrelated to Oak  
2           Trail, filed some sort of challenge at the FERC  
3           to that revision that the Duke's have made to  
4           their OATT and the associated agreements under  
5           the OATT? And then for whatever reason Oak Trail  
6           benefited from a change that the FERC approved  
7           such that Oak Trail were then able to seek  
8           reimbursement of costs that it otherwise incurred  
9           to interconnect or upgrade networks or systems to  
10          facilitate the interconnection of its project?  
11          So would your -- I mean, what would the Public  
12          Staff's position be with respect to those costs?  
13          Oak Trail by no fault or reason of its own  
14          benefited from this type of change.

15        A    Well, in that situation there would, of course,  
16            had to be the affected system costs. I would  
17            believe that would be the most likely scenario  
18            since this PJM process has been in place for a  
19            substantial amount of time, and I believe FERC  
20            has explicitly approved that. And so at that  
21            time if they were able to -- if there weren't  
22            system upgrade costs, affected system upgrade  
23            costs and then they were able to recover them, I  
24            believe we have contemplated that and I'm not

1 really able to speak to the legality of whether  
2 that would stand. I do know we have -- of  
3 course, we have attorneys here who did consider  
4 that and did evaluate it and --

5 Q So, under that scenario does the Public Staff  
6 think that the CPCN for the facility should be  
7 revoked? I mean, what does the Public Staff  
8 think is the appropriate consequence there?

9 A Not necessarily revocation (sic), or revocation,  
10 but I believe that it would need to be considered  
11 similar to how the Friesian case was. That was  
12 such a substantial amount of costs at the time  
13 that -- of course, we did not believe that that  
14 was fair to ratepayers, and so I do believe that  
15 is an extreme example. But, of course, if this  
16 facility hypothetically came back and had  
17 \$220 million worth of affected system costs that  
18 were going to be passed on to Duke Energy  
19 Progress ratepayers, we would have a substantial  
20 problem with that. And I believe at that time we  
21 would ask for the status of the CPCN to be  
22 reevaluated.

23 Q Okay. Understood. The -- and then just help  
24 me -- last question for you, Mr. Lawrence. And I

1 appreciate your hanging in here with me. We're  
2 getting close to the end of the day.

3 So when a customer seeks  
4 reimbursement for costs that it outlays, it goes  
5 to the utility for reimbursement, correct?

6 A I believe so.

7 Q When an interconnection customer -- just so the  
8 record is clear, when an interconnection customer  
9 is looking for reimbursement of costs it goes to  
10 the utility for such reimbursement; is that  
11 right?

12 A Yes.

13 Q Okay. And then the utility comes to the  
14 Commission to seek, among other types of costs to  
15 be recovered, that bucket of costs that its had  
16 to pay out to the interconnection customer; is  
17 that right?

18 A Yes.

19 Q So, is the Public Staff thinking -- I mean, how  
20 do we -- if the interconnecting customer is  
21 allowed to recover from the utility, our only --  
22 the Commission's only recourse is as to that  
23 utility, right? I mean, we can't -- we would  
24 tell the utility you can't recover these costs.

1 Is that what the Public Staff is -- help me sort  
2 of understand the Public Staff's position with  
3 respect to what to do with costs that materialize  
4 under this scenario of sort of subsequently  
5 allowed reimbursement.

6 A That is a complicated situation. And I believe  
7 there would be issues in this situation from  
8 FERC-approved costs telling a utility that they  
9 cannot recover those costs.

10 Q Right.

11 A I don't know, again, the legality of that, but I  
12 believe that is one reason why we are  
13 recommending the conditions that we are, too. At  
14 the earliest point possible if those costs arise  
15 for us to know about it and to be able to try to  
16 make a determination on the situation with  
17 minimal risks to everybody involved.

18 Q Okay. And last question. In the discussions  
19 that you all have had and continue to have with  
20 the utilities about -- you know, as we all learn  
21 more about the study process for these big  
22 merchant facilities, I mean, are we going to see  
23 an improvement in the timing of these studies and  
24 the transparency of these studies? I mean, I



1 just -- are we going to see some sort of change  
2 here in the way this information is provided to  
3 regulators, to market participants?

4 A I hope so. As far as the market participants go,  
5 we've had -- asked for these conditions in other  
6 dockets where the Applicant's have accepted it.  
7 So other applicants are willing to take that  
8 risk. They believe that risk is appropriate for  
9 them. They -- overall, it seems that market  
10 participants aren't unhappy with the -- any  
11 ambiguity around these issues with these studies.  
12 I believe it would be very helpful for us in  
13 these situations if it was more clear. And, you  
14 know, with the amount of generation that's  
15 seeking to interconnect into the PJM system in  
16 North Carolina, I'm not sure that this process is  
17 going to get faster or on an individual project  
18 level. That -- it would just be taking an  
19 extreme amount of manpower to accomplish. So,  
20 you know, those are, of course, our concerns.  
21 However, from the front end, if at some point we  
22 will feel comfortable that this, the Dukes'  
23 change to their Affected System Tariff and the  
24 customers won't be able to recover costs for the

1 affected system upgrades. And at that point,  
2 when they're not able to recover costs from PJM,  
3 they're not able to recover costs from Duke, the  
4 impact to ratepayers on every side is going to be  
5 minimal for those projects. So, I do see this  
6 improving but at what point I don't know.

7 Q Okay. Thank you, Mr. Lawrence.

8 CHAIR MITCHELL: I have nothing further.

9 COMMISSIONER DUFFLEY: Thank you, Chair  
10 Mitchell.

11 Commissioner Clodfelter?

12 COMMISSIONER CLODFELTER: I do not have any  
13 questions.

14 COMMISSIONER DUFFLEY: Mr. Lawrence, I have  
15 a few questions.

16 EXAMINATION BY COMMISSIONER DUFFLEY:

17 Q I'd first like to follow up on the line of  
18 questions from Ms. Ross. It seems like the  
19 witnesses for the Applicant are stating that all  
20 projects within a PJM study cluster are not  
21 interdependent with each other and that some  
22 projects within a study cluster can require  
23 upgrades and some projects within this study  
24 cluster will not require upgrades. What is your

1 response to that? Do you agree with that  
2 statement?

3 A Yes, I do, especially for these clusters. We see  
4 what's here in North Carolina and, however,  
5 PJM -- these clusters are for all of PJM which  
6 expands over several states throughout the  
7 northeast. So they absolutely do not include  
8 every project in that cluster. It would only be  
9 the ones for the affected system in the general  
10 vicinity of North Carolina. It's hard to -- I  
11 don't think there is a hard boundary of where  
12 they may or may not be. But I do agree with that  
13 characterization of theirs, yes.

14 Q Okay. I think they provided you some evidence  
15 that since their queue numbers were not within  
16 the Affected System Study that there were no  
17 affected systems associated with this project.  
18 And I believe I heard and I just want to confirm  
19 what I heard, that you're not positive that it  
20 will remain that way? Is that an accurate  
21 characterization of what I heard your testimony  
22 to be?

23 A That is correct, yes.

24 Q Okay. And then they also -- the Applicant seems

1 to suggest that when a facility is physically  
2 located very far away from the DENC/DEP seam that  
3 it's highly unlikely to have affected system  
4 costs. Do you agree with that or do you feel  
5 like affected system costs can be -- or they can  
6 be triggered by a facility far away from the  
7 seam?

8 A I believe the further away you go from an area  
9 the less likely you are to impact that area.  
10 However, as I stated earlier, the transmission  
11 system is designed to carry energy over a long  
12 distance and a large area. So this -- where the  
13 project is located is absolutely not free of  
14 affecting DEP's system. I'm not saying that this  
15 one absolutely will or that one will in the  
16 future. But one if the right conditions were  
17 present, one in Currituck County could have  
18 impacts on DEP's system.

19 Q And then turning to your testimony on page 7. So  
20 Witness Bristol disagreed with your testimony  
21 that costs for earlier queued facilities can be  
22 pushed forward to the Oak Trail facility if  
23 earlier queued facilities drop out of the queue.  
24 And I heard you on cross examination state that

1           you didn't agree with that. Can you just further  
2           explain why you believe that these cost shifts  
3           from one cluster to another can happen?

4       A     So, I believe within my testimony they -- this  
5           project does have an ISA. Their PJM costs are  
6           set. But for affected system costs, Duke -- and  
7           they discussed this in their -- I can't remember  
8           if it's their reply comments or initial comments  
9           in the E-100, Sub 170 docket, but they do state  
10          that the costs and upgrades for one cluster have,  
11          they have seen them shift to another cluster  
12          because of changes within the generator sizes and  
13          projects that stay in the queue, or if projects  
14          drop out that might extend the need for a system  
15          upgrade to a later date. And so that -- we have  
16          seen examples of that. That's not just a  
17          possibility. It has been a reality.

18       Q     Thank you, Mr. Lawrence.

19                   COMMISSIONER DUFFLEY: I have no further  
20           questions. Questions on Commission questions?

21       Ms. Ross?

22                   MS. ROSS: Yes, very briefly if I may.

23       EXAMINATION BY MS. ROSS:

24       Q     Mr. Lawrence, Oak Trail, the Applicant, has

1           stated in its testimony that it will not be  
2           reimbursed for the interconnection costs outlined  
3           in the studies and in the executed ISA, correct?

4       A     It has stated that, yes.

5       Q     And your recommended Condition - I'll get there -  
6           Number 2 that you reference in the verified  
7           statement, your condition is not only asking the  
8           Applicant to make a verified statement, which we  
9           would submit they already have, acknowledging  
10          under the current Duke affected systems business  
11          procedure in PJM's OATT that it would not be  
12          reimbursed, but you are also asking in your  
13          conditions for the Applicant to make a statement  
14          that it prospectively gives up some potential  
15          hypothetical legal right should the world change  
16          at some point. Is that a fair characterization  
17          of the conditions as proposed and drafted?

18       A     I'm sorry, did you do -- state that they -- in  
19           the testimony it had been stated that this  
20           facility would not seek reimbursement of any  
21           affected system costs or just the PJM cost?

22       Q     Any interconnection costs which would be both  
23           network upgrades and affected system costs, the  
24           Applicant has stated that it would not seek

1 reimbursement for those costs. And again --

2 A Okay. I have not seen and I certainly could have  
3 misread that in the testimony and the Application  
4 that it says the affected system costs. I have  
5 seen -- I'm aware the Applicant has stated about  
6 the PJM costs. And so to the extent that the  
7 Applicant has stated that it would not seek  
8 reimbursement for those costs and its facility,  
9 and you say that would be a verified statement,  
10 then I don't see any issue -- I don't see why the  
11 Applicant would have any issue with simply filing  
12 a letter stating such.

13 Q Sure. And just again, making sure the record is  
14 clear, there are no known affected systems'  
15 upgrades required for Oak Trail as we sit here  
16 today?

17 A As we sit here today, yes.

18 Q And in each of the conditions there's a reference  
19 to affected systems, each of your proposed  
20 conditions, and the first one states the  
21 Applicant shall file a copy of an  
22 executed Affected System Operating Agreement,  
23 correct?

24 A Yes.

1 Q And there is no ASOA for this project, correct?

2 A Right. And so that would be as applicable. Of  
3 course, you cannot file something you don't have.

4 Q Thank you. That would be our contention. And  
5 you've talked about in response to Commissioner  
6 Duffley's questions about cost shifts turning to,  
7 back to page 7 of your testimony, correct? And I  
8 believe there was a reference to what starts  
9 there is line 3, *if generator projects*.

10 A I do not believe she referenced a specific place;  
11 it was a general reference.

12 Q Okay. Then I'll reference starting at the bottom  
13 of page 6 and going into page 7.

14 A Okay.

15 Q Is this a portion of your testimony that you  
16 testified earlier was removed?

17 A Yes. And in my answer I did state that this  
18 portion of the testimony would have applied to  
19 the PJM interconnection costs and I did state  
20 that at this point those costs were known and so  
21 there is no potential for cost shift.

22 Q Thank you, Mr. Lawrence.

23 MS. ROSS: At this point, we have no  
24 additional questions.



1 COMMISSIONER DUFFLEY: Ms. Coxton?

2 MS. COXTON: I have just a few.

3 EXAMINATION BY MS. COXTON:

4 Q The first thing I would like to go back to is  
5 there were some questions raised about sort of  
6 the proximity of the facility to the seam between  
7 the facility territory. And is it fair to say  
8 that in the Public Staff's mind that the location  
9 relative to the seam is important but is not  
10 necessarily dispositive because of the sheer  
11 amount of solar that may be interconnecting in  
12 the future, so we have concerns that extend  
13 further out and that might be immediately obvious  
14 because of that?

15 A That is correct. And I would just like to  
16 reiterate that the -- well, a facility in  
17 Currituck County was of -- with great conditions  
18 could absolutely have effects on DEP's system.

19 Q Okay. And then to go back to what you were just  
20 discussing with Ms. Ross, in our mind the  
21 testimony -- Oak Trail's testimony seems to set  
22 up a distinction between interconnection costs  
23 and affected system costs. Is that how we  
24 interpret their testimony?

1 A Yes, that's correct.

2 Q And we interpret their testimony that the  
3 interconnection costs are known and they are  
4 covered in the document they've executed with  
5 PJM?

6 A Yes.

7 Q Our concern is that there are affected system  
8 costs yet unknown, as all studies have not been  
9 completed or some projects are in nascent stages  
10 or whatnot, and that's the reason why there is  
11 uncertainty in our mind about affected system  
12 costs; is that correct?

13 A Yes, that's correct.

14 Q And then part of the reason that we are  
15 recommending that the CPCN be issued with these  
16 conditions is to protect ratepayers if something  
17 was not 100 percent accurate in those early  
18 affected system determinations?

19 A That's correct.

20 MS. COXTON: Nothing further.

21 COMMISSIONER DUFFLEY: Thank you. And for  
22 clarification of the record, my question regarding the  
23 cost shifts, I was looking to Mr. Lawrence's testimony  
24 on page 7, lines 12 through 16 of his original

1 testimony.

2 Are there any questions now with that  
3 clarification from Ms. Ross or Ms. Coxtton on that?

4 MS. ROSS: Not from me.

5 MS. COXTON: (Shakes head no).

6 COMMISSIONER DUFFLEY: Okay. Thank you. So  
7 I will take motions?

8 MS. ROSS: We have no motions.

9 COMMISSIONER DUFFLEY: Do you want to move  
10 in your cross examination exhibits 1 -- Lawrence Cross  
11 Examination Exhibits 1 through 4?

12 MS. ROSS: Yes, apologies. I thought we had  
13 taken those as we went through them. Yes, we would  
14 like to move Lawrence Cross Examination Exhibits 1  
15 through 4 into the record.

16 COMMISSIONER DUFFLEY: Any objection?

17 MS. COXTON: No Commissioner.

18 COMMISSIONER DUFFLEY: Without objection,  
19 that motion is allowed.

20 (WHEREUPON, Lawrence Cross  
21 Examination Exhibits 1 through 4  
22 are received into evidence.)

23 COMMISSIONER DUFFLEY: And for safety's  
24 sake, Ms. Coxtton, have you moved in Mr. Lawrence's

1 testimony and his exhibits?

2 MS. COXTON: He doesn't have exhibits. I  
3 would like to move in his testimony if I did not do  
4 that at the beginning.

5 COMMISSIONER DUFFLEY: Any objection?

6 MS. ROSS: No objection.

7 COMMISSIONER DUFFLEY: And that motion is  
8 allowed.

9 (REPORTER'S NOTE: The testimony of  
10 Evan D. Lawrence was previously  
11 included in the record.)

12 COMMISSIONER DUFFLEY: Ms. Coxton, anything  
13 further?

14 MS. COXTON: Nothing further from the Public  
15 Staff at this time.

16 COMMISSIONER DUFFLEY: Okay. Thank you.

17 (The witness is excused)

18 COMMISSIONER DUFFLEY: Kim Mitchell, it is  
19 four o'clock. Do you need a five-minute break?

20 COURT REPORTER: (Shakes head no).

21 COMMISSIONER DUFFLEY: Okay. Well, let's  
22 keep moving forward. Ms. Ross?

23 MS. ROSS: Absolutely. At this time we  
24 would call Frank Bristol to the stand in rebuttal.

1 FRANKLIN BRISTOL;  
2 having been duly affirmed,  
3 testified as follows:

4 DIRECT EXAMINATION BY MS. ROSS:

5 Q Mr. Bristol, if you would please state your name  
6 and business address for the record?

7 A My name is Franklin Bristol. My business address  
8 is 6688 North Central Expressway, Suite 500,  
9 Dallas, Texas 75206.

10 Q And by whom are you currently employed and in  
11 what capacity?

12 A Leeward Renewable Energy. I'm the Vice President  
13 of Transmission for Leeward.

14 Q Did you cause to be prefiled 12 pages of rebuttal  
15 testimony on April 30th, 2021, in Q and A form?

16 A I did.

17 Q And do you have any changes or corrections to  
18 your testimony?

19 A I do have one correction.

20 Q Would you please describe that correction?

21 A There was a cost figure in the original testimony  
22 that appeared inaccurate compared to the -- I  
23 would call a typo -- but inaccurate compared to  
24 the filed ISA. The cost should be noted as

1           \$10,002,324.

2       Q     And would that be on page 3, lines 60 to 61 in  
3           your testimony?

4       A     It would.

5       Q     If I were to ask you the same questions today  
6           with that correction, would your answers be the  
7           same as they appear in your prefiled testimony?

8       A     They would be.

9           MS. ROSS: At this time I would move that  
10       Mr. Bristol's prefiled rebuttal be copied into the  
11       record as if given orally from the stand and that the  
12       exhibits to his testimony be marked for identification  
13       and included in the record.

14           COMMISSIONER DUFFLEY: Any objection?

15           MS. COXTON: No, ma'am.

16           COMMISSIONER DUFFLEY: Hearing none, your  
17       motion is allowed.

18           MS. ROSS: Thank you.

19                   (WHEREUPON, Bristol Rebuttal  
20       Exhibits A through D are marked  
21       for identification as prefiled and  
22       received into evidence.)

23                   (WHEREUPON, the prefiled rebuttal  
24       testimony of FRANKLIN BRISTOL is

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copied into the record as if given orally from the stand.)

PREFILED REBUTTAL TESTIMONY OF  
FRANK BRISTOL  
ON BEHALF OF OAK TRAIL SOLAR, LLC

NCUC DOCKET NO. EMP-114, Sub 0

1

**INTRODUCTION**

2

**Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS**

3

**ADDRESS.**

4

A. My name is Franklin (“Frank”) Bristol. I am the Vice President of

5

Transmission for Leeward Renewable Energy, LLC (“Leeward”). My business

6

address is 6688 N. Central Expressway, Suite 500, Dallas, TX 75206.

7

**Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL**

8

**EXPERIENCE.**

9

A. I have over 25 years of experience working in an interconnection

10

and transmission capacity in the field of large scale energy infrastructure. I

11

joined Leeward in 2019. Prior to joining Leeward, I worked for Acciona Energy,

12

American Transmission Company, and Exelon Corporation. I have a BSEE from

13

the University of Illinois at Urbana-Champaign with an emphasis in Power

14

Engineering.

15

**Q. PLEASE SUMMARIZE YOUR CURRENT EMPLOYMENT**

16

**RESPONSIBILITIES.**

17

A. My current responsibilities include overseeing interconnection and

18

transmission arrangements for new wholesale generation development for

19

Leeward, including the Oak Trail Solar, LLC (“Oak Trail”) solar facility (the

20

“Facility”).



21 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS**  
 22 **COMMISSION?**

23 A. No.

24 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

25 A. The purpose of my rebuttal testimony is to respond to the testimony  
 26 of Evan D. Lawrence of the Public Staff filed on May 22, 2021 and provide  
 27 alternate proposed CPCN conditions for the Commission's consideration.

28 **PJM Interconnection Costs**

29 **Q. DO YOU AGREE WITH PUBLIC STAFF'S STATEMENTS THAT**  
 30 **OAK TRAIL'S PJM INTERCONNECTION COSTS ARE SUBJECT TO**  
 31 **CHANGE?**

32 A. No. Specifically, I disagree with the following statement made by  
 33 Public Staff witness Lawrence at pages 6-7 of his testimony:

34           The Facility is part of PJM's AD2 and AE2 interconnection  
 35           clusters. If any network upgrades for four to six other  
 36           clusters (AB2, AC1, AC2, AD1, AD2, and AE1) are  
 37           necessary or need alteration, they may need to be  
 38           completed before the Facility can begin full operation. If  
 39           generator projects from these previous clusters do not come  
 40           to fruition, the planned upgrades could be pushed to later  
 41           clusters. If projects from these previous clusters do come to  
 42           fruition, additional upgrades may be needed for AD2 and  
 43           AE2 that cannot be studied until there is more certainty  
 44           regarding the size and placement of the interconnected  
 45           generators.

46           He also states at page 7 that "because of the tentative nature of projects  
 47           in the queue, costs can be shifted from one cluster to another." For the reasons  
 48           provided below, I disagree.

49           **Q.     ARE THE PJM NETWORK UPGRADES FOR THE OAK TRAIL**  
50 **FACILITY KNOWN?**

51           A.     Yes. The System Impact and Facilities Studies for AD2-160 and  
52 AE2-253<sup>1</sup> identified no network upgrades other than those related to building and  
53 integrating the new Point of Interconnection (“POI”) substation and no Affected  
54 System Upgrades on the DEP System.

55           **Q.     ARE THE FINAL PJM NETWORK UPGRADE COSTS**  
56 **IDENTIFIED FOR THE FACILITY?**

57           A.     Yes. Oak Trail is a party to the fully executed Interconnection  
58 Service Agreement (“ISA”) among PJM Interconnection, LLC (“PJM”), Oak Trail,  
59 and Virginia Electric and Power Company (“Dominion”) dated March 3, 2021.<sup>2</sup>  
60 **Bristol Rebuttal Exhibit A.** As shown in the ISA, Oak Trail is responsible for  
61 ~~\$10,002,324~~  
~~\$10,002,252~~ in interconnection costs, comprised of Attachment Facilities, Direct  
62 Connection Network Upgrades and Non-Direct Connection Network Upgrades  
63 (“PJM Interconnection Costs”). All of these charges are related to building and  
64 integrating the POI substation and will be borne by the Oak Trail, not ratepayers.

65           **Q.     ARE THE PJM INTERCONNECTION COSTS IDENTIFIED IN THE**  
66 **ISA SUBJECT TO MODIFICATION?**

67           A.     No. These are the final PJM Interconnection costs for the Facility  
68 as outlined in the ISA.

---

<sup>1</sup> Oak Trail provided the System Impact Studies for both its AD2 and AE2 queue positions on September 17, 2020 as **\*Confidential\*** Application Addenda 5 and 6, and provided the Facilities Study Report on February 22, 2021 as **\*Confidential\*** Supplemental Application Addendum 1.

<sup>2</sup> This FERC-jurisdictional ISA was filed with FERC in docket ER21-1578-000 on April 1, 2021. The deadline for comments and interventions was April 22, 2021, and there were no comments or interventions in the docket.

69           **Q.     IF GENERATORS FROM PREVIOUS PJM CLUSTERS DO NOT**  
70 **COME TO FRUITION, CAN THOSE PLANNED UPGRADES BE PUSHED TO**  
71 **OAK TRAIL?**

72           A.     No.  If any of the planned upgrades assigned to earlier queued  
73 generators in the PJM queue were considered contingent to Oak Trail, they  
74 would have been identified as a contingent upgrade in Section 3(d) of the ISA.  
75 No such contingent upgrades related to earlier queued projects were identified in  
76 the ISA.

77           **Q.     WILL THE PJM INTERCONNECTION COSTS BE SUBJECT TO**  
78 **REIMBURSEMENT?**

79           A.     No.  Per the ISA, Oak Trail is responsible for the PJM  
80 Interconnection Costs and per PJM's Open Access Transmission Tariff  
81 ("OATT")<sup>3</sup>, the PJM Interconnection Costs identified in the Oak Trail ISA are not  
82 subject to reimbursement.  As previously stated on page 3 of the prefiled  
83 supplemental testimony of Matt Crook filed on February 22, 2021 in this docket,  
84 the "entire cost of the network upgrades will be borne by [Oak Trail] and not  
85 reimbursed."

86           **Q.     DOES THE ISA ALTER THE FACILITY'S LCOT PREVIOUSLY**  
87 **IDENTIFIED IN THIS DOCKET?**

88           A.     No.  The PJM Interconnection Costs identified in the ISA are  
89 identical to the costs identified in the Facilities Study Report provided as  
90 **\*Confidential\*** Supplemental Application Addendum 1 on February 22, 2021.  As  
91 such, the Facility's LCOT of \$1.94 described in previous docket filings has

92 remained consistent throughout Oak Trail's CPCN application filings. Public Staff  
93 stated that it did not disagree with the LCOT calculation "but, because of the  
94 tentative nature of projects in the queue, costs can be shifted from one cluster to  
95 another." However, as discussed above, the parties have executed the ISA and  
96 therefore these costs are final and not subject to modification, so the LCOT will  
97 not change for the Facility.

98 **DEP Affected Systems Costs**

99 **Q. DO YOU AGREE WITH PUBLIC STAFF'S STATEMENTS THAT**  
100 **OAK TRAIL'S AFFECTED SYSTEMS COSTS ARE SUBJECT TO CHANGE?**

101 A. No. Public Staff witness Lawrence states the following in his  
102 testimony:

103 The Applicant is not aware of any impacts to affected  
104 systems at this time. The completed interconnection studies  
105 also do not reflect the need for affected system studies or  
106 upgrades. However, Duke Energy Progress, LLC (DEP),  
107 has recently completed an affected system study for the AC1  
108 PJM interconnection cluster. The Facility is part of PJM's  
109 AD2 and AE2 interconnection clusters. If any network  
110 upgrades for four to six other clusters (AB2, AC1, AC2, AD1,  
111 AD2, and AE1) are necessary or need alteration, they may  
112 need to be completed before the Facility can begin full  
113 operation. If generator projects from these previous clusters  
114 do not come to fruition, the planned upgrades could be  
115 pushed to later clusters. If projects from these previous  
116 clusters do come to fruition, additional upgrades may be  
117 needed for AD2 and AE2 that cannot be studied until there is  
118 more certainty regarding the size and placement of the  
119 interconnected generators.

120 Public Staff witness Lawrence states that Oak Trail was not aware of any  
121 impacts to affected systems "at this time," but this is not accurate. Oak Trail is  
122 aware of impacts to affected systems assigned to the Facility, and it has been

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<sup>3</sup> The PJM OATT can be found here: <https://agreements.pjm.com/oatt/3897>

123 determined that there are no, i.e. \$0, affected systems impacts assigned to the  
124 Facility.

125 As part of the CPCN application filed on September 17, 2020, Oak Trail  
126 provided the PJM System Impact Studies for both its AD2 and AE2 queue  
127 positions as \*Confidential\* Application Addenda 5 and 6. Both studies included a  
128 section related to affected systems, and both reported that no impacts to DEP  
129 were identified.<sup>4</sup>

130 In addition, Affected Systems Costs, if any, would be identified in the ISA,  
131 but there are none for Oak Trail.<sup>5</sup>

132 **Q. ARE ANY OF THE DEP AFFECTED SYSTEMS STUDIES**  
133 **AVAILABLE FOR THE PJM CLUSTERS LISTED BY PUBLIC STAFF**  
134 **WITNESS LAWRENCE?**

---

<sup>4</sup> As a contrast, in the June, 2019 PJM System Impact Study for AD2-033 (which is a queue position identified in DEP's AD2 affected system study), the Affected Systems section states: "Enter into an Affected System Facilities Study agreement with Duke / Progress Energy (DEP) to determine how to mitigate the Line #45 GW King Tap – Kerr Dam 115 kV overload. The upgrade will likely be a complete reconductor, probably replacing some structures. The estimated cost is \$40 million and is anticipated to require 48 months to complete." If affected systems impacts for Oak Trail had been identified, similar language would have appeared in Oak Trail's System Impact Studies. The AD2-033 SIS can be found here: [ftp://ftp.pjm.com/planning/project-queues/impact\\_studies/ae2033\\_imp.pdf](ftp://ftp.pjm.com/planning/project-queues/impact_studies/ae2033_imp.pdf)

<sup>5</sup> As a contrast, in the April 2, 2020 Interconnection Service Agreement among PJM, Alton Post Office Solar, LLC ("Alton"), and Dominion filed in FERC docket no. ER20-2348-000, Schedule F identifies "Required Affected System Upgrades and states: "In order to maintain system reliability, the Customer Facility under this ISA cannot come in service prior to the completion of the Duke Energy Progress upgrade system protection at the Person substation to accommodate the new AC1-221 substation. The work at Person substation is not part of the scope of the Facility Study for this AC1-221/AD1-058 Interconnection Request and the costs for that work are not represented in this Agreement. This work will occur under a separate agreement between Duke Energy Progress and the Interconnection Customer." The Alton ISA can be found here: [https://elibrary.ferc.gov/eLibrary/filelist?document\\_id=14875643&accessionnumber=20200708-5123](https://elibrary.ferc.gov/eLibrary/filelist?document_id=14875643&accessionnumber=20200708-5123)

135 A. Yes. On the DEP OASIS website, Generator Interconnection  
136 Affected System Study Reports for the following PJM clusters have been  
137 published: (1) AB2, dated December 22, 2016; (2) AC1, dated May 6, 2020; (3)  
138 AD1, dated April 5, 2021; and (4) AD2, dated April 5, 2021.<sup>6</sup>

139 **Q. IS OAK TRAIL PART OF ANY OF THESE PJM CLUSTERS?**

140 A. Yes. As referenced by Public Staff witness Lawrence, Oak Trail is  
141 part of PJM's AD2 and AE2 interconnection clusters. As such, if Oak Trail's AD2  
142 queue position caused any affected systems impact on DEP's system, the April  
143 5, 2021 DEP Generator Interconnection Affected System Study Report for PJM  
144 Interconnection Cluster AD2 ("AD2 DEP Affected System Study Report") would  
145 identify Oak Trail in the report. The AD2 DEP Affected System Study Report is  
146 provided as **Bristol Rebuttal Exhibit B**.

147 **Q. DOES THE AD2 DEP AFFECTED SYSTEM STUDY REPORT**  
148 **IDENTIFY OAK TRAIL AS HAVING AN IMPACT ON DEP'S SYSTEM?**

149 A. No. The AD2 DEP Affected System Study Report states: "Cluster  
150 AD2 includes generation throughout the PJM interconnection, but only those with  
151 an impact on the DEP system were included in this study." The only four AD2  
152 queue positions identified were AD2-033, AD2-046, AD2-051, and AD2-063<sup>7</sup>.  
153 Oak Trail's queue position (AD2-160) was not included in the study, confirming  
154 that it does not have an impact on the DEP system.

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<sup>6</sup> Oak Trail notes that the front page of the AD2 report references April 5, 2020, but the footers of the rest of the report reference April 5, 2021. According to the OASIS website timestamp, the report was uploaded on April 20, 2021, the same date that the April 5, 2021 AD1 report was uploaded. As such, Oak Trail believes the 2020 date on the first page is a clerical error and that the report is dated April 5, 2021.

<sup>7</sup> Unlike Oak Trail, none of these four AD2 queue positions have progressed in the PJM study process past the System Impact Study phase, despite having a higher queue priority.

155           **Q.    HAS DEP PUBLISHED A GENERATOR INTERCONNECTION**  
156 **AFFECTED SYSTEM STUDY REPORT FOR THE AE2 PJM CLUSTER?**

157           A.    DEP’s affected system study report for the AE2 PJM cluster has not  
158 yet been published on DEP’s OASIS website, but PJM’s Oak Trail System  
159 Impact Studies indicate that there are no Affected System Upgrades assigned to  
160 Oak Trail and Oak Trail’s fully executed ISA has no Affected System Upgrades.

161           **Q.    DOES THE PJM OATT ADDRESS REQUIRED COORDINATION**  
162 **BETWEEN PJM AND AFFECTED SYSTEMS?**

163           A.    Yes. PJM’s OATT requires PJM to coordinate with any identified  
164 affected systems operators during the study phase and include the results, if  
165 available, in the system impact study or the facilities study. PJM OATT § 202.  
166 On April 28, 2021, PJM confirmed that “DEP reviewed the two queue positions  
167 for [Oak Trail] during the study process and determined there were no impacts to  
168 their system. No further DEP study is required.” **Bristol Rebuttal Exhibit C.** In  
169 addition, as discussed above, no affected systems were identified in any of Oak  
170 Trail’s interconnection studies and Oak Trail has a fully executed ISA with no  
171 Affected System Upgrades identified.

172           **Q.    ARE YOU FAMILIAR WITH THE NCUC DOCKET E-100, SUB 170**  
173 **PROCEEDING THAT PUBLIC STAFF WITNESS LAWRENCE REFERENCED**  
174 **IN HIS TESTIMONY?**

175           A.    I am generally familiar with the E-100 Sub 170 docket (“Sub 170  
176 Docket”).

177           **Q.    IS THERE INFORMATION IN THE SUB 170 DOCKET THAT**  
178           **SUPPORTS THAT OAK TRAIL DOES NOT IMPACT DEP’S TRANSMISSION**  
179           **SYSTEM OR DEP’S CUSTOMERS?**

180           A.    Yes. On page 3 of DEP’s comments regarding the affected system  
181 study process and cost allocation filed in the Sub 170 Docket on October 7,  
182 2020, DEP stated that:

183                               Historically, interconnection customers that were assigned  
184 affected system network upgrades in DEP/DEC/DEF were  
185 reimbursed after the applicable projects achieved  
186 commercial operation pursuant to the terms of the affected  
187 system operating agreement. However, DEP and DEC  
188 (along with Duke Energy Florida, LLC) implemented a  
189 change to its standard affected system operating agreement  
190 effective October 1, 2020 that eliminated the reimbursement.

191           On page 8 of Public Staff witness Lawrence’s testimony, Mr. Lawrence  
192 references this reimbursement elimination and states “The Public Staff agrees  
193 with this change. . . . In short, if there are no cost impacts to the customers of  
194 electric public utilities, the Public Staff takes no issue with the application.” As  
195 detailed above, there are no affected systems costs assigned to Oak Trail. As  
196 the advocate for the using and consuming public, DEP’s reimbursement  
197 elimination should be sufficient to alleviate Public Staff’s concern that there would  
198 be cost impacts to customers such that the Public Staff should “take no issue  
199 with the application.”

200           In addition, the location of the Facility explains why there are no affected  
201 system impacts to DEP’s transmission system. On page 3 of DEP’s reply  
202 comments filed in the Sub 170 Docket on December 16, 2020, DEP states:

203                               Finally, it is important to note that the affected system study  
204 process [. . .] only impacts a relatively small slice of



205 interconnection customers that are seeking to interconnect  
206 near the “seam” between the transmission assets of two  
207 separate transmission owners. Thus, for instance, as it  
208 relates to Scenario #2—“Other Transmission Owner as the  
209 Affected System,” very few of the thousands of  
210 interconnection customers that have sought or are seeking  
211 interconnection to Duke’s system are impacted by affected  
212 system issues.

213 The Facility is located in Currituck County, which is the furthest northeast  
214 county in North Carolina. As such, the Facility is a great distance away from  
215 DEP’s system and, thus, nowhere near the “seam” between the transmission  
216 assets of two separate transmission owners.

217 **Proposed Alternate Conditions on the CPCN**

218 **Q. DOES OAK TRAIL HAVE CONCERNS ABOUT THE**  
219 **RECOMMENDED CONDITIONS LISTED IN PUBLIC STAFF WITNESS**  
220 **LAWRENCE’S TESTIMONY?**

221 A. Yes. Oak Trail is a late-stage project with a fully executed ISA and  
222 a fully executed PPA<sup>8</sup>, and it has various upcoming contractual deadlines it must  
223 meet. As outlined above, the interconnection costs, including network upgrade  
224 and affected systems costs, have been studied and are final. Oak Trail is  
225 concerned that Public Staff’s recommended conditions are not narrowly tailored  
226 to Oak Trail because they suggest that these costs are not final. As a result, the  
227 recommended conditions could cause confusion and delay the ability of Oak Trail  
228 to obtain financing partners. Such delays would cause significant financial  
229 impacts to Oak Trail.

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<sup>8</sup> Oak Trail provided the fully executed PPA on February 22, 2021 as \*Confidential\* Supplemental Application Addendum 3.

230 **Q. ARE THERE DIFFERENT CONDITIONS THAT OAK TRAIL**  
231 **WOULD CONSENT TO THE COMMISSION ATTACHING TO THE CPCN?**

232 A. Yes. Oak Trail is in a substantially similar position to the position  
233 Camden Solar LLC (“Camden”) was in when the Commission issued Camden’s  
234 CPCN on September 14, 2020 in docket EMP-109 Sub 0.<sup>9</sup> Oak Trail believes  
235 the conditions placed on the Camden CPCN are more appropriate given the  
236 factual similarities between the projects and would consent to the four conditions  
237 attached to Camden CPCN. For convenience, Oak Trail’s proposed conditions  
238 to its CPCN are as follows:

239 (a) Oak Trail Solar, LLC will construct and operate the  
240 Facility in strict accordance with applicable laws and  
241 regulations, including any local zoning and environmental  
242 permitting requirements;

243 (b) Oak Trail Solar, LLC will not assert that the issuance  
244 of the certificate in any way constitutes authority to exercise  
245 any power of eminent domain, and it will abstain from  
246 attempting to exercise such power;

247 (c) Oak Trail Solar, LLC will comply with all orders, rules,  
248 regulations and conditions as are now or may hereafter be  
249 lawfully made by the Commission; and

250 (d) Oak Trail Solar, LLC shall file with the Commission in  
251 this docket any revisions in the cost estimates for the

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<sup>9</sup> For example, Camden also had a fully executed ISA, a fully executed Renewable Energy Purchase Agreement, and did not have any affected systems costs assigned to its facility.

252 interconnection facilities, network upgrades (including  
253 network upgrades on affected systems), or any other  
254 significant change in costs within 30 days of becoming  
255 aware of such revisions.<sup>10 11</sup>

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

257 **A. Yes.**

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<sup>10</sup> Oak Trail notes that condition (d) has been revised from the Camden precedent to remove the obligation to file revisions in the cost estimates for the “construction of the Facility.” This language is broad and could be read to require Oak Trail to notify the Commission any time construction costs change at all, and construction costs for any development change frequently. In addition, Rule R8-63(f) requires merchant plant applicants to “submit annual progress reports and any revisions in cost estimates, as required by G.S. 62-110.1(f) until construction is completed.” As such, that rule already obligates Oak Trail to file annual updates to cost estimates for the construction of the Facility and more frequent updates are unnecessarily burdensome. In addition, in settlement discussions between Oak Trail and the Public Staff, the Public Staff agreed to removal of “construction of the Facility” from the similar recommended condition in Public Staff witness Lawrence’s testimony.

<sup>11</sup> As stated throughout this testimony, the interconnection and affected system costs for Oak Trail are final. However, in an effort to bridge the gap with the Public Staff’s recommended conditions, Oak Trail consents to this condition which is substantially similar to recommended condition (iii) listed in Public Staff witness Lawrence’s testimony.

1 BY MS. ROSS:

2 Q Mr. Bristol, have you prepared a summary of your  
3 testimony?

4 A I have.

5 Q Would you please read that for the Commission?

6 A My name is Franklin Bristol. I am the Vice  
7 President of Transmission for Leeward Renewable  
8 Energy, LLC. My business address is 6688 North  
9 Central Expressway, Suite 500, Dallas, Texas  
10 75206. I have over 25 years' experience working  
11 in an interconnection and transmission capacity  
12 in the field of large-scale energy  
13 infrastructure.

14 I provided prefilled rebuttal  
15 testimony in support of the Application on April  
16 30, 2021. The purpose of my rebuttal testimony  
17 is to respond to the testimony of Public Staff  
18 witness Evan D. Lawrence filed on March 22, 2021,  
19 and to provide alternate proposed CPCN conditions  
20 for the Commission's consideration.

21 Specifically, I disagree with the  
22 following statement made by Public Staff witness  
23 Lawrence at pages 6 and 7 of his testimony:

24 *The facility is part of PJM's AD2*

1           and AE2 interconnection clusters. If any network  
2           upgrades for four to six other clusters (AB2,  
3           AC1, AC2, AD1, AD2 and AE1) are necessary or need  
4           alteration, they may need to be completed before  
5           the facility can begin full operation. If  
6           generator projects from these previous clusters  
7           do not come to fruition, the planned upgrades  
8           could be pushed to later clusters. If projects  
9           from these previous clusters do come to fruition,  
10          additional upgrades may be needed for AD2 and AE2  
11          that cannot be studied until there is more  
12          certainty regarding the size and placement of the  
13          interconnected generators.

14                 Mr. Lawrence also states at page 7  
15                 of his testimony that "because of the tentative  
16                 nature of projects in the queue, costs can be  
17                 shifted from one cluster to another". I disagree  
18                 with this characterization for Oak Trail for the  
19                 following reasons.

20                 The PJM network upgrades for the  
21                 Oak Trail facility are known. Oak Trail has a  
22                 fully executed Interconnection Service Agreement  
23                 that was provided as Bristol Rebuttal Exhibit A.  
24                 The only network upgrades identified in the ISA

1 are related to building and integrating the new  
2 point of interconnection substation. No required  
3 upgrades to any affected system were identified  
4 in the study phase, and no upgrades to any  
5 affected system were set out in the ISA.

6 The PJM interconnection costs  
7 identified in the ISA are final and not subject  
8 to modification. If generators from previous PJM  
9 clusters do not come to fruition, those planned  
10 upgrades cannot be pushed to Oak Trail. If any  
11 of the planned upgrades assigned to earlier  
12 queued generators in the PJM queue were  
13 considered contingent for Oak Trail, they would  
14 have been identified as a contingent upgrade in  
15 Section 3(d) of Oak Trail's ISA. No such  
16 contingent upgrades related to earlier queued  
17 projects were identified in the ISA.

18 Moreover, the PJM interconnection  
19 costs will not be subject to reimbursement. Per  
20 the ISA, Oak Trail is responsible for the PJM  
21 interconnection costs and per PJM's OATT the PJM  
22 interconnection costs identified in the Oak Trail  
23 ISA are not subject to reimbursement. The ISA  
24 does not alter the facility's previously

1           calculated levelized cost of transmission. The  
2           PJM interconnection costs identified in the ISA  
3           are identical to the costs in the Facility Study  
4           Report provided as Confidential Supplemental  
5           Application Addendum 1. Public Staff states that  
6           it did not disagree with Oak Trail's levelized  
7           cost of transmission calculation "but, because of  
8           the tentative nature of projects in the queue,  
9           costs can be shifted from one cluster to  
10          another." However, as discussed, no costs can be  
11          "shifted" to Oak Trail because Oak Trail is not  
12          contingent on any project in the queue.

13                           Public Staff witness Lawrence  
14           states that Oak Trail was not aware of any  
15           impacts to affected systems at this time, but  
16           this is not accurate. All interconnection  
17           studies are complete. The ISA is fully executed.  
18           And both PJM and DEP independently have indicated  
19           their concurrence that the Oak Trail queue  
20           positions AD2-160 and AE2-253 have no effect on  
21           DEP as the affected system in the PJM studies.  
22           As part of the CPCN Application filed on  
23           September 17, 2020, Oak Trail provided the PJM  
24           System Impact Studies for both its AD2 and AE2

1 queue positions as Confidential Application  
2 Addenda 5 and 6. Both studies include a section  
3 related to affected systems, and both report that  
4 no impacts to DEP were identified. In addition,  
5 the ISA does not identify any affected system  
6 costs. Had there been any required upgrades to  
7 any affected system, PJM would have included such  
8 upgrades in Schedule F to Oak Trail's ISA that  
9 was filed with the FERC.

10 The DEP Affected System Studies  
11 are available on the DEP OASIS website for the  
12 following PJM clusters listed in Public Staff  
13 witness Lawrence's testimony: AB2, AC1, AD1 and  
14 AD2. Oak Trail is part of PJM's AD2 and AE2  
15 interconnection clusters. The AD2 DEP Affected  
16 System Study Report was provided as Bristol  
17 Rebuttal Exhibit B. This report does not  
18 identify Oak Trail as having an impact on DEP's  
19 system.

20 DEP's Affected System Study Report  
21 for PJM's AE2 cluster has not yet been published  
22 on DEP's OASIS website, but Oak Trail's System  
23 Impact Study for queue position AE2-253 states  
24 that "no Duke Energy Progress impacts were



1 identified as part of this study". DEP has  
2 confirmed this via email provided as Bristol  
3 Rebuttal Exhibit D. Again, Oak Trail's fully  
4 executed ISA includes no affected system upgrades  
5 and, therefore, whether DEP's Affected System  
6 Study Report for PJM's AE2 cluster has been  
7 published is irrelevant to Oak Trail.

8 PJM's OATT requires PJM to  
9 coordinate with any identified affected systems  
10 during the interconnection study phase and  
11 include the results in the System Impact Study or  
12 the Facility Study. As shown in Bristol Rebuttal  
13 Exhibit C, PJM confirmed that DEP determined the  
14 project has no impact on their system and that  
15 "no further DEP study is required". Furthermore,  
16 Bristol Rebuttal Exhibit D is an email from DEP  
17 that states "DEP Transmission Planning has  
18 confirmed these projects have no impact". This  
19 email was in response to my request for  
20 confirmation that DEP agreed with PJM's statement  
21 that DEP reviewed the Oak Trail queue positions  
22 (AD2-160 and AE2-253) during the interconnection  
23 study process and "determined there were no  
24 impacts to their system".

1 Information in the E-100, Sub 170  
2 docket supports that Oak Trail does not affect  
3 DEP's transmission system or customers as  
4 discussed on pages 9 through 10 of my prefiled  
5 rebuttal testimony. In the E-100, Sub 170  
6 docket, DEP stated it implemented a change to its  
7 Standard Affected System Operating Agreement  
8 effective October 1, 2020, that eliminated the  
9 reimbursement of affected system network upgrades  
10 to interconnection customers. Public Staff  
11 witness Lawrence's testimony referenced DEP's  
12 reimbursement elimination and stated Public Staff  
13 agreed with the change. Mr. Lawrence stated that  
14 "if there are no impacts to the customers of  
15 electric public utilities, the Public Staff takes  
16 no issue with the application".

17 Additionally, in the E-100, Sub  
18 170 docket, DEP emphasized that "the affected  
19 system study process ... only impacts a  
20 relatively small slice of interconnection  
21 customers that are seeking to interconnect near  
22 the "seam" between the transmission assets of two  
23 separate transmission owners". Oak Trail is  
24 located far from DEP's system and any "seam"

1           between DEP and DENC.

2                           Oak Trail objects to the proposed  
3 conditions listed in Public Staff witness  
4 Lawrence's testimony because they are not  
5 narrowly tailored to the facts of Oak Trail. As  
6 I have outlined, the interconnection study phase  
7 is complete. There are no affected system  
8 impacts for Oak Trail. Oak Trail is responsible  
9 for the costs of the network upgrades identified  
10 in its ISA without reimbursement. Oak Trail is a  
11 late-stage project with a fully executed ISA and  
12 a fully executed PPA, and has various upcoming  
13 contractual deadlines it must meet. The Public  
14 Staff's recommended conditions are not applicable  
15 to Oak Trail, may cause confusion, and are likely  
16 to delay Oak Trail's ability to timely secure  
17 project financing.

18                           Oak Trail has proposed alternate  
19 conditions which are substantially similar to the  
20 four conditions attached to Camden Solar LLC's  
21 CPCN issued in September of 2020 in Docket  
22 EMP-109, Sub 0. Oak Trail's proposed conditions  
23 are set out on pages 11 and 12 of my prefiled  
24 rebuttal testimony.

1 Q Thank you, Mr. Bristol.

2 MS. ROSS: Commissioner Duffley, at this  
3 time we would tender the witness for cross examination  
4 by the Public Staff and questions by the Commission.

5 COMMISSIONER DUFFLEY: Ms. Coxton, we cannot  
6 see you, but are you still with us?

7 (Pause).

8 Ms. Coxton?

9 (No response)

10 Why don't we take a five-minute break.  
11 Let's be back here at 4:17. That will give her time  
12 to get back connected.

13 (A recess was taken from 4:11 p.m. to 4:19 p.m.)

14 COMMISSIONER DUFFLEY: Let's go back on the  
15 record. Do we have everyone?

16 (Pause).

17 I thought I saw Ms. Coxton.

18 MS. COXTON: I'm back.

19 COMMISSIONER DUFFLEY: Oh good! So it is  
20 now -- the witness has been tendered for cross  
21 examination.

22 MS. COXTON: No cross examination from the  
23 Public Staff.

24 COMMISSIONER DUFFLEY: Chair Mitchell?

1 EXAMINATION BY CHAIR MITCHELL:

2 Q Good afternoon. Just a few quick questions for  
3 you, Mr. Bristol.

4 The Public Staff suggests that the  
5 costs associated with interconnection of this  
6 facility are not yet final. And I understand the  
7 Company's position to be -- or the Applicant's  
8 position to be here that the costs as identified  
9 or the charges as identified in the ISA are  
10 final, obviously, subject to the true-up that  
11 I've already discussed with your colleague, but  
12 is this -- do I understand the Applicant's  
13 position correctly?

14 A The cost estimates in the ISA are final.

15 Q Okay. So is the Applicant's position then that  
16 no additional charges are going to be identified  
17 that you all will have to cover, so at this point  
18 you don't anticipate any affected system costs  
19 being identified at some point in the future that  
20 you're going to have to cover?

21 A I don't anticipate any affected system costs  
22 being identified given the coordination that has  
23 already taken place between PJM and DEP, and then  
24 the fact that we've ended up with a fully

1           executed, FERC-filed ISA with no Schedule F.  If  
2           there were going to be any potential affected  
3           system upgrade costs that they were either known  
4           because DEP had determined them or if they were  
5           going to be identified in the future, it would be  
6           referenced in Schedule F of the ISA.

7       Q     Okay, thank you.  You've expressed some concern  
8           in your testimony about the Public Staff's  
9           proposed Condition Number 4.  And again,  
10          paraphrasing your testimony here, but you state  
11          that the conditions could cause confusion and  
12          delay in the ability of the LLC to obtain  
13          financing.  Can you explain there or just help us  
14          understand that testimony?

15       A     So I'm clear, can you direct me to where you're  
16          seeing Condition 4.  I want to make sure I'm  
17          talking about the same condition.  I can look in  
18          my exhibits or look through my notes if you would  
19          like me to.

20       Q     Yes.  Let's see.  One second please.

21                   MS. ROSS:  Commissioner Mitchell, if it's  
22          helpful I believe the conditions are on page 10 of  
23          Mr. Lawrence's prefiled testimony which was filed  
24          March 22nd, 2021.

1 CHAIR MITCHELL: Thank you, Ms. Ross.

2 BY CHAIR MITCHELL:

3 Q So refer to those conditions there. And then,  
4 Mr. Bristol, my paraphrasing of your testimony is  
5 taken from testimony -- is based on testimony  
6 that occurs in your prefiling on page 10.

7 A My prefiling?

8 Q Uh-huh, yes.

9 A Yeah. I mean the nature of my concern is that  
10 it -- having conditions to make it look like  
11 there are still studies to be done or upgrades to  
12 be identified can be problematic when we talk to  
13 potential finance partners. They hire  
14 independent engineers to look over what we're  
15 doing and then anything that looks like it has to  
16 be confirmed or wrapped up can cause delays.

17 Q Okay. But delays in your ability to secure  
18 financing or close on financing; just help me  
19 understand why that's a concern.

20 A I mean, I direct you back to our Chief Financial  
21 Officer's testimony earlier today that we need  
22 to -- you know, we have to get a construction  
23 loan before we can get -- bring in Tech Equity  
24 Partners later on and then having conditions

1           that are difficult to explain attached to a CPCN  
2           can delay that approval process.

3       Q     Okay.

4       A     And it's preferred to not have conditions because  
5           especially in this instance where the studies are  
6           done we've got confirming emails, we've got a  
7           pretty tight bow wrapped around the study process  
8           here and then to have a condition that makes it  
9           look like the studies aren't done that can be  
10          problematic to explain.

11      Q     Okay. All right. Let me check my notes just to  
12          see if I have anything else for this witness.

13                               (Pause).

14                               Just a general question I'm going  
15          to toss at you, Mr. Bristol. In your opinion,  
16          how should the Commission evaluate network  
17          upgrades and affected system costs when  
18          considering CPCN Applications for EMPs?

19      A     So, can you be more specific? Like, what do you  
20          mean how? Like timing-wise?

21      Q     How should they factor into our analysis as to  
22          whether to award an Applicant the CPCN that it  
23          seeks?

24      A     Yeah. I mean I can't speak for projects in



1           general. For our project, I mean, I think we  
2           should look at the facts in this case and the  
3           facts in this case is I don't believe the  
4           Commission should have any concerns. The  
5           studies, you know, are done. Affected system  
6           analysis is conducted during the interconnection  
7           study process. The impact studies shows there  
8           are no affected system upgrades. There could  
9           have been a chance for a restudy at the facility  
10          study phase but that didn't occur because there  
11          were no affected system impacts. There were no  
12          affected system upgrades identified in either the  
13          impact or facility study. Then we went -- got to  
14          a final ISA with no Schedule F affected system  
15          impacts or charges, and then we had a FERC filing  
16          and no intervention from Duke Energy Progress.

17        Q     Okay. I understood your testimony today and your  
18              position today and the Applicant's position today  
19              as to the specific Oak Trail project, but my  
20              question was just a general one. In general, how  
21              should the Commission consider this type of cost  
22              when evaluating whether to award an Applicant a  
23              CPCN?

24        A     I mean, to me I don't feel like the -- at least

1 in these circumstances where we have no affected  
2 system costs, I just don't feel like that there's  
3 really a risk to the ratepayers in North  
4 Carolina. I don't see why that there's a belief  
5 that there's a risk in this circumstance. And I  
6 think that you can -- you guys are concerned  
7 about neighboring projects.

8 I think I've seen some examples of  
9 some pretty large cost estimates for early stage  
10 queue projects. And you're concerned that you're  
11 going to potentially have this blood of upgrades  
12 that are -- that could potentially be subject to  
13 reimbursement, but we don't have that case here.  
14 We don't have any affected system impacts  
15 identified. We don't have any costs subject to  
16 reimbursement. And I just -- I think that if the  
17 facts were different, if we had -- if we were  
18 dancing around affected system upgrade costs and  
19 things of that nature then that would be a  
20 different conversation, but there are no impacts  
21 in this instance and there will be no impacts in  
22 this instance. And this discussion earlier about  
23 queue term and the like, those facts are just not  
24 applicable to this project. It's just not set up

1 to occur that way.

2 Q Okay. Have you ever been involved in a project  
3 or are you aware of a project, a proposed  
4 interconnection, where charges are identified  
5 subsequent to the issuance of the ISA?

6 A I'm not aware of that occurring in such a --  
7 since you used the ISA, I assume your talking  
8 about before PJM because that's a --

9 Q Yes.

10 A -- PJM acronym. I'm not aware of getting to a  
11 signed Interconnection Agreement where after the  
12 Interconnection Agreement is signed where a new  
13 upgrade would suddenly be identified.

14 Q Okay.

15 A I've seen instances where there's an ISA signed  
16 that has conditions. It could be somewhat  
17 conditional where you could have contingent  
18 upgrades identified and if the circumstances were  
19 on the contingent upgrade change, the cost  
20 allocation could change. That's not the case  
21 here. If we had contingent upgrades, they would  
22 be in that specification section of the ISA.  
23 They would be laid out. They list them out in  
24 the Interconnection Studies. If there's higher

1           queued projects that have upgrades in common,  
2           they'll show up in the impact study, they'll go  
3           through queue-by-queue and show you everybody  
4           contributing to an upgrade and they'll go  
5           multiple queue clusters deep after the triggering  
6           project, and then as their study process changes  
7           they'll show the changes to that list, but they  
8           don't just suddenly identify a new funder of the  
9           upgrades. The upgrades are identified in the  
10          impact study and all -- and they'll even say if  
11          its applicable there's an upgrade that you may  
12          have cost responsibility for if certain things  
13          change, but that did not occur here. In this  
14          instance the impact studies are very clean.  
15          There is no reshuffling of the queue and assigned  
16          upgrades to AD2-160 or AE2-253 due to changes in  
17          higher queued generation. It just doesn't exist  
18          in this instance.

19        Q     Okay. Just following up on your comments, so you  
20          have seen instances where cost allocation among  
21          projects in a cluster changes as the study  
22          process proceeds?

23        A     Prior to the ISA I have seen --

24        Q     Yes.

1 A -- I have seen impact studies. I have seen  
2 restudies get issued. And then -- and so the  
3 conditions change, but they were not completely  
4 unknown changes. There was the potential for  
5 that occurrence was already identified in the  
6 impact study. And then through a subsequent  
7 restudy those impacts change.

8 Q Okay.

9 CHAIR MITCHELL: I have nothing further.

10 COMMISSIONER DUFFLEY: Commissioner  
11 Clodfelter?

12 COMMISSIONER CLODFELTER: Thank you.

13 Mr. Bristol, I have no questions for you.

14 THE WITNESS: Okay.

15 COMMISSIONER DUFFLEY: I have one question,  
16 it's a follow up to Chair Mitchell's question and the  
17 hypothetical that I asked earlier today.

18 EXAMINATION BY COMMISSIONER DUFFLEY:

19 Q So hypothetically, let's assume that an ISA is  
20 executed and then affected system upgrades come  
21 to light. I assume that within PJM's OATT or  
22 within Manual 14, is there a process that's laid  
23 out to determine who bears the risk if that  
24 happens?

1 A Well, so I don't see that hypothetical occurring  
2 because you don't get to a signed ISA with no  
3 knowledge of an affected system impact. If  
4 there's a flagged risk, you either identify that  
5 there's an affected system upgrade in the impact  
6 or facility study. If for some reason, and  
7 you're pressing for an ISA and the studies aren't  
8 done but there's a known effect that could occur,  
9 that would still be written into the ISA, in the  
10 Schedule F. PJM will not tender an ISA if  
11 there's this risk or if they've talked to the  
12 various affected systems and one of them hasn't  
13 answered yet, PJM won't issue the ISA. They'll  
14 just hold onto it until they get the answer and  
15 once they get the answer then they'll reflect  
16 that answer in the ISA. There just isn't a  
17 circumstance where you can get to an ISA where  
18 PJM says hey we tried to talk hypothetically to  
19 the affected system and they didn't answer so  
20 we're issuing the ISA anyway. That's just not  
21 how PJM's interconnection study process works.  
22 It's not how their Joint Operating Agreements  
23 with the affected systems work. And they have a  
24 Joint Operating Agreement with Duke. So they

1 have an obligation in their tariff to coordinate  
2 with Duke before they get to an ISA. And they --  
3 if they -- in order for PJM to get to an ISA and  
4 ignoring something that Duke told them or not  
5 touching base with them, then they have to  
6 violate their tariff to get there and they just  
7 don't do that, and that's not what happened here.  
8 I mean, we got to a signed ISA after full  
9 coordination with Duke on two different queue  
10 positions in two different clusters. So at the  
11 AD2 queue Duke looked at this project's POI. The  
12 POI didn't change. We just added 50 megawatt to  
13 the second queue position. So for this location  
14 on their grid they looked at the AD2 queue, came  
15 back, looked again at the AE2 queue, and Duke  
16 continued to affirm there are no affected system  
17 impacts through this queue position.

18 Now, you know the reason Duke  
19 hasn't published the AE1 or 2 studies on their  
20 OASIS yet is because there are other projects in  
21 that cluster that may or likely have an affected  
22 system impact. The focus of their study is to  
23 get those right. But ours, they've already  
24 checked the box and said there is no impact on

1           this one. Duke and PJM have tied out. There is  
2           no impact so they've put this one to bed and said  
3           there is no impact, there will be no impact, no  
4           further study is required.

5           COMMISSIONER DUFFLEY: Thank you,  
6           Mr. Bristol. And before I move to my next question, I  
7           think Chair Mitchell had a follow-up question.

8           COMMISSIONER MITCHELL: I do and thank you,  
9           Commissioner Duffley. And thank you, Mr. Bristol for  
10          hanging in here with us. I actually have two  
11          questions, Commissioner Duffley, if I may.

12          CONTINUED EXAMINATION BY CHAIR MITCHELL:

13          Q     Mr. Bristol, first, I'm going to take the one  
14                that follows up a comment that you just made, the  
15                Joint Operating Agreement between PJM and Duke  
16                just as an example. Does the Joint Operating  
17                Agreement obligate PJM -- I'm sorry, between PJM  
18                and Duke. Does the Joint Operating Agreement  
19                obligate PJM to confirm affected system impacts  
20                with Duke before entering into the ISA?

21          A     It does not explicitly state those words.

22          Q     Okay. The second question for you, I mean,  
23                you've heard, I assume you've heard  
24                Mr. Lawrence's testimony before us this afternoon



1 and you've likely read the Public Staff's  
2 position in this proceeding. And again, I  
3 understand what the Public Staff's recommendation  
4 is on your particular application, on the LLC's  
5 Application, and I understand the facts of this  
6 case, but I'm asking you to just sort of help me  
7 understand here. The Public Staff seems to be  
8 take the position that the charges associated  
9 with interconnecting a particular facility can  
10 change post ISA. I've heard the Public Staff  
11 express uncertainty with respect to those  
12 charges. And I hear you saying something quite  
13 different. Once the ISA is signed and a fully  
14 executed document no additional charges are going  
15 to materialize. So it just -- those are  
16 disparate positions. So how do we reconcile  
17 them? What's the right position?

18 A Well, I mean, I believe my position is the right  
19 position because we are developing and  
20 interconnecting hundreds of megawatts of projects  
21 all across the PJM footprint. And, you know, we  
22 have -- you know, there's an affected system  
23 analysis going on in the west part of PJM's  
24 footprint with adjacent ISOs and RTOs like MISO

1 and SPP and sometimes those affected system  
2 studies hold up a project and we have to wait and  
3 wait and wait. And then sometimes we're going  
4 directly to MISO and asking them why can't they  
5 get our study done even though it's on a PJM side  
6 or SPP, why can't you get the study done that's  
7 on the PJM side. And we're sitting there, you  
8 know, we'll be -- it will be probably opposite of  
9 this one where we'll be sitting there begging for  
10 an ISA and they'll be holding it up saying you  
11 can't have it until the affected system analysis  
12 is done.

13 So, my practical experience with  
14 PJM is they will not issue an ISA until it's  
15 done. And I got the opposite in this case. I've  
16 got two impact studies that say there are no  
17 affected system impacts. I've seen examples with  
18 other TO's where PJM will issue an impact study,  
19 on the affected system section and it will say to  
20 be determined in the next study phase and then  
21 they'll issue the affected system analysis and  
22 the Facility Study Report. Right. That didn't  
23 happen here.

24 They issued the affected system

1 analysis right upfront in the impact study. They  
2 didn't wait for the Facility Study as they do in  
3 some cases or they did not wait for an adjacent  
4 ISO or RTO that is backlogged in their affected  
5 system analysis. That just did not occur here.  
6 They did the studies. They put it in the report.  
7 And then both parties to that affected system  
8 analysis, both sent confirming emails that  
9 neither one of these queue positions have an  
10 affected system impact. And then you end up with  
11 the ISA stage that would be a Schedule F to the  
12 ISA if there were affected system impacts. It  
13 was FERC filed. There were no timely  
14 interventions. And we're just sitting there  
15 waiting for FERC to agree the ISA is approved.  
16 And if there was some dispute between DEP and  
17 PJM, I would expect DEP to intervene in that  
18 docket and express concern, but that did not  
19 happen here.

20 So this is more information than  
21 we typically get from the affected systems at  
22 this stage of a process. They have it in the  
23 reports, in the ISA, and confirming emails. That  
24 is like every box we could possibly check other

1 than Duke posting the overall cluster study  
2 report on OASIS, which they just haven't got  
3 around to because there are other projects that  
4 do have an impact. You know, we're waiting for  
5 that.

6 But -- and I don't agree with what  
7 Mr. Lawrence said about the AD2 publication that  
8 Duke did put out there. That study is done.  
9 They are not coming back to reopen AD2-160. They  
10 state plainly it's these four projects. And if  
11 something changes amongst those four projects or  
12 any triggering project that have those four  
13 they'll reissue for those four, but they're not  
14 going to bring in an extra AD2 project. They  
15 have ruled in and ruled out what's part of the  
16 study and then it's that -- those four and the  
17 costs associated with those four could change  
18 over time, but no new projects are coming in.  
19 It's done.

20 Q Thank you, Mr. Bristol.

21 COMMISSIONER DUFFLEY: Mr. Bristol, you're  
22 almost done. I did have a question with respect to  
23 the Public Staff's conditions.

24 CONTINUED EXAMINATION BY COMMISSIONER DUFFLEY:

1 Q So I think heard today from potentially -- well,  
2 I'll just say I think that I heard today with  
3 respect to Condition Number 2, and I'm on Evan  
4 Lawrence's testimony, page 10, about filing a  
5 verified statement acknowledging that under  
6 Duke's affected system business procedures and  
7 PJM's OATT, the interconnection customer is  
8 responsible for all affected system network  
9 upgrade costs assigned to the Applicant's  
10 facility without reimbursement, if any.

11 So, do you agree with that  
12 condition? Do you feel like you've already made  
13 that verified statement?

14 A I'm going to get to exactly where you're talking  
15 about. So, I'm on page 10 of Mr. Lawrence's  
16 testimony. Is that where we're at?

17 Q Yes.

18 A Page 10, line 7, is that where we are?

19 Q Correct. Do you feel like you -- I'll give you a  
20 minute to read it. But the question is do you  
21 feel like you've already made that verified  
22 statement?

23 A So I believe that -- I don't believe that this  
24 statement is applicable because our affected

1 system upgrade costs are zero. And Mr. Lawrence  
2 seems to keep thinking that there's going to be  
3 some future study that's going to change that.  
4 And I just -- it's not. There is no future study  
5 to be done here. And we have in an email from  
6 Duke saying there are no affected system impacts.  
7 How can we go any further than Duke saying  
8 there's no affected system impacts? That is  
9 straight from the affected system entity telling  
10 us there's no affected system impacts. So I --  
11 if the Public Staff will not accept an email from  
12 Duke, I'm not sure what they will accept. It  
13 doesn't seem that they will accept anything.

14 Q So I guess my next question is if you continue to  
15 say that there are no affected system impacts,  
16 then I'm having trouble understanding why you  
17 wouldn't just issue a verified statement that at  
18 this time as you understand it there are no  
19 affected system costs for the facility?

20 A Yeah, I mean -- you know, I'm the one to continue  
21 to state -- I don't know about the context or the  
22 conditions, but I'm willing to continue to state  
23 as I stated in my testimony that there are no  
24 affected system upgrade costs applicable to this

1 project.

2 Q Okay. And so you wouldn't have a problem with a  
3 verified statement to that effect?

4 A I guess it depends on what the verified statement  
5 is. I'm not sure -- I'm concerned that there's  
6 going to be some condition that we can't meet.  
7 Because, you know, we've got an email from PJM,  
8 an email from Duke, and we've got the filed and  
9 soon to be FERC-approved ISA that all say there  
10 is no affected system impact. I don't know what  
11 more we can say that makes this even more  
12 verifiable than that. So it seems like that  
13 there's sufficient evidence on the record to  
14 verify that there's no affected system upgrade  
15 costs. I don't know -- and that's why we're  
16 concerned about these conditions. We don't know  
17 what more we can say to meet a condition that is  
18 obviously being met. There is zero dollars and  
19 the ISA is FERC filed and soon to be approved. I  
20 think the facts are clear.

21 Q Okay. So with I think condition Number 4, which  
22 is on line 18 of Mr. Lawrence's testimony on page  
23 10, your testimony suggested that there would be  
24 issues with financing. Can you think of language

1 that would satisfy Public Staff's concerns but  
2 not cause the potential uncertainty? Could this  
3 be reworded in such a way that we satisfy the  
4 Public Staff's concerns and not cause additional  
5 time, financing time?

6 A I mean, prior to this hearing we tried to reach  
7 agreement with the Public Staff on what the facts  
8 were in this case and no matter what evidence we  
9 showed them that there are no affected system  
10 impacts, they didn't seem to be comfortable with  
11 what we're showing on the record here that PJM  
12 has done the studies, Duke agrees that there's no  
13 affected system impacts. We've shown them all  
14 that information and they still seem unswayed by  
15 the notion that there are no affected system  
16 impacts for this project. And we would like to  
17 be able to reach agreement with the Public  
18 Staff to allay their concerns. I mean, we think  
19 our project is the one that -- you know, if there  
20 are no studies, there are no -- there is no  
21 uncertainty. We're like kind of the prime  
22 example of what y'all want on a  
23 PJM-interconnecting project with no affected  
24 system impacts. We've proven everything that



1 needs to be proven. We should -- more projects  
2 should look like ours is the way we look at it.

3 Q Thank you, Mr. Bristol.

4 COMMISSIONER DUFFLEY: I have no further  
5 questions. Questions on Commission questions,  
6 Ms. Coxton?

7 MS. COXTON: No questions from the Public  
8 Staff.

9 COMMISSIONER DUFFLEY: Ms. Ross?

10 MS. ROSS: Just very briefly.

11 EXAMINATION BY MS. ROSS:

12 Q Mr. Bristol, I think we've covered this but I  
13 want to make sure it's clear for the record. Is  
14 part of the position that Oak Trail is being  
15 asked to prove a negative in that there are no  
16 affected systems?

17 A Excuse me, I didn't hear the question.

18 Q Yes. Excuse me, can you hear me okay?

19 A Yeah, I can hear you okay. I just -- I didn't  
20 know if you were making a statement or asking a  
21 question.

22 Q Sure. Absolutely. No, I was asking is it fair  
23 to say that part of the issue is that Oak Trail  
24 is being asked to prove a negative, that negative

1           being that the studies were done and there's no  
2           affected system?

3       A     That's what it -- it seems than way, yes.

4       Q     And to be clear, the studies for Oak Trail are  
5           done?

6       A     The interconnection studies for Oak Trail  
7           including affected system studies are done.

8       Q     And there was a question about whether or not  
9           their -- the Joint Agreement obligated PJM to  
10          confirm affected system before the ISA was  
11          issued. Do you recall that questioning?

12      A     I recall that questioning, yes.

13      Q     Okay. And your answer is there, those exact  
14          words were not in it. But it is correct that the  
15          OATT and Manual 14A specifically requires  
16          coordination between PJM and Duke, correct?

17      A     PJM's OATT generally describes its obligation to  
18          coordinate with affected systems. And PJM's  
19          Joint Operating Agreement with Duke is evidence  
20          that they coordinate.

21      Q     And PJM and Duke regularly conduct  
22          interconnection studies as you have described  
23          across multiple markets, correct?

24      A     Yes. PJM has two queue clusters a year and so

1           they have to coordinate those clusters with all  
2           affected systems not just Duke.

3       Q     And to your knowledge Public Staff has not done  
4           their own study in any way about Oak Trail's  
5           potential upgrade -- impact on affected systems  
6           for Duke Progress, have they?

7       A     I'm not aware of any third-party studies alleging  
8           something different than what PJM and Duke have  
9           coordinated during the interconnection study  
10          phase of Oak Trail.

11      Q     Is it fair to say that we should be able to rely  
12          on Duke Energy Progress and PJM as the experts  
13          related to whether or not there's an impact to  
14          Duke's affected system?

15      A     We can rely on the fact that PJM will follow its  
16          tariff and its tariff requires them to coordinate  
17          with Duke, and that there's nobody better at  
18          following PJM's tariff than PJM.

19      Q     And nobody better at determining if Duke's system  
20          is affected by a project than Duke?

21      A     No. I would say that Duke is -- Duke would be  
22          the entity that would determine if they have an  
23          affected system impact caused by PJM. PJM would  
24          notify Duke of a potential project but it's Duke

1 that would state if it had an affected system --

2 Q And Duke --

3 A -- and I think that Duke's review of its own  
4 system carries more weight than PJM's review of  
5 Duke's system.

6 Q Fair enough. That's exactly where I was going.  
7 And it's fair to say that Duke has  
8 reviewed whether Oak Trail has an impact on its  
9 system, correct?

10 A Duke has and has stated that there is no impact.  
11 They've affirmed for both queue positions that  
12 there is no impact.

13 Q Thank you. Now, there was some -- well, let me  
14 stop there. There is an ISA for Oak Trail that  
15 we've talked about today, correct?

16 A Yes.

17 Q And there is -- there are no upgrades reflected  
18 on Schedule F? We've talked about Schedule F.  
19 Is that correct for Oak Trail? There's no  
20 Schedule F?

21 A Correct.

22 Q And it's your testimony that if there were known  
23 or potential concern for upgrades to Duke's  
24 systems, they would be listed on Schedule F,

1 correct?

2 A Yes. They would be but that's not the only thing  
3 that can go into Schedule F. But if there were  
4 an affected system impact they would be listed in  
5 Schedule F.

6 Q And it's correct that your testimony is that PJM  
7 would not have tendered or executed or filed with  
8 FERC the Oak Trail ISA in the form it is today,  
9 specifically with nothing listed on Schedule F,  
10 if the question of Duke -- of impacts to Duke's  
11 system was not closed out --

12 A Correct.

13 Q -- is that correct?

14 MS. ROSS: With that, Commissioner Duffley,  
15 we have no further questions.

16 COMMISSIONER DUFFLEY: Okay. Thank you.

17 (The witness is excused)

18 COMMISSIONER DUFFLEY: I think that we have  
19 come to the end of the day.

20 Ms. Parrott, are you still with us?

21 MS. PARROTT: I am, yes.

22 COMMISSIONER DUFFLEY: Very good.

23 Ms. Parrott, if I may, there's been a question about  
24 the introduction of evidence. So, out of an abundance

1 of caution, if you're there, would you like to make a  
2 motion that the Application and the direct and  
3 supplemental testimony of Matt Crook, the direct  
4 testimony of Christopher Loehr, be received into the  
5 record and treated as if orally given from the stand  
6 and that the exhibits sponsored by each witness will  
7 be received into evidence and marked for identified  
8 when prefiled?

9 MS. PARROTT: Yes, Commissioner Duffley, I  
10 would. Thank you.

11 COMMISSIONER DUFFLEY: Okay. Are there any  
12 objections to that motion?

13 (No response)

14 COMMISSIONER DUFFLEY: Hearing none, that  
15 motion will be allowed.

16 (WHEREUPON, Oak Solar CPCN  
17 Application, Addenda and Exhibits  
18 are marked for identification and  
19 received into evidence.)

20 COMMISSIONER DUFFLEY: Is there anything  
21 else for the good of the order today?

22 MS. ROSS: We would have a brief closing if  
23 the Commission would entertain us, understanding it's  
24 late in the day.

1           COMMISSIONER DUFFLEY: Yes. Please make it  
2 short though. We have a hearing that begins at 6:00  
3 p.m. tonight.

4           MS. ROSS: You all have a very fun day.

5           Thank you and we thank you for your time  
6 today. We certainly understand the Public Staff's  
7 obligation to represent the Using and Consuming Public  
8 and to protect the Using and Consuming Public, and we  
9 understand the issues raised by affected systems.  
10 However, Oak Trail does not impact Duke Energy as an  
11 affected system and it places no risk on the public.  
12 As you've heard, no upgrades to Duke's systems are  
13 required for Oak Trail to interconnect and operate.

14           While the Commission is considering,  
15 currently considering policy issues related to  
16 affected systems and has asked great questions on  
17 those today, Oak Trail should not needlessly be drawn  
18 into those policy discussions. Oak Trail is a  
19 late-stage project. Site control was obtained, a  
20 county Use Permit was applied for and received,  
21 consultation with environmental agencies occurred,  
22 approvals have been received as you heard in  
23 testimony, the CPCN was applied for, and a Power  
24 Purchase Agreement was entered.

1           In the background of all that development  
2 activity, the interconnection process was started and  
3 completed. PJM followed the procedures in its OATT,  
4 including coordinating with Duke Energy Progress as a  
5 potentially affected system. Duke completed its  
6 affected system review and determined Oak Trail had no  
7 impacts on its system. And this is not a surprise in  
8 part because we've talked about today because the  
9 project is in Currituck County far from the seam. Not  
10 to say that some project in Currituck County couldn't  
11 impact -- excuse me, have affected system impacts; Oak  
12 Trail does not.

13           Upon completion of the interconnection study  
14 process, PJM tendered an Interconnection Construction  
15 Service Agreement and an Interconnection Service  
16 Agreement to Oak Trail. Oak Trail executed those  
17 contracts, returned them to PJM, PJM in turn executed  
18 them and filed the ISA with FERC. The ISA which has  
19 been provided and talked about a lot today contains no  
20 terms or provisions related to required upgrades to  
21 any affected system.

22           Now, we argued that it is irrelevant that  
23 the AE2 cluster study has not been complete and we  
24 know that through communication with Duke. We know



1 that from communication with PJM. But mostly we know  
2 that because of the signed executed ISA that contains  
3 no Schedule F provisions related to any open issue of  
4 affected system. Oak Trail does not create an impact  
5 on Duke's system.

6 Turning to the conditions recommended by the  
7 Public Staff, all of which relate to affected systems.  
8 Those are not tailored to the facts that we've  
9 presented here today for Oak Trail. And we've talked  
10 about the fact that they create confusion and have an  
11 unwarranted impact on the ability of this project to  
12 obtain financing, to close on that financing, to  
13 proceed with construction based on that financing.  
14 Each of the conditions creates uncertainty for Oak  
15 Trail and does nothing to protect the public.

16 The conditions, these same conditions may be  
17 perfectly reasonable for other projects, merchant or  
18 otherwise, that have impacts to affected systems but  
19 they are not reasonable for Oak Trail. And we've  
20 noted that the Staff has not proposed them for  
21 similarly situated projects, understanding those are  
22 not precedential but asking the Commission to consider  
23 it. We talked about Oak Solar, formally Gaston in  
24 EMP-112. That is where the Public Staff did not raise

1 these conditions. The Order has not been entered yet  
2 but the parties have agreed on those conditions. We  
3 talked about Camden in 109 where the Commission has  
4 entered an Order.

5 Oak Trail is similarly situated to Oak Solar  
6 and to Camden Solar for a number of factors. The most  
7 important being the ISA and the lack of impact to  
8 affected systems, because those are the conditions we  
9 are talking about here today being unreasonable.

10 Furthermore, we would put forward that the  
11 proposed condition for number -- excuse me, the  
12 proposed Condition D in Mr. Bristol's testimony which  
13 requires the revision to cost estimates to be provided  
14 to the Commission addresses any concern that there  
15 could be a change and the Commission would not be  
16 aware of it.

17 Oak Trail has executed an off-take contract  
18 with a large commercial and industrial customer for  
19 the entirety of the output. It is a viable project  
20 that is ready to obtain financing and begin  
21 construction. And to saddle Oak Trail with irrelevant  
22 conditions for this critical permit is unfair,  
23 unreasonable, and does not serve the public.

24 In conclusion, the public policy interest

1 present with Oak Trail is the development of  
2 economical, clean, renewable energy. For all the  
3 reasons discussed today, the requested -- excuse me,  
4 these requested conditions are tailored -- these  
5 requested conditions, excuse me, are tailored to the  
6 facts of Oak Trail and are reasonable to keep the  
7 Commission informed and to protect the public. So, we  
8 request that the Commission expeditiously act to issue  
9 a CPCN with the Oak Trail proposed Conditions A  
10 through D provided in Mr. Bristol's testimony. And we  
11 thank again for your time.

12 COMMISSIONER DUFFLEY: Thank you, Ms. Ross.  
13 Are there any other matters before we adjourn?

14 (No response)

15 Okay. Hearing none, thank you, Ms. Coxton.  
16 Thank you, Ms. Mitchell, Chair Mitchell, Commissioner  
17 Clodfelter, we're adjourned.

18 (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 Mitchell

Kim T. Mitchell