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2 DATE: wednesday, March 2, 2022
3 DOCKET NO.: EMP-116, Sub 0
4 TIME: 9:01 A.M. TO 1:34 P.M.
5 BEFORE: Commissioner Kimberly W. Duffley, Presiding
6 Chair Charlotte A. Mitchell
7 Commissioner Daniel G. Clodfelter
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11 IN THE MATTER OF:
12 Application of Juno Solar, LLC,
13 for a Conditional Certificate of Public
14 Convenience and Necessity to Construct a 275-MW
15 Solar Facility in Richmond County,
16 North Carolina
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P R O C E E D I N G S

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2 COMMISSIONER DUFFLEY: Good morning. Let's
3 come to order and please go on the record. I'm
4 Commissioner Kimberly W. Duffley, and with me today are
5 Chair Charlotte A. Mitchell and Commissioner Daniel G.
6 Clodfelter. I now call for a continuation of the
7 evidentiary hearing in Docket Number EMP-116, Sub 0, in
8 the Application of Juno Solar, LLC, for a Conditional
9 Certificate of Public Convenience and Necessity to
10 Construct a 275-MW Solar Facility in Richmond County,
11 North Carolina.

12 On November 30th, 2021, at the first
13 evidentiary hearing, the Commission heard the testimony
14 of the Applicants and the Public Staff's witnesses, and
15 at the end of the day the record was held open for
16 additional evidence.

17 On January 28th, 2022, the Commission issued an
18 order scheduling a hearing on April 4th, 2022 for
19 additional evidence regarding the transitional cluster
20 study, or TCS, process and the Phase 1 report.

21 On February 8th, 2022, the Commission issued an
22 order rescheduling the hearing for today, March 2nd,
23 2022.

24 On February 11th, 2022, the Applicant and the

1 Public Staff filed proposed orders. The Public Staff
2 also separately filed a confidential version of its
3 proposed order. Following this hearing, the parties will
4 have until March 7th, 2022 to file revised and redlined
5 versions of their proposed orders if they so choose, as
6 well as briefs if they so choose.

7 On March 1st, 2022, the Applicant filed the
8 Duke Energy Progress TCS Phase 1 Study Report.

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

14 (No response.)

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

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

19 MS. KEMERAIT: Good morning, Commissioners. My
20 name is Karen Kemerait. I'm an attorney with the law
21 firm of Fox Rothschild in Raleigh, and I'm here on behalf
22 of the Applicant, Juno Solar.

23 MR. SNOWDEN: Good morning, Commissioners. Ben
24 Snowden, also with Fox Rothschild, also here on behalf of

1 the Applicant.

2 MR. BREITSCHWERDT: Good morning,
3 Commissioners. Brett Breitschwerdt with the law firm
4 McGuireWoods on behalf of Intervenors Duke Energy
5 Progress and Duke Energy Carolinas.

6 MR. JOSEY: Good morning, Commissioners. My
7 name is Robert Josey with the Utilities Commission Public
8 Staff on behalf of the Using and Consuming Public of
9 North Carolina.

10 COMMISSIONER DUFFLEY: Thank you. Do the
11 parties have any preliminary matters before we begin?

12 MS. KEMERAIT: Yes, we do. On behalf of Juno
13 solar we have two preliminary matters. The first matter
14 is Piper Miller was a witness for Juno Solar at the
15 November 30th evidentiary hearing and, unfortunately, Ms.
16 Miller has been very sick with COVID and is not able to
17 be here, so we would respectfully request that her
18 presence be excused from this hearing.

19 In her place we have a panel of two witnesses,
20 Steven Levitas and Derrick Sackler. Derrick did not
21 provide testimony at the evidentiary hearing on November
22 the 30th, but he was here and was present for the
23 hearing. So that will be our panel of witnesses, so
24 that's our first -- the first matter.

1 COMMISSIONER DUFFLEY: Okay. Let's deal with
2 that. Any objection?

3 MR. BREITSCHWERDT: No.

4 MR. JOSEY: No objection.

5 COMMISSIONER DUFFLEY: Okay. It's allowed.

6 MS. KEMERAIT: Okay. Thank you. And then the
7 second matter is, is we understand that typically the
8 Applicant provides their witnesses and testimony first.
9 And this is a somewhat unusual proceeding in that much of
10 the information and testimony is going to be about the
11 Transitional Cluster Study Phase 1 Report that's been
12 prepared by Duke Energy. And so we've had communications
13 with all of the attorneys in the matter, and we are in
14 agreement that it makes sense to alter the order for
15 witnesses. And so what -- I'll make a motion about this,
16 but what we are proposing is that the first parties and
17 witnesses that would go first will be Duke Energy's
18 witnesses to talk about the Phase 1 Report, and then it
19 will be Juno Solar's panel of witnesses, and then the
20 Public Staff's witnesses. And like I said, we've had
21 communications with all of the attorneys, and everyone is
22 in agreement that this makes the most sense.

23 So with that, I'd make a motion that we alter
24 the order of witnesses for Duke to go first, Juno Solar

1 to proceed, and then the Public Staff.

2 COMMISSIONER DUFFLEY: Okay. That is allowed.

3 And do any of the parties plan to -- and that
4 concludes your motions; is that correct?

5 MS. KEMERAIT: Yes, it is. Yes.

6 COMMISSIONER DUFFLEY: And let's talk about
7 confidential information. Do any of the parties plan to
8 provide or produce confidential information?

9 MS. KEMERAIT: Juno Solar does not.

10 MR. BREITSCHWERDT: No, ma'am.

11 MR. JOSEY: Public Staff does not.

12 COMMISSIONER DUFFLEY: Okay. Thank you. Okay.
13 So Mr. Breitschwerdt?

14 MR. BREITSCHWERDT: Thank you, Commissioner
15 Duffley. At this time Duke Energy Carolinas, Duke Energy
16 Progress calls Mr. Nate Finucane and Mr. Bill Quaintance
17 to the stand. The parties have conferred and conferred
18 with Commission counsel, and it's been agreed that we can
19 present our witnesses as a panel, so we plan to proceed
20 with that this morning.

21 COMMISSIONER DUFFLEY: Okay. Do both the
22 witnesses prefer to be sworn or affirmed?

23 MR. FINUCANE: Sure.

24 MR. QUAINANCE: Yes. That's fine.

1 COMMISSIONER DUFFLEY: which -- sworn?

2 MR. FINUCANE: Sworn.

3 COMMISSIONER DUFFLEY: Okay. the Bible is
4 right there.

5 BILL QUAINANCE and

6 NATE FINUCANE; Having first been duly sworn,
7 Testified as follows:

8 MR. BREITSCHWERDT: Thank you. That was one
9 part of the hearing we didn't prepare for, so --

10 DIRECT EXAMINATION BY MR. BREITSCHWERDT:

11 Q Good morning, Mr. Quaintance, good morning, Mr.
12 Finucane.

13 MR. BREITSCHWERDT: I'm going to start with Mr.
14 Finucane. And just for the Commission's information,
15 since the Company's witnesses did not prefile testimony
16 in this proceeding and the Commission had some specific
17 direction for the Companies to present expert witnesses
18 that focused on the queue reform effort, the transitional
19 cluster study process, and the Transitional Cluster Study
20 Phase 1 Report that the Duke Energy Progress recently
21 issued, we're going to go through a few what I would
22 frame as foundational introductory questions to have Mr.
23 Finucane and Mr. Quaintance provide some information to
24 hopefully inform the proceeding this morning, and then be

1 available for cross examination and questions from the
2 Commission from there.

3 Q So Mr. Finucane, I'd like to start with you.
4 would you please state your name and business address for
5 the record?

6 A (Finucane) Yeah. My name is Nate Finucane. My
7 business address is 411 Fayetteville Street, Raleigh.

8 Q Thank you. And --

9 COMMISSIONER DUFFLEY: Can you speak up a
10 little bit, pull it closer. Thank you.

11 THE WITNESS: Is that better?

12 COMMISSIONER DUFFLEY: Not --

13 THE WITNESS: Not really?

14 COMMISSIONER DUFFLEY: Not really. Is it on?

15 MR. BREITSCHWERDT: You've got to pull it
16 close.

17 THE WITNESS: How is that? Better?

18 COMMISSIONER DUFFLEY: Yes.

19 MR. BREITSCHWERDT: There's about a six-inch
20 range. I get chastised for the soft and not being close
21 enough, so --

22 THE WITNESS: Excellent. Doing fine.

23 Q So would you please describe your role at Duke
24 Energy for the Commission?

1 A Sure. My current title is Director of Strategy
2 and Planning Distributed Energy Technologies. My team
3 provides regulatory support to the interconnection study
4 construction, business controls, and technical standards
5 teams for each of the Duke Energy regulated
6 jurisdictions, including FERC, and we're responsible for
7 ensuring compliance with the interconnection procedures
8 and including producing many of the reports that are
9 filed in the interconnection dockets in North and South
10 Carolina.

11 Q Thank you. And could you please give a brief
12 overview of your educational background and your
13 experience with the utility industry prior to your
14 current position?

15 A I have a bachelor of science in electrical
16 engineering with a German minor from North Carolina State
17 University. I began my career in the utility industry in
18 2001 with ABB. I acted in a consulting role for
19 utilities across North America, Europe, Asia until 2019
20 when I joined the Company. This included several
21 engagements in that time starting with Duke companies,
22 starting with Synergy in 2003.

23 Some of the projects that I've worked on for
24 the Company include fuel clause accounting, the Duke

1 Progress Joint Dispatch Agreement, day-ahead unit
2 commitment, fuel and operations forecasting, and energy
3 accounting consolidation.

4 Q Thank you. And this is your first time
5 appearing before the Commission providing expert
6 testimony?

7 A It is.

8 Q And you're here today to provide expert witness
9 testimony on the Duke queue reform process and the
10 mechanics of the transitional cluster study process; is
11 that right?

12 A Yeah. My team led the development of the NCIP
13 revisions that implement the queue reform process, and
14 including process design, drafting, and stakeholder
15 engagement.

16 Q Okay. So it's a big topic, but could you just
17 provide a brief overview of the transitional cluster
18 study process as set forth in the procedures that is at
19 issue in this hearing today?

20 A Sure. So the transition cluster study is a
21 one-time process that allows projects that entered the
22 serial queue prior to queue reform to receive a system
23 impact study as part of a cluster study with other
24 similarly-situated projects. It's broken into two study

1 phases and then a facility study. We had 44 projects
2 elect to participate in the DEP Phase 1 study. This is
3 primarily a power flow study that seeks to identify
4 thermal overloads, and those are some of the more
5 expensive overloads typically that an interconnection
6 customer might see in their system impact study.

7 The Phase 2 study is, in some ways, more
8 detailed, but doesn't typically create the large cost for
9 upgrades.

10 Q Thank you. And so in the transitional cluster
11 study that the Companies are administering FERC projects,
12 North Carolina and South Carolina interconnection
13 customers are all being studied as part of the same
14 cluster?

15 A Yeah. There's 17 state -- North Carolina state
16 jurisdictional projects. Eight of the 44 are requesting
17 service through the joint owned -- the large generator
18 interconnection procedures, and 19 in South Carolina
19 through the South Carolina procedures.

20 Q Okay. And the concept of project readiness is
21 a significant component of the Company's queue reform
22 process that was recently approved by the Commission.
23 Can you provide some detail on the readiness concept and
24 explain the requirements of readiness as they apply in

1 the transitional cluster study?

2 A Sure. The transitional cluster study was
3 intended for projects that were ready -- both technically
4 and commercially ready to move forward. You know, we're
5 trying to transition from the serial queue quickly to the
6 new process and wanted to get projects that are, you
7 know, ready to go through quickly and with some level of
8 confidence that they were going to move to commercial
9 operation.

10 So when we were going through, we were looking
11 at, you know, what -- some of the eligibility
12 requirements that we'd need to demonstrate that
13 commercial readiness, and due to the QF status, you know,
14 the ability to establish a LEO, state projects, we
15 considered to be ready due to their having that offtake
16 option. FERC projects don't have that option, so we
17 allowed them to -- or working with stakeholders to make
18 an additional security deposit --

19 Q Okay.

20 A -- to show commercial readiness.

21 Q And so for FERC interconnection customers like
22 Juno, can you explain the financial commitment and
23 readiness obligation to enter transitional cluster study?

24 A Sure. So Juno didn't demonstrate commercial

1 readiness, and instead they elected to post \$3 million of
2 security to enter the Phase 1. In addition to that, they
3 raised their initial study deposit from \$10,000 to
4 \$250,000, which is the study security deposit required
5 for projects ineligible for 200 MW.

6 They also needed to show exclusive site control
7 to the POI. And in order to move on to Phase 2, unless
8 they're able to demonstrate commercial readiness, they'll
9 need to post an additional \$2 million of security.

10 Q And just for clarification, POI is point of
11 interconnection?

12 A Point of interconnection, yes.

13 Q Okay. Another significant concept in the
14 cluster study process is withdrawal penalties, and that's
15 a new concept that has been added to the interconnection
16 framework as a result of queue reform. Can you provide
17 the Commission an overview of what the role of withdrawal
18 penalties are in the cluster study process?

19 A Yeah. The withdrawal penalties are intended to
20 mitigate the cluster study risk of late-stage withdrawals
21 and to encourage interconnection customers that aren't
22 ready to move forward towards commercial operation to
23 withdraw earlier in the process to minimize the impacts
24 to cost and timing of the other projects in the cluster.

1 And so for that reason the withdrawal penalties, you
2 know, they increase as you go through the process.

3 In the transitional process they increase very
4 quickly. They go from basically, you know, the study
5 cost, and when they go to Phase 2, they jump up to 9X
6 study cost. In the DISIS, in the definitive
7 interconnection system impact study process, the main
8 cluster, they edge up slower to allow projects to move
9 through and make decisions, you know, over -- with more
10 information.

11 Q And for FERC projects like Juno, can you
12 explain at what point the interconnection customer
13 becomes at risk of a withdrawal penalty?

14 A In the Phase 2, if they're to withdraw from the
15 -- after the Phase 2, they'll be subject to a 9X
16 withdrawal penalty -- 9X study cost.

17 Q Okay. And so the Commission scheduled this
18 hearing recognizing that the Companies were going to
19 issue the Phase 1 study reports and that that would
20 inform the study cost assigned to Juno and other
21 interconnection customers in the cluster. Can you
22 explain from where we are today going forward what are
23 the next steps, from a Duke perspective, in administering
24 the transitional cluster study process?

1 A Yeah. Sure. We're going to -- on March 7th,
2 Monday, we'll hold a meeting to review the study results
3 with the participants, as well as regulatory staff and
4 potential affected systems. The customers will then --
5 the interconnection customers will have until March 30th
6 to meet the requirements to enter Phase 2. And we do
7 have some other dates that we can provide, you know,
8 exact dates on when those subsequent dates are.

9 It's also worth noting that after the
10 conclusion of Phase 2, if more projects drop out, there
11 may be a need for restudy, and this can add up to six
12 months to the timeline. It's a -- there's a five --
13 additional five-month period for restudy, with a 30-day
14 customer engagement period if that happens.

15 Q All right. Thank you, Mr. Finucane. Turning
16 now to you, Mr. Quaintance, good morning, sir.

17 A (Quaintance) Good morning, and good morning,
18 Commissioners.

19 Q Mr. Quaintance, would you please state your
20 full name and a business address for the record?

21 A Yes. My name is William Quaintance, and I also
22 work at 411 Fayetteville Street in Raleigh.

23 Q And what is your current position with the
24 Companies?

1 A I am currently a principal engineer in the
2 transmission planning department of Duke Energy Progress.
3 Among other responsibilities, I lead the generator
4 interconnection studies for the DEP region.

5 Q And could you please provide the Commission a
6 brief overview of your educational and professional
7 experience in the utility industry?

8 A Sure. I have a bachelor of science degree in
9 electrical engineering from North Carolina State
10 University, a master of science degree in electrical
11 engineering from Clemson University, with a focus on
12 electric power systems. I have approximately 30 years of
13 transmission planning experience for Duke Energy and in
14 consulting for other utilities throughout North America.

15 Beginning in '92, for seven years I worked for
16 what was then Duke Power Company in Charlotte. After
17 that, from 1999 to 2008, I worked as a consultant for ABB
18 in their corporate research and consulting department on
19 the Centennial Campus of NC State. A majority of my work
20 then was also in the area of transmission planning for
21 utilities throughout North America. Specifically, much
22 of my work was in studying renewable plants, like wind
23 farms and solar farms, in the booming areas at that time
24 of Southwest Power Pool and Midwest ISO.

1 I then moved to another consulting firm from
2 2008 to 2014 called Excel Engineering, Inc., doing
3 similar work. And finally, I joined Duke Energy Progress
4 in 2014 in their transmission planning department.

5 Q Thank you. And Mr. Quaintance, you're here
6 today to provide expert witness testimony on the Duke
7 Energy Progress Phase 1 Transitional Cluster Study Report
8 which was developed by you and under your supervision; is
9 that correct?

10 A Yes. That is correct.

11 Q Thank you.

12 MR. BREITSCHWERDT: Commissioner Duffley, I
13 know that the report that Mr. Quaintance just referenced
14 was filed in the docket by the Applicant. It seems like
15 it should be officially added to the record of this
16 proceeding. So if there's -- I don't believe there's any
17 objection from the parties, but if it's acceptable to the
18 Commission, we'd like to have the Duke Energy Progress
19 Transitional Cluster Study Phase 1 Report dated February
20 28, 2022 be marked for identification, and if no
21 objections, entered into the record as Duke Energy
22 Progress Exhibit 1.

23 COMMISSIONER DUFFLEY: So allowed.

24 MR. BREITSCHWERDT: Thank you, ma'am.

1 (Whereupon, Duke Energy Progress
2 Exhibit 1 was marked for
3 identification and admitted into
4 evidence.)

5 Q All right. So Mr. Quaintance, you were
6 responsible for the report that was issued yesterday, and
7 that's the substance of what we're here to discuss this
8 morning, so could you please just provide a brief
9 overview of that report to the Commission at a high
10 level?

11 A Sure. The report in the early pages, 3 through
12 9, gives a short paragraph summarizing the results for
13 each of the requests, including a little bit of
14 information about the request and its cost and where
15 details can be found.

16 Moving further, there's a very short -- two
17 short sections on Purpose and Study Assumptions. The
18 next significant section, I would say, is Section 3 on
19 page 15, where all of the requests are summarized in a
20 table, listing a bit of information about them as well as
21 their ID used in the cluster process. And on that page
22 near the bottom you can see a 275 MW plant ID Number
23 170274 which is Juno.

24 Section 4 is kind of a quick summary of the

1 costs assigned to each of the requests, and that's broken
2 down into a few components. On the right of the table is
3 Interconnection Facilities -- Transmission Provider's
4 Interconnection Facilities.

5 And then there's a column on the left, POI,
6 point of interconnection, Network Upgrades. Those two
7 are basic costs just to connect the request to the grid.

8 And then there's a Power Flow or Thermal
9 Network Upgrades total there, which is the cost assigned
10 to each of the requests to basically perform upgrades to
11 fix power flow problems found in the study. And there's
12 also a total column for all network upgrades.

13 There's a section on how the plants will
14 interconnect, which is not as relevant too much to
15 today's proceeding.

16 I did want to summarize a little bit on the
17 size of the cluster. There was about 2,094 MW of
18 generation in the DEP cluster, and about 1,677 MW of that
19 is solar or what I might call solar only that contrasts
20 with about 345 MW of solar with storage included. And
21 then there was about 72 MW of stand-alone storage.

22 And that's a summary of the early parts of the
23 report.

24 Q Good. And so you mentioned Section 4 on page

1 17, I believe, of the study. That's what you were
2 referencing in talking to the Commission?

3 A Yes. That is correct.

4 Q And you mentioned the power flow study that was
5 undertaken. Could you just give a brief overview of the
6 study work that you undertook and completed for the Phase
7 1 study and what if -- what you will do in future phases
8 of the cluster study for other -- for the projects that
9 elect to move forward?

10 A Sure. The power flow study performed in Phase
11 1 involved a base case representing the system before
12 this cluster, and then we added all the cluster projects
13 to the base case and performed transmission studies of
14 that model to see if there were any power flow issues
15 that would occur due to addition of these cluster
16 projects.

17 In Phase 2 we will do some additional studies.
18 Like Mr. Finucane mentioned, we'll do stability and short
19 circuit that are less likely, typically, to have large
20 cost upgrades. That's why we put the power flow studies
21 up front so the big-hit costs can be determined early.

22 Q Thank you. And so you briefly mentioned the
23 Juno project, and I think you said it has the ID 170274;
24 is that right?

1 A That is correct.

2 Q Okay. And so can you just provide an overview
3 of the cost assigned to Juno and help the Commission
4 navigate where in the study those costs are identified?

5 A Sure. In the summary table in Section 4, page
6 17, it shows that Juno is assigned approximately \$2
7 million of transmission provider interconnection
8 facilities, approximately \$11 million of network upgrades
9 at the point of interconnection, and then approximately
10 78-and-a-half million dollars for network upgrades to
11 remedy the transmission overloads. That's their portion
12 of the upgrade cost.

13 Q All right. And do other projects also
14 contribute to the upgrades assigned to Juno?

15 A Yes, definitely. All the power flow upgrades
16 determined in this study are shared across all of the
17 generators that contribute to those overloads above
18 thresholds laid out in the procedures, and each upgrade
19 cost is shared in proportion to each generator's MW
20 impact on the overloaded transmission line.

21 There are a total of 24 overloaded transmission
22 segments in the study -- identified in the study. Juno
23 contributes to 19 of those 24. And of those 19 upgrades
24 Juno is contributing to, there are 27 other generator

1 requests that are also sharing those upgrades in
2 different proportions.

3 Q All right. And so 24 overloads total, 19 of
4 them Juno contributes to. It seems like in the study
5 there's some that are more significant and there's costs
6 that are allocated to Juno based on the size of the
7 project. Can you provide an overview of the more
8 significant upgrades that are assigned to Juno, as
9 discussed in the report?

10 A Yes. Sure. The three largest issues we found
11 were ones we've seen in the past, for example, with the
12 original Friesian study and studies since then. Those
13 three transmission lines are Cape Fear to WestEnd, 230 kv
14 line. There were four sections of that one that showed
15 up. The Erwin to Fayetteville East 230 kv line there
16 were two sections, really, the entirety of that line,
17 that showed up. And then the Erwin to Fayetteville East
18 115 kv line there were four of those sections that showed
19 up. And Juno was assigned, if you add up the sections
20 for each of those lines, approximately 31 out of the 87
21 million for the first one; for Erwin Fayetteville East
22 230 kv approximately 21 million assigned to Juno out of
23 the 105 million of those upgrades; and approximately 18
24 million assigned to Juno for the approximately \$47

1 million Erwin Fayetteville 115 kv line.

2 If you look at the report pages 24 -- starting
3 on 24 and rolling to 25 as well, these are all of the
4 overloads -- upgrades, I should say, required by this
5 study, and at that point they're simply summarized by the
6 upgrade and not split out yet by the individual generator
7 contributions.

8 But if you look at, you know, for example that
9 first project I mentioned, Cape Fear WestEnd 230 kv line,
10 the most expensive segment on page 24 is 57 million for
11 upgrading a portion of that line.

12 And if we jump to page 31, the details of that
13 overload are described and how it's shared among the
14 various generator requests. Just let me flip over there.
15 So on page 31 you can see maybe a third of the way down
16 ID 170274, a 275 MW generator, that's Juno, you can see
17 on the far right \$20 million of this section is assigned
18 to Juno out of the \$57 million for this section. So this
19 just gives a flavor for how the costs are shared and some
20 of the significant costs.

21 Q Great. And so your study, the Phase 1 Study,
22 focused on impacts to the Duke Energy Progress system,
23 the specific balancing authority of DEP, right?

24 A That is correct.

1 Q You didn't look beyond that. But you also did
2 an initial assessment of whether there would be impacts
3 to other utilities, other balancing authorities, what we
4 call affected systems. Can you speak a little bit to
5 that analysis and whether Juno was identified as having
6 potential affected system impacts?

7 A Yes. DEP identified DEC as a potential
8 affected system. It is, you know, situated close to DEC
9 and we have a -- it's close to our Richmond station that
10 has a tie line to DEC. It's not far from our Rockingham
11 station that has -- it's close to a tie line to DEC. We
12 don't anticipate notifying any other possible affected
13 systems for Juno. Juno is, you know, pretty far from PJM
14 or the South Carolina companies. So that's our
15 expectation at this point.

16 Now, in Phase 2 when we do short circuit study,
17 short circuit can sometimes have an effect -- an effect
18 on local wholesale deliveries, so in Phase 2 we may
19 identify some additional possible affected systems that
20 might be wholesale customers nearby.

21 Q Thank you, Mr. Quaintance. That was very
22 informative.

23 MR. BREITSCHWERDT: Commissioner Duffley, the
24 witnesses are available for cross examination, questions

1 from the Commission. I will say that I shared copies of
2 the Phase 1 report prior to going on the record, so I
3 assume the Commission -- I know the court reporter has
4 copies, parties, too, but I have a few more copies if
5 anyone in the room would like one. We can certainly
6 provide those to make sure. And counsel, I checked with
7 Karen. Thank you.

8 COMMISSIONER DUFFLEY: Does anyone in the room
9 need a copy?

10 (No response.)

11 COMMISSIONER DUFFLEY: Okay. I do not see
12 anybody raising their hand. Ms. Kemeraït?

13 MS. KEMERAÏT: We don't need -- we have copies.

14 COMMISSIONER DUFFLEY: Do you have any cross?

15 MS. KEMERAÏT: Yes. I apologize. Yes. I do
16 have cross. Thank you.

17 CROSS EXAMINATION BY MS. KEMERAÏT:

18 Q I want to start by thanking both of you for
19 information about the Phase 1 report, and also prior to
20 the evidentiary hearing you were very helpful in
21 providing information to us about some of the details of
22 the Phase 1 report which was very much appreciated.

23 So I'm going to -- most of my questions are
24 going to be at a relatively high level about the Phase 1

1 report, but I think that you identified the Juno Solar
2 upgrades and the project as Number 170274; is that right?

3 A (Quaintance) That's correct.

4 Q Okay. And so the total cost of the network
5 upgrades that's shown in the Phase 1 Report is eighty-
6 nine thousand, six hundred and eighty-two (sic) million
7 dollars; is that right?

8 A That's correct.

9 Q Okay. And let me begin by -- some questions
10 for Mr. -- and I apologize. Can you tell me how to
11 pronounce your name again, Mr. Finucane?

12 A (Finucane) Finucane.

13 Q Sorry?

14 A Finucane.

15 Q Finucane. Thank you. You started off by
16 providing some information about the security that's
17 required for the transitional cluster study. And for
18 Juno Solar in particular to enter Phase 2 of the cluster
19 study, it's my understanding from your testimony that
20 they will -- that Juno Solar is required to pay \$5
21 million in security, plus the study costs; is that right?

22 A That's -- yeah. That's correct.

23 Q Okay. And how much did you say those study
24 costs are specifically for Juno Solar?

1 A We don't -- we're --

2 COMMISSIONER DUFFLEY: Mr. Finucane, can you
3 speak into the microphone?

4 THE WITNESS: Yeah. Sorry.

5 COMMISSIONER DUFFLEY: Thank you.

6 A So we're still in the process of calculating
7 what those study costs would be for Phase 1, and they'll
8 continue to grow throughout the process. Based on its
9 size and the number of projects in the cluster, Juno
10 would be responsible for about 12 percent of the study
11 cost.

12 Q Okay. Yeah. And --

13 A Total study cost.

14 Q Okay. Twelve (12) percent of the study cost.
15 And have you done a preliminary analysis, and I know that
16 you're still trying to determine what that study cost is
17 ultimately going to be for Juno Solar, but the withdrawal
18 penalty that you talked about is nine times the study
19 cost if Juno Solar were to enter Phase 2 and then
20 withdraw; is that correct?

21 A That's correct.

22 Q So do you have a ballpark number of what you
23 would expect the withdrawal penalty to be for Juno Solar
24 if it were to withdraw after Phase 2?

1 A It's hard to say right now. You know, we have
2 a little bit of insight into the Phase 1 study cost, but
3 the study costs are -- like we said, you know, it's going
4 to depend on how many projects remain in the queue --
5 remain in the cluster study and go into Phase 2.

6 Q Okay. And then, of course, if projects were to
7 drop out, then the study cost would be greater for the
8 remaining projects -- I should say the proportion of the
9 study cost would be greater?

10 A Yeah. That's correct.

11 Q And then kind of finishing up with some of the
12 things that you were talking about is restudy. And I'll
13 have some more specific questions about that in a couple
14 minutes, but you said that the restudy period is about a
15 five-month period. And can you explain what would
16 specifically trigger restudy? And I guess what I'm
17 asking is, is if one project in the transitional cluster
18 study were to withdraw, does that require an entire -- a
19 full restudy, or is there some criteria for what would
20 trigger a restudy?

21 A Sure. So if you look in the report, you may
22 see that some of the upgrades, you know, may be primarily
23 impacted by one project or, you know -- and then there's
24 maybe a number of projects that have a smaller impact.

1 And you might expect potentially that if that one project
2 that was allocated a large amount of that or had the high
3 impact were to withdraw, that that upgrade might go away.

4 There's also a potential that, you know, a
5 project withdrawing could be pushing back on an upgrade
6 -- on a potentially overloaded line. And Bill can talk a
7 little -- Bill might be better to talk about how that
8 would work, but -- and Bill would be the person actually
9 that would decide whether, you know, a restudy was
10 required. (To Mr. Quaintance) And so you might want to
11 take a shot at that.

12 A (Quaintance) I can make an attempt. I don't
13 have a clear bright line on that answer. I expect that
14 going into Phase 2, if any significant -- and I
15 apologize, don't have a number there -- projects
16 withdraw, we will perform a restudy as part of Phase 2.
17 And then it's later after Phase 2, if even more projects
18 withdraw after Phase 2, we -- that's where we would get
19 the longer period to do yet another restudy. But going
20 into Phase 2, yeah, I -- there's a good chance we'll do a
21 restudy, but it will not extend the Phase 2 time frame.

22 Q Okay. But my assumption, and please correct me
23 if I'm wrong, but certainly if Juno Solar, due to its
24 size of 275 MW, if it were to withdraw, that that would

1 certainly trigger restudy?

2 A Certainly. That's right.

3 Q Yeah. Okay. And so you provided some
4 information about the total MW in the DEP transitional
5 cluster study, and I think it's 2,094 total MW. And the
6 majority of that, from the numbers you provided, is I'll
7 just call it solar, generally solar, solar plus storage,
8 and stand-alone storage. What are the other projects in
9 the transitional cluster study that are not the solar
10 projects?

11 A There are three stand-alone batteries, if
12 that's your question, and that's all there is aside from
13 the solars.

14 Q Okay. So the entire transitional cluster is
15 solar only, solar plus storage, and then stand-alone
16 storage?

17 A That's correct, in DEP.

18 Q In DEP. Okay. But that may be different for
19 DEC; is that right?

20 A That's right.

21 Q Okay. And then I think you also said that
22 there are -- you know, what we're really interested in,
23 of course, in this proceeding is the Juno Solar network
24 upgrades. And you said that there were 27 projects that

1 are interdependent on the network upgrades that are
2 required for Juno Solar, correct?

3 A Correct.

4 Q Yes. And do you have the number of the amount
5 of MW for those 27 projects that are interdependent on
6 those same Juno Solar network upgrades?

7 A I did not add those up, no. I'm sorry. I
8 don't have that handy.

9 Q Do you have a ballpark number?

10 A I mean, it's a good chunk.

11 A (Finucane) when I looked at it, it's around 12
12 to 1,300 MW.

13 Q Okay.

14 A (Quaintance) Okay.

15 Q Yeah. I had calculated about 1,600, but it
16 sounds like my calculation may be too high. Regardless,
17 1,200 or 1,300 is substantial.

18 COMMISSIONER DUFFLEY: Mr. Finucane, can you
19 please pull the microphone closer to you?

20 MR. FINUCANE: Yes. Sorry.

21 A Oh, I was just saying that it's -- you know,
22 when I looked at it, it was about 12 to 1,300 MW.

23 Q And of those projects that will be sharing the
24 network upgrades that have been assigned in part to Juno

1 solar, are they all transmission interconnected projects
2 or are they some interconnect--- some transmission and
3 some distribution connected projects?

4 A It's some transmission, some distribution.

5 Q Okay. And then also trying to understand which
6 -- the types of projects that will be sharing in these
7 network upgrades, are they also both qualifying
8 facilities and merchant plants or are they all one or the
9 other?

10 A I believe there's two other FERC projects that
11 are in that set.

12 Q I'm sorry. Two other --

13 A Four -- sorry. There's three other projects --
14 FERC projects.

15 Q Okay.

16 COMMISSIONER DUFFLEY: Mr. Finucane, I'm sorry.
17 I have two other Commissioners that keep doing this
18 (indicating).

19 MR. FINUCANE: Sorry. I have -- there's --

20 COMMISSIONER DUFFLEY: I mean, just try to
21 pull --

22 MR. FINUCANE: Yeah. I got it.

23 COMMISSIONER DUFFLEY: -- or shout out.

24 MR. FINUCANE: Sure.

1 A There's three other FERC projects aside from
2 Juno.

3 Q And so there are -- so it sounds like the
4 majority of the projects that are in the transitional
5 cluster study that will be sharing in these network
6 upgrades are qualifying facilities; is that correct?

7 A By count, yeah.

8 Q By number, but not necessarily by megawatts?

9 A Yeah. The FERC projects are certainly larger.

10 Q Okay. And, of course, the qualifying
11 facilities that will be sharing in the network upgrades,
12 under FERC policy they are required to be solely
13 responsible for paying for the network upgrades. Is that
14 your understanding?

15 A That's correct.

16 Q Okay. And then going back to a question that I
17 had about Phase 2 and a potential restudy, is -- do you
18 have any insight or expectation about whether the total
19 cost of upgrades in the transitional cluster study will
20 increase in Phase 2, or is this considered to be
21 relatively a firm number for the network upgrade cost?

22 A (Quaintance) I can fathom a guess that the
23 upgrade costs will stay the same or go down. If a
24 significant number of projects drop, some of the upgrades

1 may no longer be necessary. It's hard to predict until
2 we get there, but I would not expect, although it's not
3 impossible, for the total to go up.

4 Q So the total could go up, but then it also
5 could be reduced depending upon which projects might
6 ultimately end up dropping out of the transitional
7 cluster; is that correct?

8 A That's correct.

9 Q Okay. And I think there's a lot to be learned
10 since this is the first cluster study under queue reform,
11 so we'll -- I think everyone will learn a lot from this
12 first study.

13 And then you talked briefly about the manner in
14 which network upgrade costs are allocated among projects
15 that require the network upgrades. And in the -- for the
16 allocation, it's my understanding it's done
17 proportionally based upon the megawatts of the projects
18 that are -- I'm sorry -- looks like you're about ready to
19 answer.

20 A Close. It's the megawatt impact of the
21 projects on the overloaded lines. Just as an example, an
22 80 MW solar farm, if it causes a problem transmission
23 line to increase in flow by 8 MW, for example, the 8 MW
24 is the impact of that project on that line.

1 Q And so the larger projects in the transitional
2 cluster study such as Juno Solar that impacts the need
3 for upgrades to the system, they would have a
4 proportionally larger share of the cost for the network
5 upgrades. That's a very simplistic statement, but I
6 think it's accurate. Would you agree?

7 A In a simplistic way I would say there's that
8 effect, the size, but also the location. So the closer a
9 generator is to a problem transmission line, it'll
10 typically have a higher megawatt impact, and the larger,
11 as you say, generator will typically have a larger impact
12 on the line.

13 Q Okay. Thank you. And when I reviewed the
14 Phase 1 report, my analysis is that Juno Solar at 275 MW
15 is the largest project that's being studied in the
16 transitional cluster; is that correct?

17 A That's correct.

18 Q Okay. And my analysis is also that the next
19 largest project that's in the study is 165 MW, and that's
20 a project that's located in South Carolina; is that
21 correct, also?

22 A That sounds correct, yes.

23 Q Okay. And so I want to move on to get a sense
24 of the network upgrades that are required for Juno Solar

1 and the other interdependent projects. And I appreciate
2 you providing some information about the specific network
3 upgrades that are required, but can you just, at a high
4 level, I want to understand the area where these network
5 upgrades are required. And it's my understanding that
6 we're talking about southeastern North Carolina and this
7 very congested area of the state that we call the Red
8 Zone. Is that an accurate general statement?

9 A Many of the upgrades and many of the more
10 costly upgrades are in that area, as you say, which is
11 generally lines that help get power from the
12 Fayetteville/Richmond County area up towards Raleigh,
13 yes.

14 Q Okay.

15 A That's what we've been calling the Red Zone
16 unofficially.

17 Q Okay. And by calling it a Red Zone, in kind of
18 general terms as well, that means like a very
19 substantially congested area of Duke's system. Is that a
20 fair general statement?

21 A Right. There are numerous lines that are, you
22 know, getting close to their limit, and we've had many
23 requests, yes, impact those potentially.

24 Q And without the construction of network

1 upgrades in this Red Zone that we're talking about where
2 the Juno Solar upgrades would be located, are any new
3 generation resources able to be connected without
4 triggering some sort of network upgrades?

5 A Let me clarify just to ask if you're talking
6 about in the specific area around Juno?

7 Q That's correct.

8 A I mean, we -- we can only officially study, you
9 know, the requests that we get in the exact locations
10 where they request to connect, but generally in the Juno
11 area it's congested. It's hard to predict without doing,
12 you know, a unique study for any specific request.

13 Q Okay. And are you aware of the time frame of
14 when in this area, this Red Zone area surrounding Juno
15 solar that we're talking about, are you aware of the time
16 when the last generation resource was actually connected
17 to Duke's system? Do you have a year or a date when that
18 occurred?

19 A I don't have that off the top of my head. (To
20 Mr. Finucane) I don't know, Nate, if you can -- if you
21 recall.

22 A (Finucane) I don't know that.

23 Q Uh-huh. Okay. would it be fair to say that
24 it's not been within the past several years?

1 A There's some distribution projects that are
2 getting connected with -- subject to curtailment rights,
3 that have some curtailment rights that are going to be
4 connected in that area, and I believe some have already
5 connected.

6 COMMISSIONER DUFFLEY: Mr. Finucane, you're
7 going to have to repeat that whole answer.

8 MR. FINUCANE: Sorry.

9 A So there are some distribution projects that
10 have been connected in that area that are -- will be
11 connected soon or recently connected that have
12 curtailment rights, so basically they can -- we can turn
13 them off if there's an issue. That was part of a
14 settlement with those projects that had been in the queue
15 for a long period of time.

16 Q But you're referring to distribution
17 projects --

18 A Distribution projects --

19 Q -- not transmission projects?

20 A -- yeah. It's certainly been a number of years
21 since a transmission project has connected in that area.

22 Q Okay. And I assume that both of you are
23 familiar with the Friesian Holdings project?

24 A (Quaintance) Yes.

1 A (Finucane) Yeah.

2 Q Okay. And are the network upgrades that we
3 have been talking about that are required for Juno Solar
4 and then the other interdependent projects, are these
5 essentially the same network upgrades that would be
6 required for Juno Solar -- excuse me -- for Friesian, the
7 Friesian project?

8 A (Quaintance) Those are many of the same
9 upgrades, yes.

10 A (Finucane) The bulk of the dollars are the
11 exact same upgrades. And there were also not significant
12 new upgrades identified in the study. These were mainly
13 the same upgrades that we've seen in past system impact
14 studies for projects connecting in that area.

15 Q Okay. Thank you. And so I want to move on to
16 a different line of questioning that -- from the report,
17 and it relates to the lead time to construct network
18 upgrades, that you have a chart that begins on page 24 of
19 the Phase 1 Report.

20 A (Quaintance) Yes.

21 Q Okay. And when we talk about lead time, I
22 think obviously that means the time that it will take
23 Duke to construct the network upgrades. Is that the lead
24 time that you're referring to -- that the report refers

1 to?

2 A Yes. That's correct.

3 Q Okay. And the lead time for the Juno Solar
4 network upgrades, from my review of the report, is 66
5 months, which would be about five and a half years; is
6 that correct?

7 A That's correct.

8 Q And the report also says that the lead time for
9 constructing the network upgrades, in other words, when
10 you can begin construction of the network upgrades,
11 doesn't occur until after Duke and the interconnection
12 customer enters into an LGIA; is that correct?

13 A I believe that's correct. (To Mr. Finucane)
14 Nate, would you say that's correct?

15 A (Finucane) Yeah. That's correct.

16 Q Yeah. There's, I believe, a footnote in the
17 report about when the lead time begins, and I think it
18 says after the LGIA --

19 A (Quaintance) Yes.

20 Q -- is entered into.

21 A Yes.

22 A (Finucane) It would be a milestone in the LGIA.

23 Q Right. And so I want to talk about the timing,
24 then, for the expected completion of construction of the

1 network upgrades for projects that -- first, I'll talk
2 about the projects in the transitional cluster study and
3 then, of course, there will be projects in the DISIS
4 study afterwards. And are you familiar with the timeline
5 for when projects are expected to enter into LGIAs in the
6 transitional cluster study?

7 A I believe so. I don't have it right with me,
8 but it's definitely in 2023.

9 Q Right. well, subject to check, does the date
10 of April the 27th of 2023 sound like the correct date
11 when LGIAs --

12 A Subject to check.

13 Q Okay. Yeah. And subject to check, is the
14 expected date when projects would enter into LGIAs and
15 DISIS about a year afterward, so subject to check, would
16 that be in January of 2024?

17 A Yeah, subject to check.

18 Q Okay. And so going back to constructing
19 network upgrades for projects that are in the
20 transitional cluster study, if they enter into LGIAs in
21 April of 2023, my calculation, then, is that the network
22 upgrades won't be completed until sometime in the fourth
23 quarter of twenty twenty -- excuse me -- 2028 at the
24 earliest. Does that sound correct to you?

1 A Yeah.

2 Q Okay. And that would mean that the generating
3 facilities would not be able to be online until 2029. Is
4 that generally accurate?

5 A Yeah, with, you know, full network service --

6 Q Okay.

7 A -- that would be required.

8 Q And I think the reason why this timing is
9 important is because of House Bill 951 that has the 70
10 percent carbon reduction mandate by 2030. And would you
11 agree that it's very important to have the network
12 upgrades constructed and projects online in order to meet
13 the 2030 70 percent mandate?

14 MR. JOSEY: I would object to this question.

15 COMMISSIONER DUFFLEY: Basis?

16 MR. JOSEY: That 951 is not the purpose of this
17 hearing. The purpose of the hearing is this Phase 1
18 study report and the upgrades allocated to Juno Solar
19 specifically and how that plays into its application for
20 a CPCN.

21 COMMISSIONER DUFFLEY: Ms. Kemeraït, can you
22 rephrase the question --

23 MS. KEMERAIT: Okay.

24 COMMISSIONER DUFFLEY: -- to appropriately meet

1 the scope of this hearing?

2 MS. KEMERAIT: Yes.

3 Q So if for Juno Solar, the earliest that Juno --
4 so Juno Solar, if it is in the transitional cluster
5 study, would not be online until 2029; is that generally
6 accurate?

7 A (Quaintance) That sounds generally accurate,
8 yes.

9 Q And then Juno Solar would be able to contribute
10 to the carbon reduction mandate by the date of 2030 if
11 it's online by 2029?

12 A (Finucane) Yeah. Yes.

13 Q And for -- if Juno Solar were in the DISIS
14 study rather than the transitional cluster study, it
15 would not enter into an LGIA until probably January of
16 2024, as I mentioned; is that correct?

17 A That's correct.

18 Q Okay. And then based upon that five-and-a-half
19 year lead time for construction of network upgrades, that
20 would mean that the earliest that Juno Solar could be
21 operational would be the second half of 2029; is that --
22 is my math correct?

23 A Subject to check.

24 Q And that is a very close date to the mandate

1 for 951 of carbon reduction by 2030?

2 MR. JOSEY: Objection. Whether or not Juno
3 solar -- we have no evidence that Juno Solar is intending
4 to be part of the 951 carbon plan.

5 COMMISSIONER DUFFLEY: What's your response?

6 MS. KEMERAIT: I think it is relevant to show
7 that having the network upgrades constructed for Juno
8 solar and for the other projects in the transition
9 cluster study is critical for being able to meet House
10 Bill 951's carbon reduction mandate by 2030.

11 COMMISSIONER DUFFLEY: Well, at this point it
12 really, I think, turns on the fact of whether you're
13 selling to Duke or PJM. So do you have a response to
14 that?

15 MS. KEMERAIT: Mr. Levitas will be providing
16 some information about the need for the facility in his
17 testimony, but I think the general information about
18 construction network upgrades is relevant because it's
19 included in the Phase 1 report. So I'll move on from
20 that question. And that's all the questions that I have
21 for you, so I appreciate your complete answers.

22 COMMISSIONER DUFFLEY: Thank you. Mr. Josey?

23 MR. JOSEY: Yes. Thank you very much.

24 CROSS EXAMINATION BY MR. JOSEY:

1 Q I have questions for both of you. If I ask one
2 of you a question, the other one can fill in some gaps,
3 feel free. But Mr. Finucane, I'd like to start with you.
4 You stated earlier that there are several ways for a FERC
5 jurisdictional project to show readiness to enter into
6 the transitional cluster study, correct?

7 A (Finucane) (Nods affirmatively.)

8 Q I believe there are four ways, a binding term
9 sheet, proof that they are involved in a resource
10 solicitation process, or they can provide the additional
11 financial security, correct?

12 A That's correct.

13 Q Okay. And to your knowledge, which one did
14 Juno choose?

15 A They provided the additional security.

16 Q Okay. And the same requirements to enter Phase
17 2 as a ready project, they are the same requirements for
18 entering into Phase 1 and Phase 2, correct?

19 A With the exception of the security level is
20 higher, yeah.

21 Q Okay. So --

22 COMMISSIONER DUFFLEY: Mr. Finucane?

23 MR. FINUCANE: Sorry.

24 A The security level is higher --

1 COMMISSIONER DUFFLEY: Thank you.

2 A -- for entering into Phase 2.

3 Q And to your knowledge, Juno has not shown to be
4 a ready project, and their intent is to provide that
5 financial -- extra financial security to enter Phase 2,
6 correct?

7 A So we're in the customer engagement period now
8 where they would -- if they did intend to provide, you
9 know, an alternate form of readiness, that we would be
10 taking a look at that and determining whether, you know,
11 whether it was a binding commitment.

12 Q Thank you. If Juno were to -- and I think you
13 spoke to this earlier. If Juno were to drop out prior to
14 Phase 2, they would only have to forfeit their study
15 cost, correct, their allocation of the study cost?

16 A That's correct.

17 Q And any other facility that were to drop out of
18 Phase 1 would also only have to pay their allocation of
19 the Phase 1 study cost, correct?

20 A That's correct.

21 Q And if Juno were to drop out after or in Phase
22 2, there would be a withdrawal penalty --

23 A That's correct.

24 Q -- of nine times that --

1 A 9X, that number.

2 Q And that would also be for any other project
3 that had to drop out presumably because Juno dropped out?

4 A That's correct.

5 Q Okay. Thank you. And I believe -- Mr.
6 Quaintance, I believe this is for you. Can you briefly
7 explain the difference between a Phase 1 power flow
8 cluster study and the Phase 2 system impact study as it
9 applies to a cluster?

10 A (Quaintance) Sure. If we have sufficient
11 significant dropouts from Phase 1 to Phase 2, we will
12 repeat the Phase 1 power flow study in the same
13 methodology, but in Phase 2 with only the requests that
14 remain in Phase 2.

15 In addition to that, we will be performing
16 stability studies only for the projects that go into
17 Phase 2, and short-circuit studies only for the projects
18 that go into Phase 2. That's the primary difference.

19 Q And is a Phase 2 system impact study, would you
20 say it is more accurate as to the amount of network
21 upgrade cost that would be allocated to each project?

22 A Inasmuch as the milestones help incentivize,
23 you know, the more serious closer-to-reality projects, I
24 would say yes, and that it covers more technical topics,

1 I would say yes.

2 Q And just so I'm clear, the -- when you discuss
3 Phase 1 restudies that -- you said that that did not
4 extend the time period for Phase 2, correct?

5 A Correct. We expect to be able to perform a
6 power flow restudy in the beginning of Phase 2, early in
7 Phase 2.

8 Q But if you were to have to do a Phase 3 system
9 impact restudy, that would significantly increase the
10 time period of the study process?

11 A Yes. If we add another restudy in Phase 3 that
12 -- or between 2 and 3, yeah.

13 A (Finucane) Yeah.

14 Q So if Juno were to drop out at the -- after a
15 system impact study, it would significantly increase the
16 -- it could possibly significantly increase the time to
17 complete the study?

18 A (Quaintance) Correct.

19 Q Okay. And if Juno's interconnection does, in
20 fact, trigger a DEC transmission system -- affected
21 systems upgrade, how will those upgrade costs be
22 allocated?

23 A I don't think I have an answer for you right
24 now. I don't know that answer today.

1 Q Okay. So, for instance, in PJM it's a first to
2 cause and it's all allocated to the system -- or the
3 facility that causes the affected systems upgrade,
4 correct?

5 A And you refer to a PJM project causing an
6 overload on, say, a Duke Energy system?

7 Q Yes.

8 A Correct. That has been our process, right.

9 Q And would you expect that that would be the
10 process going forward?

11 A I would expect that, so yes.

12 Q Thank you. And on page 56 of the Phase 1
13 cluster study report you talk about a -- or the report
14 talks about cost estimates in the report are classified
15 estimates. Could you please explain what a classified
16 cost estimate is?

17 A Yes, and I -- hopefully I won't get out of my
18 lane on this one as I'm not a project manager. But a
19 classified estimate is, I believe, defined as a plus 100
20 percent, minus 50 percent estimate.

21 Q And can you explain? Is that the margin of
22 error for the --

23 A That's considered to be the margin of error,
24 yes.

1 Q Okay. So the cost of the Juno upgrades could
2 be half of what they are currently stated in the report
3 or as much as double?

4 A That's the definition, correct, of classify.
5 And our estimates do include some contingency to help
6 cover a little bit of that.

7 MR. JOSEY: Okay. That's all the questions I
8 have at this time.

9 COMMISSIONER DUFFLEY: Okay. Thank you.
10 Redirect?

11 MR. BREITSCHWERDT: Just one clarifying
12 question.

13 REDIRECT EXAMINATION BY MR. BREITSCHWERDT:

14 Q So there was discussion about the difference in
15 the -- what we'll call the non-ready path or FERC
16 jurisdictional interconnection customers -- and Mr.
17 Finucane, this is for you -- and the \$5 million. Can you
18 just clarify, that's the amount of security provided at
19 Phase 1 and then Phase 2? So it's not more than \$5
20 million. That's an aggregate number over time. And
21 explain how that works.

22 A (Finucane) Yeah. So if they choose to move
23 into Phase 2 without a, you know, without a binding term
24 sheet, that they would have a total of 5 million security

1 posted in addition to a 250K deposit.

2 Q So under the large generator interconnection
3 procedures it's the 3 million that Juno already provided
4 to enter the Phase 1 study and then an incremental \$2
5 million?

6 A That's correct.

7 Q Okay. Thank you.

8 MR. BREITSCHWERDT: That's all I have.

9 COMMISSIONER DUFFLEY: Thank you. Commission
10 questions? Chair Mitchell?

11 CHAIR MITCHELL: Commissioner Clodfelter has
12 some.

13 EXAMINATION BY COMMISSIONER CLODFELTER:

14 Q Good morning, gentlemen. Mr. Josey, thank you
15 for your questions. You've saved me a lot of time on
16 several questions. I'm not sure which of you should
17 answer, so whichever one of you wants to answer is fine
18 with me.

19 I want to ask some questions just to follow-up
20 on a couple things Mr. Josey asked. Do you have the --
21 you have the transitional cluster study in front of you?

22 A (Quaintance) Yes, Commissioner.

23 Q Can you take a look at page 5, open to page 5?
24 I'm just curious about where we are in some of these.

1 And I think Ms. Kemerait referred to or may have alluded
2 to indirectly, not by name, a project that's given ID
3 Number 187960 at the bottom of page 5. That is a
4 proposed 160 MW solar facility in Darlington, South
5 Carolina. Do you see that one?

6 A Yes. I see that one.

7 Q I'm curious if you know, do you know whether
8 that project is proceeding under the commercial readiness
9 criteria or is that post -- had to post security?

10 A I don't know that one. (To Mr. Finucane) Nate,
11 I don't know if you understand that one.

12 A (Finucane) I'm not 100 percent sure.

13 Q Are you less than 100 percent sure? Do you
14 have a reasonable idea, subject to check, or something of
15 that sort?

16 A Sure.

17 A (Quaintance) I believe that one, it's public
18 knowledge that's a Duke Energy facility.

19 A (Finucane) So I believe that would be
20 proceeding under the -- indicated in a resource plan.

21 Q Sure. Okay.

22 A But I'm not -- that's what I wasn't sure about,
23 is whether that's what they -- what they --

24 Q You're not actually sure?

1 A -- what they indicated. But I can -- we can
2 certainly --

3 Q No. That's helpful. And I thank you for that.
4 Let me take another example. Go up the page about two or
5 three and you've got project ID 179866 which is a
6 proposed 150 MW facility located in Williamsburg County,
7 South Carolina. Do you know whether that's proceeding
8 under commercial readiness criteria or under financial
9 assurances?

10 A My understanding is that would be a financial
11 assurance.

12 Q That's a financial assurances?

13 A Yeah.

14 Q And, again, I don't want to drop to a
15 generalization too quickly, but it appears that most of
16 the other transmission projects, other than the Juno
17 project and the two I've just asked you about, are less
18 than 80 MW. Would it be safe for me to generalize and
19 presume that all of those are proceeding as QFs?

20 A Except for the storage of the solar projects.

21 Q Except -- of the solar projects or solar plus
22 storage.

23 A Yes.

24 Q So that would -- aside from the stand-alone

1 storage projects. That --

2 A That's correct.

3 Q -- would be safe generalization for me to make?

4 A That's correct.

5 Q Okay. Thank you. That's helpful. Mr. Josey
6 may have asked you this, and if he did, it's probably
7 while I was having a sidebar with one of my colleagues,
8 so I apologize for repeating if I'm doing so.

9 After the Phase 2 study, what class estimate is
10 -- do you have for -- let's call it for the power flow
11 related projects?

12 A I don't believe the estimate changes during
13 Phase 2, the class of estimate changes during Phase 2.

14 A (Quaintance) I believe we actually will be
15 improving those. I believe once at the beginning of
16 Phase 2 when we know who is in Phase 2, our plan is to
17 begin putting together a better cost for the
18 interconnection, which is known right at the beginning
19 because they're staying in, and then we're going to rerun
20 the power-flow study and then we will start looking at if
21 we can get better cost for the network upgrades that
22 remain in Phase 2.

23 Q You'll rerun the power-flow study at the
24 beginning of Phase 2?

1 A That's correct.

2 Q Based upon who has entered Phase 2.

3 A That's correct.

4 Q Okay.

5 A (Finucane) But that doesn't change the class
6 estimate of the estimation. We're going to continue to
7 work on the estimation, but I don't believe that the
8 class definition of the estimate changes until facility
9 study.

10 Q Thank you. That answers the question.
11 Appreciate it. Well, let me sort of follow a little bit
12 on that. And as you sit here today, are you -- are
13 either of you or is Duke aware of any projects that were
14 included in the transition cluster study that have
15 already communicated some intent not to proceed in Phase
16 2? I mean, whether it was after the study was released
17 yesterday or even before. I mean, for reasons that may
18 have nothing to do with the study, are you aware, as we
19 sit here today, of any projects we ought to go ahead and
20 sort of look at and think, well, they may not be in Phase
21 2?

22 A Not in DEP.

23 Q Not in DEP.

24 A Yeah. We did have some DEC projects that

1 withdrew early in Phase 1 due to the Tranche 3. You
2 know, they wanted to be in part of the CPCN in Tranche 3.

3 Q They wanted to be part of Tranche 3 --

4 A Yeah. Yeah.

5 Q -- of CPRE.

6 A It's a handful of projects.

7 Q Okay. Thank you. Let me go back to the two
8 projects that I was asking you about that are both in
9 South Carolina and both -- one is 150, one is 165 MW. As
10 you sit here today, does Duke have any knowledge about
11 whether either of those projects has applied for or has
12 already received a CPCN from the South Carolina Public
13 Service Commission?

14 A I don't.

15 Q Don't know?

16 A (Quaintance) I don't have any knowledge of
17 that.

18 Q Don't have any information on that. That's
19 fine. Gentlemen, you don't have this here today. I'm
20 going to try to ask the question without requiring any
21 reference to the documents, but I've taken a look back
22 through the report of the North Carolina Transmission
23 Planning Collaborative released in January of this year,
24 2022, and also at the recent offshore wind study that

1 Duke generated and has presented to this Commission,
2 among other places. You're familiar generally with both
3 of those documents?

4 A (Finucane) (Nods affirmatively.)

5 Q In my review, I couldn't find any of the
6 network upgrades that are identified in the transitional
7 cluster study and are, let's see, I'll say listed for
8 Juno Solar. I couldn't find any of those listed as
9 projects that are scheduled or planned in the
10 Transmission Planning Collaborative study or in the
11 offshore wind study. Did I -- did my research -- was my
12 research correct?

13 A (Quaintance) I think your research was correct.

14 Q Okay. That's what I wanted to know. Thank
15 you.

16 COMMISSIONER CLODFELTER: That's all I have.

17 COMMISSIONER DUFFLEY: Chair Mitchell?

18 EXAMINATION BY CHAIR MITCHELL:

19 Q Good morning, gentlemen. And Mr. Finucane,
20 welcome to your first run at the Commission.

21 A (Finucane) Thanks.

22 Q We appreciate your being here. I have a few
23 questions for you, following on, on Commissioner
24 Clodfelter's last question. So is it fair to say that

1 none of the upgrades that have been identified in this
2 Phase 1 study for Juno or really for any of the other
3 generators are necessary for reliability purposes, or are
4 they?

5 A (Quaintance) Do you want me to take that one?

6 A (Finucane) Go ahead. Yeah.

7 A (Quaintance) Yeah. You are correct that they
8 are not necessary for reliability. The upgrades assigned
9 to the transition cluster generator requests are not
10 necessary for reliability without that, those generators.

11 Q Okay. So these -- this would -- these upgrades
12 would be of the type that are necessary only to meet
13 generator interconnection request needs; is that right?

14 A That's correct.

15 Q Okay.

16 A Yeah.

17 Q Okay. Just one quick question, then I'll get
18 into another line of questions. Page 45 of the study
19 identifies or discussed upgrades to the Fayetteville -- I
20 guess that's Fayetteville -- Fayetteville DuPont line.
21 Let me know when you all --

22 A I see that, yeah.

23 Q Okay. You're there. And there's an estimated
24 cost. In the Estimated Cost column there's a reference

1 to a transmission plan. what is the transmission plan?

2 A That is our plan to meet normal reliability
3 requirements, for example, the NERC standards. And just
4 for additional detail, there are a few upgrades in this
5 study that the cluster generators contribute to, but were
6 already in our plan, so we are already -- and that's an
7 example of one of them. we do have in our plan now to
8 reconductor the Hope Mills Church Street to Roslin Solar
9 section of that line. It did show up for reliability
10 reasons. And its cost is not assigned to the cluster,
11 whereas the section right below it is not needed and
12 planned for reliability needs and is needed for this
13 cluster.

14 Q Okay. So just so I'm clear, where an upgrade
15 is shown in the company's transmission plan, cost
16 associated with that upgrade aren't assigned to any of
17 the generators; is that correct?

18 A Correct. They are not assigned to the
19 generators.

20 Q Okay. Okay. How much overlap is there between
21 the transmission plan and the upgrades shown in the Phase
22 1 study? This is one example. How many other examples
23 are there?

24 A And by "overlap," you mean it might be

1 different sections of the same transmission line?

2 Q Or a section of the transmission line that Duke
3 is showing as being -- as having to upgrade for --

4 A Oh, I see. I don't have a count. Flipping --
5 I'd have to flip through and count those. Following
6 pages 46 and 47 are four sections of one line that's in
7 the utility plan, so that's two. There is -- if I
8 recall, an upgrade on our Richmond County transformers is
9 in the plan. That's what I recall, but I would have to
10 count.

11 Q Okay.

12 A There might be one or two others.

13 Q Okay. Thank you.

14 A (Finucane) Chair Mitchell, I'd also note that
15 DEC has significant transmission plan work in their
16 report, too, more significant than in DEP.

17 Q Okay. Thank you for that. Did either of you
18 -- I'm going to lob this question to both of you all, and
19 you all can -- you know, the appropriate person can
20 answer it. But did you all -- did you all review the
21 testimony that the Applicant filed, Applicant witness
22 Levitas prefled in this docket? It was the same point
23 made in his direct testimony and his rebuttal testimony
24 about the necessity of these upgrades in terms of meeting

1 the carbon reduction requirements that are now set forth
2 in 951?

3 A Yes.

4 A (Quaintance) we are familiar with those.

5 Q And what is the Company's -- what is DEP's view
6 on the point that Mr. Levitas makes there?

7 A (Finucane) Regarding the need for these
8 upgrades?

9 Q To meet 951 requirements.

10 A we think that this is an important challenge
11 for --

12 Q Say that again. I can't hear you.

13 A we believe this is an important challenge, to
14 solve the allocation of these upgrades.

15 Q Okay. That -- I don't think you answered my
16 question, so let me be clearer. Do we have -- do these
17 upgrades have to be constructed on DEP's system in order
18 to meet the requirements now set forth in 951?

19 A (Quaintance) I mean, I don't -- I think we're
20 -- you know, our main focus today is on the transition
21 cluster study report. I don't have a thought that's on
22 that further topic of House Bill 951.

23 Q Okay.

24 A (Finucane) I mean, without having a carbon

1 plan, I mean, it's hard to say, but yeah, I mean, it's
2 important. I mean, these upgrades are going to be
3 important.

4 Q Okay. Okay. Are you -- I see Mr. Jennings
5 back there in the room. I'll probe this question a
6 little bit more with you two gentlemen, see if I can get
7 sort of closer to where I am trying to get here. Mr.
8 Jennings, you might need to come up here and help them
9 answer if we don't get closer to a response here.

10 So the Applicant argues strenuously, we heard
11 it -- we've now read it in their direct testimony, we've
12 read it in their rebuttal testimony. We heard it during
13 the first phase of the evidentiary hearing. Duke has
14 intervened in this proceeding, which is unusual for these
15 EMPs. I went back into the record, and I think I see two
16 other instances where Duke has intervened in merchant
17 proceedings, one of which was Friesian, another of which
18 was the NTE facility which was a gas turbine. So I'm
19 just -- I need some help from DEP here.

20 Are these -- are these lines, are these
21 upgrades going to be constructed regardless of who is
22 paying for them? Can you all answer that question?

23 A (Quaintance) I think there's a good likelihood
24 that some of these lines will be needed, depending on

1 which solar -- you know, where is solar built. That's,
2 of course, a huge question.

3 Q Can -- following up on your -- and I understand
4 your response. Can solar facilities be constructed
5 elsewhere in the state to avoid these -- this
6 transmission constraint problem and the need for upgrades
7 that we're seeing here in the Red Zone?

8 A From a transmission point of view, they can be.
9 Of course, there are many factors in locating solar
10 plants, but from a transmission point of view, additional
11 solar can locate in DEP in other areas. But, again, I
12 can't speak to their viability from land acquisition and
13 other things like that.

14 Q So there is non-Red Zone transmission capacity
15 available elsewhere in DEP, and the question is sort of
16 the other factors that go into the development of a solar
17 facility that aren't associated with the transmission
18 capacity?

19 A Correct.

20 Q Okay.

21 A (Finucane) Yeah. I would offer, Chair
22 Mitchell, that, you know, when we look at the queue, the
23 previous serial queue and the transitional cluster queue,
24 that we see, you know, lots of projects in this area and

1 lots of larger projects in this area that we don't
2 necessarily see that volume or size of project anywhere
3 else when we look historically at interconnection
4 requests that we've received.

5 Q And I understand that, and I think there's -- I
6 think we could all accept that as fact at this point in
7 time.

8 A Yeah.

9 Q We've certainly been talking about the Red Zone
10 for many years --

11 A Sure.

12 Q -- and you know we know that part of the
13 purpose of one of the, you know, at least intentions of
14 moving to the competitive process was to try to steer
15 project development to locations in the state where, you
16 know, you'll possibly avoid the need to upgrade the
17 transmission system. But you -- I guess, you know, my
18 question here is really do we -- are these upgrades
19 inevitable, and who is paying for them if the answer is
20 yes? And I appreciate your efforts at trying to answer
21 that question, but I think you all now understand what my
22 question is.

23 A I can -- well, go ahead.

24 MR. BREITSCHWERDT: Please answer.

1 COMMISSIONER DUFFLEY: And I'm sorry. I have
2 nothing.

3 CHAIR MITCHELL: I have nothing further.

4 MR. BREITSCHWERDT: And to the extent it would
5 be helpful to the Commission, we appreciate that the
6 technical experts we brought today were -- are technical
7 experts that are focused on the Phase 1 study report and
8 perhaps aren't as prepared as the Commission would like
9 for the big picture question of what does the carbon plan
10 need by 2030 to achieve the General Assembly's goals,
11 which is a large, complex question that the Companies are
12 still engaging with stakeholders on and plan to file a
13 very significant plan on the 16th, and so --

14 CHAIR MITCHELL: And I -- Mr. Breitschwerdt,
15 just to be clear -- sorry, Commissioner Duffley, I'm -- I
16 understand all that, and I'm not trying to get into
17 development of carbon plan questions here in this EMP
18 proceeding. My question only is Duke's -- Duke is in
19 this proceeding as a party now. You've got your experts
20 who are here before us. We've got the Applicant
21 testimony as to the criticality of these upgrades and
22 meeting all kinds of different objectives that have now
23 been established, you know, in the public policy of the
24 state. So I want to know where Duke lands on that

1 testimony. Where is Duke? Since Duke is here in this
2 proceeding before us right now, where is Duke on -- and
3 that's the reason for my questions, and these gentlemen
4 have, you know, given me their responses, so --

5 MR. BREITSCHWERDT: Understood. And I
6 apologize. Perhaps too much wind-up in my response, but
7 the thought was that we could provide a late-filed
8 exhibit or a written response similar to what was done in
9 the Friesian proceeding, providing Duke's perspective on
10 the question that Chair Mitchell has asked, because it is
11 a significant policy question that's broader than the
12 scope of the technical questions that are before -- or
13 that we were prepared and brought witnesses to address to
14 the Commission today. So if that would be helpful, the
15 companies would be glad to undertake that expeditiously.

16 COMMISSIONER DUFFLEY: We would find that
17 helpful, and we request that late-filed exhibit.

18 MR. BREITSCHWERDT: Understood. Thank you.
19 And I presume other parties may want to respond to that,
20 but we'd be fine with that.

21 EXAMINATION BY COMMISSIONER DUFFLEY:

22 Q So good morning, gentlemen. So why -- let's go
23 back to a question, if you can answer it. Why did Duke
24 intervene in this proceeding, if either of you know?

1 what was the purpose?

2 A (Quaintance) I don't personally have an answer
3 myself. I'm sorry.

4 A (Finucane) I don't know the answer to that
5 question.

6 Q Okay. Thank you. So now hopefully I'll be
7 getting into questions that you have prepared for. So
8 what are the total upgrades assigned to interconnection
9 customers in the TCS that are subject to the FERC
10 crediting policy?

11 A (Quaintance) I don't believe I calculated that,
12 but we could definitely get that for you.

13 A (Finucane) Yeah.

14 A (Quaintance) It's a matter of doing -- pulling
15 our calculator out for a few minutes.

16 Q Or can you just identify, is it -- will it just
17 be the FERC projects, the projects labeled as FERC
18 projects?

19 A (Quaintance) (To Mr. Finucane) Nate, if --

20 A (Finucane) Yeah, yeah. If you add up the
21 upgrades assigned to the projects labeled as FERC, then
22 you would get to that number.

23 Q Okay. Thank you.

24 A Excluding the interconnection facilities.

1 Q And can you provide an estimated LCOT,
2 levelized cost of transmission, associated with the
3 entire TCS? Have you all performed that calculation?

4 A The total cost over the total MWh?

5 Q Uh-huh.

6 A No.

7 Q Right.

8 A I would also add -- well, I'm sorry.

9 Q Go ahead.

10 A You know, the -- how you calculate LCOT is
11 important and, you know, if you're looking at one project
12 versus the whole bulk of projects with different
13 commercial operation dates and lifespans and stuff like
14 that, so it's more involved than it might sound.

15 Q And so you obviously don't know what the LCOT
16 would be if all the projects except Juno dropped out of
17 the TCS?

18 A I don't.

19 Q Okay.

20 COMMISSIONER DUFFLEY: Commissioner Clodfelter
21 asked with respect to have you received any withdrawals
22 from the TCS. If the Company can, please, if this is not
23 confidential information, and I'll let Mr. Breitschwerdt
24 answer this, but if it's publicly available, if they --

1 if the Company can file with the Commission notice of any
2 withdrawals from the TCS within a day of the receipt of
3 that withdrawal. I'll let you think about that, and
4 we'll touch base before the end of the hearing on that
5 request.

6 Q If you could go to page 53 of the TCS. And
7 this is your section where you've identified DEC as being
8 an affected system. So when would the Company have a
9 cost estimate for those potential impacts?

10 A (Quaintance) I don't have a direct answer for
11 you. The -- of course, the report is shared with these
12 potential affected systems already, and they've been
13 invited to the presentation on -- is it March 7th, I
14 believe. They will participate. Whether they -- and, of
15 course, all the utilities -- I don't know if you're
16 talking all the potential affected systems in general or
17 DEC more specifically --

18 Q well, let's start with DEC.

19 A I don't have a direct, I apologize, answer for
20 you. It was my thought that, you know, if I was an
21 affected system, I'd like to see who goes into Phase 2
22 and -- and in my experience with many of the neighboring
23 utilities, it won't be before those notifications about
24 who is going into Phase 2 are known. So it'll be well

1 into Phase 2, I believe, before some of that information
2 is known.

3 Q Okay. But could it be as late as the facility
4 study?

5 A I'm not sure. I would hope we can get it
6 quicker than that.

7 Q Okay. And will you estimate any type of share
8 or is it -- I think you were talking with Mr. Josey about
9 this -- is it a first to cause?

10 A We have traditionally used a first to cause,
11 yes, for affected system purposes.

12 Q Okay. And so you have communicated at this
13 point with all of the other transmission owners that have
14 affected systems that they're potential affected systems?

15 A (To Mr. Finucane) And Nate, you can correct me
16 if I'm wrong. They've been notified -- I don't know if
17 we told them specifically or just sent them the report.

18 A (Finucane) So they received an invitation to
19 the March 7th meeting, and our intention was for them to
20 be kind of party to that meeting and participate and
21 maybe represent what their -- what -- you know, what
22 their plans were as regards to assessing the notification
23 from DEC and DEP that they might be a potential affected
24 system.

1 Q Okay. And then if you could go to page 45.

2 A (Quaintance) I'm sorry. Did you say 45?

3 Q Yes.

4 A Okay. Thank you.

5 Q So if you could explain this discrepancy
6 between -- in the middle box you have 12 million,
7 roughly, of estimated cost of upgrades and -- but then
8 when you do the cost allocation for the two projects, at
9 the far right it looks like only 2.5, 2.6 million are
10 allocated. So what's the discrepancy between those two
11 numbers?

12 A That's a good question, and it, you know, may
13 be a function of how we laid out the report. In the
14 first part before this section we discussed the NRIS
15 results, and those are generators that want firm service
16 -- and by the way, all generators had firm service NRIS,
17 or NRIS and ERIS, by the way, but -- so we -- these
18 upgrades were described in that prior section and they
19 are assigned across all the generators that contribute,
20 and that does add up to the 12.036 million.

21 In this section we tried to discuss the ERIS,
22 those that, you know, optionally checked the ERIS box on
23 the FERC form, and our goal here was to indicate which
24 projects -- for those that did request potential ERIS,

1 you know, what was their contribution to those upgrades.
2 So maybe another way to say it is this bottom box on page
3 45, that upgrade is -- there's a more detailed, a more
4 full table earlier for that exact upgrade for all the
5 projects that contributed to it. So we just pulled out
6 two of the rows from that. And so I can understand,
7 though, why that's a little unclear.

8 Q That's helpful. Thank you. And then we talked
9 about the different classes and moving down. Currently
10 we are at a Class 5 estimate. When will that class
11 change? I'm not sure I heard the answer of when it will
12 go down to four, three, two, one.

13 A (Quaintance) (To Mr. Finucane) Nate, is it
14 Class 3 and facility study? Is that what --

15 A (Finucane) I believe the facility study is a
16 Class 3 estimate.

17 Q Class 3? So it will change at the facility
18 study?

19 A Yes.

20 Q Okay. Okay. Thank you.

21 COMMISSIONER DUFFLEY: Any other questions?
22 Questions on Commission questions?

23 CHAIR MITCHELL: Actually, Commissioner
24 Duffley, I do have one more question.

1 FURTHER EXAMINATION BY CHAIR MITCHELL:

2 Q Are either of you gentlemen aware of the
3 commercial arrangement for the sale of the output of this
4 facility?

5 A (Finucane) We received a non-binding term sheet
6 from the Applicant that had some information in it, but
7 that's the only evidence of any commercial agreement that
8 we have.

9 Q And what can you tell me about that non-binding
10 term sheet that isn't confidential? who is the offtaker?

11 MR. FINUCANE: (To Ms. Kemerait) Is that --

12 MS. KEMERAIT: That's confidential.

13 MR. FINUCANE: Sure.

14 A No.

15 Q Okay. Well, we'll go into confidential session
16 later, then.

17 COMMISSIONER DUFFLEY: Okay. Questions on
18 Commission questions? Start with Ms. Kemerait.

19 MS. KEMERAIT: I think Mr. Snowden has a couple
20 of questions, but I have just one question following up
21 from Commissioner Duffley's question just for
22 clarification.

23 EXAMINATION BY MS. KEMERAIT:

24 Q You stated that -- in response to one of her

1 questions about affected system cost, I believe you
2 stated that the way that they are allocated currently is
3 on a first to serve basis; is that correct?

4 A (Quaintance) First to cause.

5 Q First to cause. Okay. And for clarification,
6 are you aware that Juno Solar has agreed to a condition
7 that if -- if any affected system costs are on the Duke
8 system, that Juno Solar will be solely responsible for
9 paying for those costs?

10 A I did read those.

11 Q Okay. Thank you.

12 MS. KEMERAIT: And now Mr. Snowden has some
13 questions.

14 MR. SNOWDEN: Thank you.

15 EXAMINATION BY MR. SNOWDEN:

16 Q Good morning, Mr. Quaintance. It's nice to see
17 you face to face.

18 A (Quaintance) Good morning. Good to see you
19 again.

20 Q I have a couple questions following up on
21 Commissioner Clodfelter's questions. Mr. Quaintance,
22 you're involved with the TPC -- I'm sorry -- the
23 Transmission Planning Collaborative; is that right?

24 A Right. The North Carolina Transmission

1 Planning Collaborative, yes.

2 Q Okay. And Commissioner Clodfelter referenced
3 some public policy studies that are being conducted by
4 the TPC; is that right?

5 A Yes.

6 Q Okay. So public policy studies are submitted
7 by third parties to the TPC; is that right?

8 A Generally. Also, the parties -- the members of
9 NCTCP can submit similar requests for study.

10 Q Okay. But it's only relatively recently within
11 the last few years that the TPC has been conducting these
12 public policy studies; is that right?

13 A I apologize for not having a long history with
14 the group, but there have been more significant ones
15 recently.

16 Q Okay. Understood. But the TPC just undertakes
17 those public policy studies that are requested by third
18 parties or by members, right?

19 A That's correct.

20 Q Okay. And is it the case that no one has
21 requested that the Transmission Planning Collaborative
22 undertake a study of the upgrades that are required for
23 the TCS Phase 1; is that right?

24 A I would say that's correct. The way you said

1 it, right, no one has requested it.

2 Q Okay. And so the Transmission Planning
3 Collaborative is not at this time undertaking any study
4 of those upgrades, right?

5 A I would say we're in the middle of some studies
6 that may impact those or show some results related to
7 those lines. The request -- we are performing a request
8 from Public Staff that came in in '21, we're trying to
9 wrap it up now, which was a, you know, a renewables type
10 of policy study. And, you know, some of these may show
11 up. We don't have the final results yet, though.

12 Q Okay. And so the public -- I'm sorry -- the
13 Public Staff's request, you said it came in in 2021?

14 A That's right. It's really part of the 2021
15 NCTCP work, but it's taking longer and we're still
16 working on that right now.

17 Q Okay. And that came in before HB 951 was
18 passed, right?

19 A I don't recall exactly. It may have.

20 Q Okay. But the scope of that study does not --
21 is not matched up to the carbon reduction mandates in
22 951, correct?

23 A It did not -- I don't believe that request
24 mentioned House Bill 951.

1 Q Okay. And the quantities of renewables that
2 are requested to be studied in that policy request, as
3 you understand it, those don't match up with the
4 requirements for meeting the 951 mandates, does it?

5 A They were certainly not intended to align with
6 that and they -- I believe they were probably smaller
7 than House Bill 951 may require.

8 Q Okay. And that -- when is that study going to
9 be completed?

10 A I don't have an exact date, but I'm -- I think
11 within the next month or two we expect that to be
12 completed and published.

13 Q Okay. Thank you. And the last question, the
14 Transmission Planning Collaborative is not at this time
15 undertaking a comprehensive study of the transmission
16 improvements that would be needed to meet the
17 requirements of HB 951, is it?

18 A It is not currently. Our study effort for 2022
19 is being developed, the scope is being developed. We've
20 received various requests, and we are evaluating those
21 and working on determining what we will study for 2022.

22 Q Understood. Thank you. And if you can say,
23 when would you anticipate that any of those studies might
24 be completed?

1 A We typically wrap up our -- we kind of have a
2 standard reliability study every year we wrap up and
3 publish by December of the year. If it -- for a very
4 complex public policy study, it can sometimes go into the
5 next year, as we've seen with 2021.

6 Q So those studies are unlikely to be completed
7 by the time the Commission issues a decision on the
8 carbon plan, correct?

9 A Can you refresh my memory on that date?

10 Q That's the end of December.

11 A There's a chance that's correct, yes.

12 Q Thank you.

13 MR. JOSEY: No questions.

14 MR. BREITSCHWERDT: No questions.

15 COMMISSIONER DUFFLEY: Okay. Thank you,
16 gentlemen. We appreciate your testimony today and all
17 the fire that we gave you, so you may stand down.

18 MR. FINUCANE: Thanks.

19 MR. QUAINANCE: Thank you, Commissioners.

20 (Witnesses excused.)

21 COMMISSIONER DUFFLEY: All right. At this
22 point we'll take a morning break, 15 minutes, so 10:55.

23 (Recess taken from 10:39 a.m. to 10:56 a.m.)

24 COMMISSIONER DUFFLEY: Okay. Let's go back on

1 the record. Ms. Kemerait?

2 MS. KEMERAIT: Okay. So Juno Solar calls our
3 panel of witnesses, and our panel is Steve Levitas and
4 Derrick Sackler. And Mr. Levitas testified at the first
5 evidentiary hearing on November 30th of 2021, so I'll
6 just briefly ask that he identify himself again with his
7 name, business address, and occupation.

8 DIRECT EXAMINATION BY MS. KEMERAIT:

9 A (Levitas) Good morning, Commissioners. I'm
10 Steve Levitas, Senior Vice President with Pine Gate
11 Renewables, at 130 Roberts Street in Asheville, North
12 Carolina.

13 Q And our second witness is Derrick Sackler. And
14 Mr. Sackler, can you begin by providing your name,
15 business address, and by whom you are employed?

16 A (Sackler) Yes. Good morning. I'm Derrick
17 Sackler. I also work at 130 Roberts Street, and I'm
18 employed by Pine Gate Renewables.

19 Q And can you describe your educational
20 background and also your work experience?

21 A Happy to. Yeah. I obtained by bachelor of
22 science in finance and a bachelor of science in economics
23 from Florida State University. Obtained my master of
24 science in finance also from Florida State University.

1 Spent roughly two to three years at a competitive power
2 trading desk. That was called Integra Power Group. I
3 spent roughly four years at PA Consulting Group on the
4 market analytics desk until 2020. I was with NextEra
5 Energy Resources up until mid 2020 doing distributed
6 generation, M&A and development. And since -- from mid
7 2020 to present I've been at Pine Gate Renewables. I'm a
8 Director of Market Development there.

9 Q Okay. Thank you, Mr. Sackler. And Mr.
10 Sackler, is this the first time that you've testified
11 before the North Carolina Utilities Commission?

12 A It is.

13 Q Okay. But you were here for the evidentiary
14 hearing on November 30th; is that correct?

15 A I was. Correct.

16 Q Okay. Great. So Mr. Levitas, have you
17 prepared a statement that you would like to read to the
18 Commission?

19 A I have.

20 Q Okay. Could you please go ahead and read your
21 statement?

22 A Morning again, Commissioners. I'm happy to be
23 before you again this morning. Can you hear me okay?

24 COMMISSIONER DUFFLEY: Yes.

1 A I want to begin by thanking you for holding
2 this second evidentiary hearing to consider issuing a
3 Conditional Certificate of Public Convenience and
4 Necessity to Juno Solar in light of Duke Energy Progress'
5 Transitional Cluster Study Phase 1 Report dated February
6 28th, 2022.

7 As requested, we filed the Phase 1 Report in
8 the docket yesterday, March 1st. In light of the Phase 1
9 Report, we now have information about the network upgrade
10 costs assigned to Juno Solar and the total upgrade costs
11 for projects in the transitional cluster study.

12 Frankly, we were surprised by the size of the
13 network upgrade costs that DEP assigned to Juno Solar in
14 the Phase 1 report, but we're not here to dispute or
15 challenge the results and don't imagine that we intend
16 to.

17 As you've already heard from DEP's witnesses,
18 Juno Solar is identified in the Phase 1 report as Project
19 Identification Number 170274, and the cost of the network
20 upgrades assigned to Juno Solar is 89.682 million.

21 As you also heard, the majority of the network
22 upgrades assigned to Juno Solar and other interdependent
23 projects in the transitional cluster study are
24 essentially the same upgrades that were discussed during

1 the Friesian proceeding in Docket Number EMP-105, Sub 0.
2 It remains the case that these upgrades are needed to
3 eliminate transmission constraints in a large portion of
4 DEP's service territory that is particularly well suited
5 to solar development, but where no new solar projects
6 have been able to connect to the grid for several years.

7 And just to digress for a minute from my
8 statement with respect to something you heard earlier,
9 while there may be transmission resources elsewhere, if
10 there were viable solar development sites elsewhere, you
11 would have seen a lot more solar move into those areas
12 over the last five years.

13 I refer to this constrained area as the Red
14 Zone, you've heard that term today, and to these upgrades
15 as the Red Zone upgrades. Our calculations Ms. Kemeraйт
16 indicated were approximately 1,600 MW in the transition
17 cluster -- DEP transition cluster study that would
18 benefit from the participation of these upgrades. I
19 think the Duke witnesses may have said it was closer to
20 1,200 to 1,300. I guess that remains to be sorted out,
21 but it's a significant number that would benefit from
22 these upgrades. And our rough calculation was that there
23 was about \$365 million of total upgrade costs associated
24 with the Red Zone upgrades.

1 I think it's important to note, and I believe
2 it to be the case, that there are many future projects
3 that would benefit from these upgrades as well.

4 In the Friesian proceeding Duke took the
5 unusual step of filing letters from its North Carolina
6 president and regulatory attorney about the benefits of
7 the Red Zone upgrades. When it filed those letters,
8 House Bill 951 had not been enacted, but Duke nonetheless
9 stated that it viewed it as, quote, "a pivotal time of
10 transition in North Carolina's energy policy," close
11 quote.

12 Duke -- DEP's regulatory attorney explained the
13 multiple benefits of the Red Zone upgrades. First, he
14 said that, quote, "The network upgrades are
15 representative of the type of network upgrades that may
16 be required in the future to achieve CO2 reduction
17 targets, and that the additional resources accommodated
18 by those upgrades will move Duke closer to the various
19 CO2 reduction targets."

20 He went on to explain that if Friesian then was
21 not granted a CPCN and that it was not constructed, the
22 need for the upgrades, quote, "will not go away."
23 Instead, DEP, he said, will be required to assign the
24 network upgrades or some portion thereof to the next

1 project, or in this case as we've seen, projects in the
2 interconnection queue. And, again, I'm quoting, "It's
3 highly unlikely that any single project will be able to
4 absorb the cost of those upgrades."

5 He said that the most -- I'm quoting again --
6 "The most likely outcome in the short term would be a
7 cascading series of withdrawals, resulting in complete
8 paralysis of the interconnection queue in this portion of
9 DEP's service territory." And he accurately forecasted
10 that, quote, "If the Friesian network upgrades are not
11 constructed at this time, there will be a further
12 substantial delay in the interconnection of any
13 additional generating facilities in this area of DEP,"
14 close quote. And you've heard there have been no
15 transmission projects added for years in this area.

16 I believe that the benefits of the Red Zone
17 upgrades are even more important today in light of the
18 passage of House Bill 951. In Juno Solar's -- and I'll
19 say more about that in a minute. In Juno Solar's
20 conditional CPCN application, Juno committed to
21 conditions to ensure that ratepayers would not be
22 subjected to unreasonably high network upgrade costs as
23 well as affected system costs. Juno agreed that the LCOT
24 for any required network upgrades allocated to Juno would

1 be no greater than \$4 per Mwh and that Juno would agree
2 not to seek reimbursement for any affected system upgrade
3 cost that might be incurred.

4 The Phase 1 TCS results appear to show -- I'm
5 not sure you've heard a number today -- but it looks to
6 us like the LCOT for the network upgrades assigned to
7 Juno Solar could be between 6 and \$7 per Mwh. In light
8 of that fact and the nature of the request that's before
9 you, Juno is prepared to commit that if it does go
10 forward, it will pay for all network upgrade costs that
11 are greater than an LCOT value of \$4 per Mwh and not seek
12 reimbursement for that overage from ratepayers.

13 This solution would fully protect ratepayers by
14 ensuring that the costs are capped and that ratepayers
15 will not be subject to unreasonable network upgrade
16 costs.

17 I want to point out that an LCOT value of \$4
18 per Mwh is less than the LCOT value the Public Staff and
19 the Commission have determined to be reasonable in past
20 proceedings, particularly the Edgecombe Solar Merchant
21 Plant, EMP-101, Sub 0, where the Commission concluded
22 that an LCOT of \$6 per Mwh for its network upgrades was
23 not unreasonable.

24 I believe that granting the CPCN and preserving

1 the possibility that the Red Zone upgrades can be built
2 sooner rather than later is in the public interest. In
3 Duke's 2020 IRP, Duke represented that 4.6 GW of solar
4 additions above the baseline would be needed to achieve
5 70 percent decarbonization by 2030. That 4.6 GW volume
6 of solar assumed that there would be high levels of wind
7 or small modular nuclear additions as part of the 2030
8 portfolio, but meaningful wind and nuclear additions are
9 not likely to be achievable by 2030 and, actually, in
10 order to achieve compliance in 2030, they would have to
11 be in place by 2029 or very early 2030.

12 Absent huge imports of out-of-state clean
13 energy that don't appear likely under the carbon plan,
14 the volume of solar required to achieve the House Bill
15 951 2030 target could well be at least double the 4.6 GW
16 shown in Duke's 2020 IRP.

17 So here's the key question, and the question is
18 whether there is any possibility of adding at least 4.6
19 GW of solar resources to Duke's system and potentially
20 twice that amount or more without constructing the Red
21 Zone upgrades identified in the Transitional Cluster
22 study.

23 I'm not a transmission planning expert, but
24 I've been working in the solar industry for a long time,

1 and my personal view is that these upgrades will
2 absolutely be required to achieve the goals of House Bill
3 951.

4 You've already asked some questions to Duke
5 today about that. You didn't get a complete answer, but
6 it sure sounded like the prevailing view is that these
7 upgrades will be needed. But you've directed -- in your
8 2020 IRP Order you directed Duke in its carbon plan
9 filing that's due on May 16th, just a little over two
10 months from now, to provide detailed information about
11 the grid improvements needed to accommodate the
12 generation additions included in the carbon plan.
13 surely, Duke has a pretty good idea today whether the Red
14 Zone upgrades are necessary to support the carbon plan
15 that they are working on.

16 I would encourage you to ask Duke -- again,
17 you've asked them today, keep asking them -- whether they
18 agree that the Red Zone upgrades need to be constructed
19 in order to comply with the goals of House Bill 951.
20 Given Duke's comments to the Commission in the Friesian
21 proceeding about the importance and benefits of these
22 upgrades at that time, it would be very surprising if
23 Duke now sees a path for achieving 70 percent
24 decarbonization without major upgrades being built to

1 relieve the Red Zone constraints.

2 Now, if, in fact, the Red Zone upgrades are
3 needed, the Commission needs to determine the best way to
4 get them built. And Chair Mitchell was asking some
5 questions about that. How are they going to get paid
6 for? I believe there are three options.

7 The first would be to depart from the past
8 paradigm, the paradigm we've been in, of transmission --
9 the past transmission planning paradigm and for Duke to
10 initiate or at your direction to initiate proactively
11 building out necessary grid improvements independent of
12 specific interconnection requests. That's how we've done
13 it to date in the past. Everything that we build with
14 respect to accommodate new generation is reactive. We
15 have not done proactive transmission planning. But in my
16 opinion and that of many other experts in the field, this
17 is where we need to be going as a state and a country if
18 we're to achieve decarbonization goals.

19 Short of that, the second option would be to
20 keep the transitional cluster study process on track and
21 create a pathway for getting the study projects and
22 associated upgrades built as quickly as possible. And
23 you heard from Ms. Kemeraït's questions that if these
24 upgrades do not get done as part of the transitional

1 cluster study process, you're going to -- we are all
2 going to lose at least a year in getting these upgrades
3 completed and we're going to be bumping up against the
4 951 deadline.

5 That's -- the third option would be to not
6 approve the CPCN for Juno Solar, which I would -- I
7 believe would result in the transitional cluster study
8 unraveling with respect to the Red Zone upgrades. I
9 don't think you got a definitive answer on that today,
10 but our best estimates are that if Juno drops out, the
11 per-unit cost for the remaining transitional cluster
12 projects will be so high that those projects will not be
13 able to go forward, and that will be the end of getting
14 the Red Zone upgrades accomplished through the
15 transitional cluster study.

16 In that case, all those projects will have to
17 go into DISIS. That's the next bite at the apple. There
18 are going to be a lot more projects in DISIS. There are
19 going to be a lot more upgrades required. It's going to
20 be much more complex and it's going to take a lot more
21 time. That will result in a significant delay in getting
22 the Red Zone upgrades built.

23 I would note that when the Commission denied
24 the Friesian CPCN, it based that decision in part on

1 Duke's pending queue reform proposal which the Commission
2 said would provide a better framework for determining the
3 network upgrades required to support carbon free
4 generation and to allocate those costs appropriately.
5 That determination has now been made, and there is no
6 reason to defer action any longer. I would respectfully
7 suggest that delaying the construction of these upgrades
8 would be detrimental to ratepayers and will significantly
9 delay achievement of the 951 mandates.

10 My recollection is that you heard
11 uncontroverted evidence in the Friesian case that network
12 upgrade costs can be expected to go up by as much as 15
13 percent per year, and that was at a time of much lower
14 inflation than we're seeing today.

15 Every year that we delay building these needed
16 upgrades could increase the cost by tens of millions of
17 dollars. Ironically, the Public Staff testified in
18 Friesian that ratepayers would benefit from deferring
19 transmission improvements because the cost of capital
20 commodity prices and labor rates might go down. That is
21 clearly not what has happened, and there's no reason to
22 think that costs will continue -- will not continue to
23 increase over time.

24 And, also, this is a really important point

1 with respect to practicality. Duke regularly points out
2 that there are limits on the quantity of upgrades it can
3 construct in any given year. The longer the delay in
4 starting to build the upgrades needed to achieve the 951
5 mandates, the less likely it will be that those mandates
6 can be complied with.

7 You heard colloquy this morning about the lead
8 times that are discussed at page 24 of the report that
9 are up to as much as 66 months. If the Red Zone upgrades
10 are constructed for projects in the transitional cluster,
11 the facilities would be able to be in operation and help
12 contribute to meet the 70 percent carbon reduction goal
13 by 2030. Anything delaying it beyond that is going to
14 raise significant doubts about the ability to meet the
15 goal.

16 Therefore, in the absence of a new and
17 immediate initiative by Duke or at your encouragement to
18 build the Red Zone upgrades independent of any
19 interconnection requests, which I still think is a good
20 idea, the remaining option is for this Commission to take
21 the necessary steps to keep the transitional cluster
22 study moving forward.

23 I think there are two essential actions
24 required. First, as I've suggested, if Juno were to

1 withdraw from the queue, that almost certainly eliminates
2 any possibility of preserving the Red Zone portion of the
3 TCS and getting construction of the Red Zone upgrades
4 started anytime soon. Without the issuance of the
5 conditional CPCN that Juno has requested, as we discussed
6 at length in the prior evidentiary hearing, Juno will
7 have no choice but to withdraw, and that will likely mean
8 the end of the transitional cluster study pathway for
9 solving the Red Zone problem.

10 The second action, which is not before you in
11 this proceeding today, but is highly relevant to this
12 proceeding, is for Duke's 2022 procurement of utility-
13 owned solar assets to be able to include Juno and other
14 transitional cluster study FERC jurisdictional projects.
15 At the November evidentiary hearing we expressed interest
16 in the possibility of another offtake pathway, and that
17 would be selling this project to Duke rather than
18 wheeling its output to PJM.

19 Presumably, the Public Staff and the Commission
20 would view that as a preferable outcome for North
21 Carolina ratepayers contributing the cost of the upgrades
22 preferable to the alternative which would be North
23 Carolina ratepayers contributing to the cost of the
24 upgrades under FERC's crediting policy without receiving

1 any of the carbon-free output of the Juno facility.

2 But in the absence of an opportunity either to
3 participate in the 2022 procurement or perhaps in a
4 bilateral transaction with Duke, if that were to be
5 allowed, Juno would have no ability to pursue a sale to
6 Duke rather than look at continuing to pursue options to
7 wheel its output to PJM.

8 In the interest of time, I had a few comments
9 about need. I'm going to defer those. If there are
10 questions, we can address those. But I want to thank you
11 again for the opportunity to appear today, and my
12 colleague Derrick Sackler and I will be happy to answer
13 any questions.

14 COMMISSIONER DUFFLEY: And Mr. Levitas, just as
15 a reminder, you're still under oath from the previous
16 hearing, but we do need to get Mr. Sackler under oath.

17 MR. SACKLER: Sure.

18 DERRICK SACKLER; Having first been duly sworn,
19 Testified as follows:

20 MS. KEMERAIT: Mr. Levitas and Mr. Sackler are
21 available for cross examination.

22 CROSS EXAMINATION BY MR. BREITSCHWERDT:

23 Q Good morning, Mr. Levitas. Brett Breitschwerdt
24 on behalf of the Duke Companies. I just have a very

1 brief few questions for you. So one of the topics the
2 Commission teed up for you to address this morning was
3 the planned offtake for the facility. In reading your
4 prefiled testimony, it suggested that the Applicant's
5 intent was to sell as a merchant facility off system into
6 PJM. That was the prior plan as presented in the initial
7 CPCN; is that accurate?

8 A (Levitas) That's correct, but my recollection
9 is either in rebuttal testimony or in cross examination
10 in the November hearing that we did talk at some length
11 about the possibility of sale of the facility to Duke --

12 Q Okay.

13 A -- but that was after the passage of 951.

14 Q And I fully expect the Commission is going to
15 have some pointed questions on that, so I won't delve too
16 deeply, but I do want to focus on page 6 of your
17 statement where you address the potential options of
18 selling to Duke through the 2022 solar procurement that's
19 under discussion with stakeholders. Do you recall that
20 discussion?

21 A Sure. Yes.

22 Q So if I understand your suggestion for this
23 second action the Commission should consider in the
24 future is to allow projects in the transitional cluster

1 to be able to sell to Duke through that procurement. Is
2 that what you're recommending?

3 A Yes.

4 Q Okay. And so the implication of that would be
5 that both projects in the transitional cluster and in the
6 initial DISIS cluster would be bidding into that
7 procurement and may be selected or may not depending on
8 their cost effectiveness and the scoring that they would
9 receive through the procurement; is that --

10 A That's correct.

11 Q Okay. And so this was raised in recent
12 stakeholder meetings by yourself and is something that's
13 under consideration by the Companies. Is that your
14 understanding?

15 A That's my understanding.

16 Q Okay.

17 A I will say, if I might, that my comment in the
18 stakeholder meeting was in response to a slide presented
19 by the Company in which the initial position was that
20 transitional cluster study projects could not bid into
21 the 2022 procurement, and the stated reason for that was
22 that there is a timing problem because in order to
23 proceed for a state jurisdictional project under the
24 transitional cluster study to proceed to facility study,

1 it already has to have offtake. And given the '22
2 procurement timeline that's been presented, that would
3 not be possible to achieve for a state jurisdictional
4 project.

5 And the point I made is that for a FERC
6 jurisdictional project, i.e., one that Duke would own,
7 that same readiness requirement doesn't exist, so I
8 suggested that, yes, maybe state jurisdictional projects
9 in TCS would not work without a probably difficult change
10 in the procedures, but for the FERC jurisdictional ones,
11 there was no impediment that I could see.

12 Q Okay. And is it your understanding from that
13 meeting that Duke said they would take that back and give
14 it consideration?

15 A That is correct.

16 Q Okay. And in terms of the implications of a
17 TCS project bidding in and then losing in the
18 procurement, would you agree that there are risks for the
19 DISIS cluster that the baseline is built on the TCS, so
20 it could have implications for needing to restudy the
21 DISIS cluster at a later phase?

22 A I think that's right. There are a lot of
23 things that could result -- it's only going to -- you're
24 only going to be at Phase 1 of DISIS at that point when

1 that decision is known, so you have a lot of projects
2 that could fall out for a whole range of reasons, so I
3 don't -- I think it would be minimally disruptive to
4 DISIS.

5 Q And would you agree with me, based on the
6 extensive stakeholder discussions we've had over the last
7 few months, there's risk no matter how you slice it in
8 terms of navigating a competitive procurement that aligns
9 with the cluster study process?

10 A Yes.

11 Q Okay. And so it sounds like basically your
12 testimony here today, as well as your prior testimony in
13 the prior proceeding, that selling this generation off
14 system is not the -- necessarily the only option, and
15 there's options on the table for Applicant to consider
16 selling this project to Duke through a future competitive
17 procurement or potentially a bilateral sale if that would
18 be considered?

19 A Correct.

20 Q Okay. Thank you.

21 MR. BREITSCHWERDT: That's all I have.

22 COMMISSIONER DUFFLEY: Mr. Josey?

23 CROSS EXAMINATION BY MR. JOSEY:

24 Q Good morning, Mr. Levitas.

1 A Good morning.

2 Q Okay. So you covered a lot in your opening
3 statement, so I'll try to break it into pieces. But
4 first, I just want to kind of -- I'd like to go over just
5 the process of the application of Juno Solar for this
6 CPCN hearing and what it has originally proposed and what
7 it is now proposing so I can, you know, understand.

8 In your original application, or in Juno's
9 original application it stated that it was asking for a
10 conditional CPCN at \$4 per MWh LCOT cap and that it would
11 be terminated if Duke were to show a study where the LCOT
12 went over \$4 and unless Juno requested further
13 proceedings to consider whether or not the CPCN should be
14 terminated, in which case the CPCN will not be terminated
15 unless so ordered by the Commission. That was the
16 original. And then in rebuttal testimony they took out
17 that language for the Commission proceeding.

18 And at the hearing on November 30th, 2021, we
19 heard of a -- we heard that, you know, you could be
20 selling to Duke even though there was a commercial
21 offtaker as well. And now we are hearing that the -- and
22 I'll go back to the LCOT -- the LCOT now is -- you're no
23 longer asking for a conditional CPCN; you're asking the
24 Commission to issue the CPCN and have basically the

1 ratepayers pay for up to \$4 LCOT, which I believe is
2 about \$56 million, and that Pine Gate will cover all the
3 other upgrade costs.

4 A well, it would be the Juno owner, Birch Creek,
5 yes.

6 Q Juno, yes. But nonetheless, Juno and -- it
7 would be the owners of Juno would --

8 A Right.

9 Q -- pay for the upgrade cost over \$4 per MWh.
10 And as far as -- and I'll go back to the sale of the
11 energy and the statement of need in the application.
12 There was plans to have a PPA or a term sheet. And then
13 in the rebuttal you submitted a non-binding term sheet.
14 And then, again, in the hearing in November we heard of
15 possibly selling it to Duke.

16 And also in the initial application, Juno's
17 estimates for the interconnection upgrade costs were
18 between 13 and \$16.8 million, and in the Phase 1 study
19 report we've seen they're \$90 million.

20 And my question is how is the Commission
21 supposed to determine the need of the facility based on
22 the shifting requests or the shifting evidence that Juno
23 has presented in this hearing?

24 A well, I think there are several ways to look at

1 need. And it's certainly the case that in the past, the
2 Commission -- and in other proceedings the Commission has
3 had a pretty expansive definition of need for merchant
4 facilities. You know, my starting point is there is
5 well-documented extensive need for additional renewable
6 resources in PJM, and our company is approached every day
7 by offtakers who are looking for opportunities to acquire
8 renewables in PJM.

9 what we now have -- what now has happened is by
10 statute there is an enormous need for renewable
11 facilities in North Carolina. I think the right number
12 is 10 GW of solar, but Duke's last published number was
13 four-and-a-half GW. In any case it's a huge number.

14 There is an enormous need for new solar in North
15 Carolina, so we're trying to be responsive to that need.

16 I will tell you that it's almost certainly the
17 case that a large facility, the largest facility that's
18 in the queue right now, is going to be more cost
19 effective from an LCOE standpoint than smaller
20 facilities. They're just -- Mr. Sackler can talk about
21 that, but there are significant economies of scale. So
22 in the broadest sense the need is there.

23 whether the -- you know, if the project doesn't
24 ultimately prevail on a competitive solicitation or find

1 the offtaker, then it won't get built. It's just not
2 going to get built, so no harm done.

3 Q But you would agree that it's difficult to
4 determine the benefits to ratepayers for this particular
5 facility, given the fact that Juno has testified to
6 potentially selling the energy off system and -- or
7 selling the facility to Duke?

8 A I would acknowledge that the benefits to
9 ratepayers are different, depending on which offtake
10 pathway is pursued. Part of the point of my statement is
11 the benefits to ratepayers, my opinion, are substantial
12 of having this project go forward under either scenario,
13 because if Juno falls out, if Juno doesn't get this CPCN
14 and it falls out -- and I can't remember if Duke was
15 asked to file a late exhibit on this, but I think it can
16 be documented that it is going to be very unlikely that
17 the Red Zone -- interdependent Red Zone projects are able
18 to go forward. I think they will largely drop out, and
19 that will be the end of the -- of solving the Red Zone
20 problem for the Transitional Cluster Study.

21 I've submitted that the consequence to
22 ratepayers of not -- and to the public at large -- it's
23 not just a ratepayer test, it's public convenience -- of
24 not getting these upgrades underway now is enormous,

1 enormous in terms of cost, enormous in terms of delay,
2 enormous in terms of practical complexity of not getting
3 a big chunk of upgrades underway now, when we know there
4 are going to be more coming and Duke has limited capacity
5 to make these interconnections.

6 so I believe there's significant benefits in
7 either case. They are certainly different depending on
8 which pathway is pursued.

9 Q And as you mentioned, getting the -- this
10 project, helping get the Red Zone upgrades cleared, is
11 that the purpose of the transition cluster study?

12 A That's a major purpose of it. And frankly,
13 when the Public Staff opposed the Friesian CPCN and we
14 had numerous conversations about, well, what are we going
15 to do about these constraints, this Red Zone constraint,
16 the answer that I received from the Public Staff is let's
17 go get interconnection queue reform done, let's move to a
18 cluster study, let's get as many MW in the cluster study
19 as we can and spread these costs, and that would be a
20 preferable solution to having one project like Friesian
21 bear all those costs and then have all those be
22 reimbursable.

23 And certainly, the portion of -- if any of
24 these projects go forward as merchant plants, subject to

1 the FERC crediting policy, the total portion of these
2 costs is going to be significantly lower, the
3 reimbursable portion, than it would have been if Friesian
4 had gone forward. So we certainly have accomplished a
5 significant part of what I thought we set out together to
6 do by moving into a new direction, but in the best -- in
7 my mind, the best case scenario, we would find a pathway
8 for these projects to come onto the Duke system, in which
9 case the ratepayers would be directly benefitting from
10 the output of the facilities.

11 Q Yeah. But you did agree with a -- with Ms.
12 Cummings in the November hearing that -- I believe you
13 said -- it's in the transcript -- transcript, volume 2,
14 page 55, lines 13 through 17, that you will certainly
15 agree that the primary purpose of the reason for the
16 queue reform and the transitional cluster was to clear
17 the queue, the backlog, to move to a more workable and
18 viable system for interconnection study. That's the
19 primary purpose of the transition cluster, correct?

20 A I don't disagree that I said that, and that's
21 certainly a major purpose of the process, but I don't
22 think that's inconsistent with what I said about the
23 additional benefits of getting these urgently-needed
24 upgrades built.

1 Q Okay. And you've stated that you believe if
2 Juno drops out of the transition cluster study process,
3 it would cause other interdependent projects to drop out.
4 In your words, it would be a failure of the transition
5 cluster, correct?

6 A That's right.

7 Q Do you know how many other projects in the
8 transition cluster Pine Gate Renewables owns?

9 A I believe it's one, two.

10 A (Sackler) I believe so.

11 Q Just two. So --

12 A (Levitas) I think it's two.

13 Q -- I believe there are about 40 projects in the
14 transition cluster?

15 A Yes. And I think we heard from Duke's
16 witnesses that 27 of those are part of what I'll call the
17 Red Zone interdependency, if I remember that correctly.

18 Q But they have the independent ability to
19 determine whether or not they will proceed in the
20 transition cluster regardless of what Juno does?

21 A That's correct. It's their determination. My
22 belief is that, just from the preliminary math that we've
23 been able to do, while the cost will come down somewhat
24 as a result of Juno exiting, the per-unit cost for those

1 other projects will go up. And, you know, we --
2 historically, my understanding in the industry is that a
3 benchmark price for interconnection viability is on the
4 order of 10 cents a watt. For a variety of reasons we
5 thought maybe here that could be pushed a little higher.
6 But if you start seeing the costs of those remaining
7 projects of their share of the upgrades going to 25, 30
8 cents a watt, I -- Mr. Sackler can speak better than I
9 can, but I don't think any projects get built in the
10 southeastern United States with 25 to 30 cent
11 interconnection cost.

12 A (Sackler) I would agree with that.

13 Q And so it is your belief, and you've testified
14 that if the transition cluster process does not move
15 forward with Juno and these projects aren't
16 interconnected, that it will be impossible to meet 951
17 procurements or the --

18 A (Levitas) No. I would say two -- I would say
19 two things, just to be clear. I think that from
20 everything that I know, everything I've heard about the
21 upgrades that will be needed to add the volume of solar
22 that will certainly be needed to achieve 951, you can't
23 get there without these upgrades. So that's the first
24 point, is I believe they're needed.

1 And then from a timing standpoint, if they are
2 delayed by not getting done on a fast track through this
3 transitional cluster study process, I think we start to
4 run into a serious problem, and so it might still get
5 built, but the delays are going to be such that achieving
6 the 70 percent decarbonization by 2030 I believe is going
7 to be close to impossible.

8 Q So it's your testimony that if Juno does not
9 proceed in the -- get its CPCN and proceed through the
10 transition cluster study process, that the goals of House
11 Bill 951 will fail?

12 A I would say are in serious jeopardy.

13 Q Okay. And the goals of House Bill 951 are to
14 be determined through a carbon plan; is that correct?

15 A That's correct.

16 Q That as -- there has not been a draft of that
17 carbon plan yet?

18 A No, but there's been a lot of discussion in
19 stakeholder meetings. You know, all of the information
20 from the Integrated Resource Plan from 2020, and I'll
21 stand by what I said earlier, which is -- and I don't
22 think Duke has said anything to contradict this, that the
23 absolute minimum number of solar -- volume of solar
24 additions that you're likely to see in the carbon plan is

1 4.6 GW, and based on the analysis that we've done -- as I
2 said, that's dependent on resources that are not likely
3 to be available as this plan is built out on the time
4 frame required -- there is a very, very good chance that
5 that volume will be twice that amount or more.

6 Q So, again, it is your testimony today that if
7 Juno is not built, that a -- that the carbon plan, which
8 has not even been drafted yet and is much further away
9 from being approved by this Commission, will not be
10 achievable?

11 A I said it will be in serious jeopardy, and the
12 way that I reached that conclusion is that if you assume
13 a volume of solar that is needed and you assume, as has
14 essentially been admitted here today by Duke's witnesses,
15 that these upgrades are very likely needed to support the
16 goals of the carbon plan, and that's effectively what
17 Duke testified to in the Friesian proceeding, if you
18 assume that they're needed, then two things. What
19 happens if Juno goes away?

20 First point is I think that that means that
21 these upgrades will not be done under the transitional
22 cluster study process. I believe it will unravel and it
23 will not be possible to get 300 plus million dollars of
24 upgrades done without Juno in the mix taking a share of

1 the cost one way or the other.

2 And so when that happens, then you're talking
3 about pushing these upgrades out for a year or more, that
4 starts to create a new -- a separate set of problems for
5 timely achievement of the 951 goals.

6 Q And let's move back to Juno going into Phase 2
7 of the transition cluster study. If -- is there any
8 amount of money, upgrade cost, that Juno would be
9 unwilling to pay if it were assigned in the -- after the
10 system impact study and affected systems costs were
11 allocated?

12 A I'm sure there is. The owners of Juno had just
13 been crunching numbers in response to this report that
14 was just delivered less than two days ago to try to
15 understand that. I don't know what those numbers are.
16 There's certainly some point at which Juno becomes
17 economically unviable. I don't know if Mr. Sackler has
18 anything to add.

19 A (Sackler) No. That's exactly how I'd put it.

20 Q Okay. So if Juno were to proceed into Phase 2
21 of the cluster study with this CPCN, as you have now
22 proposed, and then the costs were too high to bear and --
23 for Juno and Birch Creek, it would then drop out, face
24 withdrawal penalties, and also potentially so would all

1 of these other projects that you say will drop out if
2 Juno drops out, and they will also be subject to
3 withdrawal penalties as well?

4 A (Levitas) Yeah. I think the way this would
5 play out is that in the next 30 days, when the decision
6 has to be made to move forward with -- to Phase 2, that
7 there will be a lot of number crunching done and there
8 will also be information about who is going to go forward
9 and who is not and what likely reallocations might occur,
10 and that will provide a reasonable degree of certainty
11 with respect to whether the costs continue to be ones
12 that Juno and others can bear.

13 There is a separate issue, which is that having
14 gotten into Phase 2, Juno would still have to secure
15 offtake at some point in order to have viable project.
16 So that work would continue as well, whether that's
17 pursuing merchant offtake or I hope the pathway becoming
18 clear for procurement by Duke. There's always a chance
19 that Juno would not be selected in some kind of
20 procurement by Duke, in which case it would be out of
21 luck with respect to that pathway. There's no way to
22 know that at this point in time, but my understanding is
23 that the Juno owners would be prepared to take that risk
24 because they have a fairly high degree of confidence that

1 the project will be cost competitive.

2 Q Okay. And then I believe my last question is,
3 just so I'm clear on this, at this point in time, Juno
4 does not know what its intentions are as far as the sale
5 of the energy from the facility?

6 A That's correct. And that's in large part
7 because as of today, and it's the reason why I addressed
8 this in my testimony and raised it with Duke on the
9 stakeholder column on Friday, I guess it was, or maybe
10 wednesday, there's not a defined pathway for a
11 transitional cluster study project to bid into Duke's
12 utility-owned procurement. If that were established and
13 I hope it -- the '22 procurement filing is due in less
14 than two weeks. If that filing indicates that there is
15 that pathway, I think things will become clearer and I
16 suspect -- I suspect that it's likely that Juno would be
17 able to make a decision that, yes, that's -- we're going
18 to -- we're going to do that.

19 Q Okay. And then I do have one more question.
20 You mentioned that, you know, Duke, mentioned there is
21 open transmission capacity in other areas of the state,
22 but you stated that, you know, they're not necessarily
23 right for solar development, and I assume that is because
24 developers believe that the land costs are too high?

1 A It's a combination of land cost, population
2 density, environmental conditions. (To Mr. Sackler) what
3 else, Derrick?

4 A (Sackler) It could be topography --

5 A (Levitas) Topography.

6 A (Sackler) -- land availability, not just cost.

7 A (Levitas) Land proximity, the ability to get
8 large tracts of land that are in close proximity to each
9 other. But I would just say, I mean, to me the record
10 speaks for itself. There have been dozens and dozens of
11 people for years combing the landscape of North Carolina,
12 trying to find the best sites to do solar, and if the
13 land was there, we would be all over it.

14 Q At the right price, of course?

15 A Yeah.

16 Q Yeah. And because the land costs go to the
17 developer, whereas transmission costs for FERC
18 jurisdictional projects go to ratepayers, ultimately.

19 A well, in a -- you know, we're now in largely a
20 competitive regime. In a competitive regime all the
21 costs go to ratepayers, you're buying power.

22 Q I don't think that's yet to be determined --

23 A Yeah.

24 Q -- at this point. All right.

1 MR. JOSEY: I have no other questions at this
2 time.

3 COMMISSIONER DUFFLEY: Okay. Thank you.
4 Redirect?

5 MS. KEMERAIT: Yes, very briefly.

6 REDIRECT EXAMINATION BY MS. KEMERAIT:

7 Q And this is a question for Mr. Sackler. There
8 was a line of questioning about the possibility of
9 offtake to Duke as part of the 2022 competitive
10 procurement, but regardless of that possibility that Mr.
11 Levitas was talking about, can you discuss whether there
12 is solid offtake opportunities in PJM?

13 A (Sackler) Yes. And I know we've entered in --
14 we've discussed in testimony the Level 10 report that was
15 put out just regarding the need for renewable energy in
16 PJM. But, you know, just speaking from a commercial
17 standpoint, to Mr. Levitas' point, we -- you know, we
18 receive interest every day nearly in energy output or,
19 you know, REC sales to PJM. And, you know, I can say
20 specifically for this project we've, you know, we've
21 received quite a bit of interest, an indication that, you
22 know, that this type of volume is extremely difficult to
23 attain in PJM, if not nonexistent, and I know this
24 Commission is, you know, familiar with the backlogged

1 queue in PJM and the developmental challenges that that
2 market has right now.

3 So, you know, to the question of need and the,
4 you know, there being two potential pathways for this
5 project, I think the, you know, the need in PJM, you
6 know, even beyond the term sheet that we've submitted
7 confidentially, is very clear.

8 Q And just to be clear, going beyond the
9 substantial interest that you have received from
10 customers who would like to have renewable energy in PJM,
11 you do have a confidential term sheet that remains in
12 effect; is that correct?

13 A That's correct.

14 Q Okay. And that has not changed, that you have
15 an executed term sheet and that is a potential offtake.
16 If the opportunity that Mr. Levitas is discussing is not
17 feasible, there is that offtake?

18 A That's right, yes. But owing to the non-
19 binding nature of the term sheet, the, you know, the
20 potential sale to Duke pathway is still available if --
21 well, if it becomes available logistically.

22 Q Uh-huh. And you could also at any time proceed
23 with a binding term sheet for this project as well?

24 A That's correct.

1 Q Okay. Thank you.

2 MS. KEMERAIT: I have no further questions of
3 Mr. Sackler.

4 COMMISSIONER DUFFLEY: Okay. Questions from
5 the Commission. Commissioner Clodfelter?

6 EXAMINATION BY COMMISSIONER CLODFELTER:

7 Q Mr. Sackler, let's just nail it down rather
8 than asking the question all around it. Have there been
9 any changes in the status of your nonbinding term sheet
10 from November to today?

11 A (Sackler) There have not been any changes in
12 it.

13 Q Thank you for the direct answer. I appreciate
14 that.

15 with respect to the inquiries and indications
16 of interest you've had from the unknown number of other
17 potential offtakers in the PJM markets, have any of those
18 progressed as far as a potential nonbinding term sheet?

19 A They have not. We've, you know, we've received
20 indication that these -- you know, back when we were
21 looking to execute a term sheet in the first place, we
22 received indication from other counterparties that they
23 would be willing to execute a term sheet.

24 Q what about any new counterparties since you

1 signed the nonbinding term sheet? Anyone else step
2 forward and tendered to you a proposed nonbinding term
3 sheet?

4 A They have not. We haven't been marketing it as
5 actively to new parties other than, you know, ones we've
6 already discussed it with.

7 Q Thank you. Need to get some more update
8 information while we're talking about what's happened
9 since last November. When we were here in November,
10 there was some testimony in the record -- and I apologize
11 to you, but I don't remember it very crisply, I have to
12 go back and review it -- that there might be some issues
13 about site configuration, especially relating to wetlands
14 that could or could not affect the ultimate size of the
15 project. Has there been any change in circumstances or
16 in developments or in analysis or investigation or study
17 or determinations relative to that issue?

18 A I'll need to go back and confirm what was
19 available or what was known on wetlands and site
20 characteristics at the time, but I don't believe there
21 have been any major material -- certainly, nothing that
22 would indicate that we can't meet the system design as in
23 the application.

24 Q Nothing has come to light since last November

1 that would suggest that you cannot build a 275 MW
2 facility on the land that you have?

3 A That's correct.

4 Q Okay. Anything change with respect to the
5 status of the land itself? I think you're holding it
6 under leasehold or contract to lease or some arrangement
7 that is ultimately going to lead to a lease if you go
8 forward, right?

9 A So we have received zoning approval for the
10 process --

11 Q Okay.

12 A -- or for the project. It's got strong local
13 support. And, yes, we're just under site control with
14 one landowner and still in good standing in terms of site
15 control.

16 Q Okay. So that I don't have to do this element
17 by element, are there any other updates about the --
18 let's call it the project itself.

19 A Uh-huh.

20 Q Not the policy issues or the transmission
21 issues or any of that. Any other updates that you can
22 share with us this morning?

23 A Aside from zoning approval, no. And the
24 obvious interconnection developments, no major material

1 updates from a developmental standpoint from last
2 November.

3 Q Okay. Let me switch a little bit, then, to Mr.
4 Levitas. Other than the generalities that you've talked
5 about, have there been any concrete negotiations with
6 Duke about a potential sale of this facility to Duke?

7 A (Levitas) Not to my knowledge.

8 Q Nobody sat down in a conference room and sort
9 of talked about potential terms or possible --

10 A with respect to this project?

11 A (Sackler) well, with respect to this. I mean,
12 I would say, you know --

13 A (Levitas) And I guess we might need to confer
14 about whether there's a confidentiality consideration.

15 Q well, I'm not asking -- I'm trying to ask the
16 question in a way that doesn't get into confidential
17 information. I certainly would not want to explore the
18 substance of any such discussions. I just want to know
19 is it anything other than the generic possibility that's
20 been talked about here in this hearing room? Is there
21 anything going on beyond that?

22 A well, again, there may be confident--- the fact
23 of conversations may be confidential --

24 Q well --

1 A -- but my answer to you is not that I'm aware
2 of. Not that I'm aware of.

3 Q Can Mr. Sackler give a nonconfidential answer?

4 A (Sackler) we wouldn't be at liberty to discuss
5 anything, you know, any commercial negotiations, but, you
6 know, I would just say that Juno is clearly, as Mr.
7 Levitas has mentioned, you know, a project of this size,
8 we view it as a great candidate to help Duke meet its
9 renewable targets, just owing to the economies of scale
10 and --

11 Q I'll take that. I don't want to mess around
12 with confidentiality this morning, so we're fine. Mr.
13 Levitas, I hear you. I understand your belief about what
14 will happen if Juno does not proceed to Phase 2 or
15 proceed beyond Phase 2 for that matter. I hear you about
16 your belief. I want some facts. Have you talked to the
17 developers of any of these other projects about their
18 intentions with respect to Phase 2?

19 A (Levitas) No. My understanding is that Duke is
20 not allowed to divulge the identities to us.

21 Q well, you may know who some of them are through
22 your own commercial channels and not through Duke. So
23 for those who are known to you through your own
24 commercial channels in the industry, have you talked to

1 any of them about their intentions with respect to Phase
2 2?

3 A I have not. That would not normally be my job.
4 I don't know whether Mr. Sackler or his colleagues have.
5 I think we might have talked to some possibly about some
6 acquisitions.

7 A (Sackler) Yeah. That's correct. We're, you
8 know, aware of some of the other projects and their
9 owners. We have not spoken to them about their intention
10 in Phase 2. Those discussions might happen, but given
11 the, you know, the recency of the Phase 1 results, that
12 hasn't been discussed with any other developers.

13 Q So you don't have any information from any of
14 those known to you, developers known to you, as to what
15 their intention might or might not be with respect to
16 Phase 2?

17 A (Levitas) I do not. I would just say two
18 things. One --

19 Q Juno does not?

20 A (Levitas) Unless Mr. Sackler knows something
21 that I don't know.

22 A (Sackler) I don't.

23 A (Levitas) If I could, Commissioner Clodfelter,
24 I would just say two things that may put a little more

1 color on this. The point that I made is --

2 Q I appreciate your point, Mr. Levitas. I don't
3 mean to cut you off. I'm just trying to find the factual
4 basis for the points, okay?

5 A And just if I may --

6 Q You may.

7 A -- the factual basis is that it is, I think, a
8 widely known and accepted notion in the solar industry
9 that if interconnection costs go above a certain number,
10 that projects are not financially viable.

11 Q I accept that answer, and I did take note of
12 that answer. I just wanted to see what else there was
13 out there. Thank you for letting me explore that.

14 Have you talked with Duke or do you have any
15 sense of what Duke's position is with respect to whether
16 or not Duke can, under the terms of their OATT, not
17 comply with the FERC crediting policy, to the extent
18 costs exceed -- LCOT costs for Juno are greater than \$4
19 per MWh?

20 A I've not had any such conversations.

21 Q Do you know whether Duke can refuse to --
22 simply refuse to administer its OATT in accordance with
23 its terms?

24 A I don't know the answer to that. I haven't

1 talked to Duke about it. But I've never seen a contract
2 where a party may not voluntarily choose to take less
3 money than it would otherwise be entitled to.

4 Q Do you have any involvement in the American
5 Beech proceedings?

6 A No.

7 Q You might want to read those proceedings.

8 A Okay.

9 Q So you have no view on the subject of whether
10 or not Duke could or could not, consistent with its OATT,
11 accept the condition that you're tendering today?

12 A I have no informed view on that subject.

13 Q That's fine. Thank you.

14 COMMISSIONER CLODFELTER: I'm fine. Thank you.

15 COMMISSIONER DUFFLEY: Okay. Chair Mitchell?

16 EXAMINATION BY CHAIR MITCHELL:

17 Q I'll follow on there, Mr. Levitas. You know,
18 read the filings made by American Beech and then read the
19 order made by the FERC, just when you have time.

20 Mr. Sackler, you talked -- you testified
21 briefly about the transaction into PJM, and I heard you
22 mention sale of RECs, but you also mentioned sale of
23 energy output. How exactly would that happen with an
24 offtaker in PJM that isn't otherwise just simply selling

1 into the PJM market?

2 A (Sackler) Sure. And just I'll talk about it on
3 a high level, but happy to go into any detail you're
4 looking for. That would work by virtue of a point-to-
5 point wheeling transaction, which I know we've discussed
6 in previous testimony. That energy would be delivered to
7 what's known as the south hub of PJM or the south
8 interface. And we would from there contract through
9 probably, you know, a structure like a virtual PPA to,
10 you know, to deliver energy -- effectively delivery
11 energy to a hub within PJM at which the offtaker would
12 receive the energy. But if there's anything else you're
13 looking for, happy to go into it.

14 Q So who would pay you for that energy?

15 A We would be paid by, in all likelihood, a --
16 you know, a large commercial offtaker in PJM.

17 Q Okay. Okay. Mr. Levitas, a couple questions
18 for you on the 951 compliance. We've talked about this a
19 lot this morning, so I'm not going to spend too long on
20 this, but do I understand your testimony, your position
21 to be that it's not so much the output of this facility
22 that's critical for meeting the 951 obligations, but
23 rather it's the -- it's what the -- it's the output or
24 the generation that these upgrades would allow to come

1 online?

2 A That's correct.

3 Q Okay. So help me understand how that's a
4 different argument than that which was made in the
5 Friesian proceeding by Friesian about the upgrades
6 allowing additional generation to come online.

7 A Well, a couple things. One of the concerns in
8 the Friesian case was that -- I believe the Commission's
9 words were and the Public Staff's were that things were
10 too speculative, so there was speculative -- arguably,
11 speculative concerns about whether there were projects
12 that would benefit. We now know that there are.

13 There was, I guess you would say, speculation
14 about whether the policy of the state of North Carolina
15 would, in fact, be to reduce emissions by 70 percent by
16 2030. That is now the policy of the state.

17 So those two things have changed at a minimum.
18 You know, I -- and I guess the third thing that has
19 changed is that in balancing, you know, there's a
20 balancing that goes on here. In the Friesian case there
21 were these other considerations that were advanced. What
22 was on the other side of the scale was an LCOT that was
23 found to be in the \$60 plus range because you had 200
24 plus MW -- 200 plus million dollars of upgrades that were

1 being assigned to a single 70 MW facility, and so thus
2 the desire to get into a cluster study where those
3 numbers are now very different and the LCOT of Juno is
4 one-tenth of what the Friesian LCOT was.

5 Q Okay. But still, I mean, there's -- these
6 projects arguably are still speculative. I mean, I
7 understand the changes in law that have occurred since
8 Friesian. But, you know, the generation that would
9 follow -- that would be enabled, just to use a simple
10 word, by the upgrades here, I mean, how -- what assurance
11 do we have as to their viability? They'd have to compete
12 in some sort of procurement, or how would we -- how do we
13 know that they're actually going to materialize and
14 produce output that goes to the requirements of 951?

15 A Well, that's a very good question because we --
16 and it somewhat goes to Commissioner Clodfelter's
17 question. We don't know -- I was speaking to the
18 potential for projects to drop out based on cost.
19 Leaving that issue aside, there's an unknown as to what
20 the game plan is for these projects, all of the ones in
21 the transitional cluster study. Are they going to be
22 five-year PPA QFs? Might you get a customer program in
23 place in time that they could get offtake through that?
24 I've indicated for the state jurisdictional projects that

1 I think it would be difficult without a significant
2 change in the rules to get them into a '22 procurement,
3 but not for the FERC jurisdictional projects. So there
4 is a lot of unknown as to whether there is, in fact, a
5 viable offtake pathway for these projects and whether
6 they will choose to pursue it.

7 And really, my case is that you should keep the
8 door open to that and not slam the door so it can't
9 happen. And if that doesn't materialize, no one is any
10 worse off because probably, you know, none of these
11 projects, including Juno, will happen, at least as part
12 of this process, and we're proposing to cap the Juno LCOT
13 anyway.

14 But, you know, if everything fell out besides
15 Juno, then you're right back where you were with Friesian
16 and you -- it's a slightly bigger project, but you've got
17 one project trying to bear all these upgrades and you're,
18 you know -- and we're certainly not going to take or
19 Juno's owners are not going to take 300 plus million
20 dollars of cost. So I think it's a relatively low-risk
21 proposition, or it's a very low-risk proposition for
22 ratepayers in the interest of trying to keep a very
23 important pathway and option alive rather than, as I
24 believe will be the case, taking action that will

1 basically foreclose it and create all sorts of problems
2 with respect to cost and timing.

3 Q Okay.

4 CHAIR MITCHELL: I don't have any further at
5 this point. Thank you both.

6 EXAMINATION BY COMMISSIONER DUFFLEY:

7 Q Okay. Don't take anything -- don't take
8 anything from this question, okay? Don't assume, make
9 any assumptions. I'm just trying to see where Juno might
10 go or could go depending on different scenarios.

11 So let's say Juno, for one reason or another,
12 decides to drop out of this process. What's the next
13 step for Juno? Is it to go to the DISIS process and --
14 so I'll stop there.

15 A (Levitas) Yes. My assumption -- again, I can't
16 say for sure, but my assumption, and Mr. Sackler can
17 contradict me, but I think any project that withdraws or
18 falls out of the transitional cluster study has no choice
19 in going forward other than to enter this 2022 DISIS or
20 some future DISIS cluster.

21 Q And what -- and so as I've read the evidence
22 that going into the DISIS cluster, there would be less
23 economic risk, right? The penalties are lower to move
24 through that process; is that accurate?

1 A Yes.

2 Q And with respect to what the difference might
3 be in this project moving forward through TCS versus
4 DISIS, is that the project and the build of solar in
5 North Carolina could potentially be delayed by a year.
6 Are there other problems as well?

7 A well, as I've said, I think delay brings with
8 it significant potential for increased costs and --

9 Q Increased costs --

10 A -- risk with 951 compliance.

11 Q Okay. Thank you for that. And this might be a
12 confidential question -- you may not be able to answer it
13 -- but with respect to the long lead times for the
14 buildout of these network upgrades, would that affect --
15 or what do you see that effect being with potential
16 offtakers for this project?

17 A You mean PJM offtakers?

18 Q Or any offtakers.

19 A well, I can't speak for Duke, but with respect
20 to Duke, I think it is going to be what it is. Duke is
21 going to go into the market and procure 55 percent of the
22 solar volume that's identified in the carbon plan and
23 presumably procure that as rapidly as it can and as
24 rapidly as it can interconnect those resources in order

1 to achieve 951. So it kind of is what it is. And I'm
2 just not familiar enough with the PJM market to know what
3 that would mean, like, you know, are there offtakers in
4 PJM now who are actively contracting for projects coming
5 on five years from now. (To Mr. Sackler) Can you speak
6 to that, Mr. Sackler?

7 A (Sackler) I mean, I know I touched on the
8 interconnection delays that PJM is facing that are, I'd
9 say, you know, more substantial than North -- or, well,
10 than Duke's. So it's, you know, it's the -- it's very
11 challenging for, you know, for buyers there to get
12 projects coming online, new projects coming online in
13 this time frame and, you know, further projects are even
14 further delayed right now. But it's, you know, it's --
15 frankly, it's a long interconnection process and long,
16 you know, system upgrade process for -- with Duke, but
17 I'd say there are certainly, you know, contracting
18 interest in renewable buyers really getting renewable
19 energy when they can get it.

20 Q Okay. Thank you both for that answer.

21 A (Levitas) And Ms. Duffley, if I might, I just
22 remembered something as he was talking. PJM is in the
23 process of implementing a new interconnection study set
24 of procedures not -- in some ways not unlike queue reform

1 here in North Carolina. And I believe I recall hearing
2 that of the projects that are in the queue today, the
3 most recently submitted ones are not going to get their
4 studies done for another five years.

5 Q Okay. Thank you for that. That makes a lot of
6 sense.

7 COMMISSIONER DUFFLEY: So any other questions?
8 okay. I'd like to clear up -- I have no further
9 questions. We don't have further questions, but before
10 we go on to questions on Commission questions, I want to
11 clear up. I had thought about asking for a late-filed
12 exhibit from Duke about people dropping out of the TCS
13 process, and I withdraw that request at this time.

14 And Chair Mitchell has one last question.

15 CHAIR MITCHELL: Just one last question.

16 FURTHER EXAMINATION BY CHAIR MITCHELL:

17 Q Mr. Levitas, what do you know about Duke's
18 participation in this proceeding? why did it intervene?

19 A I don't know anything about it.

20 Q Speculate. Give me -- give me a reason,
21 anything. why are they -- why is Duke in this
22 proceeding?

23 A well, my assumption had been -- I'm not sure if
24 Duke was a formal Intervenor or just a commenter in the

1 Friesian proceeding, but --

2 Q It intervened.

3 A -- my belief is that Duke cares passionately
4 about seeing these Red Zone upgrades get built because
5 they recognize that it is essential to the future of this
6 system and specifically to achieving what are now the
7 public policy goals of the state.

8 Q Okay. I don't know that I heard passion from
9 Duke's witnesses. I didn't get a clear answer from
10 Duke's witnesses. In fact, I think we heard both of them
11 say they didn't know why the Company was here. I was
12 just hoping you might have a little bit more for me than
13 I got from Duke. Thanks.

14 COMMISSIONER DUFFLEY: Okay. Questions on
15 Commission questions?

16 MS. KEMERAIT: Yes. I have a couple, and then
17 Mr. Snowden does as well.

18 EXAMINATION BY MS. KEMERAIT:

19 Q My questions are for Mr. Levitas. And the
20 first question is in response to your answers to Chair
21 Mitchell --

22 COMMISSIONER DUFFLEY: Ms. Kemerait, let's let
23 -- see if there's questions from the left side of the
24 room.

1 MS. KEMERAIT: Oh, I'm sorry.

2 MR. BREITSCHWERDT: No questions.

3 MR. JOSEY: I just have one.

4 EXAMINATION BY MR. JOSEY:

5 Q Mr. Levitas, you stated that all developers
6 have kind of, you know, a break-even point at which they
7 determine that the costs are too high to build the
8 projects, not profitable. Does Juno have a -- or does
9 Birch Creek or Pine Gate have a number for Juno?

10 A (Sackler) we don't. And as we mentioned, you
11 know, these -- this is something the owners of Juno are
12 working through in real time. Of course, there is an
13 upper limit to when the project would not get built, but
14 I don't have a number to put on it.

15 Q I know Mr. Levitas mentioned 300 million at
16 some point.

17 A (Levitas) well, I can just say I did talk to
18 the representatives of Birch and Juno yesterday after the
19 report came out, and they authorized us to represent that
20 they would be able to absorb the delta between \$4 and 6,
21 7, whatever the number is. So I don't know how high that
22 appetite and ability goes. I suspect not that much
23 higher would be my guess because this is -- that's a big
24 lift already, but -- and that's really only by virtue of

1 the fact that this is a very large project and therefore
2 has economies of scale and can accommodate higher -- a
3 higher allocation of upgrade costs.

4 Q And, actually, just one more question. On the
5 nonbinding term sheet. If -- and if you can -- if you
6 can speak to this without divulging confidential
7 information, is there a penalty for leaving that
8 nonbinding term sheet?

9 A (Sackler) No. By virtue of it being
10 nonbinding, we're able to -- you know, we aren't
11 committed or we're not obligated to move forward with
12 commercial discussions which, you know, given the
13 development since with House Bill 951 and, you know, the
14 potential of, you know, a sale to Duke, I think was -- I
15 think was probably the right decision commercially.

16 Q Okay. Thank you.

17 MR. JOSEY: No further questions.

18 COMMISSIONER DUFFLEY: Okay. We have one more
19 question from Chair Mitchell.

20 CHAIR MITCHELL: I'm sorry. They just keep
21 coming to me.

22 FURTHER EXAMINATION BY CHAIR MITCHELL:

23 Q Mr. Levitas, you know, you just talked some
24 about the break even and the head room on this project.

1 what is -- you know, this project involves an energy
2 storage component, so where do we -- you know, the
3 commercial -- I have questions about the future of the
4 energy storage component of this facility in light of the
5 commercial uncertainty, you know, that we're hearing
6 about here. So what happens to the storage component of
7 this facility?

8 A (Sackler) Yeah. I'd be happy to. That's --
9 you know, it's -- as, you know, we've been discussing,
10 the potential or the possibility of a sale to Duke to
11 facilitate 951 compliance is something that, you know,
12 materialized later on, certainly after the initial system
13 designs. It's -- you know, it's our belief that this is
14 something that would be appealing to any -- to an
15 offtaker like Duke with, you know, with already a
16 substantial amount of solar around the system and more to
17 come.

18 You know, I fully believe battery storage will
19 be in Duke's energy future, so I -- we have no plans to,
20 you know, to remove the storage if we were to pursue that
21 -- pursue a sale to Duke, but can't say with any
22 certainty at this time.

23 Q Okay. Just to be clear, what I heard you say
24 is if the project moves forward, it will involve storage?

1 A Yeah. It's currently designed with storage,
2 and we have no plans to remove the battery storage
3 component at this time.

4 A (Levitas) Chair Mitchell, I do feel the need to
5 mention one thing in response to your question -- excuse
6 me -- and Mr. Breitschwerdt can correct me if I'm wrong,
7 but I think, again, in the -- these are preliminary ideas
8 that have been floated by Duke in the '22 procurement
9 stakeholder process, and they are understandably seeking
10 to simplify that procurement as the first time a
11 procurement is being done under 951. I believe they
12 indicated on the stakeholder call that they did not
13 intend to procure solar plus storage facilities as part
14 of the '22 procurement, at least tentatively. So in
15 order to accommodate this, that might be something that
16 we would need to talk with them about.

17 I don't -- I think that it's probably somewhat
18 more concerning with respect to PPA projects because you
19 have different production profiles and harder to compare
20 the two, whereas I can't think of any practical reason
21 for a Duke-owned asset, why they wouldn't want to get as
22 much solar plus storage as they can. But I wanted to
23 mention that.

24 COMMISSIONER DUFFLEY: Okay. Questions on

1 Chair Mitchell's other question? No. Ms. Kemerait?

2 MS. KEMERAIT: Okay. Thank you. I went a
3 little too quickly before.

4 EXAMINATION BY MS. KEMERAIT:

5 Q So I have just a couple of questions for Mr.
6 Levitas, and then I think Mr. Snowden has a couple of
7 questions.

8 So Mr. Levitas, this is in response to an
9 answer that you provided to Chair Mitchell about state
10 jurisdictional projects in the transitional cluster --

11 A (Levitas) Yes.

12 Q -- and also regarding their offtake. Can you
13 provide some information about whether state
14 jurisdictional projects have to demonstrate offtake in
15 order to enter the transitional cluster?

16 A Again, subject to check and correction by Mr.
17 Breitschwerdt, I believe they have to have offtake to
18 enter the facility study phase after Phase 2.

19 Q Uh-huh. And Mr. Levitas, this is -- my next
20 question is in response to a question from Commissioner
21 Clodfelter about Juno Solar's condition that we have
22 committed to after receiving the Phase 1 report that Juno
23 solar would be solely responsible for paying for the
24 network upgrade costs in excess of the \$4 per MWh LCOT

1 value. And I believe Mr. Clodfelter was -- I think the
2 purpose of his question was about enforceability of that
3 condition, and he asked whether there had been any
4 communications about that with Duke, and I think your
5 answer was is that you weren't aware of any
6 communications.

7 But Mr. Levitas, were you -- are you aware that
8 there was a call yesterday morning among all of the
9 attorneys for the parties in this proceeding?

10 A I am. I was not party to that.

11 Q That's correct. You were not a party to that
12 -- to that meeting and so, therefore, you do not have any
13 knowledge about the discussions that Juno Solar's
14 attorneys had with Duke's attorneys about this condition
15 and its enforceability?

16 A That's correct.

17 Q Okay.

18 MS. KEMERAIT: And so for the Commissioners,
19 we'd be willing to offer to file some information about
20 the enforceability of such a condition if that would be
21 helpful to the Commission.

22 COMMISSIONER DUFFLEY: Yes. We think that
23 supplemental briefing on that question would be good for
24 all parties to submit, if they so choose.

1 MS. KEMERAIT: Okay. And I believe that Mr.
2 Snowden has some follow-up questions.

3 EXAMINATION BY MR. SNOWDEN:

4 Q Mr. Levitas, I have a few questions for you
5 following on to Commissioner Clodfelter's questions about
6 the -- your belief that if Juno were to withdraw, that
7 other projects would be likely to withdraw from
8 transitional cluster.

9 So I just -- I'd like to maybe play out the
10 logic here. Would you look at page 31 of the Phase 1
11 Report?

12 A (Levitas) I'm on page 31.

13 Q Okay. Great. And so you see this is -- on
14 this page it's described an upgrade number 7.1.8
15 Reconductor Cape Fear - West End 230 kV line.

16 A Right.

17 Q And do you see Juno as -- identified on here as
18 one of the -- one of the projects that bears cost
19 responsibility for this upgrade?

20 A I do.

21 Q Okay. And what's Juno's cost allocation
22 percentage wise for this upgrade?

23 A Is that the cost allocation factor?

24 Q Factor, yes, sir.

1 A Thirty-five (35) percent.

2 Q Okay. So 35 percent of the total cost, and
3 that's about \$20 million; is that right?

4 A Right.

5 Q Okay. So if -- out of a total cost of \$57
6 million, right?

7 A Right.

8 Q Okay. So if Juno were to withdraw, it's 35
9 percent of these costs, how would they -- would they be
10 allocated to the other projects that are identified on
11 this table?

12 A Unless Juno's withdrawal causes the required
13 upgrades to be reduced and therefore the total cost to be
14 reduced, but I think a lot of what we heard this morning
15 was that these upgrades were required by the Friesian
16 application, so not suggesting that there were big
17 increases driven by Juno.

18 Q Thank you. So assuming that this upgrade would
19 still have to go forward if Juno were withdrawing, my
20 math -- I did the math here, and it seems to me that on
21 average, the upgrade costs for all these other projects
22 would go up by about 53 percent if Juno were to withdraw
23 its 35 percent. Does that sound right to you?

24 A It does.

1 Q Okay. So is it -- so, for example, if you see
2 the Project ID 200482 a few up from Juno?

3 A Yes.

4 Q So it's got a \$10.2 million cost allocation for
5 this upgrade, right? Okay. And so --

6 A Right.

7 Q -- 53 percent increase from that takes it into
8 the range of \$15 million or so?

9 A Right.

10 Q Okay. So do you think it's likely that with a
11 53 percent increase in costs, some of the projects or
12 customers on this table would withdraw?

13 A I certainly think that. I haven't done a
14 detailed analysis to support that. The limited analysis
15 that we have done suggests to me that we're already tight
16 in this set of upgrades and that any material increases
17 are likely to put projects over the edge.

18 Q Okay. Thank you. And if just one additional
19 project on this table were to withdraw, then its costs
20 would have to be allocated among the other remaining
21 projects, right?

22 A That's correct.

23 Q So there's sort of a snowball effect?

24 A Right.

1 Q Okay. So Mr. Levitas, could you look at --
2 back at page 5 of the report.

3 A Okay.

4 Q Okay. And do you see here that under ID 170274
5 -- you understand that's the Juno ID number?

6 A Right.

7 Q Right. So you see this describes all the
8 upgrades that Juno has a cost responsibility for?

9 A Right.

10 Q Okay. And it's a pretty long list, isn't it?

11 A It is.

12 Q All right. So it appears to me that it's --
13 all but five of the upgrades that are in this report Juno
14 has got a cost responsibility for.

15 A Right.

16 Q So this dynamic we talked about would probably
17 play -- if Juno were to withdraw, this dynamic we talked
18 about would play out to a greater and lesser extent for
19 all of these upgrades, right?

20 A Correct.

21 Q Okay. And is that the logic that you sort of
22 follow when -- when drawing your conclusion that if Juno
23 were to withdraw, it would result in more withdrawals?

24 A Yes.

1 Q Okay. All right.

2 MR. SNOWDEN: Those are all the questions I
3 have. Thank you.

4 COMMISSIONER DUFFLEY: Okay. Chair Mitchell
5 has one more question.

6 FURTHER EXAMINATION BY CHAIR MITCHELL:

7 Q All right. Mr. Levitas, just one more
8 question. You know, we -- we've heard -- I've heard you
9 testify today about the difficulties posed by developing
10 solar elsewhere in the state, you know, the topographical
11 conditions, environmental conditions, access to the grid,
12 availability of land, et cetera, and, you know, we've
13 observed that there's less development on the DEC side
14 than the than the DEP side with respect to the, you know,
15 non-utility solar. But, you know, I still -- help me
16 understand why this is the best location on the electric
17 system to put solar.

18 I mean, here it's -- you've got, you know --
19 you've got very expensive upgrades that have to be
20 constructed on this particular -- in this particular
21 location and, you know, here what we have is, you know,
22 as opposed to that -- all of the costs associated with
23 those upgrades being the responsibility of the developer,
24 you know, some of them are shifted to the retail

1 customer. And so it kind of becomes a wash. I mean, so
2 it becomes -- it's a little bit more expensive to develop
3 in DEC or in a different county or in a different
4 location of the state, but there maybe you don't have the
5 ratepayer paying for any or as much of cost associated
6 by, you know, impact to the transmission system.

7 So, you know, why -- you know, how are we to
8 conclude that this is absolutely the only location or the
9 best location to proceed with solar development?

10 A (Levitas) well, thank you for the question.
11 I'll respond in a couple of ways. The first thing that I
12 would say is that once we get past transitional cluster
13 study, the vast majority of new solar resources coming
14 onto the system are going to be competitively procured,
15 and based on your prior policy and practice, and I would
16 say on sound policy and practice, the cost of those
17 upgrades will be borne by ratepayers, not by individual
18 projects. And that certainly will be true with the 55
19 percent of the resources that are owned by Duke. Those
20 are going to be paid for just like the generation. All
21 the cost of Duke-owned projects will be paid for by
22 ratepayers. So we're moving very quickly towards a
23 regime where ratepayers are going to bear the costs of
24 the upgrades needed to support solar --

1 Q But I'm not going to let you off the hook
2 there. I mean, I hear what you're saying, and certainly
3 I understand what you're saying, but magnitude of cost.

4 A well --

5 Q This location involves, you know, orders of
6 magnitude greater than elsewhere on the system where
7 there may not be any cost to upgrade --

8 A well, I don't, of course, don't know what we
9 know that, but what I would say is a couple things. One
10 is, if you look at these transmission costs as a
11 percentage of total cost of adding solar to the grid,
12 even at these numbers they may seem large in absolute
13 terms, but they're spread over a lot of megawatts. Six
14 dollars (\$6) LCOT on top of what could be a 45, 50 LCOE
15 is not that high a percentage. So if you could get the
16 number down from 6 to 3, I don't think you should assume
17 there are no upgrade costs. There are a lot of places
18 where there just aren't lines to do the connections.
19 It's the tail of the dog. And so if you increase the
20 generation costs by 10, 15, 20 percent as a result of
21 site conditions, that could very easily offset the --
22 what seem to be somewhat high interconnection costs here.
23 But I guess I would disagree with the premise,
24 and that's why I've said it so many times here, that it

1 is possible to find four-and-a-half to 9 GW of solar in
2 the Duke service territory, while excluding the Red Zone
3 at any price. I don't think it's possible to do. We've
4 been trying for a long time. And, you know, if you don't
5 have willing landowners who will sell, if you don't have
6 parcels that work, you just can't do it.

7 So this is where the best resources are and,
8 you know, I think what you've heard and what you pressed
9 Duke on and asked the questions, you've told them to
10 bring this to you in their plan in two months, is there a
11 way to build whatever volume of solar they put in that
12 plan, you've told them to tell you how are they going to
13 upgrade the grid to accommodate it. And I'd like to see
14 them come forward and show how they're going to do four-
15 and-a-half to 9 GW of solar in their service territory
16 without building these upgrades. I don't think it's
17 possible. I don't think it's physically possible.

18 Q Okay. Thank you.

19 CHAIR MITCHELL: Nothing further.

20 COMMISSIONER DUFFLEY: Questions on Chair
21 Mitchell's question?

22 (No response.)

23 COMMISSIONER DUFFLEY: Okay. Well, thank you,
24 gentlemen, for coming to testify today. We appreciate

1 it. You can stand down.

2 (Witnesses excused.)

3 COMMISSIONER DUFFLEY: And we're going to keep
4 pressing forward unless Linda, does our court reporter
5 need a break?

6 COURT REPORTER: No.

7 COMMISSIONER DUFFLEY: Okay. Okay. So Mr.
8 Josey?

9 MR. JOSEY: The Public Staff calls Dustin Metz.
10 Mr. Metz --

11 COMMISSIONER DUFFLEY: Mr. Metz, just a
12 reminder that you're still under oath from the last
13 hearing.

14 MR. METZ: Yes, ma'am.

15 DUSTIN R. METZ; Having been previously sworn,
16 Testified as follows:

17 DIRECT EXAMINATION BY MR. JOSEY:

18 Q And just for a refresher, can you please state
19 your name and position and business address for the
20 record.

21 A My name is Dustin Metz. I'm an engineer with
22 the Public Staff. My business address is 430 North
23 Salisbury Street, Raleigh, North Carolina.

24 Q Thank you. Have you reviewed the TCS Phase 1

1 Study Report published by Duke?

2 A Yes, I have.

3 Q Has the Public Staff's recommendation on this
4 EMP application changed once this report was filed?

5 A No. Our recommendation is still the same.

6 Q And is the -- what is the reason for the
7 recommendation staying the same?

8 A The reason may be a little bit of a long-winded
9 answer, but some of this answer is going to discuss some
10 of the Commission's questions that they're asking today.

11 So there's a lot of information taken in the
12 report. The results of this report affirm the need for
13 further studies, the further removal of speculative
14 projects, and more accurate and refined cost estimates.
15 I just want to touch on the high-level topics of the
16 report, and I'll come full circle on this.

17 For the purpose of this conversation I want to
18 primarily focus on DEP report, but I can answer any
19 Commission questions DEC report, as needed. Before going
20 into the report I think it's important to clarify the
21 intent of the transition cluster. The transition cluster
22 was the first step in moving from a legacy serial study
23 process to a cluster study. The cluster study
24 stakeholder groups were established years before the

1 passage of HB 951. The transition cluster was meant to
2 do exactly what it says in the name, transition.

3 The transition would aim in removing the logjam
4 of serial queue and speculative projects. The transition
5 cluster was unable in nonspeculative projects to move
6 forward in the process with stakeholder consensus on the
7 milestones and study provisions, including the milestone
8 payments. While a cluster study process should enable
9 efficiencies on the system, enabling efficiencies is not
10 the same as solving persistent transmission constraints.

11 And as I testified in Friesian, system
12 constraints are not failures of the electrical system.
13 There appears to be conflating concepts and
14 misunderstanding of the primary goal of the transition
15 cluster, as a statement that was made earlier, I'm not
16 aware that the Public Staff ever made a statement that
17 the transition cluster was a solution to solve the Red
18 Zone.

19 So the Public Staff has performed some of the
20 preliminary analysis on the overall report. I have a
21 handout. It might be a good time to go ahead and hand
22 that out. And while this is being handed out, this is
23 preliminary analysis. There is still information that
24 needs to be validated. When you see the spreadsheet

1 snippet that I made, there might be one or two X's
2 missing from all this, and I'll try to explain that.

3 So a brief orientation of the handout --

4 MR. JOSEY: One second, please.

5 THE WITNESS: Oh, apologies.

6 MR. JOSEY: One second. Presiding Chair
7 Duffley, I'd like to introduce this exhibit as Public
8 Staff Metz Exhibit 1.

9 COMMISSIONER DUFFLEY: Okay. We'll identify
10 this exhibit as Public Staff Metz Direct Exhibit 1.
11 Would you like to move it into evidence --

12 MR. JOSEY: Yes.

13 COMMISSIONER DUFFLEY: -- as well at this time?
14 Any objection?

15 MS. KEMERAIT: No objection.

16 COMMISSIONER DUFFLEY: Okay. That's so
17 allowed.

18 (Whereupon, Public Staff Metz Direct
19 Exhibit 1 was marked for
20 identification and admitted into
21 evidence.

22 BY MR. JOSEY:

23 Q Mr. Metz, can you explain what we have moved
24 into evidence as Public Staff Metz Exhibit -- Direct

1 Exhibit 1?

2 A Yes. So looking at this exhibit, I tried to
3 truncate all the information from the different tables
4 that were in the Duke -- Duke study. You can see over on
5 the left-hand side you have your Project ID, you have the
6 MW Summer nameplate rating, you have the MW winter
7 nameplate rating, you have the Generation Type. You can
8 see whether it's connected to distribution or
9 transmission, and then you can see which state it's
10 located in. I further added a column to identify the
11 Affected Systems and which affected systems each project
12 had triggered.

13 Moving further to the right you can start to
14 look at the top header where it says 7.1.1. As we heard
15 from the Duke witnesses today, there's approximately --
16 there's 24 tables that list each individual project
17 upgrades. So I went through as I tried to identify each
18 project and each upgrade that had occurred. And I
19 believe I heard earlier today, and this is where I noted
20 that there could be a potential discrepancy, was moving
21 over to column 7.1.4 and 7.1.15, I believe I heard 27
22 earlier today, and I have listed 25. Still a lot of
23 information to go through. That number may be off a
24 little bit, but it doesn't distract from what's being

1 illustrated here.

2 So 44 projects entered into DEP's transitional
3 cluster study, approximately 2,094 MW summer nameplate
4 rating, and approximately 211 MW winter nameplate rating.
5 The nameplate rating is not equivalent to contribution to
6 peak. The contribution to peak is typically much less
7 than nameplate. Typically for summer it's around 40 to
8 60 percent of the nameplate rating, and for winter with 1
9 to 5 percent with the caveat of batteries would be
10 different, but I don't know how they're being dispatched
11 in the system, whether they're trying to solve for
12 volatility, as we discussed before the Commission, or
13 whether or not being used for true winter peak resources.
14 So there's nothing wrong with what's presented here.
15 It's just an observation.

16 Twenty-six (26) of those projects are seeking
17 intersection to transmission. Seventeen (17) of those
18 projects are going to be located in North Carolina. Out
19 of those 17, 13 are stand-alone solar, one of them is
20 solar plus storage, and it's Juno. There is an
21 observation, though. It's uncertain how Juno would
22 deploy the battery storage. The production profile
23 submitted in discovery did not support the utilization of
24 battery storage, looking at the annual capacity factors

1 were typically aligned with a traditional solar
2 generation facility. So when we have conversations about
3 the LCOT, the LCOT numbers that we discussed extensively
4 in my testimony were based upon the appearance of what
5 appears to be a solar -- solar facility only.

6 If the facility is using the batteries for
7 smoothing, that could support that there are batteries,
8 but if the facility is using the batteries for energy
9 arbitrage, it could actually increase the MWh production
10 and have a small decrease in the overall LCOT. General
11 observation. I don't think it's significant, given the
12 275 MW ratio to the battery storage. General or
13 observation.

14 The total network upgrades for these 44
15 projects are \$416 million. I have not been able to
16 determine at this time what percentage is federal
17 jurisdiction or state jurisdictional.

18 I believe Chair Mitchell or one of the
19 Commissioners asked the question earlier what the
20 levelized cost of transmission would be for this
21 potential view. Not knowing how the batteries are
22 dispatched and making general assumptions that all the
23 solar facilities are the same, I'm putting a lot of
24 caveats here, so my numbers came up to approximately

1 \$4.23 dollars per Mwh. If you look at holistically the
2 entire 44 projects and everything moved forward, that
3 would be the levelized cost of transmission with the
4 exceptions that I've noted.

5 Switching back to Juno, Juno's upgrades are
6 89.6 million, noting, again, this is a preliminary
7 estimate, 89.6 million equates to the same analysis I
8 provide in my testimony, so this is apples to apples,
9 \$6.93. I believe Mr. Levitas said approximately -- I'm
10 not trying to call him out on that -- said 6.80. That is
11 close enough for illustrative purposes of what we're
12 talking about here.

13 Using the sensitivities that I completed in my
14 testimony, and I do apologize for going somewhat fast,
15 and I can slow down if the Commission wants me to slow
16 down, in Metz Figure 1 in my testimony we ran a suite of
17 sensitivities to look at different costs, different
18 assumptions, reduction in nameplate, 25 percent cost and
19 increases. There's no need to go back in that table, but
20 just using those same sensitivities and using the
21 upgraded transmission costs, the LCOT came from a range
22 from \$6.93 to \$8.67. That does not -- that is not an
23 extreme example of the Class 5 estimate that was a plus
24 100 percent. So that is not a high-end number. Those

1 were just reasonable bounds. I believe the \$8.67 was a
2 slight reduction in nameplate capacity of the facility,
3 which is reasonable, given the size and the scale of the
4 facility, and a 25 percent cost increase for transmission
5 upgrades.

6 Jumping to the rate impacts found in Table 2 of
7 my testimony, \$89.6 million in upgrade cost, just for the
8 single project -- just for the single project, not the
9 cluster because I can't -- within the cluster you have
10 state and federal jurisdictional projects, so I can't
11 determine what -- the rate impact. But, again, just for
12 Juno, the result would be a 0.15 percent impact to NC
13 retail and a 3.95 percent increase to wholesale.

14 COMMISSIONER CLODFELTER: I'm sorry to
15 interrupt you, but you said you were referring to
16 something called Table 2. If you meant that to be part
17 of the handout, I don't seem to have it.

18 THE WITNESS: Thank you, Commissioner
19 Clodfelter. The Table 2 that I was referencing was Table
20 2 in my testimony.

21 COMMISSIONER CLODFELTER: Thank you, sir.

22 THE WITNESS: So the intent was to try to
23 orient --

24 A Again, the rate impact is noteworthy as there

1 are other projects in the cluster study that are not
2 state jurisdictional.

3 Another interesting observation was the
4 magnitude of the affected systems. Half of the projects
5 in DEP's cluster triggered affected system impacts on
6 neighboring utilities. Multiple projects triggered
7 affected systems on more than just one adjacent utility.
8 In some cases there were three adjacent utilities
9 triggering affected system upgrades. As we discussed
10 during the evidentiary hearing, affected system studies
11 have their own timeline and are not bound by the same
12 time of the cluster study and the milestones. Juno has
13 an affected system with DEC, as I stated earlier today,
14 and was identified as a possibility in my testimony.
15 Juno will also have to waive the risks of other projects
16 that have affected systems in dropping out, and we also
17 do not know if those other projects who have affected
18 systems will be willing to enter the same conditions
19 which Juno is proposing and not seek rate recovery from
20 those projects.

21 Touch briefly on the DEC report, and same type
22 of evaluation, looking at the levelized cost of
23 transmission. I will caveat that this initial analysis
24 does not factor in the reality that certain projects in

1 DEC move to the resource solicitation cluster, so I think
2 this would be a worthwhile analysis once we get the
3 results of the resource solicitation cluster Tranche 3,
4 coupled with the results coming out of the transitional
5 cluster study.

6 Removing the gas plants --

7 COMMISSIONER DUFFLEY: Mr. Metz, may I stop you
8 there? When are those expected? Do you have dates on
9 those?

10 THE WITNESS: I cannot recall, off the top of
11 my head, when those are coming in.

12 COMMISSIONER DUFFLEY: That's okay. I just
13 wondered if you knew off the top of your head. Please
14 continue.

15 A Removing the gas plants from the total cost of
16 transmission upgrades, \$52 million for approximately 525
17 MW of solar, solar plus storage, and stand-alone storage,
18 so trying to get on equal footing as I could to DEP
19 results. Using the same assumptions and caveats, as
20 stated previously on the DEC LCOT, I don't know how
21 batteries are being dispatched. DEC LCOT for non gas
22 plants was \$2.10 per MWh, comparative to the \$4.23 for
23 the DEP cluster.

24 So trying to answer the question, it's -- there

1 are a lot of items to observe here, and some of them are,
2 right now, nonintuitive to previous conversations. For
3 example, we've heard that the costs are higher to
4 interconnect into Duke Energy Carolinas for a magnitude
5 of reasons compared to the Duke Energy Progress. On face
6 value, we're being told a different story by the numbers.
7 So when we look at long-term planning of the system
8 that's coming out of this carbon -- that will be coming
9 out of this carbon plan and will be approved by this
10 Commission by the carbon plan and has more work to be
11 done by stakeholders, there's a lot of elements to
12 consider here.

13 I mean, another element to consider is, I mean,
14 we heard earlier today, and I'm not disputing this, but
15 Mr. Levitas stated 4.6 MW of solar could be interpreted
16 as a floor, in my words, for the Duke. Well, the issue
17 that we start conflating here, it's DEC plus DEP. We
18 haven't talked about the needs for Duke Energy Progress
19 when we start throwing out potentially these large
20 numbers of solar generation that would need to
21 interconnect. Will it be likely that solar will be
22 needed, yes, but is the statement of 4.6 MW or some
23 larger number? It may be an overstatement of what Duke
24 Energy Progress system needs. This is a long path to

1 evaluate the existing systems. As the Commission is
2 aware of, it's been a few years, but the least
3 reliability operating limit has been brought up and the
4 need to potentially cycle the nuclear power plants. If
5 you go on to Duke's website that has the calculator that
6 you can go in and insert solar storage, and if you just
7 insert these magnitudes into Duke Energy Progress'
8 system, the results speak for themselves.

9 Q Mr. Metz, just to get back to kind of where we
10 started, I appreciate your statement, but as far as the
11 benefits of this facility, this particular facility, to
12 ratepayers of North Carolina, are you still -- is it
13 still your testimony that they're too uncertain at this
14 point to recommend approval of the facility?

15 A So the benefits have not been quantified, but,
16 yes, there is cost uncertainty of the actual transmission
17 upgrades. It's the unknown element of where the energy
18 output of the facility will go, which the Applicant has
19 entered into the optionality, which I discussed
20 previously, creates challenges that we can't look at how
21 the Applicant wants to do this and look at potential
22 system benefits.

23 And another issue that was brought up, in
24 looking at the evaluation of this and the system

1 benefits, this comes back to some of the conversations
2 that we had in Friesian. In Friesian there were -- there
3 was some conversation of an element of why the cost
4 continued to increase was due to timing. If we wanted
5 that project to come online -- when I say "we," the
6 Applicant wanted that project to come online by a certain
7 date, there had to be a price premium to meet those
8 dates. And as we heard earlier conversations today, that
9 I believe there was dates being kicked around of 2028 or
10 2029, given the 66-month window that's identified on some
11 of these upgrades. All right. So when we look at -- we
12 look at a snapshot in time, we look at the levelized cost
13 of transmission, well, what happens if we want to
14 accelerate these project costs? What's the increase? Do
15 we want to increase it by 25 percent? Do we want to
16 increase it by 40 percent? Do we want to increase it by
17 50 percent? I don't know. But if I had to pick a
18 snapshot today and look at those costs, those costs were
19 uncertain, and that's why our position -- we still
20 believe our position is valid.

21 Q And that is, to your understanding, why the
22 Public Staff initiated a rulemaking proceeding to change
23 the requirements of and the procedure for CPCN
24 applications in R8-63 and 64 before this Commission?

1 A That is correct.

2 Q Commissioner Clodfelter had asked the Duke
3 witnesses, if you recall, about the projects in the
4 transitional cluster that are in South Carolina, the Duke
5 projects?

6 A Yes.

7 Q Do you know if those projects have received or
8 even applied for a CPCN in South Carolina?

9 A I reached out to South Carolina ORS
10 approximately two weeks ago, give or take, and there are
11 no projects before them seeking a CPCN application,
12 utility or non-utility owned.

13 Q And I believe this is my last question. As far
14 as non-ready projects in the TCS that can't or don't wish
15 to submit the financial requirement to enter into either
16 the TCS or Phase 2, would you consider those speculative
17 projects?

18 A Yes. It is my opinion those would be
19 speculative projects.

20 Q And that was the point of the TCS, was to weed
21 out the speculative projects from the queue?

22 A Yes. As I stated earlier, the whole -- the
23 intent was to remove the speculative projects.

24 MR. JOSEY: Mr. Metz is available for cross

1 examination.

2 COMMISSIONER DUFFLEY: Does Duke have any
3 questions?

4 MR. BREITSCHWERDT: No questions.

5 COMMISSIONER DUFFLEY: Juno?

6 MR. SNOWDEN: Thank you, Commissioner Duffley.

7 CROSS EXAMINATION BY MR. SNOWDEN:

8 Q Good afternoon, Mr. Metz. I'd like to start by
9 following up on a few of the things you said in the last
10 few minutes. The first relates to affected system
11 upgrades. You said that half of the projects in the
12 Phase 1 report triggered affected system upgrades. Is
13 that what you said?

14 A That is correct. And I believe I think I see
15 where you're going. One second. Approximately half,
16 when looking at the transmission projects.

17 Q Understood. And that's the -- you're referring
18 to the list starting on page 53 of the report?

19 A Correct.

20 Q Okay. But it's not actually the case, or
21 rather it has not been determined that any of the
22 projects identified on here would actually trigger
23 upgrades on any of these affected systems, has it?

24 A That is correct. I don't believe I said

1 upgrades. I said they -- if I did, I apologize. I meant
2 to say they triggered an affected system.

3 Q Okay. So these systems have been identified as
4 potential affected systems, based on the results of the
5 TCS, correct?

6 A That is correct.

7 Q Okay.

8 A And I believe the Duke witnesses clarified what
9 all entails in that process.

10 Q Okay. Thank you. So it's up to the affected
11 system itself to determine whether there's actually an
12 upgrade required?

13 A That is correct --

14 Q Okay.

15 A -- or potential mitigation measures.

16 Q All right. And of the affected systems I see
17 AEP, Dominion South Carolina, Santee Cooper, Dominion
18 Virginia Power, TVA. Those are all outside of the state
19 of North Carolina, correct?

20 A Can you -- well, I mean, AEP had none, but, I
21 mean, yes, your comment is valid.

22 Q Okay. All right. So if TCS participants were
23 to construct affected system upgrades on these systems
24 and get reimbursement, that would have no impact on North

1 carolina ratepayers, correct?

2 A Correct.

3 Q Thank you. Another issue you --

4 A If I may, apologies.

5 Q Sure. Yeah.

6 A I was just thinking further.

7 Q Yeah.

8 A If we start viewing energy from other places,
9 it could have an impact to the wholesale weight wheeling
10 charges.

11 Q Okay. Thank you. You mentioned also, I think
12 there was some testimony about how the procurement under
13 -- well, the procurement required for 951 might be
14 allocated between DEP and DEC; is that right?

15 A Can you restate that one more time, please?

16 Q Sure. You testified a bit about Mr. Levitas'
17 statement that at a minimum, four-and-a-half GW of solar
18 would need to be procured to meet 951 requirements,
19 right?

20 A Yes.

21 Q Okay. And you took issue with that because it
22 was your view that that would be across both DEP and DEC
23 territories and not specific to DEP, right?

24 A That is correct.

1 Q Okay. But you're aware, aren't you, that Duke
2 has announced its intention to combine its balancing
3 authority areas, to request that from this --
4 authorization from this Commission and other agencies?

5 A Yes. I'd like to add on -- a little bit on
6 that, if I may. So, yes, Duke has proposed that -- and I
7 forget the acronym, CCOM potentially is the acronym.
8 But, yes, Duke is looking at -- I don't mean to put words
9 in Duke's mouth, this is my understanding, that if we
10 merge the balancing areas, they could connect their
11 resources and we could dispatch the systems more
12 efficiently and beyond the current Joint Dispatch
13 Agreement. However, it is my understanding that that
14 process will also have to be approved before this
15 Commission, South Carolina Commission, and the FERC. And
16 I also do not know or can't -- or could speculate that
17 potentially the FERC would say eh-h, that's a little bit
18 too close to an RTO, we want you to do something else. I
19 don't know.

20 The other issue of the initial observation is
21 that's fine that we've merged the balancing areas, but we
22 have not merged rates, we have not merged rate base. So
23 fine, the joint Duke Energy system, Duke Energy Carolinas
24 and Duke Energy Progress says we need -- pick whatever

1 amount of generation resource you want, and let's just
2 call it solar in the first example, that Duke Energy
3 Carolinas, by 2030, 2035, whatever date you want to pick,
4 we need 5,000 MW. Let's go place it all in Duke Energy
5 Progress through a resource solicitation type process,
6 but what happens if no one just bid in DEC and all the
7 projects just happened to bid in DEP? A reality,
8 probably not, but it is a possibility. DEP ratepayers,
9 under this CCOM proposal, this joint BA, will be picking
10 up the entire transmission cost unless we fix the
11 transmission cost allocation. That would be DEP's rate
12 base, not Duke Energy Carolinas'.

13 Taking this further, if we wanted to look at
14 offshore wind under this CCOM type proposal, the same
15 analogy applies. It would be Duke Energy Progress' rate
16 base transmission costs with energy delivered to Duke
17 Energy Progress and some element being dispatched to Duke
18 Energy Carolinas.

19 There is a lot of information we need to unpack
20 and have discussions openly with stakeholders and Duke
21 Energy before we reach consensus of what this even
22 entails.

23 Q Thank you, Mr. Metz. Mr. Metz, you also
24 testified, if I understood correctly, that you thought

1 that it was problematic or, rather, one of the bases you
2 articulated for opposing Juno's CPCN was the optionality
3 it has described about its offtake; is that right?

4 A It has created a challenge to evaluate it, yes.

5 Q Okay. So you think it's a bad thing that Juno
6 has two potential avenues of offtake?

7 A No, I don't think it's a bad thing; it's just
8 put me in a predicament that I can't make an evaluation
9 when I have two off ramps.

10 Q Does it make it more challenging to evaluate it
11 or does it make it impossible to evaluate it?

12 A Thinking on this for a second. Apologies for
13 the pause. If we're moving down the path of looking at
14 conditional CPCNs, as Juno has proposed, we would have to
15 look at -- would we have to look at -- as I'm thinking
16 through this, we would have to look at multiple
17 iterations of conditions to say, well, under this
18 condition -- let's just say you wanted to sell to PJM --
19 X, Y, and Z apply. well, if I go to this other
20 condition, it changes the -- not the risk versus the
21 reward, but sort of the system benefits or the
22 commensurate value to ratepayers for the actual
23 transmission costs, it's looked at differently. So now
24 it's X, Y, and A, B, and any other letter that I can come

1 up with. So yes. And I believe I stated that during the
2 evidentiary hearing, that implementing conditions starts
3 to create challenges in trying to look at these
4 evaluations as well.

5 Q Mr. Metz, Juno has not requested different
6 conditions in its CPCN, depending on what its ultimate
7 offtake is, has it?

8 A That is correct. The current --

9 Q Okay.

10 A The current process is that they were looking
11 at an off--- an offsale to PJM.

12 Q Okay. And the CPCN itself doesn't actually say
13 anything about, you know, what the offtake of the project
14 is, does it?

15 A No, it doesn't, but I believe the conversations
16 were, at that time, is how can we evaluate the system
17 benefits to ensure that either option is valid, then Juno
18 introduced a second option.

19 Q Okay. So it's the Public Staff's position that
20 it continues to oppose Juno's CPCN, correct?

21 A I can restate what's in my testimony --

22 Q No.

23 A -- verbatim, but that's what we --

24 Q Yes would be fine, if that's -- I just want

1 to --

2 A I'd just say oppose seems strong. I can
3 understand why you say oppose, but what we said in the
4 testimony is what we say now.

5 Q Okay. And what you said a few minutes ago was
6 that one of your other reasons for continuing to
7 recommend that the CPCN be denied is that there is still
8 uncertainty about the cost of the Juno upgrades; is that
9 right?

10 A That's correct.

11 Q And are you aware, Mr. Metz, that Juno has now,
12 in remarks by Mr. Levitas, stated that it would request a
13 condition under which it would not seek reimbursement for
14 any upgrade costs that exceed a \$4 LCOT?

15 A That is correct. I also heard Mr. Levitas say
16 that for a viability screening tool, that you typically
17 use 10 cents a watt, which would equate to 27.5 million.
18 My rough math was 50, 56 million plus 27.5 million is
19 much less than the 89 million, so I don't understand the
20 viability screening tool. If I take that at face value,
21 that it is a viability screening tool and you're going to
22 socialize the cost above that, the project is no longer
23 viable. Then I take that further, if there's Duke Energy
24 Carolinas' project costs -- or correction -- if there's

1 Duke Energy Carolinas' affected system costs that they're
2 willing to socialize, that will be an addition and
3 further make the project unviable and potentially
4 pointing to a speculative project, which was not the
5 purpose of the transitional cluster study.

6 Q But you heard Mr. Levitas request that
7 condition, didn't you?

8 A Correct.

9 Q Thank you. So if the Commission were to grant
10 the CPCN with that condition and Juno were to be
11 responsible financially for all upgrades that exceeded a
12 \$4 LCOT, wouldn't that protect ratepayers from any future
13 increases in upgrade costs for Juno?

14 A I want to take that a little bit -- I will
15 answer your immediate question and say no, but there's
16 two elements I want to add into that. I would think that
17 condition, I would --

18 Q I would -- if you --

19 A -- like to also evaluate the potential harm
20 that it may cause on to other participants that don't
21 have such luxuries at their disposal and how they're
22 making decisions on the Phase 2 -- Phase 1 payment,
23 milestone payment 1, milestone payment 2, and if Juno
24 wants to withdraw later after they found out that costs

1 were too high when we get to the facility study and we
2 get the Class 3 estimate, what does that do to all the
3 other projects? Are they now financially harmed?

4 Then taking this a step further, the second
5 point was looking at as we move through this carbon plan,
6 HB 951, the potential carbon plan looks at least cost.
7 Least cost plan could be evaluating both the generation
8 asset buildout and, in my mind, the transmission system
9 buildout. That's part of a plan. You can't have one
10 without the other.

11 So when we look at the amount of solar that --
12 or any generation resource, correction -- I don't mean to
13 target solar -- if we look at any generation resource
14 that would have to come out of this carbon plan, fine, we
15 snap the chalk line today, here are the upgrade costs for
16 Juno, here are the upgrade costs for Transition Cluster 1
17 at approximately \$400 million. What if we have to build
18 another 1,000 MW of whatever resource in the zone? What
19 happens if we have to build another 4,000 MW?

20 Again, I mean we heard earlier today this is
21 the only area that we can build solar. We heard earlier
22 today that 4.6 GW, in my interpretation of the statement,
23 was the floor. And if that can only be built in here,
24 and we already saw for 2,000 MW in Duke Energy Progress'

1 system we're going to need more transmission. So if we
2 agree to build these transmission costs today, what are
3 the next increments of transmission cost? Should be have
4 done a different plan, a better plan, a more efficient
5 plan, a less wasteful spending plan?

6 So I guess that's where I take a little bit of
7 issue to say would ratepayers be harmed, and the
8 immediate answer, no, but we're moving forward. We need
9 to look beyond this immediate point.

10 Q But those concerns that you articulate don't
11 have anything to do with a possible increase in costs in
12 Juno's upgrades, correct?

13 A In Juno's upgrades, correct.

14 Q Okay. So even with the condition that -- well,
15 let me ask you another question. So just to be clear, if
16 the Commission were to grant Juno's CPCN with that
17 condition requested by Mr. Levitas, it would be Juno who
18 would bear the risk of any increase in Juno's upgrade
19 costs, correct?

20 A So I think -- I tried to state it before, and I
21 might be looking at it from a slightly different lens,
22 all participants in the transition cluster study are at
23 risk.

24 Q well, I would appreciate it if you would -- if

1 you'd try to look at it through the lens that I'm asking,
2 and tell me whether you think -- well, whether you agree
3 that Juno agrees to bear the risk of any increase in
4 upgrade costs for its own upgrades.

5 A Through your lens as you're describing it, yes,
6 correct.

7 Q All right. Thank you. So I'd like to talk a
8 little bit about your -- well, your prior testimony
9 regarding the reasons for opposing the CPCN. We've
10 talked about the tendency of transmission costs to
11 increase over time; is that right?

12 A Correct.

13 Q Okay. And you recall that Ms. Miller, Pine
14 Gate's witness, testified that in general, there's upward
15 pressure on transmission costs? Do you recall that?

16 A Labor, inflationary triggers, yes, I remember
17 that.

18 Q Okay. And you'd agree that we've seen
19 significant increases in transmission costs over the last
20 year -- few years, wouldn't you?

21 A I have not done an analysis to isolate the
22 inflation variable versus the increase in transmission
23 costs for either load or generation causation.

24 Q would you agree that there have been increases

1 in transmission costs recently?

2 A That's why I don't understand the question. If
3 you're talking about increases, well, if I spend \$1 today
4 and I spend \$10 tomorrow, then, yes, that's an increase,
5 but are you trying to isolate inflation or you're just
6 trying to -- I don't understand the question.

7 Q Cost estimates for transmission upgrades have
8 gone up over recent years, haven't they? Just in
9 absolute dollar figures. Leaving aside the cost --

10 A Yes.

11 Q -- or the causes, rather. Thank you. So you
12 recall the LBNL study that has provided the benchmark
13 LCOT figures that the Public Staff and the Commission has
14 relied on in the past?

15 A That's correct.

16 Q Okay. And that study was conducted in 2019,
17 right?

18 A Subject to check.

19 Q Okay. And it looked at interconnection costs,
20 presumably some of which predated 2019, correct?

21 A Correct.

22 Q So would you expect that if the LBNL study were
23 conducted this year, the benchmark LCOT figures would
24 probably be higher?

1 A well, so let's unwind the LBNL study for a
2 second. It's just a snapshot in time of a particular
3 project in certain areas, and I don't -- and I don't know
4 what all those potential variables would include or
5 exclude. So, for example -- again, a hypothetical -- if
6 we wanted to take a snapshot of PJM, and PJM paused all
7 interconnections for three years and I did an evaluation
8 over four years, well, it's the possibility that you
9 would have downward pressure on the overall LCOT
10 calculation because no project's interconnected. So it's
11 a lot of variables just in that overall calculation.

12 Q All right. Thank you. So Mr. Metz, one of the
13 objections that you stated to the Juno CPCN in your prior
14 testimony was that in order to review the CPCN, you would
15 need to know not just the cost of the upgrades that Juno
16 would require, but the nature of those upgrades; is that
17 right?

18 A That is correct.

19 Q Okay. Now, would you agree that the Phase 1
20 study provides a list of the upgrades that would be
21 required to interconnect Juno?

22 A Not the sufficient detail that I am looking
23 for, and we look forward to working with Duke to try to
24 clarify the nature of some of these upgrades.

1 Q Okay. So you need to know more about those
2 upgrades before -- you believe that the Commission needs
3 to know more about those upgrades in order to grant
4 Juno's CPCN?

5 A For me to evaluate both the nature of upgrade
6 and the associated cost, I need more information on those
7 overall upgrades.

8 Q Thank you. You also testified that you needed
9 to know -- would need to know the total upgrade cost for
10 projects in the transitional cluster before you could
11 recommend that the Juno CPCN be approved; is that right?

12 A The one portion of the evaluation that goes
13 into it, yes.

14 Q Okay. And we do now know, based on the Phase 1
15 report, at least a likely upper bound on the cost of
16 upgrades for the TCS, don't we?

17 A Can you define "upper bound"?

18 Q A likely maximum number in dollars for the TCS
19 upgrades.

20 A So if we're -- so if we're calling this a Class
21 5 estimate and it's subject to 100 percent increase, and
22 the current LCOT was \$6.93, so is the upper bound almost
23 \$13.00, then, yes, I guess we know the upper bound.

24 Q Okay. Now, you think that the Commission

1 should look at the total cost of all the upgrades in the
2 TCS; is that right?

3 A I believe the Commission should look at both
4 the upgrades in general, as well as the total cost
5 because we heard an example today was the Duke witnesses
6 talking about some upgrades already taking place, so it's
7 important to understand of how the current system is
8 being designed for and looking at the generation
9 causation and the incremental amount of upgrades they
10 need to incur and the associated costs while maintaining
11 system reliability.

12 Q Do you think that the Commission should also
13 look at the potential benefits of the upgrades in the
14 TCS?

15 A Correct.

16 Q And would you agree that one of those benefits
17 is potentially facilitating compliance with the carbon
18 reduction mandates of HB 951?

19 A It could be, but it could -- it should be an
20 element to look at, but as I'm noting all the other
21 topics that I've discussed, other elements should also be
22 considered. And it's my opinion that based upon all
23 those other factors that I discussed, that one benefit
24 doesn't weigh -- outweigh the other factors.

1 Q But it is a benefit that should be considered,
2 isn't it?

3 A Yes.

4 Q Thank you. Do you think that the condition
5 proposed by Juno, by Mr. Levitas today, is a reasonable
6 condition?

7 A Can you define "reasonable condition" or
8 "reasonable"?

9 Q That's a good question.

10 MR. JOSEY: I'm going to go ahead and object to
11 this question as it's -- I think what Mr. Snowden is
12 getting to is a legal conclusion based off of an order
13 that FERC has entered on the American Beech.

14 MR. SNOWDEN: Oh, I'll represent it has
15 absolutely zero --

16 MR. JOSEY: Oh.

17 MS. SNOWDEN: -- to do with American Beech. It
18 has nothing to do with that.

19 Q I'm just trying to understand, Mr. Metz, I'm
20 just trying to understand your view of that condition and
21 whether you think that makes this an approvable CPCN.

22 A Okay. So what the Public Staff is also trying
23 to evaluate is not just the Juno CPCN; we're also trying
24 to look at the entire transition cluster study. We're

1 also trying to take into consideration all the other
2 elements that we've already talked about today, in terms
3 of reasonableness, for all those different steps for all
4 those different parties. So while the condition for -- I
5 think the terminology is often used as a circuit breaker
6 or an off ramp or ceiling, then, yes, that is a level of
7 reasonableness, but however, there's a level of
8 unreasonableness placed onto other elements, and it seems
9 to shift the risk from one area to others.

10 Q Okay. When you say risk, you're talking about
11 the risk of increased upgrade costs?

12 A Of -- I mean, not just the upgrades, but the
13 upgrade costs, the system reliability, long-term planning
14 of the electrical system, generation, transmission.

15 Q Wouldn't you agree that with regard to issues
16 of reliability, that Duke -- it's Duke's province in
17 conducting the cluster study to review those issues and
18 ensure that reliability is preserved?

19 A Yes.

20 Q So do you have any reason to disagree with Mr.
21 Levitas' position that if Juno were to withdraw from the
22 transitional cluster study, that the Red Zone upgrades
23 would effectively collapse?

24 A Through the lens of the transition cluster

1 study which was for nonspeculative projects to move
2 forward. If the project cost in any project that decides
3 to withdraw, that's a business risk that the individual
4 entity that needs to make, understanding the cost
5 provisions that we had agreed to through the stakeholder
6 process to try to balance those risks.

7 Q I'm not asking about whether it's fair or
8 whether it's right or anything like that. What I'm
9 asking about is whether you have any reason to disagree
10 that the practical implication of Juno withdrawing from
11 the transitional cluster study or the transitional
12 cluster process would be that those Red Zone upgrades
13 would collapse and not get built?

14 A I can't speculate if Juno withdraws on what the
15 potential impacts of what other projects may or may not
16 make.

17 Q Okay. But you have no reason to disagree with
18 that.

19 A I have no reason to agree or disagree.

20 Q Okay. So in your prior testimony, you declined
21 to say whether you thought that a \$4 LCOT would be
22 reasonable; is that right?

23 A That's correct because you just can't -- based
24 upon a single element, LCOT was -- is never a pass or

1 fail criteria.

2 Q Okay. Understood. But you have testified that
3 a \$4 LCOT is not unreasonably out of line with the
4 benchmark LCOTs that you previously relied on?

5 A I would request that the -- to review the
6 testimony and taken in context of that statement, and I'm
7 paraphrasing, on face value, a \$4 LCOT in itself is not
8 unreasonable, but however, you need to factor in all
9 these other elements because, for example, if I have --
10 this is a bad analogy, but apologies, but if I have a 1
11 MW project with \$1,000 LCOT, but the upgrades are only
12 \$100,000, it fails the LCOT test, but it's still
13 reasonable for that project to move forward because the
14 magnitude element is fine. But on the other token, let's
15 say if I wanted to build -- so, for example, looking at
16 the gas plant that's in the Duke Energy Carolinas'
17 system, finding my notes, it triggered approximately \$189
18 million in cost, but its LCOT was only \$1.

19 Q Well, Mr. Metz, let me ask it this way. In the
20 context of the Juno solar project, considering all of the
21 information about the transitional cluster study that is
22 in the Phase 1 report, is it your opinion that a \$4 LCOT
23 for the Juno upgrades is reasonable?

24 A One second.

1 MR. JOSEY: I believe -- I believe Mr. Metz has
2 answered this in his previous testimony at the hearing in
3 November and in his prefiled.

4 MR. SNOWDEN: Well, at the --

5 COMMISSIONER DUFFLEY: Well, and Mr. Snowden, I
6 believe it has been asked and answered. I think we've
7 gone around this, and he's tried the best he can. Mr.
8 Metz, if you feel like you have anything else to add to
9 this question.

10 THE WITNESS: I did not. I was just going back
11 to my original testimony, and I had nothing else to add.

12 MR. SNOWDEN: If I may, Commissioner Duffley, I
13 just -- at the previous hearing, Mr. Metz said he could
14 not opine as to whether a \$4 LCOT was reasonable because
15 he didn't have enough information, and now he's got more
16 information. So if -- I don't believe I've asked that
17 question in this context yet, but if you think I have --

18 COMMISSIONER DUFFLEY: All right. If you want
19 to ask that exact question.

20 MR. SNOWDEN: Yes.

21 COMMISSIONER DUFFLEY: Mr. Metz, can you answer
22 that question?

23 THE WITNESS: Yes.

24 A Going back to my testimony, allow the Applicant

1 to refile once it has more cost certain -- correction --
2 it has more cost -- certain cost information. We
3 specifically request that the Applicant refile the
4 application no earlier than after a completed facility
5 study from the TCS process and a completed affected
6 system study, if applicable. Once I have two elements, I
7 can evaluate the reasonableness of the overall project.

8 Q Okay. So you still -- today you still cannot
9 issue -- render an opinion as to whether a \$4 LCOT in the
10 context of Juno solar project in the TCS is reasonable?

11 A We had the evidentiary hearing to explain why
12 the Public Staff made its recommendations in their
13 testimony.

14 Q Okay.

15 MR. SNOWDEN: I have no further questions.

16 Thank you, Mr. Metz.

17 COMMISSIONER DUFFLEY: Redirect?

18 REDIRECT EXAMINATION BY MR. JOSEY:

19 Q Mr. Metz, Mr. Snowden discussed Juno's --
20 excuse me -- sorry. First of all, the allocation of MW
21 between DEC and DEP that you discussed earlier in
22 response to a question by Mr. Snowden, that will be
23 determined by the carbon plan, correct?

24 A That would be correct.

1 Q Yeah. And as far as Duke's intentions to merge
2 BAS, is it your understanding that Duke also stated its
3 intention to merge BAS and subsidiaries when Progress and
4 Duke initially merged?

5 A That is my general understanding, yes.

6 Q And to your knowledge, has Duke filed anything
7 at this Commission or any other Commission?

8 A No. The Public Staff is waiting for that
9 filing.

10 MR. JOSEY: Nothing further.

11 COMMISSIONER DUFFLEY: Okay. I just want to
12 tell the court reporter I think we're almost done, so do
13 you need a break or --

14 COURT REPORTER: No.

15 COMMISSIONER DUFFLEY: You're good.

16 COURT REPORTER: Thank you.

17 COMMISSIONER DUFFLEY: Okay. Now we're going
18 to Commission questions. Commissioner Clodfelter.

19 EXAMINATION BY COMMISSIONER CLODFELTER:

20 Q Mr. Metz, I'm going to ask you an unfair
21 question, but I think you can handle it. It's unfair
22 because it's probably a question I should have asked to
23 Mr. Quaintance and Mr. Finucane, but I didn't think of it
24 until they were off the stand, so I'll try it with you.

1 So if I wanted to do a little hypothetical
2 exercise, suppose the exercise I wanted to do was to see
3 what would happen to the transition cluster study report
4 if I simply took Juno Solar out of it, so they weren't in
5 it. I could not -- tell me if I'm right in this. I
6 could not simply go in and take the dollars allocated to
7 Juno and use the cost allocation factors from the study
8 and simply reassign those using those cost allocation
9 factors, could I?

10 A You cannot.

11 Q Because I would have to know how Juno's absence
12 would have changed the thermal loading studies on each of
13 those line segments whether the upgrades would have been
14 needed at all, how they would have changed, what kind of
15 upgrade they would have been, and how the cost would have
16 changed. would that not be correct?

17 A That is correct. I tried to cover some of this
18 when we had our hearing a while back --

19 Q Right.

20 A -- was the push -- natural push/pull of the
21 relationship.

22 Q Yeah.

23 A You just can't remove one variable and expect
24 it to all be the same. And I'll go on further, and I

1 know Duke's not coming back up here, is I don't know
2 if --

3 Q You -- you --

4 A I'm sorry.

5 Q You don't need to go further, Mr. Metz. You've
6 helped me all I need because what I really needed help on
7 was to decide whether I was going to ask Duke to do a
8 late-filed exhibit, and I just don't think it's an
9 exercise that could be done, so thank you. You've also
10 helped Duke, by the way, so I won't be asking for the
11 exhibit.

12 A I have more questions.

13 COMMISSIONER CLODFELTER: Nothing else.

14 COMMISSIONER DUFFLEY: Chair Mitchell?

15 EXAMINATION BY CHAIR MITCHELL:

16 Q Mr. Metz, just one or two for you. On the --
17 do you have any -- do you have any knowledge whatsoever
18 or any sort of informed opinion about potential affected
19 system impacts associated with this project?

20 A An informed opinion, no. The only observation
21 that I made was in the Duke Energy Carolinas' cluster
22 study, there was an affected system from Duke Energy
23 Carolinas over to Duke Energy Progress. And just working
24 with the Duke team over the years and reviewing potential

1 transmission upgrades and transmission projects and where
2 this particular project was coming into it was the
3 intuition that it's likely that an affected system would
4 have been triggered, but not knowing the MW, I can't
5 speculate to that degree.

6 Q Okay.

7 A Yeah.

8 Q That's all I'm -- that's all I can ask you for.
9 we've heard a lot of testimony today about solar
10 development in the state, various locations in the state.
11 Do you -- based on, you know, your knowledge and
12 understanding and your experience as part of the Public
13 Staff, do you think that there are opportunities still in
14 North Carolina for cost effective solar development
15 outside of this Red Zone?

16 A The immediate answer is yes, and I'll try to --

17 Q Let me be clear with my question, just so --
18 development that is not going to cost more on the
19 generation side than whatever savings you may achieve on
20 the transmission upgrade side. Does that make sense?

21 A Yes.

22 Q Okay.

23 A And a couple components maybe to add insight to
24 where I'm coming from in that answer, was in the avoided

1 cost proceedings we often look at backflow of
2 distribution and transmission. And I know we're in a
3 little bit of different paradigm, we're trying to solve
4 for transmission. Going off memory, numbers are close,
5 don't quote me on these exact numbers, is that Duke
6 Energy Progress' system had approximately 30 percent of
7 either distribution connected to -- distribution solar
8 connected to distribution or transmission substations or
9 it was a 30 percent backfeed. And Duke Energy Carolinas
10 had a much less number, but when we compared that to Duke
11 Energy, correction, Dominion Energy North Carolina, there
12 was approximately like a 75 percent saturation factor.

13 So, yes, I believe there are viable options
14 still in the Duke Energy Progress system and the Duke
15 Energy Carolinas system that need to be evaluated on the
16 increased potential development cost versus the savings
17 from -- or cost associated with transmission build-out.

18 Q Okay. So I hear you saying the potential is
19 there. It needs to be evaluated. What do you make of
20 the fact that there is -- that generation continues to
21 occur or -- I'm sorry -- proposed development continues
22 to occur in the Red Zone. And I mean, this area has been
23 identified as a Red Zone for many, many years, and it
24 seems, you know, there just -- you know, development

1 activity has not slowed down or hasn't ceased. What do
2 you make of the fact that we don't have -- what do you
3 make of that fact? Let me stop there.

4 A Oh, it's a valid observation. And in trying to
5 glean some of the causations for it, I mean, Mr. Levitas
6 did a good job explaining why. I mean, if you look at
7 the solar irradiance in that part of the state, it's
8 better than other parts of the state. You look at the
9 density value population, yes. There's a lot of factors
10 that would drive that for build-out, but the issue that
11 we're having challenges with are how to evaluate the
12 incremental or the increase in transmission cost to
13 leverage the maximum production value, can we decrease
14 production value in different parts of the state while
15 offsetting some of the transmission cost.

16 Q Can you go a little farther there, just so I
17 understand exactly what you're saying?

18 A So bang -- so bang for your buck. If I install
19 a solar panel in that part of the state compared to
20 Asheville, you're going to get more energy output for
21 your dollar investment compared to Asheville, mountain
22 covers, clouding, multiple factors. But in that
23 observation you say, well, we all know -- and I don't
24 mean to target Asheville, use some other county,

1 apologies -- they have higher land costs comparative to
2 least-dense areas, but are there areas in the
3 transmission system that you can leverage in that area?

4 Q Okay.

5 A Asheville was a bad example when it came to
6 leveraging transmission, but bang for your buck example
7 is what I was going for.

8 Q Okay. I follow you now. Thank you for that
9 additional clarification.

10 A I do have one potential comment that you asked
11 everyone else, so I would like my turn at it.

12 Q Okay.

13 A On the --

14 Q Go for it.

15 A If I may speculate --

16 Q Go for it.

17 A -- the reason that Duke Energy intervened.

18 Q I'd like to hear it.

19 A So my speculation is -- so maybe not
20 speculation. I'm happy where -- any company, utility,
21 where the transmission operator or owner should be part
22 of these conversations. I think it is de minimis value
23 for me to talk with their transmission planners, make
24 observations and calculations of their own math, present

1 that before the Commission, when they can just do it. It
2 just makes more sense for them to be intervening in these
3 conversations. That's my speculation. I'm sorry.

4 Q Thank you for that, and that's very helpful.
5 It would be helpful to hear from the Utility more
6 information so that we're not having to put the Public
7 Staff on the spot every time.

8 COMMISSIONER DUFFLEY: So I just have one
9 question.

10 EXAMINATION BY COMMISSIONER DUFFLEY:

11 Q You mentioned fixing transmission cost
12 allocation and that that needs to be done. Can you
13 direct me to where you might have prepared a document
14 that outlines what you believe should be fixed or how it
15 should be fixed?

16 A And so point of clarification, Commissioner.
17 Are we talking about under the joint balancing area and
18 potential evaluation of the transmission cost allocation?

19 Q Is that where it was in your testimony? You
20 testified to that today.

21 A On the transmission cost allocation, I believe
22 I was making a general mention if we went to a single
23 balancing area, we would need to evaluate if we build all
24 generation -- an extreme example, if we build all future

1 generation in Duke Energy Progress, Duke Energy Progress
2 ratepayers hypothetically would be assigned all the
3 transmission costs through their rates. And if we move
4 that energy over to Duke Energy Carolinas, they wouldn't
5 have to be necessarily paying for those potential
6 transmission costs. So if I misspoke on that earlier, I
7 think -- that's just a high level. It's not to say the
8 sky is falling. It is a challenge that we look forward
9 to working with the utility and presenting to the
10 Commission on potential --

11 Q Okay. I understand now. Thank you for that
12 clarification.

13 COMMISSIONER DUFFLEY: Okay. Questions on
14 Commission questions? We'll start with Duke.

15 MR. BREITSCHWERDT: Very briefly.

16 EXAMINATION BY MR. BREITSCHWERDT:

17 Q So Chair Mitchell asked you some questions
18 about the opportunities for cost effective solar outside
19 of the Red Zone, and I think you were walking through
20 some examples of what you characterized as best bang for
21 your buck. And so essentially what the Public Staff is
22 focused on is evaluating the cost of generation and the
23 cost of transmission to get a holistic cost that then you
24 can opine on; is that what generally you're trying to

1 solve for?

2 A Yes.

3 Q And is it fair to say that through the carbon
4 plan, the Public Staff anticipates and expects you will
5 have both that generation cost and transmission cost in a
6 holistic manner to evaluate in the near future?

7 A That is correct. And I believe -- not going
8 too far out of bounds on the carbon plan, I believe Duke
9 Energy is looking at a potential component of a
10 transmission adder to address these concerns. Other
11 members of the Public Staff, and including Mr. Thomas,
12 were having these conversations, too, coming out --
13 sorry.

14 COMMISSIONER DUFFLEY: Excuse me. Are we
15 getting too ex parte into the carbon plan?

16 THE WITNESS: Sorry.

17 MR. BREITSCHWERDT: Yeah. His answer was
18 sufficient, I think, for my general question.

19 Q And secondarily specific to other forums which
20 we've discussed of upcoming solar procurement, where
21 you're evaluating both generation cost and transmission
22 cost, would you agree that that gives the Public Staff a
23 holistic picture to determine whether a CPCN is warranted
24 of a project that's selected through that procurement

1 process?

2 A That is correct.

3 Q And so if Juno in the future were to bid in to
4 a competitive procurement that evaluated their bid price
5 of generation, plus their assigned transmission upgrades,
6 whether through transitional cluster or through a future
7 DISIS cluster, that would provide the Public Staff
8 information you needed to determine whether it has
9 sufficient bang for the buck for customers?

10 A Correct. The competitive process would be a
11 mitigation measure for evaluation, yes.

12 Q Great. Thank you.

13 COMMISSIONER DUFFLEY: Juno?

14 MR. SNOWDEN: I have just one or two questions.

15 EXAMINATION BY MR. SNOWDEN:

16 Q Following on Chair Mitchell's questions about
17 areas in the state where there might be greater or lesser
18 bang for the buck, has the Public Staff attempted to
19 conduct a study or generate any data about areas of the
20 state where the combination of generation and
21 transmission costs might be lowest?

22 A This topic has came up in the past, and I
23 believe the general terminology was capacity hosting
24 maps. There was some pushback. There were some people a

1 proponent of it and there were some people that were an
2 opponent of it. The topic of opponent was the moment
3 that you identify were there green areas on the
4 transmission system, you would potentially be having an
5 adverse effect of driving up land prices and potentially
6 offsetting some of those costs.

7 To answer the immediate question is, no, the
8 Public Staff has not performed or requested that study
9 because there was just some pushback in previous dockets.
10 The only other observation I can have -- or can add is
11 there's the potential for some areas on the transmission
12 system that can be -- that can still be interconnected
13 with minimum transmission costs.

14 Q Has the Public Staff requested any information
15 or data from any members of the solar industry or
16 industry associations to help, you know, generate that
17 sort of map about where generation prices might be lower
18 in the Carolinas, generation plus transmission prices?

19 A We have not, but I'll be open to the idea, yes.

20 Q Okay. All right. Thank you, Mr. Metz.

21 MR. JOSEY: No questions.

22 COMMISSIONER DUFFLEY: Okay. Looks like no
23 more questions from the bench. Okay. Very good. We've
24 come to the end of our day. Mr. Metz, thank you for your

1 testimony. You may step down.

2 (Witness excused.)

3 COMMISSIONER DUFFLEY: Are there any other
4 matters before we adjourn?

5 MS. KEMERAIT: Not from Juno Solar.

6 MR. BREITSCHWERDT: Commissioner Duffley, just
7 on behalf of Duke, for point of clarification, the late-
8 filed exhibit we discussed this morning about the
9 potential withdrawals in the Phase 1 study prior to Phase
10 2, the Commission has withdrawn that --

11 COMMISSIONER DUFFLEY: Request.

12 MR. BREITSCHWERDT: -- request, correct.

13 COMMISSIONER DUFFLEY: Correct.

14 MR. BREITSCHWERDT: We also had a discussion
15 about what Duke's position was on the issues presented in
16 somewhat of a bigger question of why is Duke here and
17 what's the role of the transmission provider in a
18 merchant CPCN proceeding, and it seems like, based on
19 recent discussions, perhaps broader carbon plan issues
20 are beyond the scope of what the Commission is looking
21 for, so I think it would be helpful to Duke if you're
22 looking for a late-filed response on Duke's position as
23 it pertains to the CPCN or these upgrades and, quote,
24 unquote, "solving the Red Zone," to provide some further

1 direction on that. And I think the Company would be
2 responsive to whatever specific request the Commission
3 would have, but just would like more clarity on what you
4 all are looking for, if anything.

5 COMMISSIONER DUFFLEY: Okay. who asked that
6 question? If you want to provide that clarity now.

7 CHAIR MITCHELL: Yeah. I mean, Mr.
8 Breitschwerdt, I don't think I can provide any more
9 clarity beyond what you've already recited. I mean, I
10 think you have a sense of what we want and the Company's
11 position on this particular application.

12 MR. BREITSCHWERDT: Thank you.

13 MS. KEMERAIT: And -- excuse me, Mr.
14 Breitschwerdt, were you finished?

15 MR. BREITSCHWERDT: I am. Thank you.

16 MS. KEMERAIT: As a point of clarification
17 about the information that you requested from Juno Solar
18 about the enforceability of a condition that Juno would
19 be responsible for all costs in excess of \$4 per MWh, is
20 this information to come just from Juno Solar, or were
21 you looking for input from Duke and Juno Solar to do it
22 jointly?

23 COMMISSIONER DUFFLEY: It's all the parties.

24 MS. KEMERAIT: Okay.

1 COMMISSIONER DUFFLEY: So you can do it
2 separately, jointly, but for all the parties --

3 MS. KEMERAIT: And --

4 COMMISSIONER DUFFLEY: -- including the Public
5 staff.

6 MR. JOSEY: I'd probably say the Public Staff
7 would, yes, like to comment on that, as well as I don't
8 know if there's a time for the Public Staff to respond to
9 what Duke will be presenting as far as the upgrades in
10 the Red Zone or just providing their thoughts on that as
11 well.

12 COMMISSIONER DUFFLEY: well, let's see what
13 they file --

14 MR. JOSEY: Okay.

15 COMMISSIONER DUFFLEY: -- and then you can make
16 a motion at that time.

17 MR. JOSEY: Okay. And these -- the
18 supplemental filing on Juno's thing, the upgrade costs,
19 those will be due, just for point of clarification,
20 the same day as the revised proposed orders?

21 COMMISSIONER DUFFLEY: None of the other dates
22 have changed.

23 MR. JOSEY: Okay.

24 MS. KEMERAIT: And so the information about the

1 enforceable condition will be provided at the same time
2 or prior to the time that our updated proposed orders are
3 filed?

4 COMMISSIONER DUFFLEY: whenever you can provide
5 it, provide it, but, yeah, no later than the order -- the
6 date for the revised orders and briefs.

7 MR. BREITSCHWERDT: which is next Monday, March
8 the 7th?

9 COMMISSIONER DUFFLEY: Correct.

10 MR. BREITSCHWERDT: Thank you.

11 COMMISSIONER DUFFLEY: Okay. Anything further?

12 MS. KEMERAIT: Not from us. Thank you.

13 COMMISSIONER DUFFLEY: Okay. We're adjourned.

14 Let's go off the record.

15 (The hearing was adjourned at 1:34 p.m.)

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STATE OF NORTH CAROLINA

COUNTY OF WAKE

C E R T I F I C A T E

I, Linda S. Garrett, Notary Public/Court Reporter, do hereby certify that the foregoing hearing before the North Carolina Utilities Commission in Docket No. EMP-116, Sub 0, was taken and transcribed under my supervision; and that the foregoing pages constitute a true and accurate transcript of said Hearing.

I do further certify that I am not of counsel for, or in the employment of either of the parties to this action, nor am I interested in the results of this action.

IN WITNESS WHEREOF, I have hereunto subscribed my name this 7th day of March, 2022.

Linda S. Garrett
Linda S. Garrett, CCR
Notary Public No. 19971700150