PLACE: Dobbs Building, Raleigh, North Carolina

DATE: Thursday, December 19, 2019

TIME: 1:30 p.m. - 4:15 p.m.

DOCKET NO: EMP-105, Sub 0

BEFORE: Chair Charlotte A. Mitchell, Presiding
Commissioner ToNola D. Brown-Bland
Commissioner Lyons Gray
Commissioner Daniel G. Clodfelter
Commissioner Kimberly W. Duffley
Commissioner Jeffrey A. Hughes

IN THE MATTER OF:

Application of Friesian Holdings, LLC,
for a Certificate of Public Convenience and
Necessity to Construct a 70-MW Solar Facility
in Scotland County, North Carolina

Volume 4

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T A B L E O F C O N T E N T S

E X A M I N A T I O N S

E X H I B I T S

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P R O C E E D I N G S

CHAIR MITCHELL: Good afternoon. Let's go back on the record, please. Ms. Cummings, I believe we're with you.

MS. CUMMINGS: Karen Kemerait.

MS. KEMERAIT: Right. Right. Yes, we're finishing up cross examination of the Public Staff witnesses.

Good afternoon, again. Again, Karen Kemerait, representing the Applicant, Friesian Holdings, LLC, and I have just a few follow-up questions from yesterday's line of questioning.

(Having previously been sworn, Witnesses Evans and Lawrence return to the stand)

CROSS EXAMINATION BY MS. KEMERAIT:

Q And I'd like to begin by the evidence and testimony that's presented by Rachel Wilson yesterday in regard to her testimony about the Synapse Report that she provided. And have either of you reviewed Ms. Wilson's Synapse Report that is attached as Exhibit RW-2 to her testimony?

A (Metz) Yes, we have.

Q And in that report, Ms. Wilson and her Synapse colleagues had concluded that a storage -- a solar plus storage plan for future generation would save ratepayers about $5 million relative to an all-gas IRP. Is that your understanding?
A That's my understanding of the Synapse Report and her testimony. In regards to the Synapse Report, I believe that was introduced in a 2018 IRP, that report was not thoroughly evaluated by the Public Staff. We have raised our initial concerns and that was filed in our comments within the IRP on some of the assumptions within that model.
Q And then, other than the concerns that you have, you do agree that there would be benefits to additional solar in the state?
A (Lawrence) Is that a more general question or is it still in regards to the Synapse Report?
Q Yeah, it's a more general question, yes.
A I think we agree that solar throughout the state sited in the correct areas, done in a planned manner, it can be beneficial to the people of the state.
Q Okay. Thank you. And I may need to correct what I said. I think I may have said $5 million

related to her report but I meant to say $5 billion. So if I misstated that I'll correct that question.

And then moving on to the Governor's Clean Energy Plan, you are both, I'm sure, aware that the Governor has issued a Clean Energy Plan for the State of North Carolina.

A (Metz) Are you referencing Executive Order 80?

Q Yes. Uh-huh (yes).

A Okay.

Q And as part of that Executive Order 80 or the Governor's plan, it calls for a 70 percent reduction in carbon emissions from the state's utility sector by 2020. Is that your understanding?

A That's my general understanding of Executive Order 80. I'd just like to clarify that that is currently a goal and that goal is being implemented through DEQ and we're still waiting to see how -- what would be the long-term road map to achieve those goals.

Q And then you're also aware that Duke Energy is committed to achieving at least a 50 percent reduction in its carbon emissions by 2030. Is

that your understanding as well?
A That is correct. I believe they filed that approximately within the same timeframe as the 2019 IRP or the 2018 update, which that plan has also not been reviewed and we are not fully aware of how the utility plans to meet those goals.
Q Okay. But would you agree that in the ability to achieve either the Governor's goals or Duke's goals will require the retirement of coal generating facilities and replacing them with some combination of natural gas and renewable resources?
A I believe that's a fair assumption. And again, located strategically on the grid where it needs to be located, and renewable resources and not just solar-specific resources.
Q Correct; renewable resources.
And did you review Ms. Wilson's testimony where she states that achieving that -- the Governor's 70 percent reduction goal in carbon emissions would require the addition of about 14 gigawatts of solar energy?
A Can you point to that in her testimony please? Or I can accept it subject to check.

Q Okay. Subject to check.
A Subject to check.
Q And do you have any basis for disputing that substantial amount of renewable energy will, in fact, be required as you stated before to meet that goal?
A I haven't validated that number. I don't know how it was derived.
Q Okay. And then in regard to public health benefits that Ms. Wilson discussed in her testimony, she stated that the state will realize hundreds of millions of dollars of reduced healthcare costs as a result of relying primarily on solar to meet Duke's new generation needs. Do you have any reason to disagree with her statement?
A That's not my expertise. It would require too much speculation.
Q So no basis at this point to dispute that statement?
A I have no technical basis to dispute that statement.
Q Okay. And then finally I'll move on to -- I've got just a couple more questions. This relates

to the benefit, economic development benefits to the southeastern portion of the state. And I think you'll recall that Mr. Bednar's testimony was that the construction of the Friesian network upgrades would open the door for billions of dollars in investment in that part of the state. Do you have any basis for disputing Mr. Bednar's assessment and testimony about those benefits to the communities in the southeastern portion of the state?

A I have no reason to dispute it. But again, I don't know how those values are derived.

Q Okay.

A (Lawrence) Additionally, we have no reason to dispute that but if that holds true for southeastern North Carolina that holds true for anywhere. That wouldn't be specific to that area.

Q And, also, are you aware that there are a number of communities that have submitted resolutions of support of the Friesian project. And specifically are you aware that the Scotland County Board of Commissioners, the Bladen County Board of Commissioners, and the Town of Maxton

have filed statements of support of the Friesian upgrades in this docket?

A (Metz) I'm aware of the -- I believe there is one consumer statement position that supported the Friesian project in the docket system.

A (Lawrence) I did see that there, that those counties did file those positions. Yes.

Q Okay. And then moving on to the statement or the comments that you made in your testimony about Clearinghouse review for the Friesian amended CPCN application, and I'll provide a little bit of background before I ask my question, but as you will recall this application started off as an amended application and a SP docket; is that your recollection?

A (Metz) Yes, it is.

Q And as part of the amended application in the SP docket, is it your understanding that the site plan and the application went through Clearinghouse review, and that Clearinghouse review has been completed in the SP docket?

A Yes, that is correct.

Q Then after Clearinghouse review had been completed, it was determined that this amended

application needed to be refiled in this EMP docket, the Merchant Plant Docket. Is that your recollection of how we ended up here?

A Can you state that one more time?

Q Okay. We withdrew the application --

A Yes.

Q -- from the SP docket because it was determined that it was not a qualifying facility and that it was more appropriate and it needed to be -- the amended application needed to be filed in a merchant plant proceeding so we refiled in EMP-105.

A Yes, that's my understanding. Correct.

Q And is it also your understanding that the site plan and application -- excuse me, the site plan and details about the facility have not changed in any respect from the site plan and details about the facility from the SP docket?

A In my review of the application, yes, that is correct.

Q And so does the Public Staff have a position about whether additional Clearinghouse review needs to be completed since the site plan has not changed in any way?

A So historically if we looked at this from say an SP item or an amendment to an SP item, if the site plan did not change between the original application and the amended application we would not recommend to the Commission for additional Clearinghouse comments.

Q And if Friesian were to request that the Commission not require further Clearinghouse review since the site plan has not changed, would the Public Staff support that request or at least not oppose it?

A If there is no change in between the amended application and transitioning over into the EMP docket then we would not object to that.

Q Okay. And then finally I wanted to ask you a couple of questions about a very general proposal that Friesian has made to the Public Staff. Do you recall that Mr. Levitas and I reached out to Mr. Dodge and Ms. Cummings and requested a meeting in November so that we could talk about some possibilities of ways to address the Public Staff's concerns about the cost of the network upgrades?

A (Lawrence) I agree in that the meeting was --

that was part of the meeting. Yes.
Q And we had a meeting on November the 22nd; is that your recollection?
A I believe that date is correct but I guess subject to check.
Q Subject to check. And during the meeting do you recall that Mr. Levitas and I provided a general proposal for the Public Staff to consider about a possibility of cost sharing of the network upgrade costs among the interdependent projects?
A That is correct.

MS. KEMERAIT: Thank you. That's all the questions I have. Steve?

MR. LEVITAS: Nothing further.

MS. KEMERAIT: Okay. Thank you.

CHAIR MITCHELL: Mr. Ledford.

MR. LEDFORD: Thank you.

Mr. Metz, Mr. -- excuse me. Mr. Metz, Mr. Lawrence, my name is Peter Ledford. I'm here on behalf of the North Carolina Sustainable Energy Association.

CROSS EXAMINATION BY MR. LEDFORD:

Q I wanted to start out with a couple of questions about the need for the generation, leaving aside

the issue of the transmission and network upgrades. Does the -- do NCEMCs file an IRP with the Commission?

A (Metz) No, they do not.

Q And have you presented any evidence that Friesian does not meet the needs of NCEMC?

A The needs of NCEMC are not known.

Q Okay. So there's no evidence that Friesian would not meet the needs because the needs are unknown?

A The needs are unknown for NCEMC. Yes, that's correct.

Q Okay. And NCEMC is a party to this docket, correct?

A That is correct.

Q And did the Public Staff serve discovery on NCEMC?

A (Lawrence) I do not recall.

Q Okay. Did the Public Staff attempt to determine NCEMC's need for the facility?

A (Metz) No. Because, again, the burden of proof is on the Applicant and not on NCEMC as an intervenor into the docket.

Q Understood. So is the Public Staff attempting to substitute its own judgment for the judgment of

NCEMC about their needs?
A No. What we're saying is the Applicant did not meet the burden of proof in demonstrating NCEMC's needs.
A (Lawrence) And we're not attempting to judge what NCEMC needs and or what they don't need. We're simply saying that that proof is not in this docket. We haven't seen it as evidence in here so we don't believe that burden has been met.
Q Okay. And NCEMC's filing stating that they have a need is insufficient in your minds?
A (Metz) I didn't read it as them having stating -- can you point to me where they say they stated or they absolutely needed -- needed it?
Q They said that it would help them reach their brighter energy future goals.
A Right. Help is not a need.
A (Lawrence) I would not characterize what they had said they needed to meet their goal but their goal is not a need in itself. It is a goal, a want by them, something that they're trying to achieve but if they don't achieve it then there are no -- the consequences are not the same as they would be for a legal action or something of

that nature.

A (Metz) Say, for example, if NCEMC was to file evidence, or the Applicant was to file evidence, say if we did not sign this contract our lights would turn off for our members, that would have weight in the overall conversation; however, that was not mentioned by NCEMC nor the Applicant.

Q Thank you. And I appreciate the conversation about goals versus needs. We're going to circle back to that in a minute. But I want to look now at some of the network issues that are going on in the DEP east service territory.

Friesian Witness Askey testified in his rebuttal that while technically NERC compliant the grid will be far more vulnerable to disruption than it would be if the Friesian network -- excuse me, if the Friesian upgrades are built. Do you recall that testimony?

A Yes.

Q Do you agree that the Friesian upgrades will provide reliability benefits?

A Trying to just take that into consideration about what do you mean by reliability. If I'm defining reliability as a need to meet ramping constraints

on the overall system by the injection of energy by a non-dependable intermittent resource, then no, not directly. There could be secondary benefits, but it's not one-to-one.

A (Lawrence) And additionally, just because it would increase reliability that doesn't mean what is currently there is not sufficient to meet the reliability requirements currently in place.

A (Metz) If the existing system was at the state of failure, I believe Duke Energy Progress would be already making plans because they're responsible as the BA to make those needed repairs or upgrades on the overall system. But as the application here before us is the facility requesting to interconnect or to interject energy into the system is the catalyst or an inflection point it is causing the need to upgrade, not the other way around.

Q So as a policy would you agree that it's better to go beyond the bare minimum necessary to maintain NERC compliance and other reliability standards?

A Well, I'm not going to be up here saying I make policy decisions, but when I have to evaluate the

overall cost of going to the next tier of say reliability that creates a challenge in itself.

Q So is that a yes or a no?

A So I say this, I'm not making a policy decision. And so when you evaluate the cost -- when you evaluate the gains and reliability there is a cost element. And the reliability elements specific to this project as presented by the Applicant appears that it's only needed for -- to interconnect the facility. Everything else is secondary.

A (Lawrence) And commonly when evaluating safety measures of any kind or reliability measures there is a factor of safety already built in to those measures so that it's -- you're not reaching some kind of a catastrophic failure if you go above say the rating of a line it's not going to cause the line to snap under something such as that unless you're reaching well over what the intended ratings are for. There is an amount built in there to compensate for that.

Q Kind of like a reserve margin for generation?

A (Metz) Mr. Lawrence is referring to the engineering safe margin typically built into

certain components.

Q Okay. So I do want to shift gears and talk about another place where there's a NERC standard and that is the reserve margin for generation. The NERC required reserved margin is 15 percent; is that correct, subject to check?

A Can you provide that standard? I'm just trying to say where the NERC explicitly calls out 15 percent. Can you provide that standard so I can review it in its entirety?

Q I don't have it on me so we'll move on to something else.

So can you explain to me why it's appropriate for DEP's transmission system to remain constrained?

A So why is it appropriate for the DEP system to remain constrained. So if I had to evaluate -- so if the utility went and did a quarter billion dollar upgrade into their system and came in and sought cost recovery, it would be scrutinized through a general rate case no different than if it was $10 million, $100 million. And if part of the investigation we reviewed it says hey your existing system is fine. Based upon projected

load growth, projected demand, projected generation, we didn't need this asset to be built for the next 10 years, 15 years, 20 years, 30 years. We would probably be proposing an adjustment to the utility not for cost recovery and, therefore, shareholders would be picking up that quarter billion dollar cost.

Q So did I hear you to say that constrained is fine?

A I'm saying you have -- when spending money into the electrical grid it has to be at the right place at the right time. Constrained systems can occur all over the system. That's why we have the multiple -- through the NERC standard the "P" codes that allows one to evaluate sort of a risk matrix approach to target critical areas in the electrical grid for investment. Constrained does not mean bad.

Q So when was the issue of the constrained infrastructure in the DEP's service territory first identified?

A DEP would be the best person to address that. My general understanding was there were multiple conversations with DEP through interconnection,

approximately 2016-2017 time period. But again, DEP would be the best person to answer that.

Q And would you agree, subject to check, that witnesses in this docket have cited to in Duke Witness Gary Freeman's testimony from November 19, 2018, in the interconnection docket, that there was a constrained infrastructure issue?

A Yes.

Q All right. And since that time what has the Public Staff done to resolve any transmission constraints in DEP's service territory?

A The Public Staff is not the BA and is not required to do or -- yeah, it's not required to do the transmission modeling to make them in compliance to NERC standards.

Q Would the Public Staff support an explicit policy that no new utility scale solar could be built in DEP's eastern service territory?

A I'm not up here to make policy decisions.

Q Do you agree with Duke, as they stated in their letter, that if Friesian's CPCN is rejected, quote, the most likely outcome in the short term would be a cascading series of withdrawals

resulting in complete paralysis of the interconnection queue in this portion of DEP's service territory?

A Emphasis on this, their words, but again emphasis on their portion in the overall system. There are still lots of other areas in the system that can be interconnected and utilized and compliment the overall system.

Q So by opposing the CPCN in this proceeding, is the Public Staff supporting an implicit policy that no new utility scale solar should be built in DEP's eastern service inventory?

A No, I don't believe so. I believe the facts and circumstances of this particular case don't support.

Q All right. Thank you. I want to switch gears and look at some alternatives to the 220 odd million dollars that have been identified for this.

Do you have reason to dispute Friesian witness Askey's testimony that the cumulative upgrades comprised the lowest cost solution to the problem?

A (Lawrence) The problem right now -- as we stand

today there is not a problem. The problem comes up after another generator connects. And that generator is the one that causes the problems. Once you've -- that would put it over that threshold. So that statement -- it creates that -- I'm sorry. Excuse me. So that is a clarification that I think is important to note, yeah, to note because without another generator, without additional generation that has already been taken up on this line, there is no problem.

Q So you state in your testimony that due to technological changes there also may be other alternatives identified to help defer -- excuse me, to help avoid or defer costly transmission upgrades, correct?

A (Metz) That is correct.

Q And do you believe that there are currently any alternatives that could avoid or defer the upgrades necessary to interconnect Friesian?

A So there's multiple components to that statement. So as the Public Staff has stated many times in its IRP comments that we continue to look at non-wire alternatives for the overall system, that can be DSM, EE, load control, other

elements. Again, the particular component that makes this a unique circumstance that we've heard is while we can implement DSDR, we can implement DSM, we can implement EE, those are load reduction programs. We are talking about the southeast where there is lower load growth than the rest of North Carolina that's growing. So while you can look at non-wire alternatives, it will have lesser help or relief in parts of the states where load growth is not growing. So what that means is we need to potentially have renewable generation located closer to load centers to get a better bang for your buck and to compliment the overall system.

Q I understand that's the Public Staff's position but that's not responsive to the question that I asked. Are there lower costs available -- options available to interconnect Friesian?

A Well, the lower cost alternative is that Friesian does not interconnect because the system is fine and ratepayers don't have to pick up the tab.

Q But Friesian has a right to have access to the grid, correct?

A Yes, Friesian has a right to have access to the

grid.

Q Thank you. Moving ahead, in your joint testimony you state that the Public Staff agrees that costly investments in the siting of new transmission and generation should be evaluated and decided through comprehensive system planning, utilizing processes such as the IRP, ISOP, distribution system planning and competitive bidding processes like the CPRE program or short-term market solicitations rather than by individual CPCN applications; is that correct?

A That's correct. And we try to evaluate -- attempt to evaluate things on a more holistic whole planning approach while we're reaching these inflection points on the overall system.

Q So are any new transmission -- is any new transmission being constructed for the Friesian network upgrades or are there upgrades to the existing transmission system?

A Upgrades to the overall transmission system are constant -- isn't quite -- is not quite the right word but they're always occurring. But Duke Energy Progress would be the best to talk about

what constructions are occurring where on the overall system at this given point and time and what they're next three-year plan is.

From the Public Staff's view, we look at it from a rate case on what has been built and we look at it when certain thresholds are met for CEPCN applications which has its regulatory requirements of when it triggers a review.

Q And Duke is not in for a C -- Certificate of Environmental, CECPN -- Duke's not in for a CECPN for new transmission, correct, related to this project?

A No.

Q Thank you. Does North Carolina have comprehensive system planning?

A On a -- so from a IRP -- when you say comprehensive, that we would take Dominion's service territory with DEP service territory with DEC service territory, I would not call it comprehensive to that regard. However, I do view the IRPs as to be a comprehensive plan for the utility.

Q For the utility. And the off-taker of Friesian's

electricity is NCEMC, correct?
A That is correct.
Q And we've established they do not file an IRP?
A That is correct. But they're going to be utilizing the DEP transmission system.
Q Has Duke implemented ISOP?
A It's in the process of review and stakeholders input and it's still maturing.
Q And when do you expect it to be available for use?
A I do not know.
Q Subject to check with some of your colleagues, you attended the ISOP meeting a couple of weeks ago, if you weren't there, would you agree that Duke says it will not be implemented until 2022?
A I presented on that panel and, yes, I know it's going to take some time, but I don't have a date certain.
Q Okay. Is Friesian proposing to interconnect to the distribution system?
A No.
Q Why is the lack of distribution system planning relevant in this instance?
A Well, I would say it's -- if you wanted to

interconnect a 70-megawatt facility into the distribution system you would have some challenges.

Q I don't disagree. But I'm asking why distribution system planning is relevant to Friesian?

A Why a distribution planning system is relevant to Friesian. When you look at the larger scale that 1 megawatt, 5 megawatt rooftop solar all are needed to compliment the overall system. So when you looked at centralized generation always power was flowing out of that node. Well, if this is the house sitting over here and this is say Belew's Creek, well that was the power flow. Well, and if that's the transmission line, well Friesian is trying to connect somewhere in between. But we also have to take into consideration the cumulative impacts of all of the other renewable energy trying to interconnect on different parts of the system. So if you looked at a power flow analysis it would be a cumulative impact as we have continued penetrations as the cumulative impact because by the time we get backup to Belews Creek in this

hypothetical example this won't be 70 megawatts it's going to be the summation of all the nodes going back to that point. So it could be a hundred or higher, lower.

Q So has the Public Staff petitioned the Commission to open dockets on any of these issues?

A Not to my knowledge, no.

Q And have any stipulations between the Public Staff and Duke resulted in new dockets being opened to investigate any of these issues?

A We have raised our concerns in different dockets highlighting some of these issues that continue to grow.

Q So until all of these systems that you named in your testimony are in place, should the Commission reject all CPCNs for new generation?

A All CPCNs for new generation? No. However, we request that they deny the application based upon the information that we laid out before.

Q Should the Commission reject only CPCNs for merchant plants?

A No. We -- for Lincoln County CT filed testimony and not approving that and that was a Duke Energy Carolinas. And again for Asheville combustion

turbine, we recommended approval for the combined cycle that also denied the combustion turbine element.

Q Thank you. I want to turn to the transmission planning collaborative. And you note in your testimony that Friesian's network upgrades have not been identified by the North Carolina Transmission Planning Collaborative, correct?

A Correct.

Q Has the North Carolina Transmission Collaborative -- Transmission Planning Collaborative studied Duke's power forward proposal?

A Can you state that one more time?

Q Has the Transmission Planning Collaborative studied Duke's power forward proposal?

A I do not know.

Q Do you know if the transmission planning collaborative has studied Duke's new grid improvement plan?

A I don't know. But I want to potentially talk about the TPC or what goes into the overall process that as a --

Q Well, I understand and NCSEA participates in the

TPC --

A Okay. But I'm talking to the Commission and maybe they don't understand all the inputs that go into it as much as me and you do and actually have contributed in those committees.

Q I would appreciate that if you answered questions, but I thank you.

Are you familiar with the carbon reduction goals in the Clean Energy Plan?

A Are you talking about the DEQ unapproved Clean Energy Plan?

Q The Clean Energy Plan that was released, I believe it was last month by DEQ.

A Yes. Currently still going through iterations and trying to work our way through the overall process.

Q Do you have a copy of Public Staff Friesian Panel Cross Exhibit Number 7? I can see one right there.

A They're not numbered.

A (Lawrence) This one is not marked.

A (Metz) If you want to come bring one or counsel or --

Did you say Number 7?

Q I believe that's how your counsel had identified it.
A You want to talk about that one? (Referencing document)
Q Are you familiar with this document?
A Yes, I have reviewed it.
Q Thank you. And would you agree that the goals contained in this document are to reduce electric power sector greenhouse gas emissions by 70 percent, below 2005 levels by 2030, and attain carbon mutuality by 2050?
A Yes. That is the goal but, however, we still have to implement the plan to get there.
Q Great. And the carbon reductions in the Clean Energy Plan are goals, correct; they're not statutory mandates?
A Correct.
Q Does the Public Staff believe that the Commission should attempt to achieve the goals of the Clean Energy Plan?
A Maybe under the purview of what the Commission and how they interpret it when they should start implementing a plan when we don't have, at least in my opinion, a bigger picture or holistic plan

of how to meet those. I guess where I'm going at is if we have a problem, if we have a leak in the wall and we start putting our finger on one, are we going to cause a bigger leak to pop out somewhere else. We need to look at overall impacts and especially if we start talking about large costs on an electrical system to transform it and meet the overall plan once it's laid out.

Q So if Friesian is granted a CPCN in this proceeding, do you know when it will come online?

A I don't know the date certain that it will come online, no.

Q Subject to check, and it's contained in Witness Bednar's supplemental testimony, would you agree it's December of 2023.

A That's the potential date that it can come online. But with any construction project and especially one that's approximately 70 miles with limited times that you can take out the transmission system, spring and fall, hurricanes in the Carolinas, that date might slip.

Q So we can agree that the earliest it will come online is December of 2023?

A I can't agree to that because I don't know what

headway is going to be made in certain planning activities. I can agree that the witnesses have stated that they plan on getting it online in December of 2023.

Q Are you familiar with Witness Bednar's testimony?

A Yes.

Q Would you agree that he testified that without the upgrades -- excuse me, without Friesian the upgrades could not be put in place until 2027?

A Can you turn me to that so I can take it in context? I mean, subject to check, whatever he testified to he testified to.

Q Subject to check. So it's currently December 2019, can we agree on that?

A Yes.

Q Thank you. So we're talking about a four-year period necessary for Friesian to come online?

A Correct.

Q All right. So the first submission's milestone complained (sic) in -- first emissions milestone contained in the Clean Energy Plan is 2023, correct -- excuse me, 2030, correct?

A Subject to check.

Q And that gives us about 10 years to reach that

date, correct?
A Correct.
Q So without the Friesian network upgrades more than half of DEP's service territory will be off limits to solar until 2027, correct?
A The southeastern part where the level of penetrations being requested by Friesian would have limitations interconnecting to the overall system. I wouldn't go as far as to say off limits.
Q So 2027 to 2030, three years, does that give enough -- give the state enough time to meet the goals of the Clean Energy Plan?
A I don't know. But are you also making an assumption that we can't interconnect other renewable generation to help that target in other parts of the state.
Q In its letter, Duke states that regardless of the precise GHG emissions target substantial amounts of new renewable resources will be needed. Do you agree with this statement?
A That's their statement, yes.
Q Do you agree with it?
A I don't know how they calculated or derived its

overall values, which we testified to yesterday.
Q Do you agree that waiting until 2027 or 2028 to begin installing these renewable resources would result in technical and logistical issues?
A It requires too much speculation.
Q So wouldn't it be prudent to begin installing these renewable resources now, especially since they have a 10-year development timeframe?
A The Public Staff is not denying that renewable resources should not be built. They should be built to compliment the overall system and placed into areas in the system where it's needed.
Q Thank you. Who does the Public Staff represent?
A The General Using and Consuming Public.
Q So does the Using and Consuming Public benefit in the form of lower rates when costs are shifted from them to solar developers?
A Can you state that one more time, please?
Q If costs are shifted from the Using and Consuming Public to solar developers, does the Using and Consuming Public benefit?
A That's one component of a benefit if you're only looking at a rate impact.
Q So in an exchange yesterday with Ms. Kemerait you

stated your belief that Mr. DeMay may have a bias. Do you recall that exchange?

A Yes, I do.

Q So do you believe that in this docket the Public Staff is unbiased?

A No. We have a bias and I'll fully admit that.

Q Thank you. And are you familiar with the testimony of Public Staff Witness Jay Lucas in the recent interconnection standards docket?

A I don't have his testimony memorized offhand.

MR. LEDFORD: May I approach?

(Mr. Ledford hands the panel a document)

Q On Page 5 of his testimony, would you agree that Mr. Lucas states that however the Public Staff cannot act as a completely independent evaluator of all issues in this case as stated in NC General Statute § 62-14.15 -- excuse me, § 15(b) the purpose of the Public Staff is to represent the Using and Consuming Public versus the general public. Therefore, our recommendations of the Public Staff in this proceeding reflect its efforts to protect the Using and Consuming Public from absorbing unreasonable risks, costs, and service degradation. To the extent they are

quantifiable, the Public Staff must also determine the benefits to the Using and Consuming Public.

A That is correct.

Q All right. And if you'd flip forward to the next tab on Page 37. I believe it's marked with a pink sticky note.

A Go ahead.

Q Would you agree that Mr. Lucas testifies that the Public Staff agrees with NCSEA that it is not a neutral facilitator for purposes of disputes? As discussed above, the Public Staff's primary goal is to protect the Using and Consuming Public, not DG developers.

A That is correct.

Q So would you agree that in this proceeding we have an instance where the interest of the Using and Consuming Public who the Public Staff is charged to represent and the interest of the general public in terms of clean energy, carbon reductions, and other things may diverge?

A Yes, they may diverge.

Q Thank you.

CHAIR MITCHELL: Mr. Snowden.

MR. SNOWDEN: Thank you, Madam Chair.

Mr. Metz and Mr. Lawrence, good afternoon. I'm Ben Snowden with Kilpatrick Townsend here for NCCEBA. I just have a few questions.

CROSS EXAMINATION BY MR. SNOWDEN:

Q And I would like to start with Mr. Jirak's letter that was filed in this docket. It was discussed some yesterday. I believe it is Cross Examination Exhibit 5.

A (Metz) Okay.

Q So in Mr. Jirak's letter he said that if the Friesian project is not constructed the need for the Friesian upgrades will not go away; is that right? I'm looking on Page 3 here. The first full paragraph under .2.

COMMISSIONER DUFFLEY: What page are you on? I'm sorry I couldn't hear you.

MR. SNOWDEN: I'm sorry. I'm on Page 3 of Mr. Jirak's letter in the first full paragraph under bullet 2.

A Just one second while I read the whole paragraph.

Q Sure.

A I cannot speak for Mr. Jirak, but how I am interpreting his need is by stating that the

projects behind it would be then needed in order for the projects behind it would need the capacity granted by the Friesian facility.

Q Okay. Well, let me just repeat my question. So in Mr. Jirak's letter he says -- he says that if the Friesian project is not constructed the need for the Friesian projects will not go away; is that right?

A Right. And I'm reading the remainder of the paragraph that gets context in the first sentence. I can't speak on what Mr. Jirak meant or did not mean.

Q Okay. Well, is it your understanding that because -- well, that the reason for the statement is that because under the serial interconnection process the responsibility for the Friesian upgrades would fall on the next project in the queue that triggers those upgrades?

A That is correct.

Q And there's not currently a mechanism under the North Carolina interconnection procedures for the cost of network upgrades to be allocated among projects; is that right?

A That's correct.
Q And you and Mr. Ledford talked a few minutes ago about Mr. Jirak's statement that the most likely outcome in the short term of the Friesian project being withdrawn is a cascading series of withdrawals resulting in complete paralysis of the interconnection queue in that portion of DEP's service territory.
A Yes, that's what Mr. Jirak stated.
Q Okay. And just to be clear, it's your understanding that complete paralysis would not be limited to solar projects in that portion of the service territory; is that right?
A That would be correct in that portion of the state.
Q So it would affect all projects that might want to interconnect in that portion of the state?
A That is correct.
Q Okay. So moving on to your testimony you mentioned -- and this is on Page 28.
A Okay.
Q So you mention in your testimony that the Clean Energy Plan recommends grouping studies as one means to facilitate the interconnection of

distributed energy resources?
A Yes.
Q And are you generally of the view that a transition to a grouping study model for interconnection is a good idea?
A Yes, I am.
Q And you're aware that Duke is exploring a grouping study mechanism as part of its current queue reform efforts?
A Yes, I am.
Q And the mechanism for grouping studies might allow the cost of network upgrades to be allocated among multiple projects?
A That's correct. So to help with that overall movement as we continue to look forward, I believe the FERC just ruled on PSCo on approving their plan for grouping studies. So hopefully we can extract some lessons learned from PSCo and continue to move forward and don't have to recreate the entire wheel.
Q Thank you for that. So going back to Mr. Jirak's letter, on Page 4 Mr. Jirak points out that one of the key challenges in implementing a queue reform is transitioning from the serial queue to

the grouping study model. Would you agree with that?

A Yes. And there's going to be some challenges when we get to that point in time.

Q So again, in Mr. Jirak's letter he says that if the Friesian upgrades are not constructed at this time the transition process will be much more complex and the transition may be delayed; is that right?

A That's what Mr. Jirak states. Yes.

Q Okay. Do you have any reason to disagree with that?

A No, I do not.

Q Okay. And so you've also read Mr. DeMay's letter filed in this docket; is that right?

A That's correct.

Q So on the first page of Mr. DeMay's letter he says that one of the benefits of the Friesian upgrades is that they will minimize certain short-term challenges associated with the Duke Utilities' queue reform plans; is that right?

A Can you --

Q Sure. That's the second full paragraph, the last sentence, .3 there where he talks about benefits.

A Yes, that is correct.
Q And would you interpret that to also refer to the transition to a cluster study model?
A I believe that could be part of it. Yes.
Q And you don't disagree with Mr. DeMay's and Mr. Jirak's assessment of how the Friesian upgrades will impact their company's queue reform plans, do you?
A Well, I don't -- I don't draw a strong correlation of why queue reform has to address Friesian specifically. With the success of generation occurring on this part of the system, we're just at a unique spot or we're at the tipping point where we're triggering substantial upgrades.
Q So you don't understand what -- you don't understand how -- I'm sorry. Let me back up. You don't understand the connection that Mr. DeMay and Mr. Jirak draw --

MR. DODGE: Chair Mitchell --

I'm sorry, Mr. Snowden. Go ahead and finish your statement. I apologize.

MR. SNOWDEN: Okay. Sure. Thanks.

BY MR. SNOWDEN:

Q So you don't understand the connection that Mr. Jirak and Mr. DeMay draw between the Friesian upgrades and the transition to a cluster study model?

MR. DODGE: Chair Mitchell, I'd like to object. I think yesterday we stipulated that to these two -- the words in these two documents, the letter from Mr. DeMay and the letter from Mr. Jirak, these are already in the record. I'm not sure why we're repeating what those witnesses, not those witnesses, what those statements of position say again today.

MR. SNOWDEN: I'm not using this to bootstrap this into evidence. I'm just asking as I would with any other document, asking the witnesses questions about their understanding of what's in this letter and whether they agree or disagree with it. And I won't have very many questions about it.

CHAIR MITCHELL: All right. Mr. Snowden, we did stipulate to the fact that the letters say what they say. There are no witnesses here to swear to those, the statements made in those letters. They are in the nature of public comments and these gentlemen did not write these letters so please move quickly

through your comments and questions with all of this in mind. And I'd ask that you keep --

MR. SNOWDEN: I will be brief on it. I'm almost at the end. So thank you.

BY MR. SNOWDEN:

Q So, Mr. Metz, do you recall the conversation I had yesterday with Mr. Bednar when he was on the stand about the Friesian upgrades?

A Yes. Vaguely, yes.

Q And do you recall him testifying that if the Friesian upgrades are not constructed that the cost of those upgrades would somehow have to be allocated among all of the subsequent projects if we were to transition to a cluster study model?

A Yes.

Q And that -- as yet there's not a mechanism under the interconnection procedures or any other law of North Carolina for doing that allocation of cost?

A That's correct.

Q And you'd agree with that?

A Yes.

Q So do you recall that Mr. Bednar also testified that we'd essentially have to go back to square

one with figuring out how to allocate those costs and how to get those upgrades constructed if Friesian was canceled?

A If he's referring to square one of what business decision that he needs to make on behalf of Friesian then that's for his prerogative.

Q I'm sorry if I wasn't clear. Square one was my phrase. It didn't refer to Friesian's business plans, it was -- what I was referring to was the fact that the upgrades will need to be constructed. Friesian is fairly far down the line in terms of figuring out both how they'll be constructed, how'll they'll be financed, when they'll be constructed, all that good stuff, and that for the upgrades to be constructed by a different set of projects, all that work would have to be re-done in some way?

A I don't know who the next applicant in line is and how far down the process they have gotten. I can agree to that if Friesian withdraws the cost will be passed onto the next person in line.

Q Okay. But would you anticipate there would be a substantial delay in figuring out how those projects are going to get -- I'm sorry, how those

upgrades would be constructed by those other projects?

A It would be a delay.

Q Thank you.

MR. SNOWDEN: I don't have any further questions.

CHAIR MITCHELL: Redirect, please.

MR. DODGE: Thank you, Chair Mitchell. I'll kind of work backwards the way my notes are structured here. So starting with a couple of questions that Mr. Ledford raised just a few moments ago.

REDIRECT EXAMINATION BY MR. DODGE:

Q Mr. Metz, I think you indicated, and he shared a copy of Mr. Lucas' testimony with you from the E-100, Sub 101, the interconnection docket last year?

A Yes, he did.

Q And again, Mr. Lucas testified to that and we had an extensive evidentiary hearing on that proceeding. And the Commission in its Order accepting the modifications in the interconnection docket did it not direct the utilities to file testimony in their next rate case addressing some of the questions about the

benefits that distributed generators are receiving from the utility system estimating their share of the related cost and providing options for fully recovering those costs?

A Yes, they did and I was part of that proceeding.

Q And as a result of that statement, did Duke in the most recent two rate cases, Duke Carolinas and Duke Progress, both requested a waiver from the filing of that testimony in order to conduct stakeholder groups --

A Yes, they did.

Q -- to address that issue?

A Yes.

Q And have you participated or members of the Electric Division participated so far in those discussions?

A Yes, members of the Electric Division have.

Q Thank you. Mr. Ledford also asked has the Public Staff agreed to any settlements or made any recommendations to the Commission about some of these challenges with adopting or interconnecting additional solar generation in North Carolina. Are you familiar with the stipulation that the Public Staff entered into in

the E-100, Sub 101 docket on January 25th, 2019, in which we recommended that the Commission implement a reform, queue reform including a stakeholder process?

A Yes.

Q Okay. Thank you. So going back to some of the discussion we had yesterday -- excuse me. Yesterday, Mr. Metz and Mr. Lawrence, you both discussed with Mr. Levitas some of the -- the level of independent review that we conducted in reviewing the CPCN application. And, Mr. Metz, I believe you already indicated this morning that it's your understanding that the Applicant has a burden of demonstrating the projects in the public interest.

A That is correct.

Q Did we evaluate the information submitted by the Applicant?

A Yes, we have.

Q And did we also do some independent evaluation? Did we conduct discovery or look at other potential cost and benefits?

A Yes. We initiated discovery, went out there to the extent possible and tried to do independent

review and evaluate the overall application.
Q And I believe you may have acknowledged this this morning but just to confirm, in addition to helping NCEMC with its REPS obligations and greening its load, you acknowledge there could be some other potential benefits associated with the upgrades that result from the Friesian project?
A Yes. I mean, it's the possibility that benefits can occur in the -- can occur with the addition of this transmission line upgrade.
Q Okay. Yesterday Ms. Kemerait asked you about whether Duke had shared its position with us in advance of the position statements that were filed on the same day we filed testimony, whether those documents were shared with us in advance of filing. Do you recall that discussion?
A Yes, I do.
Q And, subject to check, would you agree that those documents were received by our legal team at 5:31 p.m. on Thursday the 5th, and our testimony was filed on Friday, December 6th?
A That is correct, subject to check, yes.
Q Thank you. Excuse me. So yesterday Mr. Levitas was asking a series of questions about the public

convenience and necessity and the need standard in particular. And, Mr. Metz, I think you at one point said it depends on how you define need. Do you remember that discussion?

A Yes, I do.

Q So do you see need just as meaning one thing in the context of the necessity for a CPCN? Is it only the projected load or electric output that's needed?

A No. And that's part of the challenging part or where it's elastic or interdependencies. There is components of the need that aren't mutually exclusive of one another.

To take the application at hand, one component is what does the system -- how does the system exist right now and whether or not the system needs it. So let's take that from the lights going out and going black or reliability. The system doesn't need that at this point right now. The upgrades are only needed because we're interconnecting a new facility. The existing system is relatively fine. If it's not -- if it was not Duke would already have a plan to be having repairs made or upgrades made on that

system. That's one component of it.

Another element is looking at the -- how the system operates. What does the system need to meet generation. That's where we often lean to the Integrated Resource Plan. So looking at the IRP, well, the Duke Energy Progress which this Friesian is interconnecting into is going into DEP, and they are the balancing authority, and it's ultimately who DEP ratepayers will be picking up the tab for the facility.

What does the project need? As we filed in testimony, we laid out and it says okay we'll look at the capacity factor that we have during the summer. Look at the capacity factor -- when I say capacity factor, reserve margin, sorry, the reserve margin that we have during the summer. Look at the reserve margin that we have during the winter. The reserve margin during the summer is nearly twice as much than we have during the winter. The DEP system is being built out to meet the winter demand and winter peak. Part of that reason was I believe in 2016, 2018, we at the success of solar in the

Duke systems have pushed us to more of a winter planning because the sun is not shining at six or seven a.m. when we're having demand on the system. As the success of solar has increased, 2000, 3000, 4000 megawatts, that amount has to be met in the morning. These are all components of the overall need. I believe there are other policies, for example, Senate Bill 3 and REPS compliance. I'll let Mr. Lawrence talk a little bit more about the REPS compliance.

A (Lawrence) The needs stated in there, I think any issues we've had with that have largely been addressed several times over at this point and have been related to swine and poultry waste set-aside issues. The general set-aside and solar set-aside have been met quite substantially and the issues to that are very, very limited if any in a REPS sense and that holds -- that's for all power suppliers, NCEMC included. And in most recent filings, I've seen nothing where any of the power suppliers have indicated any concerns with meeting a solar general set-aside requirement.

Q So, none the less, in terms of these various,

whether it's a requirement or a goal, policy goal or a legal obligation, has Friesian, do you believe, established a need in this case, demonstrated a need?

A Partially. Well, I say partially because you have to take all of these multiple needs into consideration. When you waive the components of the need versus a necessity and the upgrade cost in this particular project then no.

Q And so in terms of once you've demonstrated a need does that mean any generation is appropriate to meet that need or is the -- as you just described the need going to be -- because of the various elements one type, one size is not going to fit all to meet that demonstrated need?

A I mean, to your word, one size fits all is -- would not demonstrate the need. I believe the facts and circumstances at the particular time and the particular application all have been taken into consideration.

MR. DODGE: Ms. Layla -- Ms. Cummings, I'm sorry, has a few questions as well.

MS. CUMMINGS: Thank you.

REDIRECT EXAMINATION BY MS. CUMMINGS:

Q Mr. Lawrence and Mr. Metz, Mr. Ledford asked you whether the Public Staff's general charge in representing the Using and Consuming Public can come into conflict with the interest of the general public when speaking about achieving clean energy goals. Would you agree in general that the Friesian project is just one avenue to achieving those goals and that carbon reduction would also be in the interest of the Using and Consuming Public?

A (Metz) That is correct. And one also has to weigh the costs associated with each one of the goals or implementations to meet that goal.

Q And along those same lines, both Ms. Kemerait and Mr. Ledford asked if it's important at this time to be adding renewable energy to the grid to specifically meet the 70 percent emissions reductions goal of the Governor. Subject to check, would you agree that it is the case right that you or other members of the Electric Division are currently participating with DEQ and other stakeholders on a report at the end of 2020 on how best to achieve those reductions?

A Yes, they are.

MS. CUMMINGS: Thank you. That's all.

CHAIR MITCHELL: Questions by the Commission? Commissioner Clodfelter.

EXAMINATION BY COMMISSIONER CLODFELTER:

Q Gentlemen, I appreciate in multiple senses of the word "appreciate", I appreciate the fact that you're both engineers but I have to ask you a financial analyst question because you're the only guys I got.

So the question is this, did the Public Staff in reviewing the project application consider whether it would be less costly to Duke Progress' ratepayers if Duke Energy Progress were to fund, up-front the cost of this project to put it into rate base instead of relying on Friesian to finance it and then repaying Friesian at the FERC interest rate?

A (Lawrence) I believe that was an idea that we considered, but we did not --

Q Didn't run the numbers?

A Correct.

A (Metz) Correct.

Q Did not run the numbers on that?

A That's correct.

Q Thank you. Yesterday, were you both present yesterday when Mr. Bednar testified?
A (Lawrence) Yes, sir.
A (Metz) Yes.
Q Great. And you heard, I think, the questioning about the escalation in the cost estimates for the project?
A Yes, sir.
Q Right. So as I recall the joint testimony from the two of you, if I recall that testimony correctly without going to look for a specific page, it was to the effect that your understanding of the primary driver of the cost escalation was the need to manage construction in such a way as to deliver the project by December 2023. Have I summarized what you said correctly?
A That was correct. Yes, Commissioner Clodfelter.
Q And what I want to know is what was the source of your understanding? What was the source of that understanding?
A So through different settings we have multiple communications with Duke Energy Progress, whether it would be through interconnection or different

briefs, having just an open dialogue, and some components of that was discussion about Q380. It was just sort of a general conversation and it was hey we've got Q380 and it's $100 million upgrade. Me personally, I was like what size are we talking about here, 70, 75 megawatts, I'm going off memory. And we just sort of took a step back because that was the first time that I've heard of that large of a utility scale solar project to be triggering that much of an upgrade. I can't recall the exact dates, a few months go by and Q380 the cost went up a little bit. A different conversation, Q380 the cost went up a little bit. And it was my understanding through the conversations being presented to me by Duke, it wasn't formal, that one of the cost considerations that drove an element of the overall cost was the need to complete it by a certain date and the amount of labor resources that Duke had to apply to it in order to meet that date. That was my general understanding of conversations with Duke Energy Progress.

Q Were all of your conversations with the same person?

A Primarily Gary Freeman, yes.
Q Primarily Gary Freeman?
A Yes, sir.
Q Okay.
A (Lawrence) I'm sorry.
Q No, go ahead.
A And I would like to add that we do understand that some of the cost increase is still a substantial amount when you're looking at the total costs were due to confinements of those increases because of when you first start out it's a very high level amount, a very high level estimate. And then as time goes on you refine the cost estimates more and more, and get boots on the ground in the areas and actually look at things and the further refined the costs got the higher they got.
A (Metz) So just to clarify, I'm not alleging that the cost went from $100 million to $223 million just because they need to meet the in-service date, it was just a component as we got fine-tuned estimates.
A (Lawrence) There are many factors.
Q Thank you. That's very helpful. But let me just

stay with that for one more point because I just want to be sure we cover it completely here.

In those discussions primarily with Mr. Freeman, was there any discussion that some of the increases could be avoided if the project were delayed, delivered on a more extended schedule? Did that -- was that something that Mr. Freeman was saying well we could avoided this much if we pushed it out another year?

A No, we did not go to that --

Q It didn't get that granular? The discussion didn't get that granular?

A No, sir. It was a little more high level.

COMMISSIONER CLODFELTER: That's very helpful. Thank you. That's all.

CHAIR MITCHELL: Commissioner Duffley.

EXAMINATION BY COMMISSIONER DUFFLEY:

Q Good afternoon. So does NCEMC gain other benefits other than the PPA benefits from the construction of these network upgrades? I mean, are you aware of any projects that NCEMC may have?

A (Metz) I'm not immediately aware of what other

project NCEMC may or not have. But NCEMC is in the business of also buying and selling energy out of their service territory.

Q And I just want to make sure that I heard you correctly yesterday that one of the Public Staff's concerns is that DEP ratepayers are going to be experiencing a rate increase for a PPA that benefits NCEMC. Am I correct in that assumption?

A Yes, ma'am.

Q And if we granted the CPCN is there a process at FERC where Public Staff could petition FERC regarding this allocation under the federal OAT?

A That is unclear at this time. It is something that we are looking into.

Q So you are looking into that?

A We are aware of it and we're trying to have that communication to say how -- what would be the next step if this was to move forward. From a historic sense it would rely on the merchant plant to work with Duke Energy, in this particular case it would be Duke Energy Progress, to ensure that that cost is correct because the merchant plant has the audit rights at the end of the overall project. And then once Duke Energy

Progress sought rate recovery then we would audit Duke Energy Progress.

Q Okay. But the point I'm trying to make is under the federal OAT is there a process where you could reallocate the cost based upon the cost-causer or the benefits obtained?

A I am not immediately aware of that.

Q And let's hypothetically assume that this project is an SP under the old SP and a cluster study or grouping study process was already being implemented in North Carolina. In your opinion do you think the projects, all of the projects that would depend on this upgrade could be economically viable if there was cost allocation amongst the projects?

A The hard part, at least in my opinion, of that hypothetical is let us say it's 1500 megawatts. If we can queue it together on multiple projects 70 megawatt, 20 megawatt, 30 megawatt, 5 megawatt, the aggregate to get to 1500. That's going to be a lot of people sitting at the table. And we do the study, we identify it, and we roll out a cost. The cost gets passed down by (coughs), excuse me, whatever allocation method

was approved. So let's just assume that it's by megawatt nameplate capacity. That, say a 5 megawatt facility at the very end says oh that's too much cost passed on to me, they withdraw. Repeat. That new cost gets distributed across 1495. You can see where this iteration is going. I don't know where the end in sight will occur and how much time we would get stuck in that iterative loop churning until we can get a number that all parties could agree to.

Another challenging component -- well, I believe you stated under the SP so that's a state queue. Because if we started introducing federal queue in the state queue that's another issue that we have been talking about. We don't know a clear way how to implement that cautionary mechanism at this time. So apologies.

A (Lawrence) And regardless, this is a substantial cost. There would be many moving parts in a grouping study. It's a complicated issue either way. So certainly the more projects that the cost is spread out over the more viable it becomes for each individual project. But each

developer has their own risks built in that -- and their own risk tolerance that it may not meet that, their criteria even still.

A (Metz) But, then we have to balance that against what does the system need at that particular point in the overall region.

Q Right. I understand that system efficiency is another concern of yours as well. And then Ms. Kemerait asked about this meeting between Friesian and the Public Staff and said November 22nd. Is that of 2019?

A Yes.

A (Lawrence) Yes.

Q And so what is the status of the queue reform, the cluster studies, and the grouping studies?

A (Metz) It's my understanding that we're still going through the stakeholder process. I don't mean that lighthearted. But we are still trying to get the input from different perspectives in order to initiate a more thoughtful plan with potentially less road blocks.

Q So but when would a filing be made with the Commission?

A I do not know.

COMMISSIONER DUFFLEY: And I'd like a late-filed exhibit regarding -- if my memory serves me correctly under federal law, I'm not sure whether DEP could build instead of the interconnection customer. So if someone or both parties could research that issue and provide their understanding of whether DEP could actually build those facilities instead of Friesian?

MR. DODGE: Commissioner Duffley, if I may just for clarification, is this related to the comment that Mr. Bednar made yesterday that they explored that option with the utility?

COMMISSIONER DUFFLEY: It's related to Commissioner Clodfelter's question regarding the $25 million in federal interest.

MR. DODGE: Okay. Thank you.

COMMISSIONER DUFFLEY: Yes, built-in pay.

BY COMMISSIONER DUFFLEY:

Q And -- I think I have one last question. Let's assume that the network upgrades for this facility costs $100. Would the Public Staff be opposing this CPCN?

A (Metz) If the project was $100 and then there would not be a rate impact then here on the

stand, just trying to think it through and not having time to talk with other colleagues and work through all of the potential scenarios, that I believe there still would be a challenge of how the system impacts, whether or not this is good long-term planning, would this be the inflection point where we've got to start reducing our nuclear units that are located in proximity, would we have to start operating Weatherspoon CT which has high costs and is near the end of its retirement life and would not be in good economic dispatch. There is a break-even point. I'm just not at a position right now to say what that number would be.

Q Okay. Thank you. And I also think I heard one of you state yesterday that one of your concerns is the replication of this type of request where DEC ratepayers and DEP ratepayers might be having to foot the bill for future projects if future developers decided to enter the federal queue and found a customer. Has Public Staff discussed with Duke changing the language of the federal OAT to be similar to cost allocations similar to MISO, the RTOs, and PJM?

A That direct expression with the OAT, no. Or those direct comments with the OAT, no. I believe working through the cluster study process, I believe Duke is evaluating what changes they may have to make to the OAT but I believe that's independent of your direct concerns?

A (Lawrence) And this project and mainly this concern has just become a reality. And so this is the first project we've had to work on that that has been even present at this level. So I believe that is still in its infancy in that regard.

COMMISSIONER DUFFLEY: Thank you.

CHAIR MITCHELL: Commissioner Brown-Bland.

EXAMINATION BY COMMISSIONER BROWN-BLAND:

Q Either of you can answer my questions I think. Frequently when a merchant plant makes application for a CPCN it's not unusual that they would be selling the generation elsewhere in the region outside of the state. Is that your understanding?

A (Metz) Yes.

Q And in those situations does the Public Staff

routinely scrutinize the end customers' need?

A So turning to my memory of NTE Kings Mountain and explicitly NTE Reidsville as the two merchant power plants, I believe NTE Kings Mountain as -- talking to others members as part of the task force, that part of the need establishment was looking at SCEG's need, DEC's need, and DEP's need. Looking at a generation profile if you would of a combined cycle plant, for lack of a better word, 24/7 near full output and look at the potential of municipalities or co-ops, or wholesale off-taker's towns. We took that under consideration. Then looking at NTE Reidsville was the need of DEC and DEP. And around that time there was a stronger focus needed to be on winter planning so we took the considerations of if the system is being built out under winter planning. And we have currently within the IRP let's say Town A located in North Carolina is pulling 200 megawatts and NTE was able to make an arrangement to sell 200 megawatts there, that would be 200 more megawatts that gets freed back up to the rest of retail and wholesale. Because again, looking at the IRP wholesales are

ultimately reduced out because that almost can be viewed as the demand component so that goes into our consideration of looking at need.

So, yes, the merchant plant could sell 200 megawatts. That's 200 megawatts that goes back into the stack that gets redistributed amongst everyone else. So it actually pushes up the reserve margin and will delay construction of future capital projects. That's -- yes.

Q And so in those examples the merchant plant generation affected DEP or DEC's need for a source or a generation?

A That is correct.

Q What about -- have there been instances where the sales are primarily if not wholly outside of the system so that that power is going to someone say from Virginia or Tennessee or --

A (Lawrence) I believe in many of the solar CPCN, yeah, CPCN and EMP hearings in the past we've had several over the past three years, those have been located in Dominion's service territory and they are a member of PJM. And so those -- they've generally cited the need for in the area of PJM's needs and Dominion's needs and they

do -- they are able to sell to an individual customer if they are large enough under the Virginia laws, and so that has happened in cases there. But again, in those cases they have cited and shown needs in the PJM region still.

A (Metz) And that's an element when we have to -- part of the evaluation is looking at whether -- being an RTO and not an RTO when the safeguards are put into place in the cost allocation mechanisms.

Q And this may be in the record but what do we know about to the extent that NCEMC has agreed to take this generation, the impact on the Duke, either of the Duke Companies? Is it replacing or is it in addition to the power that they presently take from the Duke Companies? Do we know?

A I do not know. I don't know if it's a direct replacement or not.

A (Lawrence) I'm not sure. We aren't aware of NCEMC's, their general purchase power obligations and who they mainly receive their power from.

Q And when you're looking at the need component of the CPCN prong, the test to issue the CPCN, have you in the past used a standard like a high level

standard like the lights are going won't be able to stay on without this and, therefore, there's no need because it's not impacting whether the lights are going to go out?

A (Metz) So in terms of a merchant plant we do take this into consideration. I think more of the reality is of where we evaluate that in the CECPCN process for transmission upgrades is looking at how loaded the potential, the circuits are, the facts and circumstances behind that case. I remember working with Public Staff Witness Tommy Williamson on the recent CECPCN -- I'm totally messing it up -- on the transmission upgrades that DEP recently requested around the Wilmington area. And we met extensively and had multiple conversations with DEP and challenged them to whether or not the loading restraints could be alleved (sic) through non-wire alternatives or through other mechanisms. And it was through our evaluation that no other alternative could be reached. And the circuits in that general area were already sort of in that engineering safeguard margin during peak critical times and had been operating there for a period

of over a few years. Because again, remember 2014, 2015, 2018 we had extreme weather events.

Q So does the Public Staff think that it's an appropriate consideration in looking at the customer who wants to buy from this proposed project whether they have non-wire alternatives available or some other alternative, would you look at the customer's alternatives?

A I believe that would be a valued input in the -- in either part of the review or the burden of proof is on the Applicant to demonstrate that need. But whatever component of need I believe that would be a valid input.

Q All right. Has the Public Staff -- does the Public Staff suggest that a merchant plant should supply or look at supplying a customer that might have a greater need than another customer?

A (Lawrence) I don't believe that we would want that level of scrutiny. In the Commission Rule it says just a showing of need in the region, state and/or region. That -- so I think that that was left vague for a reason.

Q Isn't it ordinarily the case though that if there is a known buyer and a known place for that

generation to go that that has been viewed by the Public Staff as well as the Commission as satisfying a need prong?

A (Metz) Yes. Under the facts and circumstances of the case, yes.

Q And in this docket has any -- has there been any public objection to the project itself or the siting?

A (Lawrence) No, not in this docket. I don't believe in the SP docket that it was originally filed in either.

A (Metz) Subject to check, we don't believe there was anything filed.

Q And so the only objection we have or request to deny comes from the Public Staff. Is that square with your knowledge?

A (Lawrence) Yes.

A (Metz) Yes, it is.

Q And as opposed to other merchant plant CPCN dockets where the Public Staff didn't take issue and found there to be a need, even when the sales were more than likely going elsewhere or off the Duke system, and found there to be a benefit or that the project was in the public convenience,

is it -- as opposed to those, is it the network upgrades that causes you to find either of the prong, two prongs not met?

A In this particular case, yes, and the other merchant plants where I've testified on and we have other members who have been part of this task force for the ones that I have not, the normalized cost is typically taken into consideration as well as approving the CPCN, recommending approval or disapproval of the CPCN.

Q And you mentioned system impacts a minute ago, is there anything about the Friesian project that you view as a negative system impact?

A The element that -- in discussion about the potential negative impact would be where Duke Energy Progress has demonstrated to the Public Staff multiple times of looking at what they call the LROL I believe.

Q Loss of load?

A Least reliable operating limit. And I believe an avoided cost docket with Sammy Holeman (spelling uncertain) filed more -- we had a more detailed conversation. That one had graphs on -- but if I can illustrate with my hands. I like talking

with my hands. If this is our baseload and that's typically nuclear. North Carolina, it's current system and continue to plan to be it's going to be operating at "X" amount of baseload. Let's just say it's 40 percent. All right. Well, for NERC planning contingencies I've got to have the potential of loss of a unit so I've got to have a buffer sitting on top of that because if a nuclear plant trips I've got to be able to meet that load within the next same time period. All right. So this is where I'll draw a horizontal line across here. Well, load is not flat. We have our ups and downs. When load is high and coincident with the solar generation profile, company plant -- or utility-owned plants, other plants that are utilizing the system just have to dip. Well that dip is the ramp, what we call the ramp restraints. Well, the spinning reserves on the system just can't flip the switch. They've got to take awhile to wind up. They've got to take awhile to wind down. And there's an embedded frequency in a voltage component within those ramp restraints. Now that's in an ideal world when we look at the

summer peak and coincident with load. Well what about the 70, roughly 70 percent rest of the year. Well, the winter, winter peak will -- we have our peaks on the system here but we have generation here. And so as solar comes on we don't have load to match it and emphasizing on DEP because they have the largest -- they have the smallest load between DEP and DEC by approximately 4000 megawatts peak. And then when we get in the shoulder season we -- depending on where you come into the shoulder season we get a little bit of the summer peak and we get a little bit of the winter peaks but we reduce the overall load. So when we have load and we have excess generation we start running into ramp restraints. And you're going to have an inflection point of when you're going to start dipping into your baseload plants - combined cycle, nuclear - when you start dipping those down into your baseload plants you've got to take those facts into consideration. So looking, if I was to cycle nuclear well nuclear is I put the fuel rod in - simplified - I put the fuel rod in, I use up all the energy in that fuel rod. At the end of two

years I take the fuel rod out and put another one in. It's going to run two years. I run it half the time. I run it three-quarters of the time. You're going to refill up the tank. So if I don't get the energy out of it you're basically wasting cost.

Certain components, certain coal plants they have minimum run times. They don't like to be cycled. Certain nuclear plants don't like to be cycled. Well, if I cycle it, when I say cycle it, I've got to reduce 25 percent power. Well, that's a coordinated time period. Then I've got to sit there for "X" amount of time because I just can't flip the switch and ramp back up. The utility has to take that into consideration and then they've got to start running out of economic -- potentially start running out of economic dispatch because they have to meet the next peak coming up to keep the lights on.

I'm sorry about the long-winded answer but when we start talking about reliability concerns and when they're coming onto the overall system, when we start having --

that's a component word, diversity starts coming into play because if I have all one type of generation resource well that magnifies the issue. If I have a diversity, say wind and solar, wind has a different generation profile and it helps unburden some of those restraints.

Q Beyond the fact that Friesian would represent some additional solar generation, some additional generation, beyond that is there anything unique about the answer you just gave that's specific only to Friesian? In other words, doesn't that apply to existing solar or existing renewables or other generation?

A That is correct. But as we continue to stack on that pile we're getting further and further down into needing to cycle baseload.

A (Lawrence) Right. And when you locate all of these resources in one area it exacerbates issues that are present with solar energy. For example, if a fast moving storm comes over in the middle of a summer day that solar energy generation can plummet quickly. And in those situations it can pose serious issues with operation of the grid if you have those resources spread out. More so,

you're going to have less of an impact by, in that case, that one cloud, that one storm wouldn't have as big of an impact on the solar generation as a whole.

Q If we weren't looking at the cost of the network upgrades in this docket, would the Public Staff for those system impact reasons object to any additional solar in this general area of the southeast?

A (Metz) We would need to have more stringent or more focused conversations with Duke Energy Progress system operators. Those detailed conversations did not take place because in waiving the particular application the system costs were just too great to continue deeper, deeper discussions and getting into more technical -- getting down more in the weeds.

Q And up through today is the Public Staff's objection based on a system impact, adverse system impact with regard to Friesian?

A We did not have those detailed discussions with DEP system operators.

Q So that's not part of your reasoning so far as to why this project doesn't meet the need or the

public convenience problems?
A (Lawrence) I believe that does play a part but they're -- we have to -- we look at this in a much larger picture there. A lot of pieces here with this Friesian project and the way they all fit together just doesn't, in our opinion, does not fit the public convenience.
A (Metz) Given the overall and the BA, Duke Energy Progress BA with having how much solar is the right amount of solar. Duke Energy Progress has relayed concerns onto us of throughout the cusp or the tipping point a lot of those are feeder specific. We did not get into the feeder identification. But Duke Energy Progress is also underway of working with NREL, again taking time to see how much renewables we can interconnect then to the system.
Q If you isolated Friesian is this project not advisable because of some system impact that you've identified?
A Duke Energy Progress system operators are the best to answer that question. The Public Staff has not.
Q All right. Now, it's been brought out on cross

of yesterday's panel, Friesian's panel, and now today on your cross that Friesian and the Public Staff have had some discussions about -- I guess I got -- picked up two different understandings between the two panels. But has it been the case that there's been some discussions about how somehow Friesian might agree to pay for a lesson that's reimbursement from the utility or otherwise have cost sharing with other projects?

A (Lawrence) Yes. There have been the what I understand to be the start of some conversation with cost sharing. There was the idea proposed by Friesian. And I believe at the time it seemed like to me that they were presenting the idea to us to gauge a reaction. And so I'm not sure personally if those -- if that was the full conversation that we were going to have or if there would be continued discussions on that.

Q Well, if you know the answer to this, and without giving up any kind of negotiation leverage, would it be fair to say that there is at least a thought that if the upgrade costs were less in terms of what the ratepayers would bear that the public convenience questions might go away?

A (Metz) I believe they could be alleviated. I would have to review the fact -- review everything in its whole to say completely go away, but that would start alleviating some of our concerns.

Q I know there could be a point is what you're saying?

A Yes.

Q Do you have any ideas or -- that you could share or that you're comfortable sharing because I don't want you to go beyond what you're comfortable to say today. But by way of advice to the Commission, just in terms of looking at the public convenience question, do you have in mind inputs or factors in how to draw that line where we might determine that line might be?

A So that was one element sort of utilizing those LCOT calculations that we established from -- or were able to get from other studies going across the nation. We believe that was a guideline to represent of where have other areas had costs or where their costs were coming in at.

Now, I do want to point out that the Applicant has pointed to, weaknesses aren't

the right word, but this -- the cost demonstrated in the LCOT tables, again, was this made as a guideline, was basically is those other areas are in the same position that North Carolina is. New renewable generation has been able to utilize the existing transmission system. So that cost is backwards looking. That's a fair criticism - criticism is the word I was looking for - of the LCOT calculations.

Well, there's parts of North Carolina that could be still backwards looking. But as in Friesian there is a forward-looking element. So what is the next incremental amount? Is it $80 or is it $160 or is it $3000? We're still interpreting that data set. So that's the only reason we put the LCOT table in there was a guideline of how are -- that was the first study that I found it a comprehensive analysis. Even the author identified his own criticisms to say hey this is backwards looking. This is the system how it was up to this date and time. This is not going to be looking forward.

As I believe Mr. Askey had stated yesterday and through the PJM process, people

fall out of queue studies. One component of people falling out is because we've utilized the transmission system so now the incremental costs to go to the next level is getting too great.

A (Lawrence) And I don't believe that in a more general sense on the public convenience, or on the G.S. 62-110.1 or R8-63. Like I said earlier, I believe parts of that were left vague intentionally because there is no one size fits all approach. What works in one situation very well may not work in another. And every situation is unique. And it can be a difficult process. But again I think that is intentional.

Q And then yesterday at one point it was brought out that there's always a risk that Friesian doesn't develop to the point where it comes online. So if the CPCN were to issue in this docket, and the network upgrades were made that costs therefore were incurred, but the Friesian project for some reason failed, wouldn't the upgrades have a benefit to the ratepayers at that point, to the North Carolina ratepayers?

A (Metz) It would be -- it's a highly dependent or a loaded question. What part of the upgrade was

completed? If I have a simplified 50 miles of the radio line and I need the power flow to flow the entire 50 miles to get the upgrade, and I got halfway through my process and only got to 25 miles. Well if my issue was the power flow then there could be no value. In other words, I have a sunk cost but I can't utilize it because the power flow I needed goes all the way to the other end. This transmission upgrade requires multiple tower upgrades, multiple reconductoring. What part of the process did they get? How far down the road? Did we order a bunch of parts, sunk costs, and now they don't get installed? Did we get a bunch of wire hung? Did we only get three -- three wires -- the three parallel feeders on one set and we only had two on the other? It's a very complicated scenario to go down.

A (Lawrence) And I don't believe that if the upgrades were 100 percent installed Friesian paid 100 percent of them and then did not get built. I'm not sure that we are entirely clear on the refund status. I don't know if that -- that Friesian is not refunded at all for those at that

point or what requirements must be met before those refunds would start.

A (Metz) We would need to review the OAT more, the contracts, or terms and conditions of the money flow back and when it would be on the utility. And there's other elements that have to be evaluated.

Q If there were complete or partial completion of these upgrades, and the Friesian plant was not -- didn't come online, have you thought about how Duke could use the upgrades at any stage along the way to the ratepayers' benefit.

A I have not. That's heavily dependent on what sections got completed in what areas.

Q Would you imagine it would be more than likely than not that Duke would somehow take advantage of whatever had been done?

A It would be unknown. If I need power flow on this part of the -- if I need the transmission upgrades only to allow more generation, but I would need all of those nodes completed in order for the power flow to occur. It would be too much uncertainty of would a partial resolution could or could not benefit or what systemic

changes may occur.

Another element of this is four years from now. So let's say we get to December 2023. I believe that was the date that was discussed, the potential in-service date. Let's say whatever project it is, it doesn't have to be Friesian, just another merchant plant backs out. What will be the system four years from now? So I know there's been heavy discussion of Q399, Q398. What happens if we have a higher commodity of natural gas? I believe I talked about this briefly yesterday. What happens if we have a carbon tax? You know what, maybe combined cycles in four years are not the way to go. I don't have the crystal ball to get you that answer. But how can DEP utilize the system, I can't tell you. Four years from now there might be other better alternatives. There might be more different state legislation to point us in a different direction. And maybe we shouldn't have invested the money in that part of the grid.

Q And from what you know about the current system today and just the passage of time and the life of what we have there, if you were out to say

2027, could you already see that some upgrade would be needed by Duke separate and apart from Friesian?

A We had thought about that and I think that's one element that was key in our testimony is we reference that one combined cycle in the DEP's IRP that kept moving. I don't have the exact dates and would have to look through the testimony to find it but it's shifted significant years.

The assumption is Q398 would be the first combined cycle if Atlantic Coast Pipeline goes through and all the other ifs, and which would not be heavily utilizing the Friesian upgrades because it has its own upgrades.

And then if we're saying Q399, well, if Q399 has an in-service date of say 2027, but if I looked at the one gas plant that's already been pushed out five years, one could opinionate that 2027 is going to shift another five years out because that is the presumed second one in line. Maybe when Duke completes their study in a year and a half of how much renewables we can have on our system, maybe we

won't need combined cycles. Maybe we'll need combustion turbines located in critical components of the system to help with reliability issues. That's trying to drive the point of looking at a more holistic planning. And we're at this unique spot on the electrical system, both good and bad, of trying to evaluate all of these things together.

Q Thank you.

CHAIR MITCHELL: Commissioner Hughes.

EXAMINATION BY COMMISSIONER HUGHES:

Q Yeah, it seems like we are in a unique position and there's lots of projecting and crystal balling. I hate to do it, but another hypothetical, and I realize you're not the Duke, the Duke transmission operators, but if in a completely artificial setting we or Duke decided that they were completely slamming the door after Friesian, that this was it, and it was just coming on and connecting and then we're done. Completely not going to happen. But in just your engineering opinion could you make these upgrades in a much lower cost way? Because there's so much been -- there's been so much discussion

about this is going to allow for a lot more capacity coming on. But if you just knew absolutely that there's going to be no capacity and Friesian had the benefit -- you know, was just coming in and knocking on the door, and it's probably for Mr. Askey, a question for him but, the way he was talking, but do you think you could do this kind of upgrade?

A (Lawrence) So let me make sure I'm understanding your question right first. So if Friesian goes through -- or 70 megawatts more of power is put onto the electrical grid at that point and those upgrades are made and that is the last project put on there.

Q Yeah, I mean, I think no one is thinking that you would ever do an upgrade given what we have in the queue and everything for 75 -- you know, for just this plant. But if that really was the reality, do you think the upgrade could be done in a way that would completely meet the needs but would be significantly cheaper?

A (Metz) That would be a better question for Duke Energy transmission planning and system operators. They can tell you the exact

specifications of why they're building out the grid overall.

It was a fair statement by Mr. Askey to state that transmission is bumpy. This is a 60-year asset approximately. So when I have a 60-year asset, and we're talking about wires and poles, well they need the last, the full 60 years, so I have to rub the crystal ball, and from engineering is draw my line. Where is load? There it is. Where is my margin? Where's my engineering safe margin? Look at the National Electric Safety Code. How do I plan it? What's my wind loading? Typically those are minimums when designing and building.

So to your statement, at least in my opinion, that the $230 million probably could not be reduced if that's the number that Duke Energy transmission planning has presented? Now, that is an estimate, there could be ups, there could be downs. The only cautionary statement I would make due to the nature of this being multiple years, the time frames of where this is -- the time periods of where this is occurring, the multiple river crossings, there

could be a possibility this costs -- it could go down but there's also possibilities that it can go up.

A (Lawrence) I believe in this situation the upgrades that are being made aren't necessarily the next -- you know, for the install, big, larger wires for reconductoring. These aren't the next size up wires that are made that they would be installing. They would make their upgrades based on what they have in their system so that -- because there is a benefit to keeping that stuff standardized. You don't want different sized wires on all parts of your system, different size towers, you know, there is a standardization. So these upgrades that are being made are the next step that Duke makes for these. So for them there is no in between to reduce those costs, and that is part of the issue and just a more general issue of making the -- or having the upgrades that would be needed in this manner. That would be an issue that any power supplier would face. That's just a standard they have. So we wouldn't be able to go up to just a little bit larger wire to accommodate 70 more

megawatts. The next step up is going to be this thousands of megawatts either way.

Q That's the answer to my question.

COMMISSIONER HUGHES: Thanks.

CHAIR MITCHELL: Commissioner Duffley.

RE-EXAMINATION BY COMMISSIONER DUFFLEY:

Q Could you please respond to Askey's response to your LCOT comparisons with RTO? Specifically, in I think it's Pages 6 through 8 of his testimony, he criticizes the Public Staff LCOT comparisons with the RTOs, and I just wanted to receive your response.

A (Metz) I just want to review his testimony.

(Reviews document)

So yes, the first Q and A basically addresses how our calculation looks at the -- how Friesian's stand-alone is triggering the overall costs. And it's my interpretation of his statements that the overall upgrades looked, compared in the LBNL study, looked at over "X" period of time of what was able to interconnect. So it is, like I said it's a fair criticism, that it is the possibility that Project A in a RTO may have triggered these upgrades and allowed an

element to piggyback for lack of a better word, or utilize, or share in a cost component of that. Again, that was an LBNL report just as a general guideline to say what are general costs for renewable generations and that was the first one that we were able to find across a nationwide study.

I guess the one differentiating opinion that I would have with Mr. Askey is the saying that all -- part of -- the flaw in my calculation is that you have to consider the total allowable amount to come in to look at the LCOT calculation. I disagree with that only because I can't guarantee that 1600 megawatts, 900 megawatts, 1000 megawatts - many numbers have been introduced here - is going to interconnect, is going to interconnect into the system. I can't guarantee that so, yes, I did have to draw a bright line to say okay, if Friesian was to interconnect this is the cost impact. And, therefore, what is the impact to ratepayers? Because I can't promise that everyone else is going to come occupy the remaining of that capacity.

A (Lawrence) And as Mr. Metz said earlier, too, this is intended just to be another tool to evaluate. This isn't the gospel here. We're not saying that this is the way you should absolutely look at it, it's just another method of looking at it and giving a comparative analysis.

And, additionally, we don't know the generation that's going to come online, but -- and we also don't know the cost of that generation as the -- some evidence, a couple of documents were entered yesterday about regarding Homer and Fair Bluff Solar, and they're interdependent on these Friesian upgrades, but those two facilities also have upgrades of their own. So there's two right there that we already know for sure that have those upgrade costs associated, even if Friesian makes these upgrades. So you have to look at the information as a whole. And it's just, I believe, much to speculative to try and predict how much generation will come online and how much that will cost.

A (Metz) So you would have to run the different insensitivities and say okay this is my, probably

500 megawatts, maybe 1000, there's different elements that you take into it and what's the likelihood. You would look at it then at a normalized cost and then you would look at it at a levelized cost over the transmission asset. It will be heavily dependent on what generation units come in there.

As we talked about, if only solar was coming into there then we would only be using approximately 25 percent of the capacity of the line. What are we doing with the other 75 percent of the line? So we have a wire sitting up there that we're not utilizing 75 percent of the year but it costs this upgrade cost. Now, if other parts or other generation units were used at different generation profiles to say a gas plant was the connector there and used -- utilized that line, will we get to distribute that cost against more megawatt hours? So, therefore, the overall cost goes down.

What number do you put in there? What's the generation? How much are you going to speculate is going to come in? Then are you speculating of what will that project be? Will

it be wind? Will it be solar? Will it be gas? Will it be something else? It requires too much speculation.

COMMISSIONER DUFFLEY: Thank you.

CHAIR MITCHELL: Commissioner Hughes.

RE-EXAMINATION BY COMMISSIONER HUGHES:

Q Just based on the response to my question and what you had just said, would you say that any, say sizeable 20, 30-megawatt facility in this whole area of the state would require 200 and -- you know, and this general facility would require the same? That there really isn't an in between zero and 240 or 50?

A (Metz) My understanding with conversations with Duke Energy Progress, any generation resource connected to the transmission system in this area which would, if you're connecting to the transmission you're probably going to be greater than 20 megawatts, it would trigger the upgrade.

Q Okay. So there's just nothing in between. Okay.

CHAIR MITCHELL: Just a few questions for you all to follow up on the line of questions that Commissioner Brown-Bland asked.

EXAMINATION BY CHAIR MITCHELL:

Q So we have -- I've heard testimony in this proceeding that the particular region of the state that we're focusing on in this case, the southeastern region, is facing transmission constraints. There's congestion in this area and that's likely to occur in the near term in other areas of the state. Do you understand that correctly?

A (Metz) Yes.

Q And in this case I understand the Public Staff's position to be that additional generation located in this area of the state, it has the potential to cause operational or system impacts. I mean, you've talked, you've testified extensively about the LROL and the ramping concerns that additional generation raises in this area. I assume you're concerned or the concerns of the Public Staff that you've articulated today would be the same in those other areas of the state where congestion exists now or is likely to exist in the near term. Is that a fair assumption?

A (Metz) Absolutely.

Q So can we expect the Public Staff to start objecting to or articulating concerns related to

CPCNs for projects, generation projects, in those areas of the state that are either also congested -- congested or will be congested in the near term?

A Yes.

Q What can you tell me, if anything - I recognize that you all are members of the Public Staff and not representatives of the utility - but what can you all tell me about the utilities' plans to study on a comprehensive basis transmission needs that are necessary to accommodate either what's in the interconnection queues now or what's going to be necessary to satisfy, for example, 589 obligations?

A So one element where the utility has already identified has -- the distribution study and was somewhat, in Dustin's words, that the distribution system was somewhat disconnected from the transmission system from a studying perspective. Duke self-identified that issue and has made, at least in my opinion, great improvements to bridge that gap. That has taken time. So now instead of the two units being sort of disjointed because it's two separate studying

scenarios, that transmission is now aware of the cumulative impact of distribution DER flowing into the transmission system. That's one improvement and it's going to continue to evolve.

I believe Duke is going through the queue and grabbing six-month blocks, 18-month blocks, I can't remember the exact timeframe in looking at the overall impacts of generators in the state queue and looking at the power flow analysis into the transmission and assigning system costs. Again, another, in my opinion, improvement to where we were.

Another element is we continue to make improvements that the NREL study that Duke has initiated and they just the Phase 1 results back. If I can find this briefly -- (reviewing documents). So the title of the report is Carbon Free Resource Integration Study. I believe this was presented to the Public Staff a month ago, maybe two months ago. I've been involved in two rate cases and they extract a little bit of time at the moment. Just identifying -- I don't know if the Commission is aware of this or not, but Phase 1 scope quantify the amount of carbon free

electricity, estimate a curtailment wrapping and system flexibility limits, evaluate its shifts, and daily seasonal net load timing supply. There's another phase coming because Phase 1 did not consider unit commitment and economic dispatch system stability cost or transmission impacts. Phase 2 will address those concerns.

When you start mapping out the overall system it takes time to get there. I believe these are critical improvements as we do holistic planning as we increase the amount of renewable generation. I believe DEP expected in 2020 is going to have at nearly 20 percent penetration of renewables at the summer peak, whereas, DEC is much less, but we need to evaluate the overall system as we continue to make those improvements.

Q The 20 percent penetration in DEP, what is that -- what does that assume? Does that assume fulfillment of 589 obligations?

A No. That's no assumption of 589 obligations. That's using the numbers out of the Integrated Resource Plan looking at the estimated peak load during the summer condition and the expected

amount of solar generation online in 2020, and those numbers are pretty close to what is actually being installed.

Q So your testimony is that the 20 percent isn't -- is close to what's actually installed on DEP's system at this point in time?

A That's correct.

Q Okay.

A And again that's 20 percent at peak load --

Q Understood.

A -- not nominal load.

Q Understood.

A And this is a public document. If the Commission would like the Carbon Free Resource Integration Study we would be happy to provide it.

Q Okay. Thank you. The -- I heard you provide some testimony, Mr. Metz, on the repayment obligations under the LGIA and I just want to make sure I'm clear on the Public Staff's position there. And I'm looking at the LGIA right now which was an exhibit to the prehearing brief of the Public Staff and you may - I'm hoping that you remember this language off the top of your head - but there is a paragraph

that's typed in at the bottom of Appendix G to the LGIA that addresses repayment, and it indicates that payment shall be made either in the year immediately preceding transmission providers North Carolina retail rate case next occurring after the achievement by the interconnection customer of COD or by 12/31/2027. Is it the Public Staff's interpretation of this provision that repayment obligation would arise even if the generator is never placed into service?

A I would still need to go back and review the LGIA and the terms and conditions.

Q Okay.

A I need to refresh myself with the LGIA to make -- to testify on that.

Q So you cannot articulate a position on that question at this time?

A Not at this time.

A (Lawrence) (Shakes head no).

CHAIR MITCHELL: Additional questions from the Commission. Commissioner Brown-Bland.

RE-EXAMINATION BY COMMISSIONER BROWN-BLAND:

Q Another question referencing the cost.

Yesterday, I think it was Mr. Bednar who testified that some of the increase we saw over time from the estimate to the initial numbers and now the current numbers of $223 million for the upgrade cost were due to tightness in the labor and the contractor market. If -- aside from the complexities of crossing a body of water four times, do you think that we are looking at increased costs such that these numbers that we're seeing, these higher numbers that we're seeing for the first time in one of these market plants might be closer to, at least in the near term, what we'll see closer to the normal level for a while?

A (Metz) Transmission cost analysis are very unique. I believe a key component to this particular cost analysis is that we have approximately 70 miles going through the southeast, North Carolina. So yeah, the topology is relatively flat that we're not having mountainous concerns but we have dry bed bottom, sand beds, differential in the clay soil, wetlands for going into the fall season. I guess just to summarize there the construction costs in

the southeast might be slightly different than they are in the northeast, even though they are in the sands and are subject to issues with wetness, but they can be different if we get into the mountainous terrains or more rolling hill topology. I can't say this will be norm.

Q Well, do you have any opinion or is it just -- is it possible that if we look back at this point in time from five years forward or seven years forward that these numbers won't look like such a shock to us?

A Commodity pricing while it's not 100 percent of the total cost is a driving element. Typically, in terms of how I evaluate the projects that I'm used to working on, commodity prices can have an inflection of 5 to 10 percent of the over project cost. Labor is typically the key driver. As most of us were involved in different stakeholder groups and involved in different committees and we have conversations with other areas, it is a fair concern of the labor component or the labor market. There is high demand for continued transmission or distribution growth across the nation. At least that is our experience in our

conversations that we're having, but that's also coupled due to the aging workforce. It's also coupled into people are not going into the trade as much. That's another dynamic animal. Wages are just not going up because of demand, there's other facets behind it.

Q And so in this case it's just availability, right, at least according to Mr. Bednar's testimony?

A Correct.

Q Could the Public Staff file as a late-filed exhibit the Phase 1 NREL study that Mr. Metz referenced?

A Absolutely.

MS. CUMMINGS: And just for clarity, I believe that's just a presentation.

A Yes, it's a presentation.

MS. CUMMINGS: And maybe Mr. Jirak can clarify, but I think the Phase 1 is going to be available in January.

MR. JIRAK: That's correct.

COMMISSIONER BROWN-BLAND: Thank you.

A (Metz) But we'll give you all the preliminary handout that we have.

COMMISSIONER BROWN-BLAND: Thank you.

CHAIR MITCHELL: We're going to take a 10-minute break. We'll be back on the record at 3:50. Let's go off the record, please.

(A recess was taken at 3:40 p.m.)

CHAIR MITCHELL: Let's go back on the record please.

I have one more question for you all.

RE-EXAMINATION BY CHAIR MITCHELL:

Q Just in thinking about your testimony on the state of the transmission network and the Duke service territories in North Carolina, what is the Public Staff's opinion on whether this, CPRE goals are going to be achieved? Goals or procurement targets, let me be specific.

A (Lawrence) I believe that was an important specification that you made because the goals of the CPRE largely are to procure the renewable energy below avoided cost so that it's cost effective for customers. And so the -- I think the procurement target comes secondary to that, and that is a key piece that needs to be mentioned, of course, but largely at this time it's difficult to say.

You know, in DEP this past tranche we needed 80 megawatts and I don't remember exactly how much we got but it was across multiple facilities. And DEC, we didn't reach the procurement target but many of the facilities that would have been studied they dropped out before that study was even done. And you know the -- so it's very tough to say how that -- how the network upgrades actually would affect CPRE at this time.

A (Metz) Just to add onto that, I mean, CPRE, the goal was to treat ratepayers neutral, if you would, at cost, at or below the avoided cost and to promote utilization of the valuable headroom on transmission. In other words, let's put the right generation in the right places of the system with minimal system impacts. And if you do cause system impacts you're going to pay for them but we're going to pay for those costs in evaluation to ensure that you're at or below avoided cost. Time is still out to see whether or not we would make those -- are going to make those goals through the different tranches or not.

CHAIR MITCHELL: Commissioner Duffley.

FURTHER EXAMINATION BY COMMISSIONER DUFFLEY:

Q So with the state interconnection queue and PURPA projects there is a cost containment aspect to network upgrades which is, you know, being able to have avoided cost, and the interconnection customer is paying for those upgrades. Under the federal system with the LGIA, what are the cost containment provisions within that Large Generation Interconnection Agreement for network upgrades?

A (Metz) I'm just trying to make sure I understand the question. So through the FERC process and entering through the LGIA, if a facility triggered the network upgrades the facility would have to pay those upgrades, but under the designation of the merchant plant eventually the cost will be refunded once placed in service back to the merchant plant with the FERC interest rate. I'm not fully understanding but like the safeguards or the provisions that you're asking.

Q Right. That's what I'm asking about. Are there safeguards or provisions regarding cost containment under the federal system? Cost

containment, you know, the cost of the network upgrades?

A I would have to go back and re-review the LGIA to look at exactly under what conditions would there -- the containment would occur.

COMMISSIONER DUFFLEY: Thank you.

CHAIR MITCHELL: Questions on the Commission's questions?

MS. KEMERAIT: Yes.

MR. JIRAK: Just real quick. No questions from DEP, Chair Mitchell, but with your discretion, at your direction, DEP would certainly be glad to, I know one of the issues that got a lot of focus and your attention was understanding the reasons for the cost increase of the estimate for the project over time, and with your lead we'd certainly be glad to file some sort of Commission Hearing Request to give some more background on that, if it would be helpful.

CHAIR MITCHELL: We'll take a late-filed exhibit on the issue. Thank you, Mr. Jirak.

Any additional questions on Commission's questions?

MS. KEMERAIT: Yes, from the Applicant.

CHAIR MITCHELL: Let's -- do you want to --

MR. DODGE: We do you have a couple of follow-ups.

CHAIR MITCHELL: All right. We're going to start with Mr. Dodge.

MS. KEMERAIT: Okay.

EXAMINATION BY MR. DODGE:

Q Commissioner Duffley -- Mr. Metz, I believe this discussion was with you -- asked about the cost allocation changes, if the Public Staff was looking at changes in the cost allocation or the open access tariff and I think you responded that we were looking at that. Do you recall that discussion?

A (Metz) Yes.

Q And - (coughs) - excuse me. To modify the cost allocation provisions that would require a change to the open access tariff itself, would it not?

A Correct. Any modifications to the overall OAT would have to go through that process.

Q And part of the queue reform measures that are being discussed would also require some changes to that cost allocation portion of the OAT as well?

A Yes. That's my understanding as well as that's

what Duke has presented to us in some of the meetings that we've had, that part of the consideration would be having to go to FERC and get that overall process approved.

Q And there was also a separate process, maybe, and this may have -- and you also may have been referring to this, that there's a process for challenging the cost in the annual formula rate updates at FERC. Are you familiar with that as well?

A Yes. There's a general provision for that to occur?

Q But to your knowledge has the Public Staff participated or filed a challenge to the annual updates to the formula rates?

A No, we have not.

Q Thank you. Excuse me. A second line of questioning from Commissioner Brown-Bland asked about whether we could prioritize wholesale customers or we'd recommend prioritizing wholesale customers for a merchant plant seller. Do you remember that discussion?

A Yes.

Q And is it your understanding that wholesale

transactions are FERC jurisdictional and so we're not in a position to be weighing in on the prioritization of who a merchant plant sells to?

A Yes. We can't referee that the power would go to NCEMPA or NCEMC. It is the open access transmission that they have the right to connect to, but as the Commission had stated that we can take into considerations at the state level for granting the overall CPCN, so we're not denying them access to the transmission system directly.

Q And that is exactly my second point to that. What we're here to talk about in this proceeding is the information that was presented in the application for a merchant plant that described a specific offtake; is that correct?

A That is correct.

Q Okay. Thank you.

CHAIR MITCHELL: Ms. Kemerait.

MS. KEMERAIT: Thank you.

EXAMINATION BY MS. KEMERAIT:

Q Mr. Metz and Mr. Lawrence, I have just a couple of questions and the first one is to follow up on the questions from Chair Mitchell and Commissioner Brown-Bland about reimbursement for

the network upgrades. And I'm going to make a representation to you and if you don't know, if you can't confirm the representation then I will submit to the Commission that we're willing to file a late-filed exhibit with this information.

But if I -- my representation to you is that Article 11.4 of the LGIA between Friesian and Duke provides that if the network upgrades are constructed in whole or in part and the Friesian facility is not placed in service then Duke has no obligation to reimburse those network upgrade costs to Friesian. Do you have any opinion about that representation?

A (Metz) I don't remember that exact article or position within the LGIA. I would have to evaluate it in its whole.

MS. KEMERAIT: And if the Commission would like we would be willing to make a late-filed exhibit to provide that information, but it is contained in Article 11.4 of the LGIA.

CHAIR MITCHELL: I believe we have the LGIA is the record now. So thank you, Ms. Kemerait.

MS. KEMERAIT: Thank you.

BY MS. KEMERAIT:
Q And then following up on a question from Commissioner Duffley about the -- she had a lot of questions about the cluster study and the sharing of costs among qualifying facilities through a cluster study. And again, queue reform in which a cluster study has been proposed has not been approved by the Commission yet; is that correct?
A (Metz) That is correct.
Q And since we don't yet have a cluster study approach we have to proceed under the current serial study process; is that correct?
A That is correct.
Q So if the Friesian CPCN is not approved then under the serial process the next project in the interconnection queue would be assigned to those network upgrade costs. Is that the way it currently works?
A Yes.
Q And then do you agree with Mr. Jirak's statement on, I believe, Page 2 of the letter that he filed that it would be -- if Friesian -- if the Friesian CPCN were not approved that it would be

highly unlikely that any of the later queued QFs in the queue would be able to absorb the substantial interconnection costs. Do you think that that's a fair statement?

A That would require too much speculation on my part.

Q Okay. But you would agree that approximately over $200 million would have to be paid for network upgrade costs for the next customer in the transmission queue; is that right?

A Yes.

Q And we've had a lot of discussion about Duke's natural gas plant that is behind Friesian in the queue and is Queue Number Q399; is that correct? We've talked quite a bit about that.

A That is the second one, the second gas plant, but yes.

Q Right. The first one is Q398?

A Yes.

Q And Q399 is the gas plant that's interdependent on Friesian's network upgrades, correct?

A Yes.

Q And I'm just going to give you a hypothetical because I know that you believe or have testified

about speculation about whether Q399 will actually be constructed. But please assume that the Friesian CPCN is denied and that Duke moves forward with its plans under its 2018 IRP and its 2019 IRP updates and submits an application for the natural gas plant Q399. And in that case the natural gas plant will be responsible for the network upgrades for that area of the southeastern portion of the state; is that correct under that scenario?

A Under that scenario and under that hypothetical, and not to be argumentive, but the other component of this is looking at when Duke will present the 2020 net carbon plan. I don't know how the new net carbon plan is going to impact or potentially adjust the Q399 project.

Q Okay. And if the Friesian -- if the upgrades are not provided by Friesian and are instead constructed by the Q399 natural gas plant, in that case they would be rate based; is that correct in that hypothetical that I provided?

A In that hypothetical, yes.

Q And in that hypothetical there would be no cost sharing among any of the other interdependent

projects; is that correct?
A That is correct.
MS. KEMERAIT: Thank you.
MR. LEVITAS: And I have just a few additional questions I think to you, Mr. Metz.
EXAMINATION BY MR. LEVITAS:
Q In response to Commissioner Duffley's question about how the Public Staff might respond to what actions it might explore in the event that the CPCN is granted which would open the door for the possibility of these costs being reimbursed in rate base, have you considered the possibility of coming to the Commission with a proposal or a request that it create a process for recovering costs from subsequent state jurisdictional projects that benefit from the Friesian upgrades?
A (Metz) I have not. I have not thought about bringing that toward -- to the Commission. My thought would be is that queue reform would be a building block or if not the tool to potentially solve for that issue. I believe you referenced the state queue in your questions, so there are challenges though as we talk about the difference between the federal queue and the state queue.

Q Well, you're not aware of any reason, are you, that this Commission could not require subsequent state jurisdictional projects to contribute to costs that had been advanced by or reimbursed to be a FERC jurisdictional project, are you?
A No, I'm not.
Q And do you recall that we, the representatives of Friesian, have made a proposal to the Public Staff to consider exactly that sort of approach?
A (Lawrence) That -- I believe that was the discussion from the settlement agreement. But I believe if the Commission ordering that could infringe on the FERC versus state rights that -- largely we're discussing the oral arguments and so there could be an issue with potentially changing the allocation factors the FERC set forth. But then in the -- Friesian did come forth again with the idea of the -- some sort of settlement where they did mention that, I believe to gauge if we were interested in a cost-sharing mechanism of a sort.
Q Well, thank you. Let me move on quickly. Commissioner Duffley also posed the question to you of how you might respond to this application

if the associated network upgrades were say $100 million rather than in excess of $200 million. Isn't it the case that in one of the NTE merchant plant projects that there were associated network upgrades in excess of $80 million.

A (Metz) I believe Commissioner Duffley had asked, it was $100, not $100 million but point withstanding that yes --

Q I misheard her, but in any case can you answer my question?

A Yes. One of the NTE plants -- I have it in my testimony. I can't remember if $80 million is the right number but, subject to check, the merchant plants for NTE has associated costs, yes.

Q And was there any evidence presented in that proceeding of the sort of public benefits that were addressed by the Friesian witnesses in this proceeding?

A I would have to go back and review the case file for those specific benefits.

Q All right. Now, turning to Commissioner Brown-Bland's questions. As I understood Mr. Lawrence in response to a question from

Commissioner Brown-Bland about potential operational impacts of additional solar including the Friesian project, I thought I heard you say that that was a -- that is a factor in the Public Staff's position on this CPCN application. Did I hear you correctly?

A (Lawrence) We do look at the impacts to the system that impact the ratepayers and the users of the grid.

Q Well, can you show me in your testimony where you discussed or identified operational considerations as a factor in your position on the CPCN application?

A I'm not sure that that is in the testimony. Go ahead. (Referencing to Mr. Metz)

A (Metz) There is -- as with any CPCN or any approval or disapproval through the task force there are multiple considerations taken in ultimately approving or disapproving. And as we put pen to paper if you would and starting to draft testimony and work our way through it some of our thought processes or logic applied to the CPC -- to our ultimate decision doesn't always

make its way in the testimony.
Q Well, are you asking the Commission to consider additional factors in its decision of whether to grant this CPN -- CPCN than those identified in your testimony?
A I mean, I believe that's why we have -- Sorry. Go ahead, Mr. Lawrence.
A (Lawrence) We are asking them to consider our testimony given here today.
A (Metz) And I believe, again from the engineer, that's why we're having an evidentiary hearing and what considerations the Commission asks is what we're evaluating.
Q Would the addition of a battery storage resource to the Friesian project significantly alleviate any concerns about operational impacts?
A I'd have to caveat of what you mean by significantly, but it is a possibility that battery storage could alleviate some of the general concerns, yes.
Q And you also in response to Commissioner Brown-Bland and elsewhere in your testimony have talked about the fact that the Friesian facility does not make a contribution to addressing DEP

winter peak as a factor in your mind that the project doesn't provide public benefits; is that fair?

A Yes.

Q So if a battery storage device were added to the Friesian project that was available to DEP to address winter peaks, would that affect your position on the CPCN or potentially so?

A (Lawrence) I believe it definitely could influence our position. But at this time we've seen a few CPCNs come in with batteries attached but they've been a very minimal impact. So the likelihood of that happening -- you know, if Friesian would like to present us with a new proposal we would certainly evaluate it, yes.

A (Metz) we would have to take that into consideration. And to the extent, I mean, not trying to twist your words but to say you offered Duke Energy Progress the rights to the battery, we would have to evaluate the potential PPA or what safeguard provisions would ensure that availability for DEP to use it.

So the short answer is yes, we would take it in consideration but there is a lot

more to go with it in evaluating it.

MR. LEVITAS: Thank you. That's all I have.

MR. SNOWDEN: Chair Mitchell, I have a very brief set of questions, if I may. Very brief.

CHAIR MITCHELL: All right.

MR. SNOWDEN: And this is just in response to Commissioner Duffley's questions about how NCEMC was sort of affected here.

CHAIR MITCHELL: Mr. Snowden, make sure you're talking into your mic.

MR. SNOWDEN: Oh, sure. Sorry. Thank you.

EXAMINATION BY MR. SNOWDEN:

Q Are you familiar with the concept of an affected system in the interconnection context?

A Give me a little bit more background.

Q Okay. Would you agree that the North Carolina Interconnection Procedures define an affected system as a utility other than the interconnecting utility system that may be affected by proposed interconnection?

A Yes.

Q Okay. And so at least under the North Carolina procedures an interconnecting utility has to consider the impacts of a proposed

interconnection on an affected system?
A Correct. And just to make sure if I'm understanding that correctly is if you -- any adjoining areas that have, power flow isn't the right word, let's say I had a co-op sitting on the edge of the DEP system and the co-op wanted to connect a generation. There's an agreement between the Duke and the co-op of how much energy flow can be injected back into the Duke Energy system.
Q That's the concept I'm referring to. And so are you aware that there are several EMCs in the constrained area that we refer to here?
A Yes.
Q And there are several municipal utilities in that area as well?
A Yes.
Q Okay. And you're aware that some of those EMCs and municipal utilities have sought to interconnect solar projects in their service territories?
A Yes.
Q Okay. And are you aware that as at least some of those systems have conducted their

interconnection studies that DEP has identified itself as an affected system?

A Yes.

Q And so as an affected system is it your understanding that DEP maintains that a project that sought to interconnect to one of those EMCs or municipal utility systems could not be constructed until the Friesian upgrades were constructed?

A I think the linkage there would be the date but I would need to review that provision more closely. But I believe there's a strong linkage on the date of request.

Q Okay. Well, let me ask it another way. Is it your understanding that those systems, because Duke is an affected or DEP is an affected system, that those EMC and municipal utility systems are constrained in the same way DEP is?

A Correct. Because ultimately what Duke Energy Progress has to take into consideration would be the event of a potential reverse power flow of power injected back into the Duke Energy Progress System because, again, not all generation is coincident with peak load.

Q And so the construction of the Friesian upgrades would alleviate that constraint on those utilities as well as on DEP, presumably?
A Potentially, because depending on the size of the muni or the co-op in a Duke Energy Progress system. I know this interties more, I would call a sub-transmission, or distribution, or heavy distribution, however you want to caveat that. So how far upstream does say the muni or the co-op push the power flow further up the system, it would be a case-by-case basis. I mean, hypothetically, on a 15 MVA distribution circuit, would it make it's way all the way up to the Fayetteville-Erwin line? Maybe, maybe not. It would just require another level of review. There is a correlation.
Q Okay. Thank you.
CHAIR MITCHELL: We've come to the end of the hearing. I will entertain motions.
MS. KEMERAIT: I'll make a motion to admit into evidence the Applicant's Cross Exhibits 1, 2, 3 and 4, along with the Application, and the prefiled testimony that I made a motion for yesterday.
CHAIR MITCHELL: Hearing no objections, your

motion will be allowed.

(WHEREUPON, Applicant's Cross Exhibits 1 - 5 are admitted into evidence.)

MR. DODGE: Chair Mitchell, I believe I moved the cross examination exhibits into evidence yesterday or requested that. I did not, however, move our prefiled testimony into evidence. I would like to make that motion today as well.

CHAIR MITCHELL: Okay. Hearing no objection, Mr. Dodge, your motion is allowed.

(WHEREUPON, Public Staff prefiled testimony can be found in Volume 3.)

(WHEREUPON, Confidential Lawrence/Metz Exhibit 1 and Lawrence/Metz Exhibits 2, 3 and 4 are admitted into evidence.)

CHAIR MITCHELL: We will take --

MR. DODGE: I'm sorry. One last quick clarification. Yesterday, during the hearing there was a brief moment where there was potential, some information shared that may have been of a confidential nature and with the Chair's request I'd

like to coordinate with the court reporter to ensure that that portion is redacted from the transcript.

CHAIR MITCHELL: Please do so.

MR. DODGE: Thank you.

CHAIR MITCHELL: With that we will accept proposed orders from you all whenever you want to file them but typically we take them 30 days subsequent to the notice of the transcript being available.

MS. KEMERAIT: And, Chair Mitchell, we've had some conversations with Mr. Dodge and Ms. Cummings and we are going to, I believe, correct me if I'm wrong, Mr. Dodge, but we're going to have some communications with the Commission's attorney to see if there would be a possibility of providing 30 days from the date of the hearing as opposed to 30 days from the transcript. But we -- I think we're going to have some further discussions.

MR. DODGE: Yes, Chair Mitchell, excuse me. I just want to say I think what we'd like to do is discuss the timing of those, potentially changing it, but I think we wanted to have a discussion with the Commission on scheduling. What schedule would be appropriate for that?

CHAIR MITCHELL: Okay. Well, we will

certainly take --

MS. KEMERAIT: If that will be acceptable to the Commission.

CHAIR MITCHELL: -- anything under advisement that you all propose.

And with that, we will be adjourned. Thank you.

(The proceedings were adjourned)

C E R T I F I C A T E

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

Kim T. Mitchell

Kim T. Mitchell
Court Reporter