

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2019 INTEGRATED RESOURCE)	CASE NO.
PLAN OF EAST KENTUCKY POWER)	2019-00096
COOPERATIVE, INC.)	

NOTICE OF FILING

Notice is given to all parties that the following materials have been filed into the record of this proceeding:

- The digital video recording of the evidentiary hearing conducted on August 20, 2020 in this proceeding;
- Certification of the accuracy and correctness of the digital video recording;
- A written log listing, inter alia, the date and time of where each witness' testimony begins and ends on the digital video recording of the evidentiary hearing conducted on August 20, 2020.

A copy of this Notice, the certification of the digital video record, and hearing log have been served upon all persons listed at the end of this Notice. Parties desiring to view the digital video recording of the hearing may do so at <https://youtu.be/vufiroVc2EA>.

Parties wishing an annotated digital video recording may submit a written request by electronic mail to pscfilings@ky.gov. A minimal fee will be assessed for a copy of this recording.

Done at Frankfort, Kentucky, this 1st day of September 2020.



Kent A. Chandler
Acting Executive Director
Public Service Commission of Kentucky

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

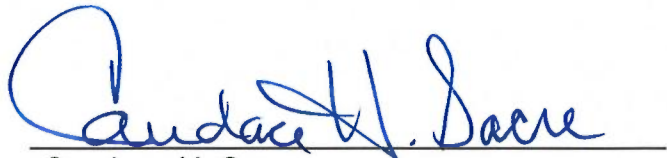
ELECTRONIC 2019 INTEGRATED RESOURCE)	CASE NO.
PLAN OF EAST KENTUCKY POWER)	2019-00096
COOPERATIVE, INC.)	

CERTIFICATION

I, Candace H. Sacre, hereby certify that:

1. The attached DVD contains a digital recording of the Formal Hearing conducted in the above-styled proceeding on August 20, 2020. The Formal Hearing Log is included with the recording on August 20, 2020;
2. I am responsible for the preparation of the digital recording;
3. The digital recording accurately and correctly depicts the Formal Hearing of August 20, 2020; and
4. The Formal Hearing Log attached to this Certificate accurately and correctly states the events that occurred at the Formal Hearing of August 20, 2020, and the time at which each occurred.

Signed this 26th day of August, 2020.



Candace H. Sacre
Administrative Specialist III



Stephanie Schweighardt
Notary Public State at Large ID#: 614400
Commission Expires: January 14, 2023



Date:	Type:	Location:	Department:
8/20/2020	Public Hearing\Public Comments	Hearing Room 1	Hearing Room 1 (HR 1)

Witness: Darrin Adams; David Crews; Scott Drake; Mark Horn; Isaac S. Scott; Craig Johnson; Mike McNalley; Jerry Purvis; Julia Tucker
 Judge: Talina Mathews; Michael Schmitt
 Clerk: Candace Sacre

Event Time	Log Event	
9:00:28 AM	Session Started	
9:01:48 AM	Commissioner Mathews Note: Sacre, Candace	We're on the record in Case No. 2019-00096, the 2019 Integrated Resource Plan of East Kentucky Power.
9:01:58 AM	Commissioner Mathews Note: Sacre, Candace	My name is Talina Mathews. I'm Commissioner here at the Public Service Commission, and I will be presiding today. Joining me on videoconferencing is Chairman Schmitt. As you know, Vice Chairman Chandler is recused and will not be participating in today's proceeding.
9:02:18 AM	Commissioner Mathews Note: Sacre, Candace	At this time, I would normally caution you to turn your phones off, but, due to our current state of emergency, we are hosting this hearing via what I hope is, well, I can't even hope is, the last video hearing, but what is now our new normal, our video hearing. Since this is a learning experience still, there are a few suggestions I would offer. In addition to the normal courtesies regarding cell phones, the following may help you prevent clarity and feedback issues.
9:02:54 AM	Commissioner Mathews Note: Sacre, Candace	Mute your microphone if you are not speaking. Attorneys, when interjecting, please state your name so that it can be in the record clearly. If you use a phone for audio and a computer for video, turn off the computer audio. Otherwise, we get echoes and feedback. (Click on link for further comments.)
9:04:27 AM	Commissioner Mathews Note: Sacre, Candace	The hearing today is for the purpose of taking evidence and discussion about the Integrated Resource Plan.
9:04:36 AM	Commissioner Mathews Note: Sacre, Candace	At this time, we're going to have the entry of appearance of counsel. Given the unique challenges of conducting this videohearing, I will also request that each party's counsel identify their witnesses at this time, and we will swear in everyone. Correct?
9:04:55 AM	Staff Atty Frederick PSC Note: Sacre, Candace	That's correct.
9:04:57 AM	Commissioner Mathews Note: Sacre, Candace	And we'll go ahead and swear in everyone similar to what we do in an FAC case because we recognize that multiple people answered the same question and that there may be a need for that, and so for East Kentucky Power?

9:05:12 AM	Atty Samford EKPC Note: Sacre, Candace	Good morning, Your Honor, David Samford on behalf of East Kentucky Power Cooperative, Inc. With me as co-counsel is Ms. Allyson Honaker
9:05:22 AM	Atty Samford EKPC Note: Sacre, Candace	I can introduce our witnesses. I'll just go through the list of how they appear here, Mr. Craig Johnson, Mr. Darrin Adams, Mr. David Crews, Mr. Isaac Scott, Mr. Jerry Purvis, Ms. Julie Tucker, Mr. Mark Horn, Mr. Mike McNalley, Mr. Scott Drake, and I believe that's it. Did I leave anybody out?
9:05:48 AM	Commissioner Mathews Note: Sacre, Candace	We cannot see Ms. Tucker on our screen. That's fine.
9:06:01 AM	Commissioner Mathews Note: Sacre, Candace	For the Attorney General? We'll do all witnesses at the same time. For the Attorney General?
9:06:09 AM	Asst Atty General Cook Note: Sacre, Candace	Yes, for the Attorney General, Lawrence Cook, and we have no witnesses.
9:06:13 AM	Commissioner Mathews Note: Sacre, Candace	Okay, thank you. For KIUC?
9:06:16 AM	Atty Kurtz Nucor Note: Sacre, Candace	Good morning, Your Honor. Mike Kurtz for Nucor Steel Gallatin.
9:06:22 AM	Commissioner Mathews Note: Sacre, Candace	And for Commission Staff?
9:06:25 AM	Staff Atty Frederick PSC Note: Sacre, Candace	Tina Frederick for Commission Staff, Your Honor, and we have no witnesses.
9:06:29 AM	Commissioner Mathews Note: Sacre, Candace	And I believe you have John Rogness with you as Staff?
9:06:33 AM	Staff Atty Frederick PSC Note: Sacre, Candace	Yes.
9:06:39 AM	Commissioner Mathews Note: Sacre, Candace	Public notice has been given, is that correct?
9:06:42 AM	Atty Samford EKPC Note: Sacre, Candace	Correct, Your Honor, and Proof of Publication was filed on Monday.
9:06:45 AM	Commissioner Mathews Note: Sacre, Candace	Okay. Thank you. Are there any outstanding motions, Ms. Frederick?
9:06:50 AM	Staff Atty Frederick PSC Note: Sacre, Candace	No, Your Honor.
9:06:51 AM	Atty Samford EKPC Note: Sacre, Candace	I'm not aware of any.
9:06:53 AM	Commissioner Mathews Note: Sacre, Candace	Okay. I will give the same opportunity for public comment that we always give. Should anyone from the public like to provide the Commission with public comment, the instructions to call in are located on our website, psc.ky.gov . The phone lines will remain open for several minutes at the start of the hearing or close if there are no callers or after everyone has had an opportunity to speak. (Click on link for further comments.)
9:07:48 AM	Staff Atty Frederick PSC Note: Sacre, Candace	No callers at this time.
9:07:54 AM	Commissioner Mathews Note: Sacre, Candace	Okay. I don't believe there is anyone on the line. If someone calls in in the next few minutes, we will interrupt what we're doing and go back.

9:08:04 AM	Commissioner Mathews Note: Sacre, Candace	Okay. We plan to swear in all of the witnesses, all of the EKPC witnesses, at the same time. Given the nature of the issues, we recognize that multiple witnesses will have answers to different pieces of the Staff's questions. Rather than having the endless deferring to another and, you know, one person who ends up at the end who has to answer everything, we'll make this a little more level.
9:08:31 AM	Commissioner Mathews Note: Sacre, Candace	So, Mr. Samford, which order - well, I guess we've introduced them. Everyone can raise their right hand.
9:08:46 AM	Commissioner Mathews Note: Sacre, Candace	Witnesses sworn.
9:08:57 AM	Commissioner Mathews Note: Sacre, Candace	Thank you. Now, probably because we didn't do an introduction that included their titles, it might be meaningful, Mr. Samford, for you to introduce everyone or have everyone introduce themselves now, according to title and what they do with the company.
9:09:21 AM	Atty Samford EKPC Note: Sacre, Candace	Sure. Do you want me to qualify each witness as well or forego that formality?
9:09:29 AM	Commissioner Mathews Note: Sacre, Candace	I think we can probably qualify all of them at the same time. How's that? After you introduce them?
9:09:35 AM	Atty Samford EKPC Note: Sacre, Candace	Okay, that will be fine.
9:09:37 AM	Atty Samford EKPC - witness Johnson Note: Sacre, Candace	Direct Examination. Mr. Johnson, would you just state your name and title, please?
9:09:46 AM	Atty Samford EKPC - witness Adams Note: Sacre, Candace	Direct Examination. Mr. Adams?
9:09:54 AM	Atty Samford EKPC - witness Crews Note: Sacre, Candace	Direct Examination. Mr. Crews?
9:10:00 AM	Atty Samford EKPC - witness Scott Note: Sacre, Candace	Direct Examination. Mr. Scott?
9:10:06 AM	Atty Samford EKPC - witness Purvis Note: Sacre, Candace	Direct Examination. Mr. Purvis?
9:10:12 AM	Atty Samford EKPC - witness Tucker Note: Sacre, Candace	Direct Examination. Ms. Tucker?
9:10:18 AM	Atty Samford EKPC - witness Horn Note: Sacre, Candace	Direct Examination. Mr. Horn?
9:10:24 AM	Atty Samford EKPC - witness McNalley Note: Sacre, Candace	Direct Examination. Mr. McNalley?
9:10:31 AM	Atty Samford EKPC - witness Drake Note: Sacre, Candace	Direct Examination. And Mr. Drake?
9:10:39 AM	Commissioner Mathews Note: Sacre, Candace	Do you want to qualify them as a group?
9:10:41 AM	Atty Samford EKPC Note: Sacre, Candace	Sure, that would be fine.
9:10:43 AM	Atty Samford EKPC - EKPC witnesses Note: Sacre, Candace	Direct Examination. Did each of you cause certain Responses to Date Requests to be filed in the record of this proceeding or have a role in the drafting of the IRP filing?

9:10:54 AM Atty Samford EKPC - EKPC witnesses
Note: Sacre, Candace And, if we were to ask those same questions that were posed in the Data Requests, would your answers be the same?

9:11:03 AM Atty Samford EKPC - EKPC witnesses
Note: Sacre, Candace Does anybody have any corrections, changes, edits to those Responses to Data Requests?

9:11:11 AM Atty Samford EKPC
Note: Sacre, Candace Your Honor, I tender the witnesses for cross examination.

9:11:16 AM Commissioner Mathews
Note: Sacre, Candace Ms. Frederick?

9:11:17 AM Staff Atty Frederick PSC
Note: Sacre, Candace Thank you.

9:11:19 AM Staff Atty Frederick PSC - witness Drake
Note: Sacre, Candace Cross Examination. We're going to begin this morning with just a series of questions based on Responses to questions in the Data Requests and also the Demand Side Management portion of the IRP, and our first question is just basically about reaching a saturation point with any particular demand side management program. There are only so many homes that can be audited and buttoned up and only so many demand control switches that can be installed. What, if any, current demand side management program has EKPC identified as having reached or nearly reached a saturation point?

9:13:48 AM Staff Atty Frederick PSC - witness Drake
Note: Sacre, Candace Thank you. On that note, I'd just like to follow up with, what are the percentage of customers that have participated with installing demand control switches?

9:14:09 AM Staff Atty Frederick PSC - witness Drake
Note: Sacre, Candace Okay, and you mentioned shifting over into the thermostat demand control switch. What, if any, other innovative programs are on the horizon on the demand side management?

9:15:30 AM Staff Atty Frederick PSC - witness Drake
Note: Sacre, Candace Thank you, thank you. Identify and describe what EM&V quality assurance efforts are being made by EKPC with respect to its member cooperatives?

9:17:45 AM Staff Atty Frederick PSC - witness Drake
Note: Sacre, Candace Thank you. I have a question or two about the Collaborative 2.0. Has EKPC filed a report or copies of the meeting minutes with the Commission?

9:18:17 AM Staff Atty Frederick PSC - witness Drake
Note: Sacre, Candace Yeah, the agendas were filed, but meeting minutes weren't. That's why I asked.

9:18:28 AM Staff Atty Frederick PSC - witness Drake
Note: Sacre, Candace Okay. Can you just give us a verbal update on the Collaborative 2.0 since the IRP was filed?

9:19:30 AM Staff Atty Frederick PSC - witness Crews
Note: Sacre, Candace Are there any plans for that group to meet in the future?

9:20:27 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Thank you for that. I'd like to switch gears here now and move to supply side optimization and modeling, if we may. Can you explain the interaction between the production cost model and the resource optimizer?

9:21:18 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Can you explain what the production cost model does and what is the output of the model?

9:22:03 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace And does the model run all resource options simultaneously and then stack them according to least cost or net present value least cost?

9:22:24 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Net present value least cost. Thank you. There appears to be a choice when running the production cost model to run it either deterministically, where the results are assumed to be accurate, or more stochastically, where there is some probability that the results will be accurate. Explain which method EKPC used for this IRP.

9:23:54 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace How are you choosing the probabilities for the inputs?

9:24:43 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Okay. For my next couple of questions, I'm going to be referring to Table 319 and also Table 8-6 and comparing those.

9:25:06 AM Staff Atty Frederick PSC
Note: Sacre, Candace Let me know when you have those. I don't want to continue until you can see them.

9:25:15 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Thank you. Now, it appears that the projected peaks that are used in the optimization model in Table 8-6 deviate from the demand side base case peak forecasted loads in Table 319, and that deviation begins in the year 2024.

9:25:41 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Can you explain what is happening in 2024 that would explain the deviation between the two tables?

9:26:39 AM Staff Atty Frederick PSC
Note: Sacre, Candace Ms. Tucker appears to be breaking up just a little bit here, in the hearing room.

9:26:48 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace I can.

9:27:51 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace So why is that not done on the demand side?

9:28:57 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace So can you just explain why you would not want to have consistent assumptions across the demand side sensitivity assumptions and the supply side modeling?

9:29:41 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace The upper and lower bounds that are in the demand side modeling, why would you not also want to have that same assumption in the supply side modeling?

9:31:39 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Thank you. I think that gets us there. This question is about the forecasted prices and costs, such as market prices, natural gas prices, coal prices, and emission costs. Is there only one forecasted set of prices and costs correlated into the load data?

9:32:21 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace What are the emissions that are covered in the emissions cost data?

9:32:51 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Is carbon included?

9:33:01 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Explain how EKPC models future changes in environmental requirements for coal plants.

9:33:56 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace And how are the uncertainties that are surrounding environmental requirements modeled?

9:34:14 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace And what about uncertainty related to load? How would that be modeled?

9:34:30 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace And how is market price uncertainty modeled?

9:34:43 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Okay, and and how is fuel price uncertainty modeled?

9:34:57 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Now, for the next few questions, I'm going to be referring to Table 8 -2.

9:35:07 AM Commissioner Mathews
Note: Sacre, Candace May I - before we move, can I ask about the environmental?

9:35:13 AM Staff Atty Frederick PSC
Note: Sacre, Candace Absolutely.

9:35:20 AM Commissioner Mathews - witness Purvis
Note: Sacre, Candace You look at the probabilities and the uncertainty with regard to fuel costs, with regard to weather, with regard to market prices, if I'm thinking back the last 15 years in this industry, I think the thing that's been most likely to change have been those environmental rules and the costs that are associated with those, so do you think your modeling would be different if you did include some uncertainty or probabilities around those environmental rules?

9:40:59 AM Commissioner Mathews
Note: Sacre, Candace I think I was not so much thinking about the things you just said but as the large uncertainties in environmental rules as you're looking at a 15-year look forward and how are those captured in the same way that a fuel cost uncertainty or a market price uncertainty or a weather uncertainty is captured in the modeling. I get that. I was trying to figure out more, I guess, why wasn't - you know, why aren't environmental uncertainties modeled in a similar fashion to those other uncertainties when you're looking at a 15-year? And, you know, that what I didn't hear you say was anything to do with greenhouse gases, whether you want to assume those probabilities are zero or those probabilities are a hundred, I'm going to think that they are relevant to a model going forward. We may know more about that in November, but certainly I think in the next IRP may be a discussion of the modeling over that 15-year time horizon for environmental uncertainties because they all have impact on your production costs. They may have impact through your fuel costs, you know, so that was just - you know, I'm taking the liberty of being the only one up here on the bench and asking questions.

9:42:49 AM Commissioner Mathews
Note: Sacre, Candace So I will give it back to you, Staff.

9:42:51 AM Staff Atty Frederick PSC
Note: Sacre, Candace Thank you.

9:43:30 AM Commissioner Mathews - witnesses Tucker and Crews
Note: Sacre, Candace Okay, thank you.

9:44:08 AM Commissioner Mathews
Note: Sacre, Candace It's not to my satisfaction. It's just my curiosity, right. Again, I get to be the only one up here in a case that the Commissioners don't make a decision in, so I can ask - I have a little more free rein to ask questions.

9:44:25 AM	Staff Atty Frederick PSC Note: Sacre, Candace	I'm going to ask a follow-up question.
9:44:27 AM	Commissioner Mathews Note: Sacre, Candace	And you're welcome.
9:44:38 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Cross Examination (cont'd). Do you let the model choose the probability distribution around the variable? Is that something that the model determines?
9:45:19 AM	Staff Atty Frederick PSC Note: Sacre, Candace	All right. Thank you for that clarification, and just as a matter of housekeeping, we do have someone who's trying to produce documents on the screen for us, Ms. Goodrich. She experienced some technical difficulties earlier when we were talking about Table 319 and Table 8-6, but I've received a message that she is now able to produce those documents on the screen. I'm just letting you know that so if you have a table or something that pops up. That's because she's putting that there on the screen for us.
9:45:50 AM	Staff Atty Frederick PSC Note: Sacre, Candace	I have a couple of questions that surround Table 8-2, so if, Ms. Goodrich, we could see Table 8-2.
9:45:58 AM	Atty Samford EKPC Note: Sacre, Candace	Mr. Frederick, if I could, just to remind everybody that the redacted portion there is confidential information.
9:46:06 AM	Staff Atty Frederick PSC Note: Sacre, Candace	Correct, we're showing all the redacted - we're showing the redacted version of this table.
9:46:15 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker On this table, there are two wind options that are listed. Can you explain the differences in these options?
9:47:02 AM	Commissioner Mathews - witness Note: Sacre, Candace	Tucker Examination. And the same with power purchases, correct?
9:47:06 AM	Commissioner Mathews - witness Note: Sacre, Candace	Tucker That's just the ability to not only - not just take 100 megawatts?
9:47:13 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Cross Examination (cont'd). Can you explain the process and the basis EKPC used to select the resources that are listed in the table?
9:48:59 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker How is the uncertainty of future market conditions introduced into the model?
9:49:11 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker And does the model contain an option to retire an existing unit?
9:49:58 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker And explain whether the production cost model distinguishes between purchasing resources, retiring resources, and building resources.
9:50:57 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Are the seasonal PPAs in Table 8-2 the only market transactions that were included in the optimizer as a resource option?
9:51:23 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker And explain the basis for the seasonal PPAs being the only market transaction included? Were they selected because they were a least cost option?
9:52:26 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Okay. Can you explain how EKPC plans for extreme events that are not weather related, something like COVID-19 or a recession?

9:53:58 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Thank you. Can you explain how EKPC models transmission restraints and whether they are captured in the production cost model or the resource optimizer?

9:55:04 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace So that would be inherent in the forward curve?

9:55:11 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Thanks. I have a couple of questions on forecasting. EKPC's next IRP is scheduled for April 2022. When will the demand and supply side forecasting be constructed for that IRP?

9:56:04 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Okay, so the data that will be used - the forecast data that will be used in the 2022 IRP will be roughly two years old when that is filed?

9:56:39 AM Atty Samford EKPC - witness Tucker
Note: Sacre, Candace Redirect Examination. Just, if I may, the IRP's typically filed in March or April, so it would be more like 15 or 16 months.

9:57:10 AM Commissioner Mathews
Note: Sacre, Candace And we're going to hope that 2020 is not a great representative year of anything, so you can put some footnotes and some asterisks on that data. That will be fine.

9:57:24 AM Commissioner Mathews
Note: Sacre, Candace I have a question if you don't mind, Ms. Frederick.

9:57:28 AM Commissioner Mathews - witness Tucker
Note: Sacre, Candace Examination. Back to the resource modeling and your options, when you're modeling intermittent resources in your IRP modeling, did you use effective load carrying capability values to determine the capacity contribution of wind and solar or some other methodology -

9:57:57 AM Commissioner Mathews - witness Tucker
Note: Sacre, Candace - as is currently done in PJM? Are you inherently adopting those rules, the status quo, that's in PJM -

9:58:09 AM Commissioner Mathews - witness Tucker
Note: Sacre, Candace - for which they consider the effective capacity of the resources?

9:58:18 AM Commissioner Mathews - witness Tucker
Note: Sacre, Candace So, when they update that, if they do update that, the next IRP you're modeling might be different?

9:58:50 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace Cross Examination (cont'd). I just need to ask a clarifying question. The column labeled Capacity, is that effective capacity?

9:59:06 AM Staff Atty Frederick PSC - witness Tucker
Note: Sacre, Candace That's installed capacity?

9:59:11 AM Staff Atty Frederick PSC - witness Purvis
Note: Sacre, Candace Okay. I have a question on EPA compliance. Are there any major changes in EPA's 2019 report, and, if so, what impact would that have on EKPC?

10:10:44 AM Staff Atty Frederick PSC - witness Purvis
Note: Sacre, Candace No, Mr. Purvis. Thank you very much for that thorough update. We really appreciate that.

10:10:50 AM Staff Atty Frederick PSC
Note: Sacre, Candace At this time, I'm going to let Ms. Goodrich know that she can remove that Table 8-2.

10:10:57 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker And we're going to turn our attention briefly to the comments made by the Southern Renewable Energy Association. SREA has recommended that EKPC move away from capacity focused resource planning. What other types of planning are utilized in resource planning?
10:11:38 AM	Commissioner Mathews Note: Sacre, Candace	I think we're having trouble hearing Ms. Tucker.
10:12:51 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Is EKPC aware of any regulated utility that utilizes any of the other types of planning besides capacity focused resource planning?
10:13:10 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Thank you. SREA recommended that EKPC use levelized cost of energy benchmarks. What is EKPC's response to that, and should they be used as inputs into capacity planning?
10:13:52 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Does EKPC consider tax credits in resource planning?
10:15:02 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Thanks. Explain whether renewable energy credits are integrated into the pricing of renewable resources for modeling inputs?
10:15:40 AM	Staff Atty Frederick PSC - witness Note: Sacre, Candace	Tucker Given - this is just a general question. Given that the 2019 IRP used 2017 data and we're now in the year 2020, was the 1.4 percent overall growth in load forecast realized?
10:16:38 AM	Staff Atty Frederick PSC Note: Sacre, Candace	Thank you. Those are all my questions.
10:16:47 AM	Commissioner Mathews Note: Sacre, Candace	Mr. Cook?
10:16:50 AM	Asst Atty General Cook Note: Sacre, Candace	Yes, ma'am, thank you very much, Commissioner, and I do have some questions.
10:17:00 AM	Asst Atty General Cook - witness Note: Sacre, Candace	Tucker Cross Examination. I'm going to start off, I believe, with Ms. Tucker. If you'd turn to your Response to Attorney General's Second Data Request, Item No. 1, just let me know when you're ready.
10:17:20 AM	Asst Atty General Cook - witness Note: Sacre, Candace	Tucker Okay. Thank you very much, and the question here asked for the member-owners' actual sales to coal mining customers for the most recent year, and I understand your Response that EKPC does not track that data. But I guess my question is, are you also saying that the members do not track sales to large customers?
10:17:56 AM	Asst Atty General Cook - witness Note: Sacre, Candace	Tucker By class, is that correct?
10:18:11 AM	Asst Atty General Cook - witness Note: Sacre, Candace	Tucker Okay, so you know that -
10:18:26 AM	Asst Atty General Cook - witness Note: Sacre, Candace	Tucker I'm sorry. I think you're breaking up, so I guess that was what I was trying to understand. Do you know for a fact that the members do not keep track of this data?
10:18:52 AM	Asst Atty General Cook - witness Note: Sacre, Candace	Tucker Okay, I think I will ask a post-hearing data request then to verify that.
10:18:55 AM	POST-HEARING DATA REQUEST Note: Sacre, Candace	ASST ATTY GENERAL COOK - WITNESS TUCKER

Note: Sacre, Candace VERIFY AND PROVIDE EKPC MEMBERS-OWNERS' DATA AS TO ACTUAL SALES TO COAL MINING CUSTOMERS FOR MOST RECENT YEAR

10:19:03 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace And, while I have you here, if you could turn to your Response to AG 2-3, and just let me know when you're there.

10:19:24 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Okay. Can you read your Response into the record?

10:20:07 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Okay. Thank you. What I take from your Response is that EKPC takes all costs into consideration and that overall the company's model is fairly comprehensive. Is that safe to say?

10:20:25 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Thanks. Can you discuss how the modeling resource that the company uses take into consideration the intermittent nature of renewable power resources?

10:21:39 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace And then, if, in your modeling, it appears that a backup resource - let me backtrack. Say, that if a renewable resource is beginning to look favorable but it may also require a resource due to intermittency, what kind of backup resources are examined? Is there like a separate analysis then, or is it all part of the same thing? How does that work?

10:23:21 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Okay, and so then I take it that the company would also go through and make a least cost analysis for the backup resource in a situation like that, is that correct?

10:23:46 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Is there any way to examine through the IRP process the, for lack of a better term, the interplay between a primary renewable source and a secondary backup source, like, for example, frequently it might be needed, things of that nature?

10:24:27 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Okay, I understand, then, if you could turn to Response to AG 2-7, and just let me know when you're there.

10:24:58 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Okay, great, and thanks. The staff has it up on the screen, too, so the question asked, explain when the next survey of the member systems' residential customers will be taken. Did the company provide any graphs indicating the impact of energy efficiency standards and appliances anywhere in the Application that you're aware of?

10:25:41 AM Atty Samford EKPC
Note: Sacre, Candace I was going to say, are you talking about the Application or the survey?

10:25:47 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace In, I guess, both, but, if it's in the Application, I think I'd like to know where it is, and, if not, maybe if we could get the results of the survey, although I understand that may not be ready yet.

10:26:45 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Okay, and, obviously, your Response to these questions was almost three months ago or maybe two months ago. Is there any progress report on that most recent survey you said that would be expected to come out by the Fall. Do you have any update on that?

10:27:26 AM	Asst Atty General Cook Note: Sacre, Candace	Okay, so, David, if I ask in a post-hearing data request for that to be provided, do you expect that there's a time when that would be ready to be provided?
10:27:40 AM	Atty Samford EKPC Note: Sacre, Candace	I mean, I think once it's been completed and reviewed and finalized, it would, you know, potentially be subject to disclosure at that point but probably not before then.
10:27:53 AM	Asst Atty General Cook Note: Sacre, Candace	Okay. I think I will ask in a post-hearing data request then for that to be provided when ready (inaudible).
10:27:56 AM	POST-HEARING DATA REQUEST Note: Sacre, Candace Note: Sacre, Candace	ASST ATTY GENERAL COOK - WITNESS TUCKER SURVEY OF EKPC MEMBER SYSTEMS' RESIDENTIAL CUSTOMERS
10:28:13 AM	Asst Atty General Cook - witness Tucker Note: Sacre, Candace	And, Ms. Tucker, if you could turn to the next question on AG 2-8, just let me know when you're there.
10:28:52 AM	Asst Atty General Cook - witnesses Tucker and Crews Note: Sacre, Candace	And so your Response states that the economic data was received from the IHS Global Insight in the Fall of 2017, and that was, you know, three years ago, and, since that time, you've gone through a lot, and all kinds of things have changed, and, especially this year, 2020 has changed all kinds of economic and financial forecasts, and, first, I'm just wondering, can you explain why that data is so old and why the company cannot get anything more current?
10:31:55 AM	Asst Atty General Cook - witness Johnson Note: Sacre, Candace	Okay, thank you. My next question is about AG 2-13, and I believe the respondents here were Craig Johnson and Mark Brewer, and so, if you guys could just turn to that, and let me know when you're ready.
10:32:26 AM	Asst Atty General Cook - witness Johnson Note: Sacre, Candace	Thank you very much. In Subpart (c), here, we asked about the beneficial reuse of fly ash from Spurlock 1 and 2 as a cement supplement to the ready-mix industry. Could you read that Response to that Subpart (c) into the record?
10:35:17 AM	Asst Atty General Cook - witness Johnson Note: Sacre, Candace	Okay, thank you, so the question I have is, once the ELG facility, there, at Spurlock has been constructed, does the company expect to start the sale of fly ash to the ready-mix industry at any given point in time, or will the internal need for the fly ash from Spurlock 1 and 2 remain indefinitely?
10:36:09 AM	Asst Atty General Cook - witness Johnson Note: Sacre, Candace	Okay. Have you ever been approached by any other company regarding the use of fly ash?
10:36:57 AM	Asst Atty General Cook - witness Johnson Note: Sacre, Candace	Okay, all right, thank you very much.
10:37:22 AM	Asst Atty General Cook - witness Tucker Note: Sacre, Candace	Okay, all right, the next question is about the Response to AG 82-. I believe the respondents here were Julia Tucker and Mary Jane Warner, so, if you could just let me know when you're there.
10:37:45 AM	Asst Atty General Cook - witness Tucker Note: Sacre, Candace	Okay, thank you, and this question is about the emergent solar facilities that obviously are going up. Almost every day, we get new applications in. Does EKPC's IRP proceeds take these facilities into consideration as a potential least cost resource?

10:38:50 AM	Asst Atty General Cook - witness Tucker Note: Sacre, Candace	Okay, so if an IRP is issued and they decide to respond, then their bid or whatever is referred to as - basically, is treated the same as everybody else's bid, is that correct?
10:39:12 AM	Commissioner Mathews Note: Sacre, Candace	Mr. Cook, how many questions do you have? (Click on link for further discussions.)
10:39:42 AM	Commissioner Mathews Note: Sacre, Candace	Maybe a ten-minute break until ten of?
10:39:53 AM	Session Paused	
10:50:46 AM	Session Resumed	
10:50:57 AM	Commissioner Mathews Note: Sacre, Candace	You may continue to ask, Mr. Cook.
10:51:02 AM	Asst Atty General Cook Note: Sacre, Candace	Thank you so much, Commissioner.
10:51:05 AM	Asst Atty General Cook - witness McNalley Note: Sacre, Candace	Cross Examination (cont'd). My next question is addressed to Mike McNalley. Mr. McNalley, you had a Response to Commission's Second Set of Data Requests, Item No. 2, so I'm wondering if you could turn to that and just let me know when you're there.
10:51:48 AM	Asst Atty General Cook - witness McNalley Note: Sacre, Candace	Okay, great, so - and I wanted to ask you if you could read a portion of your Response into the record. You had - it's actually a pretty long Response. I don't want to have to go over it all, but I did want to start on page 2, the paragraph that starts, "In order to ensure adequate funds. . ." And, if you see that, if you could just start there.
10:53:00 AM	Asst Atty General Cook - witness McNalley Note: Sacre, Candace	There we go, and if you could just read that through the end of the Response, please?
10:57:59 AM	Asst Atty General Cook - witness McNalley Note: Sacre, Candace	Okay, thank you very much for reading that, so it's been a couple of months since your Response, here. I'm just wondering, in general, do you have any kind of updates that could shed more light on this situation? Anything at all?
11:02:02 AM	Asst Atty General Cook - witness McNalley Note: Sacre, Candace	Sure, so one thing that comes to mind right away is, if I understood what you said, you've understood that it's going to be highly unlikely that Congress will allow the RUS to do refinancings, is that correct?
11:02:48 AM	Asst Atty General Cook - witness McNalley Note: Sacre, Candace	Okay, and then another question, was EKPC able to obtain, I don't know if you'd call it, PPP loans? I think there was a separate program through the Federal Reserve, and I don't know if it had to be at a certain level or what.
11:04:28 AM	Commissioner Mathews Note: Sacre, Candace	Mr. Cook - everybody froze. (Click on link for further discussions.)
11:05:08 AM	Commissioner Mathews Note: Sacre, Candace	We recognize that, this being a 2019 IRP, by definition, is prepared in 2018 and based on 2017 data and is a bit stale, so just trying to focus us back to the 2019 IRP discussions.

11:05:36 AM Asst Atty General Cook - witness McNalley
Note: Sacre, Candace Right, and I'm looking at Mr. McNalley's Responses, here, to Data Requests. Let's see, so, at the top of page 3 of your Response, there, you stated that "While the company and owner/members support the Commission's Order to not shut off delinquent accounts and to not charge late payment fees, nonetheless, those new requirements are having a significant impact on the owner/members' finances," so is there anything - any kind of further update to that?

11:06:45 AM Asst Atty General Cook - witness Crews
Note: Sacre, Candace Okay, thank you very much for that. My next question is for Mr. Crews. Could you turn to your Response in the Commission's Second Set of Data Requests, Item No. 3? Just let me know when you're there.

11:07:20 AM Asst Atty General Cook - witness Crews
Note: Sacre, Candace Okay, thank you, and so you were asked here to explain how PJM's Minimum Offer Price Rule or the MOPR will affect EKPC's participation in PPJM. Since the time of your question or the question and your Response, had there been any other developments in PJM or FERC that might affect the company's decision on whether to continue participating in PJM?

11:08:39 AM Asst Atty General Cook - witness Crews
Note: Sacre, Candace Okay, all right, and then at the third page of your Response to this question, you state that whether any new resource would clear in the RPM market would be dependent upon the MOPR floor level applicable to the fuel type of the generator or an (inaudible) will determine through a PJM-approved unit specific offer exemption. Can you explain what you mean there? Further down, you mention the possibility that this could result in the possibility of EKPC having to pay twice for capacity. Can you explain what you mean by the possibility of having to pay twice?

11:13:57 AM Asst Atty General Cook - witness Crews
Note: Sacre, Candace I think so, yes. Thank you very much for that, and then also there are something - I believe PJM, correct me, Mr. Cruz, I think that considering (inaudible) with carbon pricing, is that correct?

11:15:38 AM Asst Atty General Cook - witness Crews
Note: Sacre, Candace All right, thank you very much, so I take it that that is an area of potential concern of the company, correct?

11:16:17 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace I understand. Thank you very much, sir. The next question I have is a panel question. It's about the comments filed by the Southern Renewable Energy Association on June 8th in the (inaudible) where it expressed an opinion that EKPC's assumptions regarding renewable energy costs were significantly higher than current market offerings. Can you explain what measures EKPC employs to be certain that its assumptions regarding energy from any generation type are as accurate as possible?

11:17:40 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Okay, and then, those comments filed by the SREA, they also said that renewable energy cost assumptions are dated from 2016. First of all, is that true, and then, if so, what will the company do to ensure that it has the most up-to-date data?

11:19:19 AM Asst Atty General Cook - witness Tucker
Note: Sacre, Candace Okay, thank you, and then the same comments also recommended that the NREL annual technology baseline should be used for all renewable energy resource cost and performance assumptions. Do you think that would be useful in the company's next IRP?

11:19:47 AM	Asst Atty General Cook - witness Tucker Note: Sacre, Candace	Okay, thank you. The next question is a general panel question. We know that a lot of renewable energy resource types are moving lower in price, but some types of renewables, I'm thinking in particular about solar, can affect the distribution grid and perhaps drive new costs at (inaudible) level as well, so when EKPC considers new supply side resources, traditionally, it does so on its corporate structure and mission of being a G&T, generation and transmission, but now that we're in sort of a new era, here, that really it's many years have passed since the original IRP regulations were written, and a lot of things are changing, and so one of the things we know is that some of these renewables drive - cause cost drivers at the distribution level, but you guys don't model that, and I understand why. Because you're a G&T, but I'm wondering, shouldn't you? In order to get to a least cost resource evaluation, if your member-owners have to spend millions of dollars to upgrade their distribution (inaudible), isn't that something that needs to go into the equation? I'll just toss that out.
11:25:52 AM	Asst Atty General Cook Note: Sacre, Candace	Okay, thank you very much. I believe that's all the questions I have at this time.
11:25:57 AM	Commissioner Mathews Note: Sacre, Candace	Thank you. Mr. Kurtz?
11:26:00 AM	Atty Kurtz Nucor Note: Sacre, Candace	Thank you, Commissioner Mathews, just a few.
11:26:03 AM	Atty Kurtz Nucor - witness Crews Note: Sacre, Candace	Cross Examination. First, I guess, really, this is an observation. It's been ten years since East Kentucky's had a base rate case, which is quite a record, so everybody on this panel must be doing something right. That's my observation. When you evaluate purchase power versus self-supply options, does the purchase power option eliminate MOPR self-supply risk?
11:28:14 AM	Atty Kurtz Nucor - witness Tucker Note: Sacre, Candace	Just as a general matter, of the last six months last year, what you project going forward, what percent of East Kentucky's energy comes from the PJM market versus self-generation for the energy?
11:28:47 AM	Atty Kurtz Nucor - witness Crews Note: Sacre, Candace	And I think Mr. McNalley mentioned that the benefits of that flow through the FAC, is that correct? So that's a good thing?
11:29:01 AM	Atty Kurtz Nucor - witness Crews Note: Sacre, Candace	Do you expect market energy prices to remain fairly low, below your (inaudible) cost in the near future, foreseeable future?
11:30:07 AM	Atty Kurtz Nucor - witness Crews Note: Sacre, Candace	Thank you. This CO2 (inaudible) working group that you referred to, David, I'll just ask you, what's the - is the risk that the energy you purchase would be higher or that the energy you're able to sell to the market would sort of have a penalty attached to it. What's the risk associated with that CO2 working group? I mean, it's a work in progress. It could be - anything could come out of it, but what is the risk you're generally considering?
11:32:19 AM	Atty Kurtz Nucor - witness Crews Note: Sacre, Candace	One last question, when you consider a solar or - I'll just use solar, a solar build, self-build, or a solar self-build, do you have - for purposes of RMP/PJM capacity, do you have to build two megawatts of solar to basically get one megawatt of capacity value for PJM purposes because of the - the equivalent forced outage modification?

11:33:39 AM	Atty Kurtz Nucor - witness Crews Note: Sacre, Candace	Well, you don't need to do that, so you would need to build - if it was a (inaudible), you would need to build three megawatts to get one megawatt of capacity value?
11:33:57 AM	Atty Kurtz Nucor Note: Sacre, Candace	Thank you, David. Thank you everyone. Commissioner Mathews, those are all my questions.
11:34:03 AM	Commissioner Mathews Note: Sacre, Candace	Mr. Samford, do you have any redirect?
11:34:06 AM	Atty Samford EKPC Note: Sacre, Candace	No redirect, Your Honor.
11:34:08 AM	Commissioner Mathews Note: Sacre, Candace	Ms. Frederick?
11:34:10 AM	Staff Atty Frederick PSC Note: Sacre, Candace	Nothing further, Your Honor.
11:34:12 AM	Commissioner Mathews Note: Sacre, Candace	Mr. Cook?
11:34:17 AM	Asst Atty General Cook Note: Sacre, Candace	Nothing further.
11:34:22 AM	Commissioner Mathews Note: Sacre, Candace	Do we need to talk about timing for post-hearing data requests? I think Mr. Cook is the only one that has a post-hearing data request, and you will get those in writing, correct?
11:34:41 AM	Asst Atty General Cook Note: Sacre, Candace	Yes, ma'am, I'm sure I can get those in within a couple of days, if that's okay.
11:34:45 AM	Commissioner Mathews Note: Sacre, Candace	Okay. How long do you think you would need to respond to those?
11:34:51 AM	Atty Samford EKPC Note: Sacre, Candace	If we could have ten days to two weeks. There's just one, right? Is that right, Larry?
11:35:03 AM	Asst Atty General Cook Note: Sacre, Candace	I thought it was two.
11:35:05 AM	Commissioner Mathews Note: Sacre, Candace	Yeah, I put two hashmarks.
11:35:08 AM	Atty Samford EKPC Note: Sacre, Candace	Ten days should be sufficient, Your Honor.
11:35:10 AM	Commissioner Mathews Note: Sacre, Candace	Okay, so, if you could get them by the 22nd, does that mean - no, the 22nd is Saturday, sorry. The 21st will be tomorrow, five o'clock. Would that be September 11? Is that too long?
11:35:40 AM	Atty Samford EKPC Note: Sacre, Candace	No. That would be fine. We could probably do it by September 4th.
11:35:45 AM	Commissioner Mathews Note: Sacre, Candace	September 4th would be even better. Anything else?
11:35:57 AM	Staff Atty Frederick PSC Note: Sacre, Candace	No.
11:35:58 AM	Commissioner Mathews Note: Sacre, Candace	That was it? We appreciate you humoring us on this first IRP hearing that we've had since since most of the Staff joined the Commission. I believe Dr. Rogness and I are the only ones that are long enough in the tooth to have been involved in the last IRP hearings. Perhaps, Mr. Scott.

11:36:29 AM Commissioner Mathews
Note: Sacre, Candace

I appreciate it, and, with that, I think we're finished. We're going off the record in 2019-00096.

11:36:47 AM Session Ended

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