

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF EAST)	
KENTUCKY POWER COOPERATIVE, INC. FOR)	CASE NO.
1) CERTIFICATES OF PUBLIC CONVENIENCE)	2024-00370
AND NECESSITY TO CONSTRUCT A NEW)	
GENERATION RESOURCES; 2) FOR A SITE		
COMPATIBILITY CERTIFICATE RELATING TO		
THE SAME; 3) APPROVAL OF DEMAND SIDE		
MANAGEMENT TARIFFS; AND 4) OTHER		
GENERAL RELIEF		

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 April 21, 2025, in this proceeding;
- Certification of the accuracy and correctness of the digital video recording;
- All exhibits introduced at the evidentiary hearing conducted on April 21, 2025, in this proceeding; and
- A written log listing, *inter alia*, the date and time of where each witness's testimony begins and ends on the digital video recording of the evidentiary hearing conducted on April 21, 2025.

A copy of this Notice, the certification of the digital video record, and the hearing log has been served upon all persons listed at the end of this Notice. Parties may view the digital video recording of the hearing at <https://youtu.be/ipRbzk8Y1SI>.

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

Done in Frankfort, Kentucky, on July 1, 2025.

Linda C. Bridwell, PE
Executive Director

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF EAST)
KENTUCKY POWER COOPERATIVE, INC. FOR)
1) CERTIFICATES OF PUBLIC CONVENIENCE)
AND NECESSITY TO CONSTRUCT NEW)
GENERATION RESOURCES; 2) FOR A SITE)
COMPATIBILITY CERTIFICATE RELATING TO)
THE SAME; 3) APPROVAL OF DEMAND SIDE)
MANAGEMENT TARIFFS; AND OTHER)
GENERAL RELIEF)

CASE NO.
2024-00370

CERTIFICATION

I, Candace H. Sacre, hereby certify that:

1. I am responsible for the preparation of the electronic files containing the recording of the Formal Hearing conducted in the above-styled proceeding on April 21, 2025. The Formal Hearing Log, Exhibits, and Exhibit list are included with the recording on April 21, 2025.
2. The recording accurately and correctly depicts the Formal Hearing of April 21, 2025; and
3. The Formal Hearing Log accurately and correctly states the events that occurred at the Formal Hearing on April 21, 2025, and the time at which each occurred.

Signed this 30th day of June, 2025.



Candace H. Sacre
Administrative Specialist Senior



Stephanie Schweighardt
Kentucky State at Large ID# KYNP 64180
Commission Expires: January 14, 2027



Session Report - Detail

2024-00370 22Apr2025

East Kentucky Power Cooperative,
Inc. (EKPC)

Date:	Type:	Location:	Department:
4/21/2025	Public Hearing\Public Comments	Hearing Room 2	Hearing Room 2 (HR 2)

Witness: Greg Cecil; Nick Comer; Mark Horn; Craig Johnson; Don Mosier; Jerry Purvis; Tom Stachnik; Brad Young
Judge: Angie Hatton; Mary Pat Regan
Clerk: Candace H Sacre

Event Time	Log Event
9:05:55 AM	Session Started
9:05:56 AM	Chair Hatton
	Note: Sacre, Candace Preliminary remarks.
9:06:22 AM	Chair Hatton
	Note: Sacre, Candace Introductions.
9:06:31 AM	Chair Hatton
	Note: Sacre, Candace Hearing recommendations.
9:07:15 AM	Camera Lock Deactivated
9:07:41 AM	Chair Hatton
	Note: Sacre, Candace Purpose of hearing.
9:07:46 AM	Chair Hatton
	Note: Sacre, Candace Entry of appearance.
9:07:52 AM	Atty Honaker EKPC
	Note: Sacre, Candace Allyson Honaker
9:07:55 AM	Atty Temple EKPC
	Note: Sacre, Candace Heather Temple.
9:07:59 AM	Asst Atty General West
	Note: Sacre, Candace Mike West for AG's Office.
9:08:03 AM	Atty Kurtz Nucor Steel
	Note: Sacre, Candace Mike Kurtz and Jody Kyler Cohn for Nucor Steel.
9:08:11 AM	Atty Gary Joint Intervenors
	Note: Sacre, Candace Byron Gary on behalf of Appalachian Citizens Law Center, Kentuckians for the Commonwealth, and Mountain Association, with me Cassandra McCrae and Shannon Fisk.
9:08:23 AM	Asst Gen Counsel Tussey PSC
	Note: Sacre, Candace Moriah Tussey.
9:08:26 AM	Atty Lawson PSC
	Note: Sacre, Candace Amanda Lawson.
9:08:30 AM	Chair Hatton
	Note: Sacre, Candace Public notice.
9:08:35 AM	Chair Hatton
	Note: Sacre, Candace Outstanding motions.
9:08:51 AM	Chair Hatton
	Note: Sacre, Candace Public comment.
9:09:39 AM	Chair Hatton
	Note: Sacre, Candace Counsel, call first witness.
9:09:41 AM	Atty Honaker EKPC
	Note: Sacre, Candace Don Mosier.
9:09:56 AM	Chair Hatton
	Note: Sacre, Candace Witness is sworn.

9:10:02 AM	Atty Honaker EKPC - witness Mosier Note: Sacre, Candace	Direct Examination. Name and business address?
9:10:09 AM	Atty Honaker EKPC - witness Mosier Note: Sacre, Candace	What is title?
9:10:15 AM	Atty Honaker EKPC - witness Mosier Note: Sacre, Candace	Cause testimony be filed?
9:10:19 AM	Atty Honaker EKPC - witness Mosier Note: Sacre, Candace	Sponsored one supplemental data request?
9:10:23 AM	Atty Honaker EKPC - witness Mosier Note: Sacre, Candace	Additions or corrections?
9:10:28 AM	Atty Honaker EKPC - witness Mosier Note: Sacre, Candace	If ask same questions, responses be same?
9:10:32 AM	Atty Honaker EKPC - witness Mosier Note: Sacre, Candace	Desire and intent incorporate into record?
9:10:39 AM	Chair Hatton Note: Sacre, Candace	Attorney General?
9:10:44 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Cross Examination. In direct testimony, stated EKPC proposed solar facilities to meet needs owner/members for renewable energy and assist EKPC meeting sustainability goals?
9:11:05 AM	Atty Honaker EKPC - witness Mosier Note: Sacre, Candace	Went on to state, reading, correct?
9:11:28 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Have responses to AG Request 3 in front of you?
9:11:47 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Read question and response?
9:12:00 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	And the response to that?
9:12:40 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Sustainability plan refer to also in record as attachment to Tucker testimony?
9:12:51 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Plan indicates intent reduce CO2 by 35 percent by 2035 and 70 percent by 2050?
9:13:02 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	What percentage reductions benchmarked to, 35 percent reduction from what?
9:13:22 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	What further actions EKPC required take achieve reductions?
9:13:47 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Further retirement of coal-fired or natural-gas-fired resources required?
9:14:24 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Summarize what stated, whether greenhouse gas rules relaxed in short term or not, EKPC assumes federal government require reductions, EKPC presumptively attempting meet reductions?
9:15:10 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Questions relate to laws/policies in Commonwealth, your understanding Kentucky utilities required to utilize least cost resources?
9:15:32 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Your understanding Kentucky General Assembly stated policy preference for dispatchable resources?

9:15:44 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Your understanding General Assembly stated policy preference for production and usage of coal?
9:15:52 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Going to summarize, tell me if accurate, state law requiring least cost resources be selected, state policies supporting dispatchable resources, state laws preferring fossil fuels, and federal laws that restrict greenhouses but sometimes relaxed?
9:16:14 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	In face of that EKPC decided reduce greenhouses?
9:16:21 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Agree with summation?
9:16:28 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Think puts EKPC at risk violating Kentucky law and policy by pursuing sustainability?
9:16:40 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Not think choosing reduce greenhouse gases have effect select resource not least cost?
9:17:18 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Plan install future renewable installations?
9:17:26 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Potential compared to combined cycle or other resources, might not be least cost resource but pursue anyway achieve reductions sustainability plan?
9:18:37 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Certainly tax incentives associated with projects?
9:18:42 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Potential that tax benefits associated with projects could change?
9:18:51 AM	Asst Atty General West Note: Sacre, Candace	One document like to hand out.
9:19:51 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Familiar with document handed you?
9:19:55 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	Can describe it for me?
9:20:00 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	What's topic of letter?
9:20:15 AM	Asst Atty General West - witness Mosier Note: Sacre, Candace	As representative of EKPC in position to authenticate document?
9:20:24 AM	Asst Atty General West Note: Sacre, Candace	Ask be admitted as AG Exhibit 1.
9:20:28 AM	Chair Hatton Note: Sacre, Candace	Any objection?
9:20:30 AM	Atty Honaker EKPC Note: Sacre, Candace	No objection.
9:20:33 AM	AG HEARING EXHIBIT 1 Note: Sacre, Candace Note: Sacre, Candace	ASST ATTY GENERAL WEST - WITNESS MOSIER LETTER FROM EKPC PRESIDENT AND CEO CAMPBELL TO PRESIDENT DONALD TRUMP DATED MARCH 31 2025
9:20:33 AM	Chair Hatton Note: Sacre, Candace	Admitted.
9:20:37 AM	Asst Atty General West Note: Sacre, Candace	That is all I had.
9:20:49 AM	Chair Hatton Note: Sacre, Candace	For KIUC?

9:20:51 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Cross Examination. East Kentucky sells to 16-member owners 14 million megawatt hours a year?
9:21:05 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Would make East Kentucky second biggest utility in Kentucky?
9:21:14 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Revenue for KU from sales to members about \$1.1 billion?
9:21:23 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Have about \$800 million in member equity?
9:21:27 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Twenty percent equity ratio?
9:21:33 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Solidly investment grade?
9:21:44 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What rating agencies have East Kentucky as investment grade?
9:21:51 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Does Moody's rate you?
9:21:56 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Summarized generation resources, East Kentucky has entitlement to 170 megawatts of hydroelectric from SEPA?
9:22:09 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Very good resource, low cost?
9:22:12 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Little bit of landfill gas?
9:22:18 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Have solar right now?
9:22:23 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Indicated to West plans for several hundred megawatts more depending on ERA tax?
9:22:44 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What East Kentucky plan to do with renewable energy certificates produced by solar?
9:22:56 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Either sell to commercial business or into market?
9:23:03 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Have pricing assumption?
9:23:18 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Also have 200 megawatts interruptible load?
9:23:25 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Would include Nucor interruptible load?
9:23:29 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Bluegrass Station, Oldham County, has three combustion turbine peaking units?
9:23:39 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What total megawatts of Bluegrass?
9:23:46 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Bluegrass in LG&E balancing authority, connected to LG&E transmission system?
9:23:54 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Explain relationship of difference between EKPC load as determined by PJM versus EKPC load as determined in IRP and CPCN and planning?
9:24:45 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Similar relationship with load in Duke territory?

9:24:52 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Any idea how big that is?

9:24:57 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace LG&E load main reason PJM forecast of demand different?

9:25:13 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Smith combined combustion turbines, nine Smith units?

9:25:20 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Located near Winchester, near headquarters?

9:25:25 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Not dispatch much, mainly capacity resource?

9:25:33 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Bluegrass, is that mainly capacity resource also?

9:25:38 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Opposed to solar which all energy and no capacity?

9:25:44 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Spurlock workhorse of East Kentucky system?

9:25:50 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Four units?

9:25:56 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace East Kentucky has grown Spurlock Station, first unit commercial 1977?

9:26:09 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Grew it 510 megawatts 1981?

9:26:16 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Then grew it another 268 megawatts in 2005?

9:26:20 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Then grew it another 268 megawatts in 2009?

9:26:27 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Is CPCN continuation building and modifying generation to meet load growth?

9:26:50 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Growing utility, common add generation?

9:26:54 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Is business are in?

9:27:04 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Then is Cooper Unit 1 and 2?

9:27:10 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Cooper 1 early 1960s unit without SCR, not officially be retired but on bubble?

9:27:13 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Cooper 2 fully environmentally compliant?

9:27:31 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Explain environmental controls on Cooper 2, 225 megawatts?

9:27:39 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace I'm sorry, interrupted you?

9:27:46 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Mercury controls on it?

9:27:58 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace Cooper near Somerset at southern tip of system?

9:28:04 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace East Kentucky goes from Maysville where Spurlock is al the way down, are voltage problems?

9:28:12 AM Atty Kurtz Nucor Steel - witness Mosier
Note: Sacre, Candace The tip of PJM as well as tip of East Kentucky, southern tip?

9:28:29 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	So maintaining generation in southern part of system improve voltage?
9:28:39 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What happens if not have generation there?
9:28:49 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What means for consumers?
9:28:56 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Maintaining voltage and avoiding blackouts rationale for this?
9:29:06 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Plan for Spurlock to co-fire with up to 50 percent natural gas?
9:29:15 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Plan for Cooper Unit 2 to co-fire for up to 100 percent?
9:29:21 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Under 111(b) and (d) rules, avoid shutting down coal units by co-firing with 40 percent natural gas, both Spurlock and Cooper?
9:29:50 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Tell me about gas pipelines run to Spurlock and Cooper to co-fire with natural gas?
9:30:19 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Forty miles each, how much cost approximately?
9:30:37 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Spurlock and Cooper 2 each supplied by one gas pipeline?
9:30:46 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Like to have two, wouldn't you?
9:30:58 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Talking about reliability?
9:31:06 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	To co-fire Cooper 2 with natural gas, change out burners make them dual fuel?
9:31:25 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	For both Cooper and Spurlock, all coal handling, coal storage, pulverizers, everything associated with coal remain?
9:31:50 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	If 111(b) and (d) rules went away, continue to run Spurlock 100 percent coal?
9:32:07 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What mean by that?
9:32:23 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Spurlock completely environmentally compliant except for CO2?
9:32:28 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Units 3 and 4 both circulating fluidized bed opposed to Units 1 and 2 are pulverized coal?
9:32:37 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What is difference between those technologies?
9:32:55 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Fluidized bed Units 3 and 4 have lower heat rate than Units 1 and 2?
9:33:05 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Circulating fluidized beds, not follow load, not ramp as well as Units 1 and 2?
9:33:20 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Combined cycle at Cooper that be served by gas pipeline also serve Cooper 2?

9:33:32 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	6500 heat rate what assuming?
9:33:37 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	745 megawatts?
9:33:44 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	That the most efficient, most reliable, most economic base load technologies out today?
9:34:05 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Also hard to get combined cycles?
9:34:20 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	If Commission were to turn down CPCN for combined cycle, how long take get back in line and take another run at it?
9:34:31 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Just to get it in line?
9:34:38 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Be any PJM transmission issues with new combined cycle?
9:35:03 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Expedited because is dispatchable reliability unit?
9:35:53 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Sounds like have double whammy on reliability, southern tip of system, voltage problems exist now, plus just PJM having reliability problems?
9:36:17 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Ask about 16-member board of East Kentucky, how decision-making process done?
9:37:41 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	What outside experts bring in to advise board?
9:38:42 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Vote unanimous go forward with CPCN?
9:38:48 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Know that most G&T cooperatives not regulated by states where located, Kentucky an exception?
9:39:01 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Any financial incentive East Kentucky Board to grow rate base?
9:39:33 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Opposite of overspending for rate base, if overspend less margins and less ability for customers to get it?
9:39:47 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	A couple years ago, did patronage capital rebate to members?
9:39:58 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	How that process work?
9:40:04 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	If you get over certain?
9:40:22 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Essentially, refunds to consumers?
9:40:26 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Also East Kentucky has earning sharing mechanism from last rate case, extra margins go back to consumers also?
9:40:44 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Spend what need to spend but not overspend?
9:40:51 AM	Atty Kurtz Nucor Steel - witness Mosier	
	Note: Sacre, Candace	Testimony discussed data center situation, is no data center speculative load in forecast?

9:41:17 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Understand East Kentucky going to propose data center only or large load tariff?
9:41:33 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What is basis rationale theory behind new tariff?
9:42:19 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	All risk and reward be on data centers?
9:42:24 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Not be popular among 16 members if seen as subsidizing Google or Microsoft?
9:42:36 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	On load forecast, added seven percent addition to summer and winter load forecast?
9:42:47 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What rationale for that?
9:43:17 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	If not have sufficient generation in winter, buying energy from PJM market?
9:43:26 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What trying to avoid?
9:43:29 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Seven percent in winter energy hedge, and seven percent in summer capacity hedge compared required supply PJM?
9:44:37 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	How expensive energy during Winter Storm Elliott?
9:44:47 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Compared to normal, call it \$40?
9:44:55 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Turn to page 13 of testimony, why not go with battery storage?
9:45:08 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Think typo on line 11 where say, reading, is that a typo?
9:46:20 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Put that number in testimony because shows how uneconomic batteries are?
9:47:08 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	If faced winter emergency, longer than four hours?
9:47:19 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Actually embedded in planning of 48-hour emergency every two winters?
9:47:28 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	So four hours?
9:47:41 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Energy in/energy out, what loss factor, put one megawatt hour into charging battery how much get out?
9:47:55 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Put one in, get .85 out?
9:48:05 AM	Atty Kurtz Nucor Steel Note: Sacre, Candace	Have marked Nucor Exhibit 1.
9:48:06 AM	NUCOR HEARING EXHIBIT 1 Note: Sacre, Candace Note: Sacre, Candace	ATTY KURTZ NUCOR STEEL - WITNESS MOSIER PRELIMINARY ELCC CLASS RATINGS FOR PERIOD 2026/27 THROUGH 2034/35
9:48:41 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	This is PJM ELCC, familiar with concept?

9:48:50 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	This is preliminary, PJM estimate what ELCC be various technologies through planning year 34/35?
9:49:23 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	See where have four-hour storage, is that your understanding that's battery?
9:49:30 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Have ELCC declining over time from 56 percent to 38 percent, mean PJM thinks batteries less and less capacity resource?
9:49:52 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	If look at solar same relationship, consistent with testimony solar is energy hedge?
9:50:08 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	For combined cycle, different, solid low 80s ELCC rating?
9:50:23 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Are going to have 72 hours backup fuel?
9:50:28 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Explain how that work?
9:50:43 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Could run at 100 percent?
9:50:50 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Not have to have backup fuel, chose to?
9:50:59 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	With one pipeline, having backup fuel sounds like be good idea?
9:51:05 AM	NUCOR HEARING EXHIBIT 2 Note: Sacre, Candace Note: Sacre, Candace	ATTY KURTZ NUCOR STEEL - WITNESS MOSIER CASE NO. 2024-00370, PSC REQUEST 12, THIRD REQUEST FOR INFORMATION RESPONSE, RESPONSIBLE PARTY TUCKER AND JOHNSON, SUPPLEMENTAL RESPONSE MOSIER
9:51:13 AM	Atty Kurtz Nucor Steel Note: Sacre, Candace	One last series of questions. letter to PJM, supplemental data response, Nucor Hearing Exhibit 2.
9:51:51 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	At end of letter, say something about to avoid significant expenses?
9:52:16 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	What is letter that Campbell sent to PJM?
9:52:39 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	At end supplemental response on page before letter, it says, reading, what is considerable amount interconnection cost save?
9:53:28 AM	Atty Kurtz Nucor Steel - witness Mosier Note: Sacre, Candace	Is \$50 million in transmission savings included in calculus in this?
9:53:38 AM	Atty Kurtz Nucor Steel Note: Sacre, Candace	No more questions.
9:53:40 AM	Atty Kurtz Nucor Steel Note: Sacre, Candace	Ask Nucor Exhibits 1 and 2 be admitted.
9:53:44 AM	Chair Hatton Note: Sacre, Candace	Any objection?
9:53:47 AM	Chair Hatton Note: Sacre, Candace	Let them be admitted.
9:53:48 AM	NUCOR HEARING EXHIBIT 1 Note: Sacre, Candace Note: Sacre, Candace	ATTY KURTZ NUCOR STEEL - WITNESS MOSIER PRELIMINARY ELCC CLASS RATINGS FOR PERIOD 2026/27 THROUGH 2034/35

9:53:49 AM	NUCOR HEARING EXHIBIT 2 Note: Sacre, Candace Note: Sacre, Candace	ATTY KURTZ NUCOR STEEL - WITNESS MOSIER CASE NO. 2024-00370, PSC REQUEST 12, THIRD REQUEST FOR INFORMATION RESPONSE, RESPONSIBLE PARTY TUCKER AND JOHNSON, SUPPLEMENTAL RESPONSE MOSIER
9:53:51 AM	Chair Hatton Note: Sacre, Candace	Joint Intervenor?
9:54:10 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Cross Examination. What you have in front of you, what have in there, the full record?
9:54:52 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Full record, everybody's responses to data requests or just your own?
9:55:00 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Have computer in front of you, have additional documents pulled up?
9:55:11 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Position, stated are chief operating officer and executive vice president?
9:55:16 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Oversee operations pretty generally?
9:55:22 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Everyone else in record today reports to you or somebody who reports to you?
9:55:31 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Other than Tom Stachnik?
9:55:44 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	You report to Campbell?
9:55:48 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	President and CEO?
9:55:51 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	But is not here and not present responses?
9:56:01 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Still highest ranking person at EKPC here today?
9:56:11 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Buck stops with you?
9:56:19 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	All big picture questions being asked are capable of answering?
9:56:29 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Purpose of testimony support application and discuss corporate profile and strategic goals asked about?
9:56:42 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Discussed the process to prepare and propose this project, internal EKPC process?
9:56:57 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Attached to testimony three exhibits, two board resolutions and a Courier-Journal article?
9:57:09 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	This not only application new generation going on before Commission?
9:57:18 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Is going to be 214 megawatt 12 RICE units on greenfield outside of Liberty?
9:57:28 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Case 2024-00310 filed Sept of last year?

9:57:37 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Previous last year in April, also filed CPCN, 2024-00129, the solar project?
9:57:50 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	That was approved in Dec of last year?
9:57:55 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Also anticipate seeking another CPCN additional renewable energy this year, next year at time filed direct testimony?
9:58:11 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	You hope so, still?
9:58:15 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Stated each of projects part of EKPC overall plan?
9:58:21 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Specifically stated all carefully balanced to holistically meet certain needs?
9:58:32 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Others in docket stated Commission look at this as plan in total because how assembled, EKPC position?
9:58:49 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Somebody else stated removing any one of projects have impact on plan?
9:58:59 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Like to go over the costs of each, adding up so in one place, estimated cost of CCGT at Cooper estimated \$1.317 billion?
9:59:21 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Cooper and Spurlock co-fire projects combine to \$260.8 million?
9:59:31 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Combined about just over \$1.5 billion for this application?
9:59:42 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	And not include costs for pipelines, somebody asked for cost of pipelines?
9:59:59 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	So will recover costs over some period, through usage?
10:00:05 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Think said not certain of numbers, bring up document see if familiar, just from title recognize document?
10:00:21 AM	Wireless Presentation Activated	
10:00:32 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Comments that EKPC submitted on 111(d) greenhouse gas rule?
10:00:38 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Familiar with document generally?
10:00:47 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	If need to, can follow up with Purvis?
10:00:51 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	If could skip to PDF-33 verify at top, reading?
10:01:11 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Just verifies what stated earlier?
10:01:15 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Assume, as COO, reviewed document, know not intimately familiar but familiar?
10:01:28 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	To extent of expertise?
10:01:31 AM	Chair Hatton	
	Note: Sacre, Candace	Joint Intervenor 1.

10:01:31 AM	JOINT INTERVENORS HEARING EXHIBIT 1 Note: Sacre, Candace Note: Sacre, Candace	ATTY GARY JOINT INTERVENORS - WITNESS MOSIER EAST KENTUCKY POWER COOPERATIVE, INC. - COMMENTS NEW SOURCE PERFORMANCE STANDARDS FOR GREENHOUSE GAS EMISSIONS - DOCKET ID NO. EPA-HQ-OAR-2023-0072
10:01:31 AM	Chair Hatton Note: Sacre, Candace	Objection?
10:01:31 AM	Atty Gary Joint Intervenor Note: Sacre, Candace	Move to introduce as JI Exhibit 1.
10:01:58 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Moving on from application to issue, estimated cost for Liberty RICE about \$500 million?
10:02:02 AM	Wireless Presentation Deactivated	
10:02:10 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Between this application and that one, this one was one-and-a-half, that one's another half a billion, so just over two billion?
10:02:20 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Applications already approved last year for Marion and Fayette County solar projects, familiar what costs are?
10:02:36 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Subject to check, if told you was \$335 million, sound right?
10:02:42 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Would say little bit less than that?
10:02:50 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Those approved in Dec, West asked about basis, not based on tax credits or New ERA funding?
10:03:06 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Since those approved, EKPC taking next steps constructing and putting into service?
10:03:15 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	State what status is now?
10:03:24 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	That \$2 billion plus \$335 million other projects, subject to check, about \$2.4 billion for plan?
10:03:50 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Next part of plan in total hopefully New ERA application?
10:04:01 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	That would be for renewable resources as well as transmission projects?
10:04:11 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Were selected receive \$679 million total grants and low interest loans under New ERA program?
10:04:25 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	In previous hearing, Tucker stated had received obligation letter from RUS for that amount?
10:04:40 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Been changes since changeover in administration?
10:04:52 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Still anticipate filing CPCN application for those?
10:04:58 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	Know when anticipate filing application?
10:05:09 AM	Atty Gary Joint Intervenor - witness Mosier Note: Sacre, Candace	On Mar 25, USDA announced would release previously-obligated funds, received announcement?

10:05:22 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Did EKPC receive notice, or were aware from press conference?
10:05:33 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Be able produce post hearing if requested that?
10:05:40 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	About same time, USDA provided recipients of New ERA funding 30 days to submit amendments to applications?
10:05:53 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Aware EKPC received such notice, revise application?
10:06:07 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Had conversations about possible changes?
10:06:16 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Aware EKPC received such notice specifically?
10:06:23 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	If requested notice, be able to provide it?
10:06:30 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Assuming was on Mar 26, 30 days from then be Apr 26?
10:06:41 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Just a few days from now?
10:06:44 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Company submitted changes to project plans yet?
10:06:50 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Company plan to submit any changes to projects?
10:06:56 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Say what changes planning to submit?
10:07:12 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	State more about what disagreement would be?
10:07:25 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	If change anticipated by Apr 26, provide those changes once submitted?
10:07:43 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Know if \$679 million part of changes?
10:07:50 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Still top-level amount focusing on?
10:07:54 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Might be more of change sort of projects covers?
10:08:01 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Stated Fayette and Marion County solar projects already approved not part of New ERA application?
10:08:21 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	But some of \$679 million may go towards 335 already mentioned?
10:08:30 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Just trying to clarify everything, then were additional solar and hydro projects may be part of next application?
10:08:40 AM	Atty Gary Joint Intervenor - witness Mosier	
	Note: Sacre, Candace	Only portion where might have, would asking about size of solar versus hydro be confidential?
10:09:05 AM	Atty Gary Joint Intervenor	
	Note: Sacre, Candace	Ask to enter confidential session.
10:09:46 AM	Chair Hatton	
	Note: Sacre, Candace	Allow it but not go too far down this road.
10:09:52 AM	Chair Hatton	
	Note: Sacre, Candace	Ready to go on to confidential session.
10:09:58 AM	Private Mode Activated	

10:09:58 AM	Private Recording Activated	
10:13:27 AM	Normal Mode Activated	
10:13:27 AM	Public Recording Activated	
10:30:20 AM	Wireless Presentation Activated	
10:31:00 AM	Wireless Presentation Deactivated	
10:36:15 AM	Session Paused	
10:53:29 AM	Chair Hatton	
	Note: Sacre, Candace	Back on the record in Case No. 2024-00370. East Kentucky Power, believe ready to move on to Staff questions.
10:53:29 AM	Session Resumed	
10:53:43 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Cross Examination. Wanted to follow up on interconnection with LG&E in Oldham County?
10:54:05 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Know in -00310 hearing Tucker explained how are interconnected with other utilities in state, familiar with recent press regarding a data center in Oldham County being built?
10:54:24 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Would statements regarding interconnection with LG&E in Oldham County be impacted with this project?
10:54:46 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Other question had, other post-hearing, familiar with IRP generally?
10:55:02 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Believe, on page 198, of public filing of IRP, in compliance planning section, page 219, page 198 actual document, big paragraph there?
10:56:34 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	If look down toward bottom, statement about Spurlock Unit 3 not able attain compliance with new FPM emission limit?
10:56:50 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Know IRP filed after application, discussion in a response Third Data Request this project address that issue, know how address issue as raised in IRP?
10:57:28 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Corporate sustainability plan, ask post-hearing quantitative support or cost impact of corporate sustainability plan, 35 percent reduction?
10:57:59 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Another post-hearing data request, relates some degree to IRP but mentions legacy rule and that there are 11 facilities EKPC has that be subject to that rule?
10:58:23 AM	Asst Gen Counsel Tussey PSC - witness Mosier	
	Note: Sacre, Candace	Request list of those facilities and whether any in application be implicated by legacy rule?
10:58:40 AM	Asst Gen Counsel Tussey PSC	
	Note: Sacre, Candace	All I have.
10:58:42 AM	Chair Hatton	
	Note: Sacre, Candace	Commissioner Regan?
10:58:46 AM	Commissioner Regan - witness Mosier	
	Note: Sacre, Candace	Examination. Go back to planning process, still feel 30-year plan gives best hedging against different administrations or different rules?
10:59:03 AM	Commissioner Regan - witness Mosier	
	Note: Sacre, Candace	But still keeps you on the track, resiliency, reliability, and low cost?
10:59:17 AM	Commissioner Regan - witness Mosier	
	Note: Sacre, Candace	In 2026, expected to have short capacity as compared to forecasted winter peak, still think short capacity in 2026?

10:59:34 AM	Commissioner Regan - witness Mosier Note: Sacre, Candace	East Kentucky Power?
10:59:43 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Examination. Start with letter to PJM, retirement and replacement, required to give that much notice?
11:00:48 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Not firm decision at this point?
11:00:56 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Right, and EPIC?
11:00:58 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	At what point is the trigger for when need notify EPIC?
11:01:30 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Be additional transmission expense of \$50 million if want to keep online?
11:01:54 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Need to make that decision by end of 2026?
11:02:17 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Have had EPIC Commission process in place and now EPIC Board, nobody wanting to be first one to apply?
11:02:40 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Application roughly \$1.3 billion?
11:02:55 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Looking at a 2030 start date?
11:03:06 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	In the meantime, just a lot up in the air what federal and state guidelines going to be?
11:03:15 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Asking you, and especially Tucker, to have crystal ball sometimes?
11:03:23 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Know what time period expect to co-fire?
11:03:40 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Be doing it sooner than that?
11:03:52 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	What expected time would continue co-firing?
11:04:03 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	And then, by 2039, have to have a whole new plan?
11:04:10 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Sort of holding pattern at this point but have to make applications and move ahead?
11:04:39 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Talked about three manufacturers and have to get in line, if some reason not approved have to start over and get back into a three- to four-year wait list again, are there safeguards allow get out of contracts if PSC not approve?
11:05:11 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Anybody who is witness that might be able to answer?
11:05:34 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Saw article last week, Trump announced exceptions to MATS rule?
11:05:44 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	In particular, two of EKPC plants, Spurlock and Cooper, listed among those would receive exceptions?
11:05:53 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Do you need those?

11:06:15 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Fully compliant right now, but one on margins and one has exceptions?
11:06:37 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Those not been announced at time of application, does it affect this application?
11:06:45 AM	Chair Hatton - witness Mosier Note: Sacre, Candace	Just there if you need it?
11:07:06 AM	Chair Hatton Note: Sacre, Candace	May be it for me, do we have redirect?
11:07:13 AM	Chair Hatton Note: Sacre, Candace	Anything further?
11:07:26 AM	Chair Hatton Note: Sacre, Candace	Call next witness?
11:07:28 AM	Atty Temple EKPC Note: Sacre, Candace	Craig Johnson.
11:07:42 AM	Chair Hatton Note: Sacre, Candace	Witness is sworn.
11:07:53 AM	Atty Temple EKPC - witness Johnson Note: Sacre, Candace	Direct Examination. Name and business address?
11:08:03 AM	Atty Temple EKPC - witness Johnson Note: Sacre, Candace	What is your title?
11:08:09 AM	Atty Temple EKPC - witness Johnson Note: Sacre, Candace	Provide testimony or responses?
11:08:14 AM	Atty Temple EKPC - witness Johnson Note: Sacre, Candace	Revisions, amendments, or edits?
11:08:22 AM	Atty Temple EKPC - witness Johnson Note: Sacre, Candace	Desire have incorporated into record?
11:08:34 AM	Chair Hatton Note: Sacre, Candace	Attorney General's Office?
11:08:36 AM	Chair Hatton Note: Sacre, Candace	Mr. Kurtz?
11:08:39 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Cross Examination. Present at monthly board meetings of East Kentucky Board of Directors?
11:08:47 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Sixteen member-owners, who participates for individual co-ops, is it general manager of co-op who comes to EKPC board meetings?
11:09:12 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Member boards elect somebody to go to EKPC board?
11:09:19 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	And general manager may accompany member board person?
11:09:26 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	How many people are in attendance at typical EKPC board meeting?
11:09:46 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Process Mosier described, keeping board informed so make informed decisions on behalf of members, describe in detail?
11:11:08 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	With respect this case, what outside experts presented to EKPC board?
11:12:19 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	ACES, A-C-E-S, is group co-ops own who advise on market issues and other things?

11:12:31 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Provide you with energy and capacity forecasts for PJM?
11:12:47 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Combined cycle asking for approval, explain how combined cycle, describing, and there you go?
11:13:35 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Be heat recovery steam generator, HRSG?
11:13:56 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Heat rate expecting from this machine is, 6500, the lower the heat rate the better?
11:14:10 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	And variable O&M pretty low, said is \$1.7 a megawatt hour?
11:14:36 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Take 6500 heat rate, \$4 MCF gas, and variable O&M, what produce energy at?
11:14:57 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	And then add \$1.70 for variable O&M?
11:15:04 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Be lowest fuel cost unit at that point under that example?
11:15:18 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Customers get low-cost benefit through fuel adjustment automatically?
11:15:45 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Assume 111(b) and (d) are affirmed, required run new gas unit at maximum 40 percent capacity factor?
11:16:02 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Under that scenario, ration out hours for most valuable hours?
11:16:18 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Kinda run it through in on-peak periods?
11:16:31 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	And would save up enough hours to get through winter problems?
11:16:36 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	If 111(b) and (d) rules reversed or rescinded, what expect new combined cycle capacity factor be?
11:17:10 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Talk about co-firing, start with Spurlock, new gas pipeline to Spurlock Station, 1300 megawatts total, co-fire up to 50 percent each of four units with natural gas?
11:17:37 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	That 40 percent capacity factor limitation not apply because be considered existing units, your understanding?
11:17:45 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	If 111(b) and (d) rules survive, could co-fire up to 50 percent as plan and run rest of facility on coal?
11:18:01 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	If 111(b) and (d) survive, how envision coal/gas mixture be?
11:19:14 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Variable O&M in coal much higher, the scrubber reagent, the landfill costs, and so forth, not have that with gas?
11:19:27 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	If 111(b) and (d) rule survives, have optionality, that flexibility just described?
11:19:36 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Take a situation where get approval for CPCN at Spurlock, make investments, and rule is overturned, then what happens?

11:20:19 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	How so?
11:21:00 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Also be a fuel hedge, if gas goes up in price or coal goes up, could vary operations?
11:21:17 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Turn to Cooper 2, co-firing up to 100 percent natural gas?
11:21:23 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Same scenario, CPCN approved, spend money co-fire at Cooper 226 megawatts, and rule survives, gives ability to continue running plant, past 2031 should say?
11:22:07 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	What if CPCN approved, spend this money, and rule thrown out, get some value out of investment through optionality and fuel hedging?
11:22:51 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	That's Tucker Exhibit 5 to application?
11:22:57 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Cooper high coal cost delivered facility, not on river?
11:23:13 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	Central Appalachian low sulfur coal?
11:23:22 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	But not Illinois Basin, it's not barge, it's trucked in?
11:23:28 AM	Atty Kurtz Nucor Steel - witness Johnson Note: Sacre, Candace	By co-firing, get relatively lower fuel source with gas pipeline versus trucked-in coal?
11:24:00 AM	Chair Hatton Note: Sacre, Candace	Joint Intervenor?
11:24:03 AM	Atty Gary Joint Intervenor - witness Johnson Note: Sacre, Candace	Cross Examination. Spoke about heat rate at the combined cycle?
11:24:14 AM	Atty Gary Joint Intervenor - witness Johnson Note: Sacre, Candace	Both winter and summer approximately 6500 Btus per kilowatt hour?
11:24:24 AM	Atty Gary Joint Intervenor - witness Johnson Note: Sacre, Candace	Rounded, asking generalities here, said is a full load, right?
11:24:30 AM	Atty Gary Joint Intervenor - witness Johnson Note: Sacre, Candace	Operated at less than full load, heat rates would go up, which mean more expensive to operate, get less kilowatt hours per Btu?
11:24:48 AM	Atty Gary Joint Intervenor - witness Johnson Note: Sacre, Candace	Have data on heat rate curve or variation of heat rate for combined cycle?
11:25:20 AM	Atty Gary Joint Intervenor - witness Johnson Note: Sacre, Candace	If asked for heat rate curves post hearing, able provide?
11:25:36 AM	Atty Gary Joint Intervenor - witness Johnson Note: Sacre, Candace	Gas pipeline contract, details of that, be appropriate ask you?
11:25:52 AM	Chair Hatton Note: Sacre, Candace	Staff?
11:25:56 AM	Asst Gen Counsel Tussey PSC - witness Johnson Note: Sacre, Candace	Cross Examination. Kurtz touched on individual units, but in direct on page 6, you indicate, reading, still believe that be true?
11:26:28 AM	Asst Gen Counsel Tussey PSC - witness Johnson Note: Sacre, Candace	Know kinda up in air, was that limitation taken into consideration when EKPC did long-term load forecast?
11:26:48 AM	Chair Hatton Note: Sacre, Candace	Commissioner?

11:26:51 AM	Chair Hatton - witness Johnson Note: Sacre, Candace	Examination. Oversee operations, give an idea how much of coal that EKPC burns mined in Kentucky?
11:27:28 AM	Chair Hatton - witness Johnson Note: Sacre, Candace	Saw public comments in this case filed from about five different entities all in support, did you look at those?
11:27:46 AM	Chair Hatton - witness Johnson Note: Sacre, Candace	Generally, supporting reliability, keeping people employed, how many EKPC employ at plants?
11:28:06 AM	Chair Hatton - witness Johnson Note: Sacre, Candace	Between Cooper and Spurlock?
11:28:16 AM	Chair Hatton - witness Johnson Note: Sacre, Candace	Even the five landfill gas?
11:28:19 AM	Chair Hatton - witness Johnson Note: Sacre, Candace	How many employees at landfill gas?
11:28:25 AM	Chair Hatton - witness Johnson Note: Sacre, Candace	At each of five or total?
11:28:28 AM	Chair Hatton - witness Johnson Note: Sacre, Candace	So majority of those at these plants?
11:29:00 AM	Chair Hatton Note: Sacre, Candace	Any redirect?
11:29:05 AM	Chair Hatton Note: Sacre, Candace	Anything else, any follow up?
11:29:25 AM	Chair Hatton Note: Sacre, Candace	Let's get him started.
11:29:35 AM	Atty Temple EKPC Note: Sacre, Candace	Brad Young.
11:29:52 AM	Chair Hatton Note: Sacre, Candace	Witness is sworn.
11:30:02 AM	Atty Temple EKPC - witness Young Note: Sacre, Candace	Direct Examination. Name and business address?
11:30:10 AM	Atty Temple EKPC - witness Young Note: Sacre, Candace	Title?
11:30:16 AM	Atty Temple EKPC - witness Young Note: Sacre, Candace	Provide testimony or responses?
11:30:22 AM	Atty Temple EKPC - witness Young Note: Sacre, Candace	Revisions, edits, amendments to any of testimony or responses?
11:30:29 AM	Atty Temple EKPC - witness Young Note: Sacre, Candace	Is it intention have responses and testimony incorporated into record?
11:30:45 AM	Chair Hatton Note: Sacre, Candace	Attorney General's Office?
11:30:48 AM	Chair Hatton Note: Sacre, Candace	Mr. Kurtz?
11:30:52 AM	Chair Hatton Note: Sacre, Candace	Joint Intervenors?
11:30:57 AM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Cross Examination. Are vice president of engineering and construction for EKPC?
11:31:10 AM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	In that role are responsible for planning, engineering, and construction of projects associated with EKPC power production and transmission capital investment portfolio?

11:31:22 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	What was role regarding Cooper CCGT project?
11:32:08 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Feasibility study refer to, is that Attachment BY-4 to testimony?
11:32:25 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Project scoping reports, those are attached as Attachment BY-1 and 3?
11:32:50 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	BY-1 is CCGT scoping report?
11:32:58 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	BY-2 is Cooper Unit 2 gas co-firing?
11:33:02 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	BY-3 is Spurlock gas co-firing?
11:33:10 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Who report to?
11:33:18 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Were here during his cross examination this morning?
11:33:26 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Your role for proposed Spurlock and Cooper gas co-firing projects, similar to role in Cooper CCGT?
11:33:35 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Any other witnesses worked with on those projects?
11:34:06 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Also worked with Burns and McDonnell?
11:34:10 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	What was their role?
11:34:26 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So those studies designed to evaluate whether proceed with projects?
11:35:07 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So decisions whether to proceed with projects, did those predate Burns & McDonnell reports?
11:35:41 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Would not wanted to proceed with one of projects before had data from Burns & McDonnell?
11:36:01 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	That true for the CCGT project, the gas co-firing projects?
11:36:19 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Also not wanted proceed with RICE units until had Burns & McDonnell analyses??
11:36:37 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Vendor selection process for CCGT, aware of that?
11:36:56 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Involved in that process?
11:37:01 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Understanding is EKPC selected Siemens for vendor for equipment for the project?
11:38:14 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So clear, was in Jan 2024?
11:38:24 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Was pricing for the full project, or what?
11:38:35 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Know approximately what percentage full pricing that consists of?

11:38:49 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Is other pricing around the project, I mean, this is \$1.317 million project?
11:39:11 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Went ahead and selected Siemens as vendor for the combustion turbines and other equipment to reserve a spot in line?
11:39:38 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And were interested in reserving spot because high demand for equipment for CCGT?
11:39:50 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Attachment BY-1, Cooper CCGT project scoping report, this is Burns & McDonnell report regarding Cooper CCGT?
11:40:20 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And is dated Nov 7 2024?
11:40:34 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Have a revision number?
11:40:39 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Have revision zero is on the docket from Nov 7 2024.
11:41:07 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So is earlier version of document also revision zero?
11:41:18 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Know why both be revision zero?
11:41:26 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Know if any significant changes between versions?
11:41:38 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Are now on Nov 7 version?
11:41:42 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Page 61, project schedule, commercial operation date of CCGT by Dec 2030?
11:42:33 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Table 6-1 on that page says project milestones?
11:42:39 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Number of lines down is engineering procurement?
11:42:45 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	First line is LNTP for engineering for long-lead equipment?
11:42:51 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Says November 2024?
11:42:54 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Is that vendor agreement with Siemens?
11:43:42 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	To clarify, GSU is?
11:43:52 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Agreement with Siemens limited notice to proceed on combustion turbine?
11:44:33 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	The slot agreement itself?
11:44:36 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Was \$6.8 million?
11:44:38 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And there's two units?
11:44:41 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Total cost almost \$14 million?
11:44:45 AM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Refundable if Commission reject project?

11:44:50 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	None of it?
11:45:27 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Is part of entering into the final notice to proceed in July 2025 resetting of costs?
11:46:15 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Believe gave rough cost of \$150 million previously, that not fully locked in?
11:46:27 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Are other limited notices to proceed have entered regarding project?
11:46:48 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Burns & McDonnell same entity did feasibility and scoping studies?
11:47:04 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Are there costs under limited notices to proceed are committed to pay even if Commission reject project?
11:47:25 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Is including Siemens?
11:47:28 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Typical lock in \$20 million in spending before approval from Commission to proceed?
11:49:04 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	If Commission reject project, estimate cost EKPC and ratepayers on hook for be about \$5 to \$6 million?
11:49:18 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	And this project far enough along submitted into PJM interconnection queue Jan 2024?
11:49:32 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Believe earlier today Mosier testifying since Winter Storm Elliott felt something needed be done and were planning major capital projects address capacity issues?
11:49:47 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Why wait till Nov 2024 to come to Commission when knew incurring costs go to ratepayers?
11:51:42 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	But if submitted project interconnection queue in Jan 2024, already knew location where project be?
11:54:10 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Going back to engineering and procurement timeline in BY-1, Mar 2025 date for award power transformers Cooper substation, see that?
11:54:30 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Has that been done?
11:55:05 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Now delaying that till July or whenever Commission moves?
11:55:25 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	If look at page 1-5 of BY-1, PDF page 14, report provides estimated capital cost discussed of \$1.317 billion?
11:56:02 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	That cost not include escalation?
11:56:08 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Escalation reflects how costs of labor, equipment, and materials increase over time?
11:56:16 AM	Atty Shoaff Sierra Club - witness Young	Note: Sacre, Candace	Would expect such costs increase between now and 2030?

11:58:05 AM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Turn to Appendix P to Attachment BY-1, PDF page 534, risk matrix that Burns & McDonnell provided on Cooper CCGT?
11:59:27 AM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Look at line 26, PDF page 536, one of risks identified escalation for equipment, materials, and labor?
12:00:05 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Risk described in seventh column, cost for labor, equipment, and material escalates from current costs?
12:00:16 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	If go over far right, block under planned mitigation activities, says recommended carrying reasonable allowance and cost estimate for escalation?
12:00:32 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Communicate changes in escalation as discovered, cost estimate not include escalation, however estimated values of escalation have been communicated, include four to five percent escalation per annum?
12:00:50 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Burns & McDonnell communicated recommended four to five percent cost escalation?
12:00:58 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Do that in written document?
12:01:58 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Not way Burns & McDonnell recommended table escalation?
12:02:06 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Understand not certain whether documentation, request a post-hearing data request documentation of recommendation?
12:02:07 PM	POST-HEARING DATA REQUEST Note: Sacre, Candace Note: Sacre, Candace	ATTY SHOAFF SIERRA CLUB - WITNESS YOUNG DOCUMENTATION OF RECOMMENDATION FOR FOUR TO FIVE PERCENT COST ESCALATION
12:02:27 PM	POST-HEARING DATA REQUEST Note: Sacre, Candace	ATTY SHOAFF SIERRA CLUB - WITNESS STACHNIK
12:02:29 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Turn to PDF 77, discussion page 7.4.4 project contingency?
12:02:59 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Says in fifth line, reading, correct?
12:03:18 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	If due to high demand were major cost increases in major equipment need for CCGT, Burns & McDonnell saying ten percent contingency included not cover those?
12:03:42 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Then added a ten percent owners contingency?
12:04:10 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	At what percent is owners contingency?
12:04:29 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Would request that as post-hearing data request if you don't recall now?
12:04:30 PM	POST-HEARING DATA REQUEST Note: Sacre, Candace Note: Sacre, Candace	ATTY SHOAFF SIERRA CLUB - WITNESS YOUNG PERCENT OF OWNERS CONTINGENCY
12:04:50 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Next page of document, PDF page 78, 7.4.5 owners cost and contingency, the last two lines say, reading?

12:05:09 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Is that accurate?
12:05:13 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So it is ten percent?
12:05:52 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So owners contingency on transmission projects is 25 to 30 percent?
12:06:02 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	But for other owners cost just the ten percent?
12:06:36 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Did you document analysis anywhere?
12:06:49 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Would request that in a post-hearing data request.
12:07:12 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Owners cost, what percentage of total project cost are those typically?
12:07:45 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Of the \$1.317 billion, four to five percent of that is owners costs?
12:08:04 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So ten percent owners contingency referring to is part of that four to five percent?
12:08:40 PM	Chair Hatton	
	Note: Sacre, Candace	Lunch sounds good to me, be back at 1:15.
12:08:48 PM	Session Paused	
1:18:47 PM	Session Resumed	
1:18:50 PM	Chair Hatton	
	Note: Sacre, Candace	Back on the record in Case No. 2024-00370.
1:18:58 PM	Chair Hatton	
	Note: Sacre, Candace	Still in Joint Intervenors, go ahead.
1:19:03 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Cross Examination (cont'd). Know when Burns & McDonnell started working on assessment of projects at issue here?
1:19:30 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	But your recollection is late 2022, early 2023?
1:20:19 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	When say working on it, referring to CCGT?
1:20:25 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	For co-firing projects, know when that started, the Burns & McDonnell analysis?
1:20:37 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Late 2023?
1:20:41 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Know on RICE units, those were part of Burns & McDonnell?
1:21:02 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Look at Attachment BY-4, this is new generation project feasibility report and alternatives analysis, what was this analysis?
1:21:22 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	The report on page 9 says that, reading, is that right?
1:22:30 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Under next steps?
1:22:33 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	This report came out 11 days before the RICE unit CPCN application filed?
1:22:57 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	But not finalized until shortly before CPCN application filed?

1:23:12 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	And this report finalized nine months after Cooper CCGT project submitted into PJM connective queue?
1:23:28 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Also finalized after RICE units submitted into PJM interconnection queue?
1:23:38 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Know approximately how much this report cost?
1:23:44 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Know what total contract with Barns & McDonnell for all this analysis of these projects cost?
1:23:55 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	But total contract including project scoping?
1:23:58 PM	Atty Temple EKPC Note: Sacre, Candace	Believe this is confidential.
1:24:39 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Cross Examination (cont'd). Given that CCGT already submitted into PJM interconnection queue Jan 2024, why not included in Aug 2024 CPCN application for Liberty RICE units?
1:25:11 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Involved in decision-making?
1:25:16 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Know who was besides Mosier?
1:25:43 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	So Mosier and Campbell?
1:26:00 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	On BY-4 if you could turn to PDF page 151, this is Class 4 capital cost estimate for various options?
1:27:18 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	This includes the two-by-one CCTG at Cooper?
1:27:25 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Which is project ended up proposing?
1:27:30 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	Also is a cost estimate for Liberty RICE units?
1:27:35 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	If look at the bottom left corner of chart, it says revision zero and has a date of Aug 1 2023?
1:27:44 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	So by Aug 1 2023 have cost estimates for Liberty RICE and Cooper CCGT projects?
1:28:27 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	And Class IV estimate is the plus 30 minus 20?
1:28:32 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	What's Class IV?
1:28:53 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	And plus 30 minus 20 means Class III cost estimate has range of accuracy actual cost 30 percent higher of 20 percent lower?
1:29:08 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	For the \$1.317 billion for CCGT, cost could end up being 30 percent higher?
1:31:02 PM	Atty Shoaff Sierra Club - witness Young Note: Sacre, Candace	If look at bottom of Class IV capital cost estimate, discussing escalation, recall?

1:31:13 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And is provision of dollar per kilowatt cost estimate for the Cooper CCGT with and without escalation?
1:31:26 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	With escalation, the dollar per kilowatt cost estimate is \$429 per kilowatt higher?
1:31:56 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	If Burns & McDonnell were able create cost estimates by Aug 1, 2023, had been working on it for a number of months?
1:32:07 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Would have been working on cost estimates a number of months before that?
1:34:58 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Last billion-dollar project did with Spurlock?
1:35:09 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	In the early 2010s?
1:37:18 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Decided to contract with company here that believe overprices its projects?
1:38:18 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Turn to Attachment BY-3, Spurlock gas co-firing project scoping report, document dated Oct 2024?
1:38:52 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Says is the fourth revision on cover, have fourth revision?
1:39:20 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And is revision four?
1:39:25 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Means been three previous versions of report?
1:39:53 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Know when first version issued?
1:39:59 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Involved in reviewing reports?
1:40:07 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	This report covers proposed gas co-firing at Spurlock units?
1:40:17 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	If turn to page 1-7 of report, PDF page 19, identifies design and engineering risks?
1:40:46 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	First one identified is, reading, see that?
1:41:02 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	CFB means circulating fluidized bed?
1:41:10 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Those two units are CFBs rather than polarized coal units?
1:41:19 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	What Burns & McDonnell identifying here there are no coal-fired CFBs that co-fire natural gas?
1:42:03 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	On page 1-10, third bullet point, hot commissioning, reading, correct?
1:42:31 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Have not been done on CFB unit?
1:42:36 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Doesn't say at this scale, just stays not been executed?

1:42:52 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Know of any CFB unit seen it done?
1:43:02 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And a wet scale?
1:43:22 PM	Atty Shoaff Sierra Club	
	Note: Sacre, Candace	Would ask for a post-hearing request of identifying units.
1:43:28 PM	Chair Hatton	
	Note: Sacre, Candace	Not need my permission.
1:43:44 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	On page 7-2, PDF page 61, there is reference in last bullet point before 7.3 identifies proposed coal firing as first of its kind, reading, right?
1:44:32 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Seen report of results of modeling?
1:44:44 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	When say seen analysis of it, what mean?
1:45:13 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Have seen written documentation of modeling done?
1:45:21 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Request production, something could produce?
1:45:26 PM	Atty Honaker EKPC	
	Note: Sacre, Candace	Already in record.
1:45:28 PM	Chair Hatton	
	Note: Sacre, Candace	Can make your request and they can make objection.
1:45:57 PM	Atty Shoaff Sierra Club	
	Note: Sacre, Candace	Worry going to object again.
1:46:28 PM	Chair Hatton	
	Note: Sacre, Candace	Something already responded and said was privileged and did not do a motion to compel production?
1:46:36 PM	Atty Shoaff Sierra Club	
	Note: Sacre, Candace	Not have time to do one, they did it in a supplemental report.
1:46:49 PM	Chair Hatton	
	Note: Sacre, Candace	Do a motion to compel, if should be produced we will solve it.
1:47:09 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Cross Examination (cont'd). Note in testimony compliance with greenhouse gas rules one of benefits of Spurlock gas co-firing project, page 18, line 14?
1:47:49 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	That compliance with GHG rule one of benefits result from Spurlock gas co-firing project?
1:48:16 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	But am correct you identify greenhouse gas rule compliance?
1:48:22 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Aware EKPC submitted comments to EPA on greenhouse gas rule when was in draft stage?
1:48:33 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And comments discussed this morning with Mosier?
1:48:41 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Have involvement with comments?
1:49:07 PM	Atty Shoaff Sierra Club	
	Note: Sacre, Candace	If could give us a minute while I put those on.
1:49:47 PM	Wireless Presentation Activated	

1:49:49 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So this is document just referring to, EKPC comments on proposed gas rule?
1:49:56 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	If could go to page 29, PDF 3, subsection B, it says, reading?
1:50:28 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	See about six lines down, reading, see that?
1:50:46 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	When commenting on proposed greenhouse gas rule, informed EPA not be possible co-fire natural gas at CFB units such as Spurlock 3 and 4?
1:51:04 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Comments on rule proposed in 2023, not know if document has specific date?
1:51:38 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Doesn't say don't know whether can do it, you say cannot, when commenting to EPA, told them could not do it?
1:51:48 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Regularly submit comments saying cannot do something when not actually know if can do it?
1:52:17 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	That is based on Burns & McDonnell report set forth in BY-3?
1:52:27 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Said, reading?
1:52:35 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And Burns & McDonnell scoping report identifies this as a risk repeatedly?
1:52:44 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And identifies one modeling analysis done by Reaction Engineering?
1:53:00 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	If you could turn to Response JI 2.47, Supplemental Response?
1:53:15 PM	Wireless Presentation Deactivated	
1:53:46 PM	Atty Honaker EKPC	
	Note: Sacre, Candace	2-47, he didn't sponsor that one, was Jerry Purvis.
1:54:56 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Have in front of you Response to JI 2.47?
1:54:58 PM	Wireless Presentation Activated	
1:55:03 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	I understand Purvis is responsible party for response, but does reference that your BY-3 where feasibility of gas co-firing at Spurlock 3 and 4 CFB units discussed?
1:55:47 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Subpart 3 refers to Reaction Engineering model results discussing is pending privilege claim?
1:56:03 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Subpart D says, reading, see that request?
1:56:20 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And response says to subpart D, reading, correct?
1:56:40 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Referring to Reaction Engineering study discussing before?
1:57:44 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	But not referring to any other analysis done beyond Reaction Engineering one?
1:58:03 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	But that not identified here in Response?

1:58:21 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And be reflected in project scoping report discussed?
1:58:36 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Different topic, familiar with synchronous condensers?
1:58:43 PM	Wireless Presentation Deactivated	
1:58:54 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Know generally what a synchronous condenser is?
1:58:59 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Involved in Burns & McDonnell study that looked at synchronous condensers?
1:59:05 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Anybody else, any other witness here, involved, be better ask about?
2:00:20 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	General understanding, it is a synchronous motor that operates without a mechanical load?
2:00:30 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And that generating unit can be converted into synchronous condenser that provides inertia to the grid?
2:00:40 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Helps supply and absorb reactive power?
2:00:44 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And can help stabilize voltage?
2:00:47 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Can continue to provide benefits to grid even as take actual generation off?
2:00:56 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Prior to 2022 IRP, EKPC not evaluated potential convert either or both Cooper units to synchronous condensers?
2:01:10 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Potentially, could convert those units continue grid support Cooper provides in the area while not continuing to generate power?
2:02:04 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Sponsored the report that Burns & McDonnell did on synchronous condenser?
2:02:13 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Estimated cost converting Cooper 1 to synchronous condenser was roughly \$16 million?
2:02:25 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Is Response to JI 2.34?
2:02:34 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Response to JI 2.34, so Joint Intervenor's Request 2.34 which you did sponsor?
2:02:48 PM	Wireless Presentation Activated	
2:02:49 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	The report is provided and am looking at public version of it?
2:03:34 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Seen this report before?
2:03:39 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Looking at PDF page 33, this is a Class IV capital cost estimate?
2:04:08 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	The cost estimate provided is about \$16 million?
2:04:13 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Is for converting Unit 1 of Cooper seasonally to synchronous condenser?

2:04:41 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Is there separate report where looked at continuous?
2:04:49 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Where in this report discuss continuous conversion of Cooper 1?
2:05:30 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And that's discussed in this report?
2:06:07 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	What page referring to?
2:06:24 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	And that's if were able to switch back and forth all the time?
2:06:30 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	So did not evaluate entirely shifting Cooper 1 to synchronous condenser and ending power generation there?
2:07:50 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	If unit converted to synchronous condenser completely, still need PJM interconnection?
2:08:19 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Feasibility study recommended next steps including a more complete project scope?
2:08:28 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	Five, conclusions and recommendations, PDF page 30?
2:08:39 PM	Atty Shoaff Sierra Club - witness Young	
	Note: Sacre, Candace	It says, reading, it goes from there, did that detailed power system modeling occur?
2:10:38 PM	Chair Hatton	
	Note: Sacre, Candace	Staff?
2:10:41 PM	Asst Gen Counsel Tussey PSC - witness Young	
	Note: Sacre, Candace	Cross Examination. Left only with post-hearing data requests, ask preface kind of question, obviously two contracts to supply Cooper and Spurlock with natural gas or done as one contract?
2:10:42 PM	Wireless Presentation Deactivated	
2:11:03 PM	Asst Gen Counsel Tussey PSC - witness Young	
	Note: Sacre, Candace	Ask that because would like a copy if executed and, if not, a status update?
2:11:10 PM	Asst Gen Counsel Tussey PSC - witness Young	
	Note: Sacre, Candace	For other one, ask for update with regards to the permitting processes as relates to construction of facilities or environmental approvals, know been doing that but just a final one?
2:11:32 PM	Chair Hatton	
	Note: Sacre, Candace	Commissioner Regan?
2:11:34 PM	Commissioner Regan - witness Young	
	Note: Sacre, Candace	Examination. Talked about project contingency pricing and owner contingency costs of ten percent and four and five percent, if tariff issues where Siemens Equipment coming from, enough on either side cover tariff costs?
2:13:13 PM	Commissioner Regan - witness Young	
	Note: Sacre, Candace	Would that be force majeure could change contract and back out and get refund?
2:14:32 PM	Commissioner Regan - witness Young	
	Note: Sacre, Candace	Go/no go is end of July?
2:14:37 PM	Commissioner Regan - witness Young	
	Note: Sacre, Candace	For whatever reason pull out, lose slot in PJM?

2:15:44 PM	Chair Hatton - witness Young Note: Sacre, Candace	Examination. Talked about multiple different locations considered, Greenfield and Brownfield, one at Tygarts Creek, Greenup County, not chosen, lots of reasons, talked about interconnect AEP, tell me how played into consideration?
2:17:30 PM	Chair Hatton - witness Young Note: Sacre, Candace	Think couched as negative and thought would be a positive?
2:17:41 PM	Chair Hatton - witness Young Note: Sacre, Candace	Talked about how needed additional generation, what can tell us about expected load growth and economic development opportunities?
2:19:03 PM	Chair Hatton - witness Young Note: Sacre, Candace	General growth in area, not something one big huge thing?
2:20:07 PM	Chair Hatton - witness Young Note: Sacre, Candace	Regarding setbacks, exempt from setbacks requirements because co-located, but also requesting sort of a deviation, something located there since 1965, are there setbacks that apply, needed, or exempt?
2:22:00 PM	Camera Lock Commissioner Activated	
2:22:11 PM	Chair Hatton - witness Young Note: Sacre, Candace	Is coal pile area in this photo?
2:23:03 PM	Chair Hatton - witness Young Note: Sacre, Candace	Not a photo, this is conceptualized?
2:23:22 PM	Chair Hatton - witness Young Note: Sacre, Candace	Under GHG rule, have to do nothing and retire it by Jan '32, co-fire with natural gas before 2030 and not retire until 2039?
2:23:43 PM	Chair Hatton - witness Young Note: Sacre, Candace	Beyond 2039, unless carbon capture, would have to close?
2:24:11 PM	Chair Hatton - witness Young Note: Sacre, Candace	Unless mastered carbon capture by 2039 and installed it, looking at 14 years?
2:24:35 PM	Camera Lock Deactivated	
2:25:43 PM	Chair Hatton - witness Young Note: Sacre, Candace	In current proposed iteration, only lasting 14 more years?
2:26:18 PM	Chair Hatton - witness Young Note: Sacre, Candace	Not spending \$1.3 billion on something that can't last past 14 years?
2:26:28 PM	Chair Hatton - witness Young Note: Sacre, Candace	Meeting with PJM discuss whether a necessary study was to be done, capitalized on purpose, is that name of study?
2:27:17 PM	Chair Hatton - witness Young Note: Sacre, Candace	Capacity doesn't change?
2:27:22 PM	Chair Hatton - witness Young Note: Sacre, Candace	No increase in megawatts?
2:27:25 PM	Chair Hatton - witness Young Note: Sacre, Candace	No change in interconnection point?
2:27:29 PM	Chair Hatton - witness Young Note: Sacre, Candace	Three considerations necessary determine whether need PJM?
2:27:46 PM	Chair Hatton Note: Sacre, Candace	Redirect?
2:27:51 PM	Chair Hatton Note: Sacre, Candace	Anything further?
2:28:11 PM	Chair Hatton Note: Sacre, Candace	Resume in ten minutes.
2:28:22 PM	Session Paused	
2:46:08 PM	Session Resumed	

2:46:09 PM	Chair Hatton	
	Note: Sacre, Candace	On the record in Case No. 2024-00370.
2:46:14 PM	Chair Hatton	
2:46:16 PM	Chair Hatton	
	Note: Sacre, Candace	Witness is sworn.
2:46:21 PM	Chair Hatton	
	Note: Sacre, Candace	Counsel?
2:46:23 PM	Atty Temple EKPC - witness Horn	
	Note: Sacre, Candace	Direct Examination. State name and address?
2:46:26 PM	Camera Lock Witness Activated	
2:46:32 PM	Atty Temple EKPC - witness Horn	
	Note: Sacre, Candace	Title?
2:46:36 PM	Atty Temple EKPC - witness Horn	
	Note: Sacre, Candace	Provided testimony and responses?
2:46:43 PM	Atty Temple EKPC - witness Horn	
	Note: Sacre, Candace	Revisions, amendments, edits?
2:46:43 PM	Camera Lock Deactivated	
2:47:01 PM	Atty Temple EKPC - witness Horn	
	Note: Sacre, Candace	Not really correction, changing language of testimony to match language of gas lateral contract?
2:47:11 PM	Atty Temple EKPC - witness Horn	
	Note: Sacre, Candace	Aside from that correction, intent and desire have those responses and testimony incorporated into record?
2:47:27 PM	Chair Hatton	
	Note: Sacre, Candace	Questions?
2:47:40 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Cross Examination. In here when Tussey mentioned likely request gas pipeline contracts post-hearing, get duplicate request, same thing?
2:47:57 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Couple of quick questions, completed contracts for pipeline extensions?
2:48:06 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	And those with TC Energy?
2:48:11 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Columbia who's specifically on those?
2:48:16 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	So Columbia subsidiary of TC Energy or the other way around?
2:48:33 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	One agreement or two separate agreements for Cooper and Spurlock?
2:48:47 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Third project, Liberty RICE?
2:48:58 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Under precedent agreements, responded in data requests, said payback period for capital expenditure from TC Energy or Columbia be over 20 years?
2:49:21 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	And that be through gas charges already paying?
2:49:28 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Volumetric based or annual fixed or monthly fixed cost?
2:49:48 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	When say quantity, mean based on quantity of gas?

2:49:56 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Capacity reserve, not actual amount flowing?
2:50:03 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Fixed amount over 20 years, and once constructed, something happen and not need that, be committed to paying back cost?
2:50:16 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Without taking position on feasibility of converting Spurlock 3 and 4, if not feasible and not able use gas, still be paying for extension?
2:50:42 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Under precedent agreement, currently locked in, or is go/no go point?
2:51:01 PM	Atty Gary Joint Intervenor - witness Horn	
	Note: Sacre, Candace	Assume last one is by the time that built?
2:51:19 PM	Chair Hatton	
	Note: Sacre, Candace	Staff?
2:51:26 PM	Chair Hatton	
	Note: Sacre, Candace	Commissioner?
2:51:29 PM	Chair Hatton	
	Note: Sacre, Candace	I have no questions.
2:51:33 PM	Chair Hatton	
	Note: Sacre, Candace	Redirect?
2:51:57 PM	Chair Hatton	
	Note: Sacre, Candace	Call next witness.
2:51:59 PM	Atty Honaker EKPC	
	Note: Sacre, Candace	Jerry Purvis.
2:52:14 PM	Chair Hatton	
	Note: Sacre, Candace	Witness is sworn.
2:52:14 PM	Camera Lock Witness Activated	
2:52:22 PM	Camera Lock Deactivated	
2:52:26 PM	Atty Honaker EKPC - witness Purvis	
	Note: Sacre, Candace	Direct Examination. Name and business address?
2:52:52 PM	Atty Honaker EKPC - witness Purvis	
	Note: Sacre, Candace	Business address?
2:53:01 PM	Atty Honaker EKPC - witness Purvis	
	Note: Sacre, Candace	Cause testimony and responses be filed?
2:53:07 PM	Atty Honaker EKPC - witness Purvis	
	Note: Sacre, Candace	Additions or corrections?
2:53:10 PM	Atty Honaker EKPC - witness Purvis	
	Note: Sacre, Candace	Were to ask same questions, would responses be same?
2:53:15 PM	Atty Honaker EKPC - witness Purvis	
	Note: Sacre, Candace	Intent to incorporate into record?
2:53:22 PM	Chair Hatton	
	Note: Sacre, Candace	Mr. West?
2:54:45 PM	Asst Atty General West - witness Purvis	
	Note: Sacre, Candace	Cross Examination. Air toxics regulation, update us on exemptions granted referenced today?
2:55:01 PM	Asst Atty General West - witness Purvis	
	Note: Sacre, Candace	MATS, I guess, right?
3:01:23 PM	Asst Atty General West - witness Purvis	
	Note: Sacre, Candace	Relate strictly to Spurlock or an addition is it?
3:01:42 PM	Asst Atty General West - witness Purvis	
	Note: Sacre, Candace	Grants additional time comply with standard, impact lifespan of facilities?

3:02:09 PM	Asst Atty General West - witness Purvis Note: Sacre, Candace	Aware whether PJM supported request for presidential exemption and whether supported others' similar requests?
3:02:28 PM	Asst Atty General West - witness Purvis Note: Sacre, Candace	Represent that what have handed you but wait to confirm authenticity if best course?
3:02:46 PM	Chair Hatton Note: Sacre, Candace	Mr. Kurtz?
3:02:50 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Cross Examination. GHG rules apply to new natural gas but not to existing natural gas?
3:03:02 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Bluegrass and Smith not impacted GHG rules?
3:03:11 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	For new combined cycle, be limited to 40 percent capacity if rule survives?
3:03:22 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	GHG rule also applies to existing coal units?
3:03:30 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	As chairman discussing, if not do anything, have to close coal units by end of 2031 under rules?
3:03:41 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Can buy seven more years through end of 2038 if co-fire coal units?
3:03:53 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Go 2039 and beyond need 90 percent carbon capture sequestration?
3:04:02 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Not really option, is it?
3:04:06 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Have to build pipeline 400 miles to Illinois to pump it if could capture the CO2?
3:06:48 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Even if carbon capture sequestration feasible engineering, have to capture out of stack, get across several states?
3:07:01 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	350 miles to Illinois, not have eminent domain authority in other states?
3:07:12 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Why spend \$10.6 billion on a plant where first unit went commercial 1977?
3:07:19 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Be better off building nuclear, rolling dice with that?
3:07:50 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	If co-fire a coal unit to be 100% natural gas like Cooper 2, no longer a coal unit, considered be existing gas plant under regulation?
3:09:08 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	If co-fire up to 100% at Cooper 2, no capacity factor limitation, is no 40% capacity factor limitation, be considered existing gas plant?
3:09:35 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Co-firing up to 50% natural gas at Spurlock 3 and 4, circulating fluidized bed units, is that feasible?
3:10:24 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Noticed Spurlock 2 510 MW, and gas conversion cost is \$52 million or \$102 per kW, and Spurlock 3 268 MW at \$42 million \$156 per kW, reflective of different technology and engineering would go to co-fire a pulverized coal versus fluidized bed?

3:14:08 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Get the dragon, big ball of flame and pulverized coal that just burn gas to boil water to turn steam turbine, where gas come into play in fluidized bed?
3:16:18 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Comfortable with co-firing at Spurlock Units 3 and 4?
3:16:25 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	If GHG rule survives, clear position is proposal in front of Commission is least cost, most prudent, et cetera?
3:16:40 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	What if GHG rule rescinded, vacated, reversed, then what, will money been wasted on co-firing?
3:18:45 PM	Atty Kurtz Nucor Steel - witness Purvis Note: Sacre, Candace	Going forward, since are long-term investments, fair to think gas be easier to comply with environmentally than coal?
3:21:24 PM	Chair Hatton Note: Sacre, Candace	Joint Intervenor?
3:21:28 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Cross Examination. We spoke just over a month ago in this room, right?
3:21:43 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Different case, different unit, recall me asking about permit for Liberty RICE?
3:21:52 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Joint Intervenor requested application for unit, and you suggested be publicly available or that we submit FOIA?
3:22:05 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Had been turned over in response to a request from the Commission later in docket?
3:22:20 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Requires a request for me, said application had been produced in response to the Staff request, recall conversation with Chair Hatton toward end of testimony?
3:23:03 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Was submitted in Liberty RICE shortly before hearing?
3:23:10 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Chair Hatton cautioned maybe be easier respond in next case?
3:23:16 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Refer to Joint Intervenor First Set of Requests in this case?
3:23:33 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Responses were Jan 10, our requests were submitted Dec 20, looks like?
3:23:57 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Was in April, correct?
3:24:02 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Refer to Request 1-42?
3:24:14 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	First Request, No. 42?
3:24:22 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Could you read that, the request first?
3:24:46 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Could you read the response?
3:25:08 PM	Atty Gary Joint Intervenor - witness Purvis Note: Sacre, Candace	Confirmed that not the case?

3:25:13 PM	Atty Gary Joint Intervenor - witness Purvis	
	Note: Sacre, Candace	Did in April, read that request identify when plan to submit and produce upon submittal?
3:25:23 PM	Atty Gary Joint Intervenor - witness Purvis	
	Note: Sacre, Candace	Recognize obligation ongoing, has EKPC submitted application?
3:25:42 PM	Atty Gary Joint Intervenor - witness Purvis	
	Note: Sacre, Candace	Response been supplemented?
3:25:46 PM	Atty Gary Joint Intervenor - witness Purvis	
	Note: Sacre, Candace	If told you hadn't been, would believe me?
3:26:13 PM	Atty Gary Joint Intervenor - witness Purvis	
	Note: Sacre, Candace	Would ask that response be supplemented?
3:26:19 PM	Atty Gary Joint Intervenor - witness Purvis	
	Note: Sacre, Candace	Think obligation already there, has been since December, just ask that be supplemented?
3:26:34 PM	Chair Hatton	
	Note: Sacre, Candace	Staff?
3:26:39 PM	Staff Atty Saffari PSC - witness Purvis	
	Note: Sacre, Candace	Cross Examination. Refer to testimony, page 17, lines 19 through 23?
3:26:47 PM	Staff Atty Saffari PSC - witness Purvis	
	Note: Sacre, Candace	In application, just your testimony?
3:26:51 PM	Staff Atty Saffari PSC - witness Purvis	
	Note: Sacre, Candace	Might be better as post-hearing data request, page 17, lines 19 through 23?
3:27:44 PM	Staff Atty Saffari PSC - witness Purvis	
	Note: Sacre, Candace	Aware details current status air and water permitting process for each of projects?
3:29:02 PM	Staff Atty Saffari PSC - witness Purvis	
	Note: Sacre, Candace	Can get a copy of this filed into record if ask post-hearing?
3:29:22 PM	Atty Temple EKPC	
	Note: Sacre, Candace	Attachment JP-1 and JP-2 as attachments to testimony.
3:29:31 PM	Chair Hatton	
	Note: Sacre, Candace	Examination. No status has changed, I guess?
3:29:49 PM	Chair Hatton - witness Purvis	
	Note: Sacre, Candace	Have not been updates that we know of since this already filed in record, is what getting at?
3:32:03 PM	Chair Hatton	
	Note: Sacre, Candace	Commissioner Regan?
3:32:06 PM	Commissioner Regan - witness Purvis	
	Note: Sacre, Candace	Examination. Looking at testimony on page 8, talked about GHG rule, going to move forward as if in place, correct statement?
3:32:37 PM	Commissioner Regan - witness Purvis	
	Note: Sacre, Candace	Based on time in industry, what is feeling or think that change?
3:36:15 PM	Chair Hatton	
	Note: Sacre, Candace	Not have questions, have a comment. Entire page of testimony listing different provisions with which comply to get approved, had no idea that many.
3:36:36 PM	Chair Hatton	
	Note: Sacre, Candace	Redirect?
3:37:01 PM	Chair Hatton	
	Note: Sacre, Candace	Call next witness.
3:37:05 PM	Atty Honaker EKPC	
	Note: Sacre, Candace	Tom Stachnik.
3:37:09 PM	Camera Lock Witness Activated	

3:37:18 PM	Chair Hatton	
	Note: Sacre, Candace	Witness is sworn.
3:37:26 PM	Atty Honaker EKPC - witness Stachnik	
	Note: Sacre, Candace	Direct Examination. Name and business address?
3:37:35 PM	Atty Honaker EKPC - witness Stachnik	
	Note: Sacre, Candace	Title?
3:37:41 PM	Atty Honaker EKPC - witness Stachnik	
	Note: Sacre, Candace	Cause testimony and responses be filed?
3:37:47 PM	Atty Honaker EKPC - witness Stachnik	
	Note: Sacre, Candace	Additions or corrections?
3:37:50 PM	Atty Honaker EKPC - witness Stachnik	
	Note: Sacre, Candace	If ask same questions today, answers be same?
3:38:00 PM	Atty Honaker EKPC - witness Stachnik	
	Note: Sacre, Candace	Intent incorporate into record?
3:38:06 PM	Camera Lock Deactivated	
3:38:07 PM	Chairman Hatton	
	Note: Sacre, Candace	Mr. West?
3:38:14 PM	Asst Atty General West - witness Stachnik	
	Note: Sacre, Candace	Believe responded to data request AG's Office DR 1-4, have available to you?
3:38:35 PM	Asst Atty General West - witness Stachnik	
	Note: Sacre, Candace	What is response to that?
3:38:41 PM	Asst Atty General West	
	Note: Sacre, Candace	Let me bring it up, bear with me.
3:39:29 PM	Asst Atty General West - witness Stachnik	
	Note: Sacre, Candace	Can read sentence I just started out?
3:39:50 PM	Asst Atty General West - witness Stachnik	
	Note: Sacre, Candace	Projections indicate, those projections in record somewhere?
3:40:17 PM	Chair Hatton	
	Note: Sacre, Candace	Mr. Kurtz?
3:40:20 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Cross Examination. When finance capital projects, start with credit facility?
3:40:29 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Is that with CoBank?
3:40:44 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Have, is it a \$600-million credit facility?
3:40:50 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	That's sort of short-term borrowing, and then issue intermediate debt?
3:41:20 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	That's long-term financier of choice?
3:41:26 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Can borrow from RUS an eighth of a point above Treasury?
3:41:39 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Is it 30-year Treasury?
3:42:00 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	That be approximately 4-1/2 percent?
3:42:08 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	So borrow it 4-1/2 percent from federal government and then set rates to cover long-term debt expense plus authorized TIER of 1.4?
3:42:27 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	If take 4-1/2 percent times 1.4 would get financing cost of 6.3 percent?

3:42:39 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Equity comes from members, not investors?
3:42:55 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Is true as a cooperative ability finance capital-intensive projects not expensive or attractive because of borrowing capabilities?
3:43:22 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Compared to investor-owned utility, where have equity component of capital structure grossed up for taxes, you have member-supplied equity zero cost?
3:43:49 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Follow up from West asked, hand out Nucor Exhibit 3, where Joint Intervenors asked you provide documentation for estimate in response to AG's data requests, for rate increases averaging less than two percent per year next 20 years?
3:45:17 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	And that includes the capital costs associated with CPCN?
3:45:26 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Fixed O&M which be labor and property taxes?
3:45:32 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Variable O&M?
3:45:35 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Fuel, the gas?
3:45:44 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	So two percent includes FAC?
3:45:49 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Did you net out what would anticipate be fuel savings from CPCN?
3:46:27 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Next part of question is gas pipeline infrastructure?
3:46:38 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Transmission upgrades also included?
3:46:54 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Two percent a year for 20 years does sound modest, still your opinion that an accurate number?
3:47:30 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	That financial model is model share with RUS?
3:47:37 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Financial model plan business around?
3:47:53 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Lenders besides RUS get results of models?
3:48:12 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Today, belief is, if Commission approves CPCN this case and RICE case, average cost to average ratepayer be two percent per year for 20 years?
3:48:28 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Increase?
3:48:34 PM	Atty Kurtz Nucor Steel - witness Stachnik	
	Note: Sacre, Candace	Two percent, which is less than rate of inflation?
3:48:50 PM	Chair Hatton	
	Note: Sacre, Candace	Joint Intervenors?
3:48:56 PM	Atty Shoaff Sierra Club - witness Stachnik	
	Note: Sacre, Candace	Cross Examination. Did I get your last name right?
3:49:04 PM	Atty Shoaff Sierra Club - witness Stachnik	
	Note: Sacre, Candace	Following up on Kurtz questioning, long-range financial forecast, marked as Nucor Exhibit 3, response to JI Request 2.8, look at supplemental response, have that in front of you?

3:49:59 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Has supplemental response to 8.8-C?
3:50:08 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Joint Intervenors asked for basis for there only be modest rate increases from the more than \$2 billion capital spending being proposed, produced long-range financial forecast summary?
3:50:33 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Asked for both modeling input and output files, workpapers, workbooks, and other documents?
3:50:39 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Provided two confidential documents, a spreadsheet that summarized forecast?
3:50:51 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	And document that provides some explanation of what went into it?
3:51:00 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Then went back and asked are there any input files into this forecast, and response was forecast prepared in UI planner software?
3:51:17 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	What is UI planner?
3:52:10 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	UI planner software does not project how often units will operate?
3:52:20 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Refer to generation model that was a input into UI planner modeling run?
3:52:27 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Identified anywhere in response?
3:52:55 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Asking, your response have put in front of you to 2.8-C, that anywhere mention generation model input into long-term financial forecast?
3:53:25 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Has that generation modeling forecast been produced to the Joint Intervenors?
3:53:37 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	It's asked for in this request, an input to the long-term financial forecast, text of request asks for input files?
3:53:54 PM	Chair Hatton Note: Sacre, Candace	Saying not something could provide?
3:54:00 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	The request, looking at subpart C to request in front of you, says, reading?
3:54:18 PM	Atty Honaker EKPC Note: Sacre, Candace	Answered question to say are inputs come out from proprietary software.
3:54:36 PM	Chair Hatton Note: Sacre, Candace	Saying it's not something you could have provided?
3:54:44 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Cross Examination (cont'd). What we are asking for is inputs he put into.
3:54:44 PM	Atty Honaker EKPC Note: Sacre, Candace	Right, believe what he was trying to say.
3:54:58 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Which you received as input to put into the UI planner, correct?

3:55:04 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	And we asked if those would be inputs into the long-term financial forecast?
3:55:11 PM	Atty Shoaff Sierra Club Note: Sacre, Candace	Our request asked for input files, they were not identified or produced in response.
3:55:18 PM	Chair Hatton - witness Stachnik Note: Sacre, Candace	Examination. Is that something you can produce, the inputs?
3:55:25 PM	Atty Honaker EKPC Note: Sacre, Candace	What he said, would have been something Tucker's group would have done.
3:55:31 PM	Chair Hatton Note: Sacre, Candace	Something that is available, have it for Tucker to testify? My preference is also we deal with issues of discovery before we have a witness on the stand.
3:55:54 PM	Atty Shoaff Sierra Club Note: Sacre, Candace	Definitely, challenge here they did not identify files in response.
3:55:59 PM	Chair Hatton Note: Sacre, Candace	I do understand that, and are saying just an issue discovered while he is on stand?
3:56:15 PM	Atty Honaker EKPC Note: Sacre, Candace	And we responded to numerous informal requests to supplement data responses, this case and RICE case, and have done several things.
3:56:25 PM	Chair Hatton Note: Sacre, Candace	Everybody's mad again, but everybody's in trouble.
3:56:29 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Cross Examination (cont'd). Are there other input files besides results of generation modeling refer to that you used as inputs to long-term financial forecast
3:57:25 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	And document referring to, I believe, is marked confidential?
3:57:29 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Something we can review without talking about numbers, are other inputs you used that are not identified in document?
3:57:55 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Does long-term financial forecast rely on total fuel costs?
3:58:12 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	For 20 years?
3:58:14 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	And is that an input?
3:58:18 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	And is that part of the generation model?
3:58:25 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	And would assume revenues, power sale revenues, be part of financial forecast?
3:58:31 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	And is that from generation model?
3:58:45 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	And did you receive revenues?
3:58:56 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Receive revenues themselves as input?
3:59:21 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	So that was an input into the file that could be produced?

3:59:28 PM	Atty Honaker EKPC Note: Sacre, Candace	And, again, a better question for Tucker.
3:59:37 PM	Chair Hatton Note: Sacre, Candace	Willing to ask those questions of Tucker?
3:59:39 PM	Atty Shoaff Sierra Club Note: Sacre, Candace	I am, thought said that was not part of the generation model.
4:00:22 PM	Atty Shoaff Sierra Club Note: Sacre, Candace	Guess can request any of those inputs before crossing Tucker?
4:00:31 PM	Chair Hatton Note: Sacre, Candace	Can have those.
4:00:32 PM	POST-HEARING DATA REQUEST Note: Sacre, Candace Note: Sacre, Candace	ATTY SHOAFF SIERRA CLUB - WITNESS REVENUES RECEIVED AS INPUT
4:00:41 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Look at Response to AG-1.5, and this request discusses an analysis of impact of residential rate of average usage driven by pipeline investments?
4:01:46 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Are pipelines Mosier testified be \$400 million for each, that's correct?
4:02:05 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Both you and Horn identified as responsible for response?
4:02:10 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Correct be responsible for second paragraph?
4:02:30 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	In second paragraph, say, reading, is that right?
4:03:00 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Have estimate of what increase to cost supplying gas units is from pipeline projects?
4:03:17 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Is there calculation of that?
4:03:25 PM	Atty Shoaff Sierra Club Note: Sacre, Candace	Request that as post-hearing data request.
4:03:26 PM	POST-HEARING DATA REQUEST Note: Sacre, Candace Note: Sacre, Candace	ATTY SHOAFF SIERRA CLUB - WITNESS STACHNIK CALCULATION OF INCREASE TO COST SUPPLYING GAS UNITS FROM PIPELINE PROJECTS
4:03:32 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	Have estimate of overall cost EKPC members bear as result of pipeline project Spurlock Station?
4:04:30 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	That be reflected in document just requested that be requesting in post-hearing data request?
4:04:44 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	With overall cost EKPC members bear as result of pipeline project to Cooper Station also reflected in that?
4:05:05 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	With the \$800 million in pipeline cost reflected in financial forecast?
4:05:40 PM	Atty Shoaff Sierra Club - witness Stachnik Note: Sacre, Candace	That be reflected in the generation model?
4:05:57 PM	Chair Hatton Note: Sacre, Candace	Staff?

4:06:00 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Cross Examination. Start with Kurtz handout, in request has parenthetical list of projects in portfolio, projects in 2024-00129 were New ERA but not New ERA, included in parenthetical group?
4:06:45 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	For this modeling purpose?
4:06:54 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	But even if not get, would have been included in modeling?
4:08:55 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Gave summary those two things but safe to say Mosier says related to those items up in air, agree right now really not know how?
4:09:28 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Run finance modeling individually, for 129 project and then 310 project, or just model as group?
4:09:56 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Not too far in weeds, trying to get some idea timing of financing, know have pending application, and in testimony provided amounts with timeline?
4:10:22 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Next line of questioning trying to get confirmation of what timelines look like, how New ERA application fits in, accordion option in direct testimony, page four, described as description related revolving credit facility, recall that?
4:11:03 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Tell us, exercise that option?
4:11:33 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	If not exercise accordion option, in 2025-00044 case testimony stated were using \$450 million of \$600 million?
4:11:53 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Different than this one?
4:14:51 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Had cases recently with RECCs where taken while, expended funds and taken while get RUS money, mentioned progress payments, how long think might take or anticipate doing like progress payments?
4:17:10 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Even if get private placement loan, all that expenditure wrapped into the RUS loan?
4:17:36 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Kurtz asked interest rates on RUS loans, why best lending institution, what expect pay private placement interest rates or unsecured debt interest rate?
4:18:19 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	How affect those loans if able get like RICE project progress payment?
4:19:17 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Think be issue getting private placement debt at term of three to five years, think cause interest rate be extremely high?
4:20:00 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Question about direct testimony on page six, lines 17-23, mentioned that EKPC seek Commission approval for financing under 278.300?
4:20:23 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Referring to RUS funding where that would fall outside?

4:20:59 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Been theme throughout hearing, issues related to federal government in any way?
4:21:14 PM	Asst Gen Counsel Tussey PSC - witness Stachnik Note: Sacre, Candace	Question about RUS loans, foresee issue seeing in other areas affecting those loans?
4:22:16 PM	Commissioner Regan - witness Stachnik Note: Sacre, Candace	Examination. As long as funds obligated before that date?
4:23:03 PM	Chair Hatton Note: Sacre, Candace	Redirect?
4:23:10 PM	Atty Honaker EKPC Note: Sacre, Candace	Want to state, believe that inputs Joint Intervenors asked about in record in response to Staff 1-24, provided in first response, see if something different, was a confidential attachment.
4:23:25 PM	Chair Hatton Note: Sacre, Candace	Procedural discussion.
4:24:52 PM	Chair Hatton Note: Sacre, Candace	Recess.
4:25:05 PM	Session Paused	
4:32:52 PM	Chair Hatton Note: Sacre, Candace	Back on the record.
4:32:54 PM	Session Resumed	
4:32:56 PM	Chair Hatton Note: Sacre, Candace	Call next witness.
4:33:01 PM	Chair Hatton Note: Sacre, Candace	Witness is sworn.
4:33:08 PM	Camera Lock Witness Activated	
4:33:11 PM	Atty Honaker EKPC - witness Comer Note: Sacre, Candace	Direct Examination. Name and business address?
4:33:23 PM	Atty Honaker EKPC - witness Comer Note: Sacre, Candace	Title?
4:33:29 PM	Atty Honaker EKPC - witness Come Note: Sacre, Candace	But counsel had you here in case questions came up about your job?
4:33:34 PM	Atty Honaker EKPC - witness Come Note: Sacre, Candace	Not sponsor testimony or data requests?
4:33:39 PM	Chair Hatton Note: Sacre, Candace	Questions?
4:33:41 PM	Camera Lock Deactivated	
4:33:56 PM	Chair Hatton Note: Sacre, Candace	Call next witness.
4:33:58 PM	Atty Honaker EKPC Note: Sacre, Candace	Rodney Hitch.
4:34:01 PM	Camera Lock Witness Activated	
4:34:12 PM	Chair Hatton Note: Sacre, Candace	Witness is sworn.
4:34:24 PM	Atty Honaker EKPC - witness Hitch Note: Sacre, Candace	Direct Examination. Name and business address?
4:34:33 PM	Atty Honaker EKPC - witness Hitch Note: Sacre, Candace	What is position?
4:34:37 PM	Atty Honaker EKPC - witness Hitch Note: Sacre, Candace	Cause testimony be filed?
4:34:46 PM	Atty Honaker EKPC - witness Hitch Note: Sacre, Candace	Want to go back and look at application for testimony, written testimony?

4:34:59 PM	Atty Honaker EKPC - witness Hitch	
	Note: Sacre, Candace	Additions or corrections?
4:35:03 PM	Atty Honaker EKPC - witness Hitch	
	Note: Sacre, Candace	Asked same questions, responses be same?
4:35:09 PM	Atty Honaker EKPC - witness Hitch	
	Note: Sacre, Candace	Intent incorporate into record?
4:35:14 PM	Camera Lock Deactivated	
4:35:16 PM	Chair Hatton	
	Note: Sacre, Candace	Questions?
4:35:21 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	Cross Examination. Ask about data centers, over last couple of years, East Kentucky had number of data center inquiries?
4:35:37 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	About how many numerically?
4:36:29 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	Know how much these data centers shopping the market, know how much shopping the market?
4:37:07 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	Take a 300 MW data center, is fairly typical or pick?
4:37:15 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	After construction how many full-time jobs expect?
4:37:28 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	Twenty-five?
4:37:46 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	Those jobs be maintenance and security?
4:38:04 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	Not writing AI software at a data center?
4:38:26 PM	Atty Kurtz Nucor Steel - witness Hitch	
	Note: Sacre, Candace	If serving data center load 25-50 jobs, if serving data center was to raise rates on other customers, wouldn't that be form of anti-economic development?
4:39:40 PM	Chair Hatton	
	Note: Sacre, Candace	Joint Intervenors?
4:39:47 PM	Atty Shoaff Sierra Club - witness Hitch	
	Note: Sacre, Candace	Cross Examination. Capacity proposed in this proceeding not intended to serve data centers?
4:40:14 PM	Atty Shoaff Sierra Club - witness Hitch	
	Note: Sacre, Candace	Resources to serve data centers come to territory need be dealt with in future proceeding?
4:40:25 PM	Chair Hatton	
	Note: Sacre, Candace	Staff?
4:40:35 PM	Chair Hatton	
	Note: Sacre, Candace	And finally?
4:40:36 PM	Atty Honaker EKPC	
	Note: Sacre, Candace	Call Greg Cecil.
4:40:43 PM	Chair Hatton	
	Note: Sacre, Candace	Witness is sworn.
4:40:43 PM	Camera Lock Witness Activated	
4:40:53 PM	Atty Honaker EKPC - witness Cecil	
	Note: Sacre, Candace	Direct Examination. Name and business address?
4:41:03 PM	Atty Honaker EKPC - witness Cecil	
	Note: Sacre, Candace	Title?
4:41:08 PM	Atty Honaker EKPC - witness Cecil	
	Note: Sacre, Candace	Respond to data requests?

4:41:12 PM	Atty Honaker EKPC - witness Cecil	
	Note: Sacre, Candace	Additions or corrections?
4:41:16 PM	Atty Honaker EKPC - witness Cecil	
	Note: Sacre, Candace	If ask same questions, responses be same?
4:41:20 PM	Atty Honaker EKPC - witness Cecil	
	Note: Sacre, Candace	Intent incorporate into record?
4:41:26 PM	Chair Hatton	
	Note: Sacre, Candace	Questions?
4:41:28 PM	Camera Lock Deactivated	
4:41:32 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	Cross Examination. Here, listening to testimony all day?
4:41:45 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	Hear me asking Mosier about benefits of member of PJM?
4:41:50 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	Case No. 2012-00169 where submitted testimony, heard that?
4:41:58 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	As part of that docket, EKPC now files annual updates on benefits being in PJM?
4:42:05 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	Mosier punted this to you, assume familiar with annual reports filed in that docket?
4:42:22 PM	Wireless Presentation Activated	
4:42:31 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	Two letters, skip first one, familiar with this letter?
4:42:44 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	What's date at top of that?
4:42:48 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	Does this look like accurate copy?
4:43:02 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	Above signature, two paragraphs, benefits and costs for EKPC to lead PJM, see that?
4:43:18 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	Skipping over first sentence to second, read from there, read that sentence and following one?
4:44:07 PM	Atty Gary Joint Intervenors	
	Note: Sacre, Candace	Move be admitted, I think be JI 2.
4:44:11 PM	Chair Hatton	
	Note: Sacre, Candace	Any objections?
4:44:12 PM	JOINT INTERVENORS HEARING EXHIBIT 2	
	Note: Sacre, Candace	ATTY GARY JOINT INTERVENORS - WITNESS CECIL
	Note: Sacre, Candace	LETTER DATED JULY 31 2024 FROM CECIL TO BRIDWELL
4:44:17 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	If request post hearing, produce unredacted version of this?
4:44:31 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	EKPC filed annually, how many back have signed on to, if requested a year?
4:44:43 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	This was first one?
4:44:46 PM	Atty Gary Joint Intervenors - witness Cecil	
	Note: Sacre, Candace	May request an unredacted version maybe going back a little bit?
4:44:55 PM	Chair Hatton	
	Note: Sacre, Candace	Questions?
4:44:57 PM	Wireless Presentation Deactivated	

4:45:09 PM	Chair Hatton	
	Note: Sacre, Candace	Break for the day, seven witnesses tomorrow.
4:45:22 PM	Chair Hatton	
	Note: Sacre, Candace	See you at 9 am tomorrow.
4:45:36 PM	Session Ended	



Exhibit List Report

2024-00370 21Apr2025

East Kentucky Power Cooperative,
Inc. (EKPC)

Witness: Greg Cecil; Nick Comer; Mark Horn; Craig Johnson; Don Mosier; Jerry Purvis; Tom Stachnik; Brad Young

Judge: Angie Hatton; Mary Pat Regan; Mary Pat Regan

Clerk: Candace H Sacre

Name:

Description:

AG HEARING EXHIBIT 1

JOINT INTERVENORS

HEARING EXHIBIT 1

JOINT INTERVENORS

HEARING EXHIBIT 2

NUCOR HEARING EXHIBIT 1

NUCOR HEARING EXHIBIT 2



March 31, 2025

President Donald J. Trump
The White House
1600 Pennsylvania Avenue, N.W.
Washington, DC 20500

President Trump,

Congratulations on your re-election as President of the United States of America and a very successful start to the administration.

As the leader of East Kentucky Power Cooperative (EKPC), which is responsible for providing electricity for the homes of 1.1 million rural Kentucky residents and businesses, I welcome your pledge to unleash America's energy resources. Those of us who have worked in the power industry for decades have watched with growing concern the steady erosion of the nation's reliable power plant capacity. The decline has been driven in large part by government policies that force rising costs and create roadblocks to building and operating reliable, dispatchable 24/7 power plants.

I wrote seven letters to President Biden providing my views on the increasingly alarming impact government regulations are having on the cost and reliability of America's energy supply. I received no meaningful response. You can download those letters at <https://togetherwesaveky.com/your-cooperative-is-fighting-to-keep-costs-affordable/>. I hope they will help your administration appreciate some of the challenges confronting power plant owners as you implement policies to unleash America's energy supply.

I write to seek your support to ensure the regional electric grid called PJM Interconnection (PJM), of which my electric cooperative is part, continues to be reliable and staves off the detrimental federal and state policies that undermine reliability and affordability. In particular, I seek your administration's support:

- Develop greater long term policy certainty so America's energy providers can better plan for the future as we invest billions of dollars to power the nation's economy by helping to persuade Congress to codify some of the regulatory changes your administration is implementing at the U.S. EPA.
- Prevent harm caused by inappropriate state intervention in the federally regulated electricity markets administered by PJM.

4775 Lexington Road 40391
P.O. Box 707, Winchester,
Kentucky 40392-0707

Tel. (859) 744-4812
Fax: (859) 744-6008
<http://www.ekpc.com>

A Touchstone Energy Cooperative 

EPA regulations

Your administration's approach to regulating America's energy providers is a welcome change that promises to bolster the reliability of the nation's electric grid.

The Biden administration's regulations targeted reliable power plants for premature retirement, forcing unnecessary costs on consumers and jeopardizing reliability.¹ When the EPA imposed this onslaught of new regulations, it was branded "unlawful, unrealistic and unachievable" by Jim Matheson, who leads the National Rural Electric Cooperative Association.² I agree with Jim whole-heartedly. In fact, I testified to that effect before the Federal Energy Regulatory Commission (FERC) in 2023. Unfortunately, I fear our concerns fell on deaf ears.

The capstone on EPA's regulatory assault is the Greenhouse Gas Rule that effectively forces coal plants to close in the early 2030s unless owners invest billions of dollars to separate and store carbon dioxide emissions. This carbon capture and storage scheme is based on technology that is commercially unproven at the scale of a typical coal plant. EKPC estimates retrofitting just one of its two coal-fueled power plants with the equipment necessary to separate and store CO₂ would cost \$10.7 billion, nearly triple EKPC's current book value. Clearly, this is an absurd waste of resources.

This is a clear example—and not the only one—of the EPA over-reaching its regulatory authority, using the facade of extremely expensive "compliance paths" to effectively drive coal plants into retirement. They have been very successful. In 2005, coal provided 313 gigawatts of power plant capacity in the U.S. By 2023, it was down to 181 gigawatts.³ Today, no new coal-fueled generating units are being built in the U.S. This is largely the result of increasingly stringent government regulations raising the costs and risks associated with coal, and no long-term federal energy policy.

Meanwhile, government policies have also incentivized renewable resources that otherwise would be uneconomic. The proliferation of renewable generation resources has created an unjustified sense of confidence in America's grid reliability. In my letters to President Biden, I detailed the numerous compelling reasons why the reliability of 1 megawatt (MW) of wind or solar capacity is much different than the reliability of 1 MW of fossil-fueled capacity. Renewables depend fundamentally on the wind to blow and the sun to shine, and those factors cannot be controlled. Coal, on the other hand, can be stockpiled on-site at power plants, with weeks or even months of fuel readily available. Natural gas and nuclear also are reliable fuel sources. A diversified generation portfolio for the U.S. is imperative.

¹ U.S. Environmental Protection Agency. April 25, 2024. "Biden-Harris Administration Finalizes Suite of Standards to Reduce Pollution from Fossil Fuel-Fired Power Plants." Downloaded 2/19/25 from <https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-suite-standards-reduce-pollution-fossil-fuel#:~:text=The%20suite%20of%20final%20rules,percent%20of%20their%20carbon%20pollution.>

² National Rural Electric Cooperative Association. April 26, 2024. "'Unlawful, Unrealistic, Unachievable': EPA Releases 'Barrage' of Power Plant Rules." Downloaded 2/19/25 from <https://www.electric.coop/unlawful-unrealistic-unachievable-epa-releases-barrage-of-power-plant-rules>

³ U.S. Energy Information Agency. July 16, 2024. "Electricity explained." Downloaded 2/19/25 from <https://www.eia.gov/energyexplained/electricity/electricity-in-the-us-generation-capacity-and-sales.php>

It is reassuring that you and your administration take seriously this looming energy crisis and you are willing to take concrete steps to unleash America's reliable energy supply. These efforts should be sustained over a sufficient amount of time to foster needed investment in America's generation and transmission grid. To that end, EKPC is prepared to assist as appropriate in urging Congress to take action to permanently codify changes that provide greater policy certainty.

State interference in regional grid operations of PJM

EKPC is a member of PJM Interconnection, which coordinates wholesale electricity for 13 states and the District of Columbia. PJM's electric capacity market is intended to ensure sufficient power plant capacity will be available to keep power flowing in the region at all times, especially during periods of high demand, such as January's extended period of extreme cold temperatures. Last July, PJM conducted its annual auction for capacity to be delivered in 2025/26. The auction resulted in much higher prices than in previous years. "The significantly higher prices in this auction confirm our concerns that the supply/demand balance is tightening across the RTO," PJM's President and CEO Manu Asthana said soon after the capacity auction concluded. "The market is sending a price signal that should incent investment in resources."⁴

Mr. Asthana was—and remains—correct.

Unfortunately, some state governors are using their political influence in an attempt to manipulate markets, casting uncertainty on price signals that otherwise would support necessary investments by power plant owners. Led by Gov. Josh Shapiro of Pennsylvania, the governors of Delaware, Illinois, New Jersey and Maryland are seeking to undermine supply/demand fundamentals in the nation's largest wholesale electricity market by applying political pressure to artificially suppress market prices. Their proposal – which is currently pending before FERC and which EKPC opposes – discourages investment in reliable 24/7 generators, leading to heightened risk of rolling blackouts while also driving up prices over the long term.

In late 2024, Gov. Shapiro filed a complaint with FERC,⁵ claiming PJM's auction resulted in "unnecessary costs" for consumers and seeking to impose a cap on the possible clearing price for years when PJM indicated that it is facing reliability concerns.⁶ Shapiro's complaint got the support of the governors of Delaware, Illinois, New Jersey and Maryland. All of these states have implemented policies that sought to shut down dependable dispatchable power generation and simultaneously encourage dependence on others in the PJM region to supply their power needs. It is no surprise that this policy benefited them when the wholesale prices were low during times of ample supply. Similarly, it is no surprise that market

⁴ PJM Interconnection. "PJM Capacity Auction Procures Sufficient Resources To Meet RTO Reliability Requirement." July 30, 2024. <https://insidelines.pjm.com/pjm-capacity-auction-procures-sufficient-resources-to-meet-rto-reliability-requirement>

⁵ Federal Energy Regulatory Commission. Gov. Josh Shapiro and the Commonwealth of Pennsylvania, complainants, v. PJM Interconnection LLC. Docket # EL25-46.

⁶ PJM Interconnection. "PJM Board Letter Outlining Support for Upcoming Interconnection and Capacity Market Filings." Dec. 9, 2024. <https://www.pjm.com/-/media/DotCom/about-pjm/who-we-are/public-disclosures/2024/20241209-board-letter-outlining-action-on-capacity-market-adjustments-rrr-and-sis.pdf>

prices increase when available supply decreases. That is Economics 101. Their call to cap the market while continuing to lean on that same market is certainly convenient – yet utterly irresponsible. It is likely to lead to a chilling of the needed investment at a time when the region is facing unprecedented growth due to data centers to support artificial intelligence.

Just days after Shapiro filed his complaint, PJM filed with FERC a proposed “settlement” that will cap the clearing prices 35% lower than what supply/demand fundamentals would have. This proposal was negotiated behind closed doors and circumvented PJM’s normal stakeholder review process, so EKPC did not get an opportunity to provide feedback prior to the filing. Moreover, the political interference has chilled the majority of voices who are not supportive of this change.

PJM’s actions are both perplexing and distressing. Its own long-term forecast for the next 20 years shows demand for electricity in the region could outstrip electric-generating capacity as early as 2026.⁷ In fact, PJM’s Board of Managers has directed efforts “to bring capacity online more expeditiously and make sure price signals accurately reflect supply-demand fundamentals.”⁸

But arbitrarily deflating prices by lowering PJM’s capacity price cap undermines market fundamentals while doing absolutely nothing to fix the problem at hand. This will undermine confidence in markets. If power plant owners and developers cannot trust market results, they will think twice about making the large investments necessary to revive grid reliability and support industrial and data center development. The delay will heighten the risk of rolling blackouts; when the crisis finally hits, prices are likely to be driven even higher.

Gov. Shapiro clearly is focused on garnering headlines. He has issued press releases about lowering his constituents’ bills,⁹ but he is doing nothing to ensure adequate electric-generating capacity to keep his constituents’ lights—and heat and air-conditioning—operating during the most critical times. In fact, he and his allied governors are doing the opposite of ensuring reliability. Pennsylvania, Maryland and Delaware are members of the Regional Greenhouse Gas Initiative (RGGI). This cap-and-tax scheme drives up operating costs for fossil-based power plants, making them less competitive in energy markets and providing strong disincentives for developers. Illinois, Maryland and New Jersey have pursued aggressive sustainability goals. Illinois has a target to get half of its electricity from renewables by 2040. And although Illinois has 15% of the nation’s economically recoverable coal reserves, it shut down 9 GW of coal plant capacity between 2009 and 2023. Maryland requires 50% of electricity to come from renewables by 2030. Meanwhile Maryland consumes nearly six times more energy than it produces. New Jersey’s legislature also requires half of that state’s electricity to come from renewables by 2030,

⁷ PJM Interconnection. “2025 PJM Long-Term Load Forecast Report.” Jan. 24, 2025. <https://www.pjm.com/-/media/DotCom/library/reports-notice/load-forecast/2025-load-report.pdf>

⁸ PJM Interconnection. “2025 Long-Term Load Forecast Report Predicts Significant Increase in Electricity Demand.” Jan. 30, 2025. <https://insidelines.pjm.com/2025-long-term-load-forecast-report-predicts-significant-increase-in-electricity-demand>

⁹ Commonwealth of Pennsylvania web site. “Press release: Governor Josh Shapiro Reaches Agreement with PJM to Prevent Unnecessary Price Hikes and Save Consumers Over \$21 Billion on Utility Bills.” Jan. 28, 2025. Downloaded from <https://www.pa.gov/governor/newsroom/2025-press-releases/gov-shapiro-agreement-pjm-prevent-price-hikes-save-consumers-ove.html>

and 100% by 2050. Both New Jersey and Maryland require a portion of the renewables to come from off-shore wind.¹⁰

Like federal environmental regulators of the prior administration, these states are pursuing policies that hamper the ability of power plant owners to provide dependable power supply. These governors are limiting the competitiveness of dispatchable power plants within their own borders; meanwhile, they also are taking advantage of reliable power plants in other PJM states to keep their own lights on when electricity demand is high. Effectively, they are shifting the cost of reliable power plants onto states with responsible energy policies, and raising the risk of rolling blackouts for everybody within PJM.

Like you, Kentucky's leaders have recognized the fundamental value of maintaining abundant energy supplies to ensure the safety and prosperity of residents, along with a strong economy. Our state legislative leaders have made it Kentucky's policy to require utilities to maintain sufficient reliable, dispatchable power plant capacity to serve homes and businesses. As we plan for the future, EKPC is not "leaning on the market" to provide power when demand is high. We are planning to invest more than \$2 billion in our fossil fleet, including a new 745-megawatt generating unit to meet growing demand for electricity, even as we add renewable capacity. We are taking responsibility for having reliable resources to generate electricity for the people and businesses that depend on us 24/7/365.

The proposed settlement before FERC means customers in Kentucky and other responsible states would subsidize reliable electric service in activist states. Because Kentucky has acted responsibly, we have no desire to subsidize reliable electric service elsewhere, nor do we wish to share in the rolling blackouts that are likely to result. I appreciate any assistance your administration can provide to prevent these outcomes.

As EKPC and other power providers prepare to make major investments in the nation's electricity grid, it is vital that EKPC and other energy providers have a reasonable degree of certainty and predictability about future policies and regulations. EKPC is a member-owned, not-for-profit cooperative. Any future added costs that result from unforeseeable shifts in government policies will be borne by the people and the businesses we serve. It is in their interests that we advocate for long-term predictability. Please help us gain a stronger degree of predictability for these important investments.

Thank you for your efforts to ensure reliable electric supply for America's homes and businesses. Again, EKPC stands ready to be a productive partner in making sure that all of America's energy needs are met.

Sincerely,



Anthony "Tony" Campbell
President & CEO

¹⁰ U.S. Energy Information Administration web site. "U.S. States, State Profiles and Energy Estimates." Landing page at <https://www.eia.gov/state/>. Data accessed from each state's profile and analysis pages.

CC: Vice President J.D. Vance
U.S. Energy Secretary Chris Wright
U.S. Interior Secretary Doug Burgum, Chairman, National Energy Dominance Council
U.S. EPA Administrator Lee Zeldin
Director Kevin Hassett, National Economic Council
U.S. Senator Mitch McConnell
U.S. Senator Rand Paul
Congressman Andy Barr
Congressman Hal Rogers
Congressman Brett Guthrie, Chairman, House Energy & Commerce Committee
Congressman James Comer
Congressman Thomas Massie
Congressman Morgan McGarvey
U.S. Senator Mike Lee, Chairman, Senate Energy & Natural Resources Committee
Governor Andy Beshear
Kentucky Senate President Robert Stivers
Kentucky House Speaker David Osborne
Kentucky Attorney General Russell Coleman
Kentucky Energy and Environment Secretary Rebecca Goodman
Kentucky PSC Chairman Angie C. Hatton
Kentucky PSC Commissioner Mary Pat Regan

East Kentucky Power Cooperative, Inc.

**Comments on New Source Performance Standards for Greenhouse Gas
Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric
Generating Units; Emission Guidelines for Greenhouse Gas Emissions from
Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable
Clean Energy Rule; Proposed Rule
Docket ID No. EPA-HQ- OAR-2023-0072**

TABLE OF CONTENTS

I. Introduction.

- A. East Kentucky Power Cooperative and its Member Service Areas
 - 1. About EKPC
 - 2. The EKPC Fossil Fuel-Fired Generating Fleet
- B. EKPC's Environmental Commitment

II. The Proposed Rule Disproportionally Affects Electric Cooperatives and the Disadvantaged Communities They Serve.

- A. EPA has not adequately considered the impacts of the Proposed Rule on the Cooperative Community
 - 1. Background: Electric Cooperatives
 - 2. EPA must consider and account for the specialized needs of electric cooperatives as a vital subset of the power sector
- B. The Proposed Rule does not adequately consider the steep energy costs to disadvantaged communities as a direct consequence of the BSER selections

III. The Proposed Rule would cripple EKPC's ability to provide reliable and affordable power while energy demands surge.

- A. The Proposed Rule would cause unprecedented unit shutdowns without time to construct replacement generation
- B. Power demands are on the rise in Kentucky and in EKPC's service territory
- C. Extreme weather events underscore the importance of a balanced generation mix, contrary to the Proposed Rule's policies
- D. Regional Transmission Organization reliability analyses and timelines must be preserved
- E. The Proposed Rule would force generation offline where transmission system limitations or market constraints are present without any provision for replacement generation

IV. EPA's BSER proposal is not adequately demonstrated.

- A. CCS is not adequately demonstrated.
 - 1. The Proposed Rule does not provide a sufficient record to support CCS
 - 2. CCS is not a viable option for the EKPC existing coal-fired fleet
- B. Natural gas co-firing is not adequately demonstrated on all coal-fired unit types
- C. Hydrogen co-firing is not adequately demonstrated
- D. EPA must revise the Proposed Rule to select a BSER that is achievable

- V. The framework and stringency of Subpart TTTTa emissions limitations are unworkable and will lead to arbitrary results.**
- VI. The Costs of the Proposed Rule to EKPC and its End Users is Extraordinary.**
- VII. EPA's Section 111 proposal is illegal.**
 - A. Congress did not delegate EPA the authority to re-shape the electricity sector
 - B. EPA has overreached into the jurisdiction of other federal agencies charged with managing the country's energy resources
 - C. EPA has overreached into the traditional jurisdiction of the States
 - D. The framework of the Proposed Rule is contrary to CAA Section 111
 - E. The Proposed Rule does not comply with the Regulatory Flexibility Act
- VIII. Smaller combustion turbines are essential to maintaining reliability and sustaining renewable generation.**
- IX. The Proposed Rule erects unduly burdensome Section 111(d) State Plan requirements that remove flexibilities and impose timelines that set up States and sources for failure.**
 - A. RULOF Analyses must not be eroded
 - B. State plan timelines must be revised
- X. Conclusion.**

East Kentucky Power Cooperative, Inc.

Comments on New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule; Proposed Rule, Docket ID No. EPA-HQ- OAR-2023-0072

EPA's Proposed Rule¹ appears to be a coal shutdown rule. EPA casts caution aside in favor of lofty greenhouse gas aspirational goals to be codified and articulated by President Biden. The Proposed Rule's requirements reach even beyond coal. EPA targets new, modified, and existing gas-fired generation, further constraining generation resource availability and sacrificing grid reliability. EPA's meddling in energy policy and planning is a dangerous business, not to mention illegal. EPA must swiftly back away from this proposal to right its regulatory course.

Cooperatives have sounded the alarm. The cooperative trade association, National Rural Electric Cooperative Association (NRECA), recently characterized the reliability crisis our country is facing:

For nearly a century, America's electric grid has lived up to its reputation as [sic] one of the world's greatest technological marvels, capable of delivering power to millions of residents and businesses safely, affordably and—most important—reliably. But lately, that reliability has been called into question, with new government regulations forcing the disorderly closure of always-on power plants in favor of renewables and demand exceeding supply during critical times in several regions of the country.²

Non-profit cooperatives are a unique portion of the power sector. EKPC and its cooperative partners must stand up for the rural communities that we electrify. These communities depend on cooperatives to cost-effectively power their residences, businesses, and farms. Rules, such as the Proposed Rule, jeopardize the ability of cooperatives to fulfill their core mission. EPA spoke to 50 Edison Electric Institute (EEI), investor-owned utilities (IOUs) and left cooperatives and their disadvantaged consumers out of the narrative and consideration of the Proposed Rule.

¹ The "Proposed Rule" refers to the rulemaking entitled, "The New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule," 88 Fed. Reg. 33240 (May 23, 2023).

² NRECA, Along Those Lines: Raising the Alarm on Grid Reliability," June 22, 2023 (podcast with Jim Matheson, CEO of NRECA, and David Tudor, CEO of Associated Electric Cooperative), <https://www.electric.coop/along-those-lines-raising-the-alarm-on-grid-reliability>

EPA must recognize that the grid is not infallible and disabuse itself of the notion that utilities will somehow just figure compliance out. It is incomprehensible why EPA has chosen to risk grid reliability at this juncture. This coal shutdown rule cleverly sets a best system of emissions reduction (BSER) that no source can meet, even setting costs aside. Even foreseeable technological advances cannot fill in the gaps. Throwing away practicalities in favor of idealism, EPA has talked itself into technologies and timelines that are not remotely achievable. Existing coal assets are set up to fail and retire. Even gas-fired assets are in EPA's sightline. EKPC urges EPA to consider the wide-spread impacts this rule will have on the power sector and each American citizen that receives the benefit of electrification. Exporting affordable reliable power is not an option without sufficient generation to serve as a hedge.

Reliability is more critical in this age than it has ever been. Global issues, fuel availability, fuel price volatility, and general energy security threaten electricity reliability and affordability for citizens, consumers and manufacturers nationwide and in our home state of Kentucky. The economy is growing nationwide and in Kentucky (1.8% in 2022). Economic growth requires energy to support businesses that fuel the economy. Meanwhile, the United States is being rapidly electrified, as more electric vehicles and infrastructure come on-line and residential and commercial buildings pivot away from fossil fuel combustion. With so much change in our midst, regulatory change must be prudently managed. Considerations must include orderly management of generation retirements, replacement of that generation, and timelines that take into account permitting, supply chain issues, and studies to ensure the future availability of natural gas. The stakes are high, as customers rely on electricity as essential to meet their daily needs.

This rule must factor in grid reliability and provide safety relief. Utilities must be able to serve load when there are grid reliability and capacity shortfalls and should not be penalized for CAA noncompliance to keep the lights and heat on in dire circumstances. Blackouts, brownouts, and loss of life should be off the table. Otherwise, the very human lives and environmental resources that this Rule purports to protect will be at a much more immediate and greater risk.

EKPC appreciates the opportunity to comment on the Proposed Rule. This rule is actually *five* regulatory actions that EPA decided to compile together as one enormous rulemaking. It is 181 pages with a substantial number of backup documents, many of which have reference attachments.³ Numerous stakeholders, including EKPC, requested that EPA extend the public comment period for this impactful suite of greenhouse gas regulations. EPA provided only 15 additional days. A 75-day comment period is completely insufficient for EKPC to examine the impacts of EPA's proposal on its existing fleet and consider how new generation would be built. The Proposed Rule presents a myriad of technical issues concerning the feasibility and timing of EPA's proposed BSER that require outside technical support. EKPC has a small environmental staff, as do many not-for-profit cooperatives. EPA has completely

³ Ironically this rulemaking has the same number of pages as the Good Neighbor Federal Implementation Plan (FIP) that EPA released last year to target coal generation.

inundated our staff with rulemakings during the same time period as the Proposed Rule. In fact, during the 75-day comment period for this proposal, EKPC had to consider and comment on three other rulemakings specifically targeted at the power sector and substantially impacting our fleet:

- Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category that ended May 30;
- National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review that ended June 23; and
- Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals from Electric Utilities; Legacy CCR Surface Impoundments that ended July 17.

In addition, EKPC operates Reciprocating Internal Combustion (RICE) Engines subject to EPA's recent rulemaking⁴ that threatens reliability by removing flexibilities in emergencies. EKPC staff is evaluating that proposal, which also has an overlapping comment end date of August 25. EPA's refusal to grant an extension for this Proposed Rule puts nonprofit entities at a severe disadvantage to place meaningful comments into the record and to fully examine the impacts of the proposal on our ability to deliver affordable and reliable electricity to the rural areas of eastern Kentucky and beyond. We ask EPA to re-open the comment period for an additional 45 days, at a minimum, past the current deadline of August 8.

EKPC is a member of the Midwest Ozone Group (MOG), the National Rural Electric Cooperative Association (NRECA), and Utility Information Exchange of Kentucky (UIEK). EKPC supports the comments of these groups and incorporates their comments and technical support by reference.

EKPC summarizes its requests related to this rulemaking, as follows:

- Wholly revise and reconsider its BSER approach for new and existing generation;
- Adopt reasonable BSER strategies achievable at the fleetwide cooperative level;
- Decline to proceed with infeasible and unavailable technologies, such as carbon capture and sequestration (CCS) and hydrogen co-firing, as BSER for existing coal-fired and new and existing natural gas-fired units;
- Decline to adopt illegal source redefining, such as fuel-switching (coal to natural gas), as BSER;
- Exclude all combustion turbines from this rulemaking, but in no event, should EPA include smaller combustion turbines sized at 300 MW or lower;

⁴ EPA released a proposed rule entitled, National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines and New Source Performance Standards: Internal Combustion Engines; Electronic Reporting, on June 26, 2023 that has an overlapping comment end date.

- Choose timeframes that accommodate all sources and small business concerns;
- Evaluate grid reliability impacts of its proposal, taking into account the rapid resource transitions, lessons learned from Winter Storm Elliott, generation scarcities, and transmission constraints that IPM does not cover;
- Adopt a mechanism to preserve reliability (a Reliability Mechanism) with two prongs: (1) One that may be used, generally, to buffer key fossil resources from retirement; and (2) Another that operating resources may avail in emergency circumstances to operate temporarily above greenhouse gas (GHG) emissions limits or capacity factor restrictions.
- Revise and simplify Section 111(d) state plan requirements to remove content burdens, engagement duplicity, and allow for meaningful remaining useful life and other factors (RULOF) consideration.
- Revise and return 40 CFR Part 60 Subpart Ba, that governs the Section 111(d) state implementation process, to its original language, whereby, states and stakeholders are given 36 months to develop their plans for EPA approval in 24 months.
- Consider the cumulative financial impact of EPA's suite of environmental regulations on nonprofit, smaller utilities.

We appreciate EPA's consideration of our more detailed comments herein and look forward to future engagement on these matters.

I. Introduction.

A. East Kentucky Power Cooperative and its Member Service Areas.

1. About EKPC.

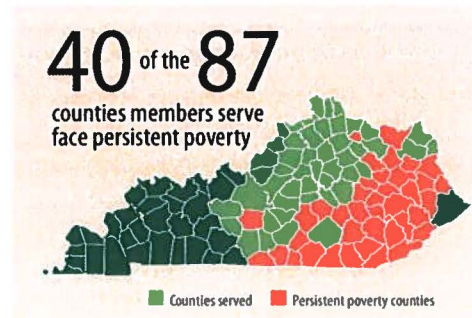
EKPC is a not-for-profit owned, operated, and governed by its members which use the energy and services EKPC provides. The Owner-Member cooperatives to which EKPC provides energy supply 520,000 homes, farms, and businesses across 87 counties in Kentucky. EKPC's purpose is to generate electricity and transmit it to 16 Owner-Member cooperatives that distribute it to retail, end use consumers. EKPC provides wholesale energy and services to sixteen distribution cooperatives through baseload units, peaking units, hydroelectric power, solar, landfill gas to energy units transmitting power across the rural Kentucky areas via more than 2,900 miles of transmission lines.

EKPC's owner-members collective customer base is comprised predominantly of residential customers (93 percent). In 2019, 57 percent of EKPC's owner-member retail sales were to the residential class. The 2020 End-Use Survey results indicate electricity is the primary method for water heating and home heating.

EKPC is the voice for a substantial number of end users of electricity in its service territory that live in substantial poverty. These communities place a high value

on affordable energy costs. EKPC's service territory includes rural areas with some of the lowest economic demographics in the United States. In these areas, families, literally, are faced with a regular choice between food, electricity and medicine. Of the eastern Kentucky counties that EKPC's owner-member cooperatives serve, 40 counties experience persistent poverty, as reported by the USDA.

**Table, Kentucky Counties in
EKPC's Owner-Member
Service Areas**



Many of these hardworking Americans have been plagued by unemployment from mines, trucking companies, restaurants and other businesses. The unemployment rate is 60% higher than the national average. They rely on government assistance to survive: Thirty to 54% of total income in most Eastern Kentucky counties comes from government assistance. Forty-two percent of these electricity users are elderly (65 years or older). Many are on fixed incomes and reside in energy-leaking mobile homes. Recent brutal cold weather has caused their monthly electric bills to skyrocket. EKPC has a strong interest in keeping energy affordable to assist its 16 Owner-Member cooperatives in serving people facing the harsh realities of today's economy.

EKPC and its Owner-Member cooperatives have a strong commitment to environmental excellence, which is underscored by a record of environmental over-compliance, investments in air control technology, and renewable diversification. EKPC has ensured that excellent air quality and clean water is sustained and has minimized and managed waste in accordance with and beyond regulatory minimums. EKPC is a leader in environmental stewardship in the Kentucky community.⁵ In addition, EKPC has created a Strategic Sustainability Plan with goals and investments through 2035. EKPC developed, permitted and built the first renewable energy sources in Kentucky. Since that time, EKPC launched a 60-acre photovoltaic solar array in Winchester, Kentucky, and continues to utilize landfill gas generation assets and to support hydroelectricity (Wolf Creek and Laurel Dams) via Southeastern Power Administration (SEPA) contracts.

2. The EKPC Fossil Fuel-Fired Generating Fleet.

The Proposed Rule substantially affects EKPC. The following existing fossil fuel units are essential to EKPC's ability to provide power to rural Kentuckians. **EKPC has**

⁵ See <https://www.ekpc.coop/environmental-stewardship>, for a description of our efforts.

no plans to retire any of these assets. Any such retirement would be premature and costly.

- Spurlock Station. The station is located near Maysville, Kentucky on the Ohio River. It is EKPC's flag-ship plant. All the Spurlock units have state-of-the-art NOx, SO2, PM, and Hg controls. In addition, EKPC has made substantial investments, to the tune of \$262.4 million dollars, including a conversion to dry bottom ash to ensure the plant is fully compliant with Effluent Limitation Guidelines (ELGs) and the Coal Combustion Residuals (CCR) rule. Spurlock is located adjacent to an International Paper corrugated packaging plant to which it is contractually-committed to provide co-generation steam. EKPC has no plans to retire these units. The closest natural gas pipeline is almost 40 miles from Spurlock Station. The electric generating units (EGUs) at the facility are:
 - Spurlock Unit 1 – is a wall-fired unit (344 MW)⁶ that combusts bituminous coal. Unit 1 has cold side ESP, WFGD, Wet ESP, SCR and low-NOx burners to control particulate matter (PM), SO2, SO3 / H2SO4 mist, and NOx respectively, installed on or before April 2009.
 - Spurlock Unit 2 – is a tangential-fired unit (555 MW) that combusts bituminous coal. Unit 2 has a hot side ESP, WFGD, Wet ESP, SCR, low-NOx burners, and over-fire air to control PM, SO2, SO3 / H2SO4 mist, and NOx, respectively, installed on or before October 2008.
 - Spurlock Unit 3 – is a coal-fired circulating fluidized bed (CFB) unit (305 MW), which is designed to emit less NOx in the combustion process. Unit 3 has a SNCR to control NOx, a dry FGD to control SO2/SO3, and a filter fabric baghouse to control PM.
 - Spurlock Unit 4 – is a CFB unit (315 MW), which is designed to emit less NOx in the combustion process. Unit 4 has a SNCR to control NOx, a dry FGD to control SO2/SO3 and a filter fabric baghouse to control PM.
- Cooper Station. The station is located near Burnside, Kentucky adjacent to Lake Cumberland. Cooper Station is a critical asset due to its location in rural, south-central Kentucky. Cooper Station serves a transmission-constrained area. EKPC undertook significant control enhancements in 2015-2016, installing a pulse-jet fabric filter (baghouse) to control PM and dry FGD to control SO2 in both units, and a SCR on Unit 2 to control NOx. EKPC has no plans to retire these units. The closest natural gas pipeline is approximately 40 miles from Cooper Station. The EGUs at the facility are:

⁶ Spurlock Unit MW values are taken from the Consent Decree in *United States v. EKPC*, No. 04-34-KSF (E.D. Ky). MW values are provided for descriptive reference only and are only generally reflective of unit capabilities.

- Cooper Unit 1 – is a wall-fired unit (124 MW)⁷ that combusts bituminous coal. Unit 1 has low-NOx burners. It is tied into the Unit 2 dry FGD and pulse jet fabric filter to control SO₂ and PM and shares a common stack with Cooper Unit 2.
- Cooper Unit 2 – is a wall-fired unit (240 MW) that combusts bituminous coal. Unit 2 has a SCR and low-NOx burners, dry FGD and filter fabric baghouse to control PM and SO₂/SO₃. It shares a common stack with Cooper Unit 1.
- Smith Station. The station, located near Winchester, KY, consists of natural gas-fired combustion turbines. Smith provides EKPC with nimble assets to quickly meet daily power demands and support renewable generation. EKPC has no plans to retire these units. EGUs at the facility are:
 - Smith Units 1-3 – are simple-cycle dual fuel, predominately natural gas-fired combustion turbines (115 MW each).⁸ Units 1-3 use water injection to control NOx.
 - Smith Units 4-7 -- are simple-cycle dual fueled oil and gas-fired combustion turbines (114.91 MW each). The units have dry low-NOx burners.
 - Smith Units 9 and 10 -- are simple-cycle gas-fired combustion turbines (102 MW each). The units have SCRs to control NOx and reduce CO by use of catalytic oxidation.
- Bluegrass Station. The station, located near LaGrange, KY, consists of dual fueled natural gas-fired combustion turbines with diesel fuel as an emergency back-up. Bluegrass is a low emitting facility, subject to a plant-wide NOx emissions cap. EKPC has no plans to retire these units. They are essential to the region and served a vital role in preventing brown and blackouts in the Louisville region during Winter Storm Elliott last year.
 - Bluegrass Units 1-3 – are simple-cycle gas-fired combustion turbines (208 MW each).⁹ All three units have dry low-NOx burners.

B. EKPC's Environmental Commitment.

EKPC has one of the cleanest, best-controlled fleets in the country. EKPC's company-wide commitment to environmental excellence extends to compliance and a financial commitment to pollution control improvements at its generation facilities.

⁷ Cooper Unit MW values are taken from the Consent Decree in *United States v. EKPC*, No. 04-34-KSF (ED Ky). MW values are provided for descriptive reference only and are only generally reflective of unit capabilities.

⁸ Smith Unit MW values are taken from the Title V permit for the facility. MW values are provided for descriptive reference only and are only generally reflective of unit capabilities.

⁹ Bluegrass Unit MW values are taken from the Title V permit for the facility. MW values are provided for descriptive reference only and are only generally reflective of unit capabilities.

EKPC and its 16 Owner-Member cooperatives have invested over \$1.6 Billion dollars to reduce environmental impacts at its fossil generation facilities. Specifically, EKPC installed BACT-level technology to control NOx, SO2, and PM emissions at its Spurlock and Cooper Plants. Those efforts extend to significantly lower SO2 (95%), NOx (78%), PM (over 98%), and CO2 (5.5%) since 2005. Since 2008, EKPC has devoted substantial resources to ensure compliance with EPA final rules including the stringent Mercury Air Toxics (MATS) requirements. In fact, many of the units in its coal-fired fleet have qualified for low emitting EGU (LEE) status for HCl. EKPC prides itself for installing state-of-the art emissions controls to put its generation system in an enviable position as compared to other high emitters in Kentucky and in the region. EKPC operates and maintains its control equipment pursuant to manufacturer's specifications on a daily basis, year-round.

EKPC is an active participant in reducing its CO2 footprint but recognizes that renewables must be balanced with coal-fired and dual fueled natural gas-fired generation. EKPC installed 60 acres or 10 gross MWs of solar array commissioned in 2017 to begin to understand how renewables function within our system as a cleaner energy resource as our country transitions to cleaner resources. Yet, recent summer heat waves and winter freezes serve as stark evidence that renewable generation has operability and reliability constraints. Fossil generation plays an essential role in grid reliability until technology advances.

EPA has targeted the power sector in 2023 with an unprecedented number of rulemakings aimed at curtailing fossil fuel-fired generation. Even though these rules are not specifically focused on greenhouse gases, MATS, the Good Neighbor FIP, ELG, and CCR rules will cause fossil fuel retirements in the coming years. The cumulative result will reduce greenhouse gas emissions. Rather than continuing to lean on the power sector to address carbon goals, EPA should target the real culprits: Mobile sources. EPA reports that "[t]he transportation sector generates the largest share of greenhouse gas emissions. Greenhouse gas emissions from transportation primarily come from burning fossil fuel for our cars, trucks, ships, trains, and planes. Over 94% of the fuel used for transportation is petroleum based, which includes primarily gasoline and diesel."¹⁰

II. The Proposed Rule Disproportionally Affects Electric Cooperatives and the Disadvantaged Communities They Serve.

A. EPA has not adequately considered the impacts of the Proposed Rule on the Cooperative Community.

EPA must consider the specific and acute challenges of not-for-profit, consumer-owned electric cooperatives as a distinct portion of the utility sector. Cooperatives require time and resources to meet the requirements posed by the Proposed Rule. For this reason, EKPC requests EPA's consideration of challenges specific to cooperatives.

¹⁰ <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

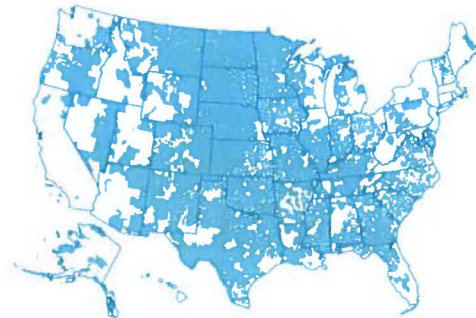
1. Background: Electric Cooperatives.

(a) *The Electric Cooperative Portion of the Power Sector.*

The electric cooperative network is composed of 831 distribution cooperatives. They were built by and serve co-op members in the community with the delivery of electricity and other services. All but the three largest electric cooperatives qualify as “small businesses” under Small Business Administration standards.

Cooperatives serve 42 million people in predominantly rural areas, including 92% of persistent poverty counties. The sector powers over 21 million businesses, homes, schools and farms in 48 states. Cooperatives sell most of their power to households rather than businesses, unlike investor-owned utilities. They operate at cost and without a profit incentive. They are owned by the members they serve with no independent stockholders. Rate affordability is crucial for consumer-members at the end of the line. Costs are borne across a base of fewer consumers and by families that already spend more of their limited incomes on electricity than do comparable municipal-owned or IOU customers. Data from the U.S. Energy Information Administration show that cooperatives serve an average of eight consumers per mile of line and collect annual revenue of approximately \$19,000 per mile of line.

Cooperatives power
56% of the nation's landmass



Today, Cooperatives rely on a diverse energy mix. From 2010 to 2021, cooperatives more than tripled their renewable capacity from 3.9 gigawatts to more than 13 gigawatts. Cooperatives added over 900 MW of new renewable capacity in 2022. More than two-thirds of the electricity delivered by cooperatives comes from low- or zero-carbon sources. Cooperatives are committed to the environment. Our portion of the power sector has reduced SO₂ emissions 82% from 2005 to 2021, while NO_x emissions reduced 68%.¹¹

(b) *History and Mission of Electric Cooperatives to Serve Rural America.*

¹¹ <https://www.electric.coop/electric-cooperative-fact-sheet>

In the 1930s, nine out of ten rural homes did not have electric service. Rural economies were exclusively dependent on agriculture. In 1933, President Roosevelt promoted the electrification of these rural areas. On May 11, 1935, Roosevelt signed Executive Order No. 7037 establishing the Rural Electrification Administration (REA), now the Rural Utilities Service (RUS), an arm of the Department of Agriculture. REA provided financing for cooperative projects. In 1937, the REA drafted the Electric Cooperative Corporation Act. The Act created a model to enable states to form and operate not-for-profit, consumer-owned electric cooperatives. By 1953, more than 90 percent of U.S. farms had electricity. Today, 99 percent of the nation's farms have service. This success was made possible by locally owned rural electric cooperatives that got their start by borrowing funds from REA to build lines and provide service on a not-for-profit basis.

Since the 1970s, the cooperative energy sector has been coal-heavy. In response to a Congressional mandate, electric cooperatives built approximately two-thirds of the coal-fired units in the electric cooperative fleet under the 1978 Powerplant and Industrial Fuel Use Act, prior to its repeal. The Act pushed electric cooperatives to build significant new "coal capable" baseload generation for self-generation to preserve natural gas supplies. Some cooperatives still have outstanding loan debt on these investments.

- (c) *Electric Cooperatives have special financing considerations that add to project timeframes.*

The Proposed Rule would require major capital investments in new generation and large retrofit projects for coal-fired generation. Transmission projects are also likely to support new generation. EPA's small business analysis and deployment timelines must account for additional time to obtain financing. The largest financier of cooperative capital projects is RUS. RUS has historically served cooperatives, with the mission of electrifying and maintaining critical infrastructure in rural America.¹²

Obtaining RUS financing is a multi-step process. During project development and prior to construction, the cooperative's project engineering team must prepare initial scoping and draft a project justification for the projected dollars to be spent. This process involves reaching out to third-party vendors to confirm cost estimates, design, and operational specifications. RUS must approve the Work Plan.

RUS financing requires compliance with the National Environmental Policy Act (NEPA), which adds additional time at the beginning of a large project. The U.S.

¹² For more information about RUS and its essential role for the cooperative community, see <https://www.rd.usda.gov/about-rd/agencies/rural-utilities-service> (visited June 3, 2022) ("The Electric Program provides funding to maintain, expand, upgrade and modernize America's rural electric infrastructure. The loans and loan guarantees finance the construction or improvement of electric distribution, transmission and generation facilities in rural areas. The Electric Program also provides funding to support demand-side management, energy efficiency and conservation programs, and on-and off-grid renewable energy systems. Loans are made to cooperatives, corporations, states, territories, subdivisions, municipalities, utility districts and non-profit organizations.").

Department of Agriculture (USDA) regulates actions financed by RUS requiring environmental review. The environmental review requirements are set forth by NEPA, which require all federal agency actions or approvals go through a standardized environmental review process to evaluate what effect their proposed actions (projects) would have on the environment. Environmental reviews require development of Environmental Reports (ER), Environmental Assessments (EA), or Environmental Impact Statements (EIS) depending on the complexity/scale of the project.¹³

The environmental review process and timelines depend upon the scope of the project and ultimately what project documents RUS will request that the cooperative submit; however, a large project is likely to trigger an EA.¹⁴ RUS reviews the EA or other environmental document and may require additional information, additions or revisions to the EA during the review process. Ultimately, RUS adopts the EA at the conclusion of the review process. RUS then publishes a public notice of the availability of the EA. The public notice and comment process commences, which would involve notice of the issuance of a Finding of No Significant Impact (FONSI), if RUS makes this finding.¹⁵ Borrowers must wait for the conclusion of RUS's environmental review before taking any action on projects or obtaining RUS financial assistance.¹⁶ Once RUS releases funds, the project engineering design and competitive bidding process may commence.

While other financing options may be available for certain types of projects, the interest rates are significantly higher. Cooperatives are nonprofits and their end-users of electricity are in rural communities, many of which are disadvantaged. Both are very sensitive to rate increases. For these reasons, EKPC is a regular RUS borrower to finance environmental compliance and other projects.

In EKPC's experience, EPA must factor in at least an additional **18 months on top of the Proposed Rule's projected time** to allow cooperatives to obtain financing for new generation and large retrofit projects for coal-fired generation.¹⁷ Infrastructure and transmission projects will be needed to support these projects.

2. EPA must consider and account for the specialized needs of electric cooperatives as a vital subset of the power sector.

¹³ See 7 CFR § 1970.8 (describing the extent of the environmental review).

¹⁴ For reference, see Environmental Assessments for other cooperative projects located on the RUS website: <https://www.rd.usda.gov/resources/environmental-studies/assessments>. Projects include transmission line, renewable generation, and fossil generation.

¹⁵ RUS outlines the environmental review process in detail on its website and provides a step-by-step flowchart of the process. We provide a link to this information for EPA's reference for inclusion into the record: <https://openet.org/wiki/RAPID/Roadmap/9-FD-h>

¹⁶ See 7 CFR § 1970.12.

¹⁷ To illustrate, EKPC recently undertook an extensive CCR Rule compliance project using RUS funding. A new generation will require scoping and approval from the EKPC Board of Directors, as well as a submittal to the Kentucky Public Service Commission for a Certificate of Public Convenience and Necessity (CPCN) approving the project to move forward. Although the RUS funding process may occur concurrently with project development, loan funds must be received before construction begins.

The Proposed Rule overburdens the cooperative community in the following specific ways:

- Insufficient time to pursue project financing for new generation and to retrofit existing generation to comply with the proposal. Environmental compliance requires time for project planning, manpower, and financing. Cooperatives cannot simply raise funds through investors. Project financing is needed through RUS or, if affordable, private resources.
- Difficulty absorbing and/or raising money for the unprecedented number of environmental compliance rulemakings proposed by the Biden Administration. Cooperatives do not have investors to raise money. Large, capital-intensive projects are a substantial investment for smaller entities. IRA funds are not necessarily available to bridge the financial gaps. EPA's rulemaking "asks" result in an unprecedented financial burden that falls in a short time period between now and 2030.
- Smaller generating systems have fewer compliance options when faced with multi-faceted, complex rules, such as the Proposed Rule. With fewer units in operation to meet power generation needs, cooperative systems are not as nimble as larger IOU systems that have varied baseload assets. IOUs have more assets and staff to meet generation demands while complying with the Proposed Rule. Trading programs and averaging are often not useful for cooperative systems that have fewer units in these programs. With fewer units and plants to average or trade, these solutions place cooperatives at a disadvantage. In addition, while units are in outage for compliance projects, cooperatives have fewer resources to make up the generation deficit.
- Cooperatives have greater infrastructure needs. To power 56% of America's land mass, large spans of infrastructure are required. Rural areas are electrified by miles of transmission lines. The Proposed Rule calls for brand new infrastructure for hydrogen and CO2 transportation, separately. This infrastructure must be developed over America's rural areas to ensure that the plants serving these cooperative service territories can install BSER to be compliant. Vast service territories make this task more challenging for cooperatives, particularly in areas in which the geology does not support CO2 storage.
- Coal-heavy cooperatives are disproportionately impacted. Cooperatives with small, coal-heavy systems are placed in an untenable position. The Proposed Rule shuts down the coal yet does not offer enough time to build replacement generation. Without other units to gap-fill, these cooperatives have few options.

It is imperative that EPA consider the impacts of its proposal on the cooperative sector. We appeal to EPA to seriously consider these realities, rather than flippantly pointing to its Regulatory Impact Analysis as it did in prior rulemaking comments.

B. The Proposed Rule does not adequately consider the steep energy costs to disadvantaged communities as a direct consequence of the BSER selections.

Unlike the rest of the electric sector, electric cooperatives sell the majority of their power to households rather than businesses. Keeping rates affordable is especially important for rural consumer owner members at the end of the line. Environmental compliance costs create a significant risk to energy reliability, as well as a significant risk of economic hardship. EKPC asks EPA to consider the hardships on economically disadvantaged communities, as it did in the context of the 2015 Ozone NAAQS.¹⁸ To this end, the Proposed Rule's greenhouse gas BSER would require an astronomical financial investment in CCS and/or hydrogen technologies. These costs would almost certainly be passed on to end users as environmental compliance costs. The economic harm to disadvantaged communities places human health and welfare squarely at risk. Rural residential customers must be able to afford electricity to power homes, especially during extreme winter and summer temperatures.

Environmental compliance decision-making demands balancing the air quality benefit on a disadvantaged community against the associated compliance costs (energy cost). **The Proposed Rule cites *no direct health benefits whatsoever from lowering greenhouse emissions*.** Instead, EPA finds that reducing greenhouse gases will have indirect benefits to environmental justice communities that face the impacts of climate change. EPA also bootstraps alleged co-benefits regarding other pollutants – highlighting reductions in ambient levels of PM 2.5 and ozone exposure.¹⁹ EPA must recognize that this proposal only regulates greenhouse gases – not other pollutants – so benefits are indirect and theoretical and based on the premise that fossil-fuel fired generation will cease to exist. Rather, increased energy costs are concrete and impactful to these disproportionately impacted communities. Persistent poverty end users will not sustain a direct air quality benefit from this rule but must pay for it with meager resources. EPA should factor costs into the environmental justice analysis for the Proposed Rule.

III. The Proposed Rule would cripple EKPC's ability to provide reliable and affordable power while energy demands surge.

The Proposed Rule targets baseload, intermediate and peaking fossil generation. Fossil resources ensure the power grid remains stable while complementing renewable assets. Even EPA recognizes that renewable generation cannot substitute for the crucial role of fossil generation. A balanced generation mix is fundamental due to

¹⁸ See, e.g., 87 Fed. Reg. 21842 ("I/M programs ensure that vehicles are operating according to EPA's vehicle emissions standards and adequately protecting public health. However, any Basic I/M program for the 2015 ozone NAAQS may present potential economic hardship and other concerns for low-income individuals of newly reclassified Moderate ozone nonattainment areas.").

¹⁹ Proposed Rule at 33247, 33413.

extreme weather events and increased demand as electrification efforts incrementally rise each year.

A. The Proposed Rule would cause unprecedented unit shutdowns without time to construct replacement generation.

The Proposed Rule is EPA's best effort to shutdown coal. EPA itself recognizes that some utilities will opt to retire units due to the high costs of this rule. As we discuss in more detail in Section IV, the BSER option for coal-fired units, CCS, is unable to be achieved in general and certainly not in the timeframes that EPA has proposed. By setting an impossibly high bar, the Proposed Rule summarily shuts the nation's coal-fired fleet.

If the Proposed Rule is finalized as proposed, utilities must swiftly commission and build replacement baseload resources to take the place of retiring coal units. Stumbling blocks are presented for new generation as well. The Proposed Rule institutes ideological carbon emissions limitations and infeasible CCS or hydrogen co-firing pathway selections as BSER, discussed in Section IV. Even if utilities devise a path forward for replacement generation, that generation cannot be constructed by 2031 – the sunset date for any coal-fired generation without taking a 20% capacity limitation or undertaking a major project to co-fire natural gas or install CCS.

EPA places utilities in an impossible position. Utilities must shut down existing, viable baseload generation without a clear path to replacing that generation. This concern is particularly critical for cooperatives, such as EKPC, that have limited generation footprints.

B. Power demands are on the rise in Kentucky and in EKPC's service territory.

The Proposed Rule threatens energy availability and security in Kentucky. EKPC has seen a 300% increase in economic development spending over the last four years. Kentucky continues to see unprecedented opportunities with economic development projects that are exploring new manufacturing facilities in the state following a record-breaking year in 2022. Last year, EKPC and Kentucky's Touchstone Energy Cooperatives Economic Development team worked on 32 projects that resulted in \$2.89 billion dollars in new investments and 2,044 new jobs across our rural cooperative distribution 89-County territory. With each of these announced and future potential projects, EKPC and its distribution cooperatives provide transformational opportunities for the rural communities and residents they serve.

The Proposed Rule will adversely impact these rural communities. These rules will take away any potential opportunity to recruit advanced manufacturing facilities to Kentucky. These unintentional consequences from the proposed regulatory changes will jeopardize the potential of creating highly skilled, highly compensated positions and careers in advanced manufacturing for some of the poorest communities in Kentucky.

Recent analytics demonstrate Kentucky's economic growth.



Annual percent change of the real GDP in Kentucky from 2000 to 2022²⁰

Source: Statista 2022

In 2021, the real GDP of Kentucky increased by about 5 percent compared to the previous year. This growth is similar to that experienced by Kentucky's real GDP in 2010, when it grew by about 4.2 percent compared to the previous year.

While economic growth will cause the demand for electricity to increase in Kentucky, the Proposed Rule would place unprecedented pressure on electricity availability. As discussed in more detail *infra*, Proposed Rule requirements for coal-fired generation and aggressive compliance timelines would create a shortfall in capacity at least by 2032. EKPC already estimated a generation gap due to the Good Neighbor FIP of at least 3,600 MW (in addition to current demand) by the summer of 2026. This Proposed Rule stands to widen that gap even further.

EKPC predicts increased demand during the time span in which this Proposed Rule would impact. EKPC's load forecast projects net total energy requirements to increase from 13.5 to 16.7 million MWh, an average of 1.5 percent per year over the 2021 through 2035 period.²¹ Residential sales will increase by 0.7 percent per year, and small commercial sales (customers with ≤1000 KVA) will increase by 0.9 percent per year. The greatest area of growth will be for large commercial and industrial sales (customers with >1000 KVA), projected to increase by 3.3 percent per year. EKPC must be able to respond to this demand.²²

²⁰ See <https://www.statista.com/statistics/1036245/kentucky-real-gdp-growth/#statisticContainer>

²¹ EKPC Integrated Resource Plan, Load forecast 2021-2035, December 2020 (IRP 2020).

²² *Id.*

The Proposed Rule ignores energy supply needs and does not take into account economic development in Kentucky. Kentucky needs to remain competitive with surrounding states for new jobs, economic development, and low-cost energy.

C. Extreme weather events underscore the importance of a balanced generation mix, contrary to the Proposed Rule's policies.

Extreme weather events seemingly have become commonplace in both winter and summer. Recent weather events illustrate the reliability challenges of natural gas supply and transportation during circumstances that tax the grid. Winter Storm Elliott illustrates the imminent danger of grid emergencies and the need for reliability contingencies.

On December 23-25, 2023, Winter Storm Elliott caused an “unprecedented amount of unplanned generation outages” in the PJM territory.²³ The storm and the rapid onset of cold temperatures heavily impacted natural gas production that supplies gas-fired generation in the PJM footprint. Roughly 47,000 MW of generation (of all fuel types) was unavailable during the morning hours of December 24. PJM later reported an increased risk of load shed approaching that morning peak. At that time, the loss of another large unit or imports from the NY-ISO into PJM could have caused PJM to initiate a Voltage Reduction Action, resulting in approximately 1,700 MW of relief.²⁴

PJM released a report that identifies the causes of the emergency and significant generation shortfall. PJM concluded that the daily Appalachian gas production loss of approximately 30% of total northeast daily production caused a significant loss of gas supply for all downstream gas consumers, particularly larger, more efficient gas-fired power generation units that require nominated supplies flowing at uniform and higher pipeline pressures to operate. PJM determined that gas well freeze-offs plunged production, while losses of pipeline compression occurred in Ohio and Pennsylvania that exacerbated gas delivery issues. The holiday weekend (lower gas supply) also contributed to the crisis.²⁵

PJM reported that coal generation had fewer outages than gas generation. Meanwhile, wind resources performed well, but solar generation only met or exceeded its capacity expectations during a few hours each afternoon, which was not coincident with the peak electric demand periods.²⁶ On balance, EKPC's generation fleet over-performed relative to its commitment to provide capacity to the PJM region but is not immune to challenges like those experienced by other resources in the region.

²³ PJM, Winter Storm Elliott, Event Analysis and Recommendation Report, July 17, 2023, <https://www.pjm.com/-/media/library/reports-notice/special-reports/2023/20230717-winter-storm-elliott-event-analysis-and-recommendation-report.ashx>

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

Winter Storm Elliott highlights several important lessons relevant to this rulemaking:

- PJM does not have limitless generation capacity. Load shedding concerns are a reality, despite projections of adequate supply resources, due to a confluence of factors.
- A diversified generation portfolio is essential during emergency events.
- Gas production and delivery have challenges during freezing events, and Local Distribution Companies have a first priority to serve retail gas customers not gas-fired generators.
- Hydrogen or natural gas co-firing in the Proposed Rule fails to alleviate the risk of freezing pipelines.

The Proposed Rule pushes America's energy mix away from diversification. It shuts down coal and minimizes construction of new natural gas and dual-fueled assets. Renewable resources are heavily weighted by EPA. This outcome endangers the grid by betting on the performance of wind and solar generation during extreme weather and reliability events. For this reason, EKPC strongly supports a Reliability Mechanism for emergency situations, at a minimum. But the better policy is support for a balanced generation mix in all circumstances.

In the Proposed Rule, EPA recognizes:

In some rare instances where the reliability of the system is jeopardized due to extreme weather events or other unforeseen emergencies, authorities can request a temporary reprieve from environmental requirements and constraints (through DOE) in order to meet electric demand and maintain reliability. These proposed actions do not interfere with these already available provisions, but rather provides a long-term pathway for sources to develop and implement a proper plan to reduce emissions while maintaining adequate supplies of electricity.²⁷

EPA shrugs off the seriousness of emergency events. Rather EPA places excessive emphasis on the Department of Energy (DOE) to solve the problems that EPA creates by virtue of this rule. This proposal will forever shutdown critical generation resources. A DOE temporary reprieve hardly helps bring back retired generation.

Environmental justice requires careful consideration of the health and safety of disadvantaged communities during emergency events. EPA is directed to consider any effects of a proposal that may "exacerbate existing disproportionate impacts on minority populations, low-income populations, and/or Indigenous peoples."²⁸ It is a serious

²⁷ Proposed Rule at 33416.

²⁸ EPA, "Regulatory Impact Analysis for the Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule," May 2023 at 6-

consequence that the Proposed Rule would place these communities in a more vulnerable position due to power shortfalls. While EPA considers a myriad of other indirect impacts of the Proposed Rule, such as climate change, EPA overlooks the most significant, direct impact to the everyday lives of environmental justice communities – the ability to receive reliable electricity.²⁹ The effects of extreme weather events are disproportionately worse for the elderly, medically-sensitive persons, and historically marginalized communities. EKPC is bound by its mission as a non-profit to ensure safe, reliable power to its end users in all circumstances, in the face of challenging weather and public safety events. EKPC continues to highlight how coal-fired assets are an important safety net during these times – as they provide proven, dependable and critical power generation. EPA must revise its environmental justice analysis to consider (1) the reliability consequences of the Proposed Rule on vulnerable communities and (2) the benefits of baseload assets to sustain essential needs of these populations by sheltering them from extreme temperatures, storm events, and supporting food storage and medical facilities.

D. Regional Transmission Organization reliability analyses and timelines must be preserved.

The Proposed Rule would set in motion an unprecedented change in the electricity generation grid within a short time period. Costs and infeasibility of BSER would force retirements that have yet to be announced. This generation must be replaced, not just with sufficient megawatt quantity but also with sufficient reliability attributes, which the North American Electric Reliability Corporation (NERC) calls the capability of providing “essential reliability services” (e.g., frequency response, balancing and voltage control operational capabilities).

EPA projects generation transitions in its baseline analysis (Table 12), which do not even take into account that the infeasibility of BSER will force more generation offline.³⁰ In 2028, EPA projects that coal generation without CCS will total 100 GW. EPA estimates that the Proposed Rule will cause reductions in coal capacity without CCS to 44 GW in 2030 and to 0 GW in 2035. Only 9 GW of coal-fired generation, with CCS installed, survives at all in 2040. EPA projects that renewable generation will begin at a baseline of 315 GW in 2028 and finish with 877 GW in 2040. Other generation fuel sources – oil and natural gas -- show small increases by 2040. Such a massive resource transformation requires careful planning and adequate time for RTOs to ensure grid reliability. The retiring coal generation must be replaced with a sufficient quantity of supply resources that have sufficient reliability attributes to meet the electric grid’s energy needs continuously.

2, https://www.epa.gov/system/files/documents/2023-05/utilities_ria_proposal_2023-05.pdf (Regulatory Impact Analysis).

²⁹ *Id.* at Section 6.

³⁰ EPA, Integrated Proposal Modeling and Updated Baseline Analysis: Memo to the Docket for New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule Proposal, July 7, 2023 (Docket ID No. EPA-HQ-OAR-2023-0072) at Table 12.

Table 12 2028, 2030, 2035 and 2040 Projected U.S. Capacity by Fuel Type for the Updated Baseline and the Illustrative Integrated Proposal Scenario

	Year	Capacity (GW)		Percent Change from Updated Baseline
		Updated Baseline	Integrated Proposal	Integrated Proposal
Coal	2028	100	99	-1%
Coal with CCS		0	0	-
Coal with Gas co-firing		0	0	-
Natural Gas		463	468	1%
Hydrogen Co-firing		0	0	-
Natural Gas with CCS		0	0	-
Nuclear		96	96	0%
Hydro		102	102	0%
Non-Hydro RE		315	316	0%
Oil/Gas Steam		63	63	0%
Other		7	7	0%
Grand Total		1,146	1,151	0%
Coal	2030	60	44	-25%
Coal with CCS		9	12	29%
Coal with Gas co-firing		0	1	-
Natural Gas		454	462	2%
Hydrogen Co-firing		0	0	-
Natural Gas with CCS		7	4	-39%
Nuclear		92	92	0%
Hydro		104	104	0%
Non-Hydro RE		403	405	0%
Oil/Gas Steam		60	70	15%
Other		7	7	0%
Grand Total		1,196	1,200	0%
Coal	2035	33	0	-99%
Coal with CCS		11	12	13%
Coal with Gas co-firing		0	1	-
Natural Gas		460	446	-3%
Hydrogen Co-firing		0	42	-
Natural Gas with CCS		10	6	-45%
Nuclear		84	84	0%
Hydro		108	108	0%
Non-Hydro RE		667	664	0%
Oil/Gas Steam		59	68	14%
Other		7	7	0%

Grand Total		1,439	1,438	0%
Coal	2040	28	0	-99%
Coal with CCS		8	9	12%
Coal with Gas co-firing		0	0	-
Natural Gas		503	515	2%
Hydrogen Co-firing		0	12	-
Natural Gas with CCS		10	6	-45%
Nuclear		79	79	0%
Hydro		110	110	0%
Non-Hydro RE		868	877	1%
Oil/Gas Steam		59	67	14%
Other		7	7	0%
Grand Total		1,672	1,683	1%

Note: In this table, "Non-Hydro RE" includes biomass, geothermal, landfill gas, solar, and wind

States and regional transmission organizations (RTOs) must coordinate compliance efforts to ensure reliability impacts are considered and mitigated. Deactivation requires notice and coordination with the RTO. For instance, PJM requires as little as 90 days of advance notice prior to the proposed deactivation date, at which time PJM conducts a reliability analysis.³¹ This analysis determines whether any transmission grid reinforcement is necessary to ensure the reliable flow of power to load centers in PJM, although the analysis does not focus on available generation supply or loss of operationally flexible resources.³² Should the transmission

³¹ PJM Open Access Transmission Tariff (OATT), Part V, Section 113.1. PJM batches all deactivation requests on a quarterly basis and then has 60 days following the end of the quarter to perform the reliability analysis. Should the unit be designated to provide Black Start service to PJM, the notice requirement is one year in advance of proposed deactivation date. PJM OATT, Section 6A, Section 5. PJM posts the deactivation notices and results from its reliability analysis on its website for market transparency. See, PJM's website at <https://www.pjm.com/planning/services-requests/gen-deactivations> It should be noted that most unit owners provide greater than 90-day advance notice.

³² On July 26, 2023, PJM initiated discussion with stakeholders about revising the deactivation rules to extend the advance notice period as well as to incorporate additional reliability reasons (such as generation supply adequacy and sufficiency of reliability-based services) for which PJM may request a generator to operate beyond its requested deactivation date. See <https://www.pjm.com/>-

reinforcements require more time than provided by the generation deactivation date, PJM may request the generation owner to continue operations and avail itself of cost recovery mechanisms available in the PJM Tariff.³³ PJM cannot require a unit to continue operating, rather it may seek to incentivize units to run with cost recovery mechanisms.

The Proposed Rule would generate a substantial number of coal-fired unit deactivation requests within the same time period (2028-2032). Analysis of each of these requests individually and collectively would be quite complex and would involve collectively large capacity deactivations anticipated to occur within a narrow, overlapping, not-too-distant time frame. PJM must have time to evaluate and construct solutions to determine whether the system would remain reliable should the units deactivate prior to replacement generation coming onto the grid.

EPA projects a substantial number of renewable resources would be added to the grid as a result of this proposal. Like deactivations, a new proposal to add generation must be studied to determine whether any transmission grid reinforcements must be constructed prior to the generator injecting power into the grid. Studies ensure that the electricity produced can be delivered to load in the region. The magnitude of interconnection requests and the inefficiencies inherent in the interconnection processes severely delays the timeline for bringing a new resource on-line. In fact, the Federal Energy Regulatory Commission (FERC) requires RTOs to provide updates on their efforts to manage the bottleneck of interconnection requests when RTOs have 25% or more requests backlogged in the process.³⁴

On February 14, 2023, PJM filed its required report on the status of the interconnection queue with FERC.³⁵ PJM identified 172 New Service Requests, submitted from July 1, 2022 through December 31, 2022. Consequently, as of December 31, 2022, PJM had 2,714 active projects at various points in the study process representing approximately 166 GW. For comparison, the installed capacity on the PJM system is approximately 183,000 MW.

For the 2022 six-month reporting period covered in its February 2023 filing, PJM reports that its backlog exceeds 25% for every phase of the interconnection process.

/media/committees-groups/committees/mrc/2023/20230726/20230726-item-02---1-enhancements-to-deactivation-rules---problem-statement.ashx

³³ *Id.* at Section 113.2, and OATT, Part V.

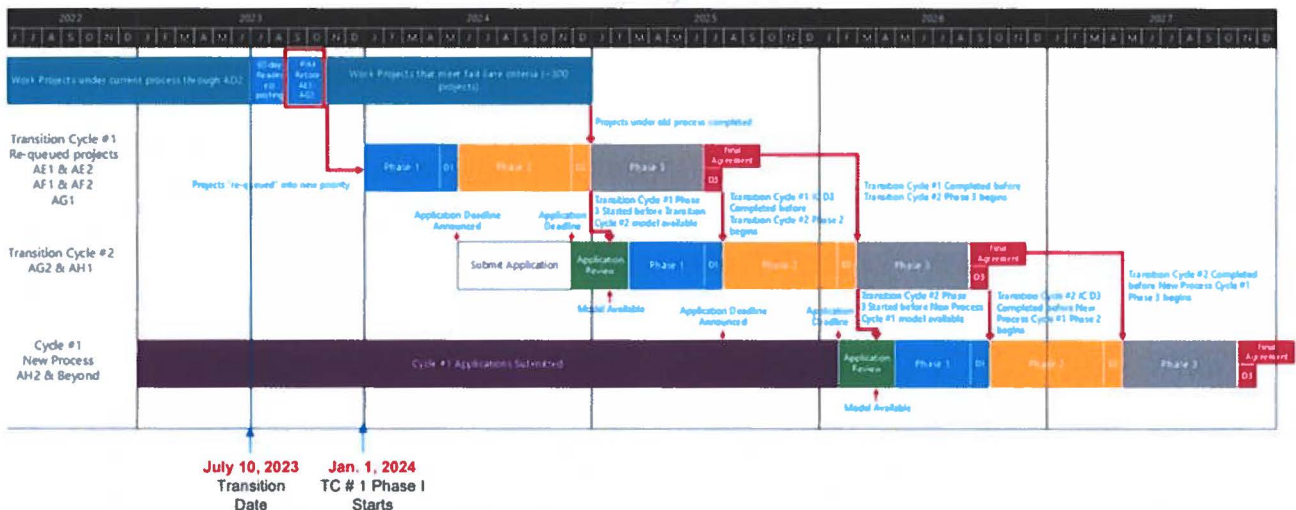
³⁴ In Order 845, the FERC revised the pro forma Large Generator Interconnection Procedures to add Section 3.5.4 to require transmission providers to file informational reports with the Commission if a transmission provider exceeds its interconnection study deadlines for more than 25 percent of any study type for two consecutive calendar quarters. In adopting these reporting requirements, the Commission found that the reporting requirements strike a reasonable balance between providing increased transparency and information to interconnection customers and not unduly burdening transmission providers. See Docket No. RM17-8-000 (Order No. 845), 163 FERC ¶ 61,043 (April 19, 2018).

³⁵ <https://www.pjm.com/-/media/documents/ferc/filings/2023/20230214-er19-1958-003.ashx>

PJM is not alone; other RTOs are facing similar backlog challenges. FERC itself has requested comment on potential beneficial changes that could be considered.³⁶

The PJM region pro-actively identified beneficial changes to its interconnection process. FERC approved the changes PJM filed in May 2022. PJM's changes should greatly improve the efficiency of the interconnection study process, but PJM must still work through all the backlogged projects. However, any new interconnection request received by PJM will continue to be delayed. PJM is working through the backlogged projects before studying new requests. If a project were submitted into the interconnection queue study process today, the owner would not receive interconnection study results regarding transmission reinforcement needs and costs until 2027 or later, under the most optimistic projections.

PJM projects 2027, at the earliest, for any new or replacement capacity to receive an Interconnection Service Agreement, which greenlights the construction and regulatory approval processes (e.g., CPCN and other permitting processes) which itself may take a few years to complete. Obviously, this timeline does not even include constructing the generation among other important factors.³⁷ It is simply extraordinarily irresponsible and unrealistic to force units off-line without a replacement safety net.



PJM Interconnection Process Subcommittee Transition/New Process Timeline³⁸

EKPC encourages the EPA to coordinate with PJM to minimize any potential reliability concerns that may arise from deactivations and gaps in activations. The potential for multiple generators impacted by the Proposed Rule to deactivate may

³⁶ See "Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection", 176 FERC ¶ 61,024, (July 15, 2021).

³⁷ To the extent possible, EKPC would seek to undertake financing and permitting efforts in parallel; however, it is not anticipated that significant progress may be made on those aspects until finalization of the Interconnection Service Agreement at the end of the PJM interconnection study process.

³⁸ See <https://www.pjm.com/-/media/committees-groups/subcommittees/ips/2023/20230731/20230731-item-03---retool-study-process-to-determine-fast-lane-vs-tc1-and-model-availability.ashx>

result in resource inadequacy or other operational challenges due to the loss of the operating characteristics of those resources. EKPC encourages EPA to seek input from PJM Interconnection, LLC, the independent grid operator responsible for the reliable operation of the region that includes the EKPC system, to ensure that the reliability of the PJM region is not compromised as a result of the regulatory changes, risking the health and welfare of the over 65 million people served.

E. The Proposed Rule would force generation offline where transmission system limitations or market constraints are present without any provision for replacement generation.

The Proposed Rule will place pressure on the electric grid, exposing areas with transmission system limitations and energy market constraints which risk power interruption. Typically, such a dramatic change, as is proposed by EPA, would be the subject of careful study by the RTO or transmission operator, not to mention federal agencies such as FERC, due to safety and reliability concerns. EPA disregards this vital process at the peril of the grid.

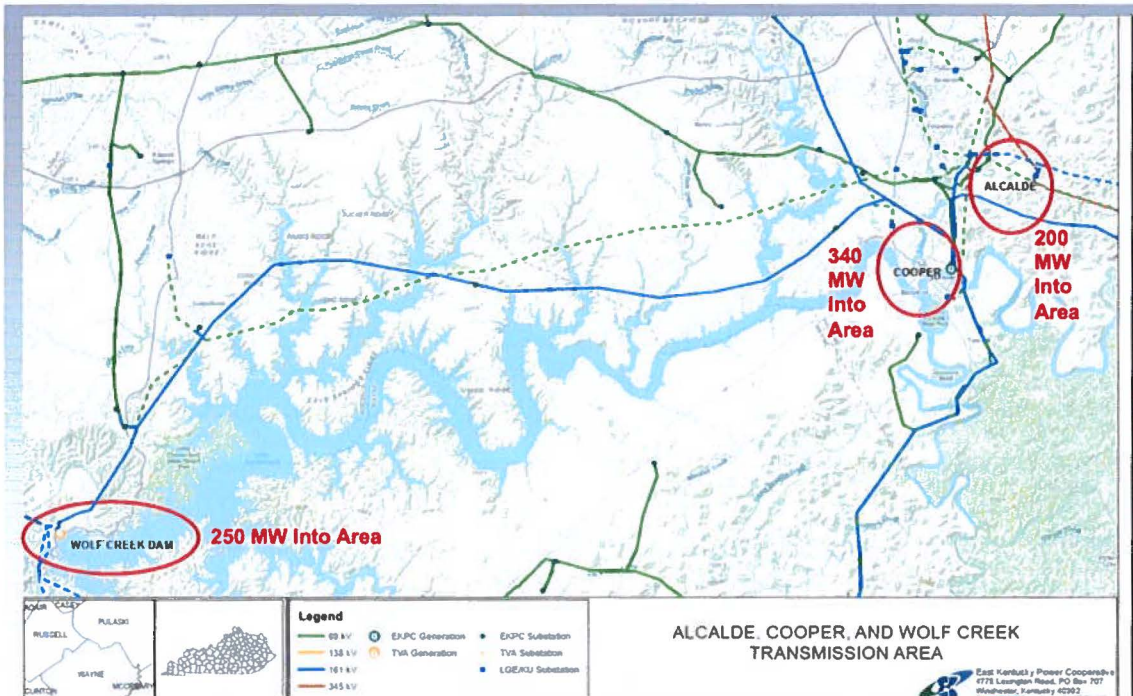
Although EPA uses IPM modeling with general assumptions, IPM is not able to take into account all system constraints, geographic inflexibilities, and the present and future projections of the adequacy of transmission infrastructure. For example, a plant in western Kentucky cannot substitute for a plant in eastern Kentucky. The transmission system in Kentucky (and elsewhere) was designed and constructed based on historical generation need, plant locations, and system geography.³⁹ EKPC's and most transmission systems were generally designed to assure the utility could serve its load with the most economic resources while not posing a burden on neighboring transmission systems. When utilities joined RTOs, the RTO optimized the existing generation and transmission assets to serve load across a broader region and took on the responsibility to plan the transmission grid and ensure resource adequacy into the future. RTOs work to plan the future transmission system to allow for greater flexibility of power flows and the integration of new resources, but these projects continue to face many challenges and delays largely due to the assignment of cost and siting.⁴⁰

As previously discussed, the Proposed Rule assumes that almost all coal-fired generation will be forced off-line, save 9 GW of coal with CCS. With respect to EKPC's fleet, Cooper Station could not continue operating unless EKPC is able to overcome the substantial feasibility and costs of installing CCS. Cooper Station is located near Lake Cumberland in southern Kentucky. The grid in that area of Kentucky is primarily electrified by three generation sources: Cooper Station (Cooper), E.W. Brown

³⁹ Utilities designed transmission systems to manage and serve the loads for only their consumers. Later, after the advent of energy markets and regional transmission organizations. RTOs were created to operate the transmission grid over a broad geographic region providing operational efficiency, power production savings, and resource adequacy benefits. Electric cooperatives like EKPC joined RTOs to provide these benefits to their cooperative owner-members' customers.

⁴⁰ FERC is also working on improvements to this process. For further discussion, see <https://ts2.space/en/federal-energy-regulatory-commission-finalizes-new-rules-to-streamline-power-generation-projects/>

Generating Station (Brown), and Wolf Creek Hydroelectric Plant (Wolf Creek). A total of 590 MW is needed between these three generation assets to serve this area of Kentucky during typical peak load conditions. The location of the transmission lines defines the generation options for the area. Present infrastructure options restrain generation from other assets to contribute significant power to this area.



The figure above depicts the power flow contributions of Wolf Creek, E.W. Brown (via the Alcalde substation), and Cooper.⁴¹ Transmission lines operating at 161 kilovolts and higher are shown in red and blue; 69 kV transmission lines are in green. While continued generation at Cooper Station is essential to maintain the combined 590 MW need for this area,⁴² these three generation assets also cannot be offline at the same time without creating a condition in which customer interruptions would be necessary (e.g., unintended power outages or rolling blackouts). Further complicating the strain in this area, Brown Unit 3 (413 MW) may be retiring by 2028.⁴³ Power demand has seen a moderate increase in the Lake Cumberland area due to new residential and small commercial uses.

In the past, critical generation scenarios have occurred in this transmission-constrained area. High demand in winter and summer months is most likely to present stresses on the system. For example, during a period of high demand due to cold

⁴¹ The illustration shows the area power flows based on the transmission lines connecting to the area. A generating station may have a larger MW generation capacity in total than can be carried to this area based on transmission line kV.

⁴² Cooper Station is also essential for Volt-Amps Reactive (VAR) power.

⁴³ See <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/ppl-corp-utilities-eye-retirement-of-3-ky-coal-units-seek-replacement-power-62058992>

weather in February 2021, the transmission system in southern Kentucky was damaged by a severe ice storm. The Cooper Station generating units tripped offline and reduced the availability of power available to the customers in the area. As load continued to grow, EKPC was reaching a point where manual interruption of customers was imminent. However, a near simultaneous restoration of a key transmission facility and the return to service of Cooper generation avoided the interruption of service to EKPC owner-members. This interruption would have taken place at a critical period for our fellow citizens. The cold and ice were a challenge enough without the additional burden of losing electricity that powers heat appliances, furnaces and life-saving medical necessities.

More recently, during Winter Storm Elliott, the potential impact on EKPC's system from generation not being online to produce power in neighboring regions highlighted the importance of both EKPC generation resources and the generation resources in the neighboring regions. Due to the interconnectedness of the EKPC and the Louisville Gas & Electric / Kentucky Utilities (LGE/KU) systems, much coordination is needed, especially during times of system stress like Winter Storm Elliott presented. During Winter Storm Elliott, the operational coordination was focused on the need to determine options for reducing flows on constrained transmission facilities to reduce the potential for overloads that could result in uncontrolled load shed or cascading blackouts. PJM issued what is called a Post Contingency Local Load Relief Warning (PCLRRW), and EKPC was required to identify which loads EKPC would shed if the contingency (i.e., either the loss of a generation resource or a tripping of a transmission facility) were to occur that would have led to the potential overloads of concern. There were no transmission switching solutions possible to alleviate the constraint. EKPC had to identify the proactive load shed that it would have needed to effectuate to prevent an uncontrolled, cascading blackout should the contingency occur. Ultimately, PJM curtailed the exports that EKPC believes contributed to the concerning transmission constraints that necessitated the PCLRRW. Although EKPC did not need to shed load, LGE/KU and the Tennessee Valley Authority (TVA) did. Those utilities immediately had to undertake controlled load shedding in their systems because they had insufficient generation to serve their respective loads after PJM curtailed the exports. This experience highlights the concerns presented by the potential for the Proposed Rule to drive more generation deactivations impacting system operations in this highly interconnected region of EKPC, LGE/KU and TVA.⁴⁴

By forcing retirements for well-controlled coal-fired units, the Proposed Rule would substantially reduce capacity in this area (Cooper Station and Brown, primarily), creating a dire situation. Energy cannot be simply bought from sources in other locations on the electric system because the transmission constraints present delivery problems into the load pocket. The transfer of energy into areas served by Cooper and

⁴⁴ EKPC v. FERC, Docket No. EL23-74-000, Complaint, Attachment B –Affidavit of Scott Sells (May 31, 2023), <https://elibrary.ferc.gov/eLibrary/filedownload?fileid=3CDE70EB-33B8-C9A1-9C16-8877D6600000> at 94.

Brown, without exceeding the design limits of transmission lines and substation equipment, is not presently possible. The Lake Cumberland area example and the importance of coal-fired assets to electrifying this region highlights the importance of proper planning to address unique areas of the country that cannot be modeled by general modeling tools like IPM. EPA must coordinate with RTOs and provide time for detailed studies of areas with equipment and transmission limitations to avoid power curtailments and potential blackouts.

In summary, EKPC urges EPA to factor transmission and market realities into its analysis. The Proposed Rule is flawed without considering these important aspects of the power sector. We also encourage EPA to engage with RTOs to better understand these constraints so that this rulemaking can be aligned with energy policy, timing, and grid reliability considerations.

Given the dramatic repercussions of this rulemaking, EKPC strongly advocates for a Reliability Mechanism. Utilities should have the opportunity to refrain from retiring baseload assets that are essential to grid reliability, as determined by the RTO, ISO, DOE, or state utility commissions.⁴⁵ EPA should not discount how utilities are in the best position to evaluate the unique attributes of their generation assets, such as day-to-day operation, remaining useful life, unit efficiency, and economics. As such, EPA should not in effect force retirements by requiring infeasible technologies. Units should be able to operate in emergency circumstances in excess of limits imposed by this rulemaking, such as capacity factor or CO2 emissions limits. EKPC urges EPA to consider a provision excluding compliance during these types of emergencies.

IV. EPA's BSER proposal is not adequately demonstrated.

EPA's determinations of BSER for new and existing EGUs are far beyond the boundaries of CAA Section 111 or even what EPA has promulgated under Section 111 in the past. The Proposed Rule sets GHG emissions standards for fossil fuel-fired coal, oil, and natural gas generating units. EPA requires units, depending on category and fuel burned, to deploy CCS or low-GHG hydrogen combustion. EPA's determination of the "best system of emissions reduction" must be adequately demonstrated to comply with Congress's mandate.

The term "standard of performance" means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (considering the cost of achieving such reduction and any nonair quality health and environmental impact and energy

⁴⁵ For example, KPSC must provide authorization for any future fossil fuel retirements. KY Gen. Assembly, 23 Reg. Sess. SB4, <https://apps.legislature.ky.gov/recorddocuments/bill/23RS/sb4/bill.pdf> (stating that prior to retirement, "The utility will replace the retired electric generating unit with new electric generating capacity that: 1. Is dispatchable by either the utility or the regional transmission organization or independent system operator responsible for balancing load within the utility's service area; 2. Maintains or improves the reliability and resilience of the electric transmission grid; and 3. Maintains the minimum reserve capacity requirement established by the utility's reliability coordinator.").

requirements) the Administrator determines has been *adequately demonstrated*.

Courts have drawn EPA's boundaries for selecting BSER. As a fundamental principle, EPA's BSER decision must be the result of "reasoned decision making."⁴⁶ The BSER technology must not be a "purely theoretical or experimental" means of controlling air pollution.⁴⁷ EPA's task is to make a projection based on existing technology subject to the "restraints of reasonableness and cannot be based on 'crystal ball' inquiry." This determination is partially based on the time in which the technology will be available.⁴⁸ While a standard can be predictive, courts look at EPA's record for evidence to determine whether it is achievable in the expected time frames.⁴⁹

EKPC's trade association partners have undertaken extensive studies of EPA's BSER – CCS and hydrogen co-firing. EKPC endorses these studies and adds perspective as to the ability of the EKPC fleet to navigate this BSER selection. After extensive review of studies, technical papers, discussions with vendors, and our consultants, EKPC confidently joins industry's position that EPA has chosen a BSER that is hypothetical, unachievable and certainly not attainable within the deployment timelines that EPA has recommended.

A. CCS is not adequately demonstrated.

1. The Proposed Rule does not provide a sufficient record to support CCS.

The Proposed Rule's record does not provide an adequate basis to show CCS is adequately demonstrated. EPA identifies only a small list of projects and includes a project rife with technical issues, a non-operating project, and a small pilot project:

- SaskPower Boundary Dam Unit 3 (110 MW lignite-fired unit in Saskatchewan, Canada).
- Petra Nova capture facility (240 MW slip-stream capture at Parish Generating Station in Texas)
- Plant Barry (25 MW pilot project capture in Mobile, Alabama)⁵⁰

To be adequately demonstrated, both the carbon capture and the storage aspects of the proposal must be addressed. With respect to carbon capture itself, EPA proposes full-scale installations achieving 90 percent capture rates with cost estimates based on recent coal fleet average capacity of 400 MW. However, EPA identifies only a

⁴⁶ *National Asphalt Pavement Ass'n v. Train*, 539 F.2d 775 (D.C. Cir. 1976) (citing *Essex Chem. Corp. v. Ruckelshaus*).

⁴⁷ *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375 (D.C. Cir. 1973) (citing Senate Report).

⁴⁸ *Id.* at 391-92.

⁴⁹ See, e.g., *Sierra Club v. Costle*, 657 F.2d 298 (D.C. Cir. 1981) (considering vendor information that stated the SO₂ standard was achievable and overlooking data shortcomings, such as limited test information).

⁵⁰ Proposed Rule at 33293.

small list of CO₂ capture projects.⁵¹ None of the cited projects have demonstrated successful operation and capture on a scale that would be deployed to accommodate larger power generating units in the country. Of the identified projects, none are full-stream operational systems at a U.S. power generation site.

A single U.S. power generating site, the Petra Nova site, demonstrated slip-stream operation on one of the coal-fired power generating units at the facility. CCS controlled less than one half of the generation from a single generating unit at the site and reflected less than six percent of the total site generating capacity. The Proposed Rule Technical Support Document describes the challenges experienced at the Petra Nova facility, stating that unplanned outages at the capture plant accounted for “less than one-third” of unplanned outages.⁵² If the relative success of the Petra Nova slip-stream demonstration is the basis of the Proposed Rule, the record certainly doesn’t support full-stream operation on all generation without significant impacts to unit availability and, as a result, reliability. In contrast, Petra Nova demonstrated unreliable operation and unplanned outages to the point that even though the captured carbon had a beneficial use at the Petra Nova site, the CCS was infrequently operated and is currently not in operation.

While the Boundary Dam, Canada installation has demonstrated more continuous operation on the full-stream from a coal-fired unit, that project is on a single, small capacity unit that does not correlate to the capacities contemplated by the Proposed Rule. The Proposed Rule describes the challenges experienced at Boundary Dam and the reduction in capacity factor resulting from “unplanned maintenance and other factors.”⁵³ There are no known CCS projects operating on natural gas units.

Key operational considerations for CCS-equipped capacity have not been verified. The ability of CCS-equipped resources to follow variable load, analyze real-world water and resource requirements, and quantify the costs and performance of startup, shutdown, operations, and maintenance is an absolute unknown.⁵⁴ Yet this proposal would require full capture of all flue gas during all conditions. If the CCS equipment has operational issues, the generating unit would have to come off-line. Unlike the slip stream projects like Petra Nova, a unit’s ability to generate would completely depend on the viability of the CCS equipment. Never before has the grid’s reliability been inextricably linked to the functionality of an unproven process with documented maintenance woes.

EPA asserts that the demonstration of CO₂ capture is also validated by “early-stage CCS projects,” and CO₂ capture projects assisted by grants, loans, guarantees, and Federal tax credits.⁵⁵ These projects certainly reflect the commercial *availability* of

⁵¹ EPA-HQ-OAR-2023-0072-0061_attachment 1 (CCS facility list.xlsx)

⁵² Technical Support Document, Greenhouse Gas Mitigation Measures for Steam Generating Units, May 23, 2023, Docket ID No. EPA-HQ-OAR-2023-0072 (GHG TSD).

⁵³ Proposed Rule at 33291-92.

⁵⁴ EPRI Comments, filed separately in this docket.

⁵⁵ See GHG TSD.

the technology and industry interest in the technology to support development but do not adequately demonstrate the *performance* of the systems. It is reckless to presume seamless use of such experimental technologies for such a large portion of the energy sector without corroborating data or vendor information.

EPA's proposal addresses only the capture transport and storage of CO₂. It does not address even the possibility of beneficial use of captured CO₂. In EPA's rush to issue this Proposed Rule, it neglected to consider less widespread application of CCS in areas of the country where beneficial use of captured CO₂ is available, such as at the Petra Nova site. However, beneficial use is also unproven due to operation and maintenance issues that prevent widespread use. Capture and/or beneficial use of CO₂ is not consistent throughout the country and, as such, is not BSER.

With respect to the storage component of the process, geologic sequestration of captured CO₂ is clearly available in certain parts of the country, while in others, it is not. EPA acknowledges this reality; however, the Proposed Rule's solutions for areas in which geologic sequestration is unavailable equate to forced shutdowns and generation shifting for existing units.⁵⁶ EPA projects just two to three years to characterize and permit a storage facility but neglects to consider difficulties in obtaining Class VI permits for storage facilities. The inability of applicants to obtain permits will cause an insufficient supply of available storage locations. The only operational carbon storage facility for which EPA has issued a Class VI permit took roughly five years for site characterization alone.⁵⁷ EPA must revise its time frame to characterize and permit a storage facility.

2. CCS is not a viable option for the EKPC existing coal-fired fleet.

CCS has not been demonstrated to achieve the required CO₂ reduction at the scale and reliability required for any of EKPC's current coal-fired generating units. Achieving 90% capture at any of EKPC's existing units on a continuing basis is highly speculative and would equate to a crystal ball guess, given the utter dearth of supportive evidence. EKPC projects that a CCS system would significantly cut into its ability to provide reliable power because CCS equipment maintenance issues would cause forced outages. CCS would also require devoted power from the units (parasitic load) to operate the CCS island. That power could no longer be sold on the grid. Altogether, the substantial uncertainties, likelihood of project failure, capacity restraints, and maintenance risks push a prudent operator away from investment in CCS.

Even if capture is fully realized, EKPC is unaware of feasible and permitted storage locations near its generating plants, nor are we aware of any current evaluations of formations for storage ongoing in Kentucky. Storage evaluations would need to include not only technical feasibility but also an extensive permitting process. EKPC anticipates at least 4-5 years to permit a well site. Since the feasibility and

⁵⁶ EPA acknowledges that all areas of the country do not have geologic sequestration capabilities. Proposed Rule at 33298

⁵⁷ Carbon Storage Appendix at 9-11.

economics of any CO₂ capture project would be predicated on permitting a viable storage location, the EKPC fleet would be unable to design, permit, install, and operate a capture and storage system in less than 10 years.

EPA fails to identify thoroughly vetted and researched areas for storage that would be feasible and permitted storage locations. To cover all Kentucky EGUs, the commonwealth of Kentucky would need to identify and permit storage locations for a staggering 50 million metric tons of CO₂ per year. The only other alternative is piping the CO₂ to an acceptable location. EPA cites⁵⁸ planned or announced CO₂ pipelines with no indication that these pipelines would even come close to accommodating the captured CO₂ from generation at various areas of the country or in Kentucky. Based on this information, CCS as BSER is fatally flawed and not achievable for the existing EKPC fleet, even setting aside the rigorous timelines in the proposal. EKPC's concerns regarding the lack of success also weigh against selecting CCS as an option for future baseload natural gas generation.

CCS technology is important to support economy-wide decarbonization. However, in its current state the technology is speculative. There is much to be learned to achieve affordable and reliable industry-wide CCS deployment. EPA must revise and reconsider its optimistic assumptions about cost, project schedule, operational flexibility, and regional viability for CCS.⁵⁹ The result will demonstrate that CCS is not a workable BSER option at this time.

B. Natural gas co-firing is not adequately demonstrated on all coal-fired unit types.

Natural gas co-firing is an available option for many existing coal-fired steam boilers with modification. The level of modification is dependent on boiler design and existing infrastructure. With respect to some steam boiler types, the ability to co-fire has not been demonstrated. For example, EKPC Spurlock Station Units 3 and 4 are CFB boilers, which is a unique technology designed to lower emissions utilizing a fluidized bed. CFBs cannot co-fire natural gas because they depend upon coal ash contacting the steam generating tubes inside the furnace. Much research would need to be conducted to see if a viable alternative would be possible and economic. Otherwise, the Proposed Rule would result in two prematurely, stranded CFB assets costing nearly \$1 billion dollars in write-offs since the units were built and commissioned in 2005 and 2009 respectively.

In other cases, the ability to co-fire exists, but the required infrastructure does not and is not likely to exist in the near future. EKPC's existing coal-fired generating units currently use fuel oil for startup. No natural gas pipeline exists in the vicinity of EKPC's Spurlock or Cooper plants. The closest natural gas pipeline is approximately 40 miles from EKPC's existing coal-fired generating stations. The cost of building an entirely new natural gas pipeline to serve units is timing consuming and expensive. Exacerbating

⁵⁸ GHG TSD at Table 3.

⁵⁹ EPRI Comments, filed separately in this docket at Section 2.1 and 2.2.

the situation, the Proposed Rule only permits co-firing for intermediate coal-fired units to gap-fill until 2040. To build the necessary natural gas infrastructure to Spurlock and Cooper, each would require an estimated investment cost of \$400 to \$450 million dollars, which only extends operational time frame an additional 8 years without CCS. At a minimum, EPA should allow 40% natural gas co-firing to be determined on a system-wide basis instead of an individual unit basis.

In summary, EPA should consider CFB units as a separate sub-category not subject to co-firing requirements. EPA must also consider the timing, cost, and feasibility involved in constructing gas pipelines to locations, such as Cooper and Spurlock Station, and allow states to work with their stakeholders to develop realistic timelines that could be folded into a normal SIP process approvable by EPA.

C. Hydrogen co-firing is not adequately demonstrated.

The Proposed Rule's record does not provide an adequate basis to support the ability of new generation to co-fire hydrogen at the percentages proposed or that the required infrastructure will be available in time for source to comply. EPA identifies certain models of combustion turbines that can combust up to 100 percent hydrogen and notes that these are generally smaller industrial or aeroderivative units. These units are not power sector combustion turbines. EPA also states that some existing combustion turbines can co-fire as high as 50 percent hydrogen and extrapolates to conclude that co-firing can be performed on a variety of EGU sizes and fuel-types. This patchwork of assumptions is a broad leap to the conclusion that co-firing will be possible on any new and existing EGU combustion turbines at 96% by 2038.

Furthermore, EKPC and its cooperative trade association⁶⁰ have separately researched the availability of units that can co-fire hydrogen. NRECA reports that the newest units can co-fire up to 30% hydrogen, but there is no evidence that this percentage can be achieved continuously. None of EKPC's presently permitted and operating combustion turbine models can co-fire hydrogen at even the minimum percentage of the Proposed Rule. EKPC inquired as to options on the market for new generation. EKPC confirms that selected turbines may co-fire 30% hydrogen utilizing less efficient combustion technology, but these turbines have not been demonstrated on a commercial scale. At present, EKPC is unable to identify any manufacturers that will provide performance guarantees for co-firing at 96%, as EPA proposes.

Hydrogen power generation depends on an entire energy economy that does not exist today to support the power sector.⁶¹ A key component of the feasibility of hydrogen co-firing is the ability to provide low-greenhouse-gas (GHG) hydrogen in vast quantities to power generating turbines throughout the country. Not only would turbines have to evolve to combust hydrogen, but low-GHG hydrogen would need to be available, pipelines would need to be installed to deliver hydrogen, and the hydrogen production itself would need to be adjusted and scaled. At each of these steps, the

⁶⁰ NRECA Comments, citing attached Campbell Hydrogen report.

⁶¹ EPRI Comments, filed separately in this docket.

availability of technology readiness is vastly over-estimated by EPA and would likely take decades of diligence.

The future availability of low-GHG hydrogen is completely unsupported and impossible to speculate based on the information available at present. None of today's hydrogen qualifies as a low-GHG fuel suitable for power generation. Electrolysis is the most popular way to make low-GHG hydrogen. The electrolysis process nearly triples the cost and doubles the water consumption of traditional hydrogen production methods. Electrolysis takes approximately 55.5 kWh/kg of hydrogen, which must come from renewable energy. Additional energy will be consumed from an already strained energy system, as discussed in Section III. Additionally, low-GHG hydrogen production via electrolysis consumes massive amounts of water. Clearly, EPA's proposal does not consider water demands or disproportionate water supplies throughout the country.

The current hydrogen pipeline infrastructure is virtually non-existent. Hydrogen hubs are just now in planning stages only. In the Technical Support Document, EPA again extrapolates to solve this glaring reality. EPA finds that the extensive network of natural gas pipelines can be used to accommodate transport of hydrogen. EPA claims that an expansion of natural gas pipelines will be used to support the natural gas co-firing requirement for the Proposed Rule for coal-fired sources *and* hydrogen co-firing for combustion turbines. The proposal neglects to consider that both hydrogen and natural gas in ever increasing quantities are needed to meet the quantities that the proposal contemplates for various types of combustion units.

Safety considerations due to the explosive tendencies of hydrogen were raised in EPA's greenhouse gas non-rulemaking docket. Unfortunately, EPA glosses over these concerns, as well as the public health and environmental implications associated with pipeline embrittlement from transport of hydrogen in existing natural gas pipeline. EKPC urges EPA to address pipeline safety, which is sure to be a perennial issue in lengthy challenges to citing new hydrogen pipelines.⁶² Hydrogen embrittlement is a well-known chemical phenomenon that exists in power utility boiler steam generating units. EPRI, over the past 30 years identified and developed water treatment programs to combat hydrogen embrittlement and reduce boiler tube failures and forced unit outages. Now EPA wants to add hydrogen in natural gas pipeline infrastructure. Significant research will have to be completed before adding hydrogen into steel high pressure pipelines across the country.

EKPC considered the application of co-firing hydrogen as part of its analysis of new generation options. Regrettably, hydrogen co-firing has too many hurdles to pass muster as a viable option – much less to convince the Kentucky Public Service Commission (KPSC) that hydrogen is a reliable, safe investment. First, as previously stated, EKPC is unable to identify any major combustion turbine Original Equipment

⁶² Pipeline challenges for natural gas are commonplace. We anticipate that the transport of hydrogen will be even more controversial and ripe for challenges from landowners. EPA must consider challenges as a factor in deployment timelines for co-firing.

Manufacturers (OEMs) willing to offer performance guarantees and commercial liabilities at 96% hydrogen co-firing. Second, Kentucky has no pipelines for hydrogen, so EKPC is unable to identify areas in its service territory to receive hydrogen. Electrolysis is not feasible. The process returns very little water, so this value represents a used resource. Even a location beside a river or lake is unlikely to satisfy the water requirements of electrolysis, particularly considering state water withdrawal limitations.⁶³ For these reasons, EKPC concludes that even if new combustion turbines come on the market that can combust hydrogen in sufficient percentages, the likelihood of obtain enough low-GHG hydrogen to sustain generation at 30% by 2032 is truly theoretical. The timelines of the Proposed Rule press EKPC to make new generation choices *almost immediately* to enable the cooperative to have sufficient time to replace generation forced offline by the proposal. EKPC cannot wait and hope for technological advances and hydrogen infrastructure to be constructed. Doing so would expose EKPC's customers to future generation shortages or exorbitant, unhedged market prices.

D. EPA must revise the Proposed Rule to select a BSER that is achievable.

In summary, the BSER selected for new and existing units is not adequately demonstrated. Both hydrogen co-firing and CCS are rampant with technical issues and infrastructure inadequacies. EPA's timelines, discussed in more detail in Section IX, leave no room to conduct these projects, even if feasibility was not a concern. Simply put, the Proposed Rule places EKPC in an impossible position. Unachievable BSER (CCS) for EKPC's six operating coal-fired units forces shutdown at least by the date of approval of the Kentucky Section 111 state plan or January 1, 2030.⁶⁴

For resource adequacy, EKPC examined options for baseload replacement generation for replacement of approximately 1,883 MW of generation from coal. CCS and hydrogen co-firing for new gas assets are also not feasible. For this reason, the Proposed Rule only leaves generators like EKPC the option to commission multiple low-load CTs as baseload generation, which is highly impractical. EKPC strongly advocates that EPA reconstruct its BSER analysis. CCS and hydrogen co-firing should not be included as feasible options. These technologies require much more development, testing, refinement, and infrastructure before they can be considered deployment-ready nationwide.

V. The framework and stringency of Subpart TTTTa emissions limitations are unworkable and will lead to arbitrary results.

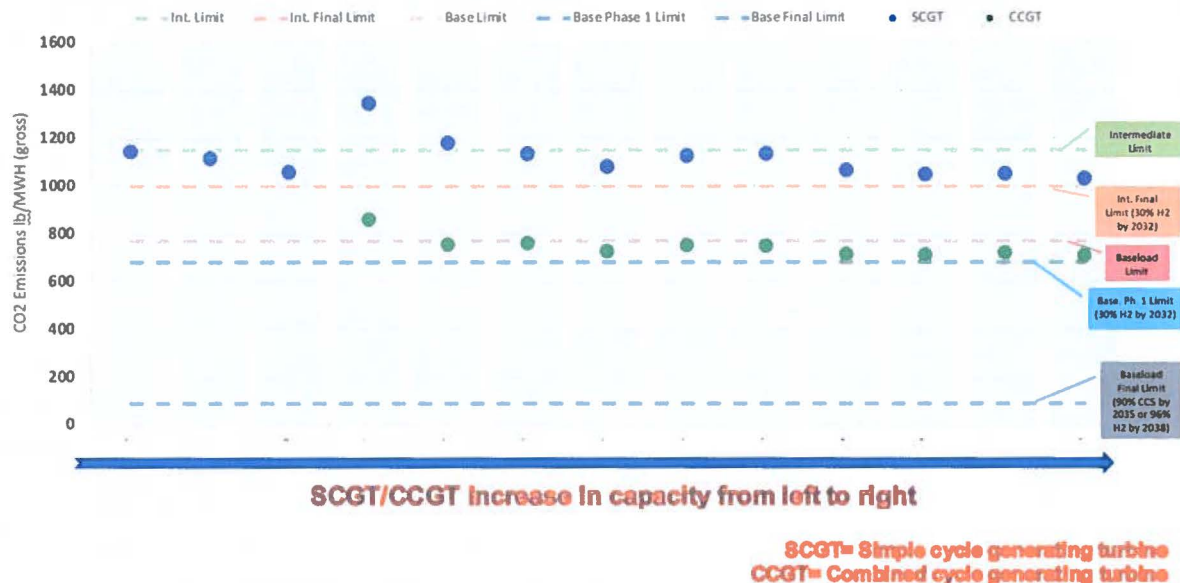
The Subpart TTTTa emission limitations are unattainably rigorous for many combustion turbine models on the market. For those models that can achieve baseload

⁶³ See, e.g., Ohio Revised Code § 1521.22 (Permit for diverting more than 100,000 gallons of water a day from Ohio River watershed).

⁶⁴ Proposed Rule at 498.

CO₂ emissions rates, the rates in the Proposed Rule can only be demonstrated in the best conditions – at full load, during optimal operating conditions, and with a brand-new turbine. These conditions are not sustainable consistently. For instance, the baseload category limitations have not been demonstrated at low load operation, nor is there any compliance margin when inevitable equipment degradation occurs. Even the best maintained turbines cannot perform over time equivalently to new models. Subpart TTTTa emissions limitations must provide more flexibility to account for these conditions. EKPC cautions EPA not to base limitations on aspirational goals of combustion turbine manufacturers until more testing data demonstrates the actual capabilities of new turbine models.

Estimated CO₂ Emissions for New Turbines Compared to Proposed NSPS Subpart TTTTa Limits



Based on publicly available data from combustion turbine OEMs, Subpart TTTTa emissions limitations are so stringent that many combustion turbine make/models cannot meet them. This proposal places OEMs with models that can meet the limits in a position of competitive advantage, as an unintended consequence. Three significant undesirable consequences result. First, sources have fewer choices of makes/models that can meet these limits. Second, with fewer options, timing for deployment will be protracted as these select, few manufacturers must serve the country's entire demand for new generation. Finally, the price of the favored turbine models that can meet the limits will sky-rocket, given supply and demand. EPA must study the market outcomes this Rule is already creating in the new generation market by limiting model options, increasing deployment time frames, and significantly increasing equipment costs.

Almost all simple cycle CT models on the market cannot achieve intermediate category efficiencies, as reflected by the blue datapoints in the Table. The Proposed

Rule relegates simple cycle CTs to a low-load role only, removing operational flexibility from these unit types. EPA ignores the crucial role of these fast start / stop units that follow renewable generation load. Simple cycle CTs are important assets for reliability during emergency events. EKPC notes that its available units at Smith and Bluegrass CTs operated at full capacity during Winter Storm Elliott. EPA must not cripple the simple cycle CT fleet.

The framework of Subpart TTTTa combined with the technological and transport issues with CCS and hydrogen, discourages investment in new baseload generation. Even the intermediate combustion turbine category requires 30% co-firing of hydrogen by 2032. The Proposed Rule incentivizes utilities to invest in additional simple cycle units to avoid speculative BSER (CCS/hydrogen) requirements. But the proposal limits these CTs to a capacity factor less than or equal to 20% to avoid co-firing or CCS. Utilities would have to install more simple cycle units due to the capacity factor limitation, which is costly and wastes resources. It is nonsensical to commission five new simple cycle units limited to 20% rather than one unit that can reach its capacity potential. The CO₂ emitted is equivalent.

For the reasons presented in this Section, EPA should re-evaluate the CO₂ limits selections in the Proposed Rule. EPA should factor in unintended consequences, which may work against EPA's overall goal of reducing greenhouse gases.

VI. The Costs of the Proposed Rule to EKPC and its End Users is Extraordinary.

Even if the proposed BSER were feasible, implementation would be cost prohibitive for EKPC and many similarly-situated utilities. EPA shall select a performance standard that "represents the best balance of economic, environmental, and energy considerations."⁶⁵ In so doing, EPA must consider cost and any non-air quality health and environmental impact and energy requirements.

CCS is not cost effective for EKPC's coal-fired fleet. EKPC endorses the analysis cited in the NRECA comments that highlights the underestimates of CCS costs.⁶⁶ As to EKPC specifically, storage of CO₂ would add further costs to add infrastructure to pipe sequestered CO₂ to areas in which storage is possible. While any of EKPC's coal-fired facilities might incur this cost, the karst terrain near Cooper Station is very unlikely to support storage. Expensive piping would be necessary for CCS to be a viable option at Cooper. As previously stated, Cooper Station is an essential asset to provide generation to the Lake Cumberland region of Kentucky.

If EKPC considers siting new generation assets to replace coal, EKPC must consider co-firing hydrogen since CCS is not demonstrated at scale nor cost effective.

⁶⁵ *Sierra Club*, 657 F.2d at 330.

⁶⁶ NRECA engages in a thorough discussion of CCS costs in the *Analysis of Post Combustion CO₂ Capture Costs in EPA's Proposed Power Plant Greenhouse Gas Emissions Rule*, attached to the NRECA comments.

Co-firing hydrogen is also cost prohibitive. Low GHG hydrogen requires four times more energy to make than it produces.⁶⁷ In addition, a dedicated hydrogen pipeline network would be needed to utilize this option to use more specialized equipment to transport hydrogen, including compressors that operate at three times the speed of natural gas compressors.⁶⁸ Increased maintenance and equipment replacement costs associated with hydrogen's higher flame temperature are likely.⁶⁹ EKPC must build a hydrogen pipeline to any new generation location it chooses unless it dedicates even more costly financial and natural resources to the electrolysis process.

As a gap-filling alternative to allow for operation until the end of 2039, the Proposed Rule requires co-firing of natural gas at 40% in lieu of CCS. EKPC has evaluated the cost of that alternative. Unfortunately, natural gas pipelines are not located nearby either Spurlock Station or Cooper Station coal-fired assets. For example, the cost to install a natural gas line to reach the Spurlock Units would total approximately \$300 - \$450 million dollars. This cost is unjustifiable generally, and especially considering that co-firing only extends the operational life of these units for 8 additional years past 2032.

EKPC's most recent Integrated Resource Plan, filed April 1, 2022, demonstrates that EKPC's current generation resources – including its coal-fired units -- are vital to serving its load on a reliable basis. EKPC is a winter peaking system serving significant heating load to rural residential consumers. EKPC's existing generation fleet is expected to cover the forecasted winter loads but there are minimal, if any, extra reserves on the EKPC system. Any additional requirements must be met with external resources in the form of power purchases since it is not possible to construct new generation in the amount of time proposed. Any loss of generation will have to be replaced in some form, and there are no reserves to absorb the loss. Reserves will be limited on the remainder of the interconnected PJM system as well, since all operators will be required to meet the Proposed Rule. Power Purchase prices would rise significantly as supply becomes limited, if it is even sufficient, and demand increases. The impact will be a sharp rise in cost of electricity to all purchasers and a sharp decline in available generation to the grid.

EKPC must consider and justify its generation and power purchase decisions as a regulated entity by the KPSC. KPSC oversees decisions that generators make that bear on the reliability and affordability of energy to customers. In fact, KPSC recently exercised its authority to reject a decision by another Kentucky utility that placed itself in untenable position during Winter Storm Elliott.⁷⁰ In that case, the KPSC denied a request for rate recovery for \$11.5 million in power purchase costs, finding that the utility

⁶⁷ NRECA comments filed in the docket, Attachment Doug Campbell. *Hydrogen in Combustion Turbine Electric Generating Units* (Campbell Hydrogen) at 4.

⁶⁸ Campbell Hydrogen at 5.

⁶⁹ NRECA comments filed in the docket, Attachment, Kiewit at 13-15.

⁷⁰ Kentucky PSC Order, Electronic Application of Kentucky Power Company For An Order Approving Accounting Practices To Establish A Regulatory Asset Related To The Extraordinary Fuel Charges Incurred By Kentucky Power Company In Connection With Winter Storm Elliott In December 2022, Case No. 2023-00145 (June 23, 2023).

failed to meet its legal obligation to provide adequate, efficient and reasonable service. By knowingly having a generation shortfall, the utility was unable to hedge its market exposure. EKPC cannot put itself in a similar unhedged situation.

Based on PJM pricing on June 13, 2022, if EKPC had to purchase power to replace Cooper Station (Cooper Units 1 and 2) for just *one day* of lost generation, the market cost would total \$2.6 million. Of that total, Cooper Unit 1's lost capacity would cost \$850,000 to purchase off the PJM market, while Cooper Unit 2 would cost the remainder (\$1.7 million). PJM prices experienced during Winter Storm Elliott further illustrate the impact of purchase power agreements on rate payers. The real time market prices exceeded \$4,000/MWh at one point during the storm at periods when there was no sun to power solar resources. Reliable generation was a necessity and, on balance, EKPC's generation fleet over-performed relative to its commitment to provide capacity to the PJM region. The table below illustrates the cost to replace generation from EKPC's existing generating plants on December 23, 2023 and December 24, 2023, if they were unable to operate. The total cost would have been **over \$135 million for two days of extreme cold**. These costs would be passed along to EKPC's rate payers, if approved by the KPSC. Some of the nation's poorest communities, which are located in EKPC's service territory, cannot and should not have to bear this tremendous burden.

EKPC Generating Stations	December 23, 2023	December 24, 2023
Spurlock Station	\$25M	\$34M
Cooper Station	\$6.5M	\$9M
Smith Station	\$17M	\$23M
Bluegrass Station	\$10M	\$13M

Finally, EPA must recognize that the Proposed Rule requires utilities to strand generation assets for which it is still paying on environmental compliance financial obligations. In EKPC's case, the cooperative incurred substantial debt through 2049 to enable the installation of NOx and SO2 air pollution controls at its coal-fired units between 2007 and 2012. To achieve compliance with EPA's recent revisions to the CCR rule and ELGs, EKPC made substantial investments in a project at its Spurlock Station with financial obligations through 2050. Although EKPC should be rewarded and praised for these financial commitments to environmental compliance, the Proposed Rule penalizes EKPC and others that made similar commitments. The Proposed Rule essentially shuts down the generation assets involved. The units will generate no income, while EKPC must continue to pay on loans that finance compliance costs borne to comply with EPA's past regulatory whimsy.

VII. EPA's Section 111 proposal is illegal.

A. Congress did not delegate EPA the authority to re-shape the electricity sector.

EPA lacks the authority to promulgate the Proposed Rule. The far-reaching repercussions of the Proposed Rule exceed EPA's congressional grant of authority under CAA Section 111. A rule with such sweeping impacts on the entire energy sector must be promulgated under an express grant of authority from Congress. The United States Supreme Court said so just last year.⁷¹

An administrative agency cannot exercise sweeping authority over such significant matters when Congress has not clearly authorized it to do so.⁷² As the Supreme Court has held: "We expect Congress to speak clearly" if it wishes to grant an executive agency authority over decisions "of vast economic and political significance."⁷³ This concept is known as the Major Questions Doctrine.

The Major Questions Doctrine rests on "separation of powers principles and a practical understanding of legislative intent."⁷⁴ It is axiomatic that the Constitution gives Congress the power to make laws.⁷⁵ To protect the integrity of the Constitution's design, courts "presume that Congress intends to make major policy decisions itself, not leave those decisions to agencies."⁷⁶ Moreover, it makes little sense to say that Congress makes major delegations of authority in vague or ambiguous terms. As the Supreme Court has observed, Congress "does not ... hide elephants in mouseholes."⁷⁷ Thus, if an agency claims authority to make sweeping and consequential rules addressing issues of vast economic and political significance, it must be able to point to a clear expression of Congress's intent to give the agency such authority.

The contours of the Major Questions Doctrine are easily discernible from Supreme Court precedent. While there is no exclusive list of factors determining when the Doctrine applies, it is clear that its application usually arises when an agency: (1) "claims the power to resolve a matter of great political significance";⁷⁸ (2) "seeks to regulate a significant portion of the American economy";⁷⁹ or (3) "seeks to intrud[e] into an area that is the particular domain of state law."⁸⁰ In light of these considerations, it is abundantly clear that the Proposed Rule falls within the boundaries of the Major Questions Doctrine. After all, the proper means of regulating greenhouse gas

⁷¹ *West Virginia v. EPA*, 142 S. Ct. 2587 (2022).

⁷² *See id.* at 2609.

⁷³ *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302, 324 (2014) ("UARG"); *see also Alabama Ass'n of Realtors v. Dep't of Health & Human Servs.*, 141 S.Ct. 2320 (2021) (Kavanaugh, J., concurring).

⁷⁴ *West Virginia*, 142 S. Ct. at 2609.

⁷⁵ *See* U.S. Const. art. I, § 1.

⁷⁶ *West Virginia*, 142 S. Ct. 2609 (quotation omitted).

⁷⁷ *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468 (2001) (citations omitted).

⁷⁸ *West Virginia*, 142 S. Ct. at 2620 (Gorsuch, J., concurring) (quotation omitted).

⁷⁹ *Id.* at 2621 (Gorsuch, J., concurring) (quotation omitted).

⁸⁰ *Id.* (Gorsuch, J., concurring) (quotation omitted).

emissions is one of the most politically significant matters in the nation, which is exemplified by the fact that each of the last three presidential administrations has made it a priority to propose their own high-profile plans on the topic. Additionally, “[t]he electric power sector is among the largest in the U.S. economy, with links to every other sector.”⁸¹ And the regulation of electric utilities “is one of the most important of the functions traditionally associated with the police power of the States.”⁸² Thus, it could not be clearer that the Proposed Rule is precisely the kind of rule that falls under the Major Questions Doctrine. The Major Questions precludes the issuance of the Proposed Rule because Congress has not clearly expressed its intent for EPA to exercise such sweeping authority over the U.S. economy and the electric power sector.

If there were any doubt about this conclusion, one need only compare the expected outcome of the Proposed Rule with the CPP that the Supreme Court held to be in violation of the Major Questions Doctrine in *West Virginia v. EPA*. If implemented, both rules would force a monumental shift in energy production away from the use of coal and other fossil fuels, thereby fundamentally shifting the mix of energy production in the United States and profoundly affecting the national economy. Indeed, EPA’s own projections show that the Proposed Rule will force coal-fired generation to shrink to a mere 9 GW by 2040.⁸³ Both rules require generation shifting to achieve compliance. By setting unachievable and cost prohibitive requirements, the Proposed Rule forces generation shifting just like the fatally defective CPP did.

The Supreme Court was quite clear in *West Virginia* that forcing such a shift is a major policy question that has not been delegated to EPA and must be decided by Congress. Specifically, the Court held:

Capping carbon dioxide emissions at a level that will force a nationwide transition away from the use of coal to generate electricity may be a sensible “solution to the crisis of the day.” *New York v. United States*, 505 U.S. 144, 187, 112 S.Ct. 2408, 120 L.Ed.2d 120 (1992). *But it is not plausible that Congress gave EPA the authority to adopt on its own such a regulatory scheme in Section 111(d). A decision of such magnitude and consequence rests with Congress itself, or an agency acting pursuant to a clear delegation from that representative body.* The judgment of the Court of Appeals for the District of Columbia Circuit is reversed, and the cases are remanded for further proceedings consistent with this opinion.⁸⁴

Unfortunately, EPA has opted not to heed the Supreme Court’s direction, instead going in the opposite direction by adopting the most aggressive and transformative rule of our time. But try as it might, EPA cannot avoid the Supreme Court’s reasoning under the Major Questions Doctrine, which applies just as strongly to this rulemaking as to the CPP addressed in *West Virginia*. EPA does not have the authority to adopt either rule.

⁸¹ *Id.* at 2622 (Gorsuch, J., concurring) (quotation omitted).

⁸² *Id.* (Gorsuch, J., concurring) (quotation omitted).

⁸³ See Section III.D. *supra* for a further discussion of EPA’s regulatory impact analysis.

⁸⁴ *West Virginia*, 142 S. Ct. at 2616 (emphasis added).

Section 111(d) is, as the Supreme Court observed, a “previously little-used backwater.”⁸⁵ And Congress plainly did not use that obscure provision to confer upon EPA the authority to decide “how much coal-based generation there should be over the coming decades.”⁸⁶ Congress’s repeated decisions over time to pass on an extensive greenhouse gas regulatory program further supports the conclusion that EPA lacks authority under Section 111(d) to issue the Proposed Rule.⁸⁷

As presented in these comments, the Proposed Rule’s objectives and future impacts are undisputable and bold. EPA fashions coal-fired generation categories based on retirements. It attaches unquestionably expensive and infeasible requirements to non-sunsetting units as the only path away from retirement. By placing unachievable technologies, coal-fired units are set up to fail. In this way, EPA substantially overreaches the guiderails of its Section 111 power to summarily erase the coal-fired fleet. EPA even takes a further step by inflicting an unachievable BSER on larger gas-fired units. EPA must withdraw this expansive proposal. The Major Questions Doctrine is triggered by stepping into energy markets and imposing a substantial monetary impact on the United States economy. The CAA does not grant EPA this expansive authority.

B. EPA has overreached into the jurisdiction of other federal agencies charged with managing the country’s energy resources.

EPA’s expansive Proposed Rule illegally broadens its agency jurisdiction and intrudes into the delegated space of other agencies and entities that regulate energy policy, energy transmission, and electricity rates. These agencies include:

- FERC, which regulates interstate energy policy. FERC has delegated its authority to ensure grid reliability to the NERC. As part of the Energy Policy Act of 2005, Congress gave FERC the responsibilities of protecting the reliability and cybersecurity of the Bulk-Power System through the establishment and enforcement of mandatory reliability standards. FERC regulates the transmission and wholesale sale of electricity in interstate commerce. A FERC goal is “facilitating the development of the electric infrastructure needed for the changing resource mix.”⁸⁸ EKPC is also regulated by NERC, as delegated by FERC, to sustain reliability.
- DOE, which devises energy policy. The Energy Information Administration (EIA), part of DOE, develops generation mix projections in pursuit of its goals.

The Proposed Rule has a direct bearing on grid reliability. The Proposed Rule will impact energy markets across jurisdictions due to shutdowns, capacity limitations,

⁸⁵ *Id.* at 2613.

⁸⁶ *Id.*

⁸⁷ The Court cited Clean Power Plan-type CAA amendments that Congress rejected. *Id.* at 2614.

⁸⁸ See FERC Strategy Plan for Fiscal Years 2022-2026, Mar. 28, 2022 at <https://www.ferc.gov/media/ferc-fy22-26-strategic-plan>.

and uneven cost burdens on utilities and states using coal-heavy fuels. Compliance with this rule will have a direct and continuing hold over the energy market through implementation, or at least 2040, with long-lasting indirect impacts from a revolutionized energy conversion.

These actions intrude into FERC's jurisdiction and its delegated authority to NERC. In short, EPA is operating outside its jurisdiction. Even EPA has previously acknowledged that issues pertaining to "system-wide ... trends in areas such as electricity transmission, distribution, and storage requires technical and policy expertise" that it does not traditionally possess.⁸⁹

The problems created by two agencies regulating at cross purposes within the same sphere are profound. EIA develops generation mix projections in pursuit of its goals.⁹⁰ At the same time, EPA is running IPM models to make the same projections. Preliminary analyses of EPA's model have already revealed improper unit retirement projections and undue emphasis on the IRA's financial incentives.⁹¹ These models are completely separate efforts and often do not agree. Congressional authorizations, such as the Energy Policy Act of 2005, solve these overlaps by designating the agency in charge to prevent overlaps and conflicts.

EPA must leave energy policy to others. Its BSER selections should allow for all fuel-types to thrive to result in a balanced generation mix as planned by FERC and DOE. Those agencies have the expertise and authority to manage the nation's energy generation mix. Any significant shift in the generation mix, should be left to Congress, consistent with the Major Questions Doctrine.

C. EPA has overreached into the traditional jurisdiction of the States.

While the federal government undoubtedly has authority to regulate energy production as it relates to interstate commerce,⁹² states retain significant authority to regulate energy production within their respective borders.⁹³ For example, in Kentucky, KPSC has "exclusive jurisdiction over the regulation of rates and service of utilities."⁹⁴ More specifically, that jurisdiction extends to matters like overseeing the rates charged to utility customers, the adequacy of service provided by utilities, and the construction or installation of equipment and facilities establishing electrical interconnections with generating facilities larger than 10 MW.⁹⁵ The Proposed Rule would tread upon the KPSC's turf by affecting the cost and adequacy of electric generation in Kentucky. This is no small matter, and it is why the states and the federal government have traditionally

⁸⁹ *West Virginia*, 142 S. Ct. at 2612 (quotations omitted).

⁹⁰ EIA, Annual Energy Outlook 2023,

<https://www.eia.gov/outlooks/aeo/narrative/index.php#ExecutiveSummary>

⁹¹ See NRECA Comments and technical support, filed separately in the docket.

⁹² See U.S. Const. Art. I, § 8.

⁹³ See *id.* at Amend. X.

⁹⁴ See KRS § 278.040(2).

⁹⁵ See KRS §§ 278.030, 278.040, and 278.212.

engaged in cooperative federalism. But the Proposed Rule departs from cooperative federalism.

D. The framework of the Proposed Rule is contrary to CAA Section 111.

The Proposed Rule's structure contradicts the CAA and Section 111 in several meaningful ways. New source performance standards must be achievable at the unit, usually in the form of an emission limitation. Here, EPA designs a rule with an infeasible technology (CCS for coal units) or other alternatives based on reduction of capacity factors or retirements. Turning a unit "off" is not an acceptable BSER – nor has it ever been. The coal-fired unit retirement categories are premised on retirement as compliance.

Another flaw is the inconsistent availability of BSER to all sources nationwide. Adequately demonstrated BSER must be dependable and effective to all individual sources at a reasonable cost.⁹⁶ EPA may extrapolate but only to a limited degree. In this case, BSER is unequally available. While some geographic areas of the country can support carbon storage, others do not have that option available. Hydrogen co-firing is also unbalanced. Some areas may have the appropriate resources to conduct electrolysis, while others do not. Infrastructure is also inconsistent. EPA must re-think its BSER selection and choose a technology that can be uniformly applied.

Natural gas co-firing for intermediate coal-fired units is also not appropriate as BSER for several reasons. First, EPA attempts to address GHG emissions by transforming a coal unit into a natural gas unit. Section 111 does not permit or require "redefining a source" as BSER. In addition, natural gas is not available to all coal-fired units, or it is cost prohibitive to run new gas pipelines to those areas. EPA piles on by only allowing sources to operate until 2040 by conducting a project to co-fire with natural gas. The cost metrics simply do not work to gain only eight more years of operation from 2032 (imminent retirement) to 2040 (beginning of the CCS long-term category) due to less time to amortize the capital costs of this option. Thus, natural gas co-firing as BSER diverges from the CAA's BSER definition and the application of BSER. This BSER option should be removed from consideration.

Finally, EPA's shutdown sunset categorization is contrary to the historical implementation of Section 111. Subcategories are based on unit size, fuel, or equipment type. Section 111(b)(2) allows EPA to distinguish among classes, types, and sizes within categories of new sources in development of NSPS. The subcategorization for coal-fired units based on the "operating horizon." EPA subcategorizes "like" generating units into categories based on owner/operator plans for utilization. This new concept unlawfully departs from EPA's historic implementation of Section 111 based on the equipment at hand.

⁹⁶ *Essex*, 486 F.2d at 433; *NRDC v. Thomas*, 805 F.2d 410, 428 n.30 (D.C. Cir. 1986).

E. The Proposed Rule does not comply with the Regulatory Flexibility Act.

EPA failed to fulfill its obligation to consider the significant impacts of the Proposed Rule on small businesses. The Small Business Regulatory Enforcement Fairness Act (SBREFA) amended the Regulatory Flexibility Act (RFA) to require agencies, such as EPA, to consider the impacts of regulations on small business entities. Small entities include small not-for-profit organizations, such as cooperatives, and small governmental jurisdictions. Agencies must convene a Small Business Advocacy Review (SBAR) panel⁹⁷ and make available for public comment an initial regulatory flexibility analysis (IRFA) when publishing a proposed rule.⁹⁸ The analysis is not required if the agency certifies that the proposed rule will not have a significant economic impact on a substantial number of small entities.⁹⁹

Here, EPA certified that the Proposed Rule will not have a significant economic impact on a substantial number of small entities. EPA's analysis is defective because it relies on underestimated compliance costs associated with the Proposed Rule. After low-balling these costs, EPA's screening analysis finds that no affected small entities would experience annual compliance costs in excess of 1% based on the cost-to-revenue or cost-to-sales test.¹⁰⁰ As presented in these comments, the Proposed Rule's BSER selection would have an overwhelming cost impact, which is particularly poignant for small entities. The factual basis in the certification is in error, particularly taking into account that the analysis would overlook coal-heavy utilities like EKPC. EPA itself signed EKPC up for a project CCS at Spurlock Unit 1 and 2¹⁰¹ – of a scale never attempted -- which is unquestionably a massive multi-billion-dollar project.

EKPC looks forward to engaging in the forthcoming Small Entity Representative (SER) meeting on August 10 and urges EPA to reconsider its flawed certification decision. EKPC joins with other small entities that request EPA to make its final SBAR report regarding small entity impacts publicly available. In addition, EPA should revise its screening analysis to properly account for the exorbitant costs of this Proposed Rule and acknowledge the true cost impacts on small entities. EPA is bound to provide alternatives to small entities, which should be released in a forthcoming supplemental notice of proposed rulemaking and then incorporated into the final rule.

⁹⁷ 5 U.S.C. § 609(b).

⁹⁸ See 5 U.S.C. § 603.

⁹⁹ See *id.* at § 605(b).

¹⁰⁰ Regulatory Impact Analysis at 5-5 – 5 11, https://www.epa.gov/system/files/documents/2023-05/utilities_ria_proposal_2023-05.pdf.

¹⁰¹ IPM 3032 Baseline case, Table 7-1 (identifying 38 coal-fired units will adopt CCUS by 2032, including Spurlock Unit 1 and 2).

VIII. Smaller combustion turbines are essential to maintaining reliability and sustaining renewable generation.

EKPC urges EPA to reconsider the application of CCS and hydrogen co-firing as BSER for larger, existing combustion turbines. EKPC does not have any existing units greater than 300 MW, but as a matter of policy, EPA should not shackle these baseload units to unachievable BSER technologies. In the same vein, EPA must not apply CCS or hydrogen co-firing to even smaller combustion turbines, such as the essential smaller gas-fired combustion turbines in the EKPC fleet.

EPA is seeking comment on the capacity threshold between 100 MW to 300 MW and the capacity factor threshold (e.g., 40%) for inclusion in the large subcategory. Combustion turbines ranging from 100 to 300 MW are critical for reliability and sustaining renewable generation. They respond to extreme load swings on the system. If EPA burdens these units with expensive and unachievable standards, retirements will be inevitable, jeopardizing grid reliability.

Smaller combustion turbines are crucial to supporting renewable sources. As more renewable resources are added to the electric system, the fast start and load following capabilities of the combustion turbines becomes even more important to efficient, reliable system operation. Solar generation requires the nimble capabilities of combustion turbines due to their ability to pick up and follow the load as the sun sets and load drops. California demonstrated the operational issues associated with the “duck” curve caused by large injections of solar generation. These operations have also demonstrated the value of having fast start, load following, reliable generation resources like combustion turbines.

EKPC operates gas-fired combustion turbines at Smith and Bluegrass Stations. These units serve an essential role for local and overall grid reliability purposes. EKPC’s winter load can vary 1,000 MW or more from minimum load to peak load on a cold winter day, as well as a hot summer day. This swing equates to a one third to one half fluctuation in load from top to bottom on a given day.

PJM is charged with following that load but having local generation that can meet that need is critical to the reliability of the entire system. EKPC’s combustion turbines are called upon on a fairly regular basis to help address system reliability constraints on the PJM system as far away as the Baltimore, Maryland region. Not only would retirement of these units impact reliability in the EKPC area but impacts would be seen more broadly on the entire PJM footprint. If the EKPC smaller combustion turbines were not available, generation from outside resources would be required to provide the load following requirements at a less reliable and much less efficient manner.

If CCS or hydrogen co-fire applied to this category, these existing CTs would face the same challenges reviewed in Section VI for new generation units. Yet these technologies have not been demonstrated, much less shown to be reliable on any existing combustion turbines. CCS and hydrogen co-firing come with substantial

infrastructure costs, parasitic load, and resource needs. The cost and resources needed cannot be justified on a smaller capacity unit. For example, CCS has a significant parasitic load on a power plant's capacity due to steam and power requirements. A small gas unit could not be productive while shouldering this load. For practical and cost reasons, operators would likely retire smaller units. The result would be counterproductive to EPA's goals, which hinge on the success of renewable generation.

EKPC implores EPA to not saddle *any* CTs with BSERs that involve hydrogen or CCS, but certainly not units with capacities of 300 MW or lower.

IX. The Proposed Rule erects unduly burdensome Section 111(d) State Plan requirements that remove flexibilities and impose timelines that set up States and sources for failure.

EPA proposes a heavy-handed approach that rocks the cooperative federalism tenets baked into Section 111. EPA restricts state RULOF analyses and places unreasonable timelines in place for state plans.

A. RULOF Analyses must not be eroded.

The Proposed Rule illegally restricts and fails to provide adequate time for state remaining useful life analyses. Section 111(d) specifically allow for states "to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies."¹⁰² Although EPA has an opportunity to review the analysis as part of the state plan, this proposal should in no way limit state discretion to consider RULOF for individual sources in the state. EPA justifies narrowing state RULOF determinations by stating that it has "considered impacts on the energy sector as part of its BSER determinations." However, the framework of Section 111 does not mix RULOF into the generalized BSER process. EPA must preserve this individualized analysis that Congress specifically blessed.

As cooperatives stated in public comments on EPA's Subpart Ba implementation proposal, states are in the best position to appreciate the contributions of and unique challenges of sources. RULOF in the context of the Proposed Rule may permit states to apply tailored and flexible requirements that will support grid reliability. For example, sources that have foreseeable retirement glidepaths but that are key resources in transmission-constrained areas could be offered a BSER that promotes EPA's carbon reduction goals but falls outside of EPA's one-size-fits-all BSER approach.

B. State plan timelines must be revised.

EPA's state plan timeline does not allow sufficient time for states to engage with affected utilities, conduct new public engagement requirements, develop RULOF analyses, and satisfy the comprehensive plan requirements necessary for EPA

¹⁰² CAA § 111(d)(1), 42 U.S.C. § 7411(d)(1) (emphasis added).

approval. State plans are due only 24 months from publication of final emission guidelines, which EPA projects will be April 2024.¹⁰³ State plans would be due in April 2026.

The time frame for National Ambient Air Quality Standards state implementation plans under Clean Air Act Section 110(a) is 36 months or three years. EPA likens the Section 111 state plan process to Section 110¹⁰⁴ but departs from the 36-month timeline.¹⁰⁵ Instead, EPA promulgates probably the most complex Section 111 rule of all time. This rulemaking is unlike prior Section 111(d) guidelines that had straightforward emissions limitations. States were able to simply mirror BSER in their plans, as evidenced in 40 CFR Part 62. The Proposed Rule requires states to navigate complex subcategorizations, set emissions limitations, and devise milestones for new technologies. On top of this, RULOF analyses must occur. EPA must provide states with more time.

Sources need more time to make important generation decisions for existing units. EPA is soliciting comment on the compliance date for existing units. The Proposed Rule sets a compliance date of January 1, 2030 but opens the door for an earlier compliance date defined by the date of EPA approval of the state plan and a cut-off date for plan revisions.¹⁰⁶ Although EPA sets a 2030 compliance date, state plans will be due in April 2026, which is less than three years from today. Subcategory decisions are likely to be placed into state plans with milestones. Sources in actuality must make coal unit sunset decisions much sooner, particularly if they are to avail RULOF flexibilities. Sources would find themselves making premature retirement decisions, while waiting and hoping that CCS, hydrogen technology, and associated infrastructure will catch up to new generation requirements in the Section 111(b) portion of the proposal. It is irresponsible to require utilities to retire generation without a feasible plan to replace it. Such a timeline hedges grid reliability “on the come.” EPA should identify an existing source compliance deadline no earlier than 2032, unless EPA walks back its BSER decisions. In addition, state plans due prior to the compliance date should be acceptable if they identify the cafeteria plan of subcategory options available fleet wide for Cooperatives.

EKPC supports longer state plan development periods, removal of RULOF restrictions, and an existing compliance date that does not require retirement commitments before new generation can be constructed.

¹⁰³ The Spring 2023 Unified Agenda projects the final rule to be released in April 2024.

¹⁰⁴ Proposed Rule at 33276 (“CAA section 111(d)(1) directs the EPA to promulgate regulations establishing a CAA section 110-like procedure”); see 42 U.S.C. § 7411(d)(1) (“The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan” (emphasis added)).


¹⁰⁵ 87 Fed. Reg. at 79182.

¹⁰⁶ Proposed Rule at 33403. EPA discusses options for cut-off dates for state plan revisions, such as January 1, 2028, that would place lock in sources to chosen pathways. EPA appears to be pushing compliance decisions much earlier than the effective date on January 1, 2030. *Id.*

X. Conclusion.

Thank you for your consideration of these comments. EKPC looks forward to working with the Agency in the greenhouse gas rulemaking process for the power sector. Should you have any questions regarding these comments, please contact Jerry Purvis at 859.744.4812 or jerry.purvis@ekpc.coop



A Touchstone Energy Cooperative 

RECEIVED

JUL 31 2024

PUBLIC SERVICE
COMMISSION

July 31, 2024

Ms. Linda Bridwell
Executive Director
Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, KY 40602

RE: *In the Matter of the Application of East Kentucky Power Cooperative, Inc. to Transfer Functional Control of Certain Transmission Facilities to PJM Interconnection, LLC, P.S.C. Case No. 2012-00169 - Annual Report of East Kentucky Power Cooperative, Inc. —Request for Confidential Treatment*

Dear Ms. Bridwell:

Attached, please find a copy of the Annual Report of East Kentucky Power Cooperative, Inc. ("EKPC") regarding its participation in the PJM Interconnection, LLC ("PJM") ("Annual Report"). In accordance with KRS 61.878, 807 KAR 5:001, Section 13(3) and other applicable law, EKPC hereby respectfully requests that certain portions of the Annual Report should be classified as confidential for a period of five years from the date of this filing, for the specific reasons set forth below.

The Kentucky Open Records Act exempts from disclosure certain confidential and proprietary commercial information. *See* KRS 61.878(1)(c). To qualify for this exemption from public disclosure and, therefore, to maintain the confidentiality of the information, a party must establish that disclosure of the confidential and proprietary commercial information would permit an unfair advantage to competitors of that party. Public disclosure of the Confidential Information described in the Annual Report would lead to such a result.

The Annual Report includes a disclosure of: (1) the amount of Annual Revenue Rights ("ARRs") and associated ARR revenue allocated to EKPC; (2) the amount of ARRs converted to Financial Transmission Rights ("FTRs"); (3) the amount of revenue remaining after converting to FTRs; (4) the additional amount of transmission rights purchased by EKPC; (5) EKPC's hedging positions and (6) actual and projected membership costs and benefits. Given the nature of the ARR/FTR market, EKPC and its Members would be materially damaged if EKPC's competitors were permitted to have access to this information. The information provided under seal discloses sensitive and proprietary information as these positions, and the underlying strategies, are used by EKPC to provide service to its Members at fair, just and reasonable rates. Maintaining the confidentiality of this information is necessary to protect the interests of both EKPC and its Members.

4775 Lexington Road, POB 707
Winchester, KY 40392
859-744-4812

**JOINT INTERVENORS
HEARING EXHIBIT 2**

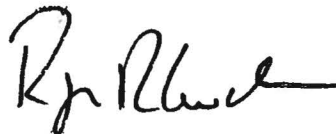
The public disclosure of the Company's transmission rights awarded, converted and purchased, its hedging strategies, and actual and projected membership costs and benefits would reveal information that is, quite obviously, highly sensitive, commercially valuable and strictly proprietary. The public disclosure of this information would potentially harm EKPC's competitive position in the marketplace, to the detriment of EKPC and its customers. Moreover, the aforementioned Confidential Information in the Annual Report is distributed within EKPC only to those employees who must have access for business reasons, and is generally recognized as confidential and proprietary in the energy industry. The Confidential Information for which EKPC is seeking confidential treatment is not known outside of EKPC. This Confidential Information was, and remains, integral to EKPC's effective execution of business decisions and strategy. Indeed, as the Kentucky Supreme Court has found, "information concerning the inner workings of a corporation is 'generally accepted as confidential or proprietary.'" *Hoy v. Kentucky Industrial Revitalization Authority*, 907 S.W.2d 766, 768 (Ky. 1995).

The attached information is also entitled to confidential treatment because it constitutes a trade secret under the two prong test of KRS 365.880: (a) the economic value of the information as derived by not being readily ascertainable by other persons who might obtain economic value by its disclosure; and (b) the information is the subject of efforts that are reasonable under the circumstances to maintain its secrecy. The economic value of the information derives from the fact that it reveals EKPC's market positions and strategies – which is commercially valuable. Second, EKPC certainly endeavors to maintain the confidentiality of the information by limiting its dissemination, even within the company.

In accordance with 807 KAR 5:001, Section 13(3), accompanying this letter as part of EKPC's electronic submission is a copy of the Annual Report in electronic medium with those portions redacted for which confidentiality is sought. Pursuant to the Commission's March 24, 2020 Order in Case No. 2020-00085, EKPC is submitting the confidential material to the Commission via an email to PSCED@ky.gov with a read receipt.

Please do not hesitate to contact me if you have any questions or concerns.


Very truly yours,

A handwritten signature in black ink, appearing to read "R. Cowden", written in a cursive style.

Roger Cowden

Enclosure



A Touchstone Energy Cooperative 

July 31, 2024

Ms. Linda Bridwell
Executive Director
Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, KY 40602

RE: *In the Matter of the Application of East Kentucky Power Cooperative, Inc. to Transfer Functional Control of Certain Transmission Facilities to PJM Interconnection, LLC*, P.S.C. Case No. 2012-00169 - Annual Report of East Kentucky Power Cooperative, Inc.

Dear Ms. Bridwell,

In accordance with the December 20, 2012 Order of the Kentucky Public Service Commission ("Commission") in the above-styled case, and as modified by the May 14, 2015 Order in Case No. 2015-00116, and as modified by the September 30, 2021 and May 25, 2022 Orders in Case No. 2021-00103 (collectively, the "Orders"), please accept this as the Annual Report of East Kentucky Power Cooperative, Inc. ("EKPC") regarding its participation in the PJM Interconnection, LLC ("PJM") for the delivery year June 1, 2023 through May 31, 2024 ("delivery year"). In accordance with the Orders, I would request that you place this Annual Report in EKPC's post-case correspondence file. With regard to the specific topics of interest in the Commission's December 20, 2012 Order, I can report as follows.

Transmission Rights Awarded and Purchased

EKPC received Auction Revenue Rights ("ARRs"), based on its load requirements, during the annual allocation in April 2023. The ARRs can either be self-scheduled into FTRs or can be financially settled in the daily market and that revenue is used to purchase additional FTRs or used to off-set congestion costs. Attached are the auction results with the amount of Financial Transmission Rights ("FTRs") that EKPC had in total during the delivery year. The spreadsheet also shows the costs for the FTRs purchased and the value of the FTRs "self-scheduled". The values are listed for the on-peak, daily off-peak, and weekend on-peak periods. For the delivery year, EKPC estimates roughly an [REDACTED] benefit to its members of having ARRs and FTRs. These savings have been included in the Trade Benefits described later in this report.

Description of Hedging Plans and Strategies

Transmission congestion within the EKPC system has been counter intuitive because of a significant amount of negative congestion. In 2018, EKPC hired a consultant, The Brattle Group, to further investigate the underlying reasons for the negative congestion and to develop a comprehensive strategy for managing the congestion cost exposure. Rather than follow a set hedging strategy of [REDACTED] of its FTR needs in the Long Term Auctions (3-year auctions), an additional [REDACTED] in the annual auctions (covering the delivery year), an additional [REDACTED] in the quarterly auctions, and the final [REDACTED] in the monthly auctions, the study proved it would be more beneficial to hold the ARRs and collect those revenues and only purchase FTRs in the monthly auctions when positive congestion is likely either due to binding constraints or planned transmission outages. Each month, planned transmission outages are evaluated using a power flow analysis tool to identify if congestion is likely to be positive or negative and if any of the outages will result in a binding constraint. Based on this analysis, bids are developed for the monthly FTR auctions. EKPC plans to follow this strategy until there is a fundamental change in the PJM system that indicates positive congestion will consistently occur for EKPC. The goal is to match EKPC's expected transmission congestion position as closely to its load serving requirements as possible to minimize its exposure to congestion costs.

Regarding Hedging Plans and Strategy for Market Prices for Capacity and Energy, EKPC's strategy is to fully hedge its capacity price exposure in PJM's Reliability Pricing Model ("RPM") capacity auctions based on its load requirements, and to sell all excess capacity for additional revenues. EKPC must purchase capacity based on its Net System Peak Load ("NSPL"). NSPL is based on EKPC's native load requirements coincident with the PJM summer peak load. EKPC will generally pay the same amount for its NSPL requirements on a \$/MW-Day basis as it sells its capacity. Thus, EKPC's price exposure is hedged in the capacity market as long as its generation available to sell is equal to or greater than its NSPL. EKPC realizes additional value from the capacity auction by having excess capacity to sell.

EKPC's strategy for hedging its energy prices is to actively manage its expected cost to serve and minimize its risk exposure to price spikes. EKPC models and reviews its energy price exposure on a monthly basis, looking forward three years. EKPC utilizes a production cost model (RTSim – the same model used for its Integrated Resource Plan analysis) to estimate its energy price exposure within the PJM market. The model considers the expected fuel and operations costs for the EKPC generation fleet and compares those to expected market prices. This comparison determines if EKPC's generation is economic to operate, provides an estimation of how much the EKPC generation fleet will run, and defines how much EKPC can expect to pay for its load requirements. Based on the model results, EKPC identifies potential forward purchases or sales that could lower its expected risk profile of its energy costs. This data also provides a view for EKPC's fuel procurement process, which then determines how much fuel should be purchased to ensure adequate and cost effective supplies.

Additionally, EKPC's Market Operations Center follows load and energy market trends daily and identifies opportunities to lower its net operating costs during the Day Ahead and Balancing markets.

Prior Year's Benefits and Costs of PJM Membership

In the following table, EKPC identifies its costs and benefits from the delivery year. The Administrative Costs and Transmission Costs are based on accounting entries in EKPC's General Ledger and reflect actual billed PJM expenses. Trade Benefits are based on a detailed modeling effort. EKPC utilized its RTSim model and simulated what its operations as a stand-alone Balancing Authority might have cost, then compared that to the actual costs of operating in PJM. EKPC modeled actual loads, actual prices, actual generating unit availability statistics, and estimated transmission availability from outside resources. This methodology is similar to the methodology utilized in the study completed and entered into EKPC's request to the Commission to join PJM. Capacity Benefits are based on the actual cleared PJM RPM results and are shown on the monthly PJM invoice. The Avoided Point-to-Point Transmission Charges are based on the contract that EKPC had with PJM to purchase 400 MW of firm transmission and the published tariff rate associated with that purchase, but does not include any additional charges for actual energy transactions on the transmission. The results are included in the following table for the delivery year.

June 1, 2021 through May 31, 2022

<u>Category</u>	<u>Costs (in millions)</u>	<u>Benefits (in millions)</u>
Administrative Costs		
Transmission Costs		
Trade Benefits		
Capacity Benefits		
Avoided PTP Transmission Charges		
Subtotal		
Net Benefits		

Concerning the PJM capacity market benefits, in its December 20, 2012 Order in Case No. 2012-00169 ("PJM Order"), the Commission conditioned its approval of the transfer of functional control of EKPC's transmission facilities to PJM upon EKPC agreeing to file by November 30, 2015 a rate mechanism to flow back to End-Use Retail Members ("retail members") the PJM capacity market benefits. EKPC agreed to this requirement and filed Case No. 2015-00358 on October 30, 2015. As a result of discussions with the parties to that case, on August 8, 2016 EKPC filed a unanimous Stipulation and Recommendation ("Stipulation") that included a resolution of how to handle the PJM capacity market benefits. Under the terms of the Stipulation, EKPC would continue to record the capacity market benefits actually realized during the accounting periods as revenues. EKPC would also record as expenses during the appropriate accounting periods its PJM capacity market costs.

Projection of Future Benefits and Costs of PJM Membership

The Order dated September 30, 2021 in Case No. 2021-00103 directed EKPC to eliminate this section of the report.

Benefits and Costs for EKPC to Leave PJM

The Order dated September 30, 2021 in Case No. 2021-00103 directed EKPC to consider the benefits and costs for EKPC to leave PJM. Those benefits and costs would mirror the previous table shown under Prior Year's Benefits and Costs of PJM Membership and show a cost of [REDACTED] at a minimum. EKPC is currently able to cover its winter peak load plus a minimal reserve margin because the PJM RTO has more than 20% capacity reserves during the winter peak period. As a stand alone entity, EKPC previously planned to maintain a minimum of 12% capacity reserve margin in the winter. EKPC would have to purchase and/or construct additional capacity to maintain an acceptable winter peak operating reserve level. In addition, there would be costs to join a regional reliability group to maintain NERC operational requirements. EKPC would also lose the ability to optimize its dispatch within the PJM market, which means it would lose the trade benefits that were identified. There could be additional costs that have not been explored in detail.

EKPC continues to believe that participation in PJM will allow it to realize long-term value for its owner-members. On behalf of EKPC, I am available to address any further questions that the Commission might have with regard the data provided in this report. Please feel free to contact me if you need any additional information.

Sincerely,

Gregory Cecil

Greg Cecil
Director, Regulatory & Compliance Services

Enc.

[illegible][illegible][illegible][illegible][illegible][illegible]



Preliminary ELCC Class Ratings for Period 2026/27 through 2034/35

Patricio Rocha Garrido
Resource Adequacy Planning
Planning Committee
June 4, 2024



Preliminary ELCC Class Ratings – DY 26/27 through DY 34/35

ELCC Class	2026/ 27	2027/ 28	2028/ 29	2029/ 30	2030/ 31	2031/ 32	2032/ 33	2033/ 34	2034/ 35
Onshore Wind	35%	33%	28%	25%	23%	21%	19%	17%	15%
Offshore Wind	61%	56%	47%	44%	38%	37%	33%	27%	20%
Fixed-Tilt Solar	7%	6%	5%	5%	4%	4%	4%	4%	3%
Tracking Solar	11%	8%	7%	7%	6%	5%	5%	5%	4%
Landfill Intermittent	54%	55%	55%	56%	56%	56%	56%	56%	54%
Hydro Intermittent	38%	40%	37%	37%	37%	37%	39%	38%	38%
4-hr Storage	56%	52%	55%	51%	49%	42%	42%	40%	38%
6-hr Storage	64%	61%	65%	61%	61%	54%	54%	53%	52%
8-hr Storage	67%	64%	67%	64%	65%	60%	60%	60%	60%
10-hr Storage	76%	73%	75%	72%	73%	68%	69%	70%	70%
Demand Resource	70%	66%	65%	63%	60%	56%	55%	53%	51%
Nuclear	95%	95%	95%	96%	95%	96%	96%	94%	93%
Coal	84%	84%	84%	85%	85%	86%	86%	83%	79%
Gas Combined Cycle	79%	80%	81%	83%	83%	85%	85%	84%	82%
Gas Combustion Turbine	61%	63%	66%	68%	70%	71%	74%	76%	78%
Gas Combustion Turbine Dual Fuel	79%	79%	80%	80%	81%	82%	83%	83%	83%
Diesel Utility	92%	92%	92%	92%	92%	93%	93%	93%	92%
Steam	74%	73%	74%	75%	74%	75%	76%	74%	73%

EAST KENTUCKY POWER COOPERATIVE, INC.
CASE NO. 2024-00370
THIRD REQUEST FOR INFORMATION RESPONSE

COMMISSION STAFF'S REQUEST DATED FEBRUARY 19, 2025
REQUEST 12

RESPONSIBLE PARTY: **Julia J. Tucker and Craig Johnson**

SUPPLEMENTAL RESPONSE: **Don Mosier**

Request 12. Refer to the Direct Testimony of Don Mosier, page 16.

- a. Quantify the financial impact of the retirement of the Cooper Unit 1 facility. Include the impact on energy sales, capacity payments, and ancillary services and provide all work papers.
- b. Provide the impact of the retirement on operating and maintenance costs and provide all work papers.

Response 12.

a. EKPC has not performed a detailed retirement analysis of Cooper Unit 1 since no retirement has been set for Cooper Unit 1. However, the following represent good faith estimates if Cooper Unit 1 were to be retired by December 31, 2031 (no retirement date has been set for Cooper Unit 1). Cooper Unit 1 had an average net market value of \$471,331 and capacity factor of 4% from 2025 through 2030, as shown in the confidential modeling output provided in the record. Cooper Unit 1 could receive \$16 million annually in capacity payments on average when assuming 106 MW of available unforced capacity ("UCAP") sold at the capacity price forecast supplied in EKPC's response to Joint Intervenor's Second Request for information, Item 18. Cooper Unit 1 received just \$19,000 on average between 2023 through 2025 in ancillary service revenues.

Its relatively low-capacity factor and limited operation flexibility inhibits its participation in the ancillary markets.

b. EKPC has not performed a detailed analysis of the operation and maintenance cost impact of retiring Cooper 1. EKPC did a review of the 2025 budget and made a good faith effort in identifying the non-fuel operating and maintenance cost reduction associated with retiring Cooper 1. The following table lists the maintenance accounts where spend would be reduced. The total estimated reduction is approximately \$2.5 million.

Cooper 1 – Maintenance Spend		
Project	Descr	2025 Budget
03200	Rtn Boiler Plant Maintenance	993,592
03230	Boiler Feed System	139,730
03290	Regenerative Air System	15,928
03310	Primary Air System	9,860
03330	Electrostatic Precipitator	144,653
03385	Pulverizers	342,860
03395	Coal Feeder system	40,164
03510	Rtn Misc Ash System	194,756
03700	Rtn Misc Turbine Maintenance	123,564
03703	Valves	372
03705	Generator	7,500
03711	Circulating Water system	507,063
		2,520,042

There would be no savings in the maintenance of the common systems such as the scrubber. There could be a small reduction in the lime cost for the scrubber, but EKPC does not have a good way to identify that cost reduction. The other major identifiable operating cost saving is associated with coal combustion residuals (CCR) produced and landfilled. The budgeted cost for CCR disposal in 2025 for Cooper 1 is \$177,000. The reduction in Full Time Equivalents for maintenance personnel are imbedded into the cost shown for the maintenance reductions. There would not be a reduction in operating personnel with the retirement of Coper 1. Through prudent operation and maintenance of the Cooper 1 Unit over its 60+ year history of operations, EKPC anticipates being in a position for the eventual retirement of the unit to have little meaningful financial impact to EKPC.

Supplemental Response:

a. EKPC is attaching a letter that was submitted to PJM regarding the injection rights of Cooper Unit 1. This action is procedural in nature and it does not reflect a definitive decision as to when Cooper Unit 1 will be retired. Such action would require review by the EPIC board, approval by EKPC's Board of Directors and approval by the Commission. The attached letter is necessary to preserve the ability for EKPC to save a considerable amount in interconnection costs associated with the combined cycle unit.



April 3, 2025

PJM Interconnection, L.L.C.
2750 Monroe Boulevard
Audubon, PA 19403
Via Email: generatordeactivation@pjm.com

PJM Office of the Interconnection,

Pursuant to PJM Interconnection, L.L.C ("PJM") FERC Electric Tariff, Part V, Section 113 and PJM Manual 14D: Generator Operational Requirements, Revision 62, Section 9, East Kentucky Power Cooperative, Inc. ("EKPC") hereby officially provides notice to PJM of EKPCs intent to deactivate through retirement John Sherman Cooper Station's ("Cooper Station") Unit #1, effective on or about December 31, 2030. Cooper Unit 1 is a 116-megawatt, coal-fired generating plant located in Burnside, Kentucky.

This deactivation notice is contingent upon EKPC receiving all necessary approvals, the processes for which are currently underway, to construct its planned 745 megawatt combined cycle gas turbine generating facility at the same location and achieving commercial operation of this new facility on or about December 31, 2030.

All communications regarding this Notice and the intended retirement of these units should be directed to Denise Foster Cronin at (610)220-6382 or denise.cronin@ekpc.coop.

Regards,

A handwritten signature in black ink that reads 'Anthony S. Campbell'.

Anthony S. Campbell
President & CEO

cc: Mr. Michael Bryson
Mr. Jason Connell
Mr. Manu Asthana
Dr. Joseph Bowring

4775 Lexington Road
P.O. Box 707
Winchester, Kentucky 40392
www.ekpc.coop

A Touchstone Energy Cooperative The logo for Touchstone Energy, featuring a stylized sun or star symbol.

*L. Allyson Honaker
Honaker Law Office, PLLC
1795 Alysheba Way
Suite 1203
Lexington, KY 40509

*Jacob Watson
East Kentucky Power Cooperative, Inc.
4775 Lexington Road
P. O. Box 707
Winchester, KY 40392-0707

*Angela M Goad
Assistant Attorney General
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KY 40601-8204

*Jody Kyler Cohn
Boehm, Kurtz & Lowry
425 Walnut Street
Suite 2400
Cincinnati, OH 45202

*Ashley Wilmes
Kentucky Resources Council, Inc.
Post Office Box 1070
Frankfort, KY 40602

*John G Horne, II
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KY 40601-8204

*Byron Gary
Kentucky Resources Council, Inc.
Post Office Box 1070
Frankfort, KY 40602

*Lawrence W Cook
Assistant Attorney General
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KY 40601-8204

*Kentucky Resources Council, Inc.
Post Office Box 1070
Frankfort, KY 40602

*Michael West
Office of the Attorney General Office of Rate
700 Capitol Avenue
Suite 20
Frankfort, KY 40601-8204

*Greg Cecil
East Kentucky Power Cooperative, Inc.
4775 Lexington Road
P. O. Box 707
Winchester, KY 40392-0707

*Honorable Michael L Kurtz
Attorney at Law
Boehm, Kurtz & Lowry
425 Walnut Street
Suite 2400
Cincinnati, OH 45202

*Heather Temple
Honaker Law Office, PLLC
1795 Alysheba Way
Suite 1203
Lexington, KY 40509

*East Kentucky Power Cooperative, Inc.
4775 Lexington Road
P. O. Box 707
Winchester, KY 40392-0707