

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC 2018 JOINT INTEGRATED)	
RESOURCE PLAN OF LOUISVILLE GAS AND)	CASE NO.
ELECTRIC COMPANY AND KENTUCKY)	2018-00348
UTILITIES COMPANY)	

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 September 15, 2020 in this proceeding;
- Certification of the accuracy and correctness of the digital video recording;
- A written log listing, inter alia, the date and time of where each witness' testimony begins and ends on the digital video recording of the evidentiary hearing conducted on September 15, 2020.

A copy of this Notice, the certification of the digital video record, and hearing log have been served upon all persons listed at the end of this Notice. Parties desiring to view the digital video recording of the hearing may do so at <https://youtu.be/B5wmUIHzljU>.

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

Done at Frankfort, Kentucky, this 28th day of September 2020.



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

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CERTIFICATION

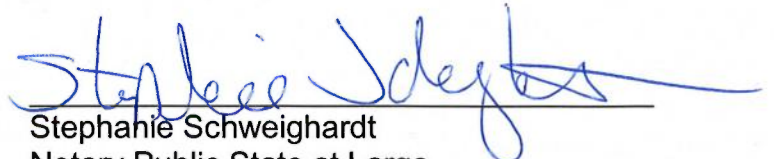
I, Candace H. Sacre, hereby certify that:

1. The attached DVD contains a digital recording of the Formal Hearing conducted in the above-styled proceeding on September 15, 2020. The Formal Hearing Log is included with the recording on September 15, 2020;
2. I am responsible for the preparation of the digital recording;
3. The digital recording accurately and correctly depicts the Formal Hearing of September 15, 2020; and
4. The Formal Hearing Log attached to this Certificate accurately and correctly states the events that occurred at the Formal Hearing of September 15, 2020, and the time at which each occurred.

Signed this 28th day of September, 2020.



Candace H. Sacre
Administrative Specialist III



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



Louisville Gas and Electric Company (LG&E) and Kentucky Utilities Company (KU)

Witness: Dan Arbough; Chris Balmer; Robert Conroy; Michael Drake; Chris Garrett; David Huff; Gary Revlett; Michael Sebourn; David Sinclair; Stuart Wilson; John Wolfe

Judge: Talina Mathews; Michael Schmitt

Clerk: Candace Sacre

Date:	Type:	Location:	Department:
9/15/2020	Public Hearing\Public Comments	Hearing Room 1	Hearing Room 1 (HR 1)

Event Time	Log Event	
9:03:23 AM	Session Started	
9:03:26 AM	Commissioner Mathews Note: Sacre, Candace	Welcome to participants in Case No. 2018-00348, Electronic Joint 2018 Integrated Resource Plan of Louisville Gas and Electric Company and Kentucky Utilities Company, and opening remarks.
9:03:47 AM	Commissioner Mathews Note: Sacre, Candace	Introduction of Chairman Schmitt, present by videoconference, and announcement of recusal of Vice Chairman Chandler.
9:04:04 AM	Commissioner Mathews Note: Sacre, Candace	COVID-19 remarks and hearing procedures.
9:06:50 AM	Commissioner Mathews Note: Sacre, Candace	Request for entries of appearance and introduction of witnesses for LG&E/KU.
9:07:08 AM	Atty Riggs LG&E/KU Note: Sacre, Candace	Kendrick Riggs, Stoll Keenon Ogden, and introduction of colleague and co-counsel, Allyson Sturgeon, Managing Senior Counsel, Regulatory and Transactions, LG&E and KU Service Company.
9:07:53 AM	Atty Riggs LG&E/KU Note: Sacre, Candace	Introduction of eleven LG&E/KU representatives, David Huff, Dan Arbough, Michael Sebourn, Chris Balmer, Michael Drake, Stuart Wilson, Gary Revlett, John Wolfe, David Sinclair, Chris Garrett, and Robert Conroy.
9:08:23 AM	Asst Atty General Cook Note: Sacre, Candace	Assistant Attorney General Lawrence Cook, on behalf of the Attorney General. We have no witnesses.
9:08:40 AM	Atty Miller Sierra Club Note: Sacre, Candace	Matthew Miller, counsel for the Sierra Club, and co-counsel Joe Childers, and we have no witnesses.
9:08:55 AM	Asst Gen Counsel Nguyen PSC Note: Sacre, Candace	Assistant General Counsel Quang Nguyen and John Rogness, on behalf of Public Service Commission Staff.
9:09:16 AM	Atty Riggs LG&E/KU Note: Sacre, Candace	Proof of Publication of Hearing; one newspaper for Kentucky Utilities not timely published, requested proceed with publication; Motion for Deviation filed.
9:09:35 AM	Commissioner Mathews Note: Sacre, Candace	Status of outstanding motions.
9:09:38 AM	Asst Gen Counsel Nguyen PSC Note: Sacre, Candace	Outstanding confidentiality motions.
9:09:57 AM	Atty Riggs LG&E/KU Note: Sacre, Candace	Confidentiality motions unopposed.

9:10:04 AM	Commissioner Mathews Note: Sacre, Candace	Public comments.
9:11:04 AM	Asst Gen Counsel Nguyen PSC Note: Sacre, Candace	No one calling to make public comments.
9:11:06 AM	Commissioner Mathews Note: Sacre, Candace	No public comments but telephone line is open.
9:11:21 AM	Commissioner Mathews Note: Sacre, Candace	Duplicating FAC process with witnesses sworn as a group.
9:11:53 AM	Commissioner Mathews Note: Sacre, Candace	Witnesses are sworn.
9:13:19 AM	Atty Riggs LG&E/KU Note: Sacre, Candace	Direct Examination. Names, occupations, and business addresses of eleven LG&E/KU witnesses - David Huff, Daniel Arbough, Michael Sebourn, Chris Balmer, Michael Drake, Stuart Wilson, Gary Revlett, John Wolfe, David Sinclair, Chris Garrett, and Robert Conroy.
9:16:28 AM	Atty Riggs LG&E/KU Note: Sacre, Candace	Witnesses identified as sponsoring Responses to Data Requests confirming testimony.
9:16:54 AM	Atty Riggs LG&E/KU Note: Sacre, Candace	Witnesses available for cross examination.
9:17:09 AM	Commissioner Mathews Note: Sacre, Candace	I think we're going to have the Attorney General and then the Sierra Club and then Staff and then Commissioners, so Mr. Cook, are you ready?
9:17:19 AM	Asst Atty General Cook Note: Sacre, Candace	Yes, thank you, Commissioner Mathews.
9:17:22 AM	Asst Atty General Cook - witness Conroy Note: Sacre, Candace	Cross Examination. Staff IRP Report, Section 2, page 6. IRP case here today filed prior to enactment of SB 100 in 2019 General Assembly?
9:18:24 AM	Asst Atty General Cook - witness Wilson Note: Sacre, Candace	Given enactment of SB 100, forecasted growth revisited in next IRP?
9:19:11 AM	Asst Atty General Cook - witness Conroy Note: Sacre, Candace	Staff Report, Section 3, pg 23, Demand Side Management and Energy Efficiency, programs available only to AMS users?
9:20:20 AM	Asst Atty General Cook - witness Sinclair Note: Sacre, Candace	Load Control program, either PJM or MISO, control program PJI or MISO regardless companies are members?
9:21:20 AM	Asst Atty General Cook Note: Sacre, Candace	I think I will ask in a post-hearing data request just to follow up on that, if that's okay, Mr.Riggs.
9:21:28 AM	POST-HEARING DATA REQUEST Note: Sacre, Candace Note: Sacre, Candace	ASST ATTY GENERAL COOK - WITNESS SINCLAIR DEMAND RESPONSE OUTSIDE RTO ALLOWED TO PARTICIPATE IN RTO MARKETS
9:21:30 AM	Atty Riggs LG&E/KU Note: Sacre, Candace	Yes, Mr. Cook, that's fine.
9:21:36 AM	Asst Atty General Cook - witness Wilson Note: Sacre, Candace	Companies' comments to Staff Report filed July 30, pgs 5 - 6, forecasted annual reserve margin, planning or target reserve margin, difference between two values?
9:24:07 AM	Asst Atty General Cook - witness Wilson Note: Sacre, Candace	Top of page 6, in companies' comments, not an appropriate comparison, explain sentence and elaborate?

9:25:42 AM Asst Atty General Cook - witnesses Wilson/Sinclair
Note: Sacre, Candace Staff Report, Section 4, Supply Side and Demand Side Resource Assessment, explain reasons companies experiencing increase customers moving from gas to electric space/water heating? See IRP Staff Report, pg 7, and companies' report filed, Sections 6-7 through 6-9, original reference.

9:28:27 AM Asst Atty General Cook - witnesses Wilson/Sinclair
Note: Sacre, Candace Existing customer with gas moved to new residence with electric facilities?

9:31:50 AM Asst Atty General Cook - witness Wilson
Note: Sacre, Candace Next IRP continue to analyze growth penetration for purposes of trending?

9:32:18 AM Asst Atty General Cook - witness Wilson
Note: Sacre, Candace Staff Report, pgs 29-30, target reserve margin of 16 to 21 percent; in current IRP, reserve margin increased to 17 to 25 percent; at pg 30, reason for increase target margin reserve, increased variability in winter peak demand; increased winter heating load. Conclude total cost not limited to incremental additional megawatt hours but includes additional reserve margin?

9:33:22 AM Camera Lock PTZ Activated

9:33:32 AM Camera Lock Deactivated

9:34:37 AM Asst Atty General Cook - witness Wilson
Note: Sacre, Candace Quantify cost for increase reserve margin based on current generation (inaudible)?

9:35:41 AM Asst Atty General Cook - witness Sinclair
Note: Sacre, Candace Increase reserve margin, more power set aside where reserve kicks in; normal day generation/usage, peak time approaching, normal practice off system purchase or kick in reserve first?

9:39:11 AM Asst Atty General Cook - witness Sinclair
Note: Sacre, Candace Companies foresee increase electric vehicles requires increase reserve margin?

9:41:17 AM Asst Atty General Cook - witness Sinclair
Note: Sacre, Candace Electric water heating, potential increase reserve margin?

9:42:29 AM Asst Atty General Cook - witness Conroy/Sinclair
Note: Sacre, Candace Staff Report, Section 4, pg 41, next to last bullet point, next IRP updated comprehensive, detailed cost benefit studies comparing cost joining MISO or PJM and benefits. Companies making similar analyses potential joining Southeast Energy Exchange Market?

9:45:30 AM Asst Atty General Cook - witness Conroy
Note: Sacre, Candace Staff Report, Section 4, pg 33, Environmental Regulation/Compliance Planning (reading). Refers to Mill Creek, Ghent, and Trimble Stations?

9:47:07 AM Asst Atty General Cook - witness Revlett
Note: Sacre, Candace LG&E agreement Louisville Metro shut down Mill Creek unit ozone season?

9:47:45 AM Asst Atty General Cook - witness Revlett
Note: Sacre, Candace Ozone season coincides times of peak generation need in summer?

9:48:00 AM Asst Atty General Cook - witness Conroy
Note: Sacre, Candace Six months?

9:48:13 AM Asst Atty General Cook - witness Revlett
Note: Sacre, Candace Agreement include contingency shutting down second Mill Creek unit?

9:49:00 AM Asst Atty General Cook - witness Revlett
Note: Sacre, Candace Potential agreement could continue future years?

9:49:28 AM Asst Atty General Cook - witness Revlett
Note: Sacre, Candace Possible operate four units below 15 tons a day?

9:49:53 AM Asst Atty General Cook - witness Sinclair/Conroy
Note: Sacre, Candace Have to shut down one unit, need additional power, process; quantify costs; forecast at this point?

9:51:54 AM Asst Atty General Cook - witness Conroy
Note: Sacre, Candace Next IRP October 2021, another summer, know necessary renew/modify agreement. Next IRP, continuing scenario, provide experience-based costs?

9:53:32 AM Asst Atty General Cook - witness Conroy/Revlett
Note: Sacre, Candace Additional cost to ratepayers result of agreement, how reflected? FAC, base rates?

9:56:48 AM Asst Atty General Cook - witness Revlett
Note: Sacre, Candace Risk not meeting guides, potential to install additional remediation equipment at Mill Creek?

9:57:18 AM Asst Atty General Cook - witness Sinclair
Note: Sacre, Candace IRP Report, three- to seven-year period, one or more additional remediation measures listed. Three- to seven-years significant risk for companies and ratepayers?

9:58:21 AM Atty Riggs LG&E/KU
Note: Sacre, Candace I'm sorry, Mr. Cook. A significant risk for what?

9:58:25 AM Asst Atty General Cook - witness Sinclair
Note: Sacre, Candace I guess I would say financial risk, for some either additional remediation equipment for potentially unit retirements?

10:00:50 AM Asst Atty General Cook - witness Sinclair
Note: Sacre, Candace Next IRP report, possible model future industrial/commercial class customers elect service through Green Energy Tariff Option 3?

10:02:39 AM Asst Atty General Cook - witness Conroy
Note: Sacre, Candace Hard to guess future, future customers, plant expansions, usage of Option 3. Indication increase significant level, beneficial to Commission have modeled at IRP level?

10:03:38 AM Asst Atty General Cook - witness Sinclair
Note: Sacre, Candace IRP prepared, COVID-19 pandemic. Reports trading groups, impact pandemic having/could have IRP processes?

10:05:45 AM Asst Atty General Cook - witness Sinclair
Note: Sacre, Candace Next year, hopefully all over, maybe not, endure change, maybe more experience-based data.

10:06:32 AM Asst Atty General Cook
Note: Sacre, Candace Commissioner, that's all the questions I have at this time.

10:06:35 AM Commissioner Mathews
Note: Sacre, Candace Thank you. Mr. Miller or Mr. Childers?

10:06:43 AM Atty Miller Sierra Club
Note: Sacre, Candace Thank you, Commissioner. I can take this (inaudible). I want to thank off the bat Staff for this thorough report and the companies for their analyses.

10:07:03 AM Atty Miller Sierra Club - witness Sinclair
Note: Sacre, Candace Cross Examination. Recommendations, pgs 41-43, Staff Report, capacity reserve margin, Response to Staff Report, pgs 3-4, bottom page 3 (reading). Clarify, companies adopted methodology recommended or considering renewables in storage compete against existing generation.

10:10:04 AM Atty Miller Sierra Club - witness Sinclair
Note: Sacre, Candace Not presented 2018 IRP but undertaken in other docket in solar and presented in 2020 IRP for Commission consideration?

10:10:36 AM	Atty Miller Sierra Club - witness Wilson Note: Sacre, Candace	Companies' response to Sierra Club comments on IRP, IRP states, Volume 1 at 5-40, (reading). Confirm companies will include analysis 2021 IRP?
10:14:15 AM	Atty Miller Sierra Club - witness Wilson Note: Sacre, Candace	Capacity reserve market, shifting target range. Companies count utility scale battery storage option, assessing alternative and relative cost effectiveness battery storage alternative to existing or new base load generation for capacity purposes?
10:16:16 AM	Atty Miller Sierra Club - witness Sinclair Note: Sacre, Candace	Methodology planned 2021 IRP, peaking, not base load?
10:18:04 AM	Atty Miller Sierra Club - witness Sinclair Note: Sacre, Candace	Companies considering it and present for stakeholder and Commission consideration, analysis being done and provided.
10:18:51 AM	Atty Miller Sierra Club Note: Sacre, Candace	I think we're going to be able to wrap up our questions now in light of Larry's examination and what I imagine Staff will have, following. We concurred largely with the recommendations. I will just acknowledge for the Commission that again, as we raised in the Informal Conference, that the companies and Sierra Club agreed not to ask questions of witnesses here about the issue that Sierra Club had raised in comments regarding Ohio Valley Electric Corporation (OVEC) which is an issue that Sierra Club had raised in the last pair of rate cases in which the Commission had directed be raised in IRP proceeding instead. Staff Report did not provide a recommendation on that, although it did note Sierra Club's contentions and the companies' responses. Sierra Club feels that the facts and arguments are well set out in prior testimony and in the comments and response here and so would simply and respectfully direct the Commission's attention to its comments on the IRP and its comments on the Staff Report, and so, with that, I'm happy to turn over the reins, and I appreciate the companies responding here.
10:20:23 AM	Commissioner Mathews Note: Sacre, Candace	Mr. Nguyen?
10:20:24 AM	Asst Gen Counsel Nguyen PSC - witness Sinclair Note: Sacre, Candace	Yes, Your Honor, thank you. Let me know if you're able to hear me or not, and, if you're not, I'll speak up a little bit more.
10:20:40 AM	Asst Gen Counsel Nguyen PSC - witness Conroy Note: Sacre, Candace	Cross Examination. IRP ongoing process, snapshot in time. Future current IRP and expect next IRP. Significant changes demand side of equation?
10:21:50 AM	Asst Gen Counsel Nguyen PSC - witness Wilson/Huff Note: Sacre, Candace	Yes, both.
10:24:44 AM	Asst Gen Counsel Nguyen PSC - witness Sinclair Note: Sacre, Candace	Supply side updates, changes occurred?
10:26:30 AM	Asst Gen Counsel Nguyen PSC - witness Wilson/Conroy/Sinclair Note: Sacre, Candace	Net summer rating for Mill Creek 1, capacity?
10:27:06 AM	Asst Gen Counsel Nguyen PSC - witness Conroy Note: Sacre, Candace	Mill Creek 2, net summer rating?
10:27:41 AM	Commissioner Mathews Note: Sacre, Candace	I think we should go off the record and take a ten-minute break, if that will be sufficient, so we will be back at 20 of 11, so we're off the record now.
10:28:00 AM	Session Paused	
10:39:31 AM	Session Resumed	

10:39:34 AM	Commissioner Mathews Note: Sacre, Candace	We are back on the record in Case No. 2018-00348. Mr. Nguyen, I believe you are in the middle of your questions.
10:40:11 AM	Camera Lock Deactivated	
10:40:52 AM	Asst Atty Gen Nguyen PSC Note: Sacre, Candace	Thank you, Your Honor.
10:41:10 AM	Asst Gen Counsel Nguyen PSC - witness Sinclair Note: Sacre, Candace	Cross Examination (cont'd). Next IRP, discussions Mill Creek 1 potential retirement, discussing Mill Creek 2?
10:42:00 AM	Asst Gen Counsel Nguyen PSC - witness Sinclair Note: Sacre, Candace	Biggest challenges generation, transmission, distribution?
10:44:31 AM	Asst Gen Counsel Nguyen PSC - witness Balmer/Wolfe Note: Sacre, Candace	Transmission/distribution, biggest challenges?
10:46:52 AM	Asst Gen Counsel Nguyen PSC - witness Wolfe Note: Sacre, Candace	Upgrades distribution system better detect distributed energy resources by customers, track behind-meter resources?
10:48:06 AM	Asst Gen Counsel Nguyen PSC - witness Wilson/Sinclair/Huff Note: Sacre, Candace	Major accounts, industrial/commercial, updates innovations lower demand energy requirements?
10:52:00 AM	Asst Gen Counsel Nguyen PSC - witness Huff Note: Sacre, Candace	AMI pilot program updates?
10:53:25 AM	Asst Gen Counsel Nguyen PSC - witness Huff Note: Sacre, Candace	5200 customer backlog for both KU and LG&E?
10:54:08 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Explain ProSim recognize shortfall capacity/increase load result reduction current reserve margin level, select optimal least cost generation portfolio.
10:57:05 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Input Strategist model, results of ProSim. Results, part of input used Strategist least cost portfolio?
10:59:13 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	ProSim modeling capable least cost portfolio?
10:59:41 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Detail companies screen potential generation options for modeling least cost optimal generation resource portfolio.
11:01:30 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Wilson screen freezing. Repeat last five-ten seconds?
11:03:31 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Companies also evaluate market purchases bilateral arrangements?
11:04:25 AM	Asst Gen Counsel Nguyen PSC - witness Wilson/Sinclair Note: Sacre, Candace	Would evaluate market purchases prior to evaluating steel-in-the-ground options?
11:05:57 AM	Asst Gen Counsel Nguyen PSC - witness Sinclair Note: Sacre, Candace	Long-term look what companies evaluate to replace capacity add new capacity, increasing load, liability crucial factor in equation?
11:06:36 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	One in 10 loss of loaded event parameter evaluate resource reliability of generation mix, LOLE also factor determining reserve margin?
11:07:36 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Detail why one in 10 LOLEs upper end target range, not bottom, middle.
11:09:08 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Forecasted reserve margin the next year, falls within range. How evaluated, forecasted reserve margin calculated subsequent year?

11:10:18 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	One in ten loss of load event, largest unit not operating at peak time?
11:12:20 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Cost of unserved energy, scenarios involved?
11:14:13 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Does/does not have significant impact?
11:14:20 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Cost unserved energy include loss productivity, interruption manufacturing process, potential damage electric services, inconvenience/discomfort loss of cooling, heating, or lighting?
11:15:34 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Quantification of cost?
11:15:43 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Load obligation, cost unserved energy. How factored in reserve margin analysis?
11:19:30 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Cost of unserved energy component for economic reserve margin, not upper end of planning reliability reserve margin?
11:26:16 AM	Asst Gen Counsel Nguyen PSC - witness Wilson Note: Sacre, Candace	Companies target reserve margin 23-24 percent?
11:27:10 AM	Asst Gen Counsel Nguyen PSC - witness Wilson/Sinclair Note: Sacre, Candace	Planning reserve margin, if level lower, need additional generation capacity?
11:28:22 AM	Asst Gen Counsel Nguyen PSC - witness Wilson/Sinclair Note: Sacre, Candace	Potential retirement of Mill Creek 2, trigger new capacity replacement?
11:29:01 AM	Asst Gen Counsel Nguyen PSC - witness Huff/Sinclair Note: Sacre, Candace	Load side, discuss economic development efforts or load replacement loss municipal loads last couple of years?
11:32:35 AM	Asst Gen Counsel Nguyen PSC - witness Revlett Note: Sacre, Candace	Status state implementation plan for ACE rule?
11:34:21 AM	Asst Gen Counsel Nguyen PSC Note: Sacre, Candace	Those are all the questions I have.
11:34:26 AM	Commissioner Mathews Note: Sacre, Candace	Thank you. I have a few, and they're going to skip around a bit because I've been taking notes as everybody else has spoken.
11:34:38 AM	Commissioner Mathews - witness Conroy Note: Sacre, Candace	Examination. 2018 IRP likely prepared in 2017 likely based on 2016 data, a little stale?
11:35:51 AM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Need to understand interaction between equivalent load duration curve model and reserve margin, particularly how model scarcity pricing, what that means?
11:38:57 AM	Commissioner Mathews - witness Sinclair Note: Sacre, Candace	Making assumption no alternative to shedding load?
11:39:33 AM	Commissioner Mathews - witness Sinclair Note: Sacre, Candace	Get at that at three percent?
11:40:14 AM	Commissioner Mathews - witness Conroy/Balmer Note: Sacre, Candace	Modeled system stand alone, model serve own load with own generation?
11:42:06 AM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Five-hundred megawatt ATC, two-thirds of time, how get number?

11:42:51 AM	Commissioner Mathews - witness Balmer Note: Sacre, Candace	Transmission capacity, MISO north/south constraint, building of transmission alleviate MISO Central versus MISO South Energy states. Flows impact LG&E/KU. Less constraints?
11:44:49 AM	Commissioner Mathews - witness Balmer Note: Sacre, Candace	Increase contract path or build transmission or both?
11:45:05 AM	Commissioner Mathews - witness Balmer Note: Sacre, Candace	Building additional capacity?
11:45:30 AM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Decision DER only results from net metering, modeling assumptions?
11:46:17 AM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Something to be changed in 2021?
11:46:28 AM	Commissioner Mathews - witness Huff Note: Sacre, Candace	Track customer carbon goals, renewable goals to meet customers needs, different characteristics fleet offered?
11:48:35 AM	Commissioner Mathews - witness Huff/Wilson Note: Sacre, Candace	How build those goals into load forecast next IRP?
11:50:42 AM	Commissioner Mathews Note: Sacre, Candace	I still have some questions, but I also know that Mr. Nguyen has a noon and one o'clock meeting, so I think we're going to have to break and come back at 2:15 because I don't think we're finished. We are going to go off the record now, and we'll be back at 2:15.
11:51:40 AM	Session Paused	
2:15:52 PM	Session Resumed	
2:16:02 PM	Commissioner Mathews Note: Sacre, Candace	We are back on the record in 2018-00348, middle of my questioning.
2:16:11 PM	Camera Lock Deactivated	
2:17:02 PM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Examination (cont'd). Difficult to measure scarcity price, particularly difficult serving own load with own generation?
2:19:08 PM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	In SREA comments, modeling out-of-state winds. Modeled in-state resources, out-of-state wind, \$12 per megawatt for transmission costs. How arrived?
2:20:09 PM	Commissioner Mathews Note: Sacre, Candace	Okay, take a note, Mr. Nguyen.
2:20:12 PM	POST-HEARING DATA REQUEST Note: Sacre, Candace Note: Sacre, Candace	COMMISSIONER MATHEWS - WITNESS WILSON METHOD FOR ARRIVING AT COST OF \$12 PER MEGAWATT FOR TRANSMISSION OF OUT-OF-STATE WINDS
2:20:37 PM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Forward to 2021 IRP, industrial customers one single site not that much load but aggregate are, downturn in coal dramatic, pre- and post-COVID not increased, how built in load forecast for next IRP?
2:22:16 PM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Any multiplier effect, modeling downturn in coal, modeling residential as well?
2:22:58 PM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Will look for in next IRP. Comments to staff report, corrections on staff assumption on winter peak and when peak is reached, cross communication with staff, opportunity to explain.
2:26:44 PM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Next IRP assuming carbon prices estimated zero near term or decision influenced in next couple of months?

2:27:56 PM	Commissioner Mathews - witness Wilson Note: Sacre, Candace	Model demand side programs, demand side reduction programs, load or DSM, model as resource or load reduction?
2:28:47 PM	Commissioner Mathews - witness Wolfe/Wilson Note: Sacre, Candace	Integrated Resource Plan, systems changed over years, distribution system planning component to IRP or will be in 2021 more than distributed energy resources, optimizing distribution to help manage load?
2:31:11 PM	Commissioner Mathews - witness Arbough/Sinclair Note: Sacre, Candace	IRP this load, what resources used to meet load, not straight forward question. OVEC, punted issues to IRP. Brief overview of OVEC units, questions from Sierra Club brought from rate case to IRP?
2:33:49 PM	Commissioner Mathews - witness Arbough/Sinclair Note: Sacre, Candace	First Energy Solutions, one of other parties?
2:35:41 PM	Commissioner Mathews - witness Arbough Note: Sacre, Candace	No out?
2:36:54 PM	Commissioner Mathews - witness Sinclair Note: Sacre, Candace	Modeling OVEC long-term models, keeping in stack or not ever modeled?
2:38:03 PM	Commissioner Mathews - witness Arbough Note: Sacre, Candace	Environmental rules, decision to retrofit unit to meet new rules, owners?
2:38:32 PM	Commissioner Mathews - witness Arbough Note: Sacre, Candace	Seat on board/vote?
2:38:39 PM	Commissioner Mathews - witness Arbough Note: Sacre, Candace	Out of how many?
2:38:44 PM	POST-HEARING DATA REQUEST Note: Sacre, Candace Note: Sacre, Candace	COMMISSIONER MATHEWS - WITNESS ARBOUGH TOTAL NUMBER OF OVEC BOARD MEMBERS
2:38:51 PM	Commissioner Mathews - witness Arbough Note: Sacre, Candace	Vertically integrated utilities as well as independent power producers on board?
2:39:56 PM	Commissioner Mathews - witness Sinclair Note: Sacre, Candace	Rules change, suddenly dispatching as own, unit will not be dispatched, held to minimum dispatch under contract?
2:40:35 PM	Commissioner Mathews - witness Arbough Note: Sacre, Candace	Large capital investment or a carbon tax effect price of energy?
2:41:22 PM	Commissioner Mathews - witness Arbough Note: Sacre, Candace	Different decision, majority decision put LG&E and KU customers at disadvantage?
2:42:22 PM	Commissioner Mathews Note: Sacre, Candace	Mr. Nguyen, do you have any followups on OVEC?
2:42:25 PM	Asst Gen Counsel Nguyen PSC Note: Sacre, Candace	No, Your Honor.
2:42:27 PM	Commissioner Mathews - witness Sinclair Note: Sacre, Candace	Modeling existing resources versus new, don't model sunk costs existing resources, capital investment new sources and operation/maintenance costs existing resources. Concept of modeling that sunk cost?
2:44:29 PM	Commissioner Mathews - witness Sinclair Note: Sacre, Candace	Sunk cost means spent money, decision no longer with me, marginal cost/benefits next action. same as net present value revenue requirement, not sunk cost, capital not paid?

2:45:41 PM Commissioner Mathews - witness Sinclair
Note: Sacre, Candace Case in Kentucky not recovered retired asset net book value?

2:46:09 PM Commissioner Mathews - witness Garrett
Note: Sacre, Candace Units no net book value, Tyrone not fully depreciated.

2:46:40 PM Commissioner Mathews - witness Sinclair
Note: Sacre, Candace Difference sunk costs and stranded asset when modeling existing resource versus new capital outlay for new source?

2:47:37 PM Commissioner Mathews - witness Sinclair
Note: Sacre, Candace Costs are not zero to customer?

2:48:47 PM Commissioner Mathews - witness Sinclair
Note: Sacre, Candace Modeling existing resources against new resources, how modeling works? Suggestions by SREA different ways of modeling, modeling different next IRP?

2:49:49 PM Commissioner Mathews - witness Conroy
Note: Sacre, Candace Cannot predict regulator is going to do.

2:51:03 PM Commissioner Mathews - witness Wilson
Note: Sacre, Candace NREL ATB figures, 2017 and 2018 IRP, using 2020 NREL figures for renewables in 2021?

2:51:51 PM Commissioner Mathews - witness Sinclair
Note: Sacre, Candace Southeast Energy Market (SEM), not RTO light, bulletin board facilitate bilateral agreements?

2:52:29 PM Commissioner Mathews - witness Wilson/Sinclair
Note: Sacre, Candace Modeling market purchases or scenarios impact reserve margin from market perspective?

2:53:58 PM Commissioner Mathews - witness Wilson
Note: Sacre, Candace LG&E and KU, winter peaking, summer peaking, both?

2:54:58 PM Commissioner Mathews - witness Wilson
Note: Sacre, Candace Expect electric heat grow faster than model?

2:55:46 PM Commissioner Mathews - witness Wilson
Note: Sacre, Candace Shoulder months less predictable, change modeling from resource perspective?

2:57:40 PM Commissioner Mathews - witness Wilson
Note: Sacre, Candace ProSim runs, utilizing Strategist ever again?

2:59:58 PM Commissioner Mathews
Note: Sacre, Candace Mr. Riggs, I believe I'm finished, if you have any redirect.

3:00:28 PM Atty Riggs LG&E/KU
Note: Sacre, Candace Very brief, Your Honor.

3:00:33 PM Atty Riggs LG&E/KU - witness Sinclair/Wilson/Conroy
Note: Sacre, Candace Redirect Examination. Recall AG possible sales into RTOs, answer in post-hearing data response. Answer now?

3:02:38 PM Asst Atty General Cook
Note: Sacre, Candace Okay, thank you, yes, I will take a look. Thank you.

3:02:43 PM Atty Riggs LG&E/KU - witness Conroy
Note: Sacre, Candace AG examination, future Mill Creek 1 under agreement with Louisville Metro?

3:03:13 PM Atty Riggs LG&E/KU - witness Conroy
Note: Sacre, Candace Under agreement, LG&E use Mill Creek I needed to serve load?

3:04:29 PM Atty Riggs LG&E/KU - witness Conroy
Note: Sacre, Candace Agreement only for 2020?

3:04:50 PM Atty Riggs LG&E/KU - witness Wilson
Note: Sacre, Candace Staff/general examination, difference between target reserve margins and planning reserve?

3:05:24 PM Atty Riggs LG&E/KU - witness Wilson
Note: Sacre, Candace May have mistated terms. State each one and what represents.

3:06:23 PM	Atty Riggs LG&E/KU - witness Sinclair Note: Sacre, Candace	Commissioner Mathews examination, IRP out of date. Final comments to observation data in IRP out of date, process, results?
3:08:19 PM	Commissioner Mathews Note: Sacre, Candace	I think I said stale. I didn't say outdated. I said stale.
3:08:25 PM	Atty Riggs LG&E/KU Note: Sacre, Candace	You did, Your Honor, you did say stale, so those conclude my redirect questions.
3:08:34 PM	Commissioner Mathews Note: Sacre, Candace	Mr. Cook, do you have any recross?
3:08:44 PM	Asst Atty General Cook - witness Wilson Note: Sacre, Candace	Recross Examination. Distribution/transmission costs, agree capital expenditures towards reliability also be modeled?
3:09:52 PM	Atty Riggs LG&E/KU Note: Sacre, Candace	Mr. Cook, you see the requests that have been in the periodic rate cases and how we have modeled those. The IRP is really looking to generation resources, but we lay out in great detail in our rate case financial modeling about how we go about modeling proposed investing in the generation and transmission. I would respectfully suggest that that information is robustly presented in our rate cases, and the purpose of the IRP is explained, again, match the resources with load.
3:11:16 PM	Asst Atty General Cook Note: Sacre, Candace	Okay, thank you.
3:11:18 PM	Commissioner Mathews Note: Sacre, Candace	Is that all, Mr. Cook?
3:11:21 PM	Asst Atty General Cook Note: Sacre, Candace	Yes, that's all.
3:11:22 PM	Commissioner Mathews Note: Sacre, Candace	Mr. Miller, do you have any recross, or Mr. Childers?
3:11:29 PM	Atty Miller Sierra Club Note: Sacre, Candace	I don't believe we do, Madam Commissioner. Thank you very much.
3:11:32 PM	Commissioner Mathews Note: Sacre, Candace	Staff?
3:11:35 PM	Asst Gen Counsel Nguyen PSC Note: Sacre, Candace	None, Your Honor.
3:11:37 PM	Commissioner Mathews Note: Sacre, Candace	I don't have any.
3:11:46 PM	POST-HEARING DATA REQUEST RESPONSE Note: Sacre, Candace Note: Sacre, Candace	COMMISSIONER MATHEWS - WITNESS ARBOUGH TOTAL OVEC BOARD MEMBERS - RESPONSE 15
3:12:00 PM	Atty Riggs LG&E/KU Note: Sacre, Candace	Commissioner Mathews, may I ask a question, please?
3:12:02 PM	Commissioner Mathews Note: Sacre, Candace	Yes, you may.
3:12:04 PM	Atty Riggs LG&E/KU Note: Sacre, Candace	What are the next steps in this proceeding?
3:12:10 PM	Commissioner Mathews Note: Sacre, Candace	Again, we have this conversation about this is a different animal, especially since the Staff report has been written and comments have been taken, so I believe, Mr. Nguyen, the next step would be a final Staff report and a Commission Order that accompanies or -

3:12:40 PM	Asst Gen Counsel Nguyen PSC Note: Sacre, Candace	I believe the report that has been filed is final, and the Order that was issued, filing that into the record, I don't know it delineated as final or draft, but -
3:13:02 PM	Commissioner Mathews Note: Sacre, Candace	It's a different animal. The Commission still has to enter an order closing the case, correct?
3:13:11 PM	Asst Gen Counsel Nguyen PSC Note: Sacre, Candace	Correct.
3:13:12 PM	Commissioner Mathews Note: Sacre, Candace	Okay, Well, I think one of the things that's a next step, I think you got some direction with regards to the IRP that you're working on for 2021, and I think we will understand what's in that much better, having spent a day together, here, so I don't consider out time being wasted
3:13:29 PM	Asst Atty General Cook Note: Sacre, Candace	Yes, ma'am, that'd be fine.
3:13:47 PM	Atty Riggs LG&E/KU Note: Sacre, Candace	Your Honor, the companies understand the directions that have been discussed today, and they will certainly take them into account when they prepare the IRP, the next IRP.
3:13:57 PM	Commissioner Mathews Note: Sacre, Candace	I appreciate everyone's time and teaching. I've been the most vocal about wanting to get back to more of a robust IRP process and really understanding what's in the nuts and bolts and pusing Staff to do the same, so feel really bad for them if I were you. The record will be complete and will be available. I would urge you to look at that as you write your 2021. Again, there will be a Commission order closing out the proceeding.
3:14:53 PM	Commissioner Mathews Note: Sacre, Candace	There are a couple of outstanding data requests, correct? Where did the \$12 transmission cost come from and the other was the number of OVEC board members, and then I believe Mr. Cook had one. Did that get answered during the break?
3:15:17 PM	Asst Atty General Cook Note: Sacre, Candace	Yeah, I'm going to take a look at that and see if we need to file one to follow up.
3:15:23 PM	Commissioner Mathews Note: Sacre, Candace	And, if you do, would you do that by the end of the day tomorrow?
3:15:29 PM	Asst Atty Gen Cook Note: Sacre, Candace	Yes, ma'am, that'd be fine.
3:15:33 PM	Commissioner Mathews Note: Sacre, Candace	Mr. Nguyen, I believe we can get our one in by the end of the day tomorrow.
3:15:38 PM	Commissioner Mathews Note: Sacre, Candace	Mr. Riggs, how long would you like to respond to that?
3:15:44 PM	Atty Riggs LG&E/KU Note: Sacre, Candace	Five business days.
3:16:09 PM	Commissioner Mathews Note: Sacre, Candace	So next Tuesday by close of business. I would not imagine anyone wants to file a brief or any further documentation.
3:16:21 PM	Atty Riggs LG&E/KU Note: Sacre, Candace	No, Your Honor.
3:16:23 PM	Commissioner Mathews Note: Sacre, Candace	Any of the Intervenors?

3:16:26 PM	Asst Atty Gen Cook Note: Sacre, Candace	No, ma'am.
3:16:28 PM	Atty Miller Sierra Club Note: Sacre, Candace	Thank you, no.
3:16:29 PM	Commissioner Mathews Note: Sacre, Candace	Anything else for the good of the order? Thank you very much. I appreciate your time. I appreciate your attention to detail in walking us through some very complicated but exciting things.
3:17:08 PM	Commissioner Mathews Note: Sacre, Candace	One of the reasons I want it to be a bit more robust is that I spend a lot of time in rooms with the PJM states talking about resource adequacy and that we don't have the same concerns that they might have because we have an IRP process that ensures that we have resource adequacy, and we may not have the same issues that they have, so I wanted to make sure that I was true to myself and that I investigate further and that the Commission looked at that going forward.
3:17:51 PM	Atty Riggs LG&E/KU Note: Sacre, Candace	Your Honor, as we stated at the conclusion of the Informal Conference and I wish to say at the conclusion of this hearing that, if the Commission has any questions about our planning process or our IRP process, the companies want to answer those questions finally and fully and candidly.
3:18:11 PM	Commissioner Mathews Note: Sacre, Candace	Like I said, I appreciate the attention today.
3:18:21 PM	Commissioner Mathews Note: Sacre, Candace	With that, I believe we will have data requests out by the end of the day tomorrow, due back next Tuesday, and this hearing is now adjourned.
3:18:41 PM	Session Ended	

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