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David L. Armstrong  
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Linda Breathitt  
Commissioner

April 23, 2014

## PARTIES OF RECORD

Re: Case No. 2013-00475

Attached is a copy of a memorandum which is being filed in the record of the above-referenced case. If you have any comments you would like to make regarding the contents of the memorandum please do so within five days of receipt of this letter. If you have any questions, please contact Jonathan Beyer or Ann Ramser, Commission Counsel, at 502/564-3940.

Sincerely,

A handwritten signature in black ink, appearing to read "Jeff Derouen".

Jeff Derouen  
Executive Director

Attachments

## INTRA-AGENCY MEMORANDUM

### KENTUCKY PUBLIC SERVICE COMMISSION

**TO:** Case File – Case No. 2013-00475

**FROM:** Jonathan Beyer, Staff Attorney

**DATE:** April 23, 2014

**RE:** Informal Conference of April 16, 2014

Pursuant to the Commission's January 17, 2014 Order and Commission Staff's April 1, 2014 Notice, an Informal Conference was held in this matter at the Commission's office in Frankfort, Kentucky on April 16, 2014. A list of attendees is attached to this memorandum.

Beginning the conference, Mr. Ranie Wohnhas, Managing Director, Regulatory and Finance, for Kentucky Power Company ("Kentucky Power") provided a synopsis of the contents and analyses of the company's Integrated Resource Plan ("IRP"). Mr. Wohnhas discussed pertinent issues to the IRP, including demand, supply, system growth, environmental compliance, and current projects. He noted that Kentucky Power has taken "deliberate steps towards diversification."

Opening the conference to questions, Beverly May. Alexander Desha and Sierra Club ("Sierra Club") first requested Kentucky Power to clarify its responses to certain data requests propounded by the Sierra Club and Commission Staff ("Staff"). In particular it requested additional information regarding Sierra Club's Second Request for Information, Item 21. Kentucky Power also noted a typo on table 2 of its application, which relates to Sierra Club request 2-23. Kentucky Industrial Utility Customers ("KIUC") queried Kentucky Power as to the impact of the recent Polar Vortex on Kentucky Power's planning. Kentucky Power representatives asserted that it utilizes normalized weather in its planning; however, the recent extreme weather events have provided useful additional information regarding how customers respond to such events. KIUC asked what Kentucky Power plans for the Rockport plant, to which Kentucky Power indicated that no decision has yet been made. Future IRPs may provide additional information as it becomes closer in time to year 2022.

Staff questioned Kentucky Power regarding its forecasted line loss as compared to the stated line loss in a recent fuel adjustment case. Staff distributed copies of the source material from which the question was derived. A copy of the document is attached to this memorandum. Staff also noted that a document is missing from Kentucky Power's response to Staff's Second Request for Information, Item 20.

Kentucky Power agreed to provide responses to the four areas needing supplementation, by April 25, 2014, specifically: (1) clarification on attachment 1 to Sierra Club request 2-21; (2) correction to table 2 of its application; (3) an explanation

for the discrepancy in line loss as set forth in Kentucky Power's response to Sierra Club's Supplemental Set of Data Requests Item No. 26 as contrasted with the actual line loss set forth in Case No. 2012-00550, *An Examination of the Application of the Fuel Adjustment Clause of Kentucky Power Company from November 1, 2010 through October 31, 2012*; (4) the document omitted from the response to Staff request 2-20.

Finding that no party had any further questions, the conference was adjourned.

Attachments:

Attendance List

Case No. 2012-00550, *An Examination of the Application of the Fuel Adjustment Clause of Kentucky Power Company from November 1, 2010 through October 31, 2012*, Kentucky Power Company Responses to Commission Staff's First Set of Data Requests, Item No. 13 (Ky. PSC filed Mar. 1, 2013)

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

INTEGRATED RESOURCE PLANNING REPORT )  
OF KENTUCKY POWER COMPANY TO THE ) CASE NO.  
KENTUCKY PUBLIC SERVICE COMMISSION ) 2013-00475

April 16, 2014

Please sign in:

NAME	REPRESENTING
<u>Jonathan Bayer</u>	<u>PSC - Legal</u>
<u>JEFF JOHNSON</u>	<u>PSC ENG</u>
<u>John Rogness</u>	<u>KPC</u>
<u>KEN GISTE</u>	<u>STITES + HARRISON FOR KENTUCKY POWER</u>
<u>MARK R. OVERHEAT</u>	<u>STITES + HARRISON FOR KPC.</u>
<u>Rame Wohnhas</u>	<u>KPC</u>
<u>Mike Kurtz</u>	<u>KIUC</u>
<u>Jim Childers</u>	<u>Sierra Club</u>
<u>John Torpey</u>	<u>AEPSC / KPC</u>
<u>Will Castle</u>	<u>AEPSC / KPC</u>
<u>Aaron Beaman</u>	<u>Ky PSC</u>
<u>Ann Ramser</u>	<u>KY PSC</u>
<u>Scott Weaver</u>	<u>AEPSC / KPC</u>
<u>JOHN SHUPP</u>	<u>PSC-ENG,</u>

Jim Liviers

Bob Russell

Matthew Baer

Michael Solis

Lorie Williams

Carl Radger

Chad Burnett

Tom Zelino

Randy Holiday

PSC - FA

PSC

PSC

Earthjustice/Sierra

Sierra Club

Sierra Club

AEP

AEP

AEP

**KENTUCKY POWER COMPANY**

**REQUEST**

Refer to section 2.3.3.7.b on page 41 of the IRP (Volume A). Please detail the components of "lost and unaccounted for energy" and relative weights and respective drivers of those components for all years in the IRP.

**RESPONSE**

Losses and unaccounted for energy represents the difference between total load for the area (net generation plus imports less exports) and billed and accrued energy sales to retail and internal wholesale customers. Losses and unaccounted for energy (losses) are modeled using Company loss study results. They are applied to each revenue class. Loss study results are translated from voltage level losses to revenue class loss percentage. The class sales forecast and loss study determine the losses forecast. Please see Attachment 1 for the annual losses by revenue class.

**WITNESS:** William K Castle

## Kentucky Power - GWh Lost and Unaccounted for Energy Forecast

**Annual**

Year	Residential Loss		Commercial Loss		Industrial Loss		Other Ultimate Loss		Total Ultimate Loss		FERC Municipals Loss		Total Loss	
	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor
2014	201	8.2%	105	7.2%	100	3.4%	1	7.9%	407	5.9%	3	2.6%	410	5.9%
2015	200	8.2%	106	7.2%	101	3.4%	1	7.9%	407	5.9%	3	2.6%	410	5.9%
2016	199	8.1%	105	7.2%	101	3.4%	1	7.9%	407	5.9%	3	2.6%	409	5.9%
2017	196	8.1%	105	7.1%	101	3.4%	1	7.9%	402	5.8%	3	2.6%	405	5.8%
2018	197	8.1%	105	7.2%	101	3.4%	1	7.9%	405	5.9%	3	2.6%	407	5.8%
2019	196	8.1%	106	7.2%	101	3.4%	1	7.9%	404	5.9%	3	2.6%	407	5.8%
2020	197	8.1%	107	7.2%	102	3.4%	1	7.9%	407	5.9%	3	2.6%	410	5.9%
2021	195	8.1%	106	7.2%	102	3.4%	1	7.9%	403	5.8%	3	2.6%	406	5.8%
2022	196	8.1%	107	7.2%	103	3.4%	1	7.9%	406	5.9%	3	2.6%	409	5.8%
2023	196	8.1%	108	7.2%	103	3.4%	1	7.9%	408	5.9%	3	2.6%	411	5.8%
2024	196	8.1%	108	7.2%	103	3.4%	1	7.9%	408	5.9%	3	2.6%	411	5.8%
2025	195	8.0%	109	7.2%	103	3.4%	1	7.9%	407	5.8%	3	2.6%	410	5.8%
2026	195	8.1%	109	7.2%	103	3.4%	1	7.9%	409	5.8%	3	2.6%	412	5.8%
2027	197	8.1%	111	7.2%	104	3.4%	1	7.9%	412	5.9%	3	2.6%	415	5.8%
2028	196	8.1%	111	7.2%	104	3.4%	1	7.9%	413	5.9%	3	2.6%	416	5.8%

**Summer**

Year	Residential Loss		Commercial Loss		Industrial Loss		Other Ultimate Loss		Total Ultimate Loss		FERC Municipals Loss		Total Loss	
	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor
2014	83	8.1%	66	9.1%	61	4.2%	1	14.3%	211	6.6%	0	0.4%	211	6.5%
2015	76	7.5%	64	8.7%	59	4.1%	1	14.1%	200	6.2%	0	0.5%	200	6.1%
2016	80	8.0%	63	8.6%	56	3.9%	1	13.8%	201	6.3%	0	0.4%	201	6.2%
2017	80	8.0%	64	8.6%	59	4.0%	1	13.9%	204	6.3%	0	0.7%	205	6.3%
2018	80	8.0%	64	8.6%	59	4.0%	1	13.9%	204	6.3%	0	0.7%	205	6.3%
2019	81	8.0%	65	8.7%	60	4.1%	1	13.9%	207	6.4%	0	0.7%	207	6.3%
2020	80	8.0%	64	8.6%	56	3.8%	1	13.7%	201	6.2%	0	0.4%	201	6.1%
2021	81	8.0%	65	8.7%	60	4.0%	1	13.8%	206	6.3%	0	0.6%	206	6.3%
2022	80	8.0%	65	8.7%	60	4.0%	1	13.8%	206	6.3%	0	0.6%	207	6.2%
2023	81	8.0%	66	8.6%	60	4.0%	1	13.8%	207	6.3%	0	0.6%	207	6.2%
2024	81	8.0%	66	8.6%	57	3.8%	1	13.6%	204	6.2%	0	0.3%	204	6.1%
2025	82	8.1%	67	8.7%	60	4.0%	1	13.8%	210	6.4%	0	0.6%	211	6.3%
2026	82	8.1%	68	8.8%	60	4.0%	1	13.8%	211	6.4%	0	0.6%	211	6.3%
2027	82	8.1%	68	8.7%	60	4.0%	1	13.7%	211	6.4%	0	0.6%	211	6.3%
2028	81	8.0%	67	8.6%	56	3.7%	1	13.5%	205	6.2%	0	0.3%	206	6.1%

**Winter**

Year	Residential Loss		Commercial Loss		Industrial Loss		Other Ultimate Loss		Total Ultimate Loss		FERC Municipals Loss		Total Loss	
	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor	GWh	Factor
2014	116	8.1%	39	5.4%	40	2.7%	0	2.5%	195	5.3%	2	4.6%	197	5.3%
2015	118	8.2%	46	6.4%	47	3.1%	0	3.0%	211	5.8%	2	4.5%	214	5.8%
2016	115	8.0%	41	5.7%	39	2.6%	0	2.6%	195	5.3%	2	4.1%	197	5.3%
2017	117	8.2%	41	5.7%	41	2.7%	0	2.7%	199	5.5%	2	4.2%	202	5.4%
2018	116	8.1%	42	5.8%	41	2.8%	0	2.7%	200	5.5%	2	4.2%	202	5.4%
2019	119	8.4%	45	6.2%	49	3.2%	0	3.0%	213	5.8%	3	4.6%	216	5.8%
2020	115	8.1%	43	5.9%	39	2.6%	0	2.7%	197	5.4%	2	4.3%	199	5.4%
2021	115	8.1%	44	6.0%	43	2.8%	0	2.8%	202	5.5%	2	4.3%	204	5.5%
2022	115	8.1%	45	6.2%	43	2.8%	0	2.8%	204	5.5%	2	4.3%	206	5.5%
2023	118	8.3%	48	6.5%	49	3.2%	0	3.1%	215	5.8%	3	4.6%	218	5.8%
2024	111	7.9%	45	6.1%	40	2.6%	0	2.6%	196	5.3%	2	4.2%	198	5.3%
2025	114	8.1%	46	6.1%	43	2.8%	0	2.8%	202	5.5%	2	4.3%	205	5.5%
2026	116	8.2%	47	6.2%	44	2.8%	0	2.9%	207	5.6%	3	4.4%	209	5.6%
2027	116	8.2%	51	6.6%	52	3.3%	0	3.2%	219	5.9%	3	4.7%	222	5.8%
2028	110	7.8%	46	6.0%	42	2.7%	0	2.7%	198	5.3%	2	4.2%	201	5.3%

**Kentucky Power Company**

**REQUEST**

- a. Provide a schedule of the calculation of the 12-month average line loss by month for November 2010 through October 2012.
- b. Describe the actions that Kentucky Power has taken to reduce line loss during this period.

**RESPONSE**

- a. Please see Page 2 of this response.
- b. The Company is continually working to reduce line losses by increasing conductor size, installing more efficient transformers, employing a reactive corrective program and increasing the operating voltage levels of transmission and distribution lines. This action reduces losses at constant load and maintains minimal increases in losses for additional load.

Examples of improvements which have reduced losses in the Company's service territory include the replacement of 69/12 kV power transformers at Highland Station, Whitesburg Station and Paintsville Station with newer, more efficient transformers.

**WITNESS:** Lila P Munsey

**KENTUCKY POWER COMPANY**  
**Line Loss Calculation**

**BILLED & ACCRUED**

MWH		TOTAL ENERGY	ASSOC. COMPANY	SYSTEM SALES FOR	INTERNAL ENERGY	ENERGY LOST & UNACCOU	% LINE LOSS
		DISPOSED 1	INTERCHANGE 2	REALE 3	DISPOSED (1-2-3=4)	NTED 5	INTERNAL (5/4)
NOV	10 current month	855,419	166,718	78,588	610,113	18,691	3.084%
	12 mos. ending	11,536,990	2,300,652	1,677,684	7,558,654	212,573	2.812%
DEC	10 current month	1,017,587	91,341	96,614	829,832	27,145	3.272%
	12 mos. ending	11,451,664	2,170,663	1,613,129	7,667,872	212,972	2.778%
JAN	11 current month	1,098,215	167,409	128,873	801,933	41,747	5.206%
	12 mos. ending	11,357,413	2,129,336	1,568,509	7,659,568	222,277	2.902%
FEB	11 current month	910,249	166,164	106,636	637,449	33,852	5.311%
	12 mos. ending	11,226,612	2,121,984	1,534,875	7,569,753	222,892	2.945%
MAR	11 current month	938,525	185,967	138,228	614,330	(21,485)	-3.497%
	12 mos. ending	11,352,967	2,236,489	1,557,829	7,558,649	177,968	2.355%
APR	11 current month	832,814	147,712	157,707	527,395	19,035	3.609%
	12 mos. ending	11,443,057	2,256,801	1,614,100	7,572,156	178,542	2.358%
MAY	11 current month	869,687	209,127	105,650	554,910	12,282	2.213%
	12 mos. ending	11,620,923	2,422,744	1,630,335	7,567,844	207,265	2.739%
JUN	11 current month	1,055,541	248,681	231,732	575,128	17,041	2.963%
	12 mos. ending	11,719,071	2,492,307	1,692,158	7,534,606	200,264	2.658%
JUL	11 current month	1,188,401	284,872	269,591	633,938	11,264	1.777%
	12 mos. ending	11,684,145	2,454,803	1,700,832	7,528,510	204,100	2.711%
AUG	11 current month	1,036,191	194,636	202,852	638,703	41,835	6.550%
	12 mos. ending	11,554,708	2,341,584	1,702,551	7,510,593	225,790	3.006%
SEP	11 current month	826,319	152,155	167,885	506,279	7,519	1.485%
	12 mos. ending	11,502,964	2,267,055	1,765,980	7,469,929	207,789	2.782%
OCT	11 current month	841,538	211,808	92,708	537,022	(21,975)	-4.092%
	12 mos. ending	11,470,486	2,226,590	1,777,064	7,466,832	186,951	2.504%
NOV	11 current month	814,243	161,824	72,334	580,085	23,138	3.989%
	12 mos. ending	11,429,310	2,221,696	1,770,810	7,436,804	191,398	2.574%
DEC	11 current month	909,997	146,948	100,034	663,015	24,131	3.640%
	12 mos. ending	11,321,720	2,277,303	1,774,230	7,270,187	188,384	2.591%
JAN	12 current month	890,486	63,168	118,208	709,110	35,055	4.944%
	12 mos. ending	11,113,991	2,173,062	1,763,565	7,177,364	181,692	2.531%
FEB	12 current month	771,532	43,204	99,633	628,695	20,671	3.288%
	12 mos. ending	10,975,274	2,050,102	1,756,562	7,168,610	168,511	2.351%
MAR	12 current month	651,486	22,824	77,534	551,128	(1,923)	-0.349%
	12 mos. ending	10,688,235	1,886,959	1,695,868	7,105,408	188,073	2.647%
APR	12 current month	780,424	169,478	96,737	514,209	13,801	2.684%
	12 mos. ending	10,635,845	1,908,725	1,634,898	7,092,222	182,839	2.578%
MAY	12 current month	682,491	41,453	93,694	547,344	(1,792)	-0.327%
	12 mos. ending	10,448,649	1,741,051	1,622,942	7,084,656	168,765	2.382%
JUN	12 current month	775,389	122,336	106,818	546,236	23,118	4.232%
	12 mos. ending	10,168,497	1,614,706	1,498,028	7,055,764	174,842	2.478%
JUL	12 current month	1,019,239	261,813	168,166	589,260	7,287	1.237%
	12 mos. ending	9,999,335	1,591,647	1,396,603	7,011,086	170,865	2.437%
AUG	12 current month	986,963	219,711	191,050	576,202	19,197	3.332%
	12 mos. ending	9,950,107	1,616,722	1,384,801	6,948,585	148,227	2.133%
SEP	12 current month	705,454	86,288	150,781	468,385	(9,418)	-2.011%
	12 mos. ending	9,829,242	1,550,855	1,367,697	6,910,691	131,290	1.900%
OCT	12 current month	781,244	76,536	167,684	537,024	(7,541)	-1.404%
	12 mos. ending	9,768,948	1,415,583	1,442,673	6,910,693	145,724	2.109%