



APR 01 2013

PUBLIC SERVICE COMMISSION

March 31, 2013

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
P.O. Box 615
Frankfort, Kentucky 40602-0615

Re: Annual Resource Assessment for East Kentucky Power Cooperative, Inc. (Administrative Case No. 387) and portions of the FERC Form No. 1: Annual Report of Major Electric Utilities, Licensees and Others

Dear Mr. Derouen:

Pursuant to the Commission's Order dated October 7, 2005 in Administrative Case No. 387, please find enclosed for filing with the Commission an original and ten copies of the 2012 Annual Resource Assessment for East Kentucky Power Cooperative, Inc. ("EKPC")

EKPC is electronically submitting its FERC Form No.1: Annual Report of Major Electric Utilities, Licensees and Others. However, EKPC encloses for filing one original signed and notarized Annual Report Oath Page and one original signed and notarized Report of Gross Operating Revenues of EKPC.

If you have any questions, please call me.

Very truly yours,

Ann F. Wood

Director, Regulatory Services

ann F. Wood.

Enclosures

EAST KENTUCKY POWER COOPERATIVE, INC.

UPDATED INFORMATION TO BE FILED ANNUALLY AS SUPPLEMENT TO THE ANNUAL REPORT

AS ORDERED on October 7, 2005 in the CLOSED PSC ADMINISTRATIVE CASE 387

PUBLIC SERVICE COMMISSION'S REQUEST DATED 12/20/01

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In	the	Matter	of.
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A REVIEW OF THE ADEQUACY OF)
KENTUCKY'S GENERATION) ADMINISTRATIVE
CAPACITY AND TRANSMISSION) CASE NO. 387
SYSTEM)

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC ADMINISTRATIVE CASE 387

PUBLIC SERVICE COMMISSION'S REQUEST DATED 12/20/01

East Kentucky Power Cooperative, Inc. (EKPC) hereby submits responses to the information requests contained in Appendix G to the Order of the Public Service Commission ("PSC") in this case dated December 20, 2001, as subsequently revised by Orders dated March 29, 2004 and October 7, 2005. Each response with its associated supportive reference materials is individually tabbed.

The requests listed below, which were originally contained in Appendix G of the Commission's Order dated December 20, 2001, are no longer required pursuant to the Commission's Order of March 29, 2004, amending the previous Order.

Request No. 1

Request No. 2

Request No. 5

Request No. 9

Request No. 10

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:		
A REVIEW OF THE ADEQUACY OF KENTUCKY'S GENERATION CAPACITY AND TRANSMISSION SYSTEM)))	PSC ADMINISTRATIVE CASE NO. 387
CERTIFICA	NTE	
STATE OF KENTUCKY)		
COUNTY OF CLARK)		

Darrin W. Adams, being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission in the above-referenced case dated December 20, 2001, and that the matters and things set forth therein are true and accurate to the best of his knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this 29th day of March, 2013.

...Y COMMISSION EXPIRES NOVEMBER 30, 2013 NOTARY ID #409352

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:		
A REVIEW OF THE ADEQUACY OF KENTUCKY'S GENERATION CAPACITY AND TRANSMISSION)	PSC ADMINISTRATIVE CASE NO. 387
SYSTEM)	
CERTIFICA	ATE	
STATE OF KENTUCKY)		

COUNTY OF CLARK

Julia J. Tucker, being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission in the above-referenced case dated December 20, 2001, and that the matters and things set forth therein are true and accurate to the best of her knowledge, information and belief, formed after reasonable inquiry.

Subscribed and sworn before me on this 29th day of March, 2013.

MY COMMISSION EXPIRES NOVEMBER 30, 2013 NOTARY ID #409352

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EAST KENTUCKY POWER COOPERATIVE, INC. PSC ADMINISTRATIVE CASE NO. 387 ANNUAL RESOURCE ASSESSMENT FILING

PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/01

REQUEST 3

RESPONSIBLE PERSON: Julia J. Tucker

COMPANY: East Kentucky Power Cooperative, Inc.

Request 3. Actual and weather-normalized coincident peak demands for the just completed calendar year. Demands should be disaggregated into (a) native load demand (firm and non-firm) and (b) off-system demand (firm and non-firm).

Response 3a.

Monthly Native Load Peak Demands for 2012			
	Actual (Firm and Non-Firm) (MW)	Weather Adjusted (Firm and Non-Firm) (MW)	
January	2,481	2,795	
February	2,470	2,676	
March	2,077	2,219	
April	1,769	1,869	
May	2,003	1,989	
June	2,354	2,139	
July	2,343	2,125	
August	2,260	2,267	
September	2,043	2,035	
October	1,838	1,885	
November	2,240	2,325	
December	2,292	2,533	

Response 3b. EKPC had no off-system demand obligations during the calendar year 2012.

PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/01 REQUEST 4

RESPONSIBLE PERSON:

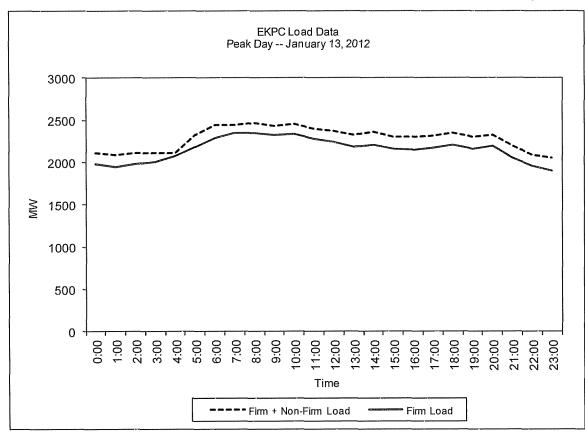
Julia J. Tucker

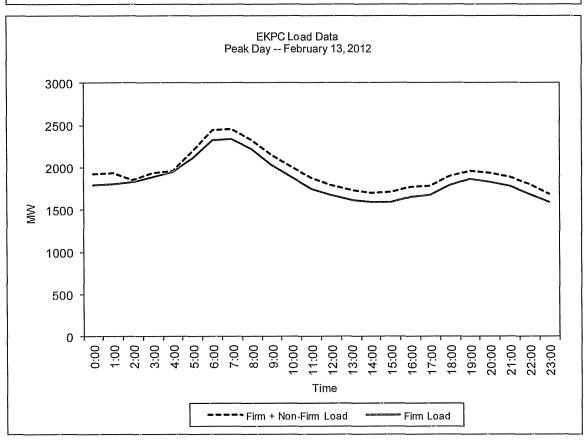
COMPANY:

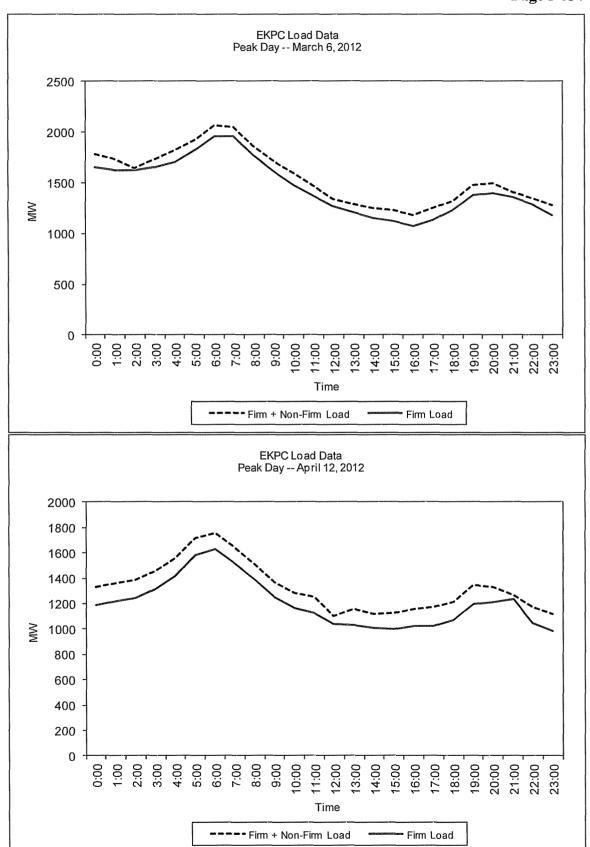
East Kentucky Power Cooperative, Inc.

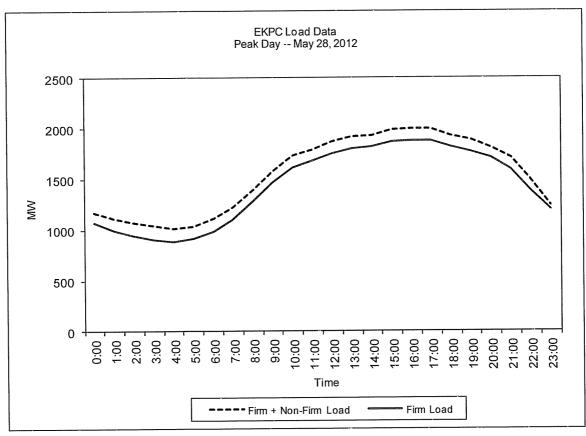
Request 4. Load shape curves that show actual peak demands and weather-normalized peak demands (native load demand and total demand) on a monthly basis for the just completed calendar year.

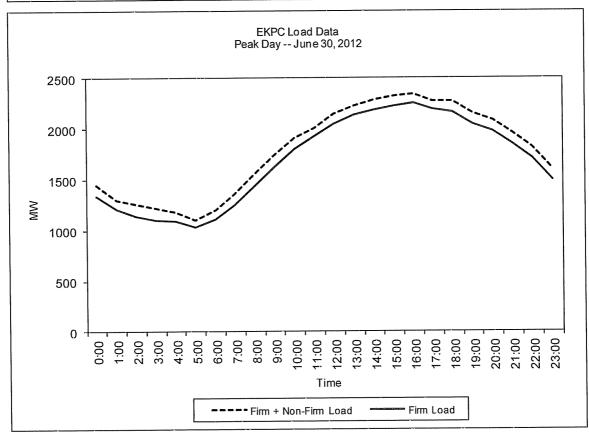
Response 4. Actual monthly peak-day load shapes are presented on pages 2 through 7 of this response. EKPC performs an analysis to weather-normalize the peak hour but EKPC does not weather-normalize the peak-day load shapes.

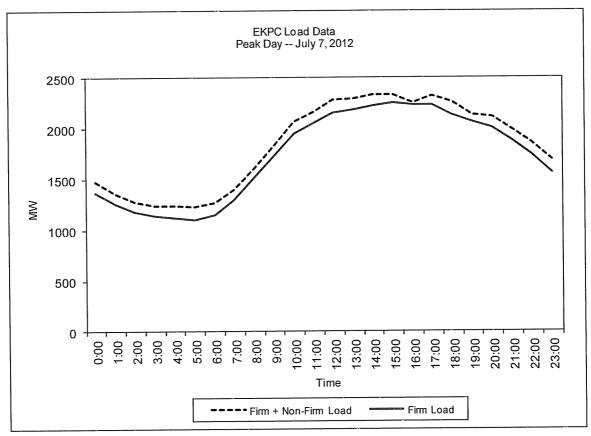


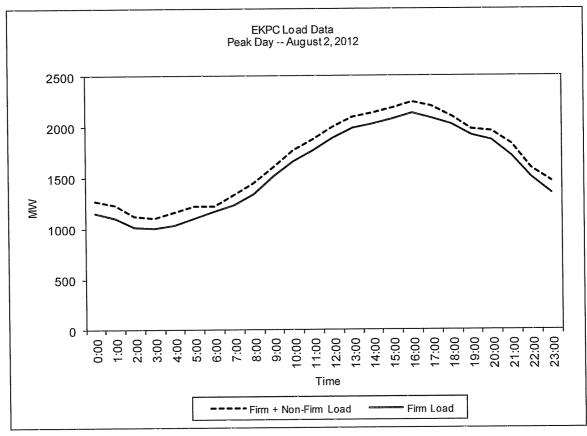


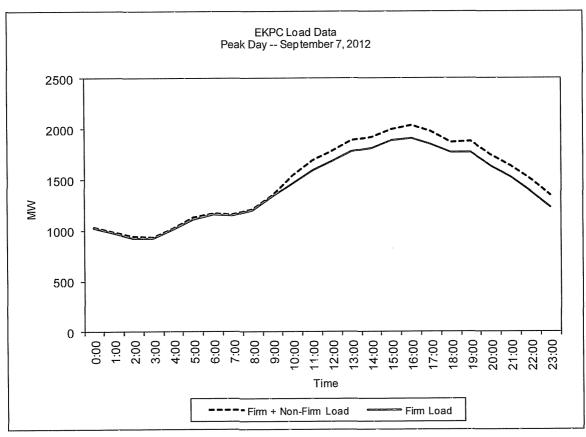


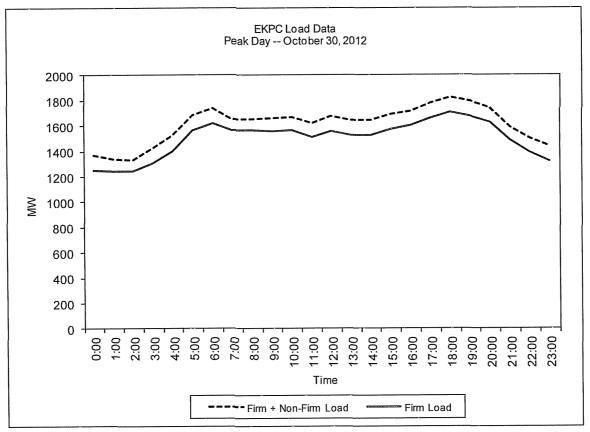


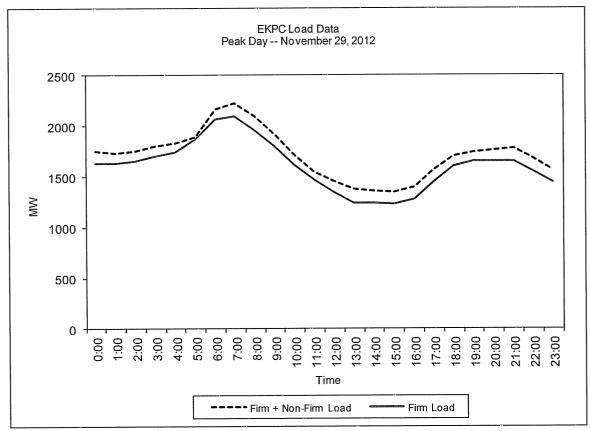


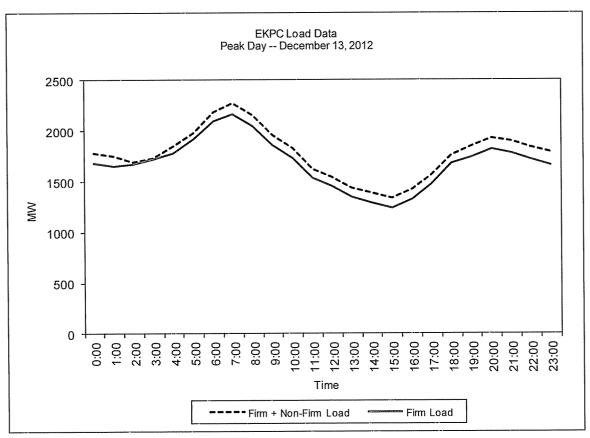












PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/01 REQUEST 6

RESPONSIBLE PERSON: Julia J. Tucker

COMPANY: East Kentucky Power Cooperative, Inc.

Request 6. Based on the most recent demand forecast, the base case demand and energy forecasts and high case demand and energy forecasts for the current year and the following four years. The information should be disaggregated into (a) native load (firm and non-firm demand) and (b) off-system load (both firm and non-firm demand).

Response 6a. EKPC prepares a high case and low case forecast to bracket its base case forecast. The ranges are shown in the table below. These numbers are firm native load only. EKPC does not prepare range forecasts for non-firm native load.

-	Total Winter Peak Demand (MW)			Total Summer Peak Demand (MW)				Total uirements (GWh)			
Season	Low Case	Base Case	High Case	Year	Low Case	Base Case	High Case	Year	Low Case	Base Case	High Case
2012-13	2,883	2,947	2,985	2013	2,256	2,306	2,366	2013	12,621	12,899	13,234
2013-14	2,885	2,980	3,057	2014	2,263	2,337	2,427	2014	12,662	13,078	13,581
2014-15	2,891	3,017	3,133	2015	2,269	2,368	2,488	2015	12,731	13,286	13,955
2015-16	2,900	3,056	3,210	2016	2,279	2,402	2,551	2016	12,847	13,541	14,378
2016-17	2,913	3,101	3,293	2017	2,289	2,436	2,615	2017	12,896	13,728	14,733

Response 6b. EKPC is projecting no off-system demands.

PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/01 REQUEST 7

RESPONSIBLE PERSON: Julia J. Tucker

COMPANY: East Kentucky Power Cooperative, Inc.

Request 7. The target reserve margin currently used for planning purposes, stated as a percentage of demand. If changed from what was in use in 2001, include a detailed explanation of the change.

EKPC will integrate into PJM on June 1, 2013. At that time, EKPC will be required to provide its pro-rated share of the PJM reserve requirements. PJM is a summer peaking system, so EKPC's reserve requirement will shift from its winter peak to its summer peak. Additionally, EKPC's load diversity with PJM's peak period will act to reduce EKPC's net reserve requirements. Based on current projections, EKPC will be required to carry approximately 6% reserves on its summer peak load during the first three years under the Fixed Resource Requirements ("FRR") plan. Starting on June 1, 2016, EKPC will participate in the Reliability Pricing Model ("RPM") and will lower its resource requirements to roughly 3% of its summer peak load.

PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/01 REQUEST 8

RESPONSIBLE PERSON: Julia J. Tucker

COMPANY: East Kentucky Power Cooperative, Inc.

Request 8. Projected reserve margins stated in megawatts and as a percentage of demand for the current year and the following 4 years. Identify projected deficits and current plans for addressing these. For each year identify the level of firm capacity purchases projected to meet native load demand.

Response 8. The table below shows the projected summer peak and reserve levels.

Year	Summer Load	Reserves	Reserves	
	(MW)	(MW)	(%)	
2013	2397	378	16%	
2014	2428	347	14%	
2015	2458	367	15%	
2016	2492	223	9%	
2017	2526	189	7%	\$

As indicated in the table above, there are no projected reserve deficits.

PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/2001 REQUEST 11

RESPONSIBLE PERSON: Julia J. Tucker

COMPANY: East Kentucky Power Cooperative, Inc.

Request 11. A list that identifies scheduled outages or retirements of generating capacity during the current year and the following four years.

Response 11. Please see scheduled outage information below and through page 6 of this response. Please note that neither EKPC's management nor EKPC's Board of Directors has approved any retirements of generating capacity in the years reflected below.

Dale Unit 1

2013	0	weeks or less
2014	0	weeks or less
2015	0	weeks or less
2016	0	weeks or less
2017	0	weeks or less

Dale Unit 2

weeks or less	0	2013
weeks or less	0	2014
weeks or less	0	2015
weeks or less	0	2016
weeks or less	0	2017

Dale Unit 3		
2013	2	weeks or less
2014	2	weeks or less
2015	2	weeks or less
2016	2	weeks or less
2017	2	weeks or less
Dale Unit 4		
2013	2	weeks or less
2014	2	weeks or less
2015	2	weeks or less
2016	2	weeks or less
2017	2	weeks or less
JK Smith CT1		
2013	1	weeks or less
2014	1	weeks or less
2015	1	weeks or less
2016	1	weeks or less
2017	1	weeks or less
JK Smith CT2		
2013	2	weeks or less
2014	9	weeks or less
2015	1	weeks or less
2016	1	weeks or less
2017	1	weeks or less

JK Smith CT3		
2013	1	weeks or less
2014	1	weeks or less
2015	1	weeks or less
2016	1	weeks or less
2017	1	weeks or less
JK Smith CT4		
2013	3	weeks or less
2014	5	weeks or less
2015	1	weeks or less
2016	1	weeks or less
2017	1	weeks or less
JK Smith CT5		
2013	1	weeks or less
2014	1	weeks or less
2015	1	weeks or less
2016	1	weeks or less
2017	1	weeks or less
JK Smith CT6		
2013	3	weeks or less
2014	1	weeks or less
2015	1	weeks or less
2016	1	weeks or less
2017	1	weeks or less

JK Smith CT7		
2013	3	weeks or less
2014	1	weeks or less
2015	1	weeks or less
2016	1	weeks or less
2017	1	weeks or less
JK Smith CT9		
2013	3	weeks or less
2014	2	weeks or less
2015	2	weeks or less
2016	2	weeks or less
2017	2	weeks or less
JK Smith CT10		
2013	2	weeks or less
2014	2	weeks or less
2015	2	weeks or less
2016	2	weeks or less
2017	2	weeks or less
Cooper 1		
2013	3	weeks or less
2014	3	weeks or less
2015	3	weeks or less
2016	3	weeks or less
2017	3	weeks or less

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Cooper 2		
2013	3	weeks or less
2014	3	weeks or less
2015	4	weeks or less
2016	4	weeks or less
2017	4	weeks or less
Spurlock 1		
2013	8	weeks or less
2014	2	weeks or less
2015	2	weeks or less
2016	2	weeks or less
2017	2	weeks or less
Spurlock 2		
2013	2	weeks or less
2014	4	weeks or less
2015	2	weeks or less
2016	2	weeks or less
2017	2	weeks or less
Gilbert 3		
2013	4	weeks or less
2014	4	weeks or less
2015	4	weeks or less
2016	4	weeks or less
2017	4	weeks or less

PSC Request 11

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weeks or less	4	2013
weeks of less	7	2013
weeks or less	4	2014
weeks or less	4	2015
weeks or less	4	2016
weeks or less	4	2017

PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/01

REQUEST 12

RESPONSIBLE PERSON:

Julia J. Tucker

COMPANY:

East Kentucky Power Cooperative, Inc.

Request 12. Identify all planned base load or peaking capacity additions to meet native load requirements over the next 10 years. Show the expected in-service date, size and site for all planned additions. Include additions planned by the utility, as well as those by affiliates, if constructed in Kentucky or intended to meet load in Kentucky.

Response 12. EKPC has no planned capacity additions. EKPC is currently evaluating its options to meet MATS compliance in 2015. Results of this compliance plan could include new capacity additions.

PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/01 REQUEST 13

RESPONSIBLE PERSON: Darrin W. Adams

COMPANY: East Kentucky Power Cooperative, Inc.

Request 13. The following transmission energy data for the just completed calendar year and the forecast for the current year and the following four years:

Request 13a. Total energy received from all interconnections and generation sources connected to the transmission system.

Request 13b. Total energy delivered to all interconnections on the transmission system.

Response 13a & 13b. The total energy received from all interconnections and from generation sources connected to the EKPC transmission system for calendar year 2012 was 22,536,605 MWh. The total energy delivered to all interconnections on the EKPC system was 10,386,161 MWh.

The forecasted total energy requirements for the EKPC system for 2013 through 2017 are as follows:

2013 12,898,564 MWh

2014 13,078,179 MWh

2015 13,285,509 MWh

2016 13,540,771 MWh

2017 13,728,389 MWh

Request 13c. Peak load capacity of the transmission system.

Response 13c. The transmission capacity of a grid system changes constantly based on factors like generation dispatch, ambient temperature, load characteristics, contingencies, transfers, etc. EKPC's transmission system is planned and constructed to deliver all of its generation resources to its native load delivery points and to other contracted users of the EKPC transmission system during forecasted normal summer and winter peak load conditions. EKPC's transmission system is also designed to accommodate an outage of a single transmission facility and/or generating unit. Also, EKPC designs its transmission system to deliver its generation resources to its native load delivery points during "extreme" weather conditions (1-in-10 year temperatures) for summer and winter with all facilities in service.

Other than simulation of imports into EKPC to replace an outage of a single generating unit, the transfers used in the EKPC transmission planning process are those modeled in the NERC MMWG models, which are typically the long-term firm transactions known at the time of the development of the models.

Transfer studies have identified limits for transfers across the EKPC system that range from 1,000 MW to 9,700 MW, depending on the specific source generators, season, etc. The following facilities have been identified in recent studies and/or during actual operating experience as possible limiting facilities on the EKPC transmission system for transfers across the EKPC system:

- The Summershade-Summershade Tap 161 kV Circuit (TVA-EKPC)
- The Summershade-Summershade 161 kV Circuit (TVA-EKPC)

EKPC has performed transmission import and export capability studies for its system as well. These studies indicate that there are no limitations within the EKPC system that would prevent EKPC from importing up to 1,300 MW during peak-load conditions. EKPC's export capability was at least 2,000 MW in these studies.

EKPC has constructed facilities to address some of the limitations that had previously been identified on its transmission system. These facilities include the J.K. Smith-West Garrard 345 kV line, the J.K. Smith-North Clark 345 kV line, the Cranston-Rowan County 138 kV line, and the Marion County 161-138 kV transformer upgrade. EKPC has implemented dynamic ratings on some highly-loaded facilities to increase available capacity based on actual ambient system conditions.

Request 13d. Peak demand for summer and winter seasons on the transmission system.

Response 13d.

Summer Date Hr.	2012 06/30/12 1700	2013	2014	2015	2016	2017
Peak Demand (MW)	2,354	2,306	2,337	2,368	2,402	2,436
Winter Date Hr.	2012 01/13/12 0900	2013 01/22/13 0700	2014	2015	2016	2017
Peak Demand (MW)	2,481	2,597*	2,980	3,017	3,056	3,101

^{*} Represents January 2013 actual winter peak.

PUBLIC SERVICE COMMISSION REQUEST DATED 12/20/01

REQUEST 14

RESPONSIBLE PERSON:

Darrin W. Adams

COMPANY:

East Kentucky Power Cooperative, Inc.

Request 14. Identify all planned transmission capacity additions for the next 10 years. Include the expected in-service date, size and site for all planned additions and identify the transmission need each addition is intended to address.

Response 14. Pages 2 through 8 of this response include EKPC's 10-year transmission expansion plan for the 2013-2022 period. During this period, EKPC expects to make the following transmission improvements for normal system development and load growth to serve native load customers and not to provide for large wholesale power transfers.

- 56 miles of new transmission line (138 kV and 69 kV)
- 98 miles of transmission line reconductor/rebuild (138 kV and 69 kV)
- 4 new transmission substations or upgrades (300 MVA added)
- 4 new transmission switching stations
- 24 transmission capacitor banks (433 MVAR)
- 15 projects upgrade terminal facilities
- 14 modifications of existing substations
- 17 upgrades of existing distribution substations (112 MVA added)
- 6 new distribution substations (125 MVA added)

EAST KENTUCKY POWER COOPERATIVE 2013-2022 TRANSMISSION EXPANSION	PLAN
A. New Lines and Substations	Current
Project Identification	ISD
Construct 8.8 miles of 69 kV line using 556.5 MCM ACSR/TW conductor, between the Cave City	12/2013
and Bon Ayr distribution substations. Operate this line normally open.	
Construct 8.6 miles of 69 kV line using 556.5 MCM ACSR/TW conductor, between the Mercer	12/2013
County Industrial and Van Arsdell distribution substations. Construct a 69 kV switching substation	
("South Anderson") at Bonds Mill Junction located adjacent to KU's existing Bonds Mill switching	
substation. Construct 0.12 miles of 69 kV line using 266.8 MCM ACSR conductor, between the	E
South Anderson and Powell/Taylor substations. Serve the Powell/Taylor distribution substation	
radially from the South Anderson switching substation. Construct a 2 nd 69 kV line between South	
Anderson and KU Bonds Mill.	
Construct 9.7 miles of 69 kV line using 556.5 MCM ACSR/TW conductor, between the Keith and	6/2014
Owen County substations. Install terminal equipment at the Keith and Owen County substations.	
Operate the existing Penn-Keith 69 kV line normally open.	
Construct 2.7 miles of 69 kV line using 556.5 MCM ACSR/TW conductor, between the Fox Hollow	6/2014
and Parkway substations. Serve the Parkway #1 and #2 distribution substations radially from the	
Fox Hollow switching substation. Install additional terminal equipment at the Fox Hollow	:
substation. Operate the Cave City-Bon Ayr 69 kV line normally closed.	
Replace the existing 100 MVA 161-69 kV transformer bank at Bullitt County substation with a 150	12/2014
MVA transformer.	
Operate the Cynthiana-Headquarters and Sideview-Cane Ridge 69 kV lines normally-closed	12/2015
Re-configure the Hunt distribution tap line to serve it normally from the Dale-Powell County 69 kV	12/2016
circuit.	
Construct 3.9 miles of 69 kV line using 556.5 MCM ACSR, from the Beattyville distribution	12/2017
substation to Oakdale Junction. Construct a 69 kV switching substation at Oakdale Junction.	
Construct a 69 kV switching substation at the existing Phil distribution substation. Operate the	12/2019
Creston-Bass 69 kV line normally closed.	
Construct a 138/69 kV, 100 MVA substation at the existing South Jessamine Junction location.	12/2020
Construct a 7.4 mile, 138 kV line, using 795 MCM ACSR conductor, between the South Jessamine	
Junction and Fayette 138/69 kV substations. Install 138 kV terminal facilities at the Fayette	
substation.	

EAST KENTUCKY POWER COOPERATIVE 2013-2022 TRANSMISSION EXPANS	ON PLAN
A. New Lines and Substations (CONTINUED)	
Project Identification	ISD
Construct a 2 nd 69 kV line, using 556.5 MCM ACSR/TW conductor, between the Garrard	12/2020
County and Tommy Gooch substations (7.5 miles). Install terminal equipment at the Garrard	
County substation. Serve the Tommy Gooch distribution substations radially from the Garrard	
County switching substation.	
Construct 0.11 miles of 69 kV line using 266.8 MCM ACSR conductor, between the Powell	6/2021
County and Stanton substations. Serve the Stanton distribution substation radially from the	
Powell County switching substation. Install terminal equipment at the Powell County	
substation.	
Construct a 138/69 kV, 100 MVA substation at or adjacent to the existing Three Links Junction	12/2021
69 kV switching substation. Construct a 7.5 mile, 138 kV line, using 795 MCM ACSR	
conductor, between the Three Links Junction and West Berea 138/69 kV substations. Install	
138 kV terminal facilities at the West Berea substation.	
Replace the existing 138-69 kV, 100 MVA transformer at Powell County substation with a 150	12/2022
MVA transformer.	
Construct a 69 kV switching station at Penn. Operate the Penn-Keith 69 kV line normally-	12/2022
closed.	
Construct a 69 kV switching substation at the existing Munk Junction location. Operate the	12/2024
Renaker-Williamstown Line in the normally closed mode.	

B. Line Reconductor/Rebuild Projects	
Project Identification	ISD
Re-conductor the Cynthiana Jct-Headquarters 69 kV line section (10.2 miles) using 556.5 MCM ACTW wire.	6/2015
Re-conductor the Headquarters Millersburg Jct. 69 kV line section (5.1 miles) using 556.6 MCM ACTW conductor.	12/2015
Re-conductor the 266.8 MCM portion of the Baker Lane-Holloway Jct 69 kV line (1.3 miles) using 556.5 MCM ACTW wire.	12/2016
Re-conductor the Norwood Jct-Shopville 69 kV line section (6.3 miles) using 556.5 MCM ACTW wire.	12/2016
Rebuild the 3.16-mile Davis-Fayette 69 kV line using double circuit 138/69 kV construction. Install only the 69 kV conductor using 556.5 MCM ACTW wire.	12/2017
Re-conductor the JK Smith-Union City 138 kV line section (10.3 miles) using 954 MCM ACSS conductor.	12/2017
Re-conductor the Brodhead-Three Links Jct 69 kV line section (8.2 miles) using 556.5 MCM ACTW wire.	12/2017
Rebuild the 4.0-mile Davis-Nicholasville 69 kV line using double circuit 138/69 kV construction. Install only the 69 kV conductor using 556.5 MCM ACTW wire.	6/2018
Re-conductor the Oak Ridge Jct-Goddard 69 kV line section (8.0 miles) using 556.5 MCM ACTW wire.	12/2018
Re-conductor the Albany-Snow Jct 69 kV line section (4.4 miles) using 556.5 MCM ACTW wire.	12/2020
Re-conductor the Nicholasville-South Jessamine Jct 69 kV line section (0.2 miles) using 556.5 MCM ACTW wire.	12/2020
Re-conductor the 11.1-mile Dale-Newby #1 69 kV line section (Dale-Garrard County 69 kV line) using 556.5 MCM ACTW conductor.	6/2021
Re-conductor the W.Bardstown-W.Bardstown Jct 69 kV line section (4.5 miles) using 556.5 MCM ACTW wire.	6/2021
Re-conductor the Nelson County-Colesburg Jct 69 kV line section (4.2 miles) using 556.5 MCM ACTW wire.	12/2021
Re-conductor the Carrollton-Hunters Bottom Jct 69 kV line section (8.6 miles) using 556.5 MCM ACTW wire.	12/2021
Re-conductor the Union City-Lake Reba Tap 138 kV line section (1.3 miles) using 954 MCM ACSS conductor	6/2022
Re-conductor Fort Knox Jct-Rineyville Jct 69 kV line section (0.4 miles) using 556.5 MCM ACTW wire.	12/2022
Re-conductor the Goddard-Plummers Landing Jct 69 kV line section (4.2 miles) using 556.5 MCM ACTW wire.	12/2022
Re-conductor the Rineyville Junction-Smithersville Junction 69 kV line section (2.9 miles) using 556.5 MCM ACTW conductor.	12/2022

PSC Request 14

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EAST KENTUCKY POWER COOPERATIVE 2013-2022 TRANSMISSION EXPANSION PLAN		
C. Line Upgrade Projects	Current	
Project Identification	ISD	
Increase the maximum operating temperature (MOT) of the Bluegrass Parkway Junction-Woodlawn 69 kV line section to 167°F.	12/2013	
Increase the MOT of the Helechawa-Sublett Junction 69 kV line section to 167°F.	12/2013	
Increase the MOT of the Davis Junction-Fayette 69 kV line section to 248°F.	6/2015	
Increase the MOT of the J.K. Smith-Lake Reba Tap 138 kV line section to 257°F.	6/2016	
Increase the MOT of the Boone County-Boone Distribution 69 kV line section to 284°F.	6/2019	
Increase the MOT of the Ninevah-Ninevah KU Junction 69 kV line section to 167°F.	6/2019	
Increase the MOT of the Carson-New Liberty 69 kV line section to 167°F.	6/2020	
Increase the MOT of the Etown KU-Tharp Junction 69 kV line section to 248°F.	6/2020	
Increase the MOT of the Etown EK #1-Tunnel Hill Junction 69 kV line section to 275°F.	6/2021	
Increase the MOT of the Rineyville Junction-Smithersville Junction 69 kV line section to 284°F.	12/2021	
Increase the MOT of the Loretto-South Springfield Junction 69 kV line section to 167°F.	6/2022	
Increase the MOT of the Smithersville JctSmithersville 69 kV line section to 167°F.	6/2022	
Increase the MOT of the Griffin-Griffin Junction 69 kV line section to 167°F.	6/2022	

D. Capacitor Bank Additions	Curren
Project Identification	ISD
Relocate the Parkway 69 kV, 13.2 MVAR capacitor bank to the planned Bon Ayr distribution	12/2013
substation.	
Resize the HT Adams 69 kV capacitor bank from 7.2 to 14.28 MVAR.	12/2013
Resize the Hunt Farm Jct 69 kV capacitor bank from 8.164 to 16.327 MVAR.	12/2013
Resize the Cedar Grove 69 kV capacitor bank from 10.8 to 22.96 MVAR.	6/2014
Install a 15.307 MVAR, 69 kV capacitor bank at Perryville substation.	6/2014
Install a 25.51 MVAR, 69 kV capacitor bank at Veechdale substation.	6/2014
Install a 28.06 MVAR, 69 kV capacitor bank at EKPC's Hodgenville Substation.	12/2014
Install a 28.062 MVAR, 69 kV capacitor bank at Owen County Substation.	12/2014
Resize the Nicholasville 69 kV capacitor bank from 19.8 to 22.96 MVAR.	12/2014
Install an 8.674 MVAR, 34.5 kV capacitor bank at Gallatin County Substation.	6/2015
Resize the Headquarters 69 kV capacitor bank from 6.123 MVAR to 16.837 MVAR.	12/2015
Install a 20.409 MVAR, 69 kV capacitor bank at the South Elkhorn Substation.	6/2016
Install a 161 kV, 81.636 MVAR capacitor bank (2 stages of 40.818 MVARs each) at Cooper	12/2016
Station	
Install a 20.409 MVAR, 69 kV capacitor bank at Fox Hollow Substation.	6/2017
Install a 69 kV, 51.022 MVAR capacitor bank at Somerset Substation.	12/2017
Install a 7.143 MVAR, 69 kV capacitor bank at Bekaert Substation.	6/2019
Install a 14.286 MVAR, 69 kV capacitor bank at North Madison Substation.	12/2020
Install a 12.245 MVAR, 69 kV capacitor bank at the West Mount Washington Substation.	6/2022
Relocate the existing Nicholasville 69 kV capacitor bank to the South Jessamine Junction	12/2022
substation and re-size the bank to 30.613 MVARs.	
Install a 14.286 MVAR, 69 kV capacitor bank at Knob Lick Substation.	12/2022
Install a 14.286 MVAR, 69 kV capacitor bank at Magoffin County Substation.	12/2022
Install an 11.225 MVAR, 69 kV capacitor bank at Oven Fork substation.	12/2022
Install a 22.96 MVAR, 69 kV capacitor bank at the West London Substation.	12/2022
Resize the Sideview 69 kV capacitor bank from 6.6 MVAR to 15.307 MVAR.	12/2022
Install a 69 kV, 20.409 MVAR capacitor bank at Sewellton Junction Substation.	12/2023

EAST KENTUCKY POWER COOPERATIVE 2013-2022 TRANSMISSION EXPANSION PLAN		
E. Terminal Facility Upgrades Project Identification	Current ISD	
Change the CT setting on circuit breaker N35-804 at Dale Station to at least 800A to increase the relay loadability on the Dale-Three Forks Jct. 138 kV line to at least 282 MVA.	12/2016	
Upgrade the 4/0 bus and jumpers at Three Links Jct. substation associated with the West Berea JctThree Links Jct. 69 kV line using 500 MCM Copper or equivalent equipment.	12/2016	
Replace 600A switch S81-605 in the Crooksville JctHickory Plains 69 kV line with a 1200A switch	12/2017	
Increase the overcurrent relay setting for the West Berea 138-69 kV transformer to at least 139 MVA.	12/2017	
Replace the 1200A wave traps associated with the J.K. Smith-Dale 138 kV line with 1600A equipment.	12/2018	
Increase the Zone 3 distance relay setting at Murphysville (Murphysville-KU Kenton 69 kV line) to at least 90 MVA.	12/2018	
Increase the Zone 3 distance relay setting at Elizabethtown (Elizabethtown-Rogersville/Radcliff 69 kV line) to at least 100 MVA.	12/2018	
Increase the Zone 3 distance relay setting at Dale (Dale-Powell County 69 kV line) to at least 88 MVA.	12/2020	
Change the CT setting on circuit breaker E63-92T at JK Smith to at least 1600A to increase the relay loadability for the JK Smith-Union City 138 kV line to at least 476 MVA. Increase the Zone 3 distance relay setting at JK Smith on the JK Smith-Union City 138 kV line to at least 476 MVA.	12/2020	
Increase the Zone 3 distance relay setting at Murphysville (Murphysville-Plumville 69 kV line) to at least 88 MVA.	12/2021	
Increase the overcurrent relay setting for the Powell County 138-69 kV transformer to at least 178 MVA.	12/2021	
Replace the 400A metering CT at Laurel County Substation (Laurel County-KU Hopewell 69 kV line) with an 800A metering CT.	12/2022	
Replace the 1200A CT on breaker S11-658 associated with the Summershade 161-69 kV transformer with a 2000A CT.	12/2022	
Increase the Zone 3 distance relay setting at Fox Hollow associated with the Fox Hollow-Patton Road Junction 69 kV line to at least 102 MVA.	12/2022	

F. Distribution Substation Projects (2013-2015 ONLY) Project Description	Current ISD
Construct a new Jonesville 69-25 kV, 12/16/20 MVA Substation and associated 69 kV tap line (0.1 mile)	12/2013
Upgrade the existing Sewellton 69-12.5 kV, 11.2/14 MVA Substation to 12/16/20 MVA.	12/2013
Upgrade the existing Clay Village 69-12.5 kV, 11.2/14 MVA substation to 12/16/20 MVA.	12/2013
Upgrade the existing Burlington 69-12.5 kV, 11.2/14 MVA Substation to 15/20/25 MVA.	6/2014
Replace the existing Perryville 69-12.5 kV, 11.2/14 MVA transformer with another 11.2/14 MVA transformer.	6/2014
Move the existing Cynthiana 69-12.5 kV, 11.2/14 MVA Substation to 3M (#2) and upgrade to 12/16/20 MVA.	6/2014
Construct a new Veechdale 69-25 kV, 15/20/25 MVA Substation and associated 69 kV tap line from Shelby County Substation (3.5 miles).	6/2014
Upgrade the existing Goose Rock 69-12.5 kV, 11.2/14 MVA Substation to 12/16/20 MVA.	6/2014
Upgrade the existing Turkey Foot 69-12.5 kV, 11.2/14 MVA Substation to 12/16/20 MVA.	12/2014
Upgrade the existing Long Run 69-12.5 kV, 5.6/7 MVA Substation to 12/16/20 MVA.	12/2014
Upgrade the existing Rectorville 69-12.5 kV, 11.2/14 MVA Substation to 12/16/20 MVA, and convert to 25 kV low-side.	12/2014
Upgrade the existing Holloway 69-12.5 kV, 11.2/14 MVA Substation to 15/20/25 MVA.	12/2014
Upgrade the existing Peytons Store 69-25 kV, 11.2/14 MVA Substation to 12/16/20 MVA.	12/2014
Upgrade the existing Williamstown 69-12.5 kV, 11.2/14 MVA Substation to 15/20/25 MVA.	3/2015
Construct a new Pleasant Grove #2 69-12.5 kV, 12/16/20 MVA Substation and associated 69 kV tap line (0.1 mile)	6/2015
Upgrade the existing West Bardstown 69-12.5 kV, 11.2/14 MVA substation to 12/16/20 MVA.	6/2015
Upgrade the existing Campbellsville #1 69-12.5 kV, 11.2/14 MVA substation to 12/16/20 MVA.	6/2015
Upgrade the existing Kargle #1 69-12.5 kV, 11.2/14 MVA substation to 12/16/20 MVA.	6/2015
Construct a new Big Woods 69-12.5 kV, 12/16/20 MVA Substation and associated 69 kV tap line (0.2 mile)	12/2015
Construct a new Roseville 69-25 kV, 12/16/20 MVA Substation and associated 69 kV tap line (3.5 miles)	12/2015
Upgrade the existing Jellico Creek 69-13.2 kV, 5.6/7 MVA Substation to 11.2/14 MVA, and convert to 25 kV low-side.	12/2015
Upgrade the existing Van Arsdell 69-12.5 kV, 11.2/14 MVA Substation to 12/16/20 MVA.	12/2015
Upgrade the existing Wiborg 69-12.5 kV, 11.2/14 MVA Substation to 12/16/20 MVA	12/2015