COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

RESPONSES TO STAFF'S SECOND REQUEST FOR INFORMATION TO EAST KENTUCKY POWER COOPERATIVE, INC.

DATED APRIL 14, 2020

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

MOTION FOR CONFIDENTIAL TREATMENT

Comes now East Kentucky Power Cooperative, Inc. ("EKPC"), by and through counsel, pursuant to KRS 61.878, 807 KAR 5:001, Section 13 and other applicable law, and for its motion requesting that the Kentucky Public Service Commission ("Commission") afford confidential treatment to a portion of the Responses to Data Requests propounded by Commission Staff, dated April 14, 2020, and the Attorney General ("AG"), dated April 9, 2020, with regard to EKPC's 2019 Integrated Resource Plan, respectfully states as follows:

1. EKPC is filing its Responses to Data Requests from the aforementioned parties contemporaneously herewith. The Responses include a considerable amount of information that is highly confidential, including:

   a. The year-over-year inflation rate and discount rate assumptions used to calculate key financial metrics; this exact information was contained in EKPC's 2019 Integrated Resource Plan (AG-DR-01-09) and was granted confidential treatment by the Commission in this case by Order dated November 8, 2019.

   b. Hedging information (Staff-DR-02-06). This response includes information concerning EKPC's strategies for purchasing and hedging Firm Transmission Rights ("FTRs") in the PJM auctions that, if disclosed, would tell other bidders

in the market what percentage of EKPC's total FTR needs it intends to purchase in the Long-Term, Annual, Quarterly and Monthly FTR auctions. This information would allow other bidders to manipulate the marketplace by anticipating EKPC's purchasing strategy. Accordingly, the disclosure of this information would be extremely valuable to those who would seek to gain an unfair commercial advantage over EKPC. The information is protected under KRS 61.878(1)(c) and other precedent.

2. Collectively, the information described above is designated as the "Confidential Information" for which protection is sought under KRS 61.878 and other applicable law. Disclosure of the Confidential Information would permit an unfair commercial advantage to third parties to the detriment of EKPC, its Owner-Members and their end-use retail members. If disclosed, the Confidential Information would also give market participants and competitors insights into the anticipated operating costs, resource investment calculations, future year revenue requirements and system average costs.

3. The Kentucky Open Records Act, and specifically KRS 61.878(1)(c)(1), protects "records confidentially disclosed to an agency or required by an agency to be disclosed to it, generally recognized as confidential or proprietary, which if openly disclosed would permit an unfair commercial advantage to competitors of the entity that disclosed the records." Moreover, the Kentucky Supreme Court has stated, "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). If disclosed, the Confidential Information within the Data Request Responses would give market participants and competitors insights into the hedging strategies of EKPC. In addition, Accordingly, the Confidential

Information satisfies both the statutory and common law standards for affording confidential treatment.

4. The Confidential Information consists of proprietary information that is retained by EKPC on a "need-to-know" basis. The Confidential Information 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.

5. EKPC does not object to limited disclosure of the Confidential Information, pursuant to an acceptable confidentiality and nondisclosure agreement, to intervenors with a legitimate interest in reviewing same for the sole purpose of participating in this case. EKPC reserves the right to object to providing the Confidential Information to any intervenor if said provision could result in liability or competitive harm to EKPC under any Confidentiality Agreement, Non-Disclosure Agreement or other obligation.

6. In accordance with the provisions of 807 KAR 5:001, Section 13(2), EKPC is filing separately under seal one (1) unredacted copy of the Confidential Information highlighted or otherwise appropriately denoted.

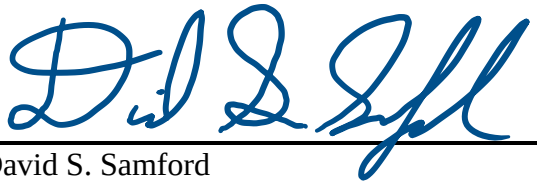
7. In accordance with the provisions of 807 KAR 5:001, Section 13(2), EKPC respectfully requests that the Confidential Information identified in Paragraph 1.a. above be withheld from public disclosure for ten (10) years and the Confidential Information identified in Paragraph 1.b. above be withheld from public disclosure indefinitely.

8. If, and to the extent, the Confidential Information becomes publicly available or otherwise no longer warrants confidential treatment, EKPC will notify the Commission and have its confidential status removed, pursuant to 807 KAR 5:001 Section 13(10).

WHEREFORE, on the basis of the foregoing, EKPC respectfully requests that the Commission classify and protect as confidential the Confidential Information described herein and as set forth above.

This 8th day of May 2020.

Respectfully submitted,



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Counsel for East Kentucky Power Cooperative, Inc.

CERTIFICATE OF SERVICE

This is to certify that the foregoing electronic filing is a true and accurate copy of the document being filed in paper medium; that the electronic filing was transmitted to the Commission on May 8, 2020; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that a copy of the filing in paper medium will be filed with the Commission within thirty days of the current state of emergency for COVID-19 is lifted.

Counsel for East Kentucky Power Cooperative, Inc.

EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2019-00096

COMISSION STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020

East Kentucky Power Cooperative, Inc. ("EKPC") hereby submits responses to the information requests of the Commission Staff ("Commission") in this case dated April 14, 2020. Each response with its associated supportive reference materials is individually tabbed.

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

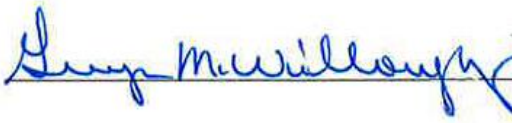
2019 INTEGRATED RESOURCE PLAN OF EAST KENTUCKY POWER COOPERATIVE, INC.	**)** **)**	**CASE NO. 2019-00096**

CERTIFICATE

STATE OF KENTUCKY)
)
COUNTY OF CLARK)

Darrin 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 Staff's Second Request for Information in the above-referenced case dated April 14, 2020, 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 8th day of May, 2020.



Notary Public - #590567
Commission expires - 11/30/2021

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

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David Crews**,** being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Second Request for Information in the above-referenced case dated April 14, 2020, 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 8th day of May, 2020.

Notary Public - #590567

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BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

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Scott Drake**,** being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Second Request for Information in the above-referenced case dated April 14, 2020, 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 8th day of May, 2020.

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Commission expires - 11/30/2021

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Craig A. Johnson**,** being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Second Request for Information in the above-referenced case dated April 14, 2020, 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.

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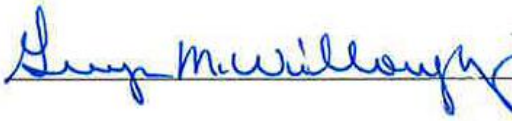

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Mike McNalley being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Second Request for Information in the above-referenced case dated April 14, 2020, 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.

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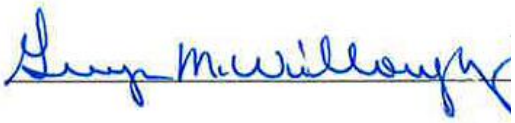

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In the Matter of:

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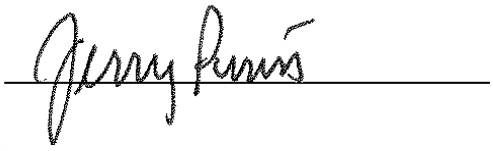
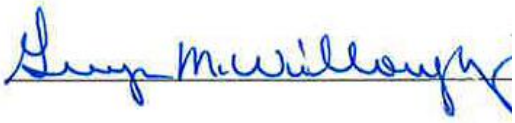
Jerry Purvis**,** being duly sworn, states that he has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Second Request for Information in the above-referenced case dated April 14, 2020, and that the matters and things set forth 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 8th day of May, 2020.



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In the Matter of:

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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 Staff's Second Request for Information in the above-referenced case dated April 14, 2020, 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 8th day of May, 2020.

Notary Public - #590567
Commission expires - 11/30/2021

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

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

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Mary Jane Warner**,** being duly sworn, states that she has supervised the preparation of the responses of East Kentucky Power Cooperative, Inc. to the Public Service Commission Staff's Second Request for Information in the above-referenced case dated April 14, 2020, 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 8th day of May, 2020.

Notary Public - #590567
Commission expires - 11/30/2021

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 1
RESPONSIBLE PERSON: **Mary Jane Warner**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 1. Refer to the period between the filing of EKPC's last Integrated Resource Plan in Case No. 2015-001342[1] and the current case.

Request 1a. Provide a list of capital projects that have been implemented, are in the capital budget but not completed or planned, and the purpose of those projects.

Response 1a. Refer to pages 3 through 14 of this response.

Request 1b. Provide a list of capital projects that had been planned or approved and then deleted from the capital budget and the reason it was deleted.

Response 1b. Refer to pages 3 through 14 of this response.

[1] Case No. 2015-00134, *The 2015 Integrated Resource Plan of East Kentucky Power Cooperative, Inc.* (Ky. PSC May 3, 2016).

Request 1c. When EKPC is evaluating the costs and benefits of undertaking a capital project, explain whether contingency costs are explicitly included in the cost calculations.

Response 1c. For capital budgeting and required authorizations, the estimated total project cost includes contingency based on the accuracy of the estimate along with other potential risk factors that could negatively impact execution of the project. EKPC's Management, and if necessary EKPC's Board, authorizes the use of contingency if necessary to safely implement the scope and schedule of a project. The estimated total project cost is included in cost calculations should a cost / benefit analysis be necessary to justify the project.

Bluegrass Station

Project	Status	Primary Purpose	Requested In Service Date	Reason Cancelled
Bluegrass Assembly Replacement - Unit No. 2	Implemented	Reliability	November-17	
Bluegrass Control System for all Three Units and Balance of Plant	Implemented	Reliability	November-17	
Bluegrass Dynamic Pressure Communication Processor - Units 1, 2, & 3	Implemented	Reliability	November-17	
Bluegrass Replace Four Banks (Including BOP) Batteries - Complete Change Out	Implemented	Reliability	November-17	
Bluegrass Control Room Power UPS Replacement	Implemented	Reliability	October-18	
Bluegrass Additional Land Purchase	Implemented	Land Purchase	April-19	
Bluegrass Extend CO2 Fire Protection to the Collector Bearings - New System - Units 1, 2, and 3	Implemented	Safety	May-19	
Bluegrass Construction Office Building	Implemented	Reliability	November-19	
Bluegrass Anti-Rocking System	Cancelled	Reliability	November-19	Scope combined with BG Hot Gas Path project.
Bluegrass Turbine Housing Access Platforms	Implemented	Safety	May-20	
Bluegrass Dual Fuel Addition	Approved - Not Completed	Reliability	December-20	
Bluegrass Hot Gas Path Inspection - Unit 3	Approved - Not Completed	Reliability	December-20	
Bluegrass Hot Gas Path Inspection - Unit 1	Approved - Not Completed	Reliability	December-20	
Bluegrass Hot Gas Path Inspection - Unit 2	Approved - Not Completed	Reliability	December-20	
Bluegrass Peak Shave Battery Storage (Project #1)	Planned	Reliability	December-21	

Cooper Station

Project	Status	Primary Purpose	Requested In Service Date	Reason Cancelled
Cooper New Distilled Water Tank	Cancelled	Reliability	April-15	Studied and not justified.
Cooper Turbine and Generator Cntrols for Unit No. 2	Implemented	Reliability	May-15	
Cooper No. 2 Transport Line Isolation Valves	Implemented	Safety	June-15	
Cooper New Existing Four Joy Air Compressors Sootblowers	Implemented	Reliability	November-15	
Cooper Upgrade Unit No. 1 DCS Control	Implemented	Reliability	November-15	
Cooper Unit 1 Air Heater Basket Replacement	Implemented	Reliability	December-15	
Cooper Landfill - Relocation of lines	Implemented	Environmental	December-15	
Cooper Turbine and Generator Cntrols for Unit No. 1	Implemented	Reliability	June-16	
Cooper Lay Down Warehouse	Implemented	Security	September-16	
Cooper Landfill - Phase Two	Implemented	Environmental	December-16	
Cooper 2017 Unit No. 2 SCR Catalyst- Third Layer (Bottom Section)	Implemented	Environmental	April-17	
Cooper Unit 2 Economizer - New System	Implemented	Reliability	April-17	
Cooper Common ID Fan Jacking Oil Addition	Implemented	Reliability	April-17	
Cooper Units 1 and 2 IET Control System	Implemented	Reliability	April-17	
Cooper Unit 1 New 9 IK Sootblowers	Implemented	Reliability	April-17	
Cooper Ditch and Sediment Trap - Design and Construction	Implemented	Environmental	November-17	
Cooper Unit No. 1 Duct ReRoute	Implemented	Environmental	December-17	
Cooper Unit No. 2 Lube Oil Skid Enclosure	Implemented	Reliability	December-17	
Cooper Replace Unit 1 Mechanical Dust Collectors	Cancelled	Reliability	December-17	Studied and not justified.
Cooper Main and Tie Breaker Sync Check - New	Implemented	Reliability	April-18	
Cooper Inlet Hopper Discharge Modification with New System	Implemented	Reliability	April-18	
Cooper Demolish Mechanical Hopper - Retirement	Implemented	Environmental	April-18	
Cooper Unit 2 Pitot Tube Purge System - New	Implemented	Reliability	May-18	
Cooper Physical Security Improvements	Cancelled	Security	August-18	Reduced scope implemented.

Cooper Unit 1 DCS Server Backup - New	Implemented	Reliability	September-18	
Cooper Unit 2 DCS Server Backup - New	Implemented	Reliability	September-18	
Cooper Property Acquisition for Borrow	Cancelled	Environmental	December-18	Studied and not justified.
Cooper Replace unit 2 #7 F.W.Heater	Cancelled	Reliability	December-18	Studied and not justified.
Cooper Emergency Notification System	Implemented	Safety	March-19	
Cooper Unit 1 - Air Heater Bypass	Cancelled	Reliability	November-19	Studied and not justified.
Cooper Treatment Plant pH Adjustment	Implemented	Safety	December-19	
Cooper Major Turbine Overhaul/Valve Outage	Partially Implemented	Reliability	December-19	Valves replaced via maintenance expense.
Cooper Rebag 1/ 4 ofBaghouse	Cancelled	Reliability	December-19	Studied and not justified.
Cooper Furnish and Install SCR Catalyst	Cancelled	Environmental	December-19	Studied and not justified.
Cooper Rebuild Circulating Water Pump	Cancelled	Reliability	December-19	Studied and not justified.
Cooper Replace Primary Superheat Panels	Cancelled	Reliability	December-19	Studied and not justified.
Cooper Replace Primary Superheater	Cancelled	Reliability	December-19	Studied and not justified.
Cooper Replace Reheat Superheater Panels	Cancelled	Reliability	December-19	Studied and not justified.
Cooper Replace Secondary Superheater	Cancelled	Reliability	December-19	Studied and not justified.
Cooper Unit 1 Economizer Replacement	Cancelled	Reliability	December-20	Studied and not justified.
Cooper Water System Additions Design and Construction	Cancelled	Environmental	December-20	Studied and not justified.
Cooper Total Plant Drain Pumps and Forcemain	Cancelled	Environmental	December-20	Studied and not justified.
Cooper Coal Truck Tire Wash System	Cancelled	Environmental	August-21	Studied and not justified.

Dale Station

Project	Status	Primary Purpose	Requested In Service Date	Reason Cancelled
Dale Ash Impoundment Closure and Site Restoration	Implemented	Environmental	December-17	

Headquarters

Project	Status	Primary Purpose	Requested In Service Date	Reason Cancelled
Headquarters - Centralized PI Server	Approved - Not Completed	Reliability	March-21	

Landfill Gas

Project	Status	Primary Purpose	Requested In Service Date	Reason Cancelled
Bavarian - 5th Unit	Implemented	Environmental	June-15	
Glasgow Landfill	Implemented	New Generation	December-15	
Pendleton - Install 5th Unit	Cancelled	New Generation	December-15	Studied and not justified.
Pendleton County LFG Building	Implemented	Safety	December-19	
Bavarian 2 - 1MW Engines	Cancelled	New Generation	December-21	Studied and not justified.

Smith Station

Project	Status	Primary Purpose	Requested In Service Date	Reason Cancelled
Smith Unit 10 Hot Section Upgrade - Fall 2020	Approved - Not Completed	Reliability	June-20	
Smith Unit 10 Turbine Remote I/O Block Replacement	Approved - Not Completed	Reliability	June-20	
Smith Unit 9 Turbine Remote I/O Block Replacement	Approved - Not Completed	Reliability	June-20	
Smith Units 9 and 10 - Oil Water Separator	Cancelled	Environmental	December-16	Studied and not justified.

Smith OpFlex Auto Tune DX with Variable Peak Load	Cancelled	Reliability	May-17	Cancelled due to lack of experience with the technology associated with this solution.
Smith New Catalyst Units 9 and 10 - NOx Catalyst	Cancelled	Environmental	November-19	Reduced scope implemented (restacking Nox).
Smith Enclosure for Gas Compressor Skids - Units 9 and 10	Cancelled	Reliability	December-19	Studied and not justified.
Smith Purchase and Install Third Gas Compressor for LMS 100 - Units 9 and 10 - New	Cancelled	Reliability	November-20	Studied and not justified.
Smith Purchase and Install New Gas Control Valves for Unit 6	Hold	Safety	July-19	To be re-evaluated in future years.
Smith Unit 5 Exhaust Silencer Replacement - 2021	Hold	Environmental	December-21	To be re-evaluated in future years.
Smith Unit 4 Exhaust Silencer Replacement - 2021	Hold	Environmental	December-21	To be re-evaluated in future years.
Smith 5 Turbine and Generator Control Sys	Implemented	Reliability	May-16	
Smith 4 Turbine & Generator Control System Upgrade	Implemented	Reliability	May-16	
Smith Turbine Control - New System - Unit No. 4	Implemented	Reliability	June-16	
Smith Turbine Control - New System - Unit No. 5	Implemented	Reliability	September-16	
Smith Unit No. 9 and 10 New Catalyst - CO Catalyst	Implemented	Environmental	November-16	
Smith 7EA and LMS Generator PD Coupling - Units 4, 5, 6, 7, 9, and 10	Implemented	Reliability	December-16	
Smith Turbine Control Unit No. 7 - New System	Implemented	Reliability	May-17	
Smith Purchase and Install New Gas Control Valves for Unit 4	Implemented	Reliability	May-17	
Smith Turbine Control Unit No. 6 - New System	Implemented	Reliability	June-17	
Smith Access Control Card Readers	Implemented	Security	November-17	
Smith Megadrive - LCI Controls Upgrade for ABB Units 1-3	Implemented	Reliability	November-17	
Smith Turbine and Exciter Controls - New System for Unit 1	Implemented	Reliability	October-18	
Smith Purchase and Install 7EA Simulator For Units 4-7	Implemented	Reliability	November-18	
Smith Turbine and Exciter Controls - New System for Unit 2	Implemented	Reliability	December-18	
Smith Turbine and Exciter Controls - New System for Unit 3	Implemented	Reliability	December-18	
Smith Unit 9 Turbine Controls	Implemented	Reliability	October-19	
Smith Units 9 and 10 Turbine Control - Common Balance of Plant	Implemented	Reliability	December-19	
Smith - ISO Phase Units 9 & 10 Heating	Implemented	Reliability	December-19	
Smith LMS 9 & 10 - CO2 Fire Protection Extension - Lube Oil/Aux Cabinet Area	Implemented	Fire Protection	December-19	
Smith Asset Maintenance - Coal Fired (CFB)	Implemented	Reliability	January-21	
Smith New Demineralized Water Storage Tank	Planned	Reliability	December-21	
Smith New Water Intake	Planned	Reliability	December-22	

Solar

Project	Status	Primary Purpose	Requested In Service Date	Reason Cancelled
Cooperative Solar No. 1	Implemented	New Generation	October-17	

Spurlock Station

Project	Status	Primary Purpose	Requested In Service Date	Reason Cancelled
Spurlock Replace Unit 4 J-Duct & Settling Chamber (Lined with Hex Mesh & Refractory)	Implemented	Reliability	December-15	
Spurlock Water Service PLC Conversion to DCS, Valves Control Wiring	Implemented	Reliability	December-15	
Spurlock Unit 4 Cooling Tower Fill	Implemented	Reliability	December-15	
Spurlock Units 1 & 2 Instrument Air Dryers	Implemented	Reliability	December-15	
Spurlock U1,U2 Crane in Bays	Implemented	Safety	December-15	
Spurlock Emergency Gen Sync	Implemented	Reliability	December-15	
Spurlock Replace Pulverizer Classifiers	Implemented	Reliability	December-15	
Spurlock Unit 3 Efficiency Upgrade	Implemented	Heat Rate	December-15	

Spurlock Unit 2 Cooling Tower Controls Upgrade	Approved - Not Completed	Reliability	December-15	
Spurlock FGD Service Water Line	Cancelled	Environmental	January-16	Scope combined with Spurlock Site Drainage Improvement project.
Spurlock CCR Groundwater Well - Purchase and Installation	Implemented	Environmental	December-16	
Spurlock Landfill Area C - Phase Three	Implemented	Environmental	December-16	
Spurlock FBHE/FBAC Air Source	Cancelled	Reliability	December-16	Studied and not justified.
Spurlock Units 1-4 Site Drainage Improvements	Implemented	Environmental	December-16	
Spurlock Unit 3 Bed Ash Silo Telescopic Chute	Implemented	Reliability	December-16	
Spurlock Replace PC2A & PC2B Discharge Chutes	Implemented	Reliability	December-16	
Spurlock Replace BC2A & BC2B Discharge Chutes	Implemented	Reliability	December-16	
Spurlock Diesel Exhaust Fluid (DEF) Bulk Storage & Filling Station	Implemented	Environmental	December-16	
Spurlock Reboiler I/O Upgrade	Implemented	Reliability	December-16	
Spurlock Unit 2 Cooling Tower Shroud Replacement	Implemented	Reliability	December-16	
Spurlock Unit 2 Cooling Air Heater Sector Plate Replacement	Implemented	Reliability	December-16	
Spurlock Unit 3 Seal Pot to Boiler SRD Joint Replacement	Implemented	Reliability	December-16	
Spurlock Unit 4 Seal Pot to Boiler SRD Joint Replacement	Implemented	Reliability	December-16	
Spurlock Landfill West Side Cap	Implemented	Environmental	January-17	
Spurlock Unit 3 Baghouse Cage Replacement	Implemented	Reliability	May-17	
Spurlock Hoppers Portable Conveyor for LS3 and LS4	Implemented	Reliability	July-17	
Spurlock Units 1 and 2 DSI System	Implemented	Environmental	July-17	
Spurlock Unit 2 SCR Elevator Replacement	Implemented	Safety	August-17	
Spurlock Welding Shop Overhead Crane	Implemented	Safety	September-17	
Spurlock Barge Unloader New Control Cab	Implemented	Reliability	September-17	
Spurlock Unit 2 SCR Sonic Horns	Implemented	Environmental	October-17	
Spurlock Unit 4 Fly Ash Silo Dust Suppression System	Implemented	Environmental	October-17	
Spurlock Units 1 and 2 Fly Ash Silo Dust Suppression System	Implemented	Environmental	October-17	
Spurlock Unit 2 Turbine Seals - Efficiency Upgrade	Implemented	Reliability	November-17	
Spurlock Unit 2 Air Heater Deposition Measurement and Control System	Implemented	Reliability	November-17	
Spurlock Unit 2 Precipitator Hopper Replacement	Implemented	Reliability	December-17	
Spurlock Area C Phase 3	Implemented	Environmental	December-17	
Spurlock Landfill - Haul Road Extension	Implemented	Environmental	December-17	
Spurlock Peg's Hill (Area D) Landfill Permitting	Approved - Not Completed	Environmental	December-17	
Spurlock 2017 Unit 2 SCR Catalyst Layer - Middle Layer	Implemented	Environmental	December-17	
Spurlock Physical Site Security - Phase 1	Implemented	Security	December-17	
Spurlock Transfer Tower 3 Bypass Chute	Implemented	Reliability	December-17	
Spurlock U4 Condenser Performance Monitoring System	Implemented	Reliability	December-17	
Spurlock Anhydrous Ammonia Secondary Containment	Implemented	Environmental	December-17	
Spurlock Unit 4 Controls Upgrades	Implemented	Reliability	December-17	
Spurlock Unit 2 Stator and Field Upgrade	Implemented	Reliability	December-17	
Spurlock Unit 3 Battery Banks Replacement	Implemented	Reliability	December-17	
Spurlock Unit 2 Coutant Slope Replacement Project	Implemented	Reliability	December-17	
Spurlock Units 3 & 4 Electric Driven Feed Pump	Cancelled	Reliability	December-17	Studied and not justified.
Spurlock Unit 3 Fan/Motor Lube Oil Skid Replacement	Implemented	Reliability	June-18	
Spurlock Unit 1 Air Heater Coldside Sector Plates Replacement	Implemented	Reliability	October-18	
Spurlock Unit 1 Air Heater Basket Replacement	Implemented	Reliability	October-18	
Spurlock Station New Plant Drain System	Implemented	Reliability	October-18	
Spurlock Unit 1 Condenser Retrofit / Redesign	Implemented	Heat Rate (efficiency)	December-18	
Spurlock Unit 2 Essential Service ("MCC") MCC-2A and MCC-2B (Replace)	Implemented	Reliability	December-18	
Spurlock Vac Truck Ash Transfer Station	Implemented	Environmental	December-18	
Spurlock Unit 3 Boiler Pipe Hanger Personnel Access/Platform	Implemented	Safety	December-18	

Spurlock Convert Plant Radios (Analog to Digital)	Cancelled	Reliability	December-18	Studied and not justified. Will reconsider project once FCC issues updated digital signal requirements or existing analog equipment reaches end of life.
Spurlock TW3 New Well	Implemented	Reliability	December-18	
Spurlock Unit 1 Cooling Tower Controls Upgrade	Implemented	Reliability	December-18	
Spurlock Unit 3 Controls Upgrades	Implemented	Reliability	December-18	
Spurlock Unit 4 Baghouse Cage Replacement	Implemented	Environmental	December-18	
Spurlock Unit 4 Battery Banks Replacement	Implemented	Reliability	December-18	
Spurlock Unit 4 Cooling Tower Fill	Implemented	Reliability	December-18	
Spurlock Physical Site Security Phase 2-5	Implemented	Security	April-19	
Spurlock Construction Office Building	Implemented	Environmental	April-19	
Spurlock Unit 4 Coal Silos New Liner	Implemented	Reliability	June-19	
Spurlock Unit 4 Baghouse (Liner)	Approved - Not Completed	Environmental	June-19	
Spurlock Landfill Area C Construction - Phase Four	Approved - Not Completed	Environmental	June-19	
Spurlock Unit 4 Replace Turbine Components	Implemented	Reliability	August-19	
Spurlock NIDS Rotary Feeders	Implemented	Environmental	August-19	
Spurlock Transfer Tower 2 Bypass Chute	Implemented	Reliability	November-19	
Spurlock Unit 2 Cooling Twr Battery Bank	Implemented	Reliability	November-19	
Spurlock Backup Limestone Conveyor and TDF/Alternate Fuel Feeder	Implemented	Reliability	November-19	
Spurlock - Electrical Infrastructure Upgrade	Implemented	Reliability	December-19	
Spurlock Unit 2 Pulverizer Cranes	Implemented	Safety	December-19	
Spurlock Continuous Barge Unloader Digging Ladder	Implemented	Reliability	December-19	
Spurlock Install Catwalk on River Side of UC5 Conveyor	Implemented	Reliability	December-19	
Spurlock Unit 3 Air Heater Basket Replacement	Approved - Not Completed	Reliability	April-20	
Spurlock Unit 3 Baghouse (Liner)	Approved - Not Completed	Environmental	April-20	
Spurlock Unit 1 Acoustic Horns	Approved - Not Completed	Reliability	April-20	
Spurlock Unit 1 Cooling Tower Replacement Project	Approved - Not Completed	Reliability	May-20	
Spurlock 4160V Cable Replacement	Implemented	Reliability	May-20	
Spurlock Unit 3 Install Starters for FBAC and FBHE Blower Motors	Approved - Not Completed	Reliability	May-20	
Spurlock Remote Fast Degas System	Approved - Not Completed	Safety	June-20	
Spurlock CCR/ELG NIDS	Approved - Not Completed	Environmental	August-20	
Spurlock Plant CO2 System Replacement	Approved - Not Completed	Fire protection/Reliability	September-20	
Spurlock Unit 4 Install Starters for FBAC and FBHE Blower Motors	Approved - Not Completed	Reliability	November-20	
Spurlock Unit 2 Boiler Igniter System	Approved - Not Yet Implemented	Reliability	December-20	
Spurlock Unit 2 Absorber Spray Header Replacement	Approved - Not Completed	Reliability	December-20	
Spurlock Control Room Design	Hold	Reliability	December-20	To be re-evaluated in future years.
Spurlock Unit 1 Absorber Spray Header Replacement	Approved - Not Completed	Environmental	December-20	
Spurlock Unit 3 Motor Control Center ("MCC") Retrofit	Implemented	Reliability	December-20	
Spurlock CCR/ELG Compliance WMB Pond Chemical Feed	Approved - Not Completed	Environmental	December-20	
Spurlock Unit 2 Feedwater Heater No. 5	Approved - Not Completed	Reliability	December-20	
Spurlock Unit 2 Feedwater Heater No. 6	Cancelled	Reliability	December-20	Testing showed limited tube plugging.
Spurlock Unit 2 Feedwater Heater No. 7	Cancelled	Reliability	December-20	Testing showed limited tube plugging.
Spurlock Unit 2 Boiler Blowdown Flash tank	Planned	Heat Rate	December-20	
Spurlock Landfill - Haul Road Paving Phase 1	Approved - Not Completed	Environmental	December-20	
Spurlock Unit 4 Boiler Pipe Hanger Personnel Access/Platform	Approved - Not Completed	Safety	December-20	
Spurlock Equipment Fueling Station	Approved - Not Completed	Safety	December-20	
Spurlock Air Heater Wash Collection and Treatment	Planned	Environmental	December-20	
Spurlock Fly Ash Silo Exhausters	Approved - Not Yet Implemented	Reliability	December-20	
Spurlock Unit 2 Cast-Coil Sub & Precip Transformers 2022	Planned	Reliability	December-20	
Spurlock Ignition Fuel Oil Pipe Replacement	Planned	Reliability	July-21	
Spurlock Landfill - Area C Phase 5	Approved - Not Completed	Environmental	October-21	

Spurlock Landfill Area D Construction - Ponds and Stream Mitigation	Approved - Not Completed	Environmental	November-21	
Spurlock Unit 2 Cast-Coil Sub & Precip Transformers 2020	Planned	Reliability	December-21	
Spurlock U2 Simulator	Approved - Not Completed	Reliability	December-21	
Spurlock Coal Pile Runoff Pond Supplemental Storage	Approved - Not Completed	Environmental	December-21	
Spurlock CCR/ELG Compliance WMB Pond	Approved - Not Completed	Environmental	December-21	
Spurlock CCR/ELG WWT/BOP	Approved - Not Completed	Environmental	December-21	
Spurlock Unit 3 Aux Steam Supply	Approved - Not Completed	Reliability	December-21	
Spurlock Unit 2 SCR Catalyst Bottom Layer Replacement	Planned	Environmental	December-21	
Spurlock U3 & U4 Reboiler Motive Steam Supply	Planned	Reliability	December-21	
Spurlock Unit 1 Blowdown Flash Tank	Planned	Heat Rate	December-21	
Spurlock Unit 3 Blowdown Flash Tank	Planned	Heat Rate	December-21	
Spurlock Unit 4 Blowdown Flash Tank	Planned	Heat Rate	December-21	
Spurlock Landfill - Area D Phase 1 Construction	Approved - Not Completed	Environmental	October-22	
Spurlock Unit 1 SCR Catalyst Layer Replacement Bottom	Planned	Environmental	December-22	
Spurlock Unit 2 Cooling Tower Replacement Project	Planned	Reliability	December-22	
Spurlock Landfill South Side Cap	Hold	Environmental	December-23	To be re-evaluated in future years.
Spurlock Unit 1 and 2 CCR/ELG Compliance	Approved - Not Completed	Environmental	November-24	
Spurlock Ash Pond Closure - CCR / ELG Compliance	Approved - Not Completed	Environmental	December-24	

Project	Status	Primary Purpose	Reason Cancelled
Beattyville Distribution Substation Rebuild to 69-13.2 kV 12/16/20 (New Location)	Approved-Not Completed	Aging Infrastructure	
Bekaert-LGE/KU Simpsonville/Shelbyville 69 kV Line (Including New KU West Shelby Station)	Approved-Not Completed	Reliability (Transmission Reliability / Equivalent Availability)	
Bluegrass Plant Spare GSU	Approved-Not Completed	Strategic (Maintenance)	
Breaker Replacement Program 2020	Approved-Not Completed	Reliability (Transmission Reliability / Equivalent Availability)	
Broughtontown 69-26.4 kV, 12/16/20 MVA New Distribution Substation & Tap Line	Approved-Not Completed	Load Growth	
Digital Fault Recorder Installation	Approved-Not Completed	Compliance or Regulatory Requirement (Transmission Support)	
Distribution Capacitor Banks, Switches & Controls	Approved-Not Completed	Transmission Support	
Elizabethtown - Nelson County 69 kV Rebuild	Approved-Not Completed	Aging Infrastructure	
Green County Key Interlock Removal, Circuit Switcher Addition, Control Building Replacement & 161kV &69kV Transmission Substation Upgrade	Approved-Not Completed	Aging Infrastructure	
Hope - Hillsboro 69 kV Rebuild	Approved-Not Completed	Aging Infrastructure	
KU Etown-Kargle Tharp Double Circuit Rebuild	Approved-Not Completed	Reliability (Transmission Reliability / Equivalent Availability)	
KU Wofford-McCreary Co. Jct 69kV Rebuild	Approved-Not Completed	Aging Infrastructure	
Lancaster 12/16/20 MVA 69-13.2kV Substation & Tap Rebuild	Approved-Not Completed	Aging Infrastructure	
Land Mobile Radio System (Two-Way Radio Analog to Digital Conversion)	Approved-Not Completed	Telecommunications Need (Transmission Support)	
Leon - Airport Rd - Newfoundland - Mazie 69 kV Rebuild	Approved-Not Completed	Aging Infrastructure	
Marion County Upgrade & Control House Replacement	Approved-Not Completed	Aging Infrastructure	
McKinney Corner 69kV Distribution Substation Rebuild	Approved-Not Completed	Aging Infrastructure	
Monticello Substation 69-26.4 kV & Homestead 69 kV Tap Rebuild	Approved-Not Completed	Reliability (Transmission Reliability / Equivalent Availability)	
New TVA 161kV Interconnection to the TVA East Bowling Green Tap from the TVA Summer Shade to Bowling Green line, including TVA Substation Work and Fox Hollow Substation Addition	Approved-Not Completed	Load Growth	
North Sharkey 138-25kV 30 MVA Substation and ~0.5 mile 138kV tap line (from the existing Sharkey Substation)	Approved-Not Completed	Load Growth	
Relay Replacement Program-2020 - 2023	Approved-Not Completed	Aging Infrastructure	
RFL Channel Bank Replacements	Approved-Not Completed	Telecommunications Need (Transmission Support)	
SCADA Master Upgrade	Approved-Not Completed	Telecommunications Need (Transmission Support)	
South Marion County Industrial 161kV New Substation and Tap Line	Approved-Not Completed	Load Growth	
Spurlock Reactor Replacement (Spurlock-KU Kenton Line)	Approved-Not Completed	PJM Requirement (Load Growth)	
Summershade 161 kV Station Addition & Control Building Replacement	Approved-Not Completed	Reliability (Transmission Reliability / Equivalent Availability)	
Asahi #2 12/16/20 MVA 69-13.2kV Substation & Tap	Cancelled	Increase in Capacity	Load increase did not materialize.
Avon Transformer and Bus Relay Upgrade	Cancelled	Aging Infrastructure	Completed as part of the Avon Bus Reconfiguration project.
Avon-Fayette 138KV OPGW Installation	Cancelled	Telecommunications Need	Lower cost alternatives are being evaluated.
Carty Branch 69-12.5 kV, 12/16/20 MVA New Dist. Substation & Tap	Cancelled	Capacity	Load increase did not materialize.
Cave City Jct.- KU Horse Cave Hi-Temp Upgrade to 302F	Cancelled	Capacity	Load projections in the area were reduced, eliminating the need for the project.

Cedar Grove 69 kV Cap Bank - Resize to 22.45 MVARs	Cancelled	Reliability (Transmission Reliability / Equivalent Availability)	Another project solution was identified to address this issue, and then the need was deferred. Bullitt County Cap Bank was the replacement project.
Central Hardin-Stephensburg 69 kV Line Relocation	Cancelled	Transmission Line Relocation	Relocation for industrial site no longer needed.
Cooper Station-West Garrard OPGW Installation	Cancelled	Telecommunications Need	Subjective evaluation of need did not justify the cost.
Cumberland Falls MOAB Additions	Cancelled	Reliability (Transmission Reliability / Equivalent Availability)	LG&E/KU addressed issue.
East Campbellsville (Lebanon) 69 kV 12.245 MVAR Capacitor Bank & Tap	Cancelled	Reliability (Transmission Reliability / Equivalent Availability)	LG&E/KU has plans to install a cap bank in the Lebanon area which eliminated the need for the East Campbellsville cap Bank until 2021.
Inland Container #1 Relay Upgrade	Cancelled	Aging Infrastructure	Another project is planned for the future that will replace this project.
Inland Container #2 Relay Upgrade	Cancelled	Aging Infrastructure	Another project is planned for the future that will replace this project.
Mount Washington #2 Distribution Substation Upgrade	Cancelled	Capacity	Another project was completed to address this need.
Nelson County 69 kV Bus & Jumper Upgrades (West Bardstown Line)	Cancelled	Increase in Capacity	Project not needed - field verification of the bus and jumper size showed that bus and jumpers were adequate to meeting current and future loading needs.
Oakdale Jct.-Oakdale 69 kV Line Hi-Temp Upgrade (to 167F)	Cancelled	Increase in Capacity	Project not needed due to new Beattyville - Oakdale line section project. This line section was retired as a result of that project.
Rectorville Sub Conversion to 25 kV/Upgrade to 12/16/20 MVA	Cancelled	Increase in Capacity	Project need no longer identified by Member System.
South Fork Tap MOAB Additions	Cancelled	Reliability (Transmission Reliability / Equivalent Availability)	Scope now included in the White Oak Substation project.
Substation Firewall Installations	Cancelled	Reliability (Transmission Reliability / Equivalent Availability)	Studied and project not required.
Analog Leased Line Replacements for 2016, 2017, & 2018	Implemented	Telecommunications Need	
Arkland Tap-Oven Fork 69 KV High-Temperature Upgrade (to 167^F)	Implemented	Increase in Capacity	
Avon Battery Building Installation	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Avon Bus Reconfiguration	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Avon-Dale-JK Smith Replace OPGW	Implemented	Telecommunications Need	
Bacon Creek Tap - Liberty Church Tap - KU Farley 69 kV High Temp Upgrade (to 212F)	Implemented	Increase in Capacity	
Badger Communications Building Replacement	Implemented	Telecommunications Need	
Baker Lane - Holloway Jct 69 kV Line Rebuild	Implemented	Increase in Capacity	
Bank Lick Substation Upgrade/Rebuild - 69-12.5 kV 12/16/20 MVA	Implemented	Increase in Capacity	
Beam Transformer Upgrade	Implemented	Increase in Capacity	
Beattyville Distribution -Oakdale 69kV New Transmission Line	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Big Bone Tap-Big Bone 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity	
Big Woods 69-12.5 kV, 12/16/20 MVA New Dist. Substation & Tap	Implemented	Increase in Capacity	
Bluegrass Parkway-Owens Illinois Jct 69kV Hi-Temp Upgrade (to 212^F)	Implemented	Increase in Capacity	
Boone County Sub Switch & Insulator Replacements	Implemented	Aging Infrastructure	
Boone Transfer Breaker Addition & 138-69 kV Transformer Differential Relay Panel Replacement	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Breaker Failure Scheme Addition - Goddard & North London	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	

Bridgeport #2 69-25 kV Distribution Substation	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Bridgeport-KU West Frankfort 69 kV Line (1.2 miles)	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Bullitt County 161-69 kV Transformer Upgrade to 150 MVA	Implemented	Increase in Capacity	
Bullitt County 161kV Transfer Breaker & Panel Upgrades	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
C200 RTU Upgrades	Implemented	Aging Infrastructure	
Campground Distribution Sub Relay Upgrade	Implemented	Aging Infrastructure	
Cave City Distribution Substation Modification	Implemented	Aging Infrastructure	
Cave Run Tap-Cave Run 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity	
Central Ring Upgrade	Implemented	Telecommunications Need	
Colesburg Jct - Colesburg 69 kV High Temperature Upgrade (to 167F)	Implemented	Increase in Capacity	
Contown 69-13.2 kV 12/16/20 MVA Distribution Substation & Tap Line	Implemented	Increase in Capacity	
Cooper Control Building Replacement	Implemented	Aging Infrastructure	
Cooper Tower Communications Building Replacement Project	Implemented	Telecommunications Need	
Cooper-Somerset 1 & 2 69kV Hi Temp Upgrade to (266 F)	Implemented	Increase in Capacity	
Crockett Tap MOAB Additions	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Cumberland Falls SPCC Rework	Implemented	Safety Improvement	
Cynthiana Headquarters 69 KV Line Rebuild	Implemented	Increase in Capacity	
Dale - JK Smith High Temperature Upgrade to 275^F	Implemented	Increase in Capacity	Implemented as part of the Avon-Dale OPGW Installation project.
Dale-Hunt 69 kV Line Retirements & New 138 kV Tap & Hunt 138-69 kV Station Addition	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Davis Jct - Fayette 69 kV High Temp Upgrade to 266 ^F	Implemented	Increase in Capacity	
Defoe 69-13.2 kV, 12/16/20 MVA Distribution Substation & 69kV Tap Line	Implemented	Increase in Capacity	
Denny-Wayne Co Structure Replacement	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Duncannon Lane 69-13.2 kV 12/16/20 MVA Distribution Substation & Tap	Implemented	Load Growth	
East Bernstadt Relay Upgrade	Implemented	Aging Infrastructure	
Elizabethtown - Tunnel Hill 69 kV High Temperature Upgrade to 284^F	Implemented	Increase in Capacity	
Elk Mountain Industrial Distribution Substation, 12/16/20 MVA 69-12.5 kV Transformer & Tap	Implemented	Aging Infrastructure	
Elliottville - Rowan County 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity	
Falcon Rebuild and Tie Line & Bus Differential Panel Replacement	Implemented	Aging Infrastructure	
Fawkes 138 kV Bus Differential Panel Replacement	Implemented	Aging Infrastructure	
Floyd Substation Rebuild to 69-13.2 kV 12/16/20 MVA	Implemented	Aging Infrastructure	
Fox Hollow-Summershade Switchyard 69kV OPGW Installation	Implemented	Telecommunications Need	
Garrison Lane Building Replacement	Implemented	Telecommunications Need	
Glendale-Hodgenville 69 kV Line Hi-Temp Upgrade (to 212F)	Implemented	Increase in Capacity	
Goddard Tower Building Replacement	Implemented	Telecommunications Need	
Goodnight - install metering bypass bay	Implemented	Reliability (Transmission Reliability / Equivalent Availability)	
Grants Lick #1 Substation Rebuild	Implemented	Aging Infrastructure	
Green County 69 kV Bus & Jumper Upgrades (KU Taylor County 69 kV Line)	Implemented	System Growth	
Greensburg Data 1 Analog Circuit Replacement	Implemented	Telecommunications Need	
Headquarters-Millersburg Jct. 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity	

Hebron 69 kV Interconnection Addition to Duke Energy	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Helechawa-Sublett Jct. 69 kV Line Hi-Temp Upgrade (to 167^F)	Implemented	Increase in Capacity
Hope Substation Rebuild & Control Building Replacement	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Howe Valley Communications Building Replacement	Implemented	Telecommunications Need
HQ Office 69-13.2 kV 12/16/20 MVA Substation Rebuild for HQ Solar Facility	Implemented	Increase in Capacity
Hunt Farm Jct.-So. Anderson Install Microwave Link	Implemented	Telecommunications Need
Jacksonville Relay Upgrade	Implemented	Aging Infrastructure
Jellico Creek 69 kV Tap MOAB Additions	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Jellico Creek Dist. Station Upgrade to 25 kV, 5.6 MVA Xfmr	Implemented	Increase in Capacity
Jellico Creek Tap-Jellico Creek 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity
JK Smith 138 kV Bus Differential Panel & 138kV Breaker Failure Panel Replacements	Implemented	Aging Infrastructure
JK Smith CTs 9 & 10 Spare GSU	Implemented	Strategic
JK Smith-Union City-Lake Reba Tap Hi-Temp Upgrade (to 330^F)	Implemented	Increase in Capacity
Kargle-KU Elizabethtown 69kV Line Conductor Temperature Upgrade (to 266F)	Implemented	Increase in Capacity
Keith-Penn 69 KV High-Temperature Upgrade (to 167^F)	Implemented	Increase in Capacity
KU Lynch - Arkland 69 kV Structure Replacements	Implemented	Aging Infrastructure
L&N RTU Replacements	Implemented	Aging Infrastructure
Laurel County 161 kV Relay Upgrades & Circuit Switcher Addition	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Long Lick 69-25 kV, 12/16/20 MVA New Substation & Tap Line	Implemented	Increase in Capacity
Long Run Dist. Sub Upgrade to 69-25 kV, 12/16/20 MVA	Implemented	Increase in Capacity
Magnolia Cap Bank - Summersville 69 kV High Temperature Upgrade (To 167F)	Implemented	Increase in Capacity
Magoffin County 69 kV 14.286 MVAR Cap Bank	Implemented	System Growth
Marion County 161/138 kV Transmission Substation Install EKPC Station Service	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
MBUSA Low Bay Addition	Implemented	System Growth
McKee Distribution Substation Rebuild, 69-13.2 kV 12/16/20 MVA Xfmr	Implemented	Aging Infrastructure
Mile Lane Distribution Substation Rebuild & Upgrade to 12/16/20 MVA	Implemented	Increase in Capacity
Millers Creek Tap-Millers Creek Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity
Monopole Steel Structure Davit Arm Replacements Program Phase 1	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Mt Sterling-Fogg Pike-Reid Village 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity
New Castle-Owen County Rebuild	Implemented	System Growth
Newfoundland to Leon Static Replacement	Implemented	Aging Infrastructure
Ninevah Tap-Ninevah 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity
North Telecom Ring Upgrade	Implemented	Telecommunications Need
Pelfrey Jct.-Pelfrey 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity
Peytons Store Distribution Substation 69-25 kV 12/16/20 MVA Rebuild & Line Work	Implemented	Aging Infrastructure
Pleasant Grove #2 69-12.5 kV, 12/16/20 MVA New Sub & Tap Line	Implemented	System Growth
Plummers Landing Capacitor Bank Addition (Hilda Cap Bank Relocation)	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Plumville 138kV Circuit Switcher Addition and Control Building Replacement	Implemented	Reliability (Transmission Reliability / Equivalent Availability)

Powell County Control House Replacement & Circuit Switcher Addition	Implemented	Aging Infrastructure
Radcliff - install metering bypass bay	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Redbush - Thelma Line Relocation	Implemented	Safety Improvement
Relay Replacement Program-2019	Implemented	Aging Infrastructure
Renaker Communications Building Replacement	Implemented	Telecommunications Need
Renaker Control Building Replacement & 138 kV Circuit Switcher Addition	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Replacement of Telecom Battery Systems 2015	Implemented	Aging Infrastructure
Replacement of Telecom Battery Systems 2016 - 2019	Implemented	Aging Infrastructure
Roanoke 69-12.5 kV, 12/16/20 MVA Dist. Substation & 69 kV Tap Line	Implemented	Capacity
Roseville 69-25 kV, 12/16/20 MVA New Dist. Substation & Tap Line	Implemented	Increase in Capacity
Sinai Switch W14-605/615 Replacement & Sinai Substation Modifications/Replacement	Implemented	Aging Infrastructure
South Bardstown 69-13.2 kV, 15/20/25 MVA Distribution Substation & Tap	Implemented	System Growth
South Corbin SPCC Rework	Implemented	Safety Improvement
South Elkhorn Relay Upgrade	Implemented	Aging Infrastructure
South Springfield Tap-South Springfield 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity
South Telecom Ring Upgrade	Implemented	Telecommunications Need
Spurlock - Flemingsburg 138kV Line Reroute	Implemented	PJM/Regulatory Requirement
Spurlock 138kV EM Relay Replacement & Battery Building Addition	Implemented	Aging Infrastructure
Spurlock 1458/151T Breaker Replacements	Implemented	Aging Infrastructure
Spurlock 345kV Dual Battery House	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Spurlock GSU Disconnect Switch Modifications	Implemented	Aging Infrastructure
Spurlock Relay Upgrade (Unit 3)	Implemented	Aging Infrastructure
Spurlock Relay Upgrade (Unit 4)	Implemented	Aging Infrastructure
Spurlock-Stuart 345kV Reconductor	Implemented	PJM/Regulatory Requirement
Stanley Parker-Webster Road 69 kV OPGW Installation	Implemented	Telecommunications Need
Stanley Parker-Webster Road 69 kV OPGW Installation	Implemented	Telecommunications Need
Stanton Communications Building Replacement	Implemented	Telecommunications Need
Stanton Distribution Sub Relay Upgrade	Implemented	Aging Infrastructure
Steel Pole Replacement Program 2019	Implemented	Aging Infrastructure
Stephensburg - Hodgenville 69 kV Rebuild	Implemented	Aging Infrastructure
Sulphur Creek Substation Rebuild	Implemented	Aging Infrastructure
Summersville Substation Rebuild, 69-13.2 kV 12/16/20 MVA	Implemented	Aging Infrastructure
Thelma Breaker Addition & Relay Panel Replacements	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Toddville Tap MOAB Additions	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Transformer Spare 138-69kV 150 MVA	Implemented	Strategic
Tyner Communications Building Replacement	Implemented	Telecommunications Need
Tyner Key Interlock Removal & Circuit Switcher Addition	Implemented	Reliability (Transmission Reliability / Equivalent Availability)
Veechdale Access Drive	Implemented	Safety Improvement
Veechdale Distribution Substation 69-25 kV 15/20/25 MVA, 69 kV Tap Line, and Shelby County Substation Modifications	Implemented	Service for a Load Addition
West Bardstown Jct - West Bardstown 69 kV Line Rebuild	Implemented	Increase in Capacity
West Bardstown Substation Rebuild	Implemented	Aging Infrastructure
West Garrard Station Service PT Replacement	Implemented	Aging Infrastructure

Williamstown Dist. Sub Upgrade to 69-12.5 kV 15/20/25 MVA	Implemented	Increase in Capacity
Zula Tap-Zula 69 kV Line Hi-Temp Upgrade (to 167F)	Implemented	Increase in Capacity
Baker Lane Switching Station, 69 KV Breaker Addition	Planned	Reliability (Transmission Reliability / Equivalent Availability)
Barren County Control Building Replacement/Upgrade	Planned	Aging Infrastructure
Brodhead-Three Links Jct. 69kV Line Rebuild	Planned	Load Growth
Bullitt Co Relay Replacement	Planned	Aging Infrastructure
Dix Dam Tower Communications Building Replacement	Planned	Telecommunications Need (Transmission Support)
Fawkes-West Berea OPGW Installation	Planned	Telecommunications Need
Goddard Switchyard-Skaggs-Mazie Switchyard OPGW Installation	Planned	Telecommunications Need (Transmission Support)
Grants Lick-Griffin Jct 69kV Line Rebuild	Planned	Aging Infrastructure
Homestead Relay Upgrade & Control House Removal	Planned	Aging Infrastructure
Miller's Creek Distribution Substation (161-13.2 kV 12/16/20 MVA) Rebuild to 161kV	Planned	Reliability (Transmission Reliability / Equivalent Availability)
Mineola Pike 138-13.2kV 12/16/20 MVA Sub & Tap (options only)	Planned	Load Growth
Nelson County Control Building Replacement/Upgrade	Planned	Aging Infrastructure
New Griffin 138kV Distribution Substation & Tap Line (Griffin Rebuild)	Planned	Aging Infrastructure
Owen County 69 kV 22.96 MVAR Cap Bank	Planned	System Growth
Owen County Control Building Replacement/Upgrade	Planned	Aging Infrastructure
Patriot Parkway 69kV (Formerly Rineyville Jct.) Switching Station	Planned	Reliability (Transmission Reliability / Equivalent Availability)
Patton Road Jct Three Way Switch Install	Planned	Reliability (Transmission Reliability / Equivalent Availability)
Pekin Pike 69-13.2kV, 12/16/20 MVA Distribution Substation & 6.4 Mile Tap	Planned	Load Growth
Replace TSP-1 Structures on AP, J, & AS Lines	Planned	Aging Infrastructure
Russell County Control Building Replacement/Upgrade	Planned	Aging Infrastructure
Wayne County Control Building Replacement/Upgrade	Planned	Aging Infrastructure
West Berea Control Building Replacement/Upgrade	Planned	Aging Infrastructure
White Oak 69-13.2 kV 12/16/20 MVA Distribution Substation and Tap and Retirement of the South Fork Distribution Substation	Planned	Aging Infrastructure

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 2
RESPONSIBLE PERSON: **Mike McNalley**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 2. Refer to the application generally. Explain the extent to which the COVID-19 virus is impacting EKPC and the member cooperatives and whether there are any anticipated longer-term effects.

Response 2. As of April 15, EKPC has no known employee or contractor COVID-19 infections. EKPC took several actions beginning in February, 2020, to protect employees and ensure continuing operations. We implemented our pandemic plan, began social distancing (starting with no handshaking, escalating quickly to work-from-home), began frequent sanitization of work and common areas and widely distributed hand sanitizers and disinfecting wipes. We also opened our emergency back-up site at Smith Station and split our critical employees into two shifts, with one operating at each location, providing both social distancing and avoiding cross-contamination between groups should anyone contract the virus. EKPC also procured MRE lunch/dinners in case a shelter-in-place order is issued.

With the large projects underway at Spurlock, we took several actions including requiring contractors to either remain in the area (not travel to other states, even if their residences were in other states) or report all travel subject to 14 day local quarantine before returning to the job site, implemented employee and contractor temperature testing and engaged vendors to provide meals on site to ensure food security, and limit the non-work contacts (e.g., at the grocery store after work).

While each of these actions resulted in some additional costs, we also eliminated all travel including in-state to our Owner-Members and are incurring lower costs in other areas. These savings will partially offset the added costs of protecting our workforce.

In order to ensure adequate funds to get through the start of the crisis, in early March EKPC drew $100 million from the credit facility (approximately $20 million was already planned to meet normal operating needs) and re-affirmed availability of funding for the remaining $325 million on the credit facility in case the crisis worsened or continued for an extended period.

EKPC also paid its RUS/FFB quarterly principal and interest payment at March 31 out of the Cushion of Credit account, rather than from operating funds as originally intended. This ensures operating funds remain available, but EKPC has foregone some of the savings anticipated in using the Cushion balance to prepay RUS/FFB debt later this year and the 5% interest earned in the Cushion on those funds. EKPC will evaluate doing this again at the June 30 payment date.

We are in frequent communication with our Owner-Members regarding the impacts of COVID-19 on their financial condition. EKPC and its Owner-Members support the order not to shut off delinquent members nor to charge late fees. However, these actions are having a significant impact on EKPC's Owner-Member's finances.

Owner-Members reported as of the end of March that approximately 10% to 25% of pre-paid accounts had negative balances (totaling nearly $200,000) and that both the balances and percentage of accounts were increasing. Because prepay accounts typically do not have significant financial resources it is likely that there will be substantial charge-offs arising from these balances when the crisis abates and normal collection efforts resume. In addition, deferral of late fees is expected to total $700,000 per month. If these are never billed and recovered, there will be a permanent loss and margins and financial metrics will be impacted.

Arrearages of regular accounts also are increasing, although the impacts won't be fully known until all 16 Owner-Members have completed full billing cycles since the date of the Commission's and Governor's orders became effective. So far arrearages are running from about 4% to nearly 20% of accounts with total dollars in arrears exceeding $4 million and expected to climb quickly. As with prepay accounts, Owner-Members expect some of these amounts will never be collected as many customers simply won't be able to catch up.

March MWh billing declined due to COVID-19 as a result of business closures. Work at home has increased residential load somewhat, and the load curve is slightly flatter. EKPC estimates that MWh sales have declined approximately 10% in March, but will be higher in April as a result of COVID-19. It is too early to project the duration of the suppressed sales or how much recovery, and over what time frame, we would anticipate. Clearly with some businesses unlikely to restart or recover, we should expect some of the sales loss will be permanent. Of course this sales loss originates with EKPC's Owner-Members who also are losing their distribution revenue (EKPC doesn't "see" that impact in its billing).

The Fuel Adjustment Clause is an area of good news, as very low PJM market electricity prices are being passed through to Owner-Members and their members.

Together these impacts create significant financial hardship for EKPC's Owner-Members, who are drawing on their own resources (cash, lines of credit, etc.) to ensure their own continuing operations. In support of them, EKPC has delayed the payment due date for the power bill due in April to May 1, and will consider similar, or more aggressive action, with future power bills until the crisis has passed. EKPC has pledged to work with any Owner-Member needing financial assistance as well, however, we do not expect any requests until closer to the May 1 power bill due date.

EKPC remains confident that with its financial strength and liquidity, it can ensure that EKPC and its Owner-Members continue safe, reliable operations. However,

once the crisis abates we will need to assess the combined impacts and take steps to recover our financial strength and liquidity, especially if a second round of COVID-19 appears likely. For some Owner-Members, this may take the form of emergency rate relief.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 3
RESPONSIBLE PERSON: **David Crews**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 3. Refer to the application generally, regarding the Federal Minimum Offer Price Rule (MOPR) that is currently under consideration. If the MOPR as it stands now is enacted:

Request 3a. Explain how it will affect EKPC's participation in PJM Interconnection, LLC (PJM).

Response 3a. EKPC considers both the direct application of the Federal Energy Regulatory Commission's December 19, 2019, Order ("December 19 Order") and April 16, 2020 Order on Rehearing ("April 16 Order") on EKPC as well as the broader application of both orders ("the Orders") on the rest of the PJM market in responding to this question. Under the Orders, the MOPR applies to all existing and new capacity resources that receive State Subsidies. Additionally, the FERC acknowledged that the

Fixed Resource Requirement ("FRR") alternative remains available and unchanged by its December 19 Order.

First, with respect to EKPC's direct impact, generally speaking in the near term EKPC does not anticipate negative impacts if the FERC accepts PJM's March 18, 2020, Compliance Filing ("March 18th Compliance Filing") detailing how PJM will implement the guidance FERC provided in the December 19 Order.

EKPC utilized the Self-Supply exemption from the application of the MOPR in past auctions. The December 19th Order, in broadly defining "State Subsidy", removes the Self-Supply exemption for electric cooperatives formed pursuant to state law, among other entities. However, the December 19th Order includes a limited Self-Supply Exemption for existing capacity resources of Self-Supply entities like EKPC. The FERC explained what would make an existing resource eligible for this exemption, including successful clearing in a prior auction and advancement to a certain state in the PJM interconnection process. PJM's March 18th Compliance Filing provides additional detail for how it would implement this FERC directive, and FERC's April 16th order effectively affirmed the interpretation of the generation interconnection status requirement PJM included in its March 18th Compliance filing in responding to rehearing arguments. All of EKPC's generating assets have cleared in prior Base Residual Auctions. Thus, EKPC's operations in the PJM market in the near term would not be adversely affected by the MOPR. EKPC expects to stay in the RPM market in the near term and continue to optimize the value of generation it owns in excess of its load obligation in contributing to

the overall resource adequacy of the PJM region.

There is a high degree of uncertainty about how PJM participants will respond to the MOPR. Some entities that are currently in the RPM market may retreat to utilize the FRR alternative. PJM members retreating from the RPM market because they no longer have a Self-Supply Exemption would remove their generation and load from the market and it is uncertain at this point whether those actions would increase or decrease market prices.

Second, in the long run, the Orders may impact the ability of EKPC's offers from "new" generation resources to clear in the RPM market. Without a Self-Supply Exemption, development of new, or acquisition of additional, generation by EKPC to hedge its load in the RPM market would be severely impacted. That capacity would be considered "new" and subject to the MOPR under the FERC rulings. Whether any new resource would clear in the RPM market would be dependent upon the MOPR floor level applicable to the fuel type of the generator or an offer level determined through a PJM-approved Unit-Specific Offer Exemption. If the new generator does not clear in the RPM market, EKPC would not receive any capacity market revenues to offset the cost associated with the resource but would be responsible to pay for capacity procured in the RPM market to cover EKPC's load obligation. The new generation would not hedge the capacity market price exposure. EKPC and its customers could essentially be required to pay for the generation twice if it continues to participate in the RPM market.

It is important to note that once new capacity clears the RPM market, the Orders will still require the resource to be subject to the MOPR, but the MOPR offer floor level would change because the resource would now be considered to be an existing resource. For new resources, PJM will calculate the MOPR floor price based on net Cost of New Entry for the resource type; for existing resources, PJM will calculate the MOPR floor price based on the net Avoidable Cost Rate for the resource type. Any resource also is able to utilize the Unit-Specific Exemption to justify costs associated with an offer that may be less than the default offer price floors PJM calculates.

With respect to potential impacts not directly tied to how the Orders apply to EKPC, the Orders may result in a balkanization of the PJM market with additional eligible utilities deciding to avail themselves of the FRR alternative, shrinking the centralized RPM market. EKPC is unable to predict the decisions other companies may make in response to the Orders.

EKPC plans to join the many PJM members that will appeal the Orders. If EKPC and others do not successfully claw back the Self Supply Exemption through the appeal process, EKPC will weigh the benefits of staying in the RPM market, migrating to the FRR market, or withdrawing from PJM. At this time, there is not sufficient clarity of how the PJM market rules will change in the long run to choose a path. EKPC is hopeful that reasonableness will ultimately prevail in policy development for PJM. EKPC is confident that it can transition back to a stand-alone utility if FERC forces unreasonable market rules upon PJM.

Request 3b. If not explained above, explain whether EKPC's actions will be affected under recent Capacity Performance requirements.

Response 3b. All of EKPC's generation assets comply with PJM's Capacity Performance requirements. These new requirements have increased the operations risk to generators in PJM. EKPC manages the risk of being assessed a performance penalty for a unit being unable to perform if PJM were to call upon it during a Performance Assessment Interval through its generation maintenance programs coupled with insurance policies. Capacity Performance applies to all capacity resources in PJM - both those committed through the RPM market and those identified in an FRR plan to satisfy the FRR alternative. The MOPR does not increase or diminish EKPC's Capacity Performance risk profile.

Request 3c. Explain whether EKPC's participation in PJM would still be beneficial in the future.

Response 3c. As discussed above, EKPC expects remaining in PJM to be beneficial in the short term. EKPC is certain that the MOPR will diminish the benefits EKPC derives from being in PJM in the future. EKPC will weigh the benefits of staying in the RPM market, migrating to the FRR alternative, or withdrawing from PJM; however, policies that result from the MOPR dockets litigation and any next steps PJM

may consider to further evolve its market rules given the recent FERC rulings likely will need to run their courses before EKPC can perform an analysis to make an informed decision.

Request 3d. Explain whether and how EKPC's PPA/ capacity and transmission planning and capital projects will be affected.

Response 3d. The MOPR does not impact transmission planning or transmission projects. EKPC views the MOPR as an attack on the Cooperative business model. It effectively dis-incentivizes a Cooperative from developing generation and participating in the RPM market in the future. Under the prior RPM market design, EKPC could develop a resource and sell the excess capacity until its load grows in to that capacity. If EKPC stays in PJM and determines development of new, or acquisition of additional, generation resources is needed, its only option is to migrate to the FRR construct. While the FRR alternative is currently a lesser-preferred but viable option for EKPC, EKPC fears that the FRR rules could change in the future as more entities seek to utilize it and wish to obtain changes to the rules governing it.

Request 3e. Explain whether it would still be beneficial to add duel fuel capability to Bluegrass Station.

Response 3e. Capacity Performance requirements apply to both the FRR alternative and RPM market. Even if EKPC were to withdraw from PJM, EKPC would want onsite fuel at Bluegrass to assure fuel reliability of those generators. The addition of dual fuel increases the options EKPC has for the future. EKPC continues to view the dual fuel project as a good capital deployment.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 4
RESPONSIBLE PERSON: **David Crews**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 4. Refer to the application generally. Explain whether EKPC has any industrial or large commercial customers that are wanting to implement their own green energy initiatives and how EKPC is working with these customers.

Response 4. One of EKPC's Owner-Member Cooperatives has been approached by a customer who has a specific green energy initiative that it desires to implement. EKPC is working with its owner-member and the customer to develop an arrangement that fulfills the customer's needs. Negotiations are ongoing and EKPC must therefore be cautious in disclosing information concerning the customer's needs; however, it is safe to assume that the recently approved Green Energy Tariff has been a critical element of the negotiations. EKPC expects that other commercial and industrial customers with voluntary, corporate sustainability goals will seek to take advantage of the Green Energy Tariff in the future.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 5
RESPONSIBLE PERSON: **Julia Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 5. Refer to EKPC's response to Commission Staff's First Request (Staff's First Request), Item 2. Provide the May 31, 2019 Annual Report regarding its participation in PJM.

Response 5. The May 31, 2019 Annual Report dated July 31, 2019 regarding its participation in PJM is provided on pages 2 through 7 of this response.

EAST KENTUCKY POWER COOPERATIVE

July 31, 2019

Kentucky Public Service Commission
P.O. Box 615
211 Sower Boulevard
Frankfort, KY 40602

VIA HAND DELIVERY

Attn: Ms. Gwen Pinson, Executive Director

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. Pinson,

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 (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 operating year June 1, 2018 through May 31, 2019. 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 four 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 2018. 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 June 1, 2018 through May 31, 2019. The spreadsheet also shows the costs for the FTRs purchased and the value of the FTRs "self-scheduled". The values are listed for the 5x16 portion, which includes values applicable Monday through Friday from 7:00 a.m. through 10:00 p.m. The "wrap" is the off peak hours of 11:00 p.m. through 6:00 a.m. from Monday through Friday, plus the entire 24 hours on Saturday and Sunday. EKPC estimates roughly a [redacted] benefit to its members from June 1, 2018 through May 31, 2019 of having ARRs and FTRs. These savings have been included in the Trade Benefits described later in this report.

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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 from June 1 through May 31), 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 occur for EKPC. The goal is to match EKPC's FTR 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 is a price taker on the excess capacity it sells.

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 June 1, 2018 through May 31, 2019. 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 production cost model and simulated what its operations as a stand-alone Balancing Authority would have cost and 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 twelve-month operational period from June 1, 2018 through May 31, 2019.

June 1, 2018 through May 31, 2019

Category	Costs (in millions)	Benefits (in millions)
Administrative Costs	[redacted]	
Transmission Costs	[redacted]	
Trade Benefits		[redacted]
Capacity Benefits		[redacted]
Avoided PTP Transmission Charges		[redacted]
Subtotal	[redacted]	[redacted]
Net Benefits		[redacted]

Concerning the PJM capacity market benefits, in the December 20, 2012 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 customers 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. Beginning on January 1, 2017 EKPC would also begin for accounting purposes to amortize the

Smith 1 regulatory asset, net of expected mitigation and salvage efforts, for a ten-year amortization period. In its January 10, 2017 Order, the Commission found the "Smith Solution" to be a reasonable proposal to effectuate a mechanism to flow the capacity benefits to the retail customers of EKPC's Member Systems. In compliance with the Stipulation and the Commission's Order, EKPC began the amortization for accounting purposes of the Smith 1 regulatory asset on January 1, 2017 and the actual net PJM capacity market benefits are providing a partial recovery of the amortization.

Projection of Future Benefits and Costs of PJM Membership

The December 20, 2012 Order directs EKPC to provide "a projection of future benefits and costs reflecting the most recent PJM capacity auction results." EKPC substituted known cost and benefit data into the worksheet used in the original analysis to project future benefits and costs. The original study was time and resource intensive and EKPC has no reason to believe the underlying basis of the analysis has changed significantly except for the actual costs and benefits that have been realized. The following table reflects inclusion of actual data along with original projections for the remainder of the study. [redacted] and EKPC's current market view indicates that the likelihood of this trend continuing is good. EKPC would note that the bulk of the Trade Benefits are returned to EKPC's Owner-Member Cooperatives and in turn to their End-Use Retail members through the Fuel Adjustment Clause, a fact the Commission acknowledged in its December 20, 2012 Order in Case No. 2012-00169.

June 1, 2013 through December 31, 2022

Category	Costs (Original/Updated)	Benefits (Original/Updated)
Administrative Costs	[redacted]	
Transmission Costs	[redacted]	
Trade Benefits		[redacted]
Capacity Benefits		[redacted]
Avoided PTP Transmission Charges		[redacted]
Subtotal	[redacted]	[redacted]
Net Benefits		

EKPC can appreciate the caution exercised by the Commission when it established the filing of this report, given the concern that accompanied the granting of permission for EKPC's membership in PJM and EKPC's participation in the RPM administered by PJM. However, EKPC continues to believe that its positive experience since June 1, 2013 should adequately demonstrate the overall benefits of continued PJM membership and RPM participation. So, while this comprehensive Annual Report initially served as a means to evaluate the benefits of PJM membership, those portions of the report that reflect actual PJM results can be provided to the

Commission through other venues or on an as-needed basis. Consequently, EKPC respectfully requests that the Commission relieve EKPC from the filing of future comprehensive Annual Reports as detailed in the December 20, 2012 Order.

EKPC continues to believe that participation in PJM will allow it to realize long-term value for its Members. On behalf of EKPC, I would be delighted to address any further questions that the Commission might have with regard to either the data provided in this report or EKPC's request to be relieved from filing future such annual reports. Please feel free to contact me if you need any additional information.

Sincerely,

Patrick Woods
Director, Regulatory & Compliance Services

Enc.

EKPC FTR Costs: 5x16

Source	Sink	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Total
Spurlock 1-4	EKPC	($1,643)	($1,643)	($1,643)	$16,118	$179,164	($1,643)	($1,643)	($1,643)	($54,421)	($1,643)	($1,643)	($1,643)	**$126,075**
Cooper 1-2	EKPC	$914	$914	$914	$914	$914	$914	$914	$914	$914	$914	$914	$914	**$10,972**
Dale 3-4	EKPC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
Smith 4-7	EKPC	$923	$923	$923	$923	$923	$923	$923	$923	$923	$923	$923	$923	**$11,080**
Smith 9-10	EKPC	$525	$525	$525	$525	$525	$525	$525	$525	$525	$525	$525	$525	**$6,304**
Laurel Dam	EKPC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
BLUEGRPW69KVBLUE	EKPC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
AD hub	EKPC	($1,473)	($1,473)	($1,473)	($1,473)	($1,473)	($1,473)	($1,473)	($1,473)	($1,473)	($1,473)	($1,473)	($1,473)	**($17,676)**
Spurlock 1-4	EKPC-DEOK LOAD	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
Total		($753)	($753)	($753)	$17,008	$180,054	($753)	($753)	($753)	($53,531)	($753)	($753)	($753)	**$136,755**

EKPC FTR Costs: WRAP

Source	Sink	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Total
Spurlock 1-4	EKPC	$5,811	$5,811	$5,811	$5,811	$91,575	$5,811	$5,811	$5,811	$5,811	$5,811	$5,811	$5,811	**$155,495**
Cooper 1-2	EKPC	$56	$56	$56	$56	$56	$56	$56	$56	$56	$56	$56	$56	**$678**
Dale 3-4	EKPC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
Smith 4-7	EKPC	$152	$152	$152	$152	$152	$152	$152	$152	$152	$152	$152	$152	**$1,822**
Smith 9-10	EKPC	$105	$105	$105	$105	$105	$105	$105	$105	$105	$105	$105	$105	**$1,264**
Laurel Dam	EKPC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
BLUEGRPW69KVBLUE	EKPC	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**$0**
AD hub	EKPC	($141)	($141)	($141)	($141)	($141)	($141)	($141)	($141)	($141)	($141)	($141)	($141)	**($1,687)**
Spurlock 1-4	EKPC-DEOK LOAD	$237	$237	$237	$237	$237	$237	$237	$237	$237	$237	$237	$237	**$2,841**
Total		$6,221	$6,221	$6,221	$6,221	$91,985	$6,221	$6,221	$6,221	$6,221	$6,221	$6,221	$6,221	**$160,413**

Attachment

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND REQUEST FOR INFORMATION RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 6
RESPONSIBLE PERSON: **Julia Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 6. Refer to EKPC's response to Staff's First Request, Item 3. Identify and explain all existing and contemplated hedging strategies for EKPC including any cost-benefit ratio studies and other studies related thereto.

Response 6.

Transmission Congestion Hedging and Strategy:

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. EKPC initially followed a set hedging strategy when it joined PJM, which was to hedge [redacted] of its FTR needs in the Long Term Auctions (3-year auctions), an additional [redacted] in the annual auctions (covering the delivery year from June 1 through May 31), an additional [redacted] in the quarterly auctions and the final [redacted] in the monthly auctions. The Brattle 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 occur for EKPC. The goal is to match EKPC's FTR position as closely to its load serving requirements as possible to minimize its exposure to congestion costs.

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 remaining 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 capacity to sell. EKPC is a price taker on the capacity it sells. EKPC's winter peak load is significantly higher than its summer load. However, PJM does not require EKPC to buy capacity based on its winter peak demand. Therefore, EKPC's

decisions regarding winter peak load requirements will be driven by expected energy costs and is discussed in the following. Potential changes to EKPC's future hedging strategy for capacity is discussed in Response 3 of this data request.

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. This modeling exercise provides EKPC an expectation of costs to serve its winter load and will help determine if a longer-term energy supply option is beneficial to the EKPC portfolio.

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 Real Time energy markets.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND INFORMATION REQUEST RESPONSE

COMMISSION STAFF'S SECOND INFORMATION REQUEST DATED 04/14/2020
REQUEST 7
RESPONSIBLE PERSON: **Craig Johnson/Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 7. Refer to EKPC's response to Staff's First Request, Item 4. Provide examples of plant improvement efficiency measures that EKPC could consider and that would serve as a compliance option under the Federal Affordable Clean Energy Rule.

Response 7. EKPC is working with the Kentucky Division of Air Quality ("DAQ") and the Kentucky Energy and Environment Cabinet ("EEC") on the Environmental Protection Agency's ("EPA") Affordable Clean Energy Rule ("ACE"). It is anticipated that, within the next few weeks, DAQ will request additional information from the electric utilities in Kentucky in regards to their needs to develop the ACE state plan. EKPC expects to provide all of the federal rule required information to DAQ and EEC by January 1, 2021 as requested.

EPA's ACE requires coal-fired utilities to study the seven candidate technologies that may increase efficiency. EKPC is currently studying the candidate technologies as applicable to EKPC's fleet in order to satisfy the DAQ January 1, 2021 deadline.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND INFORMATION REQUEST RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 8
RESPONSIBLE PERSON: **Darrin Adams**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 8. Refer to EKPC's response to Staff's First Request, Item 21. Provide updates to the case as they become available. Consider this an ongoing request throughout this proceeding.

Response 8. There have been no updates to the case referenced in Staff's First Request, Item 21, since EKPC provided its response. EKPC will provide any updates that become available during this proceeding.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND INFORMATION REQUEST RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 9
RESPONSIBLE PERSON: **Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 9. Refer to EKPC's response to Staff's First Request, Item 33. Provide updates as they become available for the state implementation process under the ACE Rule and judicial developments. Consider this an ongoing request throughout this proceeding.

Response 9. The DAQ and the EEC requested the first round of the ACE information in the form of a survey in October 2019. EKPC and the other coal-fired burning electric generation utilities in the state completed this survey with the information available at the time and EKPC made its submittal in November 2019. Following the change in administrations, DAQ held a conference call with the Utilities Information Exchange Kentucky, which is comprised of electric utilities in Kentucky, on April 8, 2020 to discuss ACE and the EEC's plan moving forward.

EKPC understands that DAQ will issue another survey requiring the rest of the required ACE regulatory information from the utilities within a few weeks. This information is due back to DAQ by January 1, 2021. EKPC will work with DAQ to meet the requirements contained in this ACE survey in order for the State to develop its implementation plan by 2023. EKPC will provide any further updates that become available during this proceeding.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND INFORMATION REQUEST RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 10
RESPONSIBLE PERSON: **Mary Jane Warner**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 10. Refer to EKPC's response to Staff's First Request, Item 46. Provide updates as they become available as they relate to the study of duel fuel capacity at Bluegrass Station. Consider this an ongoing request throughout this proceeding.

Response 10. The Bluegrass Capacity Penalty Risk Analysis is complete. An order granting a CPCN for the Bluegrass Dual Fuel Addition Project was issued by the Commission on February 28, 2019 (Case No. 2018-00292). The project commenced in August of 2019 and is scheduled for completion in December of 2020. EKPC will provide any further updates that become available during this proceeding.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND INFORMATION REQUEST RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 11
RESPONSIBLE PERSON: **Craig Johnson/Jerry Purvis**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 11. Refer to EKPC's request to the Attorney General's First Request for Information (Attorney General's First Request), Item 10. Provide an update to the estimates of costs for environmental controls as they become available. Consider this an ongoing request throughout this proceeding.

Response 11. EKPC submitted its most recent Environmental Surcharge list of projects as part of Case No. 2017-00376, which was subsequently approved by the Commission. The list of projects contained all of the equipment, environmental controls, regulations and environmental costs associated with EKPC's most recently approved capital environmental projects. EKPC has no additional environmental equipment, controls or costs to present for approval at this time. EKPC will work with the Commission in accordance with its regulations when new environmental projects avail themselves to meet new EPA standards. EKPC will provide any further updates that become available during this proceeding.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND INFORMATION REQUEST RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 12
RESPONSIBLE PERSON: **Craig Johnson**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 12. Refer to EKPC's response to the Attorney General's First Request, Item 19.

Request 12a. For Cooper Station, both Maintenance and Non-Fuel Operations costs increased significantly from 2018 to 2019. Provide an explanation of these cost increases and whether these are expected to extend into the future.

Response 12a. In EKPC's Responses to 12a, 12b, and 12c where the question asked refers to sustaining current O&M spend or increasing O&M spend in the future, the amount of generation produced has a big impact on the O&M costs when review of those costs are only performed on a $/MWh basis. The explanation for the actual annual O&M cost decrease or increase is given for each of the requests, below.

As stated in EKPC's response to the Attorney General's First Request, Item 19, the 2019 data was only validated thru October 2019, due to the timing of the Request.

The main driver of the increased Maintenance and Non-Fuel Operations costs from 2018 to 2019 is the reduction in generation from 2018 (562,087 MWh) to 2019 (168,610 MWh), as can be seen in the table below. Due to this 73% reduction in generation, the $/MWh is higher. Therefore, it is not a cost increase, but a generation decrease that changes the calculation.

Cooper	$/MWh		Generation (MWh)		Costs	
	2018	Oct-19	2018	Oct-19	2018	Oct-19
Maintenance	19.36	41.08	562,087	149,632	10,886,355	6,146,438
Non-Fuel OPS	20.5	58.18	562,087	149,632	11,524,827	8,705,278

If compared to full-year 2019, as can be seen in the table below, the Maintenance and Non-Fuel Operations costs are down compared to 2018.

Cooper	Costs		
	2018	Oct-19	Dec-19
Maintenance	10,886,355	6,146,438	8,103,271
Non-Fuel OPS	11,524,827	8,705,278	10,703,175

Request 12b. For Smith Station, both Maintenance and Non-Fuel Operations costs have decreased significantly since 2017. Provide an explanation of the actions EKPC has taken to reduce these costs and whether the 2019 cost levels can be sustained into the future.

Response 12b. As stated in EKPC's response to the Attorney General's First Request, Item 19, the 2019 data was only validated thru October 2019, due to the timing of the Request. The main driver of the decreased Maintenance and Non-Fuel Operations costs since 2017 is the increase in generation from 2017 (163,432 MWh) to 2019 (318,626 MWh), as can be seen in the table below. Due to this 95% increase in generation, the $/MWh is lower. Therefore, it is not a cost decrease, but a generation increase that changes the calculation.

Smith	$/MWh			Generation (MWh)			Costs		
	2017	2018	Oct-19	2017	2018	Oct-19	2017	2018	Oct-19
Maintenance	26.46	25.68	10.09	163,432	394,471	318,626	4,324,891	10,133,824	3,214,276
Non-Fuel OPS	40.22	16.52	19.89	163,432	394,471	318,626	6,574,740	6,518,223	6,336,070

If compared to full-year 2019, as can be seen in the table below, the Maintenance and Non-Fuel Operations costs are up compared to 2017.

Smith	Costs			
	2017	2018	Oct-19	Dec-19
Maintenance	4,324,891	10,133,824	3,214,276	5,289,404
Non-Fuel OPS	6,574,740	6,518,223	6,336,070	7,732,069

The increased Maintenance Cost in 2018 is due to the Major Overhaul on Smith Unit 3, costing $5.6M.

Request 12c. For Bluegrass Station, Maintenance costs have fallen and Non-Fuel Operations costs have seen significant cost reductions since 2016. Explain the actions that EKPC has taken to lower these costs and whether the 2019 cost levels can be sustained in the future.

Response 12c. As stated in EKPC's response to the Attorney General's First Request, Item 19, the 2019 data were only validated thru October 2019, due to the timing of the Request. There are two main drivers for the changes, an increase in generation from 2016 to 2019; and Unit 3 becoming fully available to EKPC.

The first driver is an increase in generation from Bluegrass Units 1 & 2 in 2016 (20,336 MWh) to Units 1 thru 3 in 2019 (111,329 MWh), as can be seen in the table below. Due to the 447% increase in generation, the $/MWh is lower, and would be even if the maintenance and non-fuel Operations costs were the same. Therefore, it is not a cost decrease, but a generation increase that changes the calculation.

Bluegrass	$/MWh				Generation (MWh)				Costs			
	2016	2017	2018	Oct-19	2016	2017	2018	Oct-19	2016	2017	2018	Oct-19
Maintenance	24.57	34.03	22.39	16.14	20,336	38,757	47,684	111,329	499,774	1,319,146	1,068,013	1,796,459
Non-Fuel OPS	110.38	62.24	53.21	27.56	20,336	38,757	47,684	111,329	2,244,889	2,412,545	2,537,472	3,068,069

The second driver is the tolling agreement for Bluegrass Unit 3. The generation for this unit was included in EKPC's response to the Attorney General's First Request, Item 19e-f, but due to the tolling agreement with LG&E, was not included in EKPC's RUS12d filings for 2016 thru 2018. While the output from Bluegrass Unit 3 was for LG&E's use, EKPC's costs were inclusive of the Unit's maintenance and operations. The generation for Units 1-2 compared to the generation for all 3 units can be seen in the table below.

MWh	2016	2017	2018	2019
Unit 1 & 2	20,336	38,757	47,684	111,329
All 3 Units	52,965	80,151	111,766	111,329
Difference	**32,629**	**41,394**	**64,082**	-

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND INFORMATION REQUEST RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 13
RESPONSIBLE PERSON: **Julia Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 13. Refer to EKPC's response to the Attorney General's First Request, Item 20. Provide the requested information for 2019.

Response 13. The following table represents EKPC's off-system sales in both MWh and total fuel costs associated with the sales which were excluded from the Fuel Adjustment Clause (FAC).

Year	Off System Sales (MWh)	Fuel Credited to FAC
2017	37,157.00	$ 986,028.44
2018	74,669.00	$ 2,106,535.60
2019	94,626.00	$ 2,369,618.00

The data in the table for 2019 was inadvertently cut off in EKPC's response to the Attorney General's First Request, Item 20.

EAST KENTUCKY POWER COOPERATIVE, INC.
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SECOND INFORMATION REQUEST RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 14
RESPONSIBLE PERSON: **Scott Drake**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 14. Refer to EKPC's response to the Attorney General's First Request, Item 24. Regarding the direct load control program:

Request 14a. For those customers who participate, explain whether all the customers have their meter replaced with the special meter or the special meter is in addition to the AMI meter.

Response 14a. EKPC installs an additional meter at the End-Use Retail-Member's breaker panel to measure kWh usage at 15-minute intervals on the air conditioning and water heater circuit(s). However, these are installed only on a small sampling of participating homes; usually around 30 homes. The home revenue meter remains untouched.

Additionally, EKPC installs a run-time device on the outside air conditioning unit(s) at a different small sampling of participating homes. This device

only measures run-times of the air conditioner compressor(s). It does not measure kWh usage. This small group of different participants is usually around 30 homes, also, and this data is used as supplemental data to the special meters previously described. The combination of these two sample groups provides EKPC with a 90% confidence level in the load impacts measured during load management events.

The special meters and run-times devices are not installed on each home so the expense to measure the load impacts at a 90% confidence level isn't significant when compared to the Direct Load Control program as a whole. However, EKPC is trying to transition to using only the Owner-Member Cooperative's AMI data because that data is provided to EKPC at no cost.

Request 14b. Explain whether the cost of the additional meter is included in the program cost benefit analysis.

Response 14b. Yes. The cost of the program, including EKPC's load impact study cost, is included in the cost benefit analysis.

Request 14c. As the summer and winter peaks increase, explain whether EKPC anticipates that the direct load control program and any other related demand-side management products will play an increasingly necessary role in EKPC's participation in PJM.

Response 14c. EKPC continues to evaluate the costs of demand side programs versus the costs of energy and capacity in the PJM market. The Direct Load Control program helps mitigate capacity purchase cost from PJM because the program lowers EKPC's load during the time PJM is measuring EKPC's load levels used to determine PJM cost incurred by EKPC. EKPC will continue to utilize cost-mitigating programs like Direct Load Control as long as they are cost-effective.

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2019-00096
SECOND INFORMATION REQUEST RESPONSE

STAFF'S SECOND REQUEST FOR INFORMATION DATED 04/14/2020
REQUEST 15
RESPONSIBLE PERSON: **Julia Tucker**
COMPANY: **East Kentucky Power Cooperative, Inc.**

Request 15. Refer to EKPC's response to the Attorney General's First Request, Item 26. Given that EKPC's summer peak is growing faster than the winter peak, explain whether and how this will impact EKPC's participation in PJM as a Reliability Pricing Model versus Fixed Resource Requirement participant.

Response 15. EKPC's summer peak is growing faster than its winter peak. However, as shown in Table 3-2 on page 37 of the 2019 IRP report, EKPC's summer peak is expected to continue to be significantly less than its winter peak throughout the study period. The data in the referenced table indicates there continues to be roughly 900 MW, or 25%, difference between the two peak values in the last year of the study period, with winter being the larger value. The fact that EKPC's summer peak is growing faster than its winter peak will not be a factor in its decision to participate in PJM's RPM or FRR. The decision to participate in one market versus another is discussed in Response 3 of this data request.