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March 31, 2021

VIA E-MAIL TRANSMISSION

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

Re: PSC Case Nos. 2015-00267 – Bluegrass Station Annual Report

Dear Ms. Bridwell:

Pursuant to the Commission's December 1, 2015 Order in Case No. 2015-00267, in which the Commission approved East Kentucky Power Cooperative, Inc's ("EKPC") requests to acquire the Bluegrass Station and to assume the evidences of indebtedness associated with the acquisition, enclosed please find a copy of EKCP's 2020 Bluegrass Station Annual Operating Report. Please file this in the post-case correspondence file and return a file-stamped copy to my office.

The undersigned hereby certifies that the electronic filing is a true and accurate copy of the documents being filed in paper medium; the electronic filing was transmitted to the Commission on March 31, 2021; there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; paper copies of this information will be hand-delivered to the Commission within thirty (30) days of the lifting of the present State of Emergency relating to the COVID-19 pandemic.

Please let me know if you have any questions.

Very truly yours,



David S. Samford

Enclosure

Bluegrass Generating Station 2020 Annual Operating Report

In 2020, East Kentucky Power Cooperative's, Inc.'s (EKPC) Bluegrass Generating Station (Bluegrass) successfully operated for 557.58 hours, produced 82,752 gross megawatts and 82,012 net megawatts of generation; experienced 515.68 unplanned outage hours; and performed to an overall average net heat rate of 11,503.77 (BTU/KWH).

Bluegrass Unit 1 successfully operated 191.80 hours, generated 28,890 gross megawatts and 28,631 net megawatts, experienced 105.52 hours of unplanned outage hours, performed to an average net heat rate of 11,434.81 (BTU/KWH), and successfully started 31 times with no failed starts. Bluegrass Unit 1 experienced five (5) unplanned/forced outage events:

- Unplanned, maintenance outage of 39.21 hours due to relocating conduits that were obstructing pipe routes for the dual fuel project.
- Unplanned, maintenance outage of 10.08 hours due to the tie-in of the remote I/O for APE2 for the dual fuel project.
- Unplanned, forced outage for 0.73 hours due to an auto unload resulting in a shutdown due to a flashback thermocouple wire (can #9) faulty cable.
- Unplanned, maintenance outage of 7.50 hours due to Texas Gas Transmission, LLC, requiring work on its ultrasonic billing flow transmitter.
- Unplanned, maintenance outage of 48.00 hours due to adjusting the dual fuel schedule because of being ahead of schedule.

Bluegrass Unit 2 successfully operated 269.88 hours, generated 39,675 gross megawatts and 39,320 net megawatts, experienced 169.08 hours of unplanned outage hours, performed to an average net heat rate

of 11,421.27 (BTU/KWH), and successfully started 44 times with no failed starts. Bluegrass Unit 2 experienced three (3) unplanned/forced outage events:

- Unplanned, forced outage of 120.00 hours due to a failed torque converter while on turning gear.
- Unplanned, maintenance outage of 39.00 hours due relocating conduits that were obstructing pipe routes for the dual fuel project.
- Unplanned, maintenance outage of 10.08 hours due to the tie-in of the remote I/O for APE2 for the dual fuel project.

Bluegrass Unit 3 successfully operated 95.9 hours, generated 14,187 gross megawatts and 14,061 net megawatts, experienced 241.08 hours of unplanned outage hours, performed to an average net heat rate of 11,875.03 (BTU/KWH), and successfully started 19 times with no failed starts. Bluegrass Unit 3 experienced three (3) unplanned outage events:

- Unplanned, maintenance outage of 63.00 hours due to relocating conduits that were obstructing pipe routes for the dual fuel project.
- Unplanned, maintenance outage of 10.08 hours due to the tie-in of the remote I/O for APE2 for the dual fuel project.
- Unplanned, maintenance outage of 168.00 hours due to adjusting the dual fuel schedule because of being ahead of schedule.

EKPC budgeted \$52.7 million for capital expenditures for equipment in 2020, and spent \$42.8 million of this allocation. This reduction was due to the Bluegrass Dual Fuel Addition project realizing savings due to a number of contracts negotiated under budget, and savings in owner's costs (\$7.2 million). The Bluegrass

Peak Shave Battery Storage project feasibility and technology study was conducted in 2020 and is currently pending further financial evaluation (\$1.3 million), and the Bluegrass Hot Gas Path Inspections for Units 1 & 2 did not require an estimated contingency spend and had reusable material available for redeployment (\$1.2 million). Bluegrass has budgeted \$8.4 million for capital expenditures in 2021. Included in this budget are final closeout costs associated with the Dual Fuel project in 2021 at \$2.3 million, which will be incurred during the first half of the year. The project is currently in operation and is able to provide Bluegrass with a back-up fuel option in the event of a natural gas line interruption.

Bluegrass budgeted \$4.48 million (excluding fuel) in 2020 for O&M expenses, and had expenditures of \$3.74 million. The variance was due to lower than expected expenses with the Hot Gas Path Inspection emergent work and consumables. Bluegrass has budgeted \$3.6 million (excluding fuel) for O&M expenses in 2021. Bluegrass budgeted \$98,000 for fuel in 2020 and had expenditures of \$2.1 million.

Bluegrass' budget for fuel in 2021 is \$3.4 million.

Bluegrass performed various maintenance activities to increase the availability and reliability of the facility. These maintenance activities included, but were not limited to hot gas path inspections on all three units, flashback thermocouple modifications and inlet strut modifications on all three units, and third-party independent calibrations of all critical instrumentation.

Environmental Update

Bluegrass resources compliance planning is covered by this section to meet the requirements of the Clean Air Act amendments of 1990 (CAA) and the Clean Water Act (CWA). Bluegrass is currently in compliance with the following CAA and CWA Rules:

- Affordable Clean Energy Rule; Fossil Fuel Only; (vacated by Court Order, pending EPA action)
- New Source Performance Standards (NSPS);
 - NSPS GHG for New, Modified and Reconstructed Fossil Fueled Units;
- Title IV of the CAA and the rules governing pollutants that contribute to Acid Deposition (Acid Rain program);
- Title V operating permit requirements (Title V);
- Summer ozone trading program requirements promulgated after EPA action on Section 126 petitions and the Ozone SIP Call (Summer Ozone program);
- Clean Air Interstate Rule (CAIR) (Phased Out 12/31/15); (New Rule CSAPR)
- Stationary Combustion Turbines: National Emission Standards for Hazardous Air Pollutants (NESHAP);
- Stationary Gas and Combustion Turbines: New Source Performance Standards (NSPS);
- Cross State Air Pollution Rule (CSAPR); (Final rule March 15, 2021, currently under review)
- National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO₂), Nitrogen Dioxide (NO₂), Carbon Monoxide (CO), Ozone, Particulate Matter (PM), Particulate Matter 2.5 microns or less (PM 2.5) and Lead;
 - Clean Water Act, National Pollution Discharge Elimination System (NPDES) as delegated by the EPA to Kentucky Pollution Discharge Elimination System (KPDES), and
 - New Source Review,

- GHG Tailoring Rule
- Regional Haze Rule
- Clean Power Plan- pending EPA and Court Actions
- CO2 NSPS for New Utility Coal and Natural Gas units (111(b) Rule); (Lead to vacation of ACE, currently pending EPA action)