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March 31, 2023

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 EKPC's 2022 Bluegrass Station Annual Operating Report. Please file this in the post-case correspondence file and return a file-stamped copy to my office.

This is to certify that the electronic filing has been transmitted to the Commission on March 31, 2023 and that there are currently no parties in this proceeding that the Commission has excused from participation by electronic means. Pursuant to the Commission's July 22, 2021 Order in Case No. 2020-00085 no paper copies of this filing will be made.

Please do not hesitate to contact me with any questions or concerns.

Sincerely,



L. Allyson Honaker

Counsel, East Kentucky Power Cooperative, Inc.

Enclosure

Bluegrass Generating Station 2022 Annual Operating Report

In 2022, East Kentucky Power Cooperative's, Inc's. (EKPC) Bluegrass Generating Station (Bluegrass) successfully operated for 1,384.58 hours, produced 206,799 gross megawatts and 205,402 net megawatts of generation; experienced 87.13 unplanned outage hours; and performed to an overall average net heat rate of 11,539.62 (BTU/KWH).

Bluegrass Unit 1 successfully operated 687.32 hours, generated 102,367 gross megawatts and 101,447 net megawatts; experienced 38.06 hours of unplanned outage hours; performed to an average net heat rate of 11,596.47 (BTU/KWH); and successfully started 77 times with two (2) failed starts. Bluegrass Unit 1 experienced six (6) unplanned/forced outage events:

- Unplanned, forced outage of 5.93 hours due to a failed start cause by ice blockage on the Vent/Purge line for the Pilot fuel nozzle.
- Unplanned, forced outage of 8.87 hours due to inadvertent trip while heating Lube Oil on startup with a subsequent AVR issue which required a reboot after troubleshooting.
- Unplanned, forced outage for 1.80 hours due to a failed start on Fuel Oil as a result of the unavailability of Natural Gas.
- Unplanned, force outage for 17.04 hours due to unit tripping on reduction of Fuel Oil when Unit 2 was lined up. When its Emergency Stop Valve was opened, it caused a drop in inlet pressure to Unit 1.
- Unplanned, force outage for 1.17 hours due to unit tripping on reduction of Fuel Oil when Unit 2 was lined up. When its Emergency Stop Valve was opened, it caused a drop in inlet pressure to Unit 1.
- Unplanned, forced outage of 3.25 hours due cross contamination of Fuel Oil into the Hydraulic Control Oil System.

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Bluegrass Unit 2 successfully operated 650.89 hours, generated 97,499 gross megawatts and 97,086 net megawatts; experienced 25.97 hours of unplanned outage hours; performed to an average net heat rate of 11,452.49 (BTU/KWH); and successfully started 79 times with one (1) failed starts. Bluegrass Unit 2 experienced two (2) unplanned/forced outage events:

- Unplanned, forced outage for 25.42 hours due to a failed start on Fuel Oil as a result of the unavailability of Natural Gas.
- Unplanned, forced outage of 0.55 hours due to a failed C-Stage gas valve solenoid.

Bluegrass Unit 3 successfully operated 46.37 hours, generated 6,933 gross megawatts and 6,869 net megawatts; experienced 23.10 hours of unplanned outage hours; performed to an average net heat rate of 11,932.07 (BTU/KWH); and successfully started 8 times with one (1) failed start.

Bluegrass Unit 3 experienced one (1) unplanned outage event:

- Unplanned, forced outage for 21.30 hours due to a failed start on Fuel Oil as a result of the unavailability of Natural Gas.

Bluegrass budgeted and incurred \$0 in 2022 for capital expenditures. EKPC has budgeted \$12.0 million for capital expenditures for equipment in 2023. This capital budget includes the following projects: Bluegrass Unit 1 Combustor Replacement \$6.0 million, Bluegrass Unit 1 Generator Rewind \$5.9 million, and the Bluegrass Shop Overhead Crane \$0.1 million.

Bluegrass budgeted \$5.21million (excluding fuel) in 2022 for O&M expenses, and had expenditures of \$3.57 million. The variance was due mostly to pushing back the Generator Inspections (\$945K), as well as cost savings ideas and competitively bidding projects. Bluegrass has budgeted \$5.5 million (excluding fuel) for O&M expenses in 2023. Bluegrass budgeted

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\$17.3 million for fuel in 2022 and had expenditures of \$20.4 million. This was mainly due to consuming \$2.2 million in fuel oil. Bluegrass' budget for fuel in 2023 is \$13.5 million.

Bluegrass performed various maintenance activities to increase the availability and reliability of the facility. These maintenance activities included, but were not limited to the annual spring and fall reliability outages, which included painting of various areas for preservation of equipment, complete turbine and generator borescope inspections on all three units. The plant successfully test ran all three units on diesel fuel in late autumn.

Environmental Update

Bluegrass Station is in compliance with the requirements of the Clean Air Act amendments of 1990 (CAA), and the Clean Water Act (CWA). Moreover, fossil fuel applicable only;

- 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) as a synthetic minor;
- Summer ozone trading program requirements promulgated after EPA action on Section 126 petitions and the Ozone SIP Call (Summer Ozone program);
- 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);

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- 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; Oldham County is in attainment for ozone.
- Clean Water Act, and
 - National Pollution Discharge Elimination System (NPDES) as delegated by the EPA to Kentucky Pollution Discharge Elimination System (KPDES).
 - EPA Spill Control and Counter Measure (SPCC) plans