

Exhibit No.:	_____
Issue(s)	Unrecovered Coal Exclusion from FAC Consideration
Witness/Type of Exhibit:	Riley/Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	ER-2020-0311

REBUTTAL TESTIMONY

OF

JOHN S. RILEY

Submitted on Behalf of the Office of the Public Counsel

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2020-0311

July 27, 2020

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of The Empire District)
Electric Company for Authority to)
Implement Rate Adjustments Related to)
the Company's Fuel and Purchase Power)
Adjustment (FAC) Required in 20 CSR)
4240-20.090)

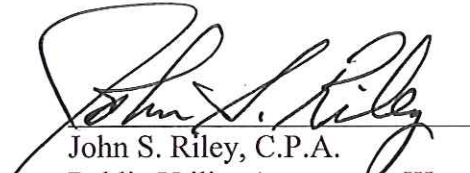
Case No. ER-2020-0311

VERIFICATION OF JOHN S. RILEY

John S. Riley, under penalty of perjury, states:

1. Attached hereto and made a part hereof for all purposes is my rebuttal testimony in the above-captioned case.

3. My answer to each question in the attached rebuttal testimony is true and correct to the best of my knowledge, information, and belief.


John S. Riley, C.P.A.
Public Utility Accountant III
Office of the Public Counsel

REBUTTAL TESTIMONY

OF

JOHN S. RILEY, C.P.A.

THE EMPIRE DISTRICT ELECTRIC COMPANY

FILE NO. ER-2020-0311

1 **Q. What is your name and what is your business address?**

2 A. John S. Riley, PO Box 2230, Jefferson City, Missouri 65102.

3 **Q. By whom are you employed and in what capacity?**

4 A. I am employed by the Missouri Office of the Public Counsel (“OPC”) as a Senior Utility
5 Regulatory Auditor.

6 **Q. What is your educational background?**

7 A. I earned a B.S. in Business Administration with a major in Accounting from Missouri State
8 University.

9 **Q. What is your professional work experience?**

10 A. I was employed by the OPC from 1987 to 1990 as a Public Utility Accountant. In this capacity
11 I participated in rate cases and other regulatory proceedings before the Public Service
12 Commission (“Commission”). From 1994 to 2000 I was employed as an auditor with the
13 Missouri Department of Revenue. I was employed as an Accounting Specialist with the
14 Office of the State Court Administrator until 2013. In 2013, I accepted a position as the Court
15 Administrator for the 19th Judicial Circuit until April 2016 when I joined the OPC as a Public
16 Utility Accountant III. I have also prepared income tax returns, at a local accounting firm, for
17 individuals and small business from 2014 through 2017.

1 **Q. Are you a Certified Public Accountant (“CPA”) licensed in the State of Missouri?**

2 A. Yes. As a CPA, I am required to continue my professional training by attending Missouri
3 State Board of Accountancy qualified educational seminars and classes. The State Board of
4 Accountancy requires that I spend a minimum of 40 hours a year in training that continues
5 my education in the field of accountancy. I am also a member of the Institute of Internal
6 Auditors (“IIA”) which provides its members with seminars literature that assist CPAs with
7 their annual educational requirements.

8 **Q. Have you previously filed testimony before the Missouri Public Service Commission?**

9 A. Yes, I have. A listing of my case filings is attached as JSR-R-1.

10 **Q. What is the purpose of your rebuttal testimony?**

11 A. Ms. Charlotte T. Emery filed supplemental direct testimony in this case attempting to explain
12 why a year-end decommissioning inventory adjustment for unburnable coal should be
13 included in the fuel adjustment clause (FAC) as a legitimate fuel cost for the production of
14 steam used to generate electric power in December 2019 at the Asbury power plant. I will
15 explain how Ms. Emery is incorrect and demonstrate why the \$1,925,886 adjustment should
16 not be allowed to flow through the FAC for reasons that are self-evident from Ms. Emery’s
17 own testimony.

18 **Q. What is OPC’s basic argument for excluding this adjustment from the FAC?**

19 A. The \$1,925,886 adjustment at issue in this case represents the dollar amount of unburnable
20 coal currently located at the Asbury generating facility that was originally booked by Empire
21 to FERC USOA account 151. Empire improperly moved the cost of this unburnable coal to
22 FERC USOA account 501 and is now seeking recovery of this cost through its FAC. This
23 movement between accounts is only supposed to occur when the coal in question is used as a
24 fuel source for the generation of steam needed to produce electric power. However, this coal

1 was not used as a source of fuel that was burned to power the Asbury plant. Instead, this coal
2 is still sitting in the exact same spot where the Asbury coal inventory was previously located.

3 Because the \$1,925,886 represents coal that was never burned, no adjustment should have
4 been made to move this cost from account 151 to account 501. Further, because the amount
5 is not properly reflected in account 501, the adjustment does not fall within the listed category
6 of costs that may be considered when calculating the FAC and therefore is not allowed
7 through the FAC. Finally, it is important to understand that the rates just set in Empire's last
8 rate case effectively treated this coal as though it was not going to be burned and thus allowed
9 the Company to continue collecting a return on it. Attempting to make an adjustment now to
10 run this coal through the FAC as if it had been burned would consequently be a double use of
11 the asset in the revenue requirement calculations.

12 **Q. Would you provide a description of this coal?**

13 A. Yes. The coal in question is part of the original coal pile that was off-loaded onsite at Asbury
14 when Asbury was first being made ready to produce energy. When coal first arrives onsite at
15 a new plant, it is usually dumped on a base of clay and/or rock and spread out. These initial
16 deliveries, which will be immediately contaminated by the clay/rock, will form the base where
17 all future coal shipments will be unloaded. Over time, the weight of added coal and the use
18 of machinery will compact this base even more into the rock and clay on which it sits. As a
19 result, the bottom most part of the coal pile will slowly become overly contaminated and
20 ultimately unusable as a fuel source. It is this bottom layer of coal, rock, and clay that we are
21 concerned with. Empire refers to this as the "unrecoverable" coal, but I will refer to it as the
22 "unburnable" coal. In either case, we are referring to the same thing: coal that has become so
23 contaminated that it is no longer viable for combustion. Schedule JSR-R-2 provides a
24 Company response to data request 8001 which verifies that the coal in question was not and
25 could not be burned. This unburnable coal might as well be considered a slab of concrete
26 because it can never be economically used as fuel.

1 **Q. In what FERC account would this unburnable coal first be recorded?**

2 A. When it was first purchased, this coal would still have theoretically been fuel, so the entry
3 would record the cost in account 151 Fuel stock, which the FERC Uniform System of
4 Accounts (“USOA”) designates “shall include the book cost of fuel on hand.”

5 **Q. Under what circumstances is the cost of fuel to be moved out of account 151 and placed
6 into account 501?**

7 A. Account 501 is meant to include “the cost of fuel used in the production of steam for the
8 generation of electricity.” The USOA description of account 501, sub part B states as follows:

9 The cost of fuel shall be charged initially to account 151, Fuel Stock (for
10 Nonmajor utilities, appropriate fuel accounts carried under account 154, Plant
11 Materials and Operating Supplies) and cleared to this account on the basis of
12 the fuel used. Fuel handling expenses may be charged to this account as
13 incurred or charged initially to account 152, Fuel Stock Expenses
14 Undistributed (for Nonmajor utilities, an appropriate subaccount of account
15 154, Plant Materials and Operating Supplies). In the latter event, they shall be
16 cleared to this account on the basis of the fuel used. Respective amounts of
17 fuel stock and fuel stock expenses shall be readily available.

18 Based on the plain language of this description, fuel should only be moved (or cleared) from
19 account 151 to account 501 when it is burned to produce steam for the generation of
20 electricity.

21 **Q. Does the \$1,925,886 adjustment made by Empire meet this criterion?**

22 A. No. As the name suggests, this unburnable coal cannot be economically burned in the Asbury
23 boilers to produce steam for the generation of electricity. Therefore, this coal is not – and
24 never will be – burned as fuel. Because the coal will never be burned as fuel, it will never be

1 used in the production of steam for the generation of electricity and should never be recorded
2 to account 501.

3 **Q. Is there anything in Ms. Emery’s testimony that supports your argument for why the**
4 **Asbury coal inventory adjustment should not be recovered through the FAC?**

5 A. Yes. Ms. Emery answers the question “Is the Asbury coal adjustment related to actual energy
6 costs?” (emphasis added) with a yes and then explains “The coal inventory adjustment of
7 \$1,925,886 is comprised of commodity and freight costs related to the unrecoverable coal at
8 the bottom of the Asbury plant’s coal pile.” (emphasis added). However, this answer is
9 inherently contradictory. If the coal is truly unrecoverable, as Empire says, then it is therefore
10 not an actual energy cost because it cannot be used to produce energy.

11 **Q. Ms. Emery refers to this coal inventory adjustment as a commodity cost, do you agree**
12 **with that assessment?**

13 A. No. The coal we are referring to in this case is no longer a commodity. It is true that it may
14 have been considered a commodity when it was first procured and was therefore originally
15 included in account 151 Fuel stock, but its characteristics have changed. Right now, this coal
16 is nothing more than an improvised floor, effectively no different than if Empire had built a
17 concrete slab to support its coal pile. As the Company’s own documents show, this coal
18 certainly would not burn any better than concrete because of all the gravel and dirt ground
19 into it.

20 If it was an actual slab of concrete that had been “at the bottom of the Asbury plant coal pile”
21 the Commission should have no problem rejecting the idea of making this adjustment. After
22 all, trying to include concrete in the FAC as a burnable fuel would be a tough sell. Why then
23 should the Commission consider this coal, which after sitting 50 years at the bottom of the
24 Asbury coal pile might as well be concrete, any differently? .

1 After 50 years of providing a return on its initial cost, this slab's use has come to its end. The
2 Asbury plant used all of its burnable coal by December 12, 2019 and all that was left was the
3 unburnable floor. In that light, the December 31, 2019 year-end fuel inventory adjustments
4 for the Asbury plant takes on a unique finality. The Company is closing the books on the final
5 inventory of the plant, an inventory that will never be burned in a boiler. This adjustment is
6 therefore not the normal annual recalculation of the inventory balance that Empire would have
7 the Commission believe, but rather, is a type of adjustment that is only performed once in a
8 coal plant's life. In other words, this is a decommissioning cost designed to bring the account
9 151 associated to Asbury down to zero. Such a decommissioning cost may be ultimately
10 recoverable by the Company, but it is most certainly **not** recoverable through the FAC.

11 **Q. You previously mentioned how permitting this adjustment would be a double use of the**
12 **asset in the revenue requirement calculations, can you please elaborate on that.**

13 A. Account 151 Fuel is an asset account that is included as rate base. Rate base is provided a
14 Rate of Return (ROR). The unburnable coal we are discussing will thus effectively be
15 afforded an ROR for the life of the plant because it will not be eliminated from the 151 account
16 until the plant is retired. This has already been reflected in Empire's last rate case that included
17 sixty (60) days' worth of coal inventory at the Asbury plant despite the plant having ceased
18 to function at the time the order was issued. However, now the Company is trying to treat
19 that inventory as if it was burned (even though it was not burned) by transferring it from
20 account 151 to account 501. This means that the Company is effectively asking that the same
21 amount of coal be treated as burned and unburned at the same time.

22 Empire is already collecting an ROR on its Asbury coal inventory, to compensate for the cost
23 of maintaining that inventory, as part of the rates that were just set in its last general rate case.
24 The Company is now simultaneously seeking to reduce that coal inventory to zero through
25 the use of this adjustment **and** charge customers for the coal it never burned and which
26 customers are already paying – **and will continue** to pay – an ROR on until Empire's next

1 rate case. This kind of double use of an asset (treating the coal as both burned and unburned
2 simultaneously) should not be permitted by the Commission.

3 **Q. Does this conclude your rebuttal testimony?**

4 A. Yes it does.

5

6

7

John S. Riley, CPA
Summary of Case Participation

ST LOUIS COUNTY WATER COMPANY	CASE NO. WR-88-5
SOUTHWESTERN BELL TELEPHONE COMPANY	CASE NO. TC-89-21
EMPIRE DISTRICT ELECTRIC COMPANY	CASE NO. ER-2016-0023
KCP&L GREATER MISSOURI OPERATIONS COMPANY	CASE NO. ER-2016-0156
KANSAS CITY POWER & LIGHT COMPANY	CASE NO. ER-2016-0285
AMEREN MISSOURI	CASE NO. ER-2016-0179
EMPIRE DISTRICT ELECTRIC PRUDENCE REVIEW	CASE NO. EO-2017-0065
LACLEDE GAS COMPANY	CASE NO. GR-2017-0215
MISSOURI AMERICAN WATER COMPANY	CASE NO. WU-2017-0351
MISSOURI AMERICAN WATER COMPANY	CASE NO. WR-2017-0285
LIBERTY (MIDSTATE NATURAL GAS)	CASE NO. GR-2018-0013
KANSAS CITY POWER AND LIGHT	CASE NO. ER-2018-0145
KCP&L GREATER MISSOURI OPERATIONS COMPANY	CASE NO. ER-2018-0146
EMPIRE DISTRICT ELECTRIC PRUDENCE REVIEW	CASE NO. EO-2018-0244
EMPIRE DISTRICT ELECTRIC COMPANY	CASE NO. ER-2018-0228
EMPIRE DISTRICT ELECTRIC COMPANY	CASE NO. ER-2018-0366
EMPIRE DISTRICT ELECTRIC COMPANY	CASE NO. EO-2018-0092
AMEREN GAS COMPANY	CASE NO. GR-2018-0227
MISSOURI AMERICAN WATER COMPANY	CASE NO. WO-2018-0373
LIBERTY UTILITIES EMPIRE ELECTRIC CO	CASE NO. EA-2019-0010
SUMMIT NATURAL GAS OF MISSOURI, INC	CASE NO. GR-2018-0230
SPIRE NATURAL GAS, EAST/WEST ISRS	CASE NO. GO-2019-0115
MISSOURI AMERICAN WATER COMPANY	CASE NO. WO-2019-0184

John S. Riley, CPA
Summary of Case Participation

AMEREN GAS

CASE NO. GR-2019-0077

UNION ELECTRIC COMPANY

CASE NO. ER-2019-0335

LIBERTY EMPIRE ELECTRIC CO.

CASE NO. ER-2019-0374

MISSOURI AMERICAN WATER CO.

CASE NO. WO-2020-0190



The Empire District Electric Company
A Liberty Utilities Company

Case No. ER-2020-0311
OPC Data Request – 8001

Data Request Received: 04/14/20
Request No. 8001

Date of Response: 4/29/20
Respondent: Peter Thompson

Submitted by: Lena Mantle.

REQUEST:

Empire's Electric Net Fuel & Purchased Power report for December 2019 provided in submission BFMR-2020-0367 states the following:

Asbury was derated due to fuel quality issues prior to consuming all of its recoverable coal inventory on December 12th at which point it did not operate for the remainder of the month. As a result, the unit produced only 5,386 MWh (approximately 95.0% less than budget since it was budgeted to operate normally all month). Asbury yielded over \$2.2 million in unfavorable market margin largely due to increased costs due to its limited operation and coal inventory adjustments that increased its costs by over \$1.9 million.

Please provide the following information:

- A. A detailed explanation of the increased cost due to Asbury's limited operation along with all general ledger entries for these increased costs.
- B. A detailed explanation of the coal inventory adjustments with all general ledger entries for this adjustment.

RESPONSE:

- A. The increased cost as reported in the Net Fuel & Purchased Power report for December 2019 is primarily attributable to a coal inventory adjustment (\$) and a limited amount of generation (MWh). Refer to the attachment labeled: "[DR 8001.A Asbury Costs.xlsx](#)".
- B. Per David Eaton, the Asbury Plant Manager and a professional engineer, there was no recoverable or usable coal at the Asbury Plant as of 12/31/19. Therefore, Accounting adjusted the inventory balances for both blend and PRB coal to zero with 12/31/19 general ledger entry BURNEXP19. Please see [DR 8001.B Inventory Adjustments Entry and Support.pdf](#).

CURGEN FUEL EXP & PP								
Journal ID	Account	Amount	Line Descr	Status	Period	Product	Dept	Year
BURNEXP19	501042	271,924.87	Coal Burn Expense	P	12	FS	110	2019 Coal burn
BURNEXP19	501042	544.49	Oil Burn Hndling - 60%	P	12	FS	110	2019 Portion of oil burn related to coal handling
BURNEXP19	501042	1,925,886.33	Coal Burn Expense - Adj	P	12	FS	110	2019 Write-off of coal inventory due to no usable coal left at plant
UNDIST19B	501042	203.09	Undistributed Coal Burn Exp	P	12	FS	110	2019 Entry moves miscellaneous charges to coal expense.
UNDIST19C	501042	209.02	Undistributed Coal Burn Exp	P	12	FS	110	2019 Entry moves miscellaneous charges to coal expense.
UNDIST19	501042	175,094.13	Undistributed Coal Burn Exp	P	12	FS	110	2019 Entry moves miscellaneous charges to coal expense.
	501042 Total	<u>2,373,861.93</u>						
BURNEXP19	501045	20,084.86	Oil Burn Exp	P	12	FS	110	2019 Oil burn
	501045 Total	<u>20,084.86</u>						
ALO1200001	501601	420.16	PAYROLL ACCRUAL ALLOC	P	12	PA	150	2019 "Other" costs of coal payroll accrual
APA0056436	501601	300.00	AP Accruals	P	12	FE	150	2019 "Other" costs of coal AP accrual
ALO1100001	501601	(310.55)	PAYROLL ACCRUAL ALLOC	P	12	PA	150	2019 "Other" costs of coal payroll accrual
PAY0056606	501601	865.15		P	12	PRS	150	2019 "Other" costs of coal payroll accrual
PAY0056515	501601	442.02		P	12	PRS	150	2019 "Other" costs of coal payroll accrual
	501601 Total	<u>1,716.78</u>						
	Grand Total	<u><u>2,395,663.57</u></u>						

Asbury Resource Cost per FPP 2,395,664.00

Variance Due to Rounding on FPP (0.43)

PeopleSoft Financials

Journal Entry Detail Report

Page: 1 of 1

Run Date: 4/17/20

Run Time: 4:06:07 PM

Header Unit:	GL001	Ledger Group:	ACTUALS	Total Debits:	2218803.55
Journal ID:	BURNEXP19	Source:	ONL	Total Credits:	2218803.55
Journal Date:	12/31/19	Reversal:	None	Journal Lines:	9
Header Description:	Coal and Oil Burn Exp for December 2019		Reversal Date:		

Unit: GL001 Ledger: ACTUALS

#	Account	Dept	Product	Journal Line Description	Journal Line Ref	Monetary Amount	Statistical Amount
3	501042	110	FS	Coal Burn Expense	-----	271,924.87	
4	501045	110	FS	Oil Burn Exp	-----	20,084.86	
7	502093	110	FS	Oil Burn Hndling - 40%	-----	363.00	
8	501042	110	FS	Oil Burn Hndling - 60%	-----	544.49	
9	151100	110	FS	Coal Inventory	-----	-271,924.87	
10	151200	110	FS	Distillate Oil	-----	-20,084.86	
11	151200	110	FS	Oil Inventory Handling Asbury	-----	-907.49	
12	501042	110	FS	Coal Burn Expense - Adj	-----	1,925,886.33	
13	151100	110	FS	Coal Inventory - Adj	-----	-1,925,886.33	

FUEL CONSUMED

Dec-19

ASBURY

Coal Burn				
	Tons	Price	\$	Account
PRB	3,836.625	56.4011	216,389.87	A
Blended	728.220	76.2613	55,535.00	B
Total	4,564.845		271,924.87	

Coal Inventory Adjustment				
	Tons	Price	\$	Account
PRB	15,046.278	56.4010	848,625.80	C
Blended	14,125.916	76.2613	1,077,260.53	D
Total	29,172.194		1,925,886.33	

Oil Burn				
	Gallons	Price	\$	Account
Generation	9,767.000	2.0564	20,084.86	E
Handling	441.300	2.0564	907.49	F
	60% of handling		544.49	
	40% of handling		363.00	
	Total Handling		907.49	

Summary

		DR.	CR.
Coal Burn Expense	110-501042	271,924.87	
Coal Burn Expense- Adj	110-501042	1,925,886.33	-
Oil Burn Generation	110-501045	20,084.86	
Oil Burn Handling - 40%	110-502093	363.00	
Oil Burn Handling - 60%	110-501042	544.49	
Coal Inventory	110-151100		271,924.87
Coal Inventory-Adj	110-151100	-	1,925,886.33
Oil Inventory Burn	110-151200		20,084.86
Oil Inventory Handling	110-151200		907.49
Undist. Exp.	110-152057		
Total		2,218,803.55	2,218,803.55

**EMPIRE DISTRICT ELECTRIC COMPANY
INVENTORY WORKSHEET
2019**

ASBURY - PRB COAL									
MONTH	BEG TONS	PURCH TONS	ADJUST TONS	TRANSF OUT TONS	SUBTOTAL TONS	BURNED TONS	BURN INV ADJ TONS	INTRANSIT TONS	END TONS
1/31/2019	230,359.432	0.000			230,359.432	(39,709.800)		15,174.380	205,824.012
2/28/2019	205,824.012	30,169.060			235,993.072	(53,434.875)	(2,079.680)	15,118.400	195,596.917
3/31/2019	195,596.917	30,351.980			225,948.897	(68,470.350)			157,478.547
4/30/2019	157,478.547	30,262.230			187,740.777	(37,554.563)			150,186.214
5/31/2019	150,186.214	14,474.830			164,661.044	(16,196.603)			148,464.441
6/30/2019	148,464.441	60,567.760			209,032.201	(51,807.308)			157,224.893
7/31/2019	157,224.893	45,645.530			202,870.423	(49,809.825)	132.600	15,199.130	168,392.328
8/31/2019	168,392.328	0.000			168,392.328	(36,243.675)			132,148.653
9/30/2019	132,148.653	0.000			132,148.653	(40,479.075)			91,669.578
10/31/2019	91,669.578	0.000			91,669.578	(24,693.825)			66,975.753
11/30/2019	66,975.753	0.000			66,975.753	(48,092.850)			18,882.903
12/31/2019	18,882.903	0.000			18,882.903	(3,836.625)	(15,046.278)		0.000
	230,359.432	211,471.390	0.000	0.000		(470,329.374)	(16,993.358)	45,491.910	0.000

MONTH	BEG INITIAL \$	PURCH INITIAL \$	ADJUST INITIAL \$	TRANSF OUT INITIAL \$	SUBTOTAL INITIAL \$	BURNED INITIAL \$	BURN INV ADJ INITIAL \$	INTRANSIT INITIAL \$	END INITIAL \$	WTD AVG \$/TON	MONTH \$/TON
1/31/2019	2,767,652.28	8,806.98			2,776,459.26	(478,610.31)	-	185,886.16	2,483,735.11	12.0527	0.0000
2/28/2019	2,483,735.11	388,592.97			2,872,328.08	(650,366.55)	(25,312.20)	194,678.35	2,391,327.68	12.1712	12.8805
3/31/2019	2,391,327.68	396,239.80			2,787,567.48	(844,732.40)	-	-	1,942,835.08	12.3372	13.0548
4/30/2019	1,942,835.08	395,037.32			2,337,872.40	(467,655.71)	-	-	1,870,216.69	12.4527	13.0538
5/31/2019	1,870,216.69	183,984.40			2,054,201.09	(202,057.48)	-	-	1,852,143.61	12.4753	12.7106
6/30/2019	1,852,143.61	781,043.57			2,633,187.18	(652,616.66)	-	-	1,980,570.52	12.5970	12.8954
7/31/2019	1,980,570.52	587,736.77			2,568,307.29	(630,582.42)	1,678.69	195,707.66	2,135,111.22	12.6598	12.8761
8/31/2019	2,135,111.22	4,015.75			2,139,126.97	(460,410.65)	-	-	1,678,716.32	12.7032	0.0000
9/30/2019	1,678,716.32	0.00			1,678,716.32	(514,213.79)	-	-	1,164,502.53	12.7032	0.0000
10/31/2019	1,164,502.53	0.00			1,164,502.53	(313,693.07)	-	-	850,809.46	12.7033	0.0000
11/30/2019	850,809.46	4,850.81			855,660.27	(614,419.82)	-	-	241,240.45	12.7757	0.0000
12/31/2019	241,240.45	0.00			241,240.45	(49,015.19)	(192,225.26)	-	0.00	12.7756	0.0000
	2,767,652.28	2,750,308.37	0.00	0.00		(5,878,374.05)	(215,858.77)	576,272.17	(0.00)		

MONTH	BEG FREIGHT \$	PURCH FREIGHT \$	ADJUST FREIGHT \$	TRANSF OUT FREIGHT \$	SUBTOTAL FREIGHT \$	BURNED FREIGHT \$	BURN INV ADJ FREIGHT \$	INTRANSIT FREIGHT \$	END FREIGHT \$	WTD AVG \$/TON	MONTH \$/TON
1/31/2019	5,731,937.47	230,539.33			5,962,476.80	(1,027,824.64)	-	287,891.25	5,222,543.41	25.8834	0.0000
2/28/2019	5,222,543.41	837,898.58			6,060,441.99	(1,372,239.65)	(53,407.43)	284,358.75	4,919,153.66	25.6806	27.7734
3/31/2019	4,919,153.66	810,323.23			5,729,476.89	(1,736,230.05)	-	-	3,993,246.84	25.3574	26.6975
4/30/2019	3,993,246.84	835,448.36			4,828,695.20	(965,903.36)	-	-	3,862,791.84	25.7200	27.6070
5/31/2019	3,862,791.84	530,843.22			4,393,635.06	(432,172.34)	-	-	3,961,462.72	26.6829	36.6735
6/30/2019	3,961,462.72	1,367,137.72			5,328,600.44	(1,320,661.53)	-	-	4,007,938.91	25.4918	22.5720
7/31/2019	4,007,938.91	1,139,607.14			5,147,546.05	(1,263,854.58)	3,364.54	284,593.75	4,171,649.76	25.3736	24.9665
8/31/2019	4,171,649.76	269,359.37			4,441,009.13	(955,854.44)	-	-	3,485,154.69	26.3730	0.0000
9/30/2019	3,485,154.69	206,743.13			3,691,897.82	(1,130,884.16)	-	-	2,561,013.66	27.9375	0.0000
10/31/2019	2,561,013.66	202,911.36			2,763,925.02	(744,543.52)	-	-	2,019,381.50	30.1510	0.0000
11/30/2019	2,019,381.50	207,657.09			2,227,038.59	(1,599,154.59)	-	-	627,884.00	33.2514	0.0000
12/31/2019	627,884.00	195,891.22			823,775.22	(167,374.68)	(656,400.54)	-	0.00	43.6255	0.0000
	5,731,937.47	6,834,359.75	0.00	0.00		(12,716,697.54)	(706,443.43)	856,843.75	0.00		

MONTH	BEG TOTAL \$	PURCH TOTAL \$	ADJUST TOTAL \$	TRANSF OUT TOTAL \$	SUBTOTAL TOTAL \$	BURNED TOTAL \$	BURN INV ADJ TOTAL \$	INTRANSIT TOTAL \$	END TOTAL \$	WTD AVG \$/TON	MONTH \$/TON
1/31/2019	8,499,589.75	239,346.31	-	-	8,738,936.06	(1,506,434.95)	-	473,777.41	7,706,278.52	39.5972	40.3116
2/28/2019	7,706,278.52	1,226,491.55	-	-	8,932,770.07	(2,022,606.20)	(78,719.63)	479,037.10	7,310,481.34	37.9361	0.0000
3/31/2019	7,310,481.34	1,206,563.03	-	-	8,517,044.37	(2,580,962.45)	-	-	5,936,081.92	37.6946	39.7524
4/30/2019	5,936,081.92	1,230,485.68	-	-	7,166,567.60	(1,433,559.07)	-	-	5,733,008.53	38.1727	40.6608
5/31/2019	5,733,008.53	714,827.62	-	-	6,447,836.15	(634,229.82)	-	-	5,813,606.33	39.1582	49.3842
6/30/2019	5,813,606.33	2,148,181.29	-	-	7,961,787.62	(1,973,278.19)	-	-	5,988,509.43	38.0888	35.4674
7/31/2019	5,988,509.43	1,727,343.91	-	-	7,715,853.34	(1,894,437.00)	5,043.23	480,301.41	6,306,760.98	38.0334	37.8426
8/31/2019	6,306,760.98	273,375.12	-	-	6,580,136.10	(1,416,265.09)	-	-	5,163,871.01	39.0762	0.0000
9/30/2019	5,163,871.01	206,743.13	-	-	5,370,614.14	(1,645,097.95)	-	-	3,725,516.19	40.6407	0.0000
10/31/2019	3,725,516.19	202,911.36	-	-	3,928,427.55	(1,058,236.59)	-	-	2,870,190.96	42.8543	0.0000
11/30/2019	2,870,190.96	212,507.90	-	-	3,082,698.86	(2,213,574.41)	-	-	869,124.45	46.0271	0.0000
12/31/2019	869,124.45	195,891.22	-	-	1,065,015.67	(216,389.87)	(848,625.80)	-	(0.00)	56.4011	0.0000
	8,499,589.75	9,584,668.12	0.00	0.00		(18,595,071.59)	(922,302.20)	1,433,115.92	(0.00)		

Burn A

**EMPIRE DISTRICT ELECTRIC COMPANY
INVENTORY WORKSHEET
2019**

ASBURY - BLENDED COAL									
MONTH	BEG TONS	PURCH TONS	TRANSF IN TONS	TRANSF OUT TONS	SUBTOTAL TONS	BURNED TONS	BURN INV ADJ TONS	INTRANSIT TONS	END TONS
1/31/2019	1,009.800	0.000			1,009.800	(37.100)			972.700
2/28/2019	972.700	803.540			1,776.240	(448.380)			1,327.860
3/31/2019	1,327.860	5,531.270			6,859.130	(3,302.960)			3,556.170
4/30/2019	3,556.170	5,085.480			8,641.650	(2,970.650)			5,671.000
5/31/2019	5,671.000	15,577.980			21,248.980	(1,208.506)			20,040.474
6/30/2019	20,040.474	510.900			20,551.374	(3,818.438)			16,732.936
7/31/2019	16,732.936	3,111.880			19,844.816	(3,105.800)	(144.160)		16,594.856
8/31/2019	16,594.856	3,620.140			20,214.996	(2,360.620)			17,854.376
9/30/2019	17,854.376	334.140			18,188.516	(2,956.340)	(8.260)		15,223.916
10/31/2019	15,223.916	3,488.790			18,712.706	(1,426.760)			17,285.946
11/30/2019	17,285.946	1,369.350			18,655.296	(3,801.160)			14,854.136
12/31/2019	14,854.136	0.000			14,854.136	(728.220)	(14,125.916)		0.000
	1,009.800	39,433.470	0.000	0.000		(26,164.934)	(14,278.336)	0.000	0.000

2

MONTH	BEG INITIAL \$	PURCH INITIAL \$	TRANSF IN INITIAL \$	TRANSF OUT INITIAL \$	SUBTOTAL INITIAL \$	BURNED INITIAL \$	BURN INV ADJ INITIAL \$	INTRANSIT INITIAL \$	END INITIAL \$	WTD AVG \$/TON	MONTH \$/TON
1/31/2019	82,803.60	0.00			82,803.60	(3,042.20)	-		79,761.40	82.0000	0.0000
2/28/2019	79,761.40	65,890.28			145,651.68	(36,767.16)	-		108,884.52	82.0000	82.0000
3/31/2019	108,884.52	453,564.14			562,448.66	(270,842.72)	-		291,605.94	82.0000	82.0000
4/30/2019	291,605.94	408,585.21			700,191.15	(240,697.51)	-		459,493.64	81.0252	80.3435
5/31/2019	459,493.64	1,082,557.21			1,542,050.85	(87,702.01)	-		1,454,348.84	72.5706	69.4928
6/30/2019	1,454,348.84	44,443.62			1,498,792.46	(278,475.25)	-		1,220,317.21	72.9291	86.9908
7/31/2019	1,220,317.21	284,142.48			1,504,459.69	(235,454.42)	(10,928.94)		1,258,076.33	75.8112	91.3089
8/31/2019	1,258,076.33	289,726.39			1,547,802.72	(180,745.83)	-		1,367,056.89	76.5671	80.0318
9/30/2019	1,367,056.89	20,558.91			1,387,615.80	(225,541.54)	(677.32)		1,161,396.94	76.2908	61.5278
10/31/2019	1,161,396.94	287,902.00			1,449,298.94	(110,502.56)	-		1,338,796.38	77.4500	82.5220
11/30/2019	1,338,796.38	95,303.16			1,434,099.54	(292,208.85)	-		1,141,890.69	76.8736	69.5974
12/31/2019	1,141,890.69	(9,095.16)			1,132,795.53	(55,535.00)	(1,077,260.53)		0.00	76.2613	0.0000
	82,803.60	3,023,578.24	0.00	0.00		(2,017,515.05)	(1,088,866.79)	0.00	0.00		

MONTH	BEG FREIGHT \$	PURCH FREIGHT \$	TRANSF IN FREIGHT \$	TRANSF OUT FREIGHT \$	SUBTOTAL FREIGHT \$	BURNED FREIGHT \$	BURN INV ADJ FREIGHT \$	INTRANSIT FREIGHT \$	END FREIGHT \$	WTD AVG \$/TON	MONTH \$/TON
1/31/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
2/28/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
3/31/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
4/30/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
5/31/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
6/30/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
7/31/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
8/31/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
9/30/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
10/31/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
11/30/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
12/31/2019	0.00	0.00			0.00	-	-		0.00	0.0000	0.0000
	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00		

MONTH	BEG TOTAL \$	PURCH TOTAL \$	TRANSF IN TOTAL \$	TRANSF OUT TOTAL \$	SUBTOTAL TOTAL \$	BURNED TOTAL \$	BURN INV ADJ TOTAL \$	INTRANSIT TOTAL \$	END TOTAL \$	WTD AVG \$/TON	MONTH \$/TON
1/31/2019	82,803.60	-	-	-	82,803.60	(3,042.20)	-	-	79,761.40	82.0000	0.0000
2/28/2019	79,761.40	65,890.28	-	-	145,651.68	(36,767.16)	-	-	108,884.52	82.0000	82.0000
3/31/2019	108,884.52	453,564.14	-	-	562,448.66	(270,842.72)	-	-	291,605.94	82.0000	82.0000
4/30/2019	291,605.94	408,585.21	-	-	700,191.15	(240,697.51)	-	-	459,493.64	81.0252	80.3435
5/31/2019	459,493.64	1,082,557.21	-	-	1,542,050.85	(87,702.01)	-	-	1,454,348.84	72.5706	69.4928
6/30/2019	1,454,348.84	44,443.62	-	-	1,498,792.46	(278,475.25)	-	-	1,220,317.21	72.9291	86.9908
7/31/2019	1,220,317.21	284,142.48	-	-	1,504,459.69	(235,454.42)	(10,928.94)	-	1,258,076.33	75.8112	91.3089
8/31/2019	1,258,076.33	289,726.39	-	-	1,547,802.72	(180,745.83)	-	-	1,367,056.89	76.5671	80.0318
9/30/2019	1,367,056.89	20,558.91	-	-	1,387,615.80	(225,541.54)	(677.32)	-	1,161,396.94	76.2908	61.5278
10/31/2019	1,161,396.94	287,902.00	-	-	1,449,298.94	(110,502.56)	-	-	1,338,796.38	77.4500	82.5220
11/30/2019	1,338,796.38	95,303.16	-	-	1,434,099.54	(292,208.85)	-	-	1,141,890.69	76.8736	69.5974
12/31/2019	1,141,890.69	(9,095.16)	-	-	1,132,795.53	(55,535.00)	(1,077,260.53)	-	0.00	76.2613	0.0000
	82,803.60	3,023,578.24	0.00	0.00		(2,017,515.05)	(1,088,866.79)	0.00	0.00		

Burn B

Jan > 5%
Feb
Mar
Apr

TO: Fuel Accountant - General Accounting
 Fuel Contracts Manager - Energy Supply

December 2019

FROM: Mr. David Eaton, Asbury Plant Manager

	Unit No. 1
Unit 1 Gen. MW Meter	7647
Start Up	1490
M1 (AQCS Aux)	771
Total Net Generation Unit 1	5386

Generation Per Unit	7647
Auxiliaries - MW	660
Gross Generation Per Unit	8307
Total Gross Generation - MW	8307

COAL	BEGINNING INVENTORY	TONS RECEIVED	Inventory Adjustment	TONS BURNED	ENDING INVENTORY
PEABODY	18,883.401	-	(15,046.78)	3,836.625	0.000
Tires	-	-		-	0.000
Blend Coal - 1	14,854.336	-	(14,126.12)	728.220	0.000
TOTAL	33,737.737	-	(29,172.89)	4,564.845	0.000

① *

② *

OIL	LEVEL	GALLONS
Oil Beginning of the Month	11 ft. 10 in.	29,583
OIL PURCHASED		-
SUBTOTAL (in Gallons)		29,583
BURNED IN HANDLING EQUIPMENT		441.3
BURNED IN GENERATION		9,767
TOTAL BURNED (in Gallons)		10,208
Oil EOM	7 ft. 9 in.	19,375

③

* Adjustment amounts vary slightly, but difference is immaterial.

Memorandum

To: Kelsey Anderson, Fuel Accountant

From: David Eaton, Asbury Plant Manager

D E

Date: 1/7/2020

RE: Asbury coal inventory

In my professional judgment, as of 12/31/2019, there is insufficient recoverable coal inventory to start the unit. The coal that remains in both the PRB and blend piles has too much clay and/or rock mixed in to be considered a viable coal for combustion.