SUPPLEMENT "A"

CERTIFICATION FOR EMPLOYMENT OPPORTUNITIES PROGRAMS

FOR MINORITIES AND VETERANS

I. EQUAL OPPORTUNITY CLAUSE SUPPLEMENT TO CONTRACTS AND PURCHASE ORDERS

A. The Sabine Mining Company (hereinafter called "Contractor") is aware of and is fully informed of Contractor's responsibilities under Executive Order 11246 and shall file compliance reports as required by Section 203 of Executive Order 11246 and otherwise comply with the requirements of such order.

B. Contractor agrees to the following provisions of Section 202 of Executive Order 11246:

1. Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin. Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex or national origin. Such action shall include but not be limited to the following: Employment, upgrading, demotion or transfer; recruit or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

2. Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

3. Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. Contractor will comply with all provisions of Executive Order No. 11246 and of the rules, regulations and relevant orders of the Secretary of Labor.

5. Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965 and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.

6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of Executive Order No. 11246 or with any of such rules, regulations or orders, contracts issued subject thereto may be canceled, terminated or suspended, in whole or in part, and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965 or by rule, regulation or order of the Secretary of Labor or as otherwise provided by law.

7. Contractor will include the provisions of Paragraphs 1 through 7 in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor, issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. Contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event Contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

C. Certification of Nonsegregated Facilities

Contractor certifies that (1) segregated facilities are not and will not be maintained or provided for its employees at any of its establishments, (2) such employees are not and will not be permitted to perform their services at any location under its control where segregated facilities are maintained, and (3) Contractor is aware of and understands that any breach of the foregoing is a violation of the Equal Opportunity Clause of Executive Order 11246. "Segregated Facilities" as used herein means any waiting rooms, work areas,

rest rooms and wash rooms, restaurants and other eating rooms, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, religion, color or national origin, because of habit, local customs or otherwise.

Contractor further agree, except where it has obtained identical certifications from proposed subcontractors for specific time periods, that it will (1) obtain identical certifications from proposed subcontractors for specific time periods, (2) obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding $10,000, which are not exempt from the provisions of the Equal Opportunity Clause, (3) retain such certifications in its files, and (4) forward the following notice to prospective subcontractors:

> "NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATION OF NONSEGREGATED FACILITIES. A Certificate of Nonsegregated Facilities, as required by Section 60-1.8 of Title 41 of the Code of Federal Regulations, must be submitted prior to the award of a subcontract exceeding $10,000 which is not exempt from the provisions of the Equal Opportunity Clause. The certification may be submitted either for each subcontract or for all subcontracts during a specified period, i.e., quarterly, semi-annually or annually.
>
> NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001."

II. STANDARD FORM 100 (EEO-1) AND AFFIRMATIVE ACTION PROGRAM

Contractor agrees as follows:

1. To file a complete and accurate report on Standard Form 100 (EEO-1) within thirty (30) days of the date of contract or purchase order award unless such a report has been filed in the last twelve (12) months and agrees to file such reports annually, as required by Section 60-1.7 of Title 41 of the Code of Federal Regulations; and

2. Affirms that it has developed and is maintaining currently an affirmative action program at each of its establishments, as prescribed in Section 60-1.40 of Title 41 of the Code of Federal Regulations, or that it will be within 120 days of receipt of any contract or purchase order of $50,000 or more.

III. THE VIETNAM ERA VETERAN'S READJUSTMENT ASSISTANCE ACT OF 1974

If the value of any contract or purchase order is $10,000 or more, the Contractor agrees and certifies that it is and will remain in compliance with the affirmative action in the employment and advancement of qualified disabled veterans of the Vietnam era. The contract clause is incorporated herein by reference.

IV. THE REHABILITATION ACT OF 1973

If the value of any contract or purchase order is $2,500 or more, Contractor agrees and certifies that it is and will remain in compliance with the affirmative action clause set forth in 41 CFR 60-741.4 (to employ and advance in employment qualified handicapped individuals) and incorporated herein by reference.

Dated this _____ day of _____,2008.

THE SABINE MINING COMPANY

By:_____
Rick J. Ziegler
President

Area of Mutual Interest

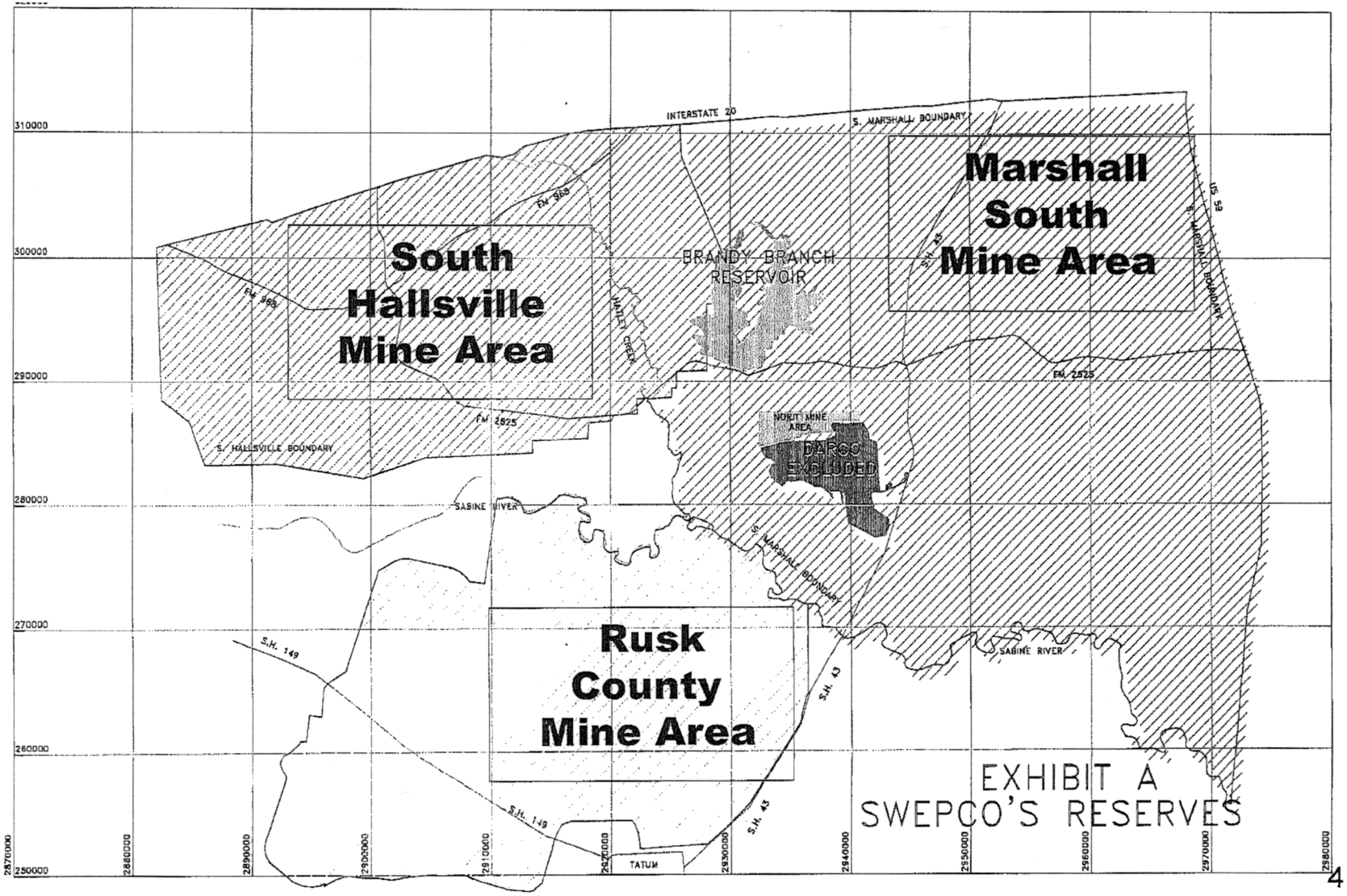


EXHIBIT "B"
MANAGEMENT FEE ESCALATION EXAMPLE

Management Fee –pursuant to Article IX, Section 2(c) and Section 2(d):

Fee/Ton <= 2.8 mmtpy	$1.0250
Fee/Ton > 2.8 mmtpy	$0.8546

Establishment of relationship between 1996=100 Base Indexes and 2000=100 Base Indexes

Conversion Table:

Avg. Qtr. 4 2002 and Qtrs. 1-2 2003 (1996=100) / Base Index (Avg. Qtr. 4 2001, Qtr. 1-3 2002 1996=100)	=	111.78 / 110.29	=	1.0135	(Escalation through Qtr. 2 2003)
Avg. Qtr. 4 2002 and Qtrs. 1-2 2003 (2000=100)	=	105.04		[(104.556+105.146+105.427)/3]	
New Base Index Average (2000=100)	=	105.04 / 1.0135	=	**103.646**	

IPDGDP	Year	Base Index (1996=100)	Year	Base Index (1996=100)	Base Index (2000=100)	Year	Base Index (2000=100)
Qtr. 4	2001	**109.78**	2002	111.25		2002	104.556
Qtr. 1	2002	**110.14**	2003	111.90		2003	105.146
Qtr. 2	2002	**110.48**	2003	112.18		2003	105.427
Qtr. 3	2002	**110.76**	2003			2003	105.851
	Total	**441.16**		**335.33**			**420.98**
	Avg.	**110.29**		**111.78**	**103.646**		**105.245**

Year-End adjustment based on average of Qtr. 4 2002 & Qtrs. 1-3 2003:

Adjustment Factor	105.25 / 103.646	=	1.0154

Base Management Fee Per Ton Beginning January 1, 2003

Adjusted Fee/Ton <= 2.8 mmtpy	$1.0250	*	1.0154	=	$1.0408
Adjusted Fee/Ton > 2.8 mmtpy	$0.8546	*	1.0154	=	$0.8678

December 2003 Adjustment=

2003 Delivered Tonnage	**Jan-Nov**	**December**	**Annual**
Pirkey	3,473,205	378,654	3,851,859
Norit	258,180	24,077	282,257
Management Fee Invoiced (Pirkey) as of 11/30/2003 =			**$3,445,321.02**
2003 Adjusted Management Fee = ((2,800,000*$1.0408)+(3,851,859-2,800,000)*$0.8678)) =			$3,827,043.24
December 2003 Management Fee (Pirkey)			**$381,722.22**
Management Fee Invoiced (Norit) as of 11/30/2003 =			**$264,634.53**
2003 Adjusted Management Fee = (282,257*$1.0408)			$293,773.09
December 2003 Management Fee (Norit)			**$29,138.56**

EXHIBIT "C"

POST - PRODUCTION
MANAGEMENT FEE SCHEDULE

POST-PRODUCTION PERIOD	POST-PRODUCTION MANAGEMENT FEE (DOLLARS)	
	PER MONTH	ANNUAL
YEAR 1	80,000	960,000
YEAR 2	80,000	960,000
YEAR 3	8,333	100,000
YEAR 4	4,167	50,000
YEAR 5	3,333	40,000
YEAR 6	833	10,000
ALL ADDITIONAL YEARS	833	10,000

EXHIBIT "D"

GENERAL AND ADMINISTRATIVE COST ADJUSTMENT EXAMPLE

Corporate G&A – Beginning January 1, 2003 pursuant to Article IX, Section 2 (a)(iii):
$668,430.00

Establishment of relationship between 1996=100 Base Indexes and 2000=100 Base Indexes

Conversion Table:

Avg. Qtr 4 2002 and Qtrs 1-2 2003 (1996=100) = 111.78 = 1.0135
Base Index (Avg. Qtr 4 2001, Qtrs 1-3 2002 1996=100) 110.29 (Escalation through Qtr 2 2003)

Avg. Qtr 4 2002 and Qtrs 1-2 2003 (2000=100) = 105.04

New Base Index Average (2000=100) = 105.04 / 1.0135 = 103.646

IPDGDP	Year	Base Index (1996=100)	Year	Base Index (1996=100)	Base Index (2000=100)	Year	Base Index (2000=100)
Qtr 4	2001	109.78	2002	111.25		2002	104.556
Qtr 1	2002	110.14	2003	111.90		2003	105.146
Qtr 2	2002	110.48	2003	112.18		2003	105.427
Qtr 3	2002	110.76	2003			2003	105.851
	Total	**441.16**		**335.33**			**420.98**
	Avg	**110.29**		**111.78**	**103.646**		**105.245**

Year-end adjustment based on average of Qtr. 4 2002 & Qtrs 1-3 2003:

Adjustment Factor

105.25 / 103.646	=	1.0154

Base Corporate G&A beginning January 1, 2004:

Adjusted Corporate G&A $668,430.00 * 1.0154 = $678.723.82

December 2003 Adjustment =

Corporate G&A invoiced as of 11/30/2003 $612,727.50

December 2003 Corporate G&A = **$ 65,996.32**

EXHIBIT "E"

INVOICE CALCULATION PROCEDURE FOR LIGNITE DELIVERED BY SABINE FOR USE AT SWEPCO'S PLANT

January through November Invoices

The amount of SABINE's invoice for lignite delivered by SABINE for use at SWEPCO's Plant shall be determined in accordance with the following formula:

$$I = B_{A\,(current\,month)} \times \frac{\sum_{January}^{current\ month} CPLL_A + \sum_{future\ month\,(s)}^{December} CPLL_P}{\sum_{January}^{current\ month} B_A + \sum_{future\ month\,(s)}^{December} B_P} + \left(MF \times T_{A\,(current\,month)} \right)$$

Where:

past month(s) = the month(s) preceding the month under consideration

current month = the month under consideration

future month(s) = the remaining month(s) of the current year

I = Invoice amount for the current month (expressed in Dollars ($)) for lignite delivered by SABINE for use at SWEPCO's Plant

$CPLL_A$ = Actual monthly Cost of Production (as defined in Article IX, Section 2(a) of the RLMA) plus actual monthly Loan and Lease Obligations (as defined in Article I, clause (s) of the RLMA) (expressed in Dollars ($)) plus deferral balances from previous months for lignite delivered by SABINE for use at SWEPCO's Plant.

$CPLL_P$ = Projected monthly Cost of Production (as defined in Article IX, Section 2(a) of the RLMA) plus projected monthly Loan and Lease Obligations (as defined in Article I, clause (s) of the RLMA) for lignite delivered by SABINE for use at SWEPCO's Plant, which amounts shall be updated by SABINE each month to reflect SABINE's best estimate of the Cost of Production and Loan and Lease Obligations to be incurred by SABINE during the balance of the current year (expressed in Dollars ($)) for lignite delivered by SABINE for use at SWEPCO's Plant

B_A = Actual mmBtus (as defined in Article I, clause (w) of the RLMA) of lignite delivered by SABINE for use at SWEPCO's Plant during the month(s) under consideration

B_P = Projected monthly mmBtus (as defined in Article I, clause (w) of the RLMA) of lignite to be delivered by SABINE for use at SWEPCO's Plant during the balance of the current year, which amounts shall be updated by SABINE from time to time to reflect SABINE's best estimate of the mmBtus of lignite to be delivered by SABINE for use at SWEPCO's Plant during the balance of the current year

MF = Management Fee (as defined in Article IX, Section 2(c) of the RLMA) (expressed in Dollars ($) per Ton) for lignite delivered by SABINE for use at SWEPCO's Plant

T_A = Actual Tons (as defined in Article I, clause (nn) of the RLMA) of lignite delivered by SABINE for use at SWEPCO's Plant during the month under consideration

December Invoice

For the month of December of each year, the amount of SABINE's invoice for lignite delivered by SABINE for use at SWEPCO's Plant shall be determined in accordance with the following formula:

$$I = \left(\sum_{January}^{December} CPLL_A - \sum_{January}^{November} PI \right) + \left(MF \times T_A \right)$$

where:

I = Invoice amount (expressed in Dollars ($)) for lignite delivered by SABINE for use at SWEPCO's Plant

$CPLL_A$ = Actual monthly Cost of Production (as defined in Article IX, Section 2(a) of the RLMA) plus actual monthly Loan and Lease Obligations (as defined in Article I, clause (ss) of the RLMA) (expressed in Dollars ($)) for lignite delivered by SABINE for use at SWEPCO's Plant

PI = Prior monthly invoice amounts (excluding Management Fee) for the current year (expressed in Dollars ($)), plus deferral balances from previous months, for lignite delivered by SABINE for use at SWEPCO's Plant

MF = Management Fee (as defined in Article IX, Section 2(c) of the RLMA) (expressed in Dollars ($) per Ton) for lignite delivered by SABINE for use at SWEPCO's Plant

T_A = Actual Tons (as defined in Article I, clause (nn) of the RLMA) of lignite delivered by SABINE for use at SWEPCO's Plant during the month of December

All of the figures used in the above described calculations shall be taken from the then most current Normalized Cash Flow Summary prepared by SABINE.

Two examples of this levelized billing method are set forth below. The numbers assumed in these examples and the tables referenced therein are for illustrative purposes only and are not intended to relate to actual circumstances or to be used in actual calculations.

EXAMPLE CALCULATION
FOR THE MONTH OF JANUARY

Assume the figures in Table 1 to Exhibit E are taken from the most current Normalized Cash Flow Summary prepared by SABINE for the year under consideration and assume a Management Fee of $1.01 per Ton for the Tons delivered by SABINE for use at SWEPCO's Plant in January.

As shown in Table 1:

$$\sum_{January}^{January} CPLL_A = \$5,087,705$$

Where $CPLL_A$ = Actual monthly Cost of Production plus actual monthly Loan and Lease Obligations plus deferral balances for lignite delivered by SABINE for use at SWEPCO's Plant

$$\sum_{February}^{December} CPLL_P = \$46,357,675$$

Where $CPLL_P$ = Projected monthly Cost of Production plus projected monthly Loan and Lease Obligations for lignite delivered by SABINE for use at SWEPCO's Plant

$$\sum_{January}^{January} B_A = 4,920,411\ mmBtus$$

Where B_A = Actual mmBtus of lignite delivered by SABINE for use at SWEPCO's Plant

$$\sum_{February}^{December} B_P = 44,835,909\ mmBtus$$

Where B_P = Projected monthly mmBtus of lignite to be delivered by SABINE for use at SWEPCO's Plant

$T_{A\ (January)}$ = 364,313 Tons

Where T_A = Actual Tons of lignite delivered by SABINE for use at SWEPCO's Plant

For the months of January through November of each year, the amount of SABINE's invoice for lignite delivered by SABINE for use at SWEPCO's Plant is determined in accordance with the following formula:

$$I = B_{A\ (current\ month)} \times \frac{\sum_{January}^{current\ month} CPLL_A + \sum_{future\ month\ (s)}^{December} CPLL_P}{\sum_{January}^{preceding\ month} B_A + \sum_{future\ month\ (s)}^{December} B_P} + \left(MF \times T_{A\ (current\ month)} \right)$$

$$I = 4{,}920{,}411\ mmBtus \times \frac{\$5{,}087{,}705 + \$46{,}357{,}675}{4{,}920{,}411\ mmBtus + 44{,}835{,}909\ mmBtus} + \left(\$1.01/Ton \times 364{,}313\ Tons \right)$$

$$= \$5{,}456{,}317$$

EXHIBIT "E"

EXAMPLE CALCULATION
FOR THE MONTH OF DECEMBER

Assume the figures in Table 1 to Exhibit E are taken from the most current Normalized Cash Flow Summary prepared by SABINE for the year under consideration and assume a Management Fee of $0.84 per Ton for the Tons delivered by SABINE for use at SWEPCO's Plant in December.

As shown in Table 1:

$$\sum_{January}^{December} CPLL_A = \$54,951,387$$

Where $CPLL_A$ = Actual monthly Cost of Production plus actual monthly Loan and Lease Obligations for lignite delivered by SABINE for use at SWEPCO's Plant

$$\sum_{January}^{November} PI = \$49,606,335$$

Where PI = Prior monthly invoice amounts (excluding Management Fee) for the current year, plus deferral balances from previous months, for lignite delivered by SABINE for use at SWEPCO's Plant

T_A = 332,500 *Tons*

Where T_A = Actual Tons of lignite delivered by SABINE for use at SWEPCO's Plant in December

For the month of December of each year, the amount of SABINE's invoice for lignite delivered by SABINE for use at SWEPCO's Plant is determined in accordance with the following formula:

$$I = \left(\sum_{January}^{December} CPLL_A - \sum_{January}^{November} PI \right) + \left(MF \times T_A \right)$$

$$I = \$54,951,387 - \$49,606,335 + \left(\$0.84 / Ton \times 332,500\ Tons \right)$$

$$= \$5,638,423$$

Table 1 to Exhibit "E"

January Calculation	Tons	BTUS	Invoice Amt.	$/mmBtu	Mgmt Fee	Deferral Balance	Actual Cost	Inv. Amt (w/o Fee)	$/mmBtu
Annual Forecast	3,716,400	49,756,320	55,051,587.00	$1.11	3,806,207.00	0.00	51,445,380.00	51,445,380.00	$1.03
January Actual	364,313	4,920,411	5,456,316.86	$1.11	368,611.89	1,373,284.13	3,714,420.84	5,087,704.97	$1.03
Feb - Dec Forecast	3,352,087	44,835,909	49,595,270.14		3,237,595.11	(1,373,284.13)	47,730,959.16	46,357,675.03	

Jan Btus	4,920,411
Annual Prod Cost/Annual Btus	$ 1.03
January Prod Cost	5,087,705
January Mgmt Fee	368,612
Total January Invoice	5,456,317

December Calculation	Tons	BTUS	Invoice Amt.	$/mmBtu	Mgmt Fee	Deferral Balance	Actual Cost	Inv. Amt (w/o Fee)	$/mmBtu	
January	364,313	4,920,411	$5,456,316.86	$1.11	$368,611.89	$1,373,284.13	3,714,420.84	5,087,704.97	$1.03	364,313
February	318,950	4,300,084	$4,769,000.36	$1.11	$322,713.61	($691,561.10)	5,137,847.85	$4,446,286.75	$1.03	683,263
March	334,059	4,444,321	$4,920,095.79	$1.11	$338,000.90	($349,410.38)	4,931,505.27	$4,582,094.89	$1.03	1,017,322
April	169,780	2,241,775	$2,476,325.22	$1.10	$171,763.40	($1,752,097.89)	4,056,642.71	$2,304,544.82	$1.03	1,187,102
May	314,146	4,221,494	$4,606,890.77	$1.09	$317,852.92	($920,556.60)	5,209,594.45	$4,289,037.85	$1.02	1,501,248
June	354,259	4,711,645	$5,258,549.75	$1.12	$358,439.26	($784,024.75)	5,684,135.24	$4,900,110.49	$1.04	1,855,507
July	347,347	4,591,927	$5,090,314.70	$1.11	$351,445.69	($415,028.17)	5,153,897.18	$4,738,869.01	$1.03	2,202,854
August	374,076	4,908,625	$5,355,836.13	$1.09	$378,490.10	$104,922.37	4,872,423.66	$4,977,346.03	$1.01	2,576,930
September	309,328	4,026,832	$4,417,927.14	$1.10	$298,478.10	$200,872.28	3,918,576.76	$4,119,449.04	$1.02	2,886,258
October	337,400	4,583,127	$5,326,919.00	$1.17	$284,864.00	$1,079,594.00	3,962,661.00	$5,042,255.00	$1.10	3,223,658
November	339,111	4,632,250	$5,404,744.00	$1.17	$285,108.00	$967,117.00	4,151,519.00	$5,116,636.00	$1.10	
	3,562,769	47,562,491	$53,082,922.72		$3,476,567.87	($1,186,889.11)	$50,793,223.96	$49,606,334.85		
December	347,719	4,800,426	$5,638,423.00	$1.17	$293,370.52	$1,186,889.11	4,158,163.37	$5,345,052.48	$1.11	
	3,910,488	52,362,917	$58,721,345.72	$1.12	$3,769,938.39	$0.00	$54,951,387.33	$54,951,387.33	$1.05	

Jan-Nov Invoiced Cost	$49,606,335
Jan-Dec Invoiced Cost	$54,951,387
December Invoiced Cost	$5,345,052
December Mgmt Fee	$293,371
Total December Invoice	$5,638,423

October through December are estimates but for purposes of the calculation they will be used as actual.

Notes: Actual Cost equals Invoice Amount less Management Fee less Deferral Balance
Production Cost equals Invoice Amount less Management Fee
Invoice Amount includes Deferral Balance

EXHIBIT "F"

POST-PRODUCTION PERIOD
GENERAL AND ADMINISTRATIVE COSTS SCHEDULE

POST-PRODUCTION PERIOD	POST-PRODUCTION PERIOD GENERAL AND ADMINISTRATIVE COSTS (DOLLARS) PER MONTH	ANNUAL
YEAR 1	52,500	630,000
YEAR 2	52,500	630,000
YEAR 3	52,500	630,000
YEAR 4	26,250	315,000
YEAR 5	13,125	157,500
YEAR 6	13,125	157,500
ALL ADDITIONAL YEARS	13,125	157,500

EXHIBIT "G"
EXAMPLE CALCULATION OF TERMINATION FEE

If SWEPCO terminates this Agreement pursuant to **Article XX, Section 2** and the reason therefor is not because of a SABINE Default, or is not due to a shutdown of the Mine because of economic reasons, and SWEPCO mines, or causes to be mined, within two (2) years thereafter lignite from SWEPCO's Reserves, then North American Coal shall be entitled to a Termination Fee determined in accordance with the following table, subject to adjustment as hereinafter provided:

TERMINATION EFFECTIVE DATE:				
2009	2010	2011	2012	2013 and Beyond
TERMINATION FEE:				
$24 Million	$20 Million	$16 Million	$12 Million	$8 Million

Commencing January 1, 2010, the Termination Fee shall be adjusted effective as of January 1, April 1, July 1, and October 1 of each year based on the percentage change in the value of the IPD-GDP Index from the fourth calendar quarter of 2008.

Example Calculation

Assumptions: Termination Effective Date is July 31, 2012 and recommencement of mining is October 15, 2013

Termination Fee for Year 2012: $12,000,000.00

IPD-GDP Index (2000=100) for 4th Quarter 2008: 123.122

IPD-GDP Index (2000=100) for 2nd Quarter 2013: 139.050

Adjustment Factor: $\frac{139.050}{123.122} = 1.129$

Termination Fee for Year 2012: $12,000,000.00

Adjusted Termination Fee as of October 15, 2013:
$12,000,000.00 x 1.129 = $13,548,000.00 to be paid within sixty (60) days of recommencement of mining, subject to true-up pursuant to Article XX, Section 2, at such time as the final published value of the IPD-GDP Index (2000=100) for the third calendar quarter of 2013 is available.

BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

IN RE: EVALUATION OF SOUTHWESTERN ELECTRIC POWER COMPANY'S DECISION TO RETIRE THE PIRKEY POWER PLANT PURSUANT TO COMMISSION ORDER NO. U-36385-A	:	DOCKET NO. U-37067

DIRECT TESTIMONY OF

JAMES F. MARTIN

FOR

SOUTHWESTERN ELECTRIC POWER COMPANY

JULY 12, 2024

TESTIMONY INDEX

EXHIBITS

EXHIBIT	DESCRIPTION
CONFIDENTIAL EXHIBIT JFM-1	Pirkey Versus Capacity Purchase Agreement (CPA) Cost Comparison

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION IN THE COMPANY, AND BUSINESS ADDRESS.

A. My name is James F. Martin, and I am employed as Director - Resource Planning Strategy for American Electric Power Service Corporation (AEPSC). AEPSC supplies engineering, financing, accounting, planning, and advisory services to the eleven electric operating companies of American Electric Power Company, Inc. (AEP), including Southwestern Electric Power Company (SWEPCO or the Company). My business address is 1 Riverside Plaza, Columbus, Ohio 43215.

Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I graduated from The Ohio State University in 1990, receiving a Bachelor of Science in Business Administration (Accounting Major), and again in 2001 receiving a Master in Business Administration. Between 1990 and 2000, I held various accounting-related positions in private companies and public accounting firms. In 2000, I joined AEPSC as a Senior Accountant in the Corporate Development department. In 2001, I was promoted to Manager of Financial Analysis. In 2003, I became Manager of Strategic Analysis in Corporate Planning and Budgeting. In 2007, I was promoted to Director-Corporate Budgeting and Capital Investments. In August 2010, I became Manager-Regulated Pricing and Analysis in AEP's Regulatory Services department, with responsibility for preparing retail and FERC jurisdictional and class cost of service studies. In 2016, I was promoted to Regulatory Case Manager, with responsibilities including FERC generation and transmission cost of service studies, along with support

for special projects including wind resource additions. In February 2021, I was promoted to my current position in AEP's Resource Planning group.

Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?

A. My responsibilities primarily include preparing and reviewing various resource planning analyses, including integrated resource plans (IRPs) for regulated operating companies in the AEP system. These studies include using outputs from resource optimization modeling software including Aurora and PLEXOS®[1] and spreadsheet models to evaluate resource plan costs and benefits at both operating company and individual jurisdictional levels. Criteria in these evaluations include maintaining compliance with state energy mandates, state and federal emissions regulations, and generating capacity obligations for AEP companies located in both the PJM and the Southwest Power Pool (SPP) Regional Transmission Organizations, among other factors. Other responsibilities include levelized cost of energy analyses, evaluation and rankings of bids submitted into competitive solicitations for capacity and energy resources, and evaluations of costs and benefits of individual generating resources in Certificate of Public Convenience and Need and similar filings. In addition, I prepare custom financial modeling for special projects such as the economic analysis used in

[1] The Aurora model is widely used by utilities for integrated resource and transmission planning, power cost analysis, and detailed generator evaluation. Aurora's database includes a representation of electric generating facilities throughout North America, projections for electric demand, and representation of zonal transmission limits, among other inputs. The inputs can be customized to evaluate specific market regions and utility portfolios in detail across a wide range of uncertainty variables.

PLEXOS® is an energy market simulation model used under license from Energy Exemplar. The model analyzes zonal and nodal energy models ranging from long-term investment planning to medium-term operational planning and down to short-term, hourly, and intra-hourly market simulations. The Company uses the model to formulate long-term resource expansion plans and other types of analyses based on least-cost planning principles, generation dispatch studies, and risk assessments.

the recent renewable resource proposal by the Company and Public Service Company of Oklahoma.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY COMMISSIONS?

A. Yes. I have testified in Louisiana, Texas, Arkansas, Oklahoma, Virginia, West Virginia, and at FERC on behalf of SWEPCO and its AEP affiliates.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. My testimony describes and supports the analysis prepared in 2020 which led to the Company's decision to retire Pirkey. In addition, I will provide information about additional analysis and developments since that analysis was prepared which further support the decision to retire the plant.

Q. PLEASE SUMMARIZE YOUR TESTIMONY AND CONCLUSIONS.

A. My testimony provides a summary of the results of the analysis prepared in 2020 which led to the decision to retire Pirkey, and additional analysis prepared in 2023 which confirmed that decision was the correct one. Both of these analyses demonstrated that retiring Pirkey earlier than previously planned would be less costly than continued operation of the plant. Continued operation of the plant would have necessitated incurring the ongoing cost of operating, maintaining, and investing in the plant, incurring significant and rising fuel costs, and making the Coal Combustion Residuals (CCR) rule and Effluent Limitation Guidelines (ELG) rule compliance investments necessary to keep it operating beyond the deadlines in those rules. That was the case

based on the best information available at the time, and it has been confirmed by further developments since then, including continued low gas and power prices at or near the levels projected in 2020, and more costly environmental regulations finalized by US Environmental Protection Agency (EPA) between 2020 and today.

My conclusions are that the Company's 2020 analysis was appropriate and reasonable based on information available at the time. That fact has been confirmed by developments since then. This supports a finding by this Commission that the Company's decision to retire Pirkey in 2023 was a prudent one.

III. DESCRIPTION OF THE 2020 ANALYSIS AND THE REASONING BEHIND THE PIRKEY RETIREMENT DECISION

Q. PLEASE DESCRIBE THE PIRKEY PLANT.

A. Pirkey was a plant that burned lignite as its fuel source. The fuel was delivered from the nearby Sabine mine operated by the third-party miner Sabine Mining Company, which is a subsidiary of North American Coal Corporation, under a Lignite Mining Agreement (LMA). Pirkey was built in 1985. It operated at high capacity factors for the benefit of SWEPCO's customers for most of its lifetime. In its last years prior to 2020, the cost of fuel had risen significantly at the same time power prices had been sustained at much lower levels, leading to lower capacity factors. It retired in 2023 after an economic analysis prepared in 2020 (the "2020 Analysis"), which was triggered for certain solid fuel plants in the United States by new EPA compliance mandates associated with wastewater and ash treatment. Those regulations are discussed by Company witness Gary O. Spitznogle.

Q. WHAT WAS THE 2020 ANALYSIS?

A. The 2020 Analysis was prepared by AEP to review six coal and lignite plants owned by four operating companies in the AEP system to determine whether the investments needed for compliance with the CCR and ELG rules should be made or not. Analysis of customer economics was performed that accounted for the circumstances at each plant. It was this analysis that led to the decision to retire Pirkey in 2023. AEP elected to make the compliance investments at four of the six plants, including SWEPCO's own Flint Creek Plant and three plants owned by AEP's PJM utility companies.

The 2020 unit disposition analysis included projections under two different fundamental forecasts in which Pirkey operated through 2045, compared to scenarios in which it retired in both 2023 and 2028. I will note that the mine contract would have ended in 2035, so the analysis assumed the contract was extended. In the 2045 retirement scenario, the cost of the CCR and ELG compliance investments was included in the modeling. In the retirement scenarios it was not. The model chose the optimal resources to fill the capacity need created by the retirement of Pirkey. The cumulative net present value (NPV) of costs over a 30-year forecast period were compared, and the determination was made that continued operations of Pirkey would be more expensive than retiring it in either 2023 or 2028. Please see the testimony of SWEPCO witness Spitznogle regarding why the 2028 retirement date did not apply to Pirkey.

Q. WHAT WERE THE FINANCIAL RESULTS OF THE 2020 ANALYSIS WITH RESPECT TO PIRKEY?

A. The March 2023 retirement of Pirkey was compared to a 2045 retirement under two fundamental scenarios. One was based on the AEP 2020 Base With Carbon fundamentals, and the other was based on the AEP 2020 Base No Carbon fundamentals. The NPV and nominal savings to SWEPCO customers resulting from the Pirkey 2023 retirement are summarized in Table 1.

Table 1 - Pirkey 2023 Retirement Savings

Scenario	NET Present Value Savings of No CCR Expenditure over CCR&ELG Expenditure (Amounts in $000)				**Nominal (Undiscounted) Savings - Cumulative through 2045**
	2020-2030 Planning Period	2021-2050 Planning Period	Post-2050 End-Effects Period	Planning Period + End-Effects Period	
Pirkey No Carbon Scenario	154,595	300,928	26,001	326,930	**739,443**
Pirkey Including Carbon Scenario	194,360	452,713	9,663	462,376	**1,167,768**

The lifetime NPV of the savings of avoiding the CCR and ELG compliance costs and other costs of operating the plant saved by retiring Pirkey in 2023 was projected to be $326.9 million in the No Carbon scenario, and $462.4 million in the With Carbon scenario. Almost half of those savings were projected to be in the first ten years. The nominal (undiscounted) savings of these two scenarios was projected to be $739 million in the No Carbon case and $1.168 billion in the With Carbon case. The nominal savings is what customers would actually save on their bills. Keeping Pirkey and the mine operating was not projected to be as economical as retiring them by a wide margin.

Q. WHAT WAS THE PROJECTED COST OF SERVICE AT PIRKEY IN THE 2020 ANALYSIS?

A. See Figure 1 for a summary of the projected costs of Pirkey from 2023 through the previously assumed 2045 retirement date. All these costs were sourced from the spreadsheets that summarize the results and assumptions of the 2020 Analysis.

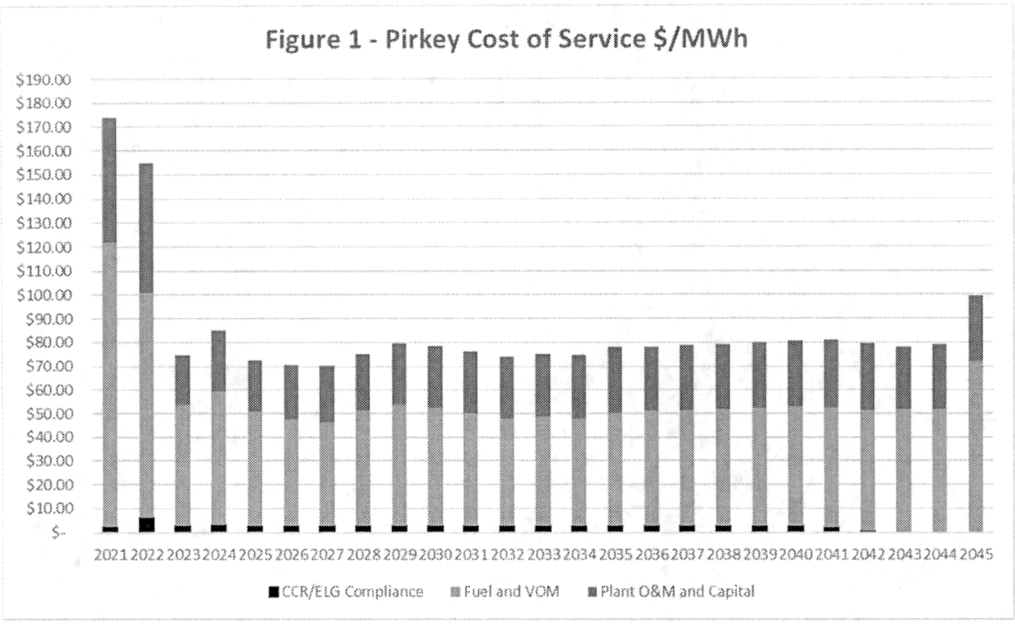


Figure 1 shows that Pirkey would have been a relatively expensive plant to operate in the future. In the No Carbon case shown here, which did not include a carbon emissions tax, the total cost of energy was projected to be around $70-80/MWh from 2023 onward. The higher values in 2021 and 2022 were because the plant was projected to run at a low-capacity factor in those years based on the projected power prices and fuel costs. The carbon emissions tax modeled in the With Carbon scenario would add about $15/MWh to the amounts above.

Based on the compliance cost estimate at the time, the revenue requirements of the CCR and ELG compliance investments was expected to be around $3/MWh. The levelized total fuel and variable operations and maintenance (O&M) cost would have been around $53/MWh. The remainder of the cost was the fixed O&M and ongoing capital cost to operate the plant. Costly fuel and other operating costs were the primary reason the Company decided to retire Pirkey.

Q. WERE PIRKEY'S FIXED AND VARIABLE COSTS IN THE 2020 ANALYSIS AVOIDABLE BY RETIRING THE PLANT?

A. Yes. All avoidable fuel costs, whether considered to be fixed or variable for dispatch purposes, are eliminated by retiring the Plant, so it is appropriate to combine them as one total fuel expense value. Similarly, 100% of the fixed O&M and return on and of the future capital expense at the plant are avoidable as well. Sunk costs such as the existing investment in the Plant cannot be avoided, and thus were excluded from the analysis.

Q. WHAT WERE PIRKEY'S FUEL COSTS THROUGH TIME?

A. See Table 2 for fuel costs at Pirkey through time up through the year in which the retirement decision was made.

TABLE 2 - Pirkey Fuel Cost History *

	Delivered Cost per Ton
2005	20.516
2010	30.963
2015	42.39
2018	41.34
2019	48.72
2020	72.44

* FERC Form 1 page 403.1

As shown here, fuel delivered from the adjacent Sabine Mine went up in cost substantially over time. At the time the retirement decision was made, Pirkey was not as valuable in the energy market as it once was because of fuel cost increases.

Q. COULD PIRKEY HAVE OPERATED THROUGH 2045?

A. Perhaps, but the mining contract would have ended in 2035. It is not likely that the contract would have been extended, or that lignite would have been available at forecasted costs modeled in 2020. The Company prepared the 2020 Analysis as if the mining contract got extended but given the steadily increasing cost of lignite relative to projected power prices, extension of the mining contract is highly questionable as to whether that would have been in the best interest of customers.

IV. 2023 ANALYSIS

Q. PRIOR TO THIS PROCEEDING, HAVE YOU PREPARED ANY OTHER ANALYSIS WHICH CONFIRMED THAT THE 2020 ANALYSIS RESULTED IN THE CORRECT DECISION TO RETIRE PIRKEY?

A. Yes. I prepared an additional analysis for SWEPCO in 2023.

Q. WAS THE COMPANY REQUIRED TO RE-EVALUATE THE PIRKEY RETIREMENT DECISION AFTER THE RETIREMENT ANALYSIS WAS PREPARED?

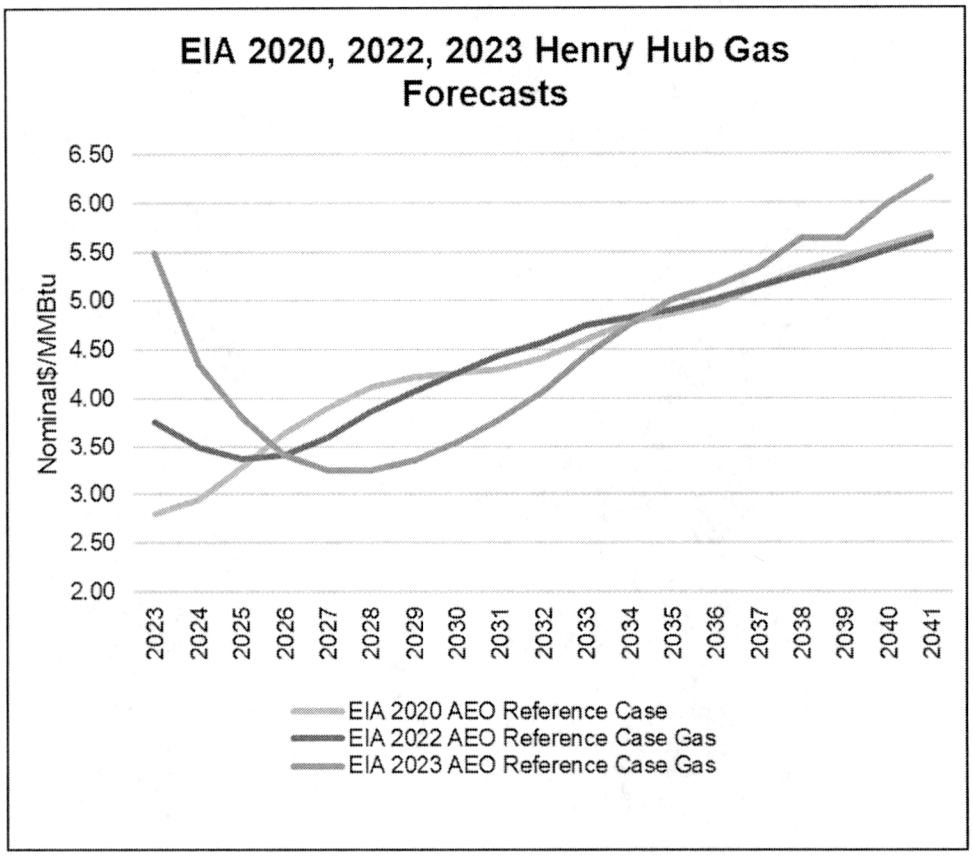
A. No. The 2020 Analysis was based on the best information available to the Company at the time that analysis was conducted, and the retirement decision was communicated to the EPA at the time that compliance decision was due. As discussed by Witness Brice, SWEPCO monitors evolving conditions relevant to the decision to retire a plant and updates the unit disposition analyses when there is a fundamental and long-term change in economic conditions, environmental compliance requirements, or operating characteristics of the generating unit that would merit an updated analysis.

The Company did evaluate the inputs to the 2020 Analysis in early 2023 prior to retiring the plant and found that there were no such long-term changes as it relates to Pirkey. Natural gas and power prices spiked in late 2021 and 2022, but in 2023 returned to levels consistent with the original unit disposition study. Long-term forecasts were and continue to be consistent with those used in the original analysis.

Q. DID THE COMPANY ASSESS THE REASONABLENESS OF THE GAS PRICE FORECAST IN THE 2020 ANALYSIS?

A. Yes. I prepared a comparison of the 2020 Energy Information Administration (EIA) Annual Energy Outlook (AEO) gas price forecast that was used to determine the power prices in the 2020 analysis to the 2022 and 2023 EIA gas price forecasts. The purpose of that comparison was to demonstrate that one of the most important assumptions embedded in the 2020 analysis was still reasonable three years later. Refer to Figure 2 for this comparison.

Figure 1


EIA 2020, 2022, 2023 Henry Hub Gas Forecasts
Nominal$/MMBtu
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
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EIA 2020 AEO Reference Case
EIA 2022 AEO Reference Case Gas
EIA 2023 AEO Reference Case Gas

In the SPP energy markets and in the Company's 2020 fundamentals forecast, power prices are positively correlated with gas prices, so the gas price forecast was very important to the economics of Pirkey. What this figure shows is that for the entire 2026-2034 period, the most recent forecast available in early 2023 was lower than the 2020 forecast by a fair amount. All else equal that would be expected to result in lower power prices and lower levels of dispatch of Pirkey than what had been projected in 2020. Over the entire forecast period, the forecasts were all comparable to each other.

Q. DID YOU COMPARE PIRKEY'S COST OF SERVICE TO OTHER LONG-TERM RESOURCE OPTIONS APPROVED BY THE COMPANY'S STATE REGULATORS?

A. Yes. During 2022, the Company received regulatory approvals to construct the Diversion and Wagon Wheel wind facilities and the Mooringsport solar facility. Those facilities are scheduled to come online in the coming years. I found that based on the economic analysis supporting those regulatory approvals, those three facilities were expected to be $26.31 per MWh less expensive than Pirkey was projected to be, net of benefits in the 2020 analysis. I also found that those renewable resources were less expensive, net of their energy and capacity benefits, than the renewables options available to the model as alternatives to Pirkey in the 2020 modeling. This information also supported the retirement outcome of the 2020 Analysis.

Q. DID YOU ALSO COMPARE PIRKEY'S COST OF SERVICE TO CAPACITY CONTRACTS THAT WERE PUT INTO PLACE WHEN PIRKEY RETIRED IN 2023?

A. Yes. During 2022, the Company entered into contracts for capacity with two gas-fired facilities. These totaled between 200 and 350 MW and covered planning years between 2023 and May of 2027. Pricing of these contracts is confidential and highly sensitive. I prepared CONFIDENTIAL Exhibit JFM-1 which compared those contracts to Pirkey, and found them to be far less expensive than the cost, net of benefits of Pirkey.

Q. WERE CAPACITY CONTRACTS A RESOURCE OPTION IN THE 2020 ANALYSIS?

A. Yes, the same type of capacity contracts that the Company actually entered into in 2022 were available to replace Pirkey, at a very similar cost to what was modeled. The model did in fact select some of that resource as part of an optimal plan to replace Pirkey, so the actual outcome was similar to what had been predicted in 2020.

Q. WHAT OTHER RESOURCES HAVE ALLOWED SWEPCO TO MEET ITS CAPACITY RESERVE REQUIREMENTS AFTER THE RETIREMENT OF PIRKEY?

A. In addition to the CPAs discussed above, in 2022, the Company decided to postpone retiring three of its natural gas units until 2026 to help offset the loss of Pirkey's 580 MW. Those were Lieberman Units 3&4 which totaled 219 MW, and Arsenal Hill Unit 5 which is 111 MW. When compared to the costs of continued operation of Pirkey, these units are affordable to operate relative to the amount of capacity they provide. Since then, these natural gas units' retirement dates have been extended again through May of 2029. SWEPCO has also procured additional PPAs since that time. Between the capacity contracts and the life extensions, the capacity lost when Pirkey retired has been replaced with more affordable capacity.

IV. OTHER RECENT DEVELOPMENTS

Q. ARE THERE OTHER COST PRESSURES WHICH WOULD HAVE IMPACTED PIRKEY HAD THE PLANT NOT RETIRED?

A. Yes. Since the plant retirement announcement was made, the US and world economies have experienced historically high inflation for a sustained period of time. Based on the Producer Price Index (PPI), cumulative inflation over the 2021-2024 period exceeded 20%. It is reasonable to assume this would have had a material upward impact on the cost of mining operations at Sabine and the operating costs of the plant. In addition, many years of low interest rates that Sabine Mining Company benefitted from in financing its mining equipment and working capital came to an end when interest rates increased substantially after the lignite cost forecast used in the 2020 Analysis was prepared. The higher rates continue to be in effect today. Any new financing the mine would have needed to finance its operations either through leasing or buying equipment would have been at a higher cost than what was assumed in the cost of fuel used in the 2020 Analysis.

All of these developments since the Plant retired would do nothing but make Pirkey more expensive to operate than what had been projected in the 2020 Analysis. This supports a finding that retiring that plant was a prudent decision.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.