

American Electric Power

UMWA Postretirement Health Care Plan

**Actuarial Valuation Report
Postretirement Welfare Cost for Fiscal Year
Ending December 31, 2014, under U.S. GAAP**

April 2014

TOWERS WATSON 

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Purpose and actuarial statement

Purposes of valuation

American Electric Power retained Towers Watson Delaware Inc. ("Towers Watson"), to perform an actuarial valuation of its postretirement welfare programs for the purpose of determining the following:

- (1) The value of benefit obligations as of January 1, 2014 and American Electric Power's postretirement welfare cost for fiscal year ending December 31, 2014 in accordance with FASB Accounting Standards Codification Topic 715 (ASC 715-60). It is anticipated that a separate report will be prepared for year-end financial reporting and disclosure purposes.
- (2) Plan reporting information in accordance with FASB Accounting Standards Codification Topic 965 (ASC 965).

This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

Reliances

In preparing the results presented in this report, we have relied upon information regarding plan provisions, participants, claims data, contributions and assets (if any) provided by American Electric Power and other persons or organizations designated by American Electric Power. We have reviewed this information for overall reasonableness and consistency, but have neither audited nor independently verified this information. Based on discussions with and concurrence by the plan sponsor, assumptions or estimates may have been made if data were not available. We are not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations. We have relied on all the information provided as complete and accurate. The results presented in this report are dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data and information provided to us may have produced results that are not suitable for the purposes of this report and such inaccuracies, as corrected by American Electric Power, may produce materially different results that could require that a revised report be issued.

Effects of Health Care Legislation

In March 2010, the Patient Protection and Affordable Care Act (PPACA) and Health Care and Education Reconciliation Act (HCERA) were enacted. The key aspects of the Acts affecting American Electric Power's benefit obligation and cost of providing retiree medical benefits are:

- Availability of subsidies from the Early Retiree Reinsurance Program (ERRP)
- Mandatory coverage for adult children until age 26 beginning in 2011
- Loss of the tax free status of the Retiree Drug Subsidy (RDS) beginning in 2013
- Excise ("Cadillac") tax on high-cost plans beginning in 2018
- Transitional reinsurance fees beginning in 2014

All subsequent measurements for tax purposes reflect the new law.

This valuation reflects our understanding of the relevant provisions of PPACA and HCERA. The IRS and HHS have yet to issue final guidance with respect to many aspects of this law. It is possible that future guidance may conflict with our understanding of these laws based on currently available guidance and could therefore affect the results shown in this report.

Nature of actuarial calculations

The results shown in this report have been developed based on actuarial assumptions that, to the extent evaluated or selected by Towers Watson, we consider to be reasonable. Other actuarial assumptions could also be considered to be reasonable. Thus, reasonable results differing from those presented in this report could have been developed by selecting different reasonable assumptions. The results shown in this report are estimates based on data that may be imperfect and on assumptions about future events that cannot be predicted with certainty. The effects of certain plan provisions may be approximated, or determined to be insignificant and therefore not valued. Assumptions may be made, in consultation with American Electric Power about participant data or other factors. Reasonable efforts were made in preparing this valuation to confirm that items that are significant in the context of the actuarial liabilities or costs are treated appropriately, and are not excluded or included inappropriately. The numbers shown in this report are not rounded. This is for convenience only and should not imply precision; by their nature, actuarial calculations are not precise.

If overall future plan experience produces higher (lower) benefit payments or lower (higher) investment returns than assumed, the relative level of plan costs or contribution requirements reported in this valuation will likely increase (decline) in future valuations. Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors, including: plan experience differing from that anticipated by the economic or demographic assumptions; increases or reductions expected as part of the natural operation of the methodology used for the measurements (such as the end of an amortization period); and changes in plan provisions or applicable law. It is beyond the scope of this valuation to analyze the potential range of future postretirement welfare contributions, but we can do so upon request.

See Basis for Valuation in Section 1 above for a discussion of any material events that have occurred after the valuation date that are not reflected in this valuation.

Limitations on use

This report is provided subject to the terms set out herein and in our master consulting services agreement dated July 29, 2004, and any accompanying or referenced terms and conditions.

The information contained in this report was prepared for the internal use of American Electric Power and its auditors in connection with our actuarial valuation of the postretirement welfare plan as described in Purposes of Valuation above. It is not intended for and may not be used for other purposes, and we accept no responsibility or liability in this regard. American Electric Power may distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American Electric Power to provide them this report, in which case American Electric Power will use best efforts to notify Towers Watson in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Towers Watson's prior written consent. Towers Watson accepts no responsibility for any consequences arising from any other party relying on this report or any advice relating to its contents.

Professional qualifications

The undersigned consulting actuaries are members of the Society of Actuaries and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to postretirement welfare plans. Our objectivity is not impaired by any relationship between American Electric Power and our employer, Towers Watson Delaware Inc.



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April 2014

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Section 1: Summary of key results

Benefit cost, assets & obligations

All monetary amounts shown in US Dollars

Fiscal Year Beginning		January 1, 2014	January 1, 2013
Benefit Cost/ (Income)	Net Periodic Postretirement Benefit Cost/(Income)	7,654,656	10,028,620
Measurement Date		January 1, 2014	January 1, 2013
Plan Assets	Fair Value of Assets (FVA)	20,657,767	0
Benefit Obligations	Accumulated Postretirement Benefit Obligation (APBO)	109,233,994	116,930,327
Funded Status	Funded Status	(88,576,227)	(116,930,327)
Accumulated Other Comprehensive (Income)/Loss	Net Transition Obligation/(Asset)	0	0
	Net Prior Service Cost/(Credit)	0	0
	Net Loss/(Gain)	48,934,150	63,394,243
	Total Accumulated Other Comprehensive (Income)/Loss	48,934,150	63,394,243
Assumptions¹	Discount Rate	4.700%	3.950%
	Expected Long-term Return on Plan Assets	6.750%	N/A
	Current Health Care Cost Trend Rate	6.500%	6.750%
	Ultimate Health Care Cost Trend Rate	5.000%	5.000%
	Year of Ultimate Trend Rate	2020	2020
Participant Data	Census Date	January 1, 2014	January 1, 2013
Plan reporting (ASC 965) for Plan Year Beginning		January 1, 2014	January 1, 2013
	Present value of accumulated benefits	109,233,994	116,930,327
	Market value of assets	20,657,767	0
	Plan reporting discount rate	4.70%	3.95%
Employer Contributions (net of Medicare subsidy)		Plan Year 2014	Plan Year 2013
Cash Flow	Expected benefit payments and expenses (excluding Cook Coal) and cash contributions (Cook Coal only), net of participant contributions	6,791,717	4,168,502 ²

Employer Contributions

Employer contributions are the amounts paid by American Electric Power to provide for postretirement benefits, net of participant contributions and Medicare subsidy for non-Cook Coal locations plus the Net Periodic Benefit Cost for Cook Coal.

American Electric Power's funding policy for non-Cook Coal locations is to pay claims costs for the year and administrative expenses, less participant contributions and any Medicare Part D subsidy (RDS) received. For Cook Coal, the funding policy is to contribute an amount equal to the

¹ Rates are expressed on an annual basis where applicable.

² For 2013, amount represents expected benefit payments and expenses for all locations.

postretirement welfare cost plus retiree drug subsidy payments received (the sum of which can be no less than zero). We understand the sponsor may deviate from this policy, as permitted by its terms, based on cash, tax or other considerations.

Postretirement welfare cost and funded position

The cost of the postretirement welfare plan is determined in accordance with generally accepted accounting principles in the U.S. ("U.S. GAAP"). The Fiscal 2014 postretirement welfare benefit cost for the plan is \$7,654,656. Under U.S. GAAP, the funded position (fair value of plan assets less the projected benefit obligation, or "APBO") of each postretirement welfare plan at the plan sponsor's fiscal year-end (measurement date) is required to be reported as a liability. The APBO is the actuarial present value of benefits attributed to service rendered prior to the measurement date, taking into consideration expected future pay increases for pay-related plans. The plan's overfunded (underfunded) APBO as of January 1, 2014, was \$(88,576,227), based on the fair value of plan assets of \$20,657,767 and the APBO of \$109,233,994.

Fiscal year-end financial reporting information and disclosures are prepared before detailed participant data and full valuation results are available. Therefore, the postretirement benefit asset (liability) at December 31, 2013, was derived from a roll forward of the January 1, 2013 valuation results, adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population. The current fiscal year-end financial reporting information will be developed based on the results of the January 1, 2014 valuation, projected to the end of the year and similarly adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population.

Change in postretirement welfare cost

The postretirement welfare cost decreased from \$10,028,620 in fiscal 2013 to \$7,654,656 in fiscal 2014, as set forth below:

All monetary amounts shown in US Dollars

	Postretirement welfare cost
Prior year	10,028,620
Change due to:	
▶ Expected based on prior valuation and contributions during prior year	(90,569)
▶ Unexpected noninvestment experience	1,001,419
▶ Unexpected investment experience	(107,379)
▶ Assumption changes	(1,710,340)
▶ Changes in substantive plan	0
▶ Funding policy change	(1,467,095)
Current year	7,654,656

Significant reasons for these changes include the following:

- The mortality table was updated to reflect an additional year of mortality improvements which increased the postretirement welfare cost.

- The discount rate increased by 75 basis points compared to the prior year which decreased the postretirement welfare cost.
- There were more retirees than expected which increased the postretirement welfare cost.

Basis for valuation

Appendix A summarizes the assumptions and methods used in the valuation. Appendix B summarizes our understanding of the principal provisions of the plan being valued. The most recent plan change reflected in this valuation was effective on January 1, 2005.

Changes in Assumptions

The following assumptions were revised for the 2014 valuation: discount rate, per capita claims costs, excise tax, and mortality. In addition, an expected long-term return on assets assumption was added due to the recent funding of this plan for the Cook Coal location.

Changes in Methods

None.

Changes in Benefits Valued

None.

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Section 2: Accounting exhibits

2.1 Balance sheet asset/(liability)

All monetary amounts shown in US Dollars

Measurement Date	January 1, 2014	January 1, 2013
A Development of Balance Sheet Asset/(Liability)¹		
1 Accumulated postretirement benefit obligation (APBO)	109,233,994	116,930,327
2 Fair value of assets (FVA)	20,657,767	0
3 Net balance sheet asset/(liability)	(88,576,227)	(116,930,327)
B Current and Noncurrent Allocation		
1 Noncurrent assets	0	0
2 Current liabilities	(3,804,252)	(4,168,502)
3 Noncurrent liabilities	(84,771,975)	(112,761,825)
4 Net balance sheet asset/(liability)	(88,576,227)	(116,930,327)
C Accumulated Other Comprehensive (Income)/Loss		
1 Net transition obligation/(asset)	0	0
2 Net prior service cost/(credit)	0	0
3 Net loss/(gain)	48,934,150	63,394,243
4 Accumulated other comprehensive (income)/loss ²	48,934,150	63,394,243
D Assumptions and Dates³		
1 Discount rate	4.700%	3.950%
2 Current health care cost trend rate	6.500%	6.750%
3 Ultimate health care cost trend rate	5.000%	5.000%
4 Year of ultimate trend rate	2020	2020
5 Census date	January 1, 2014	January 1, 2013

¹ Whether the amounts in this table that differ from those disclosed at year-end must be disclosed in subsequent interim financial statements should be determined.

² Amount shown is pre-tax and should be adjusted by plan sponsor for tax effects.

³ Rates are expressed on an annual basis where applicable.

2.2 Summary and comparison of postretirement benefit cost and cash flows

All monetary amounts shown in US Dollars

Fiscal Year Ending	December 31, 2014	December 31, 2013
A Total Postretirement Benefit Cost		
1 Employer service cost	1,250,013	1,621,862
2 Interest cost	5,085,843	4,601,281
3 Expected return on assets	(1,467,095)	0
4 Subtotal	4,868,761	6,223,143
5 Transition obligation/(asset) amortization	0	0
6 Net prior service cost/(credit) amortization	0	0
7 Net loss/(gain) amortization	2,785,895	3,805,477
8 Amortization subtotal	2,785,895	3,805,477
9 Net periodic postretirement benefit cost/(income)	7,654,656	10,028,620
B Assumptions¹		
1 Discount rate	4.70 %	3.95 %
2 Current health care cost trend rate	6.50 %	6.75 %
3 Ultimate health care cost trend rate	5.00 %	5.00 %
4 Year ultimate trend rate is expected	2020	2020
C Census Date		
	January 1, 2014	January 1, 2013
D Assets at Beginning of Year		
1 Fair market value	0	0
E Cash Flow		
	Expected	Actual
1 Employer contributions ²	6,791,717	24,222,734
2 Plan participants' contributions	0	0
3 Benefits paid by the Employer ³	4,112,444	4,915,423
4 Benefits paid from plan assets ³	797,760	114,100
5 Expected Medicare subsidy	(308,192)	(299,587)

¹ These assumptions were used to calculate the Net Postretirement Benefit Cost/ (Income) as of the beginning of the year. Rates are expressed on an annual basis where applicable. For assumptions used for interim measurement periods, if any, refer to Appendix A.

² Reflects benefit payments and expenses (non-Cook Coal), as well as contributions to plan trust (Cook Coal).

³ Amounts shown are prior to offset for Medicare subsidy.

2.3 Information for deferred tax calculations

The following information is provided for purposes of determining the deferred portion of the tax provision and the deferred tax asset associated with the postretirement welfare cost and obligation, respectively. This information reflects the tax-exempt status of the Retiree Drug Subsidy (“RDS”) payment at the valuation date.

All monetary amounts shown in US Dollars

		Book Basis Net of Part D Subsidy	Tax Basis Net of Part D Subsidy after 2012
A Postretirement Welfare Cost			
1	Fiscal 2014	7,654,656	7,325,217
2	Fiscal 2013	10,028,620	9,643,694
B Funded Position			
1	Overfunded (underfunded) APBO	(88,576,227)	(88,576,227)

2.4 Detailed results for postretirement welfare cost and funded position

All monetary amounts shown in US Dollars

Detailed results	January 1, 2014	January 1, 2013
A Service Cost		
1 Medical	1,250,013	1,621,862
B Accumulated Postretirement Benefit Obligation [APBO]		
1 Medical ¹ :		
a Participants currently receiving benefits	81,564,174	83,545,811
b Fully eligible active participants	14,428,235	18,521,924
c Other participants	13,241,585	14,862,592
d Total	109,233,994	116,930,327
C Assets		
1 Fair value [FV]	20,657,767	0
D Funded Position		
1 Overfunded (underfunded) APBO	(88,576,227)	(116,930,327)
E Amounts in Accumulated Other Comprehensive Income		
1 Transition obligation/(asset)	0	0
2 Net prior service cost/(credit)	0	0
3 Net loss/(gain)	48,934,150	63,394,243
4 Total	48,934,150	63,394,243
F Effect of Change in Health Care Cost Trend Rate		
1 One-percentage-point increase:		
a Sum of service cost and interest cost	1,400,417	1,586,601
b APBO	18,832,137	22,181,206
2 One-percentage-point decrease:		
a Sum of service cost and interest cost	(1,052,914)	(1,162,067)
b APBO	(14,819,206)	(17,196,649)

¹ The Transitional Reinsurance Fee was allocated among the different pieces of the medical liability in proportion to the total medical liability.

2.5 Expected benefit disbursements, administrative expenses and participant contributions

All monetary amounts shown in US Dollars

	January 1, 2014	January 1, 2013
A Medical		
1 Gross disbursements	4,910,204	4,489,875
2 Participant contributions	0	0
3 Net disbursements	4,910,204	4,489,875
B RDS		
1 Gross disbursements	(308,192)	(321,373)
2 Participant contributions	0	0
3 Net disbursements	(308,192)	(321,373)
C Total		
1 Gross disbursements	4,602,012	4,168,502
2 Participant contributions	0	0
3 Net disbursements	4,602,012	4,168,502

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Section 3: Data exhibits

3.1 Plan participant data

All monetary amounts shown in US Dollars

Census Date	January 1, 2014	January 1, 2013
A Participating Employees		
1 Number		
a Fully eligible	22	24
b Other	34	34
c Total participating employees	56	58
2 Average age	46.6	46.0
3 Average credited service	19.5	19.0
4 Average future working life		
a to expected retirement age	14.1	14.4
b to full eligibility age	8.7	9.6
B Retirees and Surviving Spouses		
1 Retirees and surviving spouses		
a Number under 65	53	47
b Number 65 and older	245	234
c Total	298	281
d Number with married/family health care coverage	118	116
e Number with single health care coverage	180	165
f Average age	76.4	76.1
g Age Distribution at January 1, 2014		

Age	Number
Under 55	2
55-59	13
60-64	37
65-69	45
70-74	27
75-79	35
80-84	61
85 and over	78

C Dependents

1	Number	118	116
2	Average age	68.6	69.5
3	Age Distribution at January 1, 2014		

Age	Number
Under 55	7
55-59	17
60-64	24
65-69	20
70-74	18
75-79	15
80-84	9
85 and over	8

Participant data was supplied by the AEP as of the census date.

3.2 Age and service distribution of participating employees

Attained Age	Attained Years of Credited Service and Number								Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	
Under 25									
25-29		3							3
30-34	1	6							7
35-39		4	1	3					8
40-44		2	1	1					4
45-49		2	1	4	1				8
50-54		2	2	1			1		6
55-59				1		2	1	13	17
60-64								3	3
65-69									
70 & over									
Total	1	19	5	10	1	2	2	16	56¹
Average:	Age:	46.6	Number of Participants:		Fully eligible	22	Males	56	
	Service	19.5			Other	34	Females	0	
Census data as of January 1, 2014									

¹ Ages and service totals for purposes of determining category are based on exact (not rounded) values.

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Appendix A : Statement of actuarial assumptions and methods

Economic Assumptions

Discount rate		4.70 %
Medical cost trend rate	2014	6.50
	2015	6.25
	2016	6.00
	2017	5.75
	2018	5.50
	2019	5.25
	2020+	5.00

Demographic Assumptions

Mortality Preretirement: RP2000, projected to 2029.
 Postretirement: RP2000, projected to 2021.

Disability Rates vary by age as indicated by the following sample values:

Age	Rate
20	0.120%
30	0.120
40	0.147
50	0.357
60	1.380

Termination Rates vary by age as indicated by the following sample values

Age	Rate
20	10.70%
30	5.9
40	2.1
≥45	0

Retirement

Rates vary by age as indicated by the following values:

Age	Rate	Age	Rate
55	6.0%	61	10.0%
56	6.5	62	12.0
57	7.0	63	15.0
58	7.5	64	20.0
59	8.0	65	50.0
60	9.0	66 – 69	30.0
		70	100.0

Percent married 95%

Spouses ages Wives three years younger than husbands.

Participation rates *Employees* *Dependent*
 100% 100%

2014 Per Capita Claims Costs

Basis for Per Capita
 Claim Cost
 Assumptions

	Age	Medicare Part D RDS Subsidy	Post-1993 retirees	Pre-1994 retirees
▶ Overall average	< 65	N/A	17,876	18,620
	>=65	(980)	9,736	9,736
▶ By age group	< 35	N/A	7,376	7,684
	35-49	N/A	8,146	8,485
	40-44	N/A	9,269	9,655
	45-49	N/A	11,317	11,788
	50-54	N/A	13,442	14,002
	55-59	N/A	14,995	15,620
	60-64	N/A	20,424	21,275
	65-69	(877)	8,076	8,076
	70-74	(991)	9,332	9,332
	75-79	(1,026)	9,985	9,985
	80-84	(1,018)	10,317	10,317
	85-89	(1,009)	10,628	10,628
	90-94	(921)	10,130	10,130
>= 95	(746)	8,824	8,824	

Development of claims cost	<p>AEP supplied data on retiree medical and prescription drug claim payments for the period October 2009 through September 2013.</p> <p>Separate medical and prescription drug claim rates were calculated by dividing annual paid claims (from October through September for each 12-month period) by covered lives over these four periods. These claim rates were trended to 2014 and a weighted average was taken to calculate the average pre-65 and post-65 claim rates for medical and prescription drugs. These rates were then age-graded over standard Towers Watson morbidity curves to generate quinquennial 2014 medical and prescription drug rates.</p>
Administrative expenses	\$468 per primary participant in 2014, increasing 3.5% per year.
Excise tax	<p>To determine impact of the excise tax on the UMWA postretirement plan, we projected future gross plan costs using the valuation trend assumption and compared these on a year-by-year basis to the excise tax thresholds beginning in 2018 and projected to future years using CPI (CPI + 1% for 2019). The expected cost of the UMWA plan, which was blended pre-65/post-65 based on headcount, exceeded these thresholds beginning in 2018.</p> <p>The amount of the excise tax valued was 40% times the portion of the cost exceeding the thresholds, grossed up by dividing this tax by 65% to account for the nondeductibility of these charges for AEP's administrators.</p>
Medicare Part D subsidy	<p>We calibrated our modeling tool to reflect the 2014 cost of the current prescription drug plans for AEP's UMWA post-65 retirees. The tool employs a continuance table of annual retiree drug utilization levels, developed from analyzing the experience of several large Towers Watson clients.</p> <p>After the plan-specific benefit provisions have been calibrated to current costs, the Modeler trends costs forward to 2014. Actuarial equivalence was determined using the following two-prong approach outlined in the regulations for Medicare Part D:</p> <p><i>Gross Value Test</i> – The Modeler calculates the value of standard Medicare Part D coverage and compares it to AEP's plan costs. AEP's plans passed this test by being richer than the projected value of standard Medicare Part D coverage for these groups.</p> <p><i>Net Value Test</i> – The net value prong of the test compared the value of Standard Part D coverage in 2014 less the greater of \$389.04 (the national average Part D premium) and 25.5% of the gross value of Part D coverage to the projected 2014 value of AEP coverage.</p>

When the plans are deemed to be actuarially equivalent, the tool calculates the average expected value of the employer subsidy in 2014, using the continuance table calibrated to AEP's plan costs. This produced an average 2014 per person annual employer subsidy of \$980.

Methods – Postretirement Welfare Cost and Funded Position

Service cost and APBO	Projected unit credit actuarial cost method, allocated in equal amounts, from the valuation date on or after date of hire to full eligibility date.
Transition obligation	Amortized over 20 years beginning January 1, 1993. The transition obligation has been fully amortized.
Net loss (gain)	Net loss (gain) in excess of 10% of the APBO is amortized on a straight-line basis over the expected average remaining life expectancy of the inactive participants.
Benefits Not Valued	All benefits described in the Plan Provisions section of this report were valued. Towers Watson has reviewed the plan provisions with AEP and based on that review is not aware of any significant benefits required to be valued that were not included.
Timing of benefit payments	Benefit payments are assumed to be made uniformly throughout the year and on average at mid-year.
Change in Assumptions and Methods Since Prior Valuation	<p>The discount rate was increased from 3.95% to 4.70%.</p> <p>The mortality table was updated to better reflect future anticipated experience.</p> <p>Anticipated per capita claims costs were updated to reflect more recent experience.</p> <p>Expected long-term return on assets assumption was added at 6.75%.</p>

Data Sources

American Electric Power furnished the participant and claims cost data, as well as the accrued postretirement benefits cost as of December 31, 2013. Data were reviewed for reasonableness and consistency, but no audit was performed. We are aware of no errors or omissions in the data that would have a significant effect on the results of our calculation.

Appendix B : Summary of substantive plan provisions

Medical Benefits

Eligibility	Participants are eligible upon retirement after age 55 with ten years of service or attaining age 55 with ten years of service after becoming permanently disabled or age 55 if retired with 20 years of service prior to age 50. Miners with less than ten years at retirement who are permanently and totally disabled as a result of a mine accident will retain a health services card for life.
Dependent eligibility	Eligible dependents are spouse and unmarried children who have not attained age 27.
Survivor eligibility	After the death of retiree or active employee eligible to retire, surviving spouses are eligible until death or remarriage subject to a \$2,000 per month earnings limit.
Retiree contributions	None.
Benefits provisions	<p>The UMWA medical plan covers substantially all medical services. Effective for retirements on or after January 1, 1994, a \$750 annual per family deductible is in place for non-Medicare-eligible retirees. Copayments are required only for outpatient physician visits (\$12 in-network and \$20 out-of-network, maximum of \$240 per family per 12 months) and for prescription drugs (\$5 retail in PPL, \$10 out of PPL, no copay mail order). A schedule of allowances for vision care is also provided. Benefits after age 65 are coordinated with Medicare.</p> <p>Expenses associated with the treatment of Black Lung Disease are not covered by this plan.</p>

Future Plan Changes

No future plan changes were recognized in determining postretirement welfare cost.

Changes in Benefits Valued Since Prior Year

There have been no changes in benefits valued since the prior year.

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Appendix C: Results by business unit

Summary of key assumptions for Appendix C of 2014 UMWA Postretirement Health Care Plan valuation report:

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Discount Rate	4.70%	5.30%	5.50%	5.60%	5.70%	5.80%	5.80%	5.80%	5.80%	5.80%	5.80%
Expected Return on Assets	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%
Initial Medical Trend	6.50%	6.25%	6.00%	5.75%	5.50%	5.25%	5.00%	5.00%	5.00%	5.00%	5.00%

Expected mortality
 Valuation and data
 Per capita claims costs

IRS-prescribed mortality table for minimum funding purposes, with adoption of RP-2014 and projection scale MP-2014 at year end 2015.
 January 1, 2014
 2014 cost models based on actual claims experience paid through September 30, 2013.

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
SUMMARY OF PLAN PARTICIPANTS FOR THE 2014 VALUATION**

	Active Participants	Retirees*	Dependent Spouses	Surviving Spouses	Total
225 Cedar Coal Co.	0	104	71	134	309
270 Cook Coal Terminal	56	29	24	0	109
290 Conesville Coal Preparation Company	<u>0</u>	<u>30</u>	<u>23</u>	<u>1</u>	<u>54</u>
Total	56	163	118	135	472

* includes disabled employees

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
2014 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	51,757,913 \$51,757,913	3,086,569 \$3,086,569	0 \$0	0 \$0	2,360,920 \$2,360,920	0 \$0	0 \$0	1,320,030 \$1,320,030	3,680,950 \$3,680,950
270 Cook Coal Terminal AEP Generating Company	43,371,174 \$43,371,174	778,461 \$778,461	20,657,767 \$20,657,767	1,250,013 \$1,250,013	2,079,113 \$2,079,113	(1,467,095) (\$1,467,095)	0 \$0	1,106,135 \$1,106,135	2,968,166 \$2,968,166
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	14,104,907 \$14,104,907	736,982 \$736,982	0 \$0	0 \$0	645,810 \$645,810	0 \$0	0 \$0	359,730 \$359,730	1,005,540 \$1,005,540
Total	\$109,233,994	\$4,602,012	\$20,657,767	\$1,250,013	\$5,085,843	(\$1,467,095)	\$0	\$2,785,895	\$7,654,656

Location	ASC 715-60 Cost	Projected Net Periodic Postretirement Benefit Cost									
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
225 Cedar Coal Co.	3,680,950	3,282,282	3,819,330	3,631,414	3,450,088	3,275,039	3,151,843	3,033,985	2,924,066	2,820,527	2,722,096
Appalachian Power Co. - SEC	3,680,950	3,282,282	3,819,330	3,631,414	3,450,088	3,275,039	3,151,843	3,033,985	2,924,066	2,820,527	2,722,096
270 Cook Coal Terminal	2,968,166	2,450,012	3,124,872	2,951,291	2,786,161	2,633,003	2,580,380	2,533,329	2,490,275	2,452,055	2,418,396
AEP Generating Company	2,968,166	2,450,012	3,124,872	2,951,291	2,786,161	2,633,003	2,580,380	2,533,329	2,490,275	2,452,055	2,418,396
290 Conesville Coal Preparation Company	1,005,540	905,107	1,064,226	1,022,106	984,275	950,076	932,542	915,802	900,140	884,783	871,637
AEP Generation Resources - SEC	1,005,540	905,107	1,064,226	1,022,106	984,275	950,076	932,542	915,802	900,140	884,783	871,637
Total	\$7,654,656	\$6,637,401	\$8,008,428	\$7,604,811	\$7,220,524	\$6,858,118	\$6,664,765	\$6,483,116	\$6,314,481	\$6,157,365	\$6,012,129

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2015 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	46,638,546 \$46,638,546	3,103,463 \$3,103,463	0 \$0	0 \$0	2,390,663 \$2,390,663	0 \$0	0 \$0	891,619 \$891,619	3,282,282 \$3,282,282
270 Cook Coal Terminal AEP Generating Company	41,968,112 \$41,968,112	862,381 \$862,381	24,314,567 \$24,314,567	1,082,498 \$1,082,498	2,259,124 \$2,259,124	(1,693,941) (\$1,693,941)	0 \$0	802,331 \$802,331	2,450,012 \$2,450,012
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	12,807,196 \$12,807,196	707,902 \$707,902	0 \$0	0 \$0	660,264 \$660,264	0 \$0	0 \$0	244,843 \$244,843	905,107 \$905,107
Total	\$101,413,854	\$4,673,746	\$24,314,567	\$1,082,498	\$5,310,051	(\$1,693,941)	\$0	\$1,938,793	\$6,637,401

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2016 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	50,750,744 \$50,750,744	3,121,932 \$3,121,932	0 \$0	0 \$0	2,706,587 \$2,706,587	0 \$0	0 \$0	1,112,743 \$1,112,743	3,819,330 \$3,819,330
270 Cook Coal Terminal AEP Generating Company	49,117,030 \$49,117,030	957,103 \$957,103	27,596,139 \$27,596,139	1,239,040 \$1,239,040	2,743,616 \$2,743,616	(1,934,707) (\$1,934,707)	0 \$0	1,076,923 \$1,076,923	3,124,872 \$3,124,872
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	14,100,087 \$14,100,087	753,099 \$753,099	0 \$0	0 \$0	755,072 \$755,072	0 \$0	0 \$0	309,154 \$309,154	1,064,226 \$1,064,226
Total	\$113,967,861	\$4,832,134	\$27,596,139	\$1,239,040	\$6,205,275	(\$1,934,707)	\$0	\$2,498,820	\$8,008,428

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2017 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	49,585,749 \$49,585,749	3,168,346 \$3,168,346	0 \$0	0 \$0	2,689,297 \$2,689,297	0 \$0	0 \$0	942,117 \$942,117	3,631,414 \$3,631,414
270 Cook Coal Terminal AEP Generating Company	51,366,018 \$51,366,018	1,085,643 \$1,085,643	31,698,615 \$31,698,615	1,259,878 \$1,259,878	2,917,066 \$2,917,066	(2,201,594) (\$2,201,594)	0 \$0	975,941 \$975,941	2,951,291 \$2,951,291
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	13,892,037 \$13,892,037	716,667 \$716,667	0 \$0	0 \$0	758,161 \$758,161	0 \$0	0 \$0	263,945 \$263,945	1,022,106 \$1,022,106
Total	\$114,843,804	\$4,970,656	\$31,698,615	\$1,259,878	\$6,364,524	(\$2,201,594)	\$0	\$2,182,003	\$7,604,811

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2018 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	48,375,349 \$48,375,349	3,417,190 \$3,417,190	0 \$0	0 \$0	2,661,355 \$2,661,355	0 \$0	0 \$0	788,733 \$788,733	3,450,088 \$3,450,088
270 Cook Coal Terminal AEP Generating Company	53,646,281 \$53,646,281	1,228,235 \$1,228,235	35,765,857 \$35,765,857	1,281,067 \$1,281,067	3,096,339 \$3,096,339	(2,465,917) (\$2,465,917)	0 \$0	874,672 \$874,672	2,786,161 \$2,786,161
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	13,726,018 \$13,726,018	779,334 \$779,334	0 \$0	0 \$0	760,480 \$760,480	0 \$0	0 \$0	223,795 \$223,795	984,275 \$984,275
Total	\$115,747,648	\$5,424,759	\$35,765,857	\$1,281,067	\$6,518,174	(\$2,465,917)	\$0	\$1,887,200	\$7,220,524

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2019 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	46,910,312 \$46,910,312	3,392,768 \$3,392,768	0 \$0	0 \$0	2,623,795 \$2,623,795	0 \$0	0 \$0	651,244 \$651,244	3,275,039 \$3,275,039
270 Cook Coal Terminal AEP Generating Company	55,949,592 \$55,949,592	1,355,884 \$1,355,884	39,789,700 \$39,789,700	1,302,612 \$1,302,612	3,281,861 \$3,281,861	(2,728,204) (\$2,728,204)	0 \$0	776,734 \$776,734	2,633,003 \$2,633,003
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	13,503,028 \$13,503,028	719,061 \$719,061	0 \$0	0 \$0	762,617 \$762,617	0 \$0	0 \$0	187,459 \$187,459	950,076 \$950,076
Total	\$116,362,932	\$5,467,713	\$39,789,700	\$1,302,612	\$6,668,273	(\$2,728,204)	\$0	\$1,615,437	\$6,858,118

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2020 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	46,141,339 \$46,141,339	3,439,922 \$3,439,922	0 \$0	0 \$0	2,577,846 \$2,577,846	0 \$0	0 \$0	573,997 \$573,997	3,151,843 \$3,151,843
270 Cook Coal Terminal AEP Generating Company	59,178,181 \$59,178,181	1,438,284 \$1,438,284	43,795,023 \$43,795,023	1,367,743 \$1,367,743	3,470,541 \$3,470,541	(2,994,080) (\$2,994,080)	0 \$0	736,176 \$736,176	2,580,380 \$2,580,380
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	13,546,584 \$13,546,584	758,244 \$758,244	0 \$0	0 \$0	764,023 \$764,023	0 \$0	0 \$0	168,519 \$168,519	932,542 \$932,542
Total	\$118,866,104	\$5,636,450	\$43,795,023	\$1,367,743	\$6,812,410	(\$2,994,080)	\$0	\$1,478,692	\$6,664,765

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2021 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	45,279,263 \$45,279,263	3,368,599 \$3,368,599	0 \$0	0 \$0	2,529,885 \$2,529,885	0 \$0	0 \$0	504,100 \$504,100	3,033,985 \$3,033,985
270 Cook Coal Terminal AEP Generating Company	62,578,181 \$62,578,181	1,548,439 \$1,548,439	47,931,199 \$47,931,199	1,436,131 \$1,436,131	3,668,559 \$3,668,559	(3,268,053) (\$3,268,053)	0 \$0	696,692 \$696,692	2,533,329 \$2,533,329
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	13,552,363 \$13,552,363	738,531 \$738,531	0 \$0	0 \$0	764,922 \$764,922	0 \$0	0 \$0	150,880 \$150,880	915,802 \$915,802
Total	\$121,409,807	\$5,655,569	\$47,931,199	\$1,436,131	\$6,963,366	(\$3,268,053)	\$0	\$1,351,672	\$6,483,116

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2022 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	44,440,549 \$44,440,549	3,310,583 \$3,310,583	0 \$0	0 \$0	2,482,898 \$2,482,898	0 \$0	0 \$0	441,168 \$441,168	2,924,066 \$2,924,066
270 Cook Coal Terminal AEP Generating Company	66,134,432 \$66,134,432	1,661,724 \$1,661,724	52,184,142 \$52,184,142	1,507,938 \$1,507,938	3,875,747 \$3,875,747	(3,549,937) (\$3,549,937)	0 \$0	656,527 \$656,527	2,490,275 \$2,490,275
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	13,578,754 \$13,578,754	777,358 \$777,358	0 \$0	0 \$0	765,342 \$765,342	0 \$0	0 \$0	134,798 \$134,798	900,140 \$900,140
Total	\$124,153,735	\$5,749,665	\$52,184,142	\$1,507,938	\$7,123,987	(\$3,549,937)	\$0	\$1,232,493	\$6,314,481

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2023 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	43,612,864 \$43,612,864	3,283,617 \$3,283,617	0 \$0	0 \$0	2,435,663 \$2,435,663	0 \$0	0 \$0	384,864 \$384,864	2,820,527 \$2,820,527
270 Cook Coal Terminal AEP Generating Company	69,856,393 \$69,856,393	1,767,967 \$1,767,967	56,562,630 \$56,562,630	1,583,335 \$1,583,335	4,092,956 \$4,092,956	(3,840,688) (\$3,840,688)	0 \$0	616,452 \$616,452	2,452,055 \$2,452,055
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	13,566,738 \$13,566,738	762,764 \$762,764	0 \$0	0 \$0	765,062 \$765,062	0 \$0	0 \$0	119,721 \$119,721	884,783 \$884,783
Total	\$127,035,995	\$5,814,348	\$56,562,630	\$1,583,335	\$7,293,681	(\$3,840,688)	\$0	\$1,121,037	\$6,157,365

**AMERICAN ELECTRIC POWER
UMWA POSTRETIREMENT WELFARE PLAN
ESTIMATED 2024 NET PERIODIC POSTRETIREMENT BENEFIT COST**

Location	Accumulated Postretirement Benefit Obligation	Expected Net Benefit Payments	Fair Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortizations		Net Periodic Postretirement Benefit Cost
							PSC	(G)/L	
225 Cedar Coal Co. Appalachian Power Co. - SEC	42,764,910 \$42,764,910	3,231,038 \$3,231,038	0 \$0	0 \$0	2,387,985 \$2,387,985	0 \$0	0 \$0	334,111 \$334,111	2,722,096 \$2,722,096
270 Cook Coal Terminal AEP Generating Company	73,764,717 \$73,764,717	1,844,513 \$1,844,513	61,087,406 \$61,087,406	1,662,502 \$1,662,502	4,322,041 \$4,322,041	(4,142,452) (\$4,142,452)	0 \$0	576,305 \$576,305	2,418,396 \$2,418,396
290 Conesville Coal Preparation Company AEP Generation Resources - SEC	13,569,036 \$13,569,036	747,710 \$747,710	0 \$0	0 \$0	765,626 \$765,626	0 \$0	0 \$0	106,011 \$106,011	871,637 \$871,637
Total	\$130,098,663	\$5,823,261	\$61,087,406	\$1,662,502	\$7,475,652	(\$4,142,452)	\$0	\$1,016,427	\$6,012,129