

American Electric Power

UMWA Postretirement Health Care Plan

Actuarial Valuation Report

**Postretirement Welfare Cost for Fiscal Year Ending
December 31, 2011, under U.S. GAAP**

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Purpose and Actuarial Certification

Purposes of Valuation

American Electric Power retained Towers Watson Pennsylvania 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, 2011 and American Electric Power's postretirement welfare cost for fiscal year ending December 31, 2011 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 Reform

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

All subsequent measurements for tax purposes reflect the new law.

The PPACA and HCERA increased American Electric Power's APBO at December 31, 2010 by approximately \$7.9 million, primarily attributable to the excise tax.

This valuation reflects our understanding of the relevant provisions of PPACA and HCERA. The IRS has 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 reasonable and within the "best-estimate range" as described by the Actuarial Standards of Practice. Other actuarial assumptions could also be considered to be reasonable and within the best-estimate range. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various 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 benefit payments than assumed, the relative level of plan costs or contribution requirements reported in this valuation will likely increase in future valuations (and vice versa). 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 below 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 engagement letter dated January 7, 2011, 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, and will include the non-

reliance notice included at the end of this report. 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. In the absence of such consent and an express assumption of responsibility, we accept no responsibility whatsoever for any consequences arising from any third party relying on this report or any advice relating to its contents. There are no intended third-party beneficiaries of this report or the work underlying it.

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 Pennsylvania Inc.

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Towers Watson Pennsylvania Inc.

April 2011

Section 1: Summary of Results

Summary of Valuation Results

All monetary amounts shown in US Dollars

| Fiscal Year Ending | | December 31, 2011 | December 31, 2010 |
|---|--|-------------------|-------------------|
| Benefit Cost/ (Income) | Postretirement Welfare Cost/(Income) | 9,898,694 | 7,781,253 |
| Measurement Date | | January 1, 2011 | January 1, 2010 |
| Plan Assets | Fair Value of Assets (FVA) | 0 | 0 |
| Benefit Obligations | Accumulated Postretirement Benefit Obligation (APBO) | 89,830,818 | 70,814,814 |
| Funded Status | Funded Status | (89,830,818) | (70,814,814) |
| Accumulated Other Comprehensive (Income)/Loss (AOCI) | Transition Obligation/(Asset) | 2,520,332 | 4,003,819 |
| | Net Prior Service Cost/(Credit) | 0 | 0 |
| | Net Loss/(Gain) | 46,391,221 | 29,634,050 |
| | Total AOCI | 48,911,553 | 33,637,869 |
| Assumptions | Discount Rate | 5.25% | 5.85% |
| | Current Health Care Cost Trend Rate | 7.50% | 8.00% |
| | Ultimate Health Care Cost Trend Rate | 5.00% | 5.00% |
| | Year of Ultimate Trend Rate | 2016 | 2016 |
| Census Date | | January 1, 2011 | January 1, 2010 |
| Plan reporting (ASC 965) for Plan Year Beginning | | January 1, 2011 | January 1, 2010 |
| | Present value of accumulated benefits | 89,830,818 | 70,814,814 |
| | Market value of assets | 0 | 0 |
| | Plan reporting discount rate | 5.25% | 5.85% |
| Employer Contributions (net of Medicare subsidy) | | Plan Year 2011 | Plan Year 2010 |
| Cash Flow | Expected benefit payments and expenses, net of participant contributions | 3,941,862 | 3,483,255 |

Employer Contributions

Employer contributions are the amounts paid by American Electric Power to provide for postretirement benefits, net of participant contributions and Medicare subsidy.

American Electric Power's funding policy is to pay claims costs for the year and administrative expenses, less participant contributions and any Medicare Part D subsidy (RDS) received. 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 2011 postretirement welfare benefit cost for the plan is \$9,898,694. 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, 2011, was \$(89,830,818), based on the fair value of plan assets of \$0 and the APBO of \$89,830,818.

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 January 1, 2011, was derived from a roll forward of the January 1, 2010 valuation results, adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population. The next fiscal year financial reporting information will be developed based on the results of the January 1, 2011 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 increased from \$7,781,253 in fiscal 2010 to \$9,898,694 in fiscal 2011, as set forth below:

All monetary amounts shown in US Dollars

| | Postretirement welfare cost |
|---|--------------------------------|
| Prior year | 7,781,253 |
| Change due to: | |
| ▶ Expected based on prior valuation and contributions during prior year | 0 |
| ▶ Effect of PPACA/HCERA | 1,086,786 |
| ▶ Unexpected noninvestment experience | 33,156 |
| ▶ Assumption changes | 997,499 |
| ▶ Changes in substantive plan | 0 |
| Current year | 9,898,694 |

Significant reasons for these changes include the following:

- As a result of PPACA/HCERA, the excise tax on high-value plans increased the postretirement welfare cost.
- The discount rate declined 60 basis points compared to the prior year which increased the postretirement welfare cost.

- The per capita cost of medical benefits increased more than expected which increased the postretirement welfare cost. Specifically, the expected per capita claims costs for the 2011 plan year (based on the per capita claims costs and expected trend rates used in the valuation for the 2010 plan year) and the per capita claims costs for the 2011 plan year used in the valuation for the 2011 plan year are as follows:

All monetary amounts shown in US Dollars

| <i>Per capita claims costs</i> | <i>2011 Valuation</i> | <i>2010 Valuation (actual)</i> |
|--------------------------------|-----------------------|--------------------------------|
| < 65 | | |
| - Post-1993 retirees | 13,917 | 11,749 |
| - Pre-1994 retirees | 13,361 | 12,239 |
| >=65 | 8,384 | 7,502 |

See Appendix A for additional details on per capita claims costs assumptions including assumed claims costs by age and/or morbidity adjustments applied.

- The mortality table was updated to reflect an additional year of mortality improvements 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 2011 valuation: discount rate, per capita claims costs and mortality.

Changes in Methods

None.

Changes in Benefits Valued

None.

Section 2: Actuarial Exhibits

2.1 Balance sheet asset / (liability)

All monetary amounts shown in US Dollars

| Measurement Date | January 1, 2011 | January 1, 2010 |
|---|-----------------|-----------------|
| A Development of Balance Sheet Asset/(Liability)¹ | | |
| 1 Accumulated postretirement benefit obligation (APBO) | 89,830,818 | 70,814,814 |
| 2 Fair value of assets (FVA) | 0 | 0 |
| 3 Net balance sheet asset/(liability) | (89,830,818) | (70,814,814) |
| B Current and Noncurrent Allocation | | |
| 1 Noncurrent assets | 0 | 0 |
| 2 Current liabilities | (3,941,862) | (3,483,255) |
| 3 Noncurrent liabilities | (85,888,956) | (67,331,559) |
| 4 Net balance sheet asset/(liability) | (89,830,818) | (70,814,814) |
| C Accumulated Other Comprehensive (Income)/Loss | | |
| 1 Transition obligation/(asset) | 2,520,332 | 4,003,819 |
| 2 Net prior service cost/(credit) | 0 | 0 |
| 3 Net loss/(gain) | 46,391,221 | 29,634,050 |
| 4 Accumulated other comprehensive (income)/loss ² | 48,911,553 | 33,637,869 |
| D Assumptions | | |
| 1 Discount rate | 5.25% | 5.85% |
| 2 Current health care cost trend rate | 7.50% | 8.00% |
| 3 Ultimate health care cost trend rate | 5.00% | 5.00% |
| 4 Year of ultimate trend rate | 2016 | 2016 |
| E Census date | January 1, 2011 | January 1, 2010 |

¹ If the amounts in this table differ materially from those disclosed at year-end, consideration should be given to disclosing the true-up in the quarterly financial statements.

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

2.2 Summary and comparison of postretirement benefit cost and cash flows

All monetary amounts shown in US Dollars

| Fiscal Year Ending | December 31, 2011 | December 31, 2010 |
|--|-------------------|-------------------|
| A Total Postretirement Benefit Cost | | |
| 1 Employer service cost | 1,022,413 | 597,521 |
| 2 Interest cost | 4,667,644 | 4,077,184 |
| 3 Expected return on assets | 0 | 0 |
| 4 Subtotal | | |
| 5 Transition obligation/(asset) amortization | 1,483,487 | 1,483,487 |
| 6 Net prior service cost/(credit) amortization | 0 | 0 |
| 7 Net loss/(gain) amortization | 2,725,150 | 1,623,061 |
| 8 Amortization subtotal | 4,208,637 | 3,106,548 |
| 9 Net periodic postretirement benefit cost/(income) | 9,898,694 | 7,781,253 |
| B Assumptions¹ | | |
| 1 Discount rate | 5.25 % | 5.85 % |
| 2 Current health care cost trend rate | 7.50 % | 8.00 % |
| 3 Ultimate health care cost trend rate | 5.00 % | 5.00 % |
| 4 Year ultimate trend rate is expected | 2016 | 2016 |
| C Census Date | | |
| | January 1, 2011 | January 1, 2010 |
| D Assets at Beginning of Year | | |
| 1 Fair market value | 0 | 0 |
| E Cash Flow | | |
| | Expected | Actual |
| 1 Employer contributions | 3,941,862 | 4,381,895 |
| 2 Plan participants' contributions | 0 | 0 |
| 3 Benefits paid by the Employer | 3,941,862 | 4,381,895 |
| 4 Expected Medicare subsidy on current year benefit payments | (326,537) | N/A |

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.

2.3 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 2011 | 9,898,694 | 9,924,113 |
| 2 Fiscal 2010 | 7,781,253 | 7,827,770 |
| B Funded Position | | |
| 1 Overfunded (underfunded) APBO | (89,830,818) | (90,476,156) |
| C Accumulated Other Comprehensive Income* | | |
| 1 Transition obligation (asset) | 2,520,332 | 2,520,332 |
| 2 Net actuarial loss (gain) | 46,391,221 | 46,391,221 |
| 3 Prior service cost (credit) | 0 | 0 |
| 4 Total | 48,911,553 | 48,911,553 |

* As of March 31, 2010, the amounts in Accumulated Other Comprehensive Income on a tax-basis were set equal to the amounts in Accumulated Other Comprehensive Income on a book-basis (due to the expiration of the tax-free status of the Medicare Part D subsidy).

2.4 Detailed results for postretirement welfare cost and funded position

All monetary amounts shown in US Dollars

| Detailed results | January 1, 2011 | January 1, 2010 |
|---|-----------------|-----------------|
| A Service Cost | | |
| 1 Medical | 1,022,413 | 597,521 |
| B Accumulated Postretirement Benefit Obligation [APBO] | | |
| 1 Medical: | | |
| a Participants currently receiving benefits | 64,309,150 | 49,377,646 |
| b Fully eligible active participants | 18,054,443 | 17,748,252 |
| c Other participants | 7,467,225 | 3,688,916 |
| d Total | 89,830,818 | 70,814,814 |
| C Assets | | |
| 1 Fair value [FV] | 0 | 0 |
| D Funded Position | | |
| 1 Overfunded (underfunded) APBO | (89,830,818) | (70,814,814) |
| E Amounts in Accumulated Other Comprehensive Income | | |
| 1 Transition obligation/(asset) | 2,520,332 | 4,003,819 |
| 2 Net prior service cost/(credit) | 0 | 0 |
| 3 Net loss/(gain) | 46,391,221 | 29,634,050 |
| 4 Total | 48,911,553 | 33,637,869 |
| F Effect of Change in Health Care Cost Trend Rate | | |
| 1 One-percentage-point increase: | | |
| a Sum of service cost and interest cost | 1,193,428 | 821,392 |
| b APBO | 15,018,660 | 10,272,397 |
| 2 One-percentage-point decrease: | | |
| a Sum of service cost and interest cost | (907,037) | (643,792) |
| b APBO | (11,898,353) | (8,329,473) |

2.5 Expected Benefit Disbursements, Administrative Expenses, and Participant Contributions

All monetary amounts shown in US Dollars

| | January 1, 2011 | January 1, 2010 |
|-----------------------------|-----------------|-----------------|
| A Medical | | |
| 1 Gross disbursements | 4,268,399 | 3,805,288 |
| 2 Participant contributions | 0 | 0 |
| 3 Net disbursements | 4,268,399 | 3,805,288 |
| B RDS | | |
| 1 Gross disbursements | (326,537) | (322,036) |
| 2 Participant contributions | 0 | 0 |
| 3 Net disbursements | (326,537) | (322,036) |
| C Total | | |
| 1 Gross disbursements | 3,941,862 | 3,483,252 |
| 2 Participant contributions | 0 | 0 |
| 3 Net disbursements | 3,941,862 | 3,483,252 |

Section 3: Participant Data

3.1 Summary of Plan Participants

All monetary amounts shown in US Dollars

| Census Date | January 1, 2011 | January 1, 2010 |
|---|-----------------|-----------------|
| A Participating Employees | | |
| 1 Number | | |
| a Fully eligible | 37 | 52 |
| b Other | 40 | 38 |
| c Total participating employees | 77 | 90 |
| 2 Average age | 47.0 | 48.4 |
| 3 Average credited service | 18.9 | 19.9 |
| 4 Average future working life | | |
| a to expected retirement age | 13.4 | 12.1 |
| b to full eligibility age | 10.3 | 11.1 |
| B Retirees and Surviving Spouses | | |
| 1 Retirees and surviving spouses | | |
| a Number under 65 | 56 | 60 |
| b Number 65 and older | 252 | 247 |
| c Total | 308 | 307 |
| d Number with married/family health care coverage | 128 | 127 |
| e Number with single health care coverage | 183 | 180 |
| f Average age | 75.8 | 75.5 |
| g Age Distribution at January 1, 2011 | | |
| Age | Number | |
| Under 55 | 5 | |
| 55-59 | 12 | |
| 60-64 | 39 | |
| 65-69 | 39 | |
| 70-74 | 30 | |
| 75-79 | 45 | |
| 80-84 | 81 | |
| 85 and over | 57 | |
| C Dependents | | |
| 1 Number | 125 | 123 |
| 2 Average age | 69.3 | 70.8 |
| 3 Age Distribution at January 1, 2011 | | |

| Age | Number |
|-------------|--------|
| Under 55 | 6 |
| 55-59 | 15 |
| 60-64 | 26 |
| 65-69 | 17 |
| 70-74 | 21 |
| 75-79 | 15 |
| 80-84 | 15 |
| 85 and over | 10 |

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 to 4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | Over 34 | Over 34 | Over 34 | |
| Under 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25-29 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 30-34 | 6 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 35-39 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| 40-44 | 3 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 |
| 45-49 | 1 | 1 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 7 |
| 50-54 | 2 | 1 | 0 | 0 | 1 | 2 | 9 | 0 | 0 | 0 | 15 |
| 55-59 | 3 | 0 | 1 | 0 | 0 | 5 | 14 | 1 | 1 | 1 | 24 |
| 60-64 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 |
| 65-69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 70 & over | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 24 | 5 | 9 | 2 | 1 | 10 | 24 | 2 | 2 | 2 | 77 |
| Average: Age | 47.0 | | Number of Participants: | | Fully eligible | | 37 | | | | |
| Service | 18.9 | | | | Other | | 40 | | | | |
| | | | | | Males | | 385 | | | | |
| | | | | | Females | | 0 | | | | |

Appendix A: Statement of Actuarial Assumptions and Methods

Actuarial Assumptions and Methods

Economic Assumptions

| | | |
|-------------------------|-------|--------|
| Discount rate | | 5.25 % |
| Medical cost trend rate | 2011 | 7.50 |
| | 2012 | 7.00 |
| | 2013 | 6.50 |
| | 2014 | 6.00 |
| | 2015 | 5.50 |
| | 2016+ | 5.00 |

Demographic Assumptions

Mortality Preretirement: RP2000, projected to 2026.
 Postretirement: RP2000, projected to 2018.

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

| Age | Rate |
|-----|-------|
| 20 | 10.7% |
| 30 | 5.9 |
| 40 | 2.1 |
| ≥45 | 0.0 |

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

| Age | Rate |
|-----|-------|
| 20 | 0.12% |
| 30 | 0.120 |
| 40 | 0.147 |
| 50 | 0.357 |
| 50 | 1.380 |

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 | <i>Employees</i> | <i>Dependent</i> |
| | 100% | 100% |

2011 Per Capita Claims Costs

Basis for Per Capita Claim Cost Assumptions

Average per capita claims cost for 2011

| | Age | Medicare Part D Subsidy | Post-1993 retirees | Pre-1994 retirees |
|-------------------|-------|----------------------------|--------------------|-------------------|
| ▶ Overall average | < 65 | N/A | 13,361 | 13,917 |
| | >=65 | 1,017 | 8,384 | 8,384 |
| ▶ By age group | < 35 | N/A | 5,662 | 5,898 |
| | 35-49 | N/A | 6,283 | 6,544 |
| | 40-44 | N/A | 7,147 | 7,445 |
| | 45-49 | N/A | 8,761 | 9,126 |
| | 50-54 | N/A | 10,449 | 10,884 |
| | 55-59 | N/A | 11,610 | 12,094 |
| | 60-64 | N/A | 15,716 | 16,371 |
| | 65-69 | 901 | 7,032 | 7,032 |
| | 70-74 | 1,018 | 8,087 | 8,087 |
| | 75-79 | 1,054 | 8,595 | 8,595 |
| | 80-84 | 1,045 | 8,808 | 8,808 |
| | 85-89 | 1,036 | 9,006 | 9,006 |
| | >= 95 | 946 | 8,515 | 8,515 |

Development of claims cost

AEP supplied data on retiree medical claim payments for the period October 2007 through September 2010.

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 three periods. These claim rates were trended to 2011 and a three-year weighted average (20%/40%/40%) 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 2011 medical and prescription drug rates.

Medicare Part D subsidy We calibrated our modeling tool to reflect the 2011 cost of the current prescription drug plans for AEP's 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.

Additional Assumptions

| | |
|-------------------------------|--|
| Administrative expenses | \$433 per primary participant in 2011, 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 35% to account for the nondeductibility of these charges for AEP's administrators.</p> |
| Timing of benefit payments | Benefit payments are assumed to be made uniformly throughout the year and on average at mid-year. |
| Gain/loss amortization period | <p>The plan covers primarily inactive participants. Gains and losses are amortized over the retiree's average life expectancy. After the plan-specific benefit provisions have been calibrated to current costs, the Modeler trends costs forward to 2011. 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 2011 less the greater of \$388.08 (the national average Part D premium) and 25.5% of the gross value of Part D coverage to the projected 2011 value of AEP coverage.</p> <p>When the plans are deemed to be actuarially equivalent, the tool calculates the average expected value of the employer subsidy in 2011, using the continuance table calibrated to AEP's plan costs. This produced a 2011 per person employer subsidy of \$1,017.</p> |

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. |
| 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. |
| Change in Assumptions and Methods Since Prior Valuation | <p>The discount rate was decreased from 5.85% to 5.25%.</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>Pursuant to the requirements of the Patient Protection and Affordable Care Act, the excise tax on high-value plans was reflected in this valuation.</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, 2010. 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 Reflected in Valuation

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 22. |
| 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.

Appendix C: Results by Business Unit

**American Electric Power
UMWA Postretirement Welfare Plan**
2011 Summary of Participant Counts

| | Active Participants | Disabled | Retirees* | Dependent Spouses | Surviving Spouses | Total |
|---------------------------------|------------------------|----------|------------|----------------------|----------------------|------------|
| Cedar Coal Co. | 0 | 0 | 120 | 83 | 120 | 323 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 |
| Conesville Coal Preparation Co. | 14 | 0 | 22 | 14 | 0 | 50 |
| Ohio Power Co. - Cook Coal | 63 | 0 | 19 | 17 | 0 | 99 |
| Blackhawk Coal Co. | <u>0</u> | <u>0</u> | <u>17</u> | <u>11</u> | <u>10</u> | 38 |
| Total | 77 | 0 | 178 | 125 | 130 | 510 |

* includes disabled employees

American Electric Power
UMWA Postretirement Welfare Plan
2011 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost | Subsidy | Gross Periodic Postretirement Benefit Cost |
|-------------------------------------|---|-------------------------------|----------------------|--------------|---------------|---------------------------|---------------|-----|-------------|------------------|--|--------------|--|
| | | | | | | | NTO | FSC | (G)/L | | | | |
| Cedar Coal Co | 45,499,274 | 2,811,300 | 0 | 0 | 2,315,859 | 0 | 1,115,415 | 0 | 1,380,287 | 2,495,702 | 375,153 | 5,186,714 | |
| Central Coal Co | 0 | 0 | 0 | 0 | 0 | 0 | 30,530 | 0 | 30,530 | 30,530 | 0 | 30,530 | |
| Appalachian Power Co. | \$45,499,274 | \$2,811,300 | \$0 | \$0 | \$2,315,859 | \$0 | \$1,145,945 | \$0 | \$1,380,287 | \$2,526,232 | \$375,153 | \$5,217,244 | |
| Conesville Coal Preparation Company | 11,214,324 | 365,247 | 0 | 269,314 | 592,908 | 0 | 43,520 | 0 | 340,203 | 383,723 | 109,084 | 1,355,029 | |
| Columbus Southern Power Co. | \$11,214,324 | \$365,247 | \$0 | \$269,314 | \$592,908 | \$0 | \$43,520 | \$0 | \$340,203 | \$383,723 | \$109,084 | \$1,355,029 | |
| Cook Coal Terminal | 29,043,874 | 430,097 | 0 | 753,099 | 1,553,195 | 0 | 105,629 | 0 | 881,089 | 986,718 | 241,230 | 3,534,242 | |
| Ohio Power Co. | \$29,043,874 | \$430,097 | \$0 | \$753,099 | \$1,553,195 | \$0 | \$105,629 | \$0 | \$881,089 | \$986,718 | \$241,230 | \$3,534,242 | |
| Blackhawk Coal Co. | 4,073,346 | 315,217 | 0 | 0 | 205,682 | 0 | 188,393 | 0 | 123,571 | 311,964 | 29,228 | 546,874 | |
| Indiana Michigan Power Co. | \$4,073,346 | \$315,217 | \$0 | \$0 | \$205,682 | \$0 | \$188,393 | \$0 | \$123,571 | \$311,964 | \$29,228 | \$546,874 | |
| Total | \$89,830,818 | \$3,941,861 | \$0 | \$1,022,413 | \$4,667,644 | \$0 | \$1,483,487 | \$0 | \$2,725,150 | \$4,208,637 | \$754,695 | \$10,653,389 | |

American Electric Power
UMWA Postretirement Welfare Plan
 10-Year Forecast of Postretirement Welfare Cost Forecast
 Reflects Effect of Medicare Part D

| Location | Estimated Net Postretirement Benefit Cost | | | | | | | | | | |
|-------------------------------------|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Cedar Coal Co. | \$4,811,561 | \$4,302,828 | \$3,358,333 | \$3,202,776 | \$3,056,805 | \$2,918,957 | \$2,788,398 | \$2,660,233 | \$2,534,618 | \$2,414,746 | \$2,300,137 |
| Central Coal Co. | 30,530 | 21,335 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$4,842,091 | \$4,324,163 | \$3,358,333 | \$3,202,776 | \$3,056,805 | \$2,918,957 | \$2,788,398 | \$2,660,233 | \$2,534,618 | \$2,414,746 | \$2,300,137 |
| Conesville Coal Preparation Company | \$1,245,945 | \$1,252,687 | \$1,245,777 | \$1,271,666 | \$1,300,442 | \$1,333,010 | \$1,367,723 | \$1,404,120 | \$1,441,016 | \$1,479,930 | \$1,521,006 |
| Columbus Southern Power Co. | \$1,245,945 | \$1,252,687 | \$1,245,777 | \$1,271,666 | \$1,300,442 | \$1,333,010 | \$1,367,723 | \$1,404,120 | \$1,441,016 | \$1,479,930 | \$1,521,006 |
| Cook Coal Terminal | \$3,293,012 | \$3,365,306 | \$3,400,780 | \$3,515,128 | \$3,634,654 | \$3,758,357 | \$3,886,529 | \$4,018,501 | \$4,157,652 | \$4,303,358 | \$4,456,957 |
| Ohio Power Co. | \$3,293,012 | \$3,365,306 | \$3,400,780 | \$3,515,128 | \$3,634,654 | \$3,758,357 | \$3,886,529 | \$4,018,501 | \$4,157,652 | \$4,303,358 | \$4,456,957 |
| Blackhawk Coal Co. | \$517,646 | \$440,696 | \$290,654 | \$273,566 | \$257,689 | \$243,164 | \$230,364 | \$218,182 | \$206,757 | \$196,750 | \$188,223 |
| Indiana Michigan Power Co. | \$517,646 | \$440,696 | \$290,654 | \$273,566 | \$257,689 | \$243,164 | \$230,364 | \$218,182 | \$206,757 | \$196,750 | \$188,223 |
| Total | \$9,898,694 | \$9,382,852 | \$8,295,544 | \$8,263,136 | \$8,249,590 | \$8,253,488 | \$8,273,014 | \$8,301,036 | \$8,340,043 | \$8,394,784 | \$8,466,323 |

American Electric Power
UMWA Postretirement Welfare Plan
 2012 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|--------------------|-------------------------------|----------------------|--------------------|--------------------|---------------------------|--------------------|------------|--------------------|--------------------|--|
| | | | | | | | | NTD | PSC | (G)/L | | |
| Cedar Coal Co. | \$45,003,832 | \$2,888,032 | \$2,888,032 | \$0 | \$0 | \$2,287,860 | \$0 | \$779,591 | \$0 | \$1,235,377 | \$2,014,968 | \$4,302,828 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21,335 | 0 | 0 | 21,335 | 21,335 |
| Appalachian Power Co. | \$45,003,832 | \$2,888,032 | \$2,888,032 | \$0 | \$0 | \$2,287,860 | \$0 | \$800,926 | \$0 | \$1,235,377 | \$2,036,303 | \$4,324,163 |
| Conesville Coal Preparation Company | \$11,691,299 | \$388,997 | \$388,997 | \$0 | \$282,780 | \$618,559 | \$0 | \$30,416 | \$0 | \$320,932 | \$351,348 | \$1,252,687 |
| Columbus Southern Power Co. | \$11,691,299 | \$388,997 | \$388,997 | \$0 | \$282,780 | \$618,559 | \$0 | \$30,416 | \$0 | \$320,932 | \$351,348 | \$1,252,687 |
| Cook Coal Terminal | \$30,920,071 | \$496,501 | \$496,501 | \$0 | \$790,754 | \$1,651,952 | \$0 | \$73,828 | \$0 | \$848,772 | \$922,600 | \$3,365,306 |
| Ohio Power Co. | \$30,920,071 | \$496,501 | \$496,501 | \$0 | \$790,754 | \$1,651,952 | \$0 | \$73,828 | \$0 | \$848,772 | \$922,600 | \$3,365,306 |
| Blackhawk Coal Co. | \$3,963,811 | \$304,380 | \$304,380 | \$0 | \$0 | \$200,212 | \$0 | \$131,675 | \$0 | \$108,809 | \$240,484 | \$440,696 |
| Indiana Michigan Power Co. | \$3,963,811 | \$304,380 | \$304,380 | \$0 | \$0 | \$200,212 | \$0 | \$131,675 | \$0 | \$108,809 | \$240,484 | \$440,696 |
| Total | \$91,579,013 | \$4,077,910 | \$4,077,910 | \$0 | \$1,073,534 | \$4,758,583 | \$0 | \$1,036,845 | \$0 | \$2,513,890 | \$3,550,735 | \$9,382,852 |

American Electric Power
UMWA Postretirement Welfare Plan
 2013 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G)/L | | |
| Cedar Coal Co. | \$44,403,660 | \$2,919,072 | \$0 | \$0 | \$2,255,546 | \$0 | \$0 | \$0 | \$1,102,787 | \$1,102,787 | \$3,358,333 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$44,403,660 | \$2,919,072 | \$0 | \$0 | \$2,255,546 | \$0 | \$0 | \$0 | \$1,102,787 | \$1,102,787 | \$3,358,333 |
| Conesville Coal Preparation Company | \$12,203,641 | \$405,367 | \$0 | \$296,919 | \$645,775 | \$0 | \$0 | \$0 | \$303,083 | \$303,083 | \$1,245,777 |
| Columbus Southern Power Co. | \$12,203,641 | \$405,367 | \$0 | \$296,919 | \$645,775 | \$0 | \$0 | \$0 | \$303,083 | \$303,083 | \$1,245,777 |
| Cook Coal Terminal | \$32,866,276 | \$572,348 | \$0 | \$830,292 | \$1,754,238 | \$0 | \$0 | \$0 | \$816,250 | \$816,250 | \$3,400,780 |
| Ohio Power Co. | \$32,866,276 | \$572,348 | \$0 | \$830,292 | \$1,754,238 | \$0 | \$0 | \$0 | \$816,250 | \$816,250 | \$3,400,780 |
| Blackhawk Coal Co. | \$3,859,643 | \$302,280 | \$0 | \$0 | \$194,798 | \$0 | \$0 | \$0 | \$95,856 | \$95,856 | \$290,654 |
| Indiana Michigan Power Co. | \$3,859,643 | \$302,280 | \$0 | \$0 | \$194,798 | \$0 | \$0 | \$0 | \$95,856 | \$95,856 | \$290,654 |
| Total | \$93,333,220 | \$4,199,067 | \$0 | \$1,127,211 | \$4,850,357 | \$0 | \$0 | \$0 | \$2,317,976 | \$2,317,976 | \$8,295,544 |

American Electric Power
UMWA Postretirement Welfare Plan
 2014 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G)/L | | |
| Cedar Coal Co. | \$43,740,134 | \$2,931,227 | \$0 | \$0 | \$2,220,396 | \$0 | \$0 | \$0 | \$982,380 | \$982,380 | \$3,202,776 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$43,740,134 | \$2,931,227 | \$0 | \$0 | \$2,220,396 | \$0 | \$0 | \$0 | \$982,380 | \$982,380 | \$3,202,776 |
| Conesville Coal Preparation Company | \$12,740,968 | \$444,646 | \$0 | \$311,765 | \$673,746 | \$0 | \$0 | \$0 | \$286,155 | \$286,155 | \$1,271,666 |
| Columbus Southern Power Co. | \$12,740,968 | \$444,646 | \$0 | \$311,765 | \$673,746 | \$0 | \$0 | \$0 | \$286,155 | \$286,155 | \$1,271,666 |
| Cook Coal Terminal | \$34,878,458 | \$652,898 | \$0 | \$871,807 | \$1,859,970 | \$0 | \$0 | \$0 | \$783,351 | \$783,351 | \$3,515,128 |
| Ohio Power Co. | \$34,878,458 | \$652,898 | \$0 | \$871,807 | \$1,859,970 | \$0 | \$0 | \$0 | \$783,351 | \$783,351 | \$3,515,128 |
| Blackhawk Coal Co. | \$3,752,161 | \$296,863 | \$0 | \$0 | \$189,295 | \$0 | \$0 | \$0 | \$84,271 | \$84,271 | \$273,566 |
| Indiana Michigan Power Co. | \$3,752,161 | \$296,863 | \$0 | \$0 | \$189,295 | \$0 | \$0 | \$0 | \$84,271 | \$84,271 | \$273,566 |
| Total | \$95,111,721 | \$4,325,634 | \$0 | \$1,183,572 | \$4,943,407 | \$0 | \$0 | \$0 | \$2,136,157 | \$2,136,157 | \$8,263,136 |

American Electric Power
UMWA Postretirement Welfare Plan
 2015 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G)/L | | |
| Cedar Coal Co. | \$43,029,303 | \$2,923,674 | \$0 | \$0 | \$2,183,274 | \$0 | \$0 | \$0 | \$873,531 | \$873,531 | \$3,056,805 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$43,029,303 | \$2,923,674 | \$0 | \$0 | \$2,183,274 | \$0 | \$0 | \$0 | \$873,531 | \$873,531 | \$3,056,805 |
| Conesville Coal Preparation Company | \$13,281,833 | \$425,506 | \$0 | \$327,353 | \$703,456 | \$0 | \$0 | \$0 | \$269,633 | \$269,633 | \$1,300,442 |
| Columbus Southern Power Co. | \$13,281,833 | \$425,506 | \$0 | \$327,353 | \$703,456 | \$0 | \$0 | \$0 | \$269,633 | \$269,633 | \$1,300,442 |
| Cook Coal Terminal | \$36,957,337 | \$745,869 | \$0 | \$915,398 | \$1,968,990 | \$0 | \$0 | \$0 | \$750,266 | \$750,266 | \$3,634,654 |
| Ohio Power Co. | \$36,957,337 | \$745,869 | \$0 | \$915,398 | \$1,968,990 | \$0 | \$0 | \$0 | \$750,266 | \$750,266 | \$3,634,654 |
| Blackhawk Coal Co. | \$3,644,593 | \$294,807 | \$0 | \$0 | \$183,701 | \$0 | \$0 | \$0 | \$73,988 | \$73,988 | \$257,689 |
| Indiana Michigan Power Co. | \$3,644,593 | \$294,807 | \$0 | \$0 | \$183,701 | \$0 | \$0 | \$0 | \$73,988 | \$73,988 | \$257,689 |
| Total | \$96,913,066 | \$4,389,856 | \$0 | \$1,242,751 | \$5,039,421 | \$0 | \$0 | \$0 | \$1,967,418 | \$1,967,418 | \$8,249,590 |

American Electric Power
UMWA Postretirement Welfare Plan
 2016 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G)/L | | |
| Cedar Coal Co. | \$42,288,903 | \$2,933,771 | \$0 | \$0 | \$2,144,142 | \$0 | \$0 | \$0 | \$774,815 | \$774,815 | \$2,918,957 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$42,288,903 | \$2,933,771 | \$0 | \$0 | \$2,144,142 | \$0 | \$0 | \$0 | \$774,815 | \$774,815 | \$2,918,957 |
| Conesville Coal Preparation Company | \$13,887,136 | \$473,508 | \$0 | \$343,721 | \$734,849 | \$0 | \$0 | \$0 | \$254,440 | \$254,440 | \$1,333,010 |
| Columbus Southern Power Co. | \$13,887,136 | \$473,508 | \$0 | \$343,721 | \$734,849 | \$0 | \$0 | \$0 | \$254,440 | \$254,440 | \$1,333,010 |
| Cook Coal Terminal | \$39,095,856 | \$853,495 | \$0 | \$961,168 | \$2,080,876 | \$0 | \$0 | \$0 | \$716,313 | \$716,313 | \$3,758,357 |
| Ohio Power Co. | \$39,095,856 | \$853,495 | \$0 | \$961,168 | \$2,080,876 | \$0 | \$0 | \$0 | \$716,313 | \$716,313 | \$3,758,357 |
| Blackhawk Coal Co. | \$3,533,487 | \$273,355 | \$0 | \$0 | \$178,424 | \$0 | \$0 | \$0 | \$64,740 | \$64,740 | \$243,164 |
| Indiana Michigan Power Co. | \$3,533,487 | \$273,355 | \$0 | \$0 | \$178,424 | \$0 | \$0 | \$0 | \$64,740 | \$64,740 | \$243,164 |
| Total | \$98,805,382 | \$4,534,129 | \$0 | \$1,304,889 | \$5,138,291 | \$0 | \$0 | \$0 | \$1,810,308 | \$1,810,308 | \$8,253,488 |

American Electric Power
UMWA Postretirement Welfare Plan
2017 Net Periodic Postretirement Benefit Cost
Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G)/L | | |
| Cedar Coal Co. | \$41,499,274 | \$2,939,575 | \$0 | \$0 | \$2,102,535 | \$0 | \$0 | \$0 | \$685,863 | \$685,863 | \$2,788,398 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$41,499,274 | \$2,939,575 | \$0 | \$0 | \$2,102,535 | \$0 | \$0 | \$0 | \$685,863 | \$685,863 | \$2,788,398 |
| Conesville Coal Preparation Company | \$14,492,198 | \$481,873 | \$0 | \$360,907 | \$767,301 | \$0 | \$0 | \$0 | \$239,515 | \$239,515 | \$1,367,723 |
| Columbus Southern Power Co. | \$14,492,198 | \$481,873 | \$0 | \$360,907 | \$767,301 | \$0 | \$0 | \$0 | \$239,515 | \$239,515 | \$1,367,723 |
| Cook Coal Terminal | \$41,284,405 | \$981,192 | \$0 | \$1,009,226 | \$2,194,989 | \$0 | \$0 | \$0 | \$682,314 | \$682,314 | \$3,886,529 |
| Ohio Power Co. | \$41,284,405 | \$981,192 | \$0 | \$1,009,226 | \$2,194,989 | \$0 | \$0 | \$0 | \$682,314 | \$682,314 | \$3,886,529 |
| Blackhawk Coal Co. | \$3,438,556 | \$269,695 | \$0 | \$0 | \$173,535 | \$0 | \$0 | \$0 | \$56,829 | \$56,829 | \$230,364 |
| Indiana Michigan Power Co. | \$3,438,556 | \$269,695 | \$0 | \$0 | \$173,535 | \$0 | \$0 | \$0 | \$56,829 | \$56,829 | \$230,364 |
| Total | \$100,714,433 | \$4,672,335 | \$0 | \$1,370,133 | \$5,238,360 | \$0 | \$0 | \$0 | \$1,664,521 | \$1,664,521 | \$8,273,014 |

American Electric Power
UMWA Postretirement Welfare Plan
 2018 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G)/L | | |
| Cedar Coal Co. | \$40,662,234 | \$3,097,380 | \$0 | \$0 | \$2,054,500 | \$0 | \$0 | \$0 | \$605,733 | \$605,733 | \$2,660,233 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$40,662,234 | \$3,097,380 | \$0 | \$0 | \$2,054,500 | \$0 | \$0 | \$0 | \$605,733 | \$605,733 | \$2,660,233 |
| Conesville Coal Preparation Company | \$15,138,533 | \$579,376 | \$0 | \$378,952 | \$799,654 | \$0 | \$0 | \$0 | \$225,514 | \$225,514 | \$1,404,120 |
| Columbus Southern Power Co. | \$15,138,533 | \$579,376 | \$0 | \$378,952 | \$799,654 | \$0 | \$0 | \$0 | \$225,514 | \$225,514 | \$1,404,120 |
| Cook Coal Terminal | \$43,507,428 | \$1,122,189 | \$0 | \$1,059,688 | \$2,310,694 | \$0 | \$0 | \$0 | \$648,119 | \$648,119 | \$4,018,501 |
| Ohio Power Co. | \$43,507,428 | \$1,122,189 | \$0 | \$1,059,688 | \$2,310,694 | \$0 | \$0 | \$0 | \$648,119 | \$648,119 | \$4,018,501 |
| Blackhawk Coal Co. | \$3,342,396 | \$273,404 | \$0 | \$0 | \$168,391 | \$0 | \$0 | \$0 | \$49,791 | \$49,791 | \$218,182 |
| Indiana Michigan Power Co. | \$3,342,396 | \$273,404 | \$0 | \$0 | \$168,391 | \$0 | \$0 | \$0 | \$49,791 | \$49,791 | \$218,182 |
| Total | \$102,650,591 | \$5,072,349 | \$0 | \$1,438,640 | \$5,333,239 | \$0 | \$0 | \$0 | \$1,529,157 | \$1,529,157 | \$8,301,036 |

American Electric Power
UMWA Postretirement Welfare Plan
 2019 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G)/L | | |
| Cedar Coal Co. | \$39,619,354 | \$3,048,087 | \$0 | \$0 | \$2,001,028 | \$0 | \$0 | \$0 | \$533,590 | \$533,590 | \$2,534,618 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$39,619,354 | \$3,048,087 | \$0 | \$0 | \$2,001,028 | \$0 | \$0 | \$0 | \$533,590 | \$533,590 | \$2,534,618 |
| Conesville Coal Preparation Company | \$15,737,763 | \$615,923 | \$0 | \$397,900 | \$831,161 | \$0 | \$0 | \$0 | \$211,955 | \$211,955 | \$1,441,016 |
| Columbus Southern Power Co. | \$15,737,763 | \$615,923 | \$0 | \$397,900 | \$831,161 | \$0 | \$0 | \$0 | \$211,955 | \$211,955 | \$1,441,016 |
| Cook Coal Terminal | \$45,755,621 | \$1,228,601 | \$0 | \$1,112,672 | \$2,428,747 | \$0 | \$0 | \$0 | \$616,233 | \$616,233 | \$4,157,652 |
| Ohio Power Co. | \$45,755,621 | \$1,228,601 | \$0 | \$1,112,672 | \$2,428,747 | \$0 | \$0 | \$0 | \$616,233 | \$616,233 | \$4,157,652 |
| Blackhawk Coal Co. | \$3,237,383 | \$262,649 | \$0 | \$0 | \$163,156 | \$0 | \$0 | \$0 | \$43,601 | \$43,601 | \$206,757 |
| Indiana Michigan Power Co. | \$3,237,383 | \$262,649 | \$0 | \$0 | \$163,156 | \$0 | \$0 | \$0 | \$43,601 | \$43,601 | \$206,757 |
| Total | \$104,350,121 | \$5,155,260 | \$0 | \$1,510,572 | \$5,424,092 | \$0 | \$0 | \$0 | \$1,405,379 | \$1,405,379 | \$8,340,043 |

American Electric Power
UMWA Postretirement Welfare Plan
 2020 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G)/L | | |
| Cedar Coal Co. | \$38,572,295 | \$3,054,557 | \$0 | \$0 | \$1,945,889 | \$0 | \$0 | \$0 | \$468,857 | \$468,857 | \$2,414,746 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$38,572,295 | \$3,054,557 | \$0 | \$0 | \$1,945,889 | \$0 | \$0 | \$0 | \$468,857 | \$468,857 | \$2,414,746 |
| Conesville Coal Preparation Company | \$16,350,901 | \$654,927 | \$0 | \$417,795 | \$863,385 | \$0 | \$0 | \$0 | \$198,750 | \$198,750 | \$1,479,930 |
| Columbus Southern Power Co. | \$16,350,901 | \$654,927 | \$0 | \$417,795 | \$863,385 | \$0 | \$0 | \$0 | \$198,750 | \$198,750 | \$1,479,930 |
| Cook Coal Terminal | \$48,068,439 | \$1,318,332 | \$0 | \$1,168,306 | \$2,550,766 | \$0 | \$0 | \$0 | \$584,286 | \$584,286 | \$4,303,358 |
| Ohio Power Co. | \$48,068,439 | \$1,318,332 | \$0 | \$1,168,306 | \$2,550,766 | \$0 | \$0 | \$0 | \$584,286 | \$584,286 | \$4,303,358 |
| Blackhawk Coal Co. | \$3,137,890 | \$236,579 | \$0 | \$0 | \$158,608 | \$0 | \$0 | \$0 | \$38,142 | \$38,142 | \$196,750 |
| Indiana Michigan Power Co. | \$3,137,890 | \$236,579 | \$0 | \$0 | \$158,608 | \$0 | \$0 | \$0 | \$38,142 | \$38,142 | \$196,750 |
| Total | \$106,129,525 | \$5,264,395 | \$0 | \$1,586,101 | \$5,518,648 | \$0 | \$0 | \$0 | \$1,290,035 | \$1,290,035 | \$8,394,784 |

American Electric Power
UMWA Postretirement Welfare Plan
 2021 Net Periodic Postretirement Benefit Cost
 Reflects Effect of Medicare Part D

| Location | Accumulated Postretirement Benefit Obligation | Expected Net Benefit Payments | Fair Value of Assets | Service Cost | Interest Cost | Expected Return on Assets | Amortizations | | | Net Amortization | Net Periodic Postretirement Benefit Cost |
|-------------------------------------|---|----------------------------------|-------------------------|--------------------|--------------------|---------------------------------|---------------|------------|--------------------|---------------------|--|
| | | | | | | | NTO | PSC | (G/L) | | |
| Cedar Coal Co. | \$37,463,627 | \$2,973,756 | \$0 | \$0 | \$1,889,780 | \$0 | \$0 | \$0 | \$410,357 | \$410,357 | \$2,300,137 |
| Central Coal Co. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Appalachian Power Co. | \$37,463,627 | \$2,973,756 | \$0 | \$0 | \$1,889,780 | \$0 | \$0 | \$0 | \$410,357 | \$410,357 | \$2,300,137 |
| Conesville Coal Preparation Company | \$16,977,154 | \$693,445 | \$0 | \$438,685 | \$896,361 | \$0 | \$0 | \$0 | \$185,960 | \$185,960 | \$1,521,006 |
| Columbus Southern Power Co. | \$16,977,154 | \$693,445 | \$0 | \$438,685 | \$896,361 | \$0 | \$0 | \$0 | \$185,960 | \$185,960 | \$1,521,006 |
| Cook Coal Terminal | \$50,469,179 | \$1,412,874 | \$0 | \$1,226,721 | \$2,677,420 | \$0 | \$0 | \$0 | \$552,816 | \$552,816 | \$4,456,957 |
| Ohio Power Co. | \$50,469,179 | \$1,412,874 | \$0 | \$1,226,721 | \$2,677,420 | \$0 | \$0 | \$0 | \$552,816 | \$552,816 | \$4,456,957 |
| Blackhawk Coal Co. | \$3,059,919 | \$229,208 | \$0 | \$0 | \$154,706 | \$0 | \$0 | \$0 | \$33,517 | \$33,517 | \$188,223 |
| Indiana Michigan Power Co. | \$3,059,919 | \$229,208 | \$0 | \$0 | \$154,706 | \$0 | \$0 | \$0 | \$33,517 | \$33,517 | \$188,223 |
| Total | \$107,969,879 | \$5,309,283 | \$0 | \$1,665,406 | \$5,618,267 | \$0 | \$0 | \$0 | \$1,182,650 | \$1,182,650 | \$8,466,323 |

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