

**American Electric Power Co.**

**American Electric Power System Retirement Plan**

**Actuarial Valuation Report  
Employer Contributions for Plan Year  
Beginning January 1, 2017**

**Benefit Cost for Fiscal Year Beginning  
January 1, 2017 under US GAAP**

**May 2017**

**Willis Towers Watson** 



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# Purposes of valuation

American Electric Power Co. (AEP or the Company) retained Towers Watson Delaware Inc., a subsidiary of Willis Towers Watson PLC ("Willis Towers Watson"), to perform an actuarial valuation of the American Electric Power System Retirement Plan for the purpose of determining the following:

1. The minimum required contribution in accordance with ERISA and the Internal Revenue Code (IRC) for the plan year beginning January 1, 2017.
2. The estimated maximum tax-deductible contribution for the tax year in which the 2017 plan year ends in accordance with ERISA as allowed by the IRC. The maximum tax-deductible contribution should be finalized in consultation with the Company's tax advisor.
3. Plan accounting information in accordance with FASB Accounting Standards Codification Topic 960 (ASC 960).
4. An assessment of ERISA §4010 reporting requirements for the plan for 2017.
5. Determination of the Funding Target Attainment Percentage (FTAP) under IRC §430(d)(2), as reported in the Annual Funding Notice required under ERISA 101(f).
6. The value of benefit obligations as of January 1, 2017 and American Electric Power Co.'s pension cost for fiscal year ending December 31, 2017 in accordance with FASB Accounting Standards Codification Topic 715 (ASC 715-30).
7. As requested by American Electric Power Co., a "specific certification" of the Adjusted Funding Target Attainment Percentage (AFTAP) for the American Electric Power System Retirement Plan under IRC §436 for the plan year beginning January 1, 2017. Please see Appendix C for additional information. Note that the AFTAP certification included herein may be superseded by a subsequent AFTAP certification for the American Electric Power System Retirement Plan for the plan year beginning January 1, 2017.

## Limitations

This valuation has been conducted for the purposes described above and may not be suitable for any other purpose. In particular, please note the following:

1. This report does not determine the plan's liquidity shortfall requirements (if any) under IRC §430(j)(4). If applicable, we will determine such requirements separately as requested by the Company.
2. This report does not determine liabilities on a plan termination basis, for which a separate extensive analysis would be required. No funded status measure included in this report is intended to assess, and none may be appropriate for assessing, the sufficiency of plan assets to

cover the estimated cost of settling the plan's benefit obligations, as all such measures differ in some way from plan termination obligations. For example, measures shown in this report may reflect smoothed assets or interest rates, rather than current values, in accordance with funding and accounting rules. In addition, funded status measures shown in this report do not reflect the current costs of settling the plan obligations by offering immediate lump sum payments to participants and/or purchasing annuity contracts for the remaining participants (e.g., insurer profit, insurer pricing of contingent benefits and/or provision for anti-selection in the choice of a lump sum vs. an annuity).

3. The cost method for the minimum required contribution is established under IRC §430 and may not in all circumstances produce adequate assets to pay benefits under all optional forms of payment available under the plan when benefit payments are due.
4. The comparison of the plan's funding target to its actuarial value of assets (the funding shortfall (surplus) shown in Section 1) is used in determining required contributions for the coming year, and a contribution made on the valuation date equal to the shortfall would be considered to "fully fund" the plan for benefits accrued as of the valuation date under the funding rules, and thus is useful for assessing the need for and amount of future contributions. However, the funding shortfall (surplus) cannot be relied upon to determine either the need for or the amount of future contributions. The funding shortfall (surplus) is based on the interest rates elected to be used for funding purposes, which may be smoothed rates not reflecting current market conditions and will in any event change over time. It is also based on the actuarial value of assets, so if an asset smoothing method is used, it would be different than if based on market value of assets. In addition, asset gains and losses, demographic experience different from assumed, and future benefit accruals (if any) will all affect the need for and amount of future contributions.
5. There may be certain events that occurred since the valuation date that are not reflected in this valuation. See Subsequent Events (under the "Basis for valuation" portion of Section 1 below) for more information.
6. This valuation reflects our understanding of the relevant provisions of the Pension Protection Act of 2006 (PPA); the Worker, Retiree and Employer Recovery Act of 2008 (WRERA); the Preservation of Access to Care for Medicare Beneficiaries and Pension Relief Act of 2010 (PRA), the Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), the Highway and Transportation Funding Act of 2014 (HATFA), and the Bipartisan Budget Act of 2015. The IRS has yet to issue final guidance with respect to certain aspects of these laws. It is possible that future guidance may conflict with our understanding of these laws based on currently available guidance and could therefore affect results shown in this report.



# Section 1: Summary of results

## Summary of valuation results

All monetary amounts shown in US Dollars

Plan Year Beginning	01/01/2017	01/01/2016
<b>Funding</b>		
Market value of assets with discounted receivable contributions	4,831,883,160	4,764,796,511
Actuarial value of assets	4,959,332,851	4,845,528,901
Funding balances	764,027,069	732,713,704
Funding target	4,106,845,705	4,032,865,265
Target normal cost	88,460,077	79,939,884
Funding shortfall (surplus)	(88,460,077)	(79,949,932)
Funding target attainment percentage (FTAP)	102.15%	101.98%
Minimum required contribution		
Prior to application of funding balances	0	0
Net of available funding balances	0	0
Effective interest rate	5.80%	5.95%
<b>U.S. GAAP Accounting (ASC 715) as of Measurement Date</b>		
Projected benefit obligation (PBO)	5,026,555,852	4,936,569,137
Fair value of assets (without receivable contributions)	4,831,883,160	4,764,796,511
Funded status	(194,672,692)	(171,772,626)
Total benefit cost/(income)	93,751,108	98,494,271
Discount rate	4.05%	4.30%
<b>Participants as of Census Date</b>		
Active employees	16,899	16,859
Participants with deferred benefits	3,643	4,372
Participants receiving benefits	15,460	15,645
Total	36,002	36,876
<b>Plan Accounting (ASC 960)</b>		
Present value of accumulated benefits	4,013,604,704	4,062,659,954
Market value of assets with receivable contributions	4,831,883,160	4,764,796,511
Plan accounting discount rate	6.00%	6.00%

## Minimum required contribution and funding policy

All monetary amounts shown in US Dollars

Plan Year Beginning	01/01/2017	01/01/2016
<b>Minimum Required Contribution (MRC)</b>		
Prior to application of funding balances	0	0
Net of available funding balances	0	0
<b><i>Sponsor's Funding Policy Contribution</i></b>	96,356,000	85,953,000

The plan sponsor's funding policy generally has been to contribute the greater of the ASC 715 service cost or the minimum required contribution. We understand the sponsor may deviate from this policy based on cash, tax, or other considerations.

The minimum required contribution includes a contribution to cover the benefits expected to accrue in the coming year (if any) plus expenses expected to be paid from the trust in the coming year (if any) (target normal cost), as well as a 7-year amortization (with a somewhat longer amortization period for shortfall amortization bases established in any year for which funding relief was elected) of any funding shortfall (amortization installments) (See Section 2.4 for a break-down of the minimum required contribution into target normal cost and amortization installments, and see Section 2.5 for a schedule of amortization installments for future years). Thus, assuming that all actuarial assumptions are realized and do not change and the plan sponsor contributes the minimum required contribution each year (target normal cost plus amortization installments), the plan would generally be expected to be fully funded in 7 years, and the minimum required contribution would be expected to drop to target normal cost. During the 7 year period, there will be some variability in minimum required contributions due to amortization installments from prior years dropping out as the 7-year amortization period ends (and for deferred asset gains or losses becoming reflected in assets if an asset smoothing method is used for the actuarial value of assets). In reality, gains and losses will occur, and the plan sponsor may fail to contribute the minimum required contribution (or may contribute more than the minimum required contribution in accordance with the funding policy described above), which may cause the plan to take more or less than 7 years to become fully funded. Note that being fully funded under the funding rules is not the same as being fully funded on a plan termination basis, as different assumptions apply (e.g., the cost of annuity contracts or lump sums to participants) on plan termination.

Target normal cost for individual participants accruing benefits will grow from year to year as participants age (and as their salaries increase, if benefit accruals are pay related), but the changes in total target normal cost will depend on the numbers of participants earning benefits and their ages. Because the number and ages of active participants covered by the plan are not expected to change significantly from year to year, target normal cost is expected to increase as salaries increase. Of course, changes in discount rates and other assumptions in future years will also influence the pattern of future required contributions.

The minimum required contribution for the 2017 plan year must be satisfied by September 15, 2018. This requirement may be satisfied through contributions and/or an election to apply the available funding balances. No quarterly installments are required. The minimum required contribution is determined assuming it is paid as of the valuation date for the plan year. Contributions made on a date other than the valuation date must be adjusted for interest at the plan's effective interest rate. The minimum funding schedule, before reflecting any funding balance elections or amounts already contributed for the 2017 plan year prior to the issuance of this report, is shown below.

All monetary amounts shown in US Dollars

Date	Funding Balance Applied	Current Plan Year Contributions	Discounted Value of Contributions as of Valuation Date	Portion of MRC Satisfied
April 15, 2017	0	0	0	0
July 15, 2017	0	0	0	0
October 15, 2017	0	0	0	0
January 15, 2018	0	0	0	0
September 15, 2018	0	0	0	0
<b>Total</b>				<b>0</b>

If a plan has a funding shortfall for the current plan year, quarterly contributions will be required for the following plan year.

Because the plan does not have a funding shortfall, no quarterly contributions will be required for the 2018 plan year based on this year's valuation results.

**Change in minimum funding requirement and funding shortfall (funding surplus)**

The minimum funding requirement is unchanged from \$0 for the 2016 plan year to \$0 for the 2017 plan year, and the funding shortfall (surplus) increased from \$(79,949,932) on January 1, 2016 to \$(88,460,077) on January 1, 2017.

Significant reasons for these changes include the following:

- The plan's effective interest rate decreased 15 basis points compared to the prior year, which decreased the funding surplus.
- Investment experience was more favorable than expected, which increased the funding surplus.
- Demographic experience was less favorable than expected which decreased the funding surplus.

## Funding ratios

The Pension Protection Act of 2006 (PPA) defines several Funding Ratios. All of these ratios are based on a ratio of plan assets to plan liabilities, but the assets and liabilities are defined differently for different purposes. Depending on the purpose, the assets may be market value or, if different, a smoothed actuarial value of assets, and may be reduced by the prefunding balance or all funding balances. The liabilities may be based on the funding target, funding target disregarding at-risk assumptions, or the funding target calculated using at-risk assumptions (see the At-Risk status section below), and may or may not reflect stabilized interest rates.

Following are the key funding ratios and their implications for the 2017 or 2018 plan years. See Appendix E for details on how each ratio is calculated.

### January 1, 2016 Funding ratios

Ratio Test Implications	Threshold	Ratio Value
1 Funding balances can be used to satisfy the 2017 Minimum Required Contribution (MRC) if threshold met	80%	105.98%
2 Quarterly contribution exemption applies in 2017 if threshold met	100%	101.98%
3 Plan is not at-risk for 2017 if the threshold for either the Prong 1 or Prong 2 test is met		
- Prong 1 Test	80%	101.98%
- Prong 2 Test	70%	N/A

### January 1, 2017 Funding ratios

Ratio Test Implications	Threshold	Ratio Value
1 Funding balances can be used to satisfy the 2018 MRC if threshold met	80%	105.86%
2 Quarterly contribution exemption applies in 2018 if threshold met	100%	102.15%
3 Plan is not at-risk for 2018 if the threshold for either the Prong 1 or Prong 2 test is met		
- Prong 1 Test	80%	102.15%
- Prong 2 Test	70%	N/A
4 PBGC 4010 filing may be required in 2018 if threshold is not met by every plan in the controlled group	80%	86.91%
5 Plan is exempt from creating a new Shortfall Amortization Base (SAB) for 2017 when prefunding balance <u>is</u> applied to the 2017 MRC if threshold met	100%	105.86%
6 Plan is exempt from creating a new SAB for 2017 when prefunding balance <u>is not</u> applied to the 2017 MRC if threshold met	100%	120.75%
7 Previously established SABs are eliminated for 2017 if threshold met	100%	102.15%

## Benefit limitations

The Adjusted Funding Target Attainment Percentage (AFTAP) for the plan year beginning January 1, 2017 is 120.75%. This AFTAP may be changed by subsequent events.

Under the PPA, a plan may become subject to various benefit limitations if its AFTAP falls below certain thresholds.

If the AFTAP is below 60% (100% if the plan sponsor is in bankruptcy, calculated ignoring stabilized interest rates), plans are prohibited from paying lump sums or other accelerated forms of distribution. If the AFTAP is at least 60% but less than 80%, the amounts that can be paid are limited. In addition, lump sums to the 25 highest paid employees may be restricted if a plan's AFTAP is below 110%. These limitations do not apply to mandatory lump sum cash-outs of \$5,000 or less. In addition, plans that were completely frozen before September 2005 are exempt from the restrictions on lump sums and other accelerated forms of distribution.

If the AFTAP is below 60%, benefit accruals must cease, amendments to improve benefits cannot take effect, and plant shutdown benefits and other Unpredictable Contingent Event Benefits (UCEBs) cannot be paid without being fully paid for. In addition, if the AFTAP would be below 80% reflecting a proposed amendment, the plan amendment cannot take effect unless actions are taken to increase plan assets.

To avoid these benefit limitations, a plan sponsor may take a variety of steps, including reducing the funding balances, contributing additional amounts to the plan for the prior plan year, contributing special "designated IRC §436 contributions" for the current plan year, or providing security outside the plan. Not all of these approaches are available for all of the restrictions discussed above. For example, restrictions on accelerated distributions cannot be avoided by making designated IRC §436 contributions.

As requested by AEP in your letter dated May 2, 2017, this report is intended to constitute a "specific certification" of the AFTAP, effective as of May 5, 2017, for the plan year beginning January 1, 2017 for the purpose of determining benefit restrictions under IRC §436 for the American Electric Power System Retirement Plan. This AFTAP certification is based on the data, methods, assumptions, plan provisions, annuity purchase information, and other information provided in this report. Please see the Appendices for additional information. Note that the AFTAP certification provided herein may be superseded by a subsequent AFTAP certification for the plan year beginning January 1, 2017. Please see Appendix C for a discussion of the implications of this certified AFTAP.

## PBGC reporting requirements

Certain financial and actuarial information (i.e., a "4010 filing") must be provided to the PBGC if the PBGC Funding Target Attainment Percentage (PBGC FTAP) is less than 80% for any plan in the contributing sponsor's controlled group. However, this reporting requirement may be waived for

controlled groups with no more than \$15 million in aggregate funding shortfall (PBGC 4010 FS), or with fewer than 500 participants in all defined benefit plans. Note that interest rate stabilization does not apply for purposes of determining the PBGC FTAP or the PBGC 4010 FS.

The 2017 FTAP is 86.91%. In addition, we understand that all other pension plans within the Company's controlled group also have PBGC FTAPs of at least 80%. As a result, no 4010 filing is expected to be required for 2017 as a result of the plans' funded status. However, the only plans we have considered in this analysis are the American Electric Power System Retirement Plan; if there are other plans within the controlled group, a filing may be required. A filing may also be required if there are outstanding funding waivers or missed contributions within the controlled group.

### **At-Risk status for determining minimum required contributions**

The plan is not in at-risk status, as defined in the PPA, for the 2017 plan year, because the plan's FTAP for the 2016 plan year was at least 80%, and/or the plan's FTAP measured using "at-risk assumptions" was at least 70%.

The plan will not be in at-risk status, as defined in the PPA, for the 2018 plan year, because the plan's FTAP for the 2017 plan year is at least 80%, and/or the plan's FTAP measured using "at-risk assumptions" is at least 70%.

When a plan is in at-risk status as defined in the PPA:

The plan is subject to potentially higher minimum contribution requirements. The funding target and target normal cost for purposes of determining the minimum required contribution must be measured reflecting certain mandated assumptions ("at-risk assumptions"). Specifically, participants eligible to retire within the next 11 years must be assumed to retire immediately when first eligible (but not before the end of the current year, except in accordance with the regular valuation assumptions), and all participants must be assumed to elect the most valuable form of payment available when they begin receiving benefits. In addition, plans that have been at-risk in past years may also be required to increase the funding target and target normal cost for prescribed assumed expenses. The net effect of these assumptions and expense adjustments in most cases is to increase required contributions and PBGC variable premiums.

The plan sponsor must indicate in the annual funding notice for the plan that the plan is at-risk and disclose additional at-risk funding targets.

Immediate taxation of non-qualified pension or deferred compensation for certain employees may occur if the plan sponsor is a public company. This may result when non-qualified pension or deferred compensation for such employees is funded during a period when a plan sponsored by the plan sponsor or another member of the plan sponsor's controlled group is in at-risk status.

## Pension cost and funded position

The cost of the pension plan is determined in accordance with ASC 715. The Fiscal 2017 pension cost for the plan is \$93,751,108.

Under ASC 715, the funded position (fair value of plan assets less the projected benefit obligation, or "PBO") of each pension plan at the plan sponsor's fiscal year-end (measurement date) is required to be reported as an asset (for overfunded plans) or a liability (for underfunded plans). The PBO 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) PBO as of January 1, 2017 was \$(194,672,692), based on the fair value of plan assets of \$4,831,883,160 and the PBO of \$5,026,555,852.

Fiscal year-end financial reporting information and disclosures are prepared before detailed participant data and full valuation results are available. Therefore, the funded position at December 31, 2016 was derived from a roll forward of the January 1, 2016 valuation results, adjusted for the year-end discount rate, changes in other key assumptions and asset values, as well as significant changes in plan provisions and participant population. The fiscal year-end December 31, 2017 financial reporting information will be developed based on the results of the January 1, 2017 valuation, projected to the end of 2017 and similarly adjusted for the year-end discount rate and asset values, as well as significant changes in plan provisions and participant population.

The actuarial gains/(losses) due to demographic experience, including any assumption changes, and investment return different from assumed during the prior year were \$(135,968,640) and \$41,530,945 respectively.

## Change in pension cost and funded position

The pension cost declined from \$98,494,271 in fiscal 2016 to \$93,751,108 in fiscal 2017 and the funded position declined from \$(171,772,626) to \$(194,672,692), as set forth below:

All monetary amounts shown in US Dollars

	Net Periodic Cost	Funded Position
Prior year	98.5	(171.8)
Change due to:		
■ Expected based on prior valuation and contributions during prior year	(5.3)	69.7
■ Unexpected noninvestment experience	(0.4)	(19.6)
■ Unexpected investment experience	(1.8)	45.5
■ Assumption changes	2.7	(118.5)
■ Plan amendments	0	0
■ Settlements, curtailments, termination benefits	0	0
■ Acquisitions	0	0
■ Method changes	0	
■ Changes in estimation techniques		
Current year	93.7	(194.7)

Significant reasons for these changes include the following:

- The return on the fair value of plan assets since the prior measurement date was greater than expected, which decreased the pension cost and improved the funded position.
- The discount rate decreased 25 basis points compared to the prior year which increased the pension cost and caused the funded position to deteriorate.
- The lump sum conversion rate decreased from 4.50% to 4.20%, which decreased the pension cost and improved the funded position.
- Demographic experience was less favorable than expected, which increased the pension cost and caused the funded position to deteriorate.



## Basis for valuation

Appendix A summarizes the assumptions and methods used in the valuation. Appendix B summarizes the principal provisions of the plan being valued, including a summary of any changes since the prior valuation. Unless otherwise described below under Subsequent Events, assumptions were selected based on information known as of the measurement date.

### Changes in Assumptions

The discount rate decreased from 4.30% to 4.05%.

The mortality used to convert 417(e) based forms of payment was updated for an additional year of mortality improvements.

The lump sum conversion rate for accounting purposes decreased from 4.50% to 4.20%.

### Changes in Methods

None.

### Changes in Benefits Valued

None.

### Subsequent events

None.

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# Actuarial certification

This valuation has been conducted in accordance with generally accepted actuarial principles and practices. However, please note the information discussed below regarding this valuation.

## Reliances

In preparing the results presented in this report, we have relied upon information regarding plan provisions, participants, assets and sponsor elections provided by AEP and other persons or organizations designated by AEP. In addition, the results in this report are dependent on contributions reported for the prior plan year and maintenance of funding balance elections after the valuation date.

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 directly dependent upon the accuracy and completeness of the underlying data and information. Any material inaccuracy in the data, assets, plan provisions or information regarding contributions or funding balance elections provided to us may have produced results that are not suitable for the purposes of this report and such inaccuracies, as corrected by AEP, may produce materially different results that could require that a revised report be issued.

## Assumptions and methods under ERISA and the Internal Revenue Code for funding purposes

The plan sponsor selected, as prescribed by regulation, key assumptions and funding methods (including asset valuation method and choice among prescribed interest rates) employed in the development of the contribution amounts and communicated them to us in the letter dated May 2, 2017.

To the extent not prescribed by ERISA, the Internal Revenue Code and regulatory guidance from the Treasury and the IRS, or selected by the sponsor, the actuarial assumptions and methods employed in the development of the contribution amounts have been selected by Willis Towers Watson, with the concurrence of the plan sponsor. It is beyond the scope of this actuarial valuation to analyze the reasonableness and appropriateness of prescribed methods and assumptions, or to analyze other sponsor elections from among the alternatives available for prescribed methods and assumptions.

Other than prescribed assumptions, ERISA and the Internal Revenue Code require the use of assumptions each of which is "reasonable (taking into account the experience of the plan and

reasonable expectations), and which, in combination, offer the actuary's best estimate of anticipated experience under the plan." The results shown in this report have been developed based on actuarial assumptions that, to the extent evaluated or selected by Willis 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.

A summary of the assumptions and methods used is provided in Appendix A. Note that any subsequent changes in methods or assumptions for the 2017 plan year will change the results shown in this report and could result in plan qualification issues under IRC §436 if the application of benefit restrictions is affected by the change.

## Assumptions and methods under U.S. GAAP

As required by U.S. GAAP, the actuarial assumptions and methods employed in the development of the pension cost have been selected by the plan sponsor. Willis Towers Watson has concurred with these assumptions and methods, except for the expected rate of return on plan assets selected as of January 1, 2017. Evaluation of the expected return assumption was outside the scope of Willis Towers Watson's assignment and would have required substantial additional work that we were not engaged to perform. U.S. GAAP requires that each significant assumption "individually represent the best estimate of a particular future event."

Accumulated other comprehensive (income)/loss amounts shown in the report are shown prior to adjustment for tax effects. Any tax effects in AOCI should be determined in consultation with American Electric Power Co.'s tax advisors and auditors.

## Nature of actuarial calculations

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 any certainty. The effects of certain plan provisions may be approximated, or determined to be insignificant and therefore not valued. 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. Any rounding (or lack thereof) used for displaying numbers in this report is not intended to imply a degree of precision, which is not a characteristic of actuarial calculations.

If overall future plan experience produces higher benefit payments or lower investment returns 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; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for the measurements (such as the end of an amortization period) or additional contribution requirements based on the plan's funded status); and changes in plan

provisions or applicable law. It is beyond the scope of this valuation to analyze the potential range of future pension 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 Masters 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 Co. and its auditors and any organization that provides benefit administration services for the plan, in connection with our actuarial valuation of the pension 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 Co. may distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American Electric Power Co. to provide them this report, in which case American Electric Power Co. will use best efforts to notify Willis 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 Willis Towers Watson's prior written consent. Willis 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

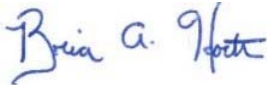
The undersigned consulting actuaries are members of the Society of Actuaries and meet the "Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States" relating to pension plans. Our objectivity is not impaired by any relationship between American Electric Power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



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May 5, 2017

<http://natct.internal.towerswatson.com/clients/604598/AEP2017Valuations/Documents/2017%20Qualified%20Report.doc>

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# Section 2: Actuarial exhibits

## 2.1 Summary of liabilities for minimum funding purposes

All monetary amounts shown in US Dollars

Plan Year Beginning	01/01/2017	01/01/2016
<b>A Funding Target (Disregarding At-risk Assumptions)</b>		
1 Funding target	4,106,845,705	4,032,865,265
2 Target normal cost <sup>1</sup>	88,460,077	79,939,884
<b>B Funding Target (At-risk Assumptions)</b>		
1 Funding target	N/A	N/A
2 Target normal cost	N/A	N/A
<b>C Funding Target</b>		
1 Number of consecutive years at-risk	0	0
2 Funding target		
a Active employees – non-vested benefits <sup>2</sup>	13,140,143	10,757,492
b Active employees – vested benefits <sup>2</sup>	1,664,687,839	1,615,270,507
c Participants with deferred benefits	215,748,048	225,404,031
d Participants receiving benefits	2,213,269,675	2,181,433,235
e Total funding target	4,106,845,705	4,032,865,265
3 Target normal cost <sup>1</sup>	88,460,077	79,939,884

<sup>1</sup> Includes administrative expenses

<sup>2</sup> See section 2.8 for definition of vested benefits.

## 2.2 Change in plan assets during plan year

All monetary amounts shown in US Dollars

Plan Year Beginning	January 1, 2016
<b>A Reconciliation of Market Value of Assets</b>	
1 Market value of assets at January 1, 2016 (including discounted contributions receivable)	4,764,796,511
2 Discounted contributions receivable at January 1, 2016	0
3 Market value of assets at January 1, 2016 (excluding contributions receivable)	4,764,796,511
4 Employer contributions	
a For prior plan year	85,953,000
b For current plan year	85,953,000
c IRC §436 contributions for current plan year	0
d Total	85,953,000
5 Employee contributions	0
6 Benefit payments	(340,613,741)
7 Administrative expenses paid by plan	(5,468,137)
8 Transfers from/(to) other plans	0
9 Investment return	
a Interest and dividends	0
b Investment expenses	0
c Realized gains/(losses)	0
d Change in unrealized appreciation	327,215,527
e Total	327,215,527
10 Market value of assets at January 1, 2017 (excluding contributions receivable)	4,831,883,160
11 Discounted contributions receivable at January 1, 2017	0
12 Market value of assets at January 1, 2017 (including discounted contributions receivable)	4,831,883,160
<b>B Rate of Return on Invested Assets (i.e., for crediting unused funding balances)</b>	
1 Weighted invested assets	4,636,641,947
2 Rate of return	7.06%



### 2.3 Development of actuarial value of assets

AEP elected a smoothing method that uses seven monthly data points to calculate the AVA.

All monetary amounts shown in US Dollars

**Plan Year Beginning** **January 1, 2017**

#### Development of AVA

<u>Month</u>	<u>Expenses</u>	<u>Benefit Payments</u>	<u>Contributions</u>	<u>Fair Value at Beginning of Month</u>
July 2016	20,167	29,041,366	0	4,984,082,181
August 2016	12,342	27,298,558	0	5,074,092,011
September 2016	291,633	27,899,323	0	5,068,650,285
October 2016	2,625,244	25,715,448	0	5,037,768,482
November 2016	391,259	24,726,559	0	4,944,553,704
December 2016	173,199	22,553,323	0	4,813,825,429

#### AVA with receivables

**A Preliminary Actuarial Value of Assets before Corridor as of January 1, 2017**

1 Monthly asset values adjusted for expenses and benefit payments rolled forward to January 1, 2017

<u>Month</u>	<u>Asset value</u>
a July 2016	4,968,202,891
b August 2016	5,063,155,439
c September 2016	5,060,459,151
d October 2016	5,033,233,614
e November 2016	4,943,975,884
f December 2016	4,814,419,825
g January 2017	4,831,883,160
h Average of monthly asset values	4,959,332,851

2 Preliminary Actuarial Value of Assets and before application of corridor 4,959,332,851

**B Lower Bound of Corridor (90% of A12 from prior page)** 4,348,694,844

**C Upper Bound of Corridor (110% of A12 from prior page)** 5,315,071,476

**Actuarial Value of Assets as of January 1, 2017**

**D (A2 but not smaller than B nor larger than C)** 4,959,332,851

## 2.4 Calculation of minimum required contribution

All monetary amounts shown in US Dollars

Reconciliation of Funding Balances as of January 1, 2017			
	Funding Standard Carryover Balance	Prefunding Balance	Total
<b>A Determination of Funding Balances</b>			
1 Funding balance as of January 1, 2016	161,239,527	571,474,177	732,713,704
2 Amount used to offset prior year minimum required contribution <sup>1</sup>	0	0	0
3 Adjustment for investment experience	11,383,511	40,346,077	51,729,588
4 Amount of additional prefunding balance created by election	N/A	0	0
5 Amount of funding balance reduction for current year by election or deemed election	20,416,223	0	20,416,223
6 Funding balance as of January 1, 2017	152,206,815	611,820,254	764,027,069

Plan Year Beginning	January 1, 2017
<b>B Calculation of Minimum Required Contribution</b>	
1 Target normal cost	88,460,077
2 Funding surplus	(88,460,077)
3 Net shortfall amortization installment (see section 2.5)	0
4 Waiver amortization installment	0
5 Minimum required contribution	0
6 Funding balance available	764,027,069
7 Remaining cash requirement (assuming sponsor elects full use of the available funding balances)	0

The minimum required contribution is determined as of the plan's valuation date. Any payment made on a date other than the valuation date must be adjusted for interest using the plan's effective interest rate of 5.80%.

Additional details regarding the calculation of the minimum required contribution may be obtained from the Form 5500 Schedule SB forms and attachments.

<sup>1</sup> Net of revoked excess application of funding balance, if any.

## 2.5 Schedule of minimum funding amortization bases

All monetary amounts shown in US Dollars

Type of Base	Date Established	Remaining Amortization Period (Years)	Outstanding Balance	Amortization Payment
Total			0	0

## 2.6 Calculation of estimated maximum deductible contribution

All monetary amounts shown in US Dollars

Based on Plan Year	2017
<b>A Basic Maximum</b>	
1 Funding target	4,106,845,705
2 Target normal cost	88,460,077
3 Actuarial value of assets	4,959,332,851
4 50% of funding target	2,053,422,853
5 Additional funding target for future compensation or benefit increases	110,465,790
6 Basic maximum deductible contribution	1,399,861,574
<b>B At-risk Maximum<sup>1</sup></b>	
1 Funding target (at-risk assumptions)	N/A
2 Target normal cost (at-risk assumptions)	N/A
3 Actuarial value of assets	N/A
4 At-risk maximum deductible contribution	N/A
<b>C Minimum Required Contribution</b>	0
<b>D Estimated Maximum Deductible Contribution</b>	1,399,861,574

The estimated maximum deductible contribution applies to the tax year in which the plan year ends, and is based on our understanding of IRC §404(a)(1). Regulatory guidance from the IRS/Treasury is pending. Allocations of costs to inventory have not been considered, and amounts deductible for state income tax purposes may differ. Deductibility can be influenced by timing of contributions, differences between fiscal year and plan year, and differences (if any) between the years to which prior contributions were assigned for minimum funding purposes and the years in which they were deducted. Our results have not been adjusted for non-deducted contributions included in the valuation assets, nor is it clear that such adjustment is appropriate post-PPA. We recommend the plan sponsor review with tax counsel the tax-deductibility of all contributions as Willis Towers Watson does not provide legal or tax advice.

The calculation above reflects stabilized interest rates (including their effect on at-risk status), which is not required in determining the maximum deductible contribution. Not reflecting such corridors would likely result in a higher maximum deductible amount, but would require substantial additional work that may not be of value to the Company. We can discuss not reflecting the corridors if the Company wishes to consider contributions in excess of the estimated maximum amount above.

In addition, the actuarial value of assets shown is the same as used for determining the minimum required contribution. Thus contributions receivable (if any) are discounted at stabilized rates, and the limit on the expected return on assets reflected in asset smoothing (if applicable) is the 3rd segment

<sup>1</sup> At-risk maximum applies only for plans not in at-risk status for purposes of determining maximum deductible contributions for the plan year.

rate, reflecting stabilized rates as expressly allowed by IRS Notice 2012-61 when the stabilized 3rd segment rate is higher than the rate ignoring the corridors.

This limit has been determined without regard to the special rule of IRC §404(o)(2)(B) providing a potentially higher maximum deduction based on at-risk assumptions, which is available for plans that are not at risk.

## 2.7 Calculation of PBGC variable rate premium

All monetary amounts shown in US Dollars

Premium Payment Year	2017
<b>A Assumptions and Methods Used to Determine Premium Funding Target</b>	
1 Premium funding target method	Standard
2 Premium funding target method election date	January 1, 2014
3 UVB valuation date	January 1, 2017
4 Discount rates	
a First segment rate	2.04%
b Second segment rate	4.03%
c Third segment rate	4.82%
<b>B Premium Funding Target</b>	
1 Attributable to active participants	1,935,600,590
2 Attributable to terminated vested participants	252,646,801
3 Attributable to retirees and beneficiaries receiving payment	2,527,144,110
4 Total premium funding target <sup>1</sup>	4,715,391,501
<b>C Market Value of Assets</b>	
	4,831,883,160
<b>D Unfunded Vested Benefits</b>	
	0
<b>E Uncapped Variable Rate Premium<sup>2</sup></b>	
	0
<b>F Maximum VRP<sup>3</sup></b>	
	18,467,757
<b>G Variable Rate Premium</b>	
	0

<sup>1</sup> Reflects at-risk status, if applicable.

<sup>2</sup> Using variable rate premium of \$34 per \$1,000 of unfunded vested benefits.

<sup>3</sup> Using maximum per-participant premium of \$517.

## 2.8 ASC 960 (plan accounting) information

All monetary amounts shown in US Dollars

Plan Year Beginning	January 1, 2017
<b>A Present Value of Accumulated Benefits</b>	
1 Vested accumulated benefits	
a Active employees	1,582,261,707
b Participants with deferred benefits	216,401,523
c Participants receiving benefits	2,203,681,034
d Total vested accumulated benefits	4,002,344,264
2 Non-vested accumulated benefits	11,260,440
3 Total accumulated benefits	4,013,604,704
4 Market value of assets <sup>1</sup>	4,831,883,160
<b>B Reconciliation of Present Value of Accumulated Benefits</b>	
1 Present value of accumulated benefits as of December 31, 2015	4,062,659,954
2 Changes during the year due to:	
a Benefits accumulated	68,557,617
b Actuarial (gains)/losses	(1,519,982)
c Decrease in the discount period	234,157,855
d Actual benefits paid	(340,613,741)
e Assumption changes	(9,636,999)
f Plan amendments	0
g Net increase/(decrease)	(49,055,250)
3 Present value of accumulated benefits as of December 31, 2016	4,013,604,704

### Actuarial Assumptions and Methods

The present value of accumulated benefits was developed using the actuarial assumptions described in Appendix A, except a discount rate of 6.00% was used.

The discount rate used is the same as the expected rate of return on plan assets for the plan year under ASC 715-30-35 and, as required by that standard and further discussed in the Actuarial Certification of this report, was selected by the plan sponsor without using the work of Willis Towers Watson. Evaluation of this assumption was outside the scope of Willis Towers Watson's assignment and would have required substantial additional work that we were not engaged to perform. We understand that the expected return on assets assumption reflects the plan sponsor's estimate of future experience for trust asset returns, reflecting the plan's current asset allocation and any expected changes during the current plan year, current market conditions and the plan sponsor's expectations for future market conditions.

<sup>1</sup> Assets include accrued contributions for the 2016 plan year of \$0 not yet deposited at January 1, 2017.

For the prior valuation, a discount rate of 6.00% was used.

### **Plan Provisions**

Plan provisions reflected in these calculations are described in Appendix B.

### **Accumulated and Vested Benefits**

Accumulated benefits include benefits earned under the plan's benefit formula based on service rendered and compensation earned before the measurement date.

Benefits included in vested benefits are the same as described above for accrued benefits, except the following benefits are excluded:

- For participants who are not disabled on the measurement date, disability benefits in excess of the value of standard termination benefits (retirement benefits for those eligible).
- For participants who have not yet satisfied the eligibility requirements for these benefits, early retirement benefits and supplements in excess of standard termination benefits.
- Death benefits in excess of the plan's QPSA.
- All benefits for participants who are not yet vested in their accrued benefits or eligible for other benefits.



## 2.9 Pension obligations and funded position under U.S. GAAP (ASC 715)

All monetary amounts shown in US Dollars

Measurement Date	01/01/2017	01/01/2016
<b>A Obligations</b>		
1 Accumulated Benefit Obligation (ABO)		
a. Active participants	2,012,775,103	1,970,101,788
b. Participants with deferred benefits	262,417,046	272,272,257
c. Participants receiving benefits	2,577,390,313	2,545,649,263
d. Total	4,852,582,462	4,788,023,308
2 Future salary increases	173,973,390	148,545,829
3 Projected benefit obligation (PBO)	5,026,555,852	4,936,569,137
<b>B Assets</b>		
1 Fair value [FV] <sup>1</sup>	4,831,883,160	4,764,796,511
2 Investment losses/(gains) not yet in market-related value	41,353,578	31,960,120
3 Market-related value	4,873,236,738	4,796,756,631
<b>C Funded Position</b>		
1 Overfunded/(underfunded) PBO	(194,672,692)	(171,772,626)
2 PBO funded percentage	96.1%	96.5%
<b>D Amounts in Accumulated Other Comprehensive Income</b>		
1 Prior service cost/(credit)	1,018,565	3,176,136
2 Net actuarial loss/(gain)	1,548,886,948	1,536,370,582
3 Total	1,549,905,513	1,539,546,718
<b>E Key Assumptions</b>		
1 Discount rate	4.05%	4.30%
2 Rate of compensation increase	Rates vary by age from 3.5% to 12.0%	Rates vary by age from 3.5% to 12.0%
<b>F Census Date</b>		
	01/01/2017	01/01/2016

The results above may differ from the amounts reported in AEP's December 31, 2016 financial statements because year-end financial reporting is prepared before the corresponding valuation results are available.

<sup>1</sup> Excludes receivable contributions.

## 2.10 Changes in benefit obligations and assets

All monetary amounts shown in US Dollars

Period Beginning	01/01/2017	01/01/2016
<b>A Change in Projected Benefit Obligation (PBO)</b>		
1 PBO at beginning of prior fiscal year	4,936,569,137	5,121,214,558
2 Employer service cost	85,952,960	92,514,545
3 Interest cost	208,678,856	202,041,675
4 Actuarial loss/(gain)	135,968,640	(154,412,612)
5 Plan participants' contributions	0	0
6 Benefits paid from plan assets	(340,613,741)	(324,789,029)
7 Administrative expenses paid <sup>1</sup>	0	0
8 Plan change	0	0
9 Acquisitions/divestitures	0	0
10 Curtailments	0	0
11 Settlements	0	0
12 Special/contractual termination benefits	0	0
13 PBO at beginning of current fiscal year	5,026,555,852	4,936,569,137
<b>B Change in Plan Assets</b>		
1 Fair value of assets at beginning of prior fiscal year	4,764,796,511	4,975,864,249
2 Actual return on assets	327,215,527	26,433,234
3 Employer contributions	85,953,000	92,514,000
4 Plan participants' contributions	0	0
5 Benefits paid	(340,613,741)	(324,789,029)
6 Administrative expenses paid	(5,468,137)	(5,225,943)
7 Acquisitions/divestitures	0	0
8 Settlements	0	0
9 Fair value of assets at beginning of current fiscal year	4,831,883,160	4,764,796,511

<sup>1</sup> Only if future expenses are accrued in PBO through a load on service cost.

## 2.11 Pension cost under U.S. GAAP (ASC 715)

All monetary amounts shown in US Dollars

Fiscal Year Ending	12/31/2017	12/31/2016
<b>A Pension Cost</b>		
1 Service cost	96,356,122	85,952,960
2 Interest cost	200,421,010	208,678,856
3 Expected return on assets	(284,837,083)	(280,216,445)
4 Net prior service cost/(credit) amortization	1,008,874	2,157,571
5 Net loss/(gain) amortization/recognition	80,802,185	81,921,329
6 Net periodic pension cost/(income)	93,751,108	98,494,271
7 Curtailments	0	0
8 Settlements	0	0
9 Special/contractual termination benefits	0	0
10 Total pension cost	93,751,108	98,494,271
<b>B Key Assumptions<sup>1</sup></b>		
1 Discount rate	4.05%	4.30%
2 Rate of return on assets	6.00%	6.00%
3 Rate of compensation increase	Rates vary by age from 3.5% to 12.0%	Rates vary by age from 3.5% to 12.0%
<b>C Census Date</b>	01/01/2017	01/01/2016

<sup>1</sup> These assumptions were used to calculate Net Periodic Pension Cost/(Income) as of the beginning of the year. For other assumptions used, as well as assumptions used for interim remeasurements, if any, refer to Appendix A.

## 2.12 Development of market-related value of assets under U.S. GAAP (ASC 715)

All monetary amounts shown in US Dollars

Fiscal Year Ending		12/31/2017	
<b>Market-Related Value of Assets as of January 1, 2017</b>			
1	Fair value of assets as of January 1, 2017		4,831,883,160
2	Deferred investment (gains)/losses for prior periods		
	<b>Fiscal Year</b>	<b>(Gain)/Loss</b>	<b>Percent Deferred</b>
	a 2017	(43,253,828)	80%
	b 2016	270,591,925	60%
	c 2015	(190,546,751)	40%
	d 2014	(50,899,071)	20%
	e Total		41,353,578
3	Market-Related Value of Assets		4,873,236,738

## 2.13 Summary of net prior service cost/(credit) balances

All monetary amounts shown in US Dollars

Base Number	Net Amount at prior financial year end	Remaining Amortization Period	Amortization Amount	Effect of Curtailments	Other Events
1	890,806	1.01100	(881,115)	0	0
2	127,759	0.12100	(127,759)	0	0
<b>Total</b>	<b>1,018,565</b>		<b>(1,008,874)</b>	<b>0</b>	<b>0</b>

### Summary of Net Loss/(Gain)<sup>1</sup>

Net Amount at 01/01/2017	Amortization Amount in 2017	Effect of Curtailments	Effect of Settlements	Other Events
1,548,886,948	80,802,185	0	0	0

<sup>1</sup> See Appendix A for description of amortization method.

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# Section 3: Participant data

## 3.1 Summary of plan participants

All monetary amounts shown in US Dollars

Census Date	01/01/2017	01/01/2016																																				
<b>A Active Employees</b>																																						
1 Number	16,899	16,859																																				
2 Expected plan compensation for year beginning on the valuation date (limited by IRC §401(a)(17))	1,700,806,558	1,642,729,251																																				
3 Average plan compensation	100,645	97,439																																				
4 Average age	48.0	48.2																																				
5 Average credited service	18.2	18.6																																				
6 Average future working life (years)	12.436	12.338																																				
<b>B Participants with Deferred Benefits</b>																																						
1 Number (non-cash balance)	1,484	1,603																																				
2 Total annual pension (non-cash balance)	8,185,923	8,831,108																																				
3 Average annual pension (non-cash balance)	5,516	5,509																																				
4 Number of cash balance	2,159	2,769																																				
5 Total cash balance	161,517,279	181,246,355																																				
6 Average cash balance	74,811	65,456																																				
7 Average age	54.0	52.3																																				
8 Distribution at January 1, 2017																																						
<table border="1"> <thead> <tr> <th>Non-Cash Balance</th> <th>Age</th> <th>Number</th> <th>Annual Pension</th> </tr> </thead> <tbody> <tr> <td></td> <td>Under 40</td> <td>1</td> <td>423</td> </tr> <tr> <td></td> <td>40-44</td> <td>1</td> <td>2,920</td> </tr> <tr> <td></td> <td>45-49</td> <td>49</td> <td>182,063</td> </tr> <tr> <td></td> <td>50-54</td> <td>298</td> <td>1,504,354</td> </tr> <tr> <td></td> <td>55-59</td> <td>565</td> <td>3,214,657</td> </tr> <tr> <td></td> <td>60-64</td> <td>496</td> <td>2,961,931</td> </tr> <tr> <td></td> <td>65 and over</td> <td>74</td> <td>319,575</td> </tr> <tr> <td></td> <td>Total</td> <td>1,484</td> <td>8,185,923</td> </tr> </tbody> </table>			Non-Cash Balance	Age	Number	Annual Pension		Under 40	1	423		40-44	1	2,920		45-49	49	182,063		50-54	298	1,504,354		55-59	565	3,214,657		60-64	496	2,961,931		65 and over	74	319,575		Total	1,484	8,185,923
Non-Cash Balance	Age	Number	Annual Pension																																			
	Under 40	1	423																																			
	40-44	1	2,920																																			
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Cash Balance	Age	Number	Annual Pension																																			
	Under 40	451	6,927,112																																			
	40-44	189	5,555,509																																			
	45-49	229	9,532,766																																			
	50-54	364	22,914,723																																			
	55-59	423	43,582,679																																			
	60-64	344	48,949,569																																			
	65 and over	159	24,054,921																																			
	Total	2,159	161,517,279																																			

**C Participants Receiving Benefits**

1 Number	15,460	15,645
2 Total annual pension	229,027,975	233,059,750
3 Average annual pension	14,814	14,897
4 Average age	74.9	74.5
5 Distribution at January 1, 2017		

Age	Number	Annual Pension
Under 55	67	339,573
55-59	421	6,092,449
60-64	1,700	30,907,753
65-69	3,234	53,618,469
70-74	2,937	41,136,007
75-79	2,379	31,016,795
80-84	2,121	31,498,215
85 and over	2,601	34,418,714



### 3.2 Participant reconciliation

	Active	Deferred Inactive	Currently Receiving Benefits	Total
1 Included in January 1, 2016 valuation	16,859	4,372	15,645	36,876
2 Change due to:				
a New hire and rehire	954	(12)	0	942
b Non-vested termination	(60)	0	0	(60)
c Vested termination	(202)	202	0	0
d Retirement	(234)	(164)	398	0
e Disability	(9)	(6)	15	0
f Death without beneficiary	(42)	(9)	(484)	(535)
g Death with beneficiary	0	0	(227)	(227)
h New beneficiary	0	0	227	227
i Cashout	(362)	(703)	(114)	(1,179)
j Miscellaneous <sup>1</sup>	(5)	(37)	0	(42)
k Net change	40	(729)	(185)	(874)
3 Included in January 1, 2017 valuation <sup>2</sup>	16,899	3,643	15,460	36,002

<sup>1</sup> Includes adjustments for prior omissions and data corrections.

<sup>2</sup> The deferred inactive count includes a duplicate record for 48 CS participants that are still active at AEP.

### 3.3 Age and service distribution of participating employees

#### Number distributed by attained age and attained years of credited service

Attained Age	Years Of Credited Service														
	Under 1			1 to 4			5 to 9			10 to 14			15 to 19		
	No.	Average		No.	Average		No.	Average		No.	Average		No.	Average	
		Comp.	Cash Bal.		Comp.	Cash Bal.		Comp.	Cash Bal.		Comp.	Cash Bal.		Comp.	Cash Bal.
Under 25				263	63,765	3,867	2								
25 to 29				702	69,545	5,413	287	81,494	16,382	13					
30 to 34				627	75,784	6,936	633	87,665	23,206	343	90,807	34,237	5		
35 to 39				442	75,710	7,271	559	88,471	26,959	551	96,115	42,277	214	100,808	60,189
40 to 44				311	79,351	9,520	459	90,883	32,179	505	95,099	49,263	370	102,283	72,256
45 to 49				268	87,468	11,053	341	93,571	38,470	377	98,763	58,917	380	112,323	89,208
50 to 54				173	88,076	12,632	234	89,418	41,557	276	101,600	67,874	347	105,762	99,482
55 to 59				148	88,634	13,546	169	88,684	44,888	214	101,380	76,264	235	105,142	113,114
60 to 64				89	83,837	13,260	93	85,190	47,921	104	107,433	92,099	118	113,397	133,670
65 to 69				20	85,140	17,027	32	87,066	53,409	30	94,502	89,273	27	87,618	118,404
70 & Over				4			4			4			10		

Attained Age	Years Of Credited Service														
	20 to 24			25 to 29			30 to 34			35 to 39			40 & up		
	No.	Average		No.	Average		No.	Average		No.	Average		No.	Average	
		Comp.	Cash Bal.		Comp.	Cash Bal.		Comp.	Cash Bal.		Comp.	Cash Bal.		Comp.	Cash Bal.
Under 25															
25 to 29															
30 to 34															
35 to 39	2														
40 to 44	112	110,252	95,557	3											
45 to 49	291	108,791	118,368	252	115,620	148,722	10								
50 to 54	279	100,251	130,097	674	112,471	171,899	626	109,029	197,774	75	102,667	216,274	1		
55 to 59	227	102,088	145,542	457	103,864	184,412	888	115,297	232,419	1,124	106,357	258,199	50	98,791	265,759
60 to 64	90	93,609	156,755	222	98,095	202,648	327	108,754	263,633	662	113,088	308,677	280	108,336	325,649
65 to 69	16			34	93,178	206,088	41	104,386	274,324	69	108,101	341,888	87	114,913	434,723
70 & Over	1			6			1			2			7		

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# Appendix A – Statement of actuarial assumptions and methods

## 1. Assumptions and methods for contribution purposes

### Actuarial Assumptions and Methods — Contributions

#### Economic Assumptions

Interest rate basis:

- Applicable month (published) October 2016
- Yield curve basis Segment rates

Funding interest rates:

	Reflecting Corridors	Not Reflecting Corridors
■ First segment rate	4.16%	1.52%
■ Second segment rate	5.72%	3.78%
■ Third segment rate	6.48%	4.76%
■ Effective interest rate	5.80%	3.94%

Annual rates of increase

- Compensation:
 

	<i>Age</i>	<i>Rate</i>
– Representative rates	< 26	12.00%
	26 – 30	8.50%
	31 – 35	7.00%
	36 – 40	6.00%
	41 – 45	5.00%
	46 – 50	4.00%
	> 50	3.50%
– Weighted average		4.80%
- Cash balance crediting rate 4.00%
- Lump sum/annuity conversion rate October 2016 segment rates
- Future Social Security wage bases 4.00%
- Statutory limits on compensation N/A
- Expected rate of return on assets for prior year 6.00% but not greater than the third segment rate

## Demographic Assumptions

**Inclusion Date** The valuation date coincident with or next following the date on which the employee becomes a participant.

**New or rehired employees** It was assumed there will be no new or rehired employees.

### Mortality

- **Healthy** Separate rates for non-annuitants (based on RP-2000 "Employees" table without collar or amount adjustments, projected to 2032 using Scale AA and annuitants (based on RP-2000 "Healthy Annuitants" table without collar or amount adjustments, projected to 2024 using Scale AA.

- **Disabled** Post-1994 current liability disabled

- **Lump sum/annuity conversion** Applicable 417(e) IRS Mortality Table

**Termination** Rates varying by age and service:

Percentage leaving during the year		
Attained Age	Less than five years of service	Five or more years of service
< 25	8.00%	7.30%
25 – 29	8.00%	5.00%
30 – 34	8.00%	4.20%
35 – 39	8.00%	3.40%
40 – 44	8.00%	2.50%
45 – 49	8.00%	1.90%
50 +	8.00%	1.70%

**Disability** Rates apply to employees not eligible to retire and vary by age and sex as indicated by the following sample values:

Percentage becoming disabled during the year		
Age	Male	Female
20	0.060%	0.090%
30	0.060%	0.090%
40	0.074%	0.110%
50	0.178%	0.267%
60	0.690%	1.035%

**Retirement** Rates varying by age; average retirement age 64:

Percentage retiring during the year	
Age	Rate
55 – 57	1.00%
58 – 60	6.00%
61 – 63	16.00%
64 – 69	13.00%
70 +	100.00%

Benefit commencement date:

- Preretirement death benefit The later of the death of the active participant or the date the participant would have attained age 55.
- Deferred vested benefit (active participants) The later of age 55 or termination of employment.
- Deferred vested benefit (current deferred vested) The later of age 65 or current age
- Disability benefit Upon disablement.
- Retirement benefit Upon termination of employment.

Form of payment 40% lump sum; 60% annuity for retirement eligible East grandfathered participants and 75% lump sum; 25% annuity for all other participants. Married participants are assumed to elect the 50% joint and survivor annuity and unmarried participants are assumed to elect the single life annuity. No other optional form of payment election is assumed.

Percent married 80% of male participants; 70% of female participants.

Spouse ages Wives are assumed to be three years younger than husbands.

Valuation pay 2017 base salary pay (Grandfathered) – not estimated due to freeze of final average pay accruals at December 31, 2010.

2017 expanded pay (Cash Balance) – sum of the following updated one year according to the salary increase assumption:

- (i) 2017 base salary
- (ii) a 15% increase for overtime eligible employees and a target bonus percent increase for incentive-eligible employees

At-risk assumptions If at-risk calculations are required, all participants eligible to elect benefits during the current and subsequent ten plan years are assumed to commence benefits at the earliest possible date under the plan, but not before the end of the current plan year, except in accordance with the regular valuation assumptions. In addition, all participants (not just those eligible to begin benefits within the next 11 years) are assumed to elect the most valuable form of benefit under the plan, which is usually a joint and survivor form of payment.

Timing of benefit payments Annuity payments are payable monthly at the beginning of the month and lump sum payments are payable on date of decrement.

## Methods

Valuation date	First day of plan year.
Funding target	Present value of accrued benefits.
Target normal cost	Present value of benefits expected to accrue during plan year plus plan-related expenses expected to be paid from the trust (based on actual trust expenses paid in previous year, adjusted by the difference between the prior and expected current year PBGC premiums).
Actuarial value of assets	<p>Average of the fair market value of assets on the valuation date and the six immediately preceding months, adjusted for contributions, benefit/expense payments and expected investment returns. The average asset value must be within 10% of fair value, including contributing receivable. The method of computing the actuarial value of assets complies with rules governing the calculation of such values under PPA.</p> <p>These rules produce smoothed values that reflect the underlying market value of plan assets but fluctuate less than the market value. As a result, the actuarial value of assets will be lower than the market value in some years and greater in other years. However, over the long term under PPA's smoothing rules, the method has a bias to produce an actuarial value of assets that is below the market value of assets.</p>
Benefits Not Valued	<p>All benefits were valued except:</p> <ul style="list-style-type: none"> <li>– Any liabilities that may be reinstated in the event of reemployment</li> <li>– The alternate benefit formula for members who did not elect to withdraw their employee contributions</li> <li>– Any liabilities relating to members' unwithdrawn employee contributions</li> <li>– Liabilities related to special benefits as a result of termination due to downsizing and restructuring</li> </ul>

## Data Sources

Willis Towers Watson used participant and asset data as of January 1, 2017, supplied by Mercer, the third party administrator for AEP. Data were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available, and the data was adjusted to reflect any significant events that occurred between the date the data was collected and the measurement date. To the extent that data were not provided, estimates were made based on prior year information.

The Company also provided the amounts recognized in accumulated other comprehensive income as of the end of the December 31, 2016 fiscal year and amounts recognized in other comprehensive income in the December 31, 2016 fiscal year.



## 2. Assumptions and methods for pension cost purposes

### Actuarial Assumptions and Methods — Pension Cost

#### Demographic Assumptions

Discount rate		4.05%
Return on assets*		6.00%
Annual rates of increase		
■ Compensation:		
— Representative rates	<i>Age</i>	<i>Rate</i>
	< 26	12.00%
	26 – 30	8.50%
	31 – 35	7.00%
	36 – 40	6.00%
	41 – 45	5.00%
	46 – 50	4.00%
	> 50	3.50%
— Weighted average		4.80%
■ Cash balance crediting rate		4.00%
■ Lump sum/annuity conversion rate		4.20%
■ Future Social Security wage bases		4.00%
■ Statutory limits on compensation		3.00%

The return on assets shown above is net of investment expenses and administrative expenses assumed to be paid from the trust.

\* Also used as discount rate for plan accounting (ASC 960) purposes.

**Demographic Assumptions**

**Inclusion Date** The valuation date coincident with or next following the date on which the employee becomes a participant.

**New or rehired employees** It was assumed there will be no new or rehired employees.

**Mortality** Based on modified versions of RP-2014 with long-term improvement rates of 0.75%.

Base mortality rates are derived from the RP-2014 mortality table with improvements factored to 2006 with no collar adjustments.

Mortality improvements are projected forward on a generational basis. Improvement rates grade linearly from the MP-2016 rate in 2007 to the ultimate rate in 2015:

Age	Ultimate Improvement rate per year	Age	Ultimate improvement rate per year
85 and younger	0.750%	91	0.300%
86	0.675%	92	0.225%
87	0.600%	93	0.150%
88	0.525%	94	0.075%
89	0.450%	95 and older	0.000%
90	0.375%		

**Lump sum/annuity conversion** Applicable 417(e) IRS Mortality Table

**Termination** Rates varying by age and service

Attained Age	Percentage leaving during the year	
	Less than five years of service	Five or more years of service
< 25	8.00%	7.30%
25 – 29	8.00%	5.00%
30 – 34	8.00%	4.20%
35 – 39	8.00%	3.40%
40 – 44	8.00%	2.50%
45 – 49	8.00%	1.90%
50 +	8.00%	1.70%

**Disability** Rates apply to employees not eligible to retire and vary by age and sex as indicated by the following sample values:

Age	Percentage becoming disabled during the year	
	Male	Female
20	0.060%	0.090%
30	0.060%	0.090%
40	0.074%	0.110%
50	0.178%	0.267%
60	0.690%	1.035%

Retirement Rates varying by age; average retirement age 64:

Percentage retiring during the year	
Age	Rate
55-57	1.00%
58-60	6.00%
61-63	16.00%
64-69	13.00%
70+	100.00%

Benefit commencement date:

- Preretirement death benefit The later of the death of the active participant or the date the participant would have attained age 55.
- Deferred vested benefit (active participants) The later of age 55 or termination of employment.
- Deferred vested benefit (current deferred vested) The later of age 65 or current age
- Disability benefit Upon disablement.
- Retirement benefit Upon termination of employment.

Form of payment 40% lump sum; 60% annuity for retirement eligible East grandfathered participants and 75% lump sum; 25% annuity for all other participants. Married participants are assumed to elect the 50% joint and survivor annuity and unmarried participants are assumed to elect the single life annuity. No other optional form of payment election is assumed.

Percent married 80% of male participants; 70% of female participants.

Spouse ages Wives are assumed to be three years younger than husbands.

Valuation pay 2017 base salary pay (Grandfathered) – not estimated due to freeze of final average pay accruals at December 31, 2010.

2017 expanded pay (Cash Balance) – sum of the following updated one year according to the salary increase assumption:

- (i) 2017 base salary
- (ii) a 15% increase for overtime eligible employees and a target bonus percent increase for incentive-eligible employees

Administrative expenses Discount rate is net of expenses paid by the trust.

Timing of benefit payments Annuity payments are payable monthly at the beginning of the month and lump sum payments are payable on date of decrement.

## Methods

Service cost and projected benefit obligation	Projected unit credit
Market-related value of assets	<p>The market value on the valuation date less the following percentages of prior years' investment gains and losses:</p> <ul style="list-style-type: none"> <li>■ 80% of the prior year</li> <li>■ 60% of the second prior year</li> <li>■ 40% of the third prior year</li> <li>■ 20% of the fourth prior year</li> </ul> <p>The investment gain or loss is calculated each year by:</p> <ul style="list-style-type: none"> <li>■ Rolling forward the prior year's fair value of assets with actual contributions, benefit payments and expected return on investments using the long-term yield assumption</li> <li>■ Comparing the actual fair value of assets to the expected value calculated above.</li> </ul>
Benefits not valued	<p>All benefits were valued except:</p> <ul style="list-style-type: none"> <li>■ Any liabilities that may be reinstated in the event of reemployment</li> <li>■ The alternate benefit formula for members who did not elect to withdraw their employee contributions</li> <li>■ Any liabilities relating to members' unwithdrawn employee contributions</li> <li>■ Liabilities related to special benefits as a result of termination due to restructuring or downsizing</li> </ul>

## Data Sources

Willis Towers Watson used participant and asset data as of January 1, 2017, supplied by Mercer, the third party administrator for AEP. Data were reviewed for reasonableness and consistency, but no audit was performed. Based on discussions with the plan sponsor, assumptions or estimates were made when data were not available, and the data was adjusted to reflect any significant events that occurred between the date the data was collected and the measurement date. To the extent that data were not provided, estimates were made based on prior year information.

The Company also provided the amounts recognized in accumulated other comprehensive income as of the end of the December 31, 2016 fiscal year and amounts recognized in other comprehensive income in the December 31, 2016 fiscal year.

**Assumptions Rationale - Significant Economic Assumptions for Contributions**

Discount rate	The basis chosen was selected by the plan sponsor from among choices prescribed by law, all of which are based on observed market data over certain periods of time.
Cash Balance Interest crediting rate	The plan credits interest to cash balance accounts using the 30-year Treasury rate for the September of the preceding year with a minimum rate of 4.00%. The assumption is based on the plan sponsor's long-term expectations of yields on U.S. Treasuries. We believe that the selected assumption does not significantly conflict with what would be reasonable based on market conditions at the measurement date.
Lump sum conversion rate	As required by IRC 430, lump sum benefits are valued using "annuity substitution", so that the interest rates assumed are effectively the same as described above for the discount rate.
Rates of increase in:	
<ul style="list-style-type: none"> <li>■ Compensation</li> </ul>	Rates of increase in compensation were based on an experience study conducted in 2014, with annual consideration of whether any conditions have changed that would be expected to produce different results in the future.
<ul style="list-style-type: none"> <li>■ National average wages (NAW) (e.g., Social Security wage bases)</li> </ul>	The assumed NAW is based on assumed CPI as shown below, plus assumed increases in real wages (the portion of GDP increases that becomes part of wages). Such assumed future increases in real wages are based on a combination of historical averages and an expectation that the future rates will be lower (higher) than historical averages.
<ul style="list-style-type: none"> <li>■ Increases in statutory limits (CPI)</li> </ul>	The assumed CPI is based on a combination of historical average CPI, current conditions and an assumed progression from recently experienced CPI to the long-term expected level. The final assumption represents a composite of current rates and long term expected rates.

**Assumptions Rationale - Significant Economic Assumptions for Accounting**

Discount rate	As required by U.S. GAAP, the discount rate was chosen by the plan sponsor based on market information on the measurement date.
Expected return on plan assets	We understand that the expected return on assets assumption reflects the plan sponsor's estimate of future experience for trust asset returns, reflecting the plan's current asset allocation and any expected changes during the current plan year, current market conditions and the plan sponsor's expectations for future market conditions.
Cash balance interest crediting rate	The plan credits interest to cash balance accounts using the 30-year Treasury rate for the September of the preceding year with a minimum rate of 4.00%. The assumption is based on

the plan sponsor's long-term expectations of yields on U.S. Treasuries. We believe that the selected assumption does not significantly conflict with what would be reasonable based on market conditions at the measurement date.

Conversion rate for lump sums and annuities	The plan uses IRC 417(e)(3) as its basis to convert between lump sums and annuities. Because the 417(e)(3) interest rates are based on corporate bond yields, the assumption is based on the plan sponsor's long-term expectations of yields on high-quality corporate bonds. We believe that the selected assumption does not significantly conflict with what would be reasonable based on market conditions at the measurement date.
Rate of increase in compensation	Rates of increase in compensation were based on an experience study conducted in 2014, with annual consideration of whether any conditions have changed that would be expected to produce different results in the future.

### Assumptions Rationale - Significant Demographic Assumptions

Mortality	Assumptions used for accounting purposes were selected by the plan sponsor and, as required by U.S. GAAP, represent a best estimate of future experience. Assumptions used for contribution purposes are as prescribed by IRC §430(h).
Termination	<p>Termination rates are based on an experience study conducted in 2014, with annual consideration of whether any conditions have changed that would be expected to produce different results in the future.</p> <p>Assumed termination rates differ by service because of observed differences in termination rates between employees who have attained at least five years of service and those with less than five years of service.</p>
Retirement	Retirement rates are based on an experience study conducted in 2014, with annual consideration of whether any conditions have changed that would be expected to produce different results in the future.
Form of payment	Rates at which retirees elect lump sums versus annuities are based on an experience study conducted in 2014, with annual consideration of whether any conditions have changed that would be expected to produce different results in the future.

**Source of Prescribed Methods**

Funding methods	The methods used for funding purposes as described in Appendix A, including the method of determining plan assets, are "prescribed methods set by law", as defined in the actuarial standards of practice (ASOPs). These methods are required by IRC §430, or were selected by the plan sponsor from a range of methods permitted by IRC §430.
Accounting methods	The methods used for accounting purposes as described in Appendix A, including the method of determining the market-related value of plan assets, are "prescribed methods set by another party", as defined in the actuarial standards of practice (ASOPs). As required by U.S. GAAP, these methods were selected by the plan sponsor.

**Changes in Assumptions and Methods**

Change in assumptions since prior valuation	<p>The interest rates used to calculate the funding target, target normal cost and to convert 417(e) based forms of payments were updated from the segment rates as of October 2015 to the segment rates as of October 2016.</p> <p>The required mortality table used to value the funding target and target normal cost was updated to include one additional year of projected mortality improvements.</p> <p>Assumed plan-related expenses of \$5,590,870 were added to the target normal cost.</p> <p>The discount rate decreased from 4.30% to 4.05%.</p> <p>The lump sum conversion rate decreased from 4.50% to 4.20% for accounting purposes.</p> <p>The mortality used to convert to 417(e) based forms of payment was updated for an additional year of mortality improvements.</p>
Change in methods since prior valuation	None.

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# Appendix B1: Summary of plan provisions covered by the former East Retirement Plan

## Plan Provisions

Effective Date	May 1, 1955. Restated effective January 1, 2017.
Recent Amendments	Plan was amended and restated effective January 1, 2017.
Covered Employees	Employees become Members of the Plan on the first day of the month following completion of one year of service.
Participation Date	Date of becoming a covered employee.

## Definitions

Grandfathered employee	<p>If, on December 31, 2000, either:</p> <ul style="list-style-type: none"> <li>– Participating in AEP System Retirement Plan, or</li> <li>– In one-year waiting period for AEP System Retirement Plan participation.</li> </ul>
Vesting service	A period of time from employment date to termination date and, in general, includes periods of severance that are not in the excess of 12 months.
Accredited service	Elapsed time from date of hire (from benefit service start date).
Cash balance pay	Pay received during the year, including base pay, overtime, shift differential/Sunday premium pay and incentive pay, subject to IRS limits.
Covered compensation amount	The average of the Social Security taxable wage based during the 35-year period including the year in which the participant retires, dies, becomes disabled or otherwise terminates employment. This monthly average is calculated to the next lower or equal whole dollar amount and is then rounded to nearest \$50.
Final average pay	Average of the highest 36-consecutive months of base pay out of the last 120 months of employment, subject to IRS limits.
Normal retirement date (NRD)	The first day of the calendar month whose first day is nearest the later of the member's 65 <sup>th</sup> birthday or the completion of five years of Vesting Service.

Cash balance account Recordkeeping account to which annual Interest Credits and annual Company Credits are credited. The cash balance account is updated at the end of each plan year and is equal to:

$$\begin{aligned}
&\text{Cash Balance Account as of the} \\
&\text{end of the prior plan year} \\
&\quad + \\
&\quad \text{Interest Credits} \\
&\quad + \\
&\quad \text{Company Credits}
\end{aligned}$$

Cash balance benefit Cash Balance Account converted to a monthly annuity

Opening balance For those participating in or eligible for the AEP System Retirement Plan on December 31, 2000, opening balance is calculated as follows:

- Present value of monthly normal retirement benefit determined as of December 31, 2000, and payable at age 65 (or current age if older)
  - Present value determined based on 5.78% interest and IRS regulated mortality (GAM83 Unisex) data for lump sums (postretirement only)

Plus

- Credit for early retirement subsidy for monthly payments beginning at age 62 (or current age if older)

Plus

- Transition credit based on age, service and pay received in 2000 (see "Company Credits" for credit percentages)
  - Age and service based on completed whole years as of December 31, 2000.

For employees hired on or after January 1, 2001, opening balance is \$0.

Interest credits Interest credits are applied to beginning of year account balance on December 31 each year.

Based on the average 30-year Treasury Bond rate for November of the previous year.

Minimum of 4%.

Company credits Applied to account balance on December 31 or termination date if earlier.

Amount is a percentage of eligible pay received during the year, based on age plus years of Vesting Service (age and service in completed whole years as of December 31).

<i>Age Plus Years of Service</i>	<i>Annual Company Credit</i>
Less than 30	3.0%
30 – 39	3.5%
40 – 49	4.5%
50 – 59	5.5%
60 – 69	7.0%
70+	8.5%

Monthly Grandfathered Benefit	<p>Sum of (1), (2) and (3):</p> <p>(1) 1.10% of Final Average Pay x Accredited Service up to 35 years</p> <p>(2) 0.50% of Final Average Pay Less Covered Compensation x Accredited Service up to 35 years</p> <p>(3) 1.33% of Final Average Pay x Accredited Service between 35 and 45 years</p> <p>Accruals for the grandfathered benefit ceased on December 31, 2010.</p>
Long-term disability and paid leaves	Participants do not receive company credits while on long-term disability. Vesting service continues.
Unpaid leave	No compensation for annual Company Credit. Vesting service continues.

**Eligibility for Benefits**

Normal retirement	All members at or after their Normal Retirement Date.
Early retirement	Any time after attainment of age 55 and completion of five years of vesting. Applicable only to grandfathered benefits.
Postponed retirement	Retirement after Normal Retirement Date.
Vested termination	All members who terminate employment after completion of three years of Vesting Service, or upon death.
Disability	All members who are unable to work at own occupation solely because of sickness or injury for the first 24 months of disability. After 24 months of disability, the participant is eligible if unable to work at any gainful occupation for which the participant may be able, or may reasonably become qualified by education, training or experience, to perform.
Surviving spouse	The surviving spouse of a Grandfathered Member who retired or is eligible to retire on Normal or Early Retirement and who was married to that spouse for the year preceding commencement and whose grandfathered benefit exceeds his or her Cash Balance Benefit.
Preretirement death	Beneficiary of deceased member.

## Benefits Paid Upon the Following Events

Normal retirement	For Grandfathered Employees, the better of the monthly grandfathered benefit or the Cash Balance Benefit determined as of Normal Retirement Date. For all other employees, the Cash Balance Benefit determined as of Normal Retirement Date.
Early retirement	<p>For Grandfathered Employees, the better of:</p> <ol style="list-style-type: none"> <li>(1) The monthly grandfathered retirement benefit reduced by 3% per year for each year commencement precedes age 62, and</li> <li>(2) The Cash Balance Benefit determined as of the Early Retirement Date.</li> </ol> <p>For all other employees, the Cash Balance Benefit determined as of the Early Retirement Date.</p>
Deferred vested retirement	The accrued Normal Retirement Benefit (better of Cash Balance and Grandfathered Benefits, if eligible), payable at Normal Retirement Date or actuarially reduced and payable at any age.
Disability	<p>The greater of (1) or (2):</p> <ol style="list-style-type: none"> <li>(1) Accrued Grandfathered Retirement Benefit reduced as in the Early Retirement Benefit. If retirement occurs prior to age 55, the benefit is further reduced actuarially from age 55. The Disability Retirement Benefit will reflect Accredited Service that accrued (at most recent rate of base earnings) to a member while receiving benefits under the Company's LTD plan.</li> <li>(2) The Cash Balance Benefit with continued Company Credits while disabled.</li> </ol> <p>Benefit (1) applies for Grandfathered Employees only.</p>
Preretirement death	<p>Better of (1) or (2):</p> <ol style="list-style-type: none"> <li>(1) The grandfathered monthly benefit as if the employee commenced a 60% qualified joint and survivor benefit at his earliest retirement date</li> <li>(2) Annuity equivalent of Cash Balance account or the cash balance account.</li> </ol> <p>Benefit (1) applies for a Grandfathered Employee whose beneficiary is his or her spouse.</p>
Surviving spouse benefits	A benefit payable for life equal to 30% of the single life annuity payable to the grandfathered member. The spouse's benefit is actuarially reduced for each year by which the spouse is more than ten years younger than the member. Payable to Grandfathered Employees only.

**Other Plan Provisions**

Forms of payment

- Grandfathered employees      The following are available for Grandfathered Employees for both the Grandfathered Benefit and the Cash Balance Benefit:
  - Full lump sum payment.
  - Combination of partial lump sum (25%, 50% or 75% of full lump sum) with remainder paid as a monthly benefit (see below).
  - Monthly payment:
    - Single life annuity.
    - Optional joint annuities (spouse or other beneficiary).
      - Available in 40%, 50%, 60%, 75%, 100%.
      - Can elect pop-up and/or level income options.
    - Automatic company-paid 30% surviving spouse annuity included in Grandfathered Benefit annuity if terminate on or after age 55 and married at least one year. Cash Balance Benefit is actuarially reduced for this feature.

A one-time option to elect a lump sum of the accrued benefit for terminated vested participants whose benefit was determined in no way by reference to either the AEP or CSW cash balance formulas was offered during the period from May 1, 2012 through June 30, 2012. Participants eligible for the window were also permitted to elect any of the other optional forms of payment generally applicable to such a participant under the normal terms of the plan document. Any participant who elected to commence benefits under this window, regardless of lump sum or annuity election, had a benefit commencement date of August 1, 2012.

- Employees hired on or after January 1, 2001      The following are available for those hired on or after January 1, 2001:
  - Full lump sum payment.
  - Combination of partial lump sum (25%, 50% or 75% of full lump sum) with remainder paid as a monthly benefit (see below).
  - Monthly payment:
    - Single life annuity.
    - Joint annuities (spouse or other beneficiary).
      - Available in 50%, 75%, 100%.

Form of payment conversion for non-417(e) covered conversions

- Cash balance 7.50% interest and the applicable 417(e) Mortality Table.
- Grandfathered benefit 7.50% interest and the 1974 George B. Buck Mortality Table.

Pension Increases None.

Plan Participants' Contributions Prior to January 1, 1978, employee contributions were required as a condition of Membership. In May and June of 1981, Members were permitted an election to withdraw those contributions. Those who did not elect to withdraw have retirement benefits based on a formula that differs from the formulas previously described in this section. However, the number of nonelecting Members is so small that special plan provisions for that group have not been included in this summary.

Maximum on benefits and pay All benefits and pay for any calendar year may not exceed the maximum limitations for that year as defined in the Internal Revenue Code. The plan provides for increasing the dollar limits automatically as such changes become effective. Increases in the dollar limits are assumed for determining pension cost but not for determining contributions.

Benefits not valued A small portion of the population made employee contributions to the plan. Because the amount of these contributions is not material to the plan, they are not part of the valuation.

Participants who were employees of Columbus Southern Power (CSP) at the time AEP acquired that company have a frozen benefit under the CSP benefit formula at December 31, 1986. Benefits for these participants are the greater of an all-service AEP benefit and a two-part benefit consisting of the frozen CSP benefit plus an AEP benefit accrued from January 1, 1987. Because this applies to a small portion of the population and the CSP frozen benefit is not often the greater benefit for these participants, this benefit is not valued.

Plan status Ongoing.

**Future Plan Changes**

Willis Towers Watson is not aware of any future plan changes that are required to be reflected.

**Changes in Benefits Valued Since Prior Year**

None.

# Appendix B2: Summary of plan provisions covered by the former West Retirement Plan

## Plan Provisions

Effective Date	January 1940. Restated effective January 1, 1997.
Recent Amendments	Plan was merged with and into the American Electric Power System Retirement Plan, which was most recently amended and restated effective January 1, 2017.
Covered Employees	All full-time employees of a Participating Company employed by CSW before January 1, 2001, and not covered by a union (that has not bargained for coverage) or another pension plan provided by AEP. Part-time employees of the Company had to work more than 1,000 hours in the first anniversary year or subsequent calendar years.
Participation Date	Date of becoming a covered employee

## Definitions

Grandfathered employee	Employees who were at least age 50 with ten years of vesting service of July 1, 1997.
Vesting service	All service from date of hire in completed years.
Credited service	The aggregate of:  For the period prior to January 1, 1976: (1) The number of full years in the last continuous period that employee was a participant after June 30, 1970, plus (2) Credited service under any prior plan if service extended to July 1, 1970.  For the period beginning on or after January 1, 1976, the number of full years of service.
Cash balance pay	Pay received during the year, including base pay, overtime, shift differential/Sunday premium pay and incentive pay, subject to IRS limits
Final average pay	Highest average annual earnings (base pay only) during any 36 consecutive months in the 120 months before retirement. Any changes in earnings within the last three months before retirement will not be taken into account.
Normal retirement date (NRD)	The first day of the calendar month on or following the member's 65 <sup>th</sup> birthday.

Cash balance account                      Recordkeeping account to which annual interest credits and annual company credits are credited. The cash balance account is updated at the end of each plan year and is equal to:

$$\begin{aligned}
 &\text{Cash Balance Account as of the} \\
 &\quad \text{end of the prior plan year} \\
 &\quad + \\
 &\quad \text{Interest Credits} \\
 &\quad + \\
 &\quad \text{Company Credits}
 \end{aligned}$$

Cash balance benefit                      Cash Balance Account converted to a monthly annuity

Interest credits                              Interest credits are applied to beginning of year account balance on December 31 each year.

Based on the average 30-year Treasury Bond rate for November of the previous year.

Minimum of 4%.

Company credits                              Applied to account balance on December 31 or termination date if earlier.

Amount is a percentage of eligible pay received during the year, based on age plus years of Vesting Service (age and service in completed whole years as of December 31).

<i>Age Plus Years of Service</i>	<i>Annual Company Credit</i>
Less than 30	3.0%
30 – 39	3.5%
40 – 49	4.5%
50 – 59	5.5%
60 – 69	7.0%
70+	8.5%

Monthly Grandfathered Benefit                      Greater of (1) or (2) below with automatic cost of living adjustments upon retirement:

(1) Basic benefit — An annual amount equal to:

The aggregate of a participant's (a) earned benefit (if any) under any prior plan or acquired Company pension plan under which no election was made to receive a paid-up annuity; and (b) participant contributions without interest for the period commencing on or after July 1, 1970. For the period after September 1, 1980, participants will be deemed to have made contributions at the rate of 2% annually of the participant's annual rate of earnings as of January 1.

(2) Minimum benefit:

1-2/3% of final average annual earnings less 50% of participant's annual primary Social Security benefit times years of credited service up to 30 years.



Minimum benefits	The benefit payable will never be less than the frozen accrued benefit as of July 1, 1997, under the prior plan.
Primary Social Security benefit	<p>The annual amount payable under the Social Security Act as amended in effect at the employee's date of retirement. The date as of which the amount is to be determined is:</p> <ol style="list-style-type: none"> <li>(1) In the case of an employee (including deferred vested employees) retiring on or after normal retirement date, normal retirement date.</li> <li>(2) In the case of an employee retiring prior to normal retirement date, the later of employee's 62<sup>nd</sup> birthday or actual retirement date.</li> </ol> <p>Early retirees and deferred vested employees are assumed to have no earnings after termination in determining the amount of this benefit.</p>
Long-term disability and paid leaves	Participants do not receive company credits while on long-term disability. For the grandfathered formula, the final average pay will be determined as of the date on which the participant became disabled. Vesting service continues.
Unpaid leave	No compensation for annual compensation credit. Vesting service continues.

**Eligibility for Benefits**

Normal retirement	All members at or after their Normal Retirement Date
Early retirement	Any time after attainment of age 55 and completion of five years of vesting
Postponed retirement	Retirement after NRD.
Vested	<p>The participant's cash balance account is 100% vested when any one of the following applies:</p> <ol style="list-style-type: none"> <li>(1) Three years of vesting service</li> <li>(2) Attainment of age 55 while an employee</li> <li>(3) Death prior to termination</li> <li>(4) Upon disability.</li> </ol>
Disability	All participants who become permanently and totally disabled. Permanent and total disability is determined by reference to the LTD plan covering that participant.
Surviving spouse	The surviving spouse of a participant who retired or is eligible to retire on normal or early retirement.
Preretirement death	Beneficiary of participant who dies after becoming vested.

## Benefits Paid Upon the Following Events

**Normal retirement** Grandfathered employees must elect either the cash balance or the grandfathered formula. For purposes of this valuation, the employee is assumed to elect the formula with the higher present value. Employees with a prior plan frozen benefit get the better of the cash balance benefit and the prior plan frozen benefit. For all other employees, the Cash Balance Benefit is determined as of Normal Retirement Date.

**Early retirement** Greater of (1) if applicable or (2):

(1) The grandfathered accrued benefit and the prior plan frozen are payable subject to reduction according to the following schedule if payments commence prior to the normal retirement date.

<i>Age at Retirement</i>	<i>Percent of Benefit Payable</i>
64	100%
63	100%
62	100%
61	95%
60	90%
59	84%
58	78%
57	72%
56	66%
55	60%

(2) The Cash Balance Benefit determined as of the Early Retirement Date.

**Deferred vested retirement** Greater of (1) if applicable or (2):

(1) Grandfathered accrued benefit payable at age 65, or if earlier reduced 5% per year from age 65, 6% per year from age 60 and 7.5% per year compounded from age 55.

(2) Vested cash balance account.

**Disability retirement** The greatest of grandfathered accrued benefit, if eligible, based on projected service and frozen pay deferred to age 65, prior plan frozen benefit if eligible and cash balance account with continued pay credits.

**Preretirement death** If the beneficiary is the spouse and the participant is a grandfathered/protected plan participant, then:

(1) For an active participant who dies on or after 55<sup>th</sup> birthday but before retirement, a monthly benefit equal to 50% of the benefit accrued to the date of death without reduction for early retirement is payable immediately as a life annuity to a qualifying spouse.

(2) For an active participant who dies after completing five or more years of vesting service but before age 55, a deferred monthly benefit equal to 50% of the benefit accrued to the date of death reduced as for early retirement is payable as a life annuity to a

qualifying spouse. Benefit commencement is deferred to when the deceased participant would have attained age 55.

- (3) For a deferred vested participant who dies before benefits commence, a monthly benefit equal to 50% of the deferred vested benefit reduced for early commencement (as for deferred vested) is payable as a life annuity to a qualifying spouse. If death occurs before age 55, the benefit to the spouse is deferred to when the deceased participant would have attained age 55.

The spouse's benefit is actuarially reduced for each year by which the spouse is more than five years younger than the participant.

For all employees, the minimum benefit is the cash balance account immediate annuity, which is also payable if the beneficiary is not the participant's spouse.

## Other Plan Provisions

### Form of payment

The following are available for those participants who did not work an hour of service on or after January 1, 2003:

- Full lump sum payment.
- Monthly payment:
  - Single life annuity.
  - 50% joint annuity (spouse or other beneficiary).

A one-time option to elect a lump sum of the accrued benefit for terminated vested participants whose benefit was determined in no way by reference to either the AEP or CSW cash balance formulas was offered during the period from May 1, 2012 through June 30, 2012. Participants eligible for the window were also permitted to elect any of the other optional forms of payment generally applicable to such a participant under the normal terms of the plan document. Any participant who elected to commence benefits under this window, regardless of lump sum or annuity election, had a benefit commencement date of August 1, 2012.

The following are available for those participants who work an hour of service on or after January 1, 2003:

- Full lump sum payment.
- Combination of partial lump sum (25%, 50% or 75% of full lump sum) with remainder paid as a monthly benefit (see below).
- Monthly payment:
  - Single life annuity.
  - Joint annuities (spouse or other beneficiary).
    - Available in 50%, 75%, 100%.

Form of payment conversion for non-417(e) covered conversions

■ Cash balance	7.50% interest and the applicable 417(e) Mortality Table
■ Grandfathered benefit	Factors as specified in Tables I, II, III and IV of Exhibit A to the American Electric Power System Retirement Plan document. 7.50% interest and the 1951 Group Annuity male mortality table to the extent not covered by Tables I, II, III and IV.
Pension Increases	None.
Member Contributions	None.
Maximum on benefits and pay	All benefits and pay for any calendar year may not exceed the maximum limitations for that year as defined in the Internal Revenue Code. The plan provides for increasing the dollar limits automatically as such changes become effective. Increases in the dollar limits are assumed for determining pension cost but not for determining contributions.
Plan status	Continuing accruals. All new entrants to plan are covered under former East plan provision.

### Future Plan Changes

Willis Towers Watson is not aware of any future plan changes that are required to be reflected.

### Changes in Benefits Valued Since Prior Year

None.

# Appendix C – Adjusted Funding Target Attainment Percentage (AFTAP)

American Electric Power Co. (“AEP”) retained Towers Watson Delaware Inc., a subsidiary of Willis Towers Watson PLC (“Willis Towers Watson”) to perform a valuation of its pension plan for the purpose of measuring the plan’s AFTAP for the plan year beginning January 1, 2017 in accordance with ERISA and the Internal Revenue Code. This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The enrolled actuaries making this certification are members of the Society of Actuaries and other professional actuarial organizations and meet their “Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.”

We hereby certify that the plan’s AFTAP for the plan year beginning January 1, 2017 is 120.75%. This percentage is based on the assumptions, participant data, and plan provisions we relied upon to prepare the results shown in this report, reflects the valuation limitations discussed in this report and is also based on the following additional information:

## Annuity Purchases

AEP’s representation that there were no annuity purchases made on behalf of non-highly compensated employees by the plan in the plan years beginning in 2015 and 2016.

## Funding Balances

Our understanding is that AEP has elected to reduce the plan’s funding balances as of the first day of the 2017 plan year by \$20,416,223 as follows:

Date	Amount
January 1, 2017	\$20,416,223
<b>Total</b>	<b>\$20,416,223</b>

Our understanding is that the plan is not subject to a deemed election to reduce the funding balances in 2017.

Our understanding is that American Electric Power has not elected to apply any of the plan’s funding balances to the 2017 minimum required contribution.

Our understanding is that American Electric Power has not elected to increase the prefunding balance as of the first day of the 2017 plan year.

## Contributions

Our understanding is that American Electric Power Co. has not made any employer contributions after December 31, 2016 and before May 5, 2017 for the 2016 plan year.

## Subsequent Events

There were no plan amendments that took effect in the current plan year that were taken into account for the current plan year's AFTAP certification.

There were no unpredictable contingent event benefits (UCEBs) that took effect in the current plan year that were taken into account for the current plan year's AFTAP certification.

There were no previously suspended accruals restored during the current plan year that were taken into account for the current plan year's AFTAP certification.

## Elections

Our understanding of sponsor elections required under the Pension Protection Act of 2006 (PPA) , with respect to interest rates, Actuarial Value of Assets and other methods and/or assumptions, as confirmed in the Sponsor's letter dated May 2, 2017.

In making this certification, we relied on asset, contribution, funding balance election, and annuity purchase information provided by the Company, including dates and amounts of contributions made to the plan through the date of this certification, dates and amounts of funding balance elections by the Company through the date of this certification, and amounts of annuity purchases in the past two years, as shown above. We have reviewed this information for overall reasonableness and consistency but, consistent with the scope of our engagement, have neither audited nor independently verified this information. We do not certify to the accuracy or completeness of asset, contribution, funding balance election and annuity purchase information, and this certification relies on and is contingent on the accuracy and completeness of this information.

The development of the AFTAP is shown below:

All monetary amounts shown in US Dollars

Plan Year Beginning	01/01/2017
Actuarial value of assets as of January 1, 2017 <sup>1</sup>	4,959,332,851
Funding standard carryover balance at January 1, 2017 <sup>2</sup>	152,206,815
Prefunding balance at January 1, 2017 <sup>2</sup>	611,820,254
Funding target (disregarding at-risk assumptions)	4,106,845,705
AVA/funding target (disregarding at-risk assumptions)	120.75%
Assets for AFTAP calculation <sup>3</sup>	4,959,332,851
Annuity purchases for NHCEs during 2015 and 2016	0
Reflection of Post-Valuation Date Events not Previously Reflected	
Increase in funding target (disregarding at-risk assumptions) for 2017 amendments/UCEBs/restored accruals <sup>4</sup>	0
IRC §436 contributions made to enable plan amendments/UCEBs/restored accruals to take effect <sup>5</sup>	0
Adjusted funding target, disregarding at-risk assumptions, (includes NHCE annuity purchases and amendments)	0
Adjusted assets (includes NHCE annuity purchases and IRC §436 contributions)	0
Specific AFTAP	
<b>Adjusted Funding Target Attainment Percentage (AFTAP)</b>	<b>120.75%</b>

<sup>1</sup> Reflects discounted contributions made for the 2016 plan year only if paid on or before the certification date. Includes security posted by the beginning of the plan year in the form of a bond or cash held in escrow.  
<sup>2</sup> Reflects elections made to-date (other than elections to apply the funding balances to 2017 MRC).  
<sup>3</sup> AVA if AVA/Funding Target (disregarding at-risk assumptions) >=100%; otherwise (AVA-funding balances).  
<sup>4</sup> If amendments/UCEBs/restored accruals (i) went into effect before this specific certification, (ii) were not reflected in the funding valuation and (iii) require AFTAP recertification, or if AFTAP recertification is not required but the plan sponsor decides to reflect the amendment/UCEBs/restored accruals in the specific AFTAP certification.  
<sup>5</sup> Discounted to January 1, 2017 using the 2017 plan year effective interest rate.

## Immediate Implications of AFTAP Certification

We believe that the certified AFTAP of 120.75% for the 2017 plan year has the following implications for benefit limitations described in IRC §436. American Electric Power Co. should review these conclusions with ERISA counsel:

Benefit accruals called for under the plan without regard to IRC §436 must continue.

Accelerated distributions called for under the plan without regard to IRC §436 must continue in full.

Amendments that increase benefits must be evaluated at the time they would take effect to determine if they are permissible.

Plant shutdown and other UCEBs must be evaluated at the time they would take effect to determine if they are permissible.

## Implications of 2017 AFTAP for Presumptions in Next Plan Year

Because the AFTAP for the 2017 plan year is least 90%, the presumed AFTAP for 2018 will remain equal to the 2017 certified AFTAP, and changes in benefit restrictions will not occur, before the 2018 AFTAP is certified, provided that the 2018 AFTAP is certified before the first day of the tenth month of the plan year.

Note, however, that adoption of plan amendments and/or payment of UCEBs may change this result.



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 May 5, 2017

Towers Watson Delaware Inc., a subsidiary of Willis Towers Watson PLC.



# Appendix D: Results by business unit

Summary of key assumptions for Appendix D of 2017 AEP Retirement Plan valuation report:

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
Discount rate	4.05%	4.44%	4.60%	4.63%	4.56%	4.88%	5.19%	5.51%	5.82%	6.14%	6.36%
PPA effective interest rate	5.80%	5.60%	5.44%	5.31%	4.90%	4.56%	4.88%	5.19%	5.51%	5.82%	6.14%
Actual return on assets	6.00%	6.25%	6.50%	6.50%	6.50%	6.50%	6.75%	7.00%	7.25%	7.25%	7.50%
Cash balance crediting rate	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.00%	4.36%	4.57%	4.89%	5.11%
Lump sum conversion rate	4.20%	4.59%	4.75%	4.78%	4.71%	5.03%	5.34%	5.66%	5.97%	6.29%	6.51%

Mortality table	RP-2014, factored to 2006, collar adjustments as a Beginning in 2018, new proposed IRS mortality tables assumed for purposes of calculating lump sum amounts
Mortality projection scale	Rates grade linearly by year from MP-2014 in 2007 to 0.75% in 2015. Rates grade linearly by age to zero at age 95 from age 85.
Retirement rates	Age-graded rates based on AEP experience during 2009-2013, average retirement age of 64.
Termination rates	Age and service based rates based on AEP experience during 2009-2013.
Salary increases	Age-graded rates based on AEP experience during 2011-2013, with average annual increase of 4.80%.
Valuation and data	January 1, 2017

**AMERICAN ELECTRIC POWER  
 QUALIFIED RETIREMENT PLAN  
 SUMMARY OF PLAN PARTICIPANTS FOR THE 2017 VALUATION**

Location	Vested Actives	Non-Vested Actives	Total Actives	Retirees Receiving Benefits	Beneficiaries	Deferred Vesteds	Total Inactives	Total Participants
140 Appalachian Power Co - Distribution	966	104	1,070	1,024	352	157	1,533	2,603
215 Appalachian Power Co - Generation	710	32	742	781	205	77	1,063	1,805
150 Appalachian Power Co - Transmission	9	1	10	118	16	9	143	153
<b>Appalachian Power Co. - FERC</b>	<b>1,685</b>	<b>137</b>	<b>1,822</b>	<b>1,923</b>	<b>573</b>	<b>243</b>	<b>2,739</b>	<b>4,561</b>
225 Cedar Coal Co	0	0	0	86	28	10	124	124
<b>Appalachian Power Co. - SEC</b>	<b>1,685</b>	<b>137</b>	<b>1,822</b>	<b>2,009</b>	<b>601</b>	<b>253</b>	<b>2,863</b>	<b>4,685</b>
211 AEP Texas Central Company - Distribution	850	100	950	786	231	301	1,318	2,268
147 AEP Texas Central Company - Generation	0	0	0	0	37	0	37	37
169 AEP Texas Central Company - Transmission	125	22	147	65	28	30	123	270
<b>AEP Texas Central Co.</b>	<b>975</b>	<b>122</b>	<b>1,097</b>	<b>851</b>	<b>296</b>	<b>331</b>	<b>1,478</b>	<b>2,575</b>
119 AEP Texas North Company - Distribution	232	24	256	158	63	65	286	542
166 AEP Texas North Company - Generation	0	0	0	86	36	26	148	148
192 AEP Texas North Company - Transmission	60	27	87	19	11	2	32	119
<b>AEP Texas North Co.</b>	<b>292</b>	<b>51</b>	<b>343</b>	<b>263</b>	<b>110</b>	<b>93</b>	<b>466</b>	<b>809</b>
<b>AEP Texas</b>	<b>1,267</b>	<b>173</b>	<b>1,440</b>	<b>1,114</b>	<b>406</b>	<b>424</b>	<b>1,944</b>	<b>3,384</b>
170 Indiana Michigan Power Co - Distribution	506	70	576	573	224	91	888	1,464
132 Indiana Michigan Power Co - Generation	258	36	294	284	76	90	450	744
190 Indiana Michigan Power Co - Nuclear	1,018	120	1,138	389	60	281	730	1,868
120 Indiana Michigan Power Co - Transmission	110	27	137	102	16	13	131	268
280 Ind Mich River Transp Lakin	219	15	234	108	36	51	195	429
<b>Indiana Michigan Power Co. - FERC</b>	<b>2,111</b>	<b>268</b>	<b>2,379</b>	<b>1,456</b>	<b>412</b>	<b>526</b>	<b>2,394</b>	<b>4,773</b>
202 Price River Coal	0	0	0	0	0	0	0	0
<b>Indiana Michigan Power Co. - SEC</b>	<b>2,111</b>	<b>268</b>	<b>2,379</b>	<b>1,456</b>	<b>412</b>	<b>526</b>	<b>2,394</b>	<b>4,773</b>
110 Kentucky Power Co - Distribution	236	12	248	174	56	30	260	508
117 Kentucky Power Co - Generation	45	2	47	102	24	12	138	185
180 Kentucky Power Co - Transmission	2	0	2	12	1	2	15	17
600 Kentucky Power Co. - Kammer Actives	6	0	6	5	0	2	7	13
701 Kentucky Power Co. - Mitchell Actives	224	23	247	0	0	0	0	247
702 Kentucky Power Co. - Mitchell Inactives	0	0	0	107	14	9	130	130
<b>Kentucky Power Co.</b>	<b>513</b>	<b>37</b>	<b>550</b>	<b>400</b>	<b>95</b>	<b>55</b>	<b>550</b>	<b>1,100</b>
250 Ohio Power Co - Distribution	1,374	129	1,503	1,508	463	215	2,186	3,689
160 Ohio Power Co - Transmission	11	1	12	188	53	15	256	269
<b>Ohio Power Co.</b>	<b>1,385</b>	<b>130</b>	<b>1,515</b>	<b>1,696</b>	<b>516</b>	<b>230</b>	<b>2,442</b>	<b>3,957</b>
167 Public Service Co of Oklahoma - Distribution	569	50	619	397	159	132	688	1,307
198 Public Service Co of Oklahoma - Generation	332	28	360	155	52	51	258	618
114 Public Service Co of Oklahoma - Transmission	77	21	98	44	13	12	69	167
<b>Public Service Co. of Oklahoma</b>	<b>978</b>	<b>99</b>	<b>1,077</b>	<b>596</b>	<b>224</b>	<b>195</b>	<b>1,015</b>	<b>2,092</b>
159 Southwestern Electric Power Co - Distribution	472	29	501	159	80	51	290	791
168 Southwestern Electric Power Co - Generation	551	67	618	164	83	42	289	907
161 Southwestern Electric Power Co - Texas - Distribution	213	14	227	91	37	41	169	396
111 Southwestern Electric Power Co - Texas - Transmissi	0	0	0	0	2	0	2	2
194 Southwestern Electric Power Co - Transmission	76	20	96	28	10	11	49	145
<b>Southwestern Electric Power Co.</b>	<b>1,312</b>	<b>130</b>	<b>1,442</b>	<b>442</b>	<b>212</b>	<b>145</b>	<b>799</b>	<b>2,241</b>
230 Kingsport Power Co - Distribution	50	3	53	41	13	3	57	110
260 Kingsport Power Co - Transmission	0	0	0	10	1	1	12	12
<b>Kingsport Power Co.</b>	<b>50</b>	<b>3</b>	<b>53</b>	<b>51</b>	<b>14</b>	<b>4</b>	<b>69</b>	<b>122</b>
210 Wheeling Power Co - Distribution	43	13	56	51	22	6	79	135
200 Wheeling Power Co - Transmission	0	0	0	3	6	0	9	9
<b>Wheeling Power Co.</b>	<b>43</b>	<b>13</b>	<b>56</b>	<b>54</b>	<b>28</b>	<b>6</b>	<b>88</b>	<b>144</b>
103 American Electric Power Service Corporation	4,790	577	5,367	2,634	663	1,216	4,513	9,880
293 Elmwood	0	0	0	8	0	32	40	40
292 AEP River Operations LLC	0	0	0	26	0	314	340	340
<b>American Electric Power Service Corp</b>	<b>4,790</b>	<b>577</b>	<b>5,367</b>	<b>2,668</b>	<b>663</b>	<b>1,562</b>	<b>4,893</b>	<b>10,260</b>
143 AEP Pro Serv, Inc.	0	0	0	1	0	2	3	3
189 Central Coal Company	0	0	0	0	0	0	0	0
<b>Miscellaneous</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>3</b>
270 Cook Coal Terminal	16	8	24	12	4	4	20	44
<b>AEP Generating Company</b>	<b>16</b>	<b>8</b>	<b>24</b>	<b>12</b>	<b>4</b>	<b>4</b>	<b>20</b>	<b>44</b>
104 Cardinal Operating Company	272	14	286	188	49	15	252	538
181 Ohio Power Co - Generation	510	25	535	1,178	353	191	1,722	2,257
<b>AEP Generation Resources - FERC</b>	<b>782</b>	<b>39</b>	<b>821</b>	<b>1,366</b>	<b>402</b>	<b>206</b>	<b>1,974</b>	<b>2,795</b>
290 Conesville Coal Preparation Company	0	0	0	12	1	2	15	15
<b>AEP Generation Resources - SEC</b>	<b>782</b>	<b>39</b>	<b>821</b>	<b>1,378</b>	<b>403</b>	<b>208</b>	<b>1,989</b>	<b>2,810</b>
171 CSW Energy, Inc.	0	0	0	3	1	27	31	31
175 AEP Energy Partners	77	5	82	0	0	2	2	84
419 Onsite Partners	2	5	7	0	0	0	0	7
<b>AEP Energy Supply</b>	<b>861</b>	<b>49</b>	<b>910</b>	<b>1,381</b>	<b>404</b>	<b>237</b>	<b>2,022</b>	<b>2,932</b>
245 Dolet Hills	5	259	264	1	0	0	1	265
<b>Dolet Hills</b>	<b>5</b>	<b>259</b>	<b>264</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>265</b>
<b>Total</b>	<b>15,016</b>	<b>1,883</b>	<b>16,899</b>	<b>11,881</b>	<b>3,579</b>	<b>3,643</b>	<b>19,103</b>	<b>36,002</b>

American Electric Power System Retirement Plan

Location	ASC 715-30										
	Cost 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
		Estimated Net Periodic Pension Cost									
140 Appalachian Power Co - Distribution	\$5,759,878	\$3,765,287	\$2,536,483	\$2,947,133	\$2,806,284	\$2,105,623	\$649,748	\$177,029	(\$740,963)	(\$643,435)	(\$1,432,949)
215 Appalachian Power Co - Generation	3,631,540	1,942,595	1,136,252	1,408,931	1,240,077	637,365	(\$70,515)	(\$1,053,299)	(\$1,856,107)	(\$1,844,015)	(\$2,602,358)
150 Appalachian Power Co - Transmission	573,840	452,247	170,039	(219,592)	(255,144)	(293,211)	(389,967)	(413,076)	(464,484)	(450,382)	(500,334)
<b>Appalachian Power Co. - FERC</b>	<b>9,965,258</b>	<b>6,160,129</b>	<b>3,842,774</b>	<b>4,136,472</b>	<b>3,791,217</b>	<b>2,449,777</b>	<b>(310,734)</b>	<b>(1,289,346)</b>	<b>(3,066,554)</b>	<b>(2,937,832)</b>	<b>(4,535,641)</b>
225 Cedar Coal Co	(102,787)	(130,101)	(152,168)	(158,316)	(169,941)	(182,493)	(206,130)	(226,252)	(250,566)	(264,268)	(292,338)
<b>Appalachian Power Co. - SEC</b>	<b>9,862,471</b>	<b>6,030,028</b>	<b>3,690,606</b>	<b>3,978,156</b>	<b>3,621,276</b>	<b>2,267,284</b>	<b>(516,864)</b>	<b>(1,515,598)</b>	<b>(3,311,120)</b>	<b>(3,202,100)</b>	<b>(4,827,979)</b>
211 AEP Texas Central Company - Distribution	5,277,371	3,580,828	2,894,098	3,273,289	3,240,799	2,656,892	1,395,763	987,945	213,373	268,763	(410,122)
147 AEP Texas Central Company - Generation	(533,273)	(604,752)	(673,988)	(708,862)	(756,590)	(806,723)	(895,095)	(989,769)	(1,097,704)	(1,174,852)	(1,304,057)
169 AEP Texas Central Company - Transmission	916,500	736,955	631,849	652,969	667,155	592,766	438,164	399,578	312,177	330,092	246,757
<b>AEP Texas Central Co.</b>	<b>5,660,598</b>	<b>3,713,031</b>	<b>2,851,959</b>	<b>3,217,396</b>	<b>3,151,364</b>	<b>2,442,935</b>	<b>938,832</b>	<b>397,754</b>	<b>(572,154)</b>	<b>(575,997)</b>	<b>(1,467,422)</b>
119 AEP Texas North Company - Distribution	1,755,180	1,391,327	1,146,241	1,172,839	1,154,415	1,015,176	701,947	628,089	449,204	497,061	357,372
166 AEP Texas North Company - Generation	(429,251)	(573,606)	(668,954)	(713,391)	(769,072)	(831,376)	(944,405)	(1,041,904)	(1,144,814)	(1,203,298)	(1,326,195)
192 AEP Texas North Company - Transmission	404,973	351,547	337,484	366,899	382,640	346,806	271,822	249,093	206,761	204,127	167,933
<b>AEP Texas North Co.</b>	<b>1,730,902</b>	<b>1,169,268</b>	<b>796,771</b>	<b>826,347</b>	<b>767,983</b>	<b>530,606</b>	<b>29,364</b>	<b>(164,722)</b>	<b>(488,849)</b>	<b>(502,110)</b>	<b>(800,890)</b>
<b>AEP Texas</b>	<b>7,391,500</b>	<b>4,882,299</b>	<b>3,648,730</b>	<b>4,043,743</b>	<b>3,919,347</b>	<b>2,973,541</b>	<b>968,196</b>	<b>233,032</b>	<b>(1,061,003)</b>	<b>(1,078,107)</b>	<b>(2,268,312)</b>
170 Indiana Michigan Power Co - Distribution	2,760,300	1,709,832	1,259,990	1,482,968	1,421,167	1,042,090	238,916	(4,218)	(518,547)	(504,470)	(978,259)
132 Indiana Michigan Power Co - Generation	1,093,565	250,901	(124,039)	(51,162)	(176,153)	(428,417)	(963,431)	(1,222,277)	(1,585,104)	(1,644,882)	(2,035,953)
190 Indiana Michigan Power Co - Nuclear	7,884,317	6,313,147	5,477,301	6,008,848	6,058,800	5,296,608	3,883,379	3,448,952	2,456,039	2,548,269	1,698,191
120 Indiana Michigan Power Co - Transmission	859,009	637,556	478,535	485,579	453,221	370,288	193,911	134,580	29,799	42,917	(50,729)
280 Ind Mich River Transp Lakin	808,988	597,469	510,896	553,966	572,129	471,752	278,720	200,698	62,368	72,728	(61,577)
<b>Indiana Michigan Power Co. - FERC</b>	<b>13,406,179</b>	<b>9,508,905</b>	<b>7,602,783</b>	<b>8,490,189</b>	<b>8,329,164</b>	<b>6,752,321</b>	<b>3,631,495</b>	<b>2,557,735</b>	<b>444,555</b>	<b>514,562</b>	<b>(1,428,327)</b>
202 Price River Coal	0	0	0	0	0	0	0	0	0	0	0
<b>Indiana Michigan Power Co. - SEC</b>	<b>13,406,179</b>	<b>9,508,905</b>	<b>7,602,783</b>	<b>8,490,189</b>	<b>8,329,164</b>	<b>6,752,321</b>	<b>3,631,495</b>	<b>2,557,735</b>	<b>444,555</b>	<b>514,562</b>	<b>(1,428,327)</b>
110 Kentucky Power Co - Distribution	1,604,713	1,188,091	841,647	848,880	759,420	602,129	264,081	150,252	(64,919)	(39,566)	(227,097)
117 Kentucky Power Co - Generation	285,117	85,707	(34,233)	(14,603)	(45,854)	(105,966)	(236,224)	(284,450)	(355,210)	(347,479)	(419,099)
180 Kentucky Power Co - Transmission	99,909	89,478	48,462	(21,905)	(25,648)	(31,385)	(40,413)	(44,029)	(50,366)	(49,042)	(54,671)
600 Kentucky Power Co - Kammer Actives	(92,061)	(123,318)	(148,823)	(162,379)	(167,729)	(183,064)	(218,588)	(232,209)	(260,500)	(277,583)	(308,684)
701 Kentucky Power Co - Mitchell Actives	1,280,206	1,093,024	1,037,475	1,125,285	1,140,379	1,016,528	776,748	682,813	525,710	529,402	368,115
702 Kentucky Power Co - Mitchell Inactives	(497,167)	(716,288)	(881,833)	(914,564)	(1,002,480)	(1,076,771)	(1,244,903)	(1,367,513)	(1,525,149)	(1,601,965)	(1,759,437)
<b>Kentucky Power Co.</b>	<b>2,680,717</b>	<b>1,616,694</b>	<b>862,695</b>	<b>860,714</b>	<b>658,088</b>	<b>221,471</b>	<b>(699,299)</b>	<b>(1,730,434)</b>	<b>(2,307,118)</b>	<b>(2,048,667)</b>	<b>(2,400,873)</b>
250 Ohio Power Co - Distribution	6,713,345	3,963,563	2,767,193	3,291,031	3,124,551	2,126,003	159,439	(570,770)	(1,929,213)	(1,920,043)	(3,140,880)
160 Ohio Power Co - Transmission	177,340	(66,756)	(272,395)	(313,299)	(351,100)	(402,900)	(527,644)	(558,031)	(654,919)	(605,670)	(662,794)
<b>Ohio Power Co.</b>	<b>6,890,685</b>	<b>3,896,807</b>	<b>2,494,798</b>	<b>2,977,732</b>	<b>2,773,451</b>	<b>1,723,103</b>	<b>(368,205)</b>	<b>(1,128,801)</b>	<b>(2,584,132)</b>	<b>(2,525,713)</b>	<b>(3,803,674)</b>
167 Public Service Co of Oklahoma - Distribution	3,174,416	2,155,530	1,767,911	2,033,806	1,963,490	1,620,339	819,882	584,272	84,094	106,910	(370,368)
198 Public Service Co of Oklahoma - Generation	1,976,247	1,513,343	1,336,207	1,493,831	1,525,051	1,311,288	893,390	765,644	498,765	521,182	285,083
114 Public Service Co of Oklahoma - Transmission	485,163	399,748	364,285	400,217	410,300	353,482	244,318	199,610	125,558	117,251	49,975
<b>Public Service Co. of Oklahoma</b>	<b>5,635,826</b>	<b>4,068,621</b>	<b>3,468,403</b>	<b>3,927,854</b>	<b>3,898,841</b>	<b>3,285,109</b>	<b>1,957,590</b>	<b>1,549,346</b>	<b>708,417</b>	<b>745,343</b>	<b>(35,300)</b>
159 Southwestern Electric Power Co - Distribution	2,926,554	2,254,283	2,001,696	2,227,103	2,267,175	2,015,883	1,491,853	1,319,798	1,007,075	1,044,464	767,173
168 Southwestern Electric Power Co - Generation	4,060,318	3,340,917	2,920,832	3,204,729	3,221,137	2,909,544	2,278,648	2,112,339	1,744,754	1,764,409	1,443,304
161 Southwestern Electric Power Co - Texas - Distribution	1,420,999	1,098,476	902,692	948,451	958,585	825,800	570,392	486,607	325,810	354,682	216,117
111 Southwestern Electric Power Co - Texas - Transmission	4,223	4,242	2,625	(719)	(699)	(693)	(727)	(717)	(644)	(644)	(635)
194 Southwestern Electric Power Co - Transmission	446,489	371,209	344,056	379,644	383,770	327,536	229,191	187,408	124,115	116,994	46,206
<b>Southwestern Electric Power Co.</b>	<b>8,858,583</b>	<b>7,069,127</b>	<b>6,171,901</b>	<b>6,759,218</b>	<b>6,829,968</b>	<b>6,078,070</b>	<b>4,569,321</b>	<b>4,105,425</b>	<b>3,201,037</b>	<b>3,279,905</b>	<b>2,472,165</b>
230 Kingsport Power Co - Distribution	284,615	198,235	145,203	167,036	163,024	130,042	60,918	42,069	(778)	2,321	(34,833)
260 Kingsport Power Co - Transmission	(15,763)	(18,833)	2,608	(16,729)	(18,701)	(21,019)	(26,491)	(28,065)	(31,021)	(29,995)	(32,599)
<b>Kingsport Power Co.</b>	<b>311,666</b>	<b>217,068</b>	<b>147,811</b>	<b>150,307</b>	<b>144,323</b>	<b>109,023</b>	<b>34,427</b>	<b>14,004</b>	<b>(31,799)</b>	<b>(27,674)</b>	<b>(67,432)</b>
210 Wheeling Power Co - Distribution	236,692	142,734	100,168	119,550	108,339	77,793	3,633	(26,994)	(79,119)	(79,869)	(132,333)
200 Wheeling Power Co - Transmission	(15,763)	(20,105)	(23,214)	(23,752)	(26,067)	(26,494)	(29,395)	(31,912)	(34,942)	(36,756)	(40,392)
<b>Wheeling Power Co.</b>	<b>220,929</b>	<b>122,629</b>	<b>76,924</b>	<b>95,798</b>	<b>83,272</b>	<b>51,299</b>	<b>(25,762)</b>	<b>(58,906)</b>	<b>(114,061)</b>	<b>(116,625)</b>	<b>(172,725)</b>
103 American Electric Power Service Corporation	40,232,187	30,669,289	23,277,293	22,679,775	20,589,835	16,952,286	9,501,930	7,045,921	2,419,677	2,988,372	(1,076,201)
293 Elmwood	(219,072)	(251,531)	(285,549)	(299,274)	(322,641)	(343,005)	(389,811)	(427,146)	(473,697)	(503,301)	(564,716)
292 AEP River Operations LLC	(1,994,832)	(2,261,031)	(2,552,966)	(2,691,333)	(2,918,509)	(3,110,158)	(3,469,945)	(3,821,216)	(4,253,098)	(4,533,138)	(5,056,388)
<b>American Electric Power Service Corp</b>	<b>38,018,283</b>	<b>28,156,727</b>	<b>20,438,778</b>	<b>19,689,168</b>	<b>17,348,685</b>	<b>13,499,123</b>	<b>5,642,174</b>	<b>2,797,559</b>	<b>(2,307,118)</b>	<b>(2,048,067)</b>	<b>(6,697,305)</b>
143 AEP Pro Serv. Inc.	2,138	(1,281)	(6,813)	(8,308)	(9,984)	(12,175)	(16,484)	(18,023)	(20,861)	(20,720)	(22,982)
189 Central Coal Company	0	0	0	0	0	0	0	0	0	0	0
<b>Miscellaneous</b>	<b>2,138</b>	<b>(1,281)</b>	<b>(6,813)</b>	<b>(8,308)</b>	<b>(9,984)</b>	<b>(12,175)</b>	<b>(16,484)</b>	<b>(18,023)</b>	<b>(20,861)</b>	<b>(20,720)</b>	<b>(22,982)</b>
270 Cook Coal Terminal	36,333	13,945	1,057	3,866	(388)	(21,086)	(36,366)	(44,260)	(63,409)	(67,556)	(86,948)
<b>AEP Generating Company</b>	<b>36,333</b>	<b>13,945</b>	<b>1,057</b>	<b>3,866</b>	<b>(388)</b>	<b>(21,086)</b>	<b>(36,366)</b>	<b>(44,260)</b>	<b>(63,409)</b>	<b>(67,556)</b>	<b>(86,948)</b>
104 Cardinal Operating Company	802,559	315,787	30,640	106,754	27,382	(220,602)	(693,641)	(939,641)	(1,308,093)	(1,388,100)	(1,765,862)
181 Ohio Power Co - Generation	(2,197,169)	(5,959,243)	(7,541,174)	(7,787,075)	(8,526,822)	(9,479,442)	(11,311,005)	(12,591,282)	(14,271,078)	(14,952,426)	(16,792,432)
<b>AEP Generation Resources - FERC</b>	<b>(1,394,610)</b>	<b>(5,643,456)</b>	<b>(7,510,534)</b>	<b>(7,680,321)</b>	<b>(8,499,440)</b>	<b>(9,700,044)</b>	<b>(12,004,646)</b>	<b>(13,530,923)</b>	<b>(15,579,171)</b>	<b>(16,340,526)</b>	<b>(18,558,294)</b>
290 Conesville Coal Preparation Company	(86,060)	(112,195)	(132,546)	(137,678)	(147,377)	(158,014)	(180,357)	(198,892)	(221,665)	(233,711)	(259,632)
<b>AEP Generation Resources - SEC</b>	<b>(1,480,670)</b>	<b>(5,755,651)</b>	<b>(7,643,080)</b>	<b>(7,817,999)</b>	<b>(8,646,817)</b>	<b>(9,858,058)</b>	<b>(12,185,003)</b>	<b>(13,729,815)</b>	<b>(15,800,836)</b>	<b>(16,574,237)</b>	<b>(18,817,926)</b>
171 CSW Energy, Inc.	10,109	(4,530)	(19,499)	(23,643)	(27,113)	(32,658)	(45,648)	(53,850)	(60,026)	(62,431)	(62,215)
175 AEP Energy Partners	809,255	753,209	689,235	651,669	621,395	551,495	451,004	410,987	338,584	337,161	266,261
419 Onsite Partners	56,153	54,852	52,910	49,511	48,605	43,922	39,520				

AMERICAN ELECTRIC POWER - QUALIFIED RETIREMENT PLAN  
 SUMMARY OF ASC 715-30 VALUATION RESULTS AS OF JANUARY 1, 2017

Location	Valuation Earnings	Market-Related Value of Assets	Fair Value of Assets	Accumulated Benefit Obligation	Projected Benefit Obligation	January 1, 2017 Pre-Tax AOCI
140 Appalachian Power Co - Distribution	\$98,385,544	\$316,868,729	\$314,179,827	\$330,958,691	\$337,875,225	\$116,921,721
215 Appalachian Power Co - Generation	70,507,865	269,677,509	267,389,065	268,187,923	274,410,837	71,174,548
150 Appalachian Power Co - Transmission	710,622	20,032,572	19,862,578	31,015,836	31,049,538	18,432,766
<b>Appalachian Power Co. - FERC</b>	<b>\$169,604,031</b>	<b>\$606,578,810</b>	<b>\$601,431,470</b>	<b>\$630,162,450</b>	<b>\$643,335,600</b>	<b>\$206,529,035</b>
225 Cedar Coal Co	0	4,657,401	4,617,879	3,098,608	3,098,608	2,772,999
<b>Appalachian Power Co. - SEC</b>	<b>\$169,604,031</b>	<b>\$611,236,211</b>	<b>\$606,049,349</b>	<b>\$633,261,058</b>	<b>\$646,434,208</b>	<b>\$209,302,034</b>
211 AEP Texas Central Company - Distribution	88,008,638	287,313,266	284,875,168	284,518,779	294,538,391	132,404,884
147 AEP Texas Central Company - Generation	0	11,710,282	11,610,910	2,787,499	2,787,499	(8,823,411)
169 AEP Texas Central Company - Transmission	13,759,375	29,254,550	29,006,300	30,034,258	31,517,686	17,876,017
<b>AEP Texas Central Co.</b>	<b>\$101,768,013</b>	<b>\$328,278,098</b>	<b>\$325,492,378</b>	<b>\$317,340,536</b>	<b>\$328,843,576</b>	<b>\$141,457,490</b>
119 AEP Texas North Company - Distribution	23,818,484	63,902,321	63,360,055	67,712,964	69,919,235	35,083,006
166 AEP Texas North Company - Generation	0	24,486,787	24,278,996	18,260,367	18,260,367	14,455,894
192 AEP Texas North Company - Transmission	7,897,812	12,745,071	12,636,918	11,017,065	11,792,965	2,881,458
<b>AEP Texas North Co.</b>	<b>\$31,716,296</b>	<b>\$101,134,179</b>	<b>\$100,275,969</b>	<b>\$96,990,396</b>	<b>\$99,972,567</b>	<b>\$52,420,358</b>
<b>AEP Texas</b>	<b>\$133,484,309</b>	<b>\$429,412,277</b>	<b>\$425,768,347</b>	<b>\$414,330,932</b>	<b>\$428,816,143</b>	<b>\$193,877,848</b>
170 Indiana Michigan Power Co - Distribution	53,642,570	166,070,215	164,660,967	163,383,517	168,851,776	52,001,992
132 Indiana Michigan Power Co - Generation	28,674,099	111,233,846	110,289,932	103,812,083	105,489,542	16,036,829
190 Indiana Michigan Power Co - Nuclear	128,210,760	242,991,376	240,929,386	243,297,082	255,102,185	41,315,140
120 Indiana Michigan Power Co - Transmission	12,796,235	34,553,162	34,259,949	37,205,972	38,473,138	10,915,329
280 Ind Mich River Transp Lakin	18,135,382	36,796,747	36,484,495	33,810,660	36,044,490	4,225,832
<b>Indiana Michigan Power Co. - FERC</b>	<b>\$241,459,046</b>	<b>\$591,645,346</b>	<b>\$586,624,729</b>	<b>\$581,509,314</b>	<b>\$603,961,131</b>	<b>\$124,995,122</b>
202 Price River Coal	0	0	0	0	0	0
<b>Indiana Michigan Power Co. - SEC</b>	<b>\$241,459,046</b>	<b>\$591,645,346</b>	<b>\$586,624,729</b>	<b>\$581,509,314</b>	<b>\$603,961,131</b>	<b>\$124,995,122</b>
110 Kentucky Power Co - Distribution	23,258,666	68,506,518	67,925,181	75,658,252	77,124,109	22,336,171
117 Kentucky Power Co - Generation	4,575,742	30,222,701	29,966,236	32,041,028	32,271,063	7,809,783
180 Kentucky Power Co - Transmission	131,408	1,572,152	1,558,811	3,351,255	3,357,943	2,542,698
600 Kentucky Power Co. - Kammer Actives	655,108	4,903,598	4,861,987	3,238,382	3,238,382	1,717,673
701 Kentucky Power Co. - Mitchell Actives	24,449,601	34,637,645	34,343,715	31,299,010	33,413,520	11,729,214
702 Kentucky Power Co. - Mitchell Inactives	0	36,383,592	36,074,846	29,517,011	29,517,011	7,211,520
<b>Kentucky Power Co.</b>	<b>\$53,070,525</b>	<b>\$176,226,206</b>	<b>\$174,730,776</b>	<b>\$175,104,938</b>	<b>\$178,922,028</b>	<b>\$53,347,059</b>
250 Ohio Power Co - Distribution	133,928,801	438,225,503	434,506,785	428,205,269	443,712,662	180,775,488
160 Ohio Power Co - Transmission	910,656	39,833,856	39,495,831	44,637,491	44,637,491	29,937,777
<b>Ohio Power Co.</b>	<b>\$134,839,457</b>	<b>\$478,059,359</b>	<b>\$474,002,616</b>	<b>\$472,798,784</b>	<b>\$488,350,153</b>	<b>\$210,713,265</b>
167 Public Service Co of Oklahoma - Distribution	58,911,510	164,558,856	163,162,433	156,222,347	164,020,325	62,871,016
198 Public Service Co of Oklahoma - Generation	35,418,356	83,878,856	83,167,073	78,601,195	82,107,197	22,908,739
114 Public Service Co of Oklahoma - Transmission	9,785,037	20,268,044	20,096,052	17,753,322	18,987,891	4,675,477
<b>Public Service Co. of Oklahoma</b>	<b>104,114,903</b>	<b>268,705,756</b>	<b>266,425,558</b>	<b>252,576,864</b>	<b>265,115,413</b>	<b>90,455,232</b>
159 Southwestern Electric Power Co - Distribution	47,226,511	105,386,826	104,492,529	103,166,983	109,541,813	43,270,434
168 Southwestern Electric Power Co - Generation	60,712,832	114,294,221	113,324,337	115,254,293	120,926,768	39,853,184
161 Southwestern Electric Power Co - Texas - Distribution	21,098,835	52,027,224	51,585,728	53,562,422	56,121,300	24,059,383
111 Southwestern Electric Power Co - Texas - Transmission	0	22,386	22,196	103,824	103,824	918,461
194 Southwestern Electric Power Co - Transmission	9,375,944	16,661,207	16,519,823	13,647,534	15,005,149	3,251,855
<b>Southwestern Electric Power Co.</b>	<b>\$138,414,122</b>	<b>\$288,391,864</b>	<b>\$285,944,613</b>	<b>\$285,735,056</b>	<b>\$301,698,854</b>	<b>\$111,353,317</b>
230 Kingsport Power Co - Distribution	4,647,606	13,397,488	13,283,799	13,836,498	14,204,671	4,927,589
260 Kingsport Power Co - Transmission	0	1,548,572	1,535,431	2,144,851	2,144,851	1,327,448
<b>Kingsport Power Co.</b>	<b>\$4,647,606</b>	<b>\$14,946,060</b>	<b>\$14,819,230</b>	<b>\$15,981,349</b>	<b>\$16,349,522</b>	<b>\$6,255,037</b>
210 Wheeling Power Co - Distribution	4,839,473	15,847,542	15,713,062	15,212,506	15,572,806	6,175,576
200 Wheeling Power Co - Transmission	0	804,272	797,447	582,729	582,729	661,771
<b>Wheeling Power Co.</b>	<b>\$4,839,473</b>	<b>\$16,651,814</b>	<b>\$16,510,509</b>	<b>\$15,795,235</b>	<b>\$16,155,535</b>	<b>\$6,837,347</b>
103 American Electric Power Service Corporation	597,981,901	1,456,125,523	1,443,769,057	1,594,027,581	1,659,087,473	481,690,145
293 Elmwood	0	5,256,986	5,212,376	1,552,610	1,552,610	(3,854,365)
292 AEP River Operations LLC	0	50,435,092	50,007,107	17,525,297	17,525,297	(35,189,038)
<b>American Electric Power Service Corp</b>	<b>\$597,981,901</b>	<b>\$1,511,817,601</b>	<b>\$1,498,988,540</b>	<b>\$1,613,105,488</b>	<b>\$1,678,165,380</b>	<b>\$442,646,742</b>
143 AEP Pro Serv, Inc.	0	998,181	989,710	1,117,089	1,117,089	41,592
189 Central Coal Company	0	0	0	0	0	0
<b>Miscellaneous</b>	<b>\$0</b>	<b>\$998,181</b>	<b>\$989,710</b>	<b>\$1,117,089</b>	<b>\$1,117,089</b>	<b>\$41,592</b>
270 Cook Coal Terminal	2,176,359	4,210,318	4,174,590	3,533,913	3,661,179	(35,363)
<b>AEP Generating Company</b>	<b>\$2,176,359</b>	<b>\$4,210,318</b>	<b>\$4,174,590</b>	<b>\$3,533,913</b>	<b>\$3,661,179</b>	<b>(\$35,363)</b>
104 Cardinal Operating Company	27,652,441	92,099,709	91,318,164	80,099,669	82,625,027	(8,693,137)
181 Ohio Power Co - Generation	52,388,414	370,626,488	367,481,405	289,815,787	295,121,905	102,309,835
<b>AEP Generation Resources - FERC</b>	<b>\$80,040,855</b>	<b>\$462,726,197</b>	<b>\$458,799,569</b>	<b>\$369,915,456</b>	<b>\$377,746,932</b>	<b>\$93,616,698</b>
290 Conesville Coal Preparation Company	0	4,355,358	4,318,399	3,066,853	3,066,853	359,596
<b>AEP Generation Resources - SEC</b>	<b>\$80,040,855</b>	<b>\$467,081,555</b>	<b>\$463,117,968</b>	<b>\$372,982,309</b>	<b>\$380,813,785</b>	<b>\$93,976,294</b>
171 CSW Energy, Inc.	0	2,529,027	2,507,566	2,839,125	2,839,125	1,155,794
175 AEP Energy Partners	12,457,660	9,200,354	9,122,281	9,922,643	11,947,975	4,845,640
419 Onsite Partners	941,948	99,051	98,211	58,824	260,895	155,642
<b>AEP Energy Supply</b>	<b>\$93,440,463</b>	<b>\$478,909,987</b>	<b>\$474,846,026</b>	<b>\$385,802,901</b>	<b>\$395,861,780</b>	<b>\$100,133,370</b>
245 Dolet Hills	22,734,363	2,025,758	2,008,567	1,929,541	1,947,437	(17,089)
<b>Dolet Hills</b>	<b>\$22,734,363</b>	<b>\$2,025,758</b>	<b>\$2,008,567</b>	<b>\$1,929,541</b>	<b>\$1,947,437</b>	<b>(\$17,089)</b>
<b>Total</b>	<b>\$1,700,806,558</b>	<b>\$4,873,236,738</b>	<b>\$4,831,883,160</b>	<b>\$4,852,582,462</b>	<b>\$5,026,555,852</b>	<b>\$1,549,905,513</b>

American Electric Power System Retirement Plan

Location	Estimated Net Periodic Pension Cost										
	ASC 715-30 Cost 2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
140 Appalachian Power Co - Distribution	\$5,759,878	\$3,765,287	\$2,536,483	\$2,947,133	\$2,806,284	\$2,105,623	\$649,748	\$177,029	(\$740,963)	(\$643,435)	(\$1,432,949)
215 Appalachian Power Co - Generation	3,631,540	1,942,595	1,136,252	1,408,931	1,240,077	637,365	(570,515)	(1,053,299)	(1,855,107)	(1,844,015)	(2,602,358)
150 Appalachian Power Co - Transmission	673,840	452,247	170,039	(219,592)	(255,144)	(293,211)	(309,997)	(413,076)	(484,484)	(450,302)	(500,334)
Appalachian Power Co. - FERC	9,965,258	6,160,129	3,842,774	4,136,472	3,791,217	2,449,777	(310,734)	(1,289,346)	(3,060,544)	(2,937,832)	(4,535,641)
225 Cedar Coal Co	(102,787)	(130,101)	(152,168)	(158,316)	(169,941)	(182,453)	(206,130)	(226,252)	(250,566)	(264,268)	(292,338)
<b>Appalachian Power Co. - SEC</b>	<b>9,862,471</b>	<b>6,030,028</b>	<b>3,690,606</b>	<b>3,978,156</b>	<b>3,621,276</b>	<b>2,267,284</b>	<b>(516,864)</b>	<b>(1,515,598)</b>	<b>(3,311,120)</b>	<b>(3,202,100)</b>	<b>(4,827,979)</b>
211 AEP Texas Central Company - Distribution	5,277,371	3,580,828	2,894,098	3,273,289	3,240,799	2,656,892	1,395,763	987,945	213,373	268,763	(410,122)
147 AEP Texas Central Company - Generation	(533,273)	(604,752)	(673,988)	(708,862)	(756,590)	(806,723)	(895,095)	(969,769)	(1,097,704)	(1,174,852)	(1,304,057)
169 AEP Texas Central Company - Transmission	916,500	736,355	631,949	652,969	687,155	692,766	438,164	399,578	312,717	330,092	246,757
<b>AEP Texas Central Co.</b>	<b>5,660,598</b>	<b>3,713,031</b>	<b>2,851,959</b>	<b>3,172,396</b>	<b>3,151,364</b>	<b>2,442,935</b>	<b>938,832</b>	<b>397,754</b>	<b>(572,154)</b>	<b>(575,997)</b>	<b>(1,467,422)</b>
119 AEP Texas North Company - Distribution	1,755,180	1,391,327	1,146,241	1,172,839	1,154,415	1,015,176	701,947	628,089	449,204	497,061	357,372
166 AEP Texas North Company - Generation	(429,251)	(573,606)	(686,954)	(713,391)	(769,072)	(831,376)	(944,405)	(1,041,904)	(1,144,814)	(1,203,298)	(1,326,195)
192 AEP Texas North Company - Transmission	404,973	351,547	337,484	366,899	382,640	346,806	271,822	249,093	206,761	204,127	167,933
<b>AEP Texas North Co.</b>	<b>1,730,902</b>	<b>1,169,268</b>	<b>796,771</b>	<b>826,347</b>	<b>767,983</b>	<b>530,606</b>	<b>29,364</b>	<b>(164,722)</b>	<b>(488,849)</b>	<b>(502,110)</b>	<b>(800,890)</b>
<b>AEP Texas</b>	<b>7,391,500</b>	<b>4,882,299</b>	<b>3,648,730</b>	<b>4,043,743</b>	<b>3,919,347</b>	<b>2,973,541</b>	<b>968,196</b>	<b>233,032</b>	<b>(1,061,003)</b>	<b>(1,078,107)</b>	<b>(2,268,312)</b>
170 Indiana Michigan Power Co - Distribution	2,760,300	1,709,832	1,259,990	1,482,968	1,421,167	1,042,090	238,916	(4,218)	(518,547)	(504,470)	(978,259)
132 Indiana Michigan Power Co - Generation	1,093,565	250,901	(124,039)	(51,162)	(176,153)	(428,417)	(963,431)	(1,222,277)	(1,585,104)	(1,644,802)	(2,035,953)
190 Indiana Michigan Power Co - Nuclear	7,884,317	6,313,147	5,477,301	6,008,848	6,068,800	5,296,608	3,883,379	3,448,952	2,456,039	2,548,269	1,698,191
120 Indiana Michigan Power Co - Transmission	859,009	637,556	476,635	485,579	453,221	370,280	193,911	134,580	29,799	42,917	(50,725)
280 Ind Mich River Transp Lahn	10,998,988	597,469	510,896	563,966	572,129	471,752	278,720	200,698	62,368	72,728	(61,772)
<b>Indiana Michigan Power Co. - FERC</b>	<b>13,406,179</b>	<b>9,508,905</b>	<b>7,602,783</b>	<b>8,490,189</b>	<b>8,329,164</b>	<b>6,752,321</b>	<b>3,631,495</b>	<b>2,557,735</b>	<b>444,562</b>	<b>514,562</b>	<b>(1,428,327)</b>
202 Pice River Coal	0	0	0	0	0	0	0	0	0	0	0
<b>Indiana Michigan Power Co. - SEC</b>	<b>13,406,179</b>	<b>9,508,905</b>	<b>7,602,783</b>	<b>8,490,189</b>	<b>8,329,164</b>	<b>6,752,321</b>	<b>3,631,495</b>	<b>2,557,735</b>	<b>444,562</b>	<b>514,562</b>	<b>(1,428,327)</b>
110 Kentucky Power Co - Distribution	1,604,713	1,188,091	841,647	848,880	759,420	602,129	264,081	150,252	(64,919)	(39,566)	(227,097)
117 Kentucky Power Co - Generation	285,117	86,707	(34,233)	(14,603)	(45,854)	(105,966)	(236,224)	(284,450)	(355,210)	(347,479)	(419,099)
180 Kentucky Power Co - Transmission	99,909	89,478	48,452	(21,905)	(25,648)	(31,385)	(40,413)	(44,029)	(50,366)	(49,042)	(54,871)
600 Kentucky Power Co. - Kammer Actives	(82,061)	(123,318)	(148,823)	(162,379)	(167,729)	(183,064)	(218,588)	(232,209)	(260,500)	(277,583)	(308,884)
1,200,206	1,093,024	1,037,475	1,125,265	1,140,379	1,016,528	776,748	682,813	525,710	529,402	360,115	
702 Kentucky Power Co. - Mitchell Inactives	(497,167)	(716,288)	(891,833)	(914,564)	(1,002,480)	(1,076,771)	(1,244,903)	(1,367,513)	(1,525,149)	(1,601,965)	(1,759,437)
<b>Kentucky Power Co.</b>	<b>2,600,717</b>	<b>1,616,694</b>	<b>862,695</b>	<b>860,714</b>	<b>750,088</b>	<b>221,471</b>	<b>(699,299)</b>	<b>(1,095,136)</b>	<b>(1,730,434)</b>	<b>(1,706,233)</b>	<b>(2,400,873)</b>
250 Ohio Power Co - Distribution	6,713,345	3,963,563	2,767,193	3,291,031	3,124,551	2,126,003	159,439	(570,770)	(1,929,213)	(1,920,043)	(3,140,800)
160 Ohio Power Co - Transmission	177,340	(66,756)	(272,396)	(313,299)	(381,100)	(402,900)	(527,644)	(658,031)	(824,919)	(665,670)	(662,794)
<b>Ohio Power Co.</b>	<b>6,890,685</b>	<b>3,896,807</b>	<b>2,494,798</b>	<b>2,977,732</b>	<b>2,743,451</b>	<b>1,723,103</b>	<b>(368,205)</b>	<b>(1,128,801)</b>	<b>(2,554,132)</b>	<b>(2,525,713)</b>	<b>(3,803,674)</b>
167 Public Service Co of Oklahoma - Distribution	3,174,416	2,155,530	1,767,911	2,033,806	1,963,490	1,620,339	819,882	584,272	84,094	106,910	(370,356)
198 Public Service Co of Oklahoma - Generation	1,976,247	1,513,343	1,336,207	1,493,831	1,525,051	1,311,288	893,390	765,464	498,765	521,182	288,083
114 Public Service Co of Oklahoma - Transmission	485,163	399,748	354,285	400,817	410,300	363,482	244,318	159,610	125,558	117,251	49,795
<b>Public Service Co. of Oklahoma</b>	<b>5,635,826</b>	<b>4,068,621</b>	<b>3,466,403</b>	<b>3,927,854</b>	<b>3,896,841</b>	<b>3,285,109</b>	<b>1,957,590</b>	<b>1,549,346</b>	<b>708,417</b>	<b>745,343</b>	<b>(35,300)</b>
159 Southwestern Electric Power Co - Distribution	2,926,554	2,254,283	2,001,696	2,227,103	2,267,175	2,015,883	1,491,853	1,319,798	1,007,075	1,044,464	767,173
168 Southwestern Electric Power Co - Generation	4,060,318	3,340,917	2,920,832	3,204,729	3,221,137	2,199,544	2,278,648	2,112,339	1,744,754	1,764,409	1,443,304
161 Southwestern Electric Power Co - Texas - Distribution	1,420,999	1,096,476	902,692	948,481	968,585	825,800	570,392	486,607	325,810	354,882	216,117
111 Southwestern Electric Power Co - Texas - Transmission	4,223	4,242	2,625	(719)	(699)	(693)	(763)	(727)	(717)	(644)	(635)
194 Southwestern Electric Power Co - Transmission	446,489	371,209	344,056	379,644	383,770	327,536	229,191	197,408	124,115	116,984	48,206
<b>Southwestern Electric Power Co.</b>	<b>8,858,583</b>	<b>7,069,127</b>	<b>6,171,901</b>	<b>6,759,218</b>	<b>6,829,968</b>	<b>6,078,070</b>	<b>4,569,321</b>	<b>4,105,425</b>	<b>3,201,037</b>	<b>3,279,905</b>	<b>2,472,165</b>
230 Kingsport Power Co - Distribution	284,615	198,235	145,203	167,036	163,024	130,042	60,918	42,069	(778)	2,321	(34,833)
260 Kingsport Power Co - Transmission	27,051	18,833	2,608	(16,729)	(18,701)	(21,019)	(26,491)	(28,065)	(31,021)	(29,995)	(32,599)
<b>Kingsport Power Co.</b>	<b>311,666</b>	<b>217,068</b>	<b>147,811</b>	<b>150,307</b>	<b>144,323</b>	<b>109,023</b>	<b>34,427</b>	<b>14,004</b>	<b>(31,799)</b>	<b>(27,674)</b>	<b>(67,432)</b>
210 Wheeling Power Co - Distribution	236,692	142,734	100,168	119,650	108,339	77,793	3,633	(26,994)	(79,119)	(79,869)	(132,333)
200 Wheeling Power Co - Transmission	(15,763)	(20,165)	(23,244)	(23,752)	(25,677)	(26,494)	(29,395)	(31,912)	(34,942)	(36,766)	(40,382)
<b>Wheeling Power Co.</b>	<b>220,929</b>	<b>122,569</b>	<b>76,924</b>	<b>95,978</b>	<b>82,722</b>	<b>51,299</b>	<b>(25,762)</b>	<b>(58,906)</b>	<b>(114,061)</b>	<b>(116,625)</b>	<b>(172,725)</b>
103 American Electric Power Service Corporation	40,232,187	30,669,289	23,277,293	22,879,775	20,589,835	16,952,286	9,501,930	7,045,921	2,419,677	2,988,372	(1,076,201)
293 Elmwood	(219,072)	(251,531)	(285,549)	(299,274)	(322,541)	(343,005)	(369,811)	(427,146)	(473,657)	(503,301)	(554,716)
292 AEP River Operations LLC	(1,934,832)	(2,261,031)	(2,552,966)	(2,691,333)	(2,918,509)	(3,110,158)	(3,469,945)	(3,821,216)	(4,253,098)	(4,533,138)	(5,056,388)
<b>American Electric Power Service Corp</b>	<b>38,018,283</b>	<b>28,156,727</b>	<b>20,438,778</b>	<b>19,689,168</b>	<b>17,348,685</b>	<b>13,499,123</b>	<b>5,642,174</b>	<b>2,791,559</b>	<b>(2,307,118)</b>	<b>(2,048,067)</b>	<b>(6,697,305)</b>
143 AEP Pro Serv, Inc.	2,138	(1,281)	(6,913)	(8,308)	(9,984)	(12,175)	(16,484)	(18,023)	(20,861)	(20,720)	(22,982)
189 Central Coal Company	0	0	0	0	0	0	0	0	0	0	0
<b>Miscellaneous</b>	<b>2,138</b>	<b>(1,281)</b>	<b>(6,913)</b>	<b>(8,308)</b>	<b>(9,984)</b>	<b>(12,175)</b>	<b>(16,484)</b>	<b>(18,023)</b>	<b>(20,861)</b>	<b>(20,720)</b>	<b>(22,982)</b>
270 Cook Coal Terminal	36,333	13,945	1,057	3,866	(388)	(21,086)	(36,366)	(44,260)	(63,409)	(67,556)	(86,948)
<b>AEP Generating Company</b>	<b>36,333</b>	<b>13,945</b>	<b>1,057</b>	<b>3,866</b>	<b>(388)</b>	<b>(21,086)</b>	<b>(36,366)</b>	<b>(44,260)</b>	<b>(63,409)</b>	<b>(67,556)</b>	<b>(86,948)</b>
104 Cardinal Operating Company	802,559	315,787	30,640	106,754	27,382	(220,602)	(693,641)	(939,641)	(1,308,093)	(1,388,100)	(1,765,862)
181 Ohio Power Co - Generation	(2,197,169)	(5,859,243)	(7,541,174)	(7,787,075)	(8,526,822)	(9,479,442)	(11,311,005)	(12,591,262)	(14,271,078)	(14,952,426)	(16,792,426)
AEP Generation Resources - FERC	(1,394,610)	(5,843,456)	(7,510,504)	(7,680,321)	(8,499,448)	(9,700,044)	(12,004,649)	(13,530,923)	(15,579,171)	(16,340,526)	(18,556,294)
290 Conesville Coal Preparation Company	(86,060)	(112,156)	(132,546)	(137,678)	(147,377)	(158,014)	(180,357)	(199,892)	(221,665)	(233,711)	(259,632)
<b>AEP Generation Resources - SEC</b>	<b>(1,480,670)</b>	<b>(5,755,651)</b>	<b>(7,643,880)</b>	<b>(7,817,999)</b>	<b>(8,646,817)</b>	<b>(9,858,058)</b>	<b>(12,185,003)</b>	<b>(13,729,815)</b>	<b>(15,800,836)</b>	<b>(16,574,237)</b>	<b>(18,817,926)</b>
171 CSW Energy, Inc.	10,109	(4,530)	(19,499)	(23,643)	(27,113)	(32,658)	(45,648)	(60,026)	(80,026)	(82,431)	(82,215)
175 AEP Energy Partners	809,255	753,209	688,235	651,669	621,395	551,495	451,004	410,987	338,584	337,161	266,261
149 Onsite Partners	56,153	54,852	52,910	49,511	48,605	43,922	39,520	38,008	34,673	34,321	31,332
<b>AEP Energy Supply</b>	<b>(605,153)</b>	<b>(4,952,120)</b>	<b>(6,920,434)</b>	<b>(7,140,462)</b>							

AMERICAN ELECTRIC POWER  
 QUALIFIED RETIREMENT PLAN  
 2017 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$337,875,225	\$316,868,729	\$5,322,124	\$13,448,340	(\$18,520,743)	\$78,793	\$5,431,364	\$5,759,878
215 Appalachian Power Co - Generation	274,410,837	269,677,609	4,012,020	10,896,707	(15,762,451)	74,093	4,411,171	3,631,540
150 Appalachian Power Co - Transmission	31,049,538	20,032,572	23,756	1,210,431	(1,170,889)	11,419	499,123	573,840
Appalachian Power Co. - FERC	\$643,335,600	\$606,578,810	\$9,357,900	\$25,555,478	(\$35,454,083)	\$164,305	\$10,341,658	\$9,965,258
225 Cedar Coal Co	3,098,608	4,657,401	0	119,625	(272,222)	0	49,810	(102,787)
Appalachian Power Co. - SEC	\$646,434,208	\$611,236,211	\$9,357,900	\$25,675,103	(\$35,726,305)	\$164,305	\$10,391,468	\$9,862,471
211 AEP Texas Central Company - Distribution	294,538,391	287,313,266	5,628,139	11,675,431	(16,793,248)	32,327	4,734,722	5,277,371
147 AEP Texas Central Company - Generation	2,787,499	11,710,282	0	106,375	(684,457)	0	44,809	(533,273)
169 AEP Texas Central Company - Transmission	31,517,686	29,254,550	851,814	1,264,057	(1,709,907)	3,887	506,649	916,500
AEP Texas Central Co.	\$328,843,576	\$328,278,098	\$6,479,953	\$13,045,863	(\$19,187,612)	\$36,214	\$5,286,180	\$5,660,598
119 AEP Texas North Company - Distribution	69,919,235	63,902,321	1,586,048	2,769,739	(3,735,043)	10,480	1,123,956	1,755,180
166 AEP Texas North Company - Generation	18,260,367	24,486,787	0	708,356	(1,431,235)	92	293,536	(429,251)
192 AEP Texas North Company - Transmission	11,792,965	12,745,071	476,925	481,803	(744,940)	1,612	109,573	404,973
AEP Texas North Co.	\$99,972,567	\$101,134,179	\$2,062,973	\$3,959,898	(\$5,911,218)	\$12,184	\$1,607,665	\$1,730,900
AEP Texas	\$428,816,143	\$429,412,277	\$8,542,926	\$17,005,716	(\$25,098,830)	\$48,398	\$6,893,245	\$7,391,502
170 Indiana Michigan Power Co - Distribution	168,851,776	166,070,215	2,988,198	6,727,361	(9,706,681)	37,120	2,714,302	2,760,300
132 Indiana Michigan Power Co - Generation	105,489,542	111,233,846	1,667,459	4,205,130	(6,501,536)	26,761	1,695,751	1,093,565
190 Indiana Michigan Power Co - Nuclear	255,102,185	242,991,376	7,570,312	10,348,275	(14,202,666)	67,613	4,100,783	7,884,317
120 Indiana Michigan Power Co - Transmission	38,473,138	34,553,162	712,252	1,539,318	(2,019,607)	8,588	618,458	859,009
280 Ind Mich River Transp Lakin	36,044,490	36,796,747	915,947	1,453,518	(2,150,743)	10,849	579,417	808,988
Indiana Michigan Power Co. - FERC	\$603,961,131	\$591,645,346	\$13,854,168	\$24,273,602	(\$34,581,233)	\$150,931	\$9,708,711	\$13,406,179
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$603,961,131	\$591,645,346	\$13,854,168	\$24,273,602	(\$34,581,233)	\$150,931	\$9,708,711	\$13,406,179
110 Kentucky Power Co - Distribution	77,124,109	68,506,518	1,282,432	3,065,346	(4,004,155)	21,315	1,239,775	1,604,713
117 Kentucky Power Co - Generation	32,271,063	30,222,701	244,473	1,277,462	(1,766,495)	10,918	158,759	285,117
180 Kentucky Power Co - Transmission	3,357,943	1,572,152	3,987	130,607	(91,891)	3,227	53,979	99,909
600 Kentucky Power Co. - Kammer Actives	3,238,382	4,903,598	12,158	129,953	(286,612)	1,383	52,057	(92,061)
701 Kentucky Power Co. - Mitchell Actives	33,413,520	34,637,845	1,367,992	1,393,553	(2,024,545)	6,082	537,124	1,280,206
702 Kentucky Power Co. - Mitchell Inactives	29,517,011	36,383,592	0	1,149,872	(2,126,594)	5,067	474,488	(497,167)
Kentucky Power Co.	\$178,922,028	\$176,226,206	\$2,911,042	\$7,145,793	(\$10,300,292)	\$47,992	\$2,876,182	\$2,680,717
250 Ohio Power Co - Distribution	443,712,662	438,225,503	7,458,350	17,639,260	(25,613,957)	96,985	7,132,707	6,713,345
160 Ohio Power Co - Transmission	44,637,491	39,833,856	36,081	1,732,643	(2,328,259)	19,325	717,550	177,340
Ohio Power Co.	\$488,350,153	\$478,059,359	\$7,494,431	\$19,371,903	(\$27,942,216)	\$116,310	\$7,850,257	\$6,890,685
167 Public Service Co of Oklahoma - Distribution	164,020,325	164,558,856	3,590,102	6,542,984	(9,618,343)	23,036	2,636,637	3,174,416
198 Public Service Co of Oklahoma - Generation	82,107,197	83,878,856	2,245,365	3,301,795	(4,902,657)	11,866	1,319,878	1,976,247
114 Public Service Co of Oklahoma - Transmission	18,987,891	20,268,044	597,108	764,865	(1,184,652)	2,611	305,231	485,163
Public Service Co. of Oklahoma	\$265,115,413	\$268,705,756	\$6,432,575	\$10,609,644	(\$15,705,652)	\$37,513	\$4,261,746	\$5,635,826
159 Southwestern Electric Power Co - Distribution	109,541,813	105,386,826	2,914,783	4,394,377	(6,159,782)	16,285	1,760,891	2,256,554
168 Southwestern Electric Power Co - Generation	120,926,768	114,294,221	3,898,816	4,882,042	(6,680,413)	15,968	1,943,905	4,060,318
161 Southwestern Electric Power Co - Texas - Distribution	56,121,300	52,022,224	1,305,867	2,245,436	(3,040,953)	8,496	902,153	1,420,999
111 Southwestern Electric Power Co - Texas - Transmission	103,824	22,386	0	3,862	(1,308)	0	1,669	4,223
194 Southwestern Electric Power Co - Transmission	15,005,149	16,661,207	561,845	614,338	(973,835)	2,932	241,209	446,489
Southwestern Electric Power Co.	\$301,698,854	\$288,391,864	\$8,681,311	\$12,140,055	(\$16,856,291)	\$43,681	\$4,849,827	\$8,858,583
230 Kingsport Power Co - Distribution	14,204,671	13,397,488	267,627	568,790	(783,073)	2,930	228,341	284,615
260 Kingsport Power Co - Transmission	2,144,851	1,548,572	0	82,696	(90,513)	389	34,479	27,051
Kingsport Power Co.	\$16,349,522	\$14,946,060	\$267,627	\$651,486	(\$873,586)	\$3,319	\$262,820	\$311,666
210 Wheeling Power Co - Distribution	15,572,806	15,847,542	286,332	621,454	(926,277)	4,849	250,334	236,692
200 Wheeling Power Co - Transmission	582,729	804,272	0	21,879	(47,009)	0	9,367	(15,763)
Wheeling Power Co.	\$16,155,535	\$16,651,814	\$286,332	\$643,333	(\$973,286)	\$4,849	\$259,701	\$220,929
103 American Electric Power Service Corporation	1,659,087,473	1,456,125,524	32,184,794	66,209,503	(85,109,460)	277,417	26,669,933	40,232,187
293 Elmwood	1,552,610	5,256,986	0	59,310	(307,267)	3,927	24,958	(219,072)
292 AEP River Operations LLC	17,525,297	50,435,092	0	649,590	(2,947,894)	21,752	281,720	(1,994,832)
American Electric Power Service Corp	\$1,678,165,380	\$1,511,817,602	\$32,184,794	\$66,918,403	(\$88,364,621)	\$303,096	\$26,976,611	\$38,018,283
143 AEP Pro Serv. Inc.	1,117,089	998,181	0	42,485	(58,343)	39	17,957	2,138
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$1,117,089	\$998,181	\$0	\$42,485	(\$58,343)	\$39	\$17,957	\$2,138
270 Cook Coal Terminal	3,661,179	4,210,318	75,380	147,334	(246,090)	855	58,854	36,333
AEP Generating Company	\$3,661,179	\$4,210,318	\$75,380	\$147,334	(\$246,090)	\$855	\$58,854	\$36,333
104 Cardinal Operating Company	82,625,027	92,099,709	1,537,553	3,304,087	(5,383,160)	15,877	1,328,202	802,559
181 Ohio Power Co - Generation	295,121,905	370,626,488	3,019,668	11,632,129	(21,662,844)	69,776	4,744,102	(2,197,169)
AEP Generation Resources - FERC	\$377,746,932	\$462,726,197	\$4,557,221	\$14,936,216	(\$27,046,004)	\$85,653	\$6,072,304	(\$1,394,610)
290 Conesville Coal Preparation Company	3,066,853	4,355,358	0	118,593	(254,567)	614	49,300	(86,060)
AEP Generation Resources - SEC	\$380,813,785	\$467,081,555	\$4,557,221	\$15,054,809	(\$27,300,571)	\$86,267	\$6,121,604	(\$1,480,670)
171 CSW Energy, Inc.	2,839,125	2,529,027	0	111,970	(147,820)	320	45,639	10,109
175 AEP Energy Partners	11,947,975	9,200,354	655,609	498,337	(537,754)	999	192,064	809,255
419 Onsite Partners	260,895	99,051	45,375	12,373	(5,789)	0	4,194	56,153
AEP Energy Supply	\$395,861,780	\$478,909,987	\$5,258,205	\$15,677,489	(\$27,991,934)	\$87,586	\$6,363,501	(\$605,153)
245 Dolet Hills	1,947,437	2,025,758	1,009,431	118,619	(118,404)	0	31,305	1,040,951
Dolet Hills	\$1,947,437	\$2,025,758	\$1,009,431	\$118,619	(\$118,404)	\$0	\$31,305	\$1,040,951
<b>Total</b>	<b>\$5,026,555,852</b>	<b>\$4,873,236,739</b>	<b>\$96,356,122</b>	<b>\$200,421,010</b>	<b>(\$284,837,083)</b>	<b>\$1,008,874</b>	<b>\$80,802,185</b>	<b>\$93,751,108</b>
<b>Total without Dolet Hills</b>	<b>\$5,024,608,415</b>	<b>\$4,871,210,981</b>	<b>\$95,346,691</b>	<b>\$200,302,391</b>	<b>(\$284,718,679)</b>	<b>\$1,008,874</b>	<b>\$80,770,880</b>	<b>\$92,710,157</b>

American Electric Power System Retirement Plan

AMERICAN ELECTRIC POWER  
QUALIFIED RETIREMENT PLAN  
ESTIMATED 2018 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$319,266,111	\$318,449,896	\$5,313,945	\$13,935,057	(\$19,444,826)	\$865	\$3,960,246	\$3,765,287
215 Appalachian Power Co - Generation	258,356,203	270,652,116	4,005,854	11,257,471	(16,526,252)	815	3,204,707	1,942,595
150 Appalachian Power Co - Transmission	28,557,019	18,719,146	23,719	1,217,182	(1,143,007)	126	354,227	452,247
Appalachian Power Co. - FERC	\$606,179,333	\$607,821,158	\$9,343,518	\$26,409,710	(\$37,114,085)	\$1,806	\$7,519,180	\$6,160,129
225 Cedar Coal Co	2,795,266	4,628,406	0	117,840	(282,614)	0	34,673	(130,101)
Appalachian Power Co. - SEC	\$608,974,599	\$612,449,564	\$9,343,518	\$26,527,550	(\$37,396,699)	\$1,806	\$7,553,853	\$6,030,028
211 AEP Texas Central Company - Distribution	275,019,796	285,844,381	5,619,489	12,003,773	(17,453,905)	66	3,411,405	3,580,828
147 AEP Texas Central Company - Generation	2,454,345	12,077,106	0	102,243	(737,439)	0	30,444	(604,752)
169 AEP Texas Central Company - Transmission	29,900,603	29,547,778	850,505	1,319,759	(1,804,213)	10	370,894	736,955
AEP Texas Central Co.	\$307,374,744	\$327,469,265	\$6,469,994	\$13,425,775	(\$19,995,557)	\$76	\$3,812,743	\$3,713,031
119 AEP Texas North Company - Distribution	64,952,538	62,948,972	1,583,610	2,845,734	(3,843,719)	17	805,685	1,391,327
166 AEP Texas North Company - Generation	16,637,789	24,316,708	0	704,814	(1,484,799)	0	206,379	(573,606)
192 AEP Texas North Company - Transmission	11,463,028	12,771,245	476,192	512,984	(779,823)	4	142,190	351,547
AEP Texas North Co.	\$93,053,355	\$100,036,925	\$2,059,802	\$4,063,532	(\$6,108,341)	\$21	\$1,154,254	\$1,169,268
AEP Texas	\$400,428,099	\$427,506,190	\$8,529,796	\$17,489,307	(\$26,103,898)	\$97	\$4,966,997	\$4,882,299
170 Indiana Michigan Power Co - Distribution	159,553,008	167,364,051	2,983,605	6,966,082	(10,219,393)	408	1,979,130	1,709,832
132 Indiana Michigan Power Co - Generation	99,983,188	111,028,146	1,426,807	4,363,061	(6,779,474)	294	1,240,213	250,901
190 Indiana Michigan Power Co - Nuclear	247,046,367	251,337,802	7,558,677	11,036,212	(15,346,903)	744	3,064,417	6,313,147
120 Indiana Michigan Power Co - Transmission	36,638,754	34,962,190	711,157	1,606,652	(2,134,822)	94	454,475	637,556
280 Ind Mich River Transp Lakin	34,636,312	37,344,863	914,539	1,533,485	(2,280,310)	119	429,636	597,469
Indiana Michigan Power Co. FERC	\$577,857,629	\$602,037,052	\$13,594,785	\$25,505,492	(\$36,760,902)	\$1,659	\$7,167,871	\$9,508,905
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$577,857,629	\$602,037,052	\$13,594,785	\$25,505,492	(\$36,760,902)	\$1,659	\$7,167,871	\$9,508,905
110 Kentucky Power Co - Distribution	72,596,585	68,333,283	1,280,461	3,179,380	(4,172,489)	235	900,504	1,188,091
117 Kentucky Power Co - Generation	30,409,901	30,253,549	244,097	1,311,587	(1,847,308)	120	377,211	85,707
180 Kentucky Power Co - Transmission	3,072,486	1,376,101	3,981	131,375	(84,026)	36	38,112	89,478
600 Kentucky Power Co. - Kammer Actives	3,100,662	5,060,213	12,139	135,048	(308,981)	15	38,461	(123,318)
701 Kentucky Power Co. - Mitchell Actives	33,844,918	36,575,275	1,365,890	1,549,565	(2,233,318)	67	419,820	1,093,024
702 Kentucky Power Co. - Mitchell Inactives	27,129,906	36,172,264	0	1,155,841	(2,208,710)	66	336,525	(716,288)
Kentucky Power Co.	\$170,154,458	\$177,770,685	\$2,906,568	\$7,453,796	(\$10,854,832)	\$529	\$2,110,633	\$1,616,694
250 Ohio Power Co - Distribution	417,762,540	440,036,419	7,446,887	18,202,597	(26,869,004)	1,066	5,182,017	3,963,563
160 Ohio Power Co - Transmission	40,687,805	38,217,605	36,026	1,725,905	(2,333,600)	213	504,700	(66,756)
Ohio Power Co.	\$458,450,345	\$478,254,024	\$7,482,913	\$19,928,502	(\$29,202,604)	\$1,279	\$5,686,717	\$3,896,807
167 Public Service Co of Oklahoma - Distribution	154,712,233	165,777,112	3,584,584	6,774,279	(10,122,494)	77	1,919,084	2,155,630
198 Public Service Co of Oklahoma - Generation	78,295,731	84,420,544	2,241,914	3,454,992	(5,154,791)	31	971,197	1,513,343
114 Public Service Co of Oklahoma - Transmission	18,093,818	20,063,827	596,190	804,228	(1,225,115)	5	224,440	399,748
Public Service Co. of Oklahoma	\$251,101,782	\$270,261,483	\$6,422,688	\$11,033,499	(\$16,502,400)	\$113	\$3,114,721	\$4,068,621
159 Southwestern Electric Power Co - Distribution	104,017,791	106,735,212	2,910,303	4,571,020	(6,517,344)	45	1,290,259	2,254,283
168 Southwestern Electric Power Co - Generation	115,669,194	116,646,116	3,892,824	5,136,788	(7,122,513)	32	1,434,786	3,340,917
161 Southwestern Electric Power Co - Texas - Distribution	53,185,892	52,464,092	1,303,860	2,338,368	(3,203,503)	22	659,729	1,098,476
111 Southwestern Electric Power Co - Texas - Transmission	86,533	5,432	0	3,501	(332)	0	1,073	4,242
194 Southwestern Electric Power Co - Transmission	14,692,392	16,883,837	560,982	658,912	(1,030,942)	9	182,248	371,209
Southwestern Electric Power Co.	\$287,651,802	\$292,734,689	\$8,667,969	\$12,707,589	(\$17,874,634)	\$108	\$3,568,095	\$7,069,127
230 Kingsport Power Co - Distribution	13,545,139	13,607,671	267,216	593,866	(830,896)	32	168,017	198,235
260 Kingsport Power Co - Transmission	1,929,630	1,420,510	0	81,631	(86,738)	4	23,936	18,833
Kingsport Power Co.	\$15,474,769	\$15,028,181	\$267,216	\$675,497	(\$917,634)	\$36	\$191,953	\$217,068
210 Wheeling Power Co - Distribution	14,753,576	15,892,920	285,892	644,217	(970,435)	53	183,007	142,734
200 Wheeling Power Co - Transmission	495,630	761,460	0	20,242	(46,495)	0	6,148	(20,105)
Wheeling Power Co.	\$15,249,206	\$16,654,380	\$285,892	\$664,459	(\$1,016,930)	\$53	\$189,155	\$122,629
103 American Electric Power Service Corporation	1,570,217,891	1,461,159,300	31,523,736	68,885,117	(89,219,648)	2,760	19,477,324	30,669,289
293 Elmwood	1,369,971	5,387,267	0	60,384	(328,951)	43	16,993	(251,531)
292 AEP River Operations LLC	14,497,449	50,301,225	0	630,336	(3,071,436)	239	179,830	(2,261,031)
American Electric Power Service Corp	\$1,586,085,311	\$1,516,847,792	\$31,523,736	\$69,575,837	(\$92,620,035)	\$3,042	\$19,674,147	\$28,156,727
143 AEP Pro Serv. Inc.	976,565	911,964	0	42,290	(55,685)	0	12,114	(1,281)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$976,565	\$911,964	\$0	\$42,290	(\$55,685)	\$0	\$12,114	(\$1,281)
270 Cook Coal Terminal	3,520,508	4,262,558	75,264	155,278	(260,275)	9	43,669	13,945
AEP Generating Company	\$3,520,508	\$4,262,558	\$75,264	\$155,278	(\$260,275)	\$9	\$43,669	\$13,945
104 Cardinal Operating Company	78,592,350	92,324,687	1,535,190	3,442,970	(5,637,425)	175	974,877	315,787
181 Ohio Power Co - Generation	274,888,371	369,980,369	1,423,578	11,797,957	(22,591,321)	768	3,409,775	(5,969,243)
AEP Generation Resources - FERC	\$353,480,721	\$462,305,065	\$2,958,768	\$15,240,927	(\$28,228,746)	\$943	\$4,384,652	(\$5,643,456)
290 Conesville Coal Preparation Company	2,776,064	4,321,546	0	117,240	(263,877)	7	34,435	(112,195)
AEP Generation Resources - SEC	\$356,256,785	\$466,626,602	\$2,958,768	\$15,358,167	(\$28,492,623)	\$950	\$4,419,087	(\$5,755,651)
171 CSW Energy, Inc.	2,676,054	2,522,511	0	116,300	(154,027)	3	33,194	(4,530)
175 AEP Energy Partners	11,941,558	9,894,724	654,601	554,652	(604,180)	10	148,126	753,209
419 Onsite Partners	303,004	156,977	45,305	15,373	(9,585)	0	3,759	54,852
AEP Energy Supply	\$371,177,401	\$479,200,814	\$3,658,674	\$16,044,492	(\$29,260,415)	\$963	\$4,604,166	(\$4,952,120)
245 Dolet Hills	2,884,526	3,222,150	1,007,880	171,576	(196,747)	0	35,780	1,018,489
Dolet Hills	\$2,884,526	\$3,222,150	\$1,007,880	\$171,576	(\$196,747)	\$0	\$35,780	\$1,018,489
<b>Total</b>	<b>\$4,749,987,000</b>	<b>\$4,897,141,526</b>	<b>\$93,766,899</b>	<b>\$207,975,164</b>	<b>(\$299,023,690)</b>	<b>\$9,694</b>	<b>\$58,919,871</b>	<b>\$61,647,938</b>
<b>Total without Dolet Hills</b>	<b>\$4,747,102,474</b>	<b>\$4,893,919,376</b>	<b>\$92,759,019</b>	<b>\$207,803,588</b>	<b>(\$298,826,943)</b>	<b>\$9,694</b>	<b>\$58,884,091</b>	<b>\$60,629,449</b>

AMERICAN ELECTRIC POWER  
 QUALIFIED RETIREMENT PLAN  
 ESTIMATED 2019 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$311,846,492	\$320,373,343	\$5,459,957	\$14,091,415	(\$20,345,147)	\$0	\$3,330,258	\$2,536,483
215 Appalachian Power Co - Generation	251,775,858	268,104,316	4,115,924	11,357,403	(17,025,829)	0	2,688,754	1,136,252
150 Appalachian Power Co - Transmission	27,007,706	20,993,685	24,371	1,190,441	(1,333,193)	0	288,420	170,039
Appalachian Power Co. - FERC	\$590,630,056	\$609,471,344	\$9,600,252	\$26,639,259	(\$38,704,169)	\$0	\$6,307,432	\$3,842,774
225 Cedar Coal Co	2,586,295	4,605,492	0	112,682	(292,469)	0	27,619	(152,168)
Appalachian Power Co. - SEC	\$593,216,351	\$614,076,836	\$9,600,252	\$26,751,941	(\$38,996,638)	\$0	\$6,335,051	\$3,690,606
211 AEP Texas Central Company - Distribution	267,577,644	281,045,203	5,773,897	12,110,330	(17,847,633)	0	2,857,504	2,894,098
147 AEP Texas Central Company - Generation	2,214,756	12,486,917	0	95,335	(792,975)	0	23,652	(673,988)
169 AEP Texas Central Company - Transmission	29,523,384	30,041,410	873,875	1,350,454	(1,907,765)	0	315,285	631,849
AEP Texas Central Co.	\$299,315,784	\$323,573,530	\$6,647,772	\$13,556,119	(\$20,548,373)	\$0	\$3,196,441	\$2,851,959
119 AEP Texas North Company - Distribution	63,429,571	63,562,012	1,627,123	2,878,217	(4,036,473)	0	677,374	1,146,241
166 AEP Texas North Company - Generation	15,550,410	24,149,350	0	680,573	(1,533,592)	0	166,065	(686,954)
192 AEP Texas North Company - Transmission	11,489,269	12,716,936	489,276	533,096	(807,583)	0	122,696	337,484
AEP Texas North Co.	\$90,469,250	\$100,428,298	\$2,116,399	\$4,091,885	(\$6,377,648)	\$0	\$966,135	\$766,771
AEP Texas	\$389,785,034	\$424,001,828	\$8,764,171	\$17,648,004	(\$26,926,021)	\$0	\$4,162,576	\$3,684,730
170 Indiana Michigan Power Co - Distribution	155,608,949	165,373,604	3,065,586	7,034,598	(10,501,967)	0	1,661,773	1,259,990
132 Indiana Michigan Power Co - Generation	97,856,179	111,008,022	1,466,012	4,414,435	(7,049,508)	0	1,045,022	(124,039)
190 Indiana Michigan Power Co - Nuclear	249,443,144	259,549,498	7,766,368	11,529,650	(16,482,560)	0	2,663,843	5,477,301
120 Indiana Michigan Power Co - Transmission	36,027,771	35,806,510	730,698	1,637,065	(2,273,874)	0	384,746	478,635
280 Ind Mich River Transp Lakin	34,485,793	37,433,847	939,668	1,580,167	(2,377,218)	0	368,279	510,896
Indiana Michigan Power Co. - FERC	\$573,421,836	\$609,171,481	\$13,968,332	\$26,195,915	(\$38,685,127)	\$0	\$6,123,663	\$7,602,783
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$573,421,836	\$609,171,481	\$13,968,332	\$26,195,915	(\$38,685,127)	\$0	\$6,123,663	\$7,602,783
110 Kentucky Power Co - Distribution	17,329,139	70,276,671	1,315,645	3,227,151	(4,462,884)	0	761,735	841,647
117 Kentucky Power Co - Generation	29,246,722	30,019,551	250,804	1,309,009	(1,906,376)	0	312,330	(34,233)
180 Kentucky Power Co - Transmission	2,923,438	1,829,897	4,090	129,359	(116,207)	0	31,220	48,462
600 Kentucky Power Co. - Kammer Actives	3,055,137	5,215,292	12,473	137,272	(331,194)	0	32,626	(148,823)
701 Kentucky Power Co. - Mitchell Actives	35,152,157	37,698,599	1,403,421	1,652,696	(2,394,037)	0	375,395	1,037,475
702 Kentucky Power Co. - Mitchell Inactives	25,657,175	36,006,525	0	1,130,746	(2,286,576)	0	273,997	(881,833)
Kentucky Power Co.	\$167,363,768	\$181,046,635	\$2,986,433	\$7,586,233	(\$11,497,274)	\$0	\$1,787,303	\$862,695
250 Ohio Power Co - Distribution	406,112,241	433,926,893	7,651,507	18,335,057	(27,556,308)	0	4,336,937	2,767,193
160 Ohio Power Co - Transmission	38,096,715	37,592,336	37,016	1,671,030	(2,387,282)	0	406,841	(272,395)
Ohio Power Co.	\$444,208,956	\$471,519,229	\$7,688,523	\$20,006,087	(\$29,943,590)	\$0	\$4,743,778	\$2,494,798
167 Public Service Co of Oklahoma - Distribution	151,087,564	163,516,263	3,683,078	6,855,363	(10,384,018)	0	1,613,488	1,767,911
198 Public Service Co of Oklahoma - Generation	77,254,541	83,684,607	2,303,516	3,522,026	(5,314,349)	0	825,014	1,336,207
114 Public Service Co of Oklahoma - Transmission	18,040,074	20,041,112	612,572	831,761	(1,272,701)	0	192,653	364,285
Public Service Co. of Oklahoma	\$246,382,179	\$267,241,982	\$6,599,166	\$11,209,150	(\$16,971,068)	\$0	\$2,631,155	\$3,468,403
159 Southwestern Electric Power Co - Distribution	101,831,790	105,887,403	2,990,270	4,648,274	(6,724,326)	0	1,087,478	2,001,696
168 Southwestern Electric Power Co - Generation	114,994,385	119,517,827	3,999,788	5,282,920	(7,589,919)	0	1,228,043	2,920,832
161 Southwestern Electric Power Co - Texas - Distribution	52,305,483	53,117,566	1,339,686	2,377,631	(3,373,204)	0	558,579	902,692
111 Southwestern Electric Power Co - Texas - Transmission	73,336	19,120	0	3,056	(1,214)	0	783	2,625
194 Southwestern Electric Power Co - Transmission	14,840,267	17,021,306	576,396	690,107	(1,080,929)	0	158,482	344,056
Southwestern Electric Power Co.	\$284,045,261	\$295,563,222	\$8,906,140	\$13,001,988	(\$18,769,592)	\$0	\$3,033,365	\$6,111,901
230 Kingsport Power Co - Distribution	13,310,162	13,778,952	274,558	603,529	(875,025)	0	142,141	145,203
260 Kingsport Power Co - Transmission	1,798,386	1,499,637	0	78,637	(95,234)	0	19,205	2,608
Kingsport Power Co.	\$15,108,548	\$15,278,589	\$274,558	\$682,166	(\$970,259)	\$0	\$161,346	\$147,811
210 Wheeling Power Co - Distribution	14,382,310	15,716,417	293,748	650,892	(998,063)	0	153,591	100,168
200 Wheeling Power Co - Transmission	428,697	721,971	0	18,026	(45,848)	0	4,578	(23,244)
Wheeling Power Co.	\$14,811,007	\$16,438,388	\$293,748	\$668,918	(\$1,043,911)	\$0	\$158,169	\$76,924
103 American Electric Power Service Corporation	1,544,294,277	1,508,363,737	32,389,921	70,183,484	(95,787,876)	0	16,491,764	23,277,293
293 Elmwood	1,388,022	5,694,859	0	61,277	(361,649)	0	14,823	(285,549)
292 AEP River Operations LLC	14,291,648	52,723,903	0	642,616	(3,348,205)	0	152,623	(2,552,966)
American Electric Power Service Corp	\$1,559,973,947	\$1,566,782,499	\$32,389,921	\$70,887,377	(\$99,497,730)	\$0	\$16,659,210	\$20,438,778
143 AEP Pro Serv. Inc.	954,897	942,297	0	42,830	(59,840)	0	10,197	(6,813)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$954,897	\$942,297	\$0	\$42,830	(\$59,840)	\$0	\$10,197	(\$6,813)
270 Cook Coal Terminal	3,496,051	4,309,736	77,332	160,078	(273,688)	0	37,335	1,057
AEP Generating Company	\$3,496,051	\$4,309,736	\$77,332	\$160,078	(\$273,688)	\$0	\$37,335	\$1,057
104 Cardinal Operating Company	77,116,390	92,373,458	1,577,373	3,495,859	(5,866,130)	0	823,538	30,640
181 Ohio Power Co - Generation	262,502,387	369,655,172	1,462,694	11,667,592	(23,474,765)	0	2,803,305	(7,541,174)
AEP Generation Resources - FERC	\$339,618,777	\$462,028,630	\$3,040,067	\$15,163,451	(\$29,340,895)	\$0	\$3,626,843	(\$7,510,534)
290 Conesville Coal Preparation Company	2,578,140	4,292,212	0	112,497	(272,575)	0	27,532	(132,546)
AEP Generation Resources - SEC	\$342,196,917	\$466,320,842	\$3,040,067	\$15,275,948	(\$29,613,470)	\$0	\$3,654,375	(\$7,643,080)
171 CSW Energy, Inc.	2,635,675	2,618,182	0	118,620	(166,266)	0	28,147	(19,499)
175 AEP Energy Partners	12,737,218	11,514,188	672,588	611,827	(731,203)	0	136,023	689,235
419 Onsite Partners	353,837	247,739	46,550	18,314	(15,733)	0	3,779	52,910
AEP Energy Supply	\$357,923,647	\$480,700,951	\$3,759,205	\$16,024,709	(\$30,526,672)	\$0	\$3,822,324	(\$6,920,434)
245 Dolet Hills	3,944,250	4,106,744	1,035,574	224,580	(260,797)	0	42,121	1,041,478
Dolet Hills	\$3,944,250	\$4,106,744	\$1,035,574	\$224,580	(\$260,797)	\$0	\$42,121	\$1,041,478
<b>Total</b>	<b>\$4,654,635,732</b>	<b>\$4,951,180,417</b>	<b>\$96,343,355</b>	<b>\$211,089,976</b>	<b>(\$314,422,207)</b>	<b>\$0</b>	<b>\$49,707,593</b>	<b>\$42,718,717</b>
<b>Total without Dolet Hills</b>	<b>\$4,650,691,482</b>	<b>\$4,947,073,673</b>	<b>\$95,307,781</b>	<b>\$210,865,396</b>	<b>(\$314,161,410)</b>	<b>\$0</b>	<b>\$49,665,472</b>	<b>\$41,677,239</b>



American Electric Power System Retirement Plan

AMERICAN ELECTRIC POWER  
QUALIFIED RETIREMENT PLAN  
ESTIMATED 2020 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$308,497,966	\$316,533,436	\$5,685,161	\$14,048,465	(\$20,107,024)	\$0	\$3,320,531	\$2,947,133
215 Appalachian Power Co - Generation	248,491,194	265,135,618	4,285,691	11,290,695	(16,842,101)	0	2,674,646	1,408,931
150 Appalachian Power Co - Transmission	25,831,188	26,251,637	25,376	1,144,569	(1,667,572)	0	278,035	(219,592)
Appalachian Power Co. - FERC	\$582,820,348	\$607,920,691	\$9,996,228	\$26,483,729	(\$38,616,697)	\$0	\$6,273,212	\$4,136,472
225 Cedar Coal Co	2,416,960	4,567,381	0	105,801	(290,132)	0	26,015	(158,316)
Appalachian Power Co. - SEC	\$585,237,308	\$612,488,072	\$9,996,228	\$26,589,530	(\$38,906,829)	\$0	\$6,299,227	\$3,978,156
211 AEP Texas Central Company - Distribution	264,458,882	277,042,540	6,012,049	12,013,185	(17,598,460)	0	2,846,515	3,273,289
147 AEP Texas Central Company - Generation	2,017,722	12,874,795	0	87,260	(817,840)	0	21,718	(708,862)
169 AEP Texas Central Company - Transmission	29,577,088	30,406,100	909,919	1,356,170	(1,931,474)	0	318,354	652,969
AEP Texas Central Co.	\$296,053,692	\$320,323,435	\$6,921,968	\$13,456,615	(\$20,347,774)	\$0	\$3,186,587	\$3,217,396
119 AEP Texas North Company - Distribution	62,760,842	64,058,740	1,694,236	2,872,251	(4,069,177)	0	675,529	1,172,839
166 AEP Texas North Company - Generation	14,669,463	23,866,395	0	644,769	(1,516,055)	0	157,895	(713,391)
192 AEP Texas North Company - Transmission	11,696,903	12,761,138	509,457	542,163	(810,621)	0	125,900	366,899
AEP Texas North Co.	\$89,127,208	\$100,686,273	\$2,203,693	\$4,059,183	(\$6,395,853)	\$0	\$959,324	\$826,347
AEP Texas	\$385,180,900	\$421,009,708	\$9,125,661	\$17,515,798	(\$26,743,627)	\$0	\$4,145,911	\$4,043,743
170 Indiana Michigan Power Co - Distribution	153,728,778	163,296,695	3,192,031	7,009,290	(10,373,029)	0	1,654,666	1,482,958
132 Indiana Michigan Power Co - Generation	96,725,999	110,483,159	1,526,479	4,399,420	(7,018,176)	0	1,041,115	(51,162)
190 Indiana Michigan Power Co - Nuclear	254,875,284	262,636,302	8,086,703	11,862,122	(16,683,338)	0	2,743,361	6,008,848
120 Indiana Michigan Power Co - Transmission	35,946,257	36,318,169	760,836	1,644,858	(2,307,024)	0	386,909	485,579
280 Ind Mich River Transp Lakin	34,753,451	37,540,718	978,426	1,596,154	(2,384,684)	0	374,070	563,966
Indiana Michigan Power Co. FERC	\$576,029,769	\$610,275,043	\$14,544,475	\$26,511,844	(\$38,766,251)	\$0	\$6,200,121	\$8,490,189
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$576,029,769	\$610,275,043	\$14,544,475	\$26,511,844	(\$38,766,251)	\$0	\$6,200,121	\$8,490,189
110 Kentucky Power Co - Distribution	70,674,535	70,977,244	1,369,910	3,226,920	(4,508,658)	0	760,708	848,880
117 Kentucky Power Co - Generation	28,635,559	29,539,103	261,149	1,292,428	(1,876,400)	0	300,220	(14,603)
180 Kentucky Power Co - Transmission	2,817,070	2,862,861	4,259	125,370	(181,856)	0	30,322	(21,905)
600 Kentucky Power Co. - Kammer Actives	3,029,141	5,329,846	12,987	130,596	(338,566)	0	32,604	(162,379)
701 Kentucky Power Co. - Mitchell Actives	36,854,655	38,946,970	1,461,307	1,741,303	(2,474,912)	0	396,687	1,125,285
702 Kentucky Power Co. - Mitchell Inactives	24,555,653	35,693,233	0	1,088,457	(2,267,327)	0	264,306	(914,564)
Kentucky Power Co.	\$166,566,613	\$183,349,257	\$3,109,612	\$7,605,074	(\$11,646,819)	\$0	\$1,792,847	\$860,714
250 Ohio Power Co - Distribution	400,483,871	428,138,822	7,967,104	18,209,788	(27,196,487)	0	4,310,626	3,291,031
160 Ohio Power Co - Transmission	36,066,933	36,642,740	38,543	1,587,592	(2,327,642)	0	388,208	(313,299)
Ohio Power Co.	\$436,550,804	\$464,781,562	\$8,005,647	\$19,797,380	(\$29,524,129)	\$0	\$4,698,834	\$2,977,732
167 Public Service Co of Oklahoma - Distribution	149,670,062	161,573,418	3,834,992	6,851,396	(10,263,562)	0	1,610,980	2,033,806
198 Public Service Co of Oklahoma - Generation	76,851,203	82,724,218	2,398,527	3,522,970	(5,254,857)	0	827,191	1,493,831
114 Public Service Co of Oklahoma - Transmission	18,287,711	20,146,843	637,838	845,318	(1,279,780)	0	196,841	400,217
Public Service Co. of Oklahoma	\$244,808,976	\$264,444,479	\$6,871,357	\$11,219,684	(\$16,798,199)	\$0	\$2,635,012	\$3,927,854
159 Southwestern Electric Power Co - Distribution	101,606,206	104,728,824	3,113,608	4,672,498	(6,652,646)	0	1,093,643	2,227,103
168 Southwestern Electric Power Co - Generation	115,621,353	119,065,152	4,164,765	5,358,795	(7,563,327)	0	1,244,496	3,204,729
161 Southwestern Electric Power Co - Texas - Distribution	51,944,035	53,322,633	1,394,944	2,381,607	(3,387,192)	0	559,102	948,461
111 Southwestern Electric Power Co - Texas - Transmission	62,273	62,749	0	2,597	(3,986)	0	670	(719)
194 Southwestern Electric Power Co - Transmission	15,233,730	17,282,167	600,170	713,313	(1,097,808)	0	163,969	379,644
Southwestern Electric Power Co.	\$284,467,597	\$294,461,525	\$9,273,487	\$13,128,810	(\$18,704,959)	\$0	\$3,061,880	\$6,759,218
230 Kingsport Power Co - Distribution	13,218,317	13,644,255	285,883	605,595	(866,718)	0	142,276	167,036
260 Kingsport Power Co - Transmission	1,693,359	1,721,465	0	74,396	(109,352)	0	18,227	(16,729)
Kingsport Power Co.	\$14,911,676	\$15,365,720	\$285,883	\$679,991	(\$976,070)	\$0	\$160,503	\$150,307
210 Wheeling Power Co - Distribution	14,229,869	15,563,006	305,864	649,124	(988,602)	0	153,164	119,550
200 Wheeling Power Co - Transmission	371,368	682,855	0	15,628	(43,377)	0	3,997	(23,752)
Wheeling Power Co.	\$14,601,237	\$16,245,861	\$305,864	\$664,752	(\$1,031,979)	\$0	\$157,161	\$95,798
103 American Electric Power Service Corporation	1,540,234,871	1,544,407,212	33,725,888	70,480,246	(98,104,745)	0	16,578,386	22,679,775
293 Elmwood	1,333,164	5,891,061	0	60,591	(374,215)	0	14,350	(299,274)
292 AEP River Operations LLC	14,250,787	54,961,643	0	646,584	(3,451,306)	0	153,389	(2,691,333)
American Electric Power Service Corp	\$1,555,818,822	\$1,605,259,916	\$33,725,888	\$71,187,421	(\$101,970,266)	\$0	\$16,746,125	\$19,689,168
143 AEP Pro Serv. Inc.	947,384	964,702	0	42,775	(61,280)	0	10,197	(8,308)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$947,384	\$964,702	\$0	\$42,775	(\$61,280)	\$0	\$10,197	(\$8,308)
270 Cook Coal Terminal	3,536,390	4,375,916	80,522	163,250	(277,970)	0	38,064	3,866
AEP Generating Company	\$3,536,390	\$4,375,916	\$80,522	\$163,250	(\$277,970)	\$0	\$38,064	\$3,866
104 Cardinal Operating Company	76,559,020	92,270,920	1,642,434	3,501,562	(5,861,288)	0	824,046	106,754
181 Ohio Power Co - Generation	254,171,301	368,516,528	1,523,025	11,363,240	(23,409,124)	0	2,735,784	(7,787,075)
AEP Generation Resources - FERC	\$330,730,321	\$460,787,448	\$3,165,459	\$14,864,802	(\$29,270,412)	\$0	\$3,559,830	(\$7,680,321)
290 Conesville Coal Preparation Company	2,416,960	4,245,564	0	105,996	(269,689)	0	26,015	(137,678)
AEP Generation Resources - SEC	\$333,147,281	\$465,033,012	\$3,165,459	\$14,970,798	(\$29,540,101)	\$0	\$3,585,845	(\$7,817,999)
171 CSW Energy, Inc.	2,632,984	2,680,432	0	118,285	(170,268)	0	28,340	(23,643)
175 AEP Energy Partners	13,769,117	13,552,652	700,329	664,036	(860,900)	0	148,204	651,669
419 Onsite Partners	413,196	388,538	48,470	21,275	(24,681)	0	4,447	49,511
AEP Energy Supply	\$349,962,578	\$481,654,634	\$3,914,258	\$15,774,394	(\$30,595,950)	\$0	\$3,766,836	(\$7,140,462)
245 Dolet Hills	4,995,427	5,457,496	1,078,287	276,787	(346,674)	0	53,768	1,062,168
Dolet Hills	\$4,995,427	\$5,457,496	\$1,078,287	\$276,787	(\$346,674)	\$0	\$53,768	\$1,062,168
<b>Total</b>	<b>\$4,623,615,481</b>	<b>\$4,980,133,891</b>	<b>\$100,317,169</b>	<b>\$211,157,490</b>	<b>(\$316,351,002)</b>	<b>\$0</b>	<b>\$49,766,486</b>	<b>\$44,890,143</b>
<b>Total without Dolet Hills</b>	<b>\$4,618,620,054</b>	<b>\$4,974,676,395</b>	<b>\$99,238,882</b>	<b>\$210,880,703</b>	<b>(\$316,004,328)</b>	<b>\$0</b>	<b>\$49,712,718</b>	<b>\$43,827,975</b>

AMERICAN ELECTRIC POWER  
 QUALIFIED RETIREMENT PLAN  
 ESTIMATED 2021 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$308,937,468	\$318,813,010	\$5,971,777	\$13,860,653	(\$20,254,957)	\$0	\$3,228,811	\$2,806,284
215 Appalachian Power Co - Generation	249,014,249	266,898,036	4,501,752	11,102,917	(16,956,674)	0	2,592,082	1,240,077
150 Appalachian Power Co - Transmission	24,902,810	25,585,386	26,655	1,083,434	(1,625,501)	0	260,268	(265,144)
Appalachian Power Co. - FERC	<b>\$581,854,527</b>	<b>\$611,296,432</b>	<b>\$10,500,184</b>	<b>\$26,047,004</b>	<b>(\$38,837,132)</b>	<b>\$0</b>	<b>\$6,081,161</b>	<b>\$3,791,217</b>
225 Cedar Coal Co	2,274,258	4,589,876	0	97,896	(291,606)	0	23,769	(169,941)
Appalachian Power Co. - SEC	<b>\$584,128,785</b>	<b>\$615,886,308</b>	<b>\$10,500,184</b>	<b>\$26,144,900</b>	<b>(\$39,128,738)</b>	<b>\$0</b>	<b>\$6,104,930</b>	<b>\$3,621,276</b>
211 AEP Texas Central Company - Distribution	262,318,449	276,381,794	6,315,145	11,743,274	(17,559,200)	0	2,741,580	3,240,799
147 AEP Texas Central Company - Generation	1,850,632	13,452,401	0	78,731	(854,663)	0	19,342	(756,590)
169 AEP Texas Central Company - Transmission	29,661,082	30,577,155	955,792	1,344,005	(1,942,640)	0	309,998	667,155
AEP Texas Central Co.	<b>\$293,830,163</b>	<b>\$320,411,350</b>	<b>\$7,270,937</b>	<b>\$13,166,010</b>	<b>(\$20,356,503)</b>	<b>\$0</b>	<b>\$3,070,920</b>	<b>\$3,151,364</b>
119 AEP Texas North Company - Distribution	62,936,984	64,710,329	1,779,651	2,828,191	(4,111,203)	0	657,776	1,154,415
166 AEP Texas North Company - Generation	13,921,551	23,866,252	0	601,709	(1,516,280)	0	145,499	(769,072)
192 AEP Texas North Company - Transmission	11,838,762	12,925,880	535,141	544,980	(821,212)	0	123,731	382,640
AEP Texas North Co.	<b>\$88,697,297</b>	<b>\$101,502,461</b>	<b>\$2,314,792</b>	<b>\$3,974,880</b>	<b>(\$6,448,695)</b>	<b>\$0</b>	<b>\$927,006</b>	<b>\$67,983</b>
AEP Texas	<b>\$382,527,460</b>	<b>\$421,913,811</b>	<b>\$9,585,729</b>	<b>\$17,140,890</b>	<b>(\$26,805,198)</b>	<b>\$0</b>	<b>\$3,997,926</b>	<b>\$3,919,347</b>
170 Indiana Michigan Power Co - Distribution	153,971,646	164,705,553	3,352,956	6,923,141	(10,464,140)	0	1,609,210	1,421,167
132 Indiana Michigan Power Co - Generation	96,888,365	112,066,460	1,603,436	4,327,650	(7,119,852)	0	1,012,613	(176,153)
190 Indiana Michigan Power Co - Nuclear	263,255,636	271,698,911	8,494,392	12,074,718	(17,261,685)	0	2,751,375	6,058,800
120 Indiana Michigan Power Co - Transmission	36,253,154	37,123,334	799,194	1,633,795	(2,358,662)	0	378,894	453,221
280 Ind Mich River Transp Lakin	35,064,527	38,076,058	1,027,753	1,596,969	(2,419,064)	0	366,471	572,129
Indiana Michigan Power Co. FERC	<b>\$585,433,328</b>	<b>\$623,672,316</b>	<b>\$15,277,731</b>	<b>\$26,556,273</b>	<b>(\$39,623,403)</b>	<b>\$0</b>	<b>\$6,118,563</b>	<b>\$8,329,164</b>
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	<b>\$585,433,328</b>	<b>\$623,672,316</b>	<b>\$15,277,731</b>	<b>\$26,556,273</b>	<b>(\$39,623,403)</b>	<b>\$0</b>	<b>\$6,118,563</b>	<b>\$8,329,164</b>
110 Kentucky Power Co - Distribution	71,089,637	72,708,397	1,438,974	3,196,803	(4,619,339)	0	742,982	759,420
117 Kentucky Power Co - Generation	28,429,255	29,598,763	274,315	1,263,188	(1,880,481)	0	297,124	(45,854)
180 Kentucky Power Co - Transmission	2,738,919	2,813,539	4,474	120,004	(178,751)	0	28,625	(25,648)
600 Kentucky Power Co. - Kammer Actives	2,746,703	5,219,867	13,642	121,559	(331,637)	0	28,707	(167,729)
701 Kentucky Power Co. - Mitchell Actives	38,939,179	41,122,979	1,534,978	1,811,076	(2,612,642)	0	406,967	1,140,379
702 Kentucky Power Co. - Mitchell Inactives	23,716,289	35,833,442	0	1,026,238	(2,276,585)	0	247,867	(1,002,480)
Kentucky Power Co.	<b>\$167,659,982</b>	<b>\$187,297,087</b>	<b>\$3,266,383</b>	<b>\$7,538,868</b>	<b>(\$11,899,435)</b>	<b>\$0</b>	<b>\$1,752,272</b>	<b>\$658,088</b>
250 Ohio Power Co - Distribution	399,207,927	430,142,139	8,368,763	17,911,493	(27,327,964)	0	4,172,259	3,124,551
160 Ohio Power Co - Transmission	34,293,562	35,217,377	40,486	1,487,445	(2,237,445)	0	358,414	(331,100)
Ohio Power Co.	<b>\$433,501,489</b>	<b>\$465,359,516</b>	<b>\$8,409,249</b>	<b>\$19,398,938</b>	<b>(\$29,565,409)</b>	<b>\$0</b>	<b>\$4,530,673</b>	<b>\$2,773,451</b>
167 Public Service Co of Oklahoma - Distribution	160,380,393	163,355,737	4,028,332	6,741,864	(10,378,383)	0	1,571,677	1,963,490
198 Public Service Co of Oklahoma - Generation	76,997,491	83,247,774	2,519,448	3,489,807	(5,288,931)	0	804,727	1,525,051
114 Public Service Co of Oklahoma - Transmission	18,567,935	20,532,525	669,994	850,727	(1,304,481)	0	194,060	410,300
Public Service Co. of Oklahoma	<b>\$245,945,819</b>	<b>\$267,136,036</b>	<b>\$7,217,774</b>	<b>\$11,082,398</b>	<b>(\$16,971,795)</b>	<b>\$0</b>	<b>\$2,570,464</b>	<b>\$3,898,841</b>
159 Southwestern Electric Power Co - Distribution	102,522,191	105,877,125	3,270,579	4,651,729	(6,726,628)	0	1,071,495	2,267,175
168 Southwestern Electric Power Co - Generation	117,905,419	121,987,178	4,374,730	5,364,276	(7,750,139)	0	1,232,270	3,221,137
161 Southwestern Electric Power Co - Texas - Distribution	52,294,993	53,842,529	1,465,269	2,367,508	(3,420,745)	0	546,553	968,585
111 Southwestern Electric Power Co - Texas - Transmission	52,801	53,654	0	2,158	(3,409)	0	552	(699)
194 Southwestern Electric Power Co - Transmission	15,808,841	17,966,280	630,428	729,559	(1,141,441)	0	165,224	383,770
Southwestern Electric Power Co.	<b>\$288,584,245</b>	<b>\$299,726,766</b>	<b>\$9,741,006</b>	<b>\$13,115,230</b>	<b>(\$19,042,362)</b>	<b>\$0</b>	<b>\$3,016,094</b>	<b>\$6,829,968</b>
230 Kingsport Power Co - Distribution	13,358,217	13,857,652	300,296	603,527	(880,410)	0	139,611	163,024
260 Kingsport Power Co - Transmission	1,605,577	1,650,566	0	69,383	(104,864)	0	16,780	(18,701)
Kingsport Power Co.	<b>\$14,963,794</b>	<b>\$15,508,218</b>	<b>\$300,296</b>	<b>\$672,910</b>	<b>(\$985,274)</b>	<b>\$0</b>	<b>\$156,391</b>	<b>\$144,323</b>
210 Wheeling Power Co - Distribution	14,255,607	15,723,198	321,284	636,998	(998,933)	0	148,990	108,339
200 Wheeling Power Co - Transmission	321,120	655,779	0	13,240	(41,663)	0	3,356	(25,067)
Wheeling Power Co.	<b>\$14,576,727</b>	<b>\$16,378,977</b>	<b>\$321,284</b>	<b>\$650,238</b>	<b>(\$1,040,596)</b>	<b>\$0</b>	<b>\$152,346</b>	<b>\$83,272</b>
103 American Electric Power Service Corporation	1,552,237,262	1,590,416,419	35,426,168	69,983,683	(101,042,979)	0	16,222,963	20,589,835
293 Elmwood	1,355,049	6,233,772	0	59,244	(396,047)	0	14,162	(322,641)
292 AEP River Operations LLC	14,435,009	58,035,857	0	617,784	(3,687,158)	0	150,865	(2,918,509)
American Electric Power Service Corp	<b>\$1,568,027,320</b>	<b>\$1,654,686,048</b>	<b>\$35,426,168</b>	<b>\$70,660,711</b>	<b>(\$105,126,184)</b>	<b>\$0</b>	<b>\$16,387,990</b>	<b>\$17,348,685</b>
143 AEP Pro Serv. Inc.	950,180	978,772	0	42,269	(62,184)	0	9,931	(9,984)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	<b>\$950,180</b>	<b>\$978,772</b>	<b>\$0</b>	<b>\$42,269</b>	<b>(\$62,184)</b>	<b>\$0</b>	<b>\$9,931</b>	<b>(\$9,984)</b>
270 Cook Coal Terminal	3,625,115	4,533,259	84,581	165,153	(288,009)	0	37,887	(388)
AEP Generating Company	<b>\$3,625,115</b>	<b>\$4,533,259</b>	<b>\$84,581</b>	<b>\$165,153</b>	<b>(\$288,009)</b>	<b>\$0</b>	<b>\$37,887</b>	<b>(\$388)</b>
104 Cardinal Operating Company	77,113,930	94,137,679	1,725,236	3,476,995	(5,980,793)	0	805,944	27,382
181 Ohio Power Co - Generation	248,274,240	372,259,152	1,599,808	10,929,090	(23,650,519)	0	2,594,799	(8,526,822)
AEP Generation Resources - FERC	<b>\$325,388,170</b>	<b>\$466,396,831</b>	<b>\$3,325,044</b>	<b>\$14,406,085</b>	<b>(\$29,631,312)</b>	<b>\$0</b>	<b>\$3,400,743</b>	<b>(\$8,499,440)</b>
290 Conesville Coal Preparation Company	2,283,050	4,255,537	0	99,126	(270,364)	0	23,861	(147,377)
AEP Generation Resources - SEC	<b>\$327,671,220</b>	<b>\$470,652,368</b>	<b>\$3,325,044</b>	<b>\$14,505,211</b>	<b>(\$29,901,676)</b>	<b>\$0</b>	<b>\$3,424,604</b>	<b>(\$8,646,817)</b>
171 CSW Energy, Inc.	2,613,959	2,691,807	0	116,585	(171,017)	0	27,319	(27,113)
175 AEP Energy Partners	14,995,781	15,453,570	735,636	710,835	(981,802)	0	156,726	621,395
419 Onsite Partners	482,426	497,319	50,913	24,246	(31,596)	0	5,042	48,605
AEP Energy Supply	<b>\$345,763,386</b>	<b>\$489,295,064</b>	<b>\$4,111,593</b>	<b>\$15,356,877</b>	<b>(\$31,086,091)</b>	<b>\$0</b>	<b>\$3,613,691</b>	<b>(\$8,003,930)</b>
245 Dolet Hills	6,206,835	7,064,652	1,132,649	330,326	(448,834)	0	64,870	1,079,011
Dolet Hills	<b>\$6,206,835</b>	<b>\$7,064,652</b>	<b>\$1,132,649</b>	<b>\$330,326</b>	<b>(\$448,834)</b>	<b>\$0</b>	<b>\$64,870</b>	<b>\$1,079,011</b>
<b>Total</b>	<b>\$4,641,894,465</b>	<b>\$5,069,436,830</b>	<b>\$105,374,627</b>	<b>\$208,855,981</b>	<b>(\$322,073,512)</b>	<b>\$0</b>	<b>\$48,514,028</b>	<b>\$40,671,124</b>
<b>Total without Dolet Hills</b>	<b>\$4,635,687,630</b>	<b>\$5,062,372,178</b>	<b>\$104,241,978</b>	<b>\$208,525,655</b>	<b>(\$321,624,678)</b>	<b>\$0</b>	<b>\$48,449,158</b>	<b>\$39,592,113</b>

American Electric Power System Retirement Plan

AMERICAN ELECTRIC POWER  
QUALIFIED RETIREMENT PLAN  
ESTIMATED 2022 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$299,311,345	\$322,335,202	\$5,887,064	\$14,362,312	(\$20,488,328)	\$0	\$2,344,575	\$2,105,623
215 Appalachian Power Co - Generation	239,498,827	269,609,885	4,437,893	11,460,420	(17,136,998)	0	1,876,050	637,365
150 Appalachian Power Co - Transmission	23,082,397	24,762,282	26,277	1,073,647	(1,573,945)	0	180,810	(293,211)
Appalachian Power Co. - FERC	\$561,892,569	\$616,707,469	\$10,351,234	\$26,896,379	(\$39,199,271)	\$0	\$4,401,435	\$2,449,777
225 Cedar Coal Co	2,064,013	4,614,955	0	94,676	(293,337)	0	16,168	(182,493)
Appalachian Power Co. - SEC	\$563,956,582	\$621,322,424	\$10,351,234	\$26,991,055	(\$39,492,608)	\$0	\$4,417,603	\$2,267,284
211 AEP Texas Central Company - Distribution	251,760,896	277,155,801	6,225,561	12,075,857	(17,616,627)	0	1,972,101	2,656,892
147 AEP Texas Central Company - Generation	1,638,361	14,063,162	0	74,328	(893,885)	0	12,834	(806,723)
169 AEP Texas Central Company - Transmission	28,941,474	31,163,701	942,234	1,404,660	(1,980,833)	0	226,705	592,766
AEP Texas Central Co.	\$282,340,731	\$322,382,664	\$7,167,795	\$13,554,845	(\$20,491,345)	\$0	\$2,211,640	\$2,442,935
119 AEP Texas North Company - Distribution	60,612,604	65,017,494	1,754,405	2,918,632	(4,132,654)	0	474,793	1,015,176
166 AEP Texas North Company - Generation	12,743,032	23,859,419	0	585,362	(1,516,557)	0	99,819	(831,376)
192 AEP Texas North Company - Transmission	11,776,299	13,423,689	527,550	580,249	(853,239)	0	92,246	346,806
AEP Texas North Co.	\$85,131,935	\$102,300,602	\$2,285,955	\$4,084,243	(\$6,502,450)	\$0	\$666,858	\$530,606
AEP Texas	\$367,472,666	\$424,683,266	\$9,449,750	\$17,639,088	(\$26,993,795)	\$0	\$2,878,498	\$2,973,541
170 Indiana Michigan Power Co - Distribution	149,467,349	167,140,974	3,305,392	7,189,730	(10,623,844)	0	1,170,812	1,042,090
132 Indiana Michigan Power Co - Generation	93,283,882	113,344,020	1,580,691	4,464,571	(7,204,393)	0	730,714	(428,417)
190 Indiana Michigan Power Co - Nuclear	263,323,918	283,489,631	8,373,894	12,879,256	(18,019,219)	0	2,062,677	5,296,608
120 Indiana Michigan Power Co - Transmission	35,347,475	37,755,075	787,857	1,705,341	(2,399,795)	0	276,885	370,288
280 Ind Mich River Transp Lakin	39,338,256	1,013,174	1,013,174	1,687,382	(2,500,425)	0	271,621	471,752
Indiana Michigan Power Co. FERC	\$576,098,039	\$641,067,956	\$15,061,008	\$27,926,280	(\$40,747,676)	\$0	\$4,512,709	\$6,752,321
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$576,098,039	\$641,067,956	\$15,061,008	\$27,926,280	(\$40,747,676)	\$0	\$4,512,709	\$6,752,321
110 Kentucky Power Co - Distribution	69,134,228	73,751,081	1,418,561	3,329,803	(4,687,779)	0	541,544	602,129
117 Kentucky Power Co - Generation	27,273,296	29,661,386	270,423	1,295,315	(1,885,342)	0	213,638	(105,966)
180 Kentucky Power Co - Transmission	2,574,471	2,760,693	4,410	119,515	(175,476)	0	20,166	(31,385)
600 Kentucky Power Co. - Kammer Actives	2,626,399	5,371,813	13,448	124,359	(341,444)	0	20,573	(163,064)
701 Kentucky Power Co. - Mitchell Actives	39,780,551	43,794,253	1,513,204	1,975,372	(2,783,658)	0	311,610	1,016,528
702 Kentucky Power Co. - Mitchell Inactives	21,761,143	35,562,971	0	1,013,229	(2,260,460)	0	170,460	(1,076,771)
Kentucky Power Co.	\$163,150,088	\$190,902,197	\$3,220,046	\$7,857,593	(\$12,134,159)	\$0	\$1,277,991	\$221,471
250 Ohio Power Co - Distribution	386,153,887	435,200,975	8,250,048	18,513,444	(27,662,322)	0	3,024,833	2,126,003
160 Ohio Power Co - Transmission	31,581,535	33,864,224	39,911	1,462,288	(2,152,484)	0	247,385	(402,900)
Ohio Power Co.	\$417,735,422	\$469,065,199	\$8,289,959	\$19,975,732	(\$29,814,806)	\$0	\$3,272,218	\$1,723,103
167 Public Service Co of Oklahoma - Distribution	144,352,340	164,131,765	3,971,188	6,950,979	(10,432,573)	0	1,130,745	1,620,339
198 Public Service Co of Oklahoma - Generation	75,130,692	84,905,675	2,483,709	3,635,853	(5,396,790)	0	588,516	1,311,288
114 Public Service Co of Oklahoma - Transmission	18,460,995	21,326,926	660,490	903,969	(1,355,586)	0	144,609	353,482
Public Service Co. of Oklahoma	\$237,944,027	\$270,364,366	\$7,115,387	\$11,490,801	(\$17,184,949)	\$0	\$1,863,870	\$3,285,109
159 Southwestern Electric Power Co - Distribution	100,344,010	108,091,596	3,224,185	4,876,217	(6,870,537)	0	786,018	2,015,883
168 Southwestern Electric Power Co - Generation	115,432,972	124,884,506	4,312,672	5,630,590	(7,937,931)	0	904,213	2,909,544
161 Southwestern Electric Power Co - Texas - Distribution	51,153,372	54,935,621	1,444,484	2,472,448	(3,491,828)	0	400,696	825,800
111 Southwestern Electric Power Co - Texas - Transmission	42,825	45,344	0	1,854	(2,882)	0	335	(693)
194 Southwestern Electric Power Co - Transmission	15,890,150	18,855,394	621,485	780,070	(1,198,490)	0	124,471	327,536
Southwestern Electric Power Co.	\$282,863,329	\$306,812,461	\$9,008,282	\$13,761,179	(\$19,501,668)	\$0	\$2,215,733	\$6,078,070
230 Kingsport Power Co - Distribution	13,086,080	14,166,608	296,036	631,960	(900,460)	0	102,506	130,042
260 Kingsport Power Co - Transmission	1,469,126	1,577,280	0	67,728	(100,255)	0	11,508	(21,019)
Kingsport Power Co.	\$14,555,206	\$15,743,888	\$296,036	\$699,688	(\$1,000,715)	\$0	\$114,014	\$109,023
210 Wheeling Power Co - Distribution	13,651,235	15,779,051	316,726	657,085	(1,002,951)	0	106,933	77,793
200 Wheeling Power Co - Transmission	265,642	632,293	0	11,615	(40,190)	0	2,081	(26,494)
Wheeling Power Co.	\$13,916,877	\$16,411,344	\$316,726	\$668,700	(\$1,043,141)	\$0	\$109,014	\$51,299
103 American Electric Power Service Corporation	1,513,559,675	1,617,551,226	34,923,629	72,987,673	(102,815,080)	0	11,856,064	16,952,286
293 Elmwood	1,270,286	6,520,349	0	61,493	(414,448)	0	9,950	(343,005)
292 AEP River Operations LLC	12,942,186	59,912,583	0	596,644	(3,808,181)	0	101,379	(3,110,158)
American Electric Power Service Corp	\$1,527,772,147	\$1,683,984,257	\$34,923,629	\$73,645,810	(\$107,037,709)	\$0	\$11,967,393	\$13,499,123
143 AEP Pro Serv. Inc.	922,929	992,633	0	43,689	(63,094)	0	7,230	(12,175)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$922,929	\$992,633	\$0	\$43,689	(\$63,094)	\$0	\$7,230	(\$12,175)
270 Cook Coal Terminal	3,608,790	4,729,195	83,381	167,863	(300,598)	0	28,268	(21,086)
AEP Generating Company	\$3,608,790	\$4,729,195	\$83,381	\$167,863	(\$300,598)	\$0	\$28,268	(\$21,086)
104 Cardinal Operating Company	75,239,985	96,524,056	1,700,763	3,624,542	(6,135,279)	0	589,372	(220,602)
181 Ohio Power Co - Generation	234,440,231	376,265,645	1,577,114	11,023,283	(23,916,264)	0	1,836,425	(9,479,442)
AEP Generation Resources - FERC	\$309,680,216	\$472,789,701	\$3,277,877	\$14,647,825	(\$30,051,543)	\$0	\$2,425,797	(\$9,700,044)
290 Conesville Coal Preparation Company	2,109,689	4,297,966	0	98,648	(273,188)	0	16,526	(158,014)
AEP Generation Resources - SEC	\$311,789,905	\$477,087,667	\$3,277,877	\$14,746,473	(\$30,324,731)	\$0	\$2,442,323	(\$9,858,058)
171 CSW Energy, Inc.	2,552,330	2,744,123	0	121,771	(174,422)	0	19,993	(32,658)
175 AEP Energy Partners	15,767,723	17,228,208	725,201	797,844	(1,095,062)	0	123,512	551,495
419 Onsite Partners	541,077	617,906	50,191	28,768	(39,275)	0	4,238	43,922
AEP Energy Supply	\$330,651,035	\$497,677,904	\$4,053,269	\$15,694,856	(\$31,633,490)	\$0	\$2,590,066	(\$9,295,299)
245 Dolet Hills	7,298,279	8,808,356	1,116,582	406,559	(569,878)	0	57,169	1,020,432
Dolet Hills	\$7,298,279	\$8,808,356	\$1,116,582	\$406,559	(\$569,878)	\$0	\$57,169	\$1,020,432
<b>Total</b>	<b>\$4,507,945,416</b>	<b>\$5,152,565,446</b>	<b>\$103,879,833</b>	<b>\$216,968,893</b>	<b>(\$327,508,286)</b>	<b>\$0</b>	<b>\$35,311,776</b>	<b>\$28,652,216</b>
<b>Total without Dolet Hills</b>	<b>\$4,500,647,137</b>	<b>\$5,143,757,090</b>	<b>\$102,763,251</b>	<b>\$216,562,334</b>	<b>(\$326,948,408)</b>	<b>\$0</b>	<b>\$35,254,607</b>	<b>\$27,631,784</b>

AMERICAN ELECTRIC POWER  
 QUALIFIED RETIREMENT PLAN  
 ESTIMATED 2023 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$290,968,243	\$326,156,676	\$5,774,128	\$14,831,447	(\$21,529,636)	\$0	\$1,573,809	\$649,748
215 Appalachian Power Co - Generation	231,774,377	272,322,188	4,352,757	11,799,107	(17,976,016)	0	1,253,637	(570,515)
150 Appalachian Power Co - Transmission	21,456,987	24,016,914	25,773	1,053,561	(1,585,359)	0	116,058	(389,967)
<b>Appalachian Power Co. - FERC</b>	<b>\$544,199,607</b>	<b>\$622,495,778</b>	<b>\$10,152,658</b>	<b>\$27,684,115</b>	<b>(\$41,091,011)</b>	<b>\$0</b>	<b>\$2,943,504</b>	<b>(\$310,734)</b>
225 Cedar Coal Co	1,865,822	4,648,805	0	90,646	(306,868)	0	10,092	(206,130)
<b>Appalachian Power Co. - SEC</b>	<b>\$546,065,429</b>	<b>\$627,144,583</b>	<b>\$10,152,658</b>	<b>\$27,774,761</b>	<b>(\$41,397,879)</b>	<b>\$0</b>	<b>\$2,953,596</b>	<b>(\$516,864)</b>
211 AEP Texas Central Company - Distribution	243,269,383	279,163,622	6,106,131	12,401,439	(18,427,619)	0	1,315,812	1,395,763
147 AEP Texas Central Company - Generation	1,446,847	14,732,167	0	69,551	(972,472)	0	7,826	(895,095)
169 AEP Texas Central Company - Transmission	28,422,396	31,829,087	924,158	1,461,314	(2,101,411)	0	153,733	438,164
<b>AEP Texas Central Co.</b>	<b>\$273,138,626</b>	<b>\$325,724,876</b>	<b>\$7,030,289</b>	<b>\$13,932,304</b>	<b>(\$21,501,132)</b>	<b>\$0</b>	<b>\$1,477,371</b>	<b>\$938,832</b>
119 AEP Texas North Company - Distribution	58,782,252	65,609,923	1,720,749	2,994,171	(4,330,918)	0	317,945	701,947
166 AEP Texas North Company - Generation	11,554,363	23,803,324	0	564,359	(1,571,260)	0	62,496	(944,405)
192 AEP Texas North Company - Transmission	11,781,795	13,970,306	517,430	612,847	(922,181)	0	63,726	271,822
<b>AEP Texas North Co.</b>	<b>\$82,118,410</b>	<b>\$103,383,553</b>	<b>\$2,238,179</b>	<b>\$4,171,377</b>	<b>(\$6,824,359)</b>	<b>\$0</b>	<b>\$444,167</b>	<b>\$29,364</b>
<b>AEP Texas</b>	<b>\$355,257,036</b>	<b>\$429,108,429</b>	<b>\$9,268,468</b>	<b>\$18,103,681</b>	<b>(\$28,325,491)</b>	<b>\$0</b>	<b>\$1,921,538</b>	<b>\$968,196</b>
170 Indiana Michigan Power Co - Distribution	145,666,523	169,831,223	3,241,982	7,419,620	(11,210,577)	0	787,891	238,916
132 Indiana Michigan Power Co - Generation	90,455,771	115,140,112	1,550,367	4,597,350	(7,600,411)	0	489,263	(963,431)
190 Indiana Michigan Power Co - Nuclear	262,911,623	294,132,649	8,213,251	13,663,801	(19,415,727)	0	1,422,054	3,883,379
120 Indiana Michigan Power Co - Transmission	34,651,996	38,492,099	772,743	1,774,607	(2,540,867)	0	187,428	193,911
280 Ind Mich River Transp Lakin	34,353,376	40,588,035	993,737	1,778,390	(2,679,220)	0	185,813	278,720
<b>Indiana Michigan Power Co. FERC</b>	<b>\$568,039,289</b>	<b>\$658,184,118</b>	<b>\$14,772,080</b>	<b>\$29,233,768</b>	<b>(\$43,446,802)</b>	<b>\$0</b>	<b>\$3,072,449</b>	<b>\$3,631,495</b>
202 Price River Coal	0	0	0	0	0	0	0	0
<b>Indiana Michigan Power Co. - SEC</b>	<b>\$568,039,289</b>	<b>\$658,184,118</b>	<b>\$14,772,080</b>	<b>\$29,233,768</b>	<b>(\$43,446,802)</b>	<b>\$0</b>	<b>\$3,072,449</b>	<b>\$3,631,495</b>
110 Kentucky Power Co - Distribution	67,664,643	75,073,599	1,391,348	3,462,360	(4,955,616)	0	365,989	264,081
117 Kentucky Power Co - Generation	26,223,605	29,727,020	265,236	1,318,984	(1,962,284)	0	141,840	(236,224)
180 Kentucky Power Co - Transmission	2,382,033	2,665,183	4,326	118,306	(115,599)	0	12,884	(49,413)
600 Kentucky Power Co - Kammer Actives	2,522,186	5,538,806	13,190	120,197	(365,617)	0	13,642	(218,588)
701 Kentucky Power Co - Mitchell Actives	40,703,234	46,506,280	1,484,175	2,142,299	(3,069,884)	0	220,158	776,748
702 Kentucky Power Co - Mitchell Inactives	20,296,746	35,730,611	0	1,003,896	(2,358,581)	0	109,782	(1,244,903)
<b>Kentucky Power Co.</b>	<b>\$159,792,447</b>	<b>\$195,241,499</b>	<b>\$3,158,275</b>	<b>\$8,166,042</b>	<b>(\$12,887,911)</b>	<b>\$0</b>	<b>\$864,295</b>	<b>(\$699,299)</b>
250 Ohio Power Co - Distribution	374,070,963	439,973,271	8,091,780	19,087,039	(29,042,681)	0	2,023,301	159,439
160 Ohio Power Co - Transmission	29,075,962	32,544,170	39,146	1,424,186	(2,148,244)	0	157,268	(527,644)
<b>Ohio Power Co.</b>	<b>\$403,146,925</b>	<b>\$472,517,441</b>	<b>\$8,130,926</b>	<b>\$20,511,225</b>	<b>(\$31,190,925)</b>	<b>\$0</b>	<b>\$2,180,569</b>	<b>(\$368,205)</b>
167 Public Service Co of Oklahoma - Distribution	140,204,425	166,379,451	3,895,006	7,149,254	(10,982,725)	0	758,347	819,882
198 Public Service Co of Oklahoma - Generation	73,306,034	86,386,809	2,436,062	3,763,227	(5,702,402)	0	396,503	893,390
114 Public Service Co of Oklahoma - Transmission	18,401,597	22,132,973	647,819	957,967	(1,461,000)	0	99,532	244,318
<b>Public Service Co. of Oklahoma</b>	<b>\$231,912,056</b>	<b>\$274,899,233</b>	<b>\$6,978,887</b>	<b>\$11,870,448</b>	<b>(\$18,146,127)</b>	<b>\$0</b>	<b>\$1,254,382</b>	<b>\$1,957,590</b>
159 Southwestern Electric Power Co - Distribution	98,839,278	110,716,901	3,162,332	5,103,346	(7,308,434)	0	534,609	1,491,853
168 Southwestern Electric Power Co - Generation	128,215,149	128,215,149	4,229,939	5,895,729	(8,463,495)	0	616,475	2,278,648
161 Southwestern Electric Power Co - Texas - Distribution	50,031,161	55,889,993	1,416,773	2,572,311	(3,689,304)	0	270,612	570,392
111 Southwestern Electric Power Co - Texas - Transmission	34,145	37,900	0	1,554	(2,502)	0	185	(763)
194 Southwestern Electric Power Co - Transmission	15,868,465	19,611,597	609,563	828,362	(1,294,564)	0	85,830	229,191
<b>Southwestern Electric Power Co.</b>	<b>\$278,747,974</b>	<b>\$314,471,540</b>	<b>\$9,418,607</b>	<b>\$14,401,302</b>	<b>(\$20,758,299)</b>	<b>\$0</b>	<b>\$1,507,711</b>	<b>\$4,569,321</b>
230 Kingsport Power Co - Distribution	12,850,067	14,474,429	290,357	656,516	(955,459)	0	69,504	60,918
260 Kingsport Power Co - Transmission	1,342,160	1,504,972	0	65,592	(99,343)	0	7,260	(26,491)
<b>Kingsport Power Co.</b>	<b>\$14,192,227</b>	<b>\$15,979,401</b>	<b>\$290,357</b>	<b>\$722,108</b>	<b>(\$1,054,802)</b>	<b>\$0</b>	<b>\$76,764</b>	<b>\$34,427</b>
210 Wheeling Power Co - Distribution	13,307,031	16,061,340	310,650	681,218	(1,060,211)	0	71,976	3,633
200 Wheeling Power Co - Transmission	216,467	613,977	0	9,963	(40,529)	0	1,171	(29,395)
<b>Wheeling Power Co.</b>	<b>\$13,523,498</b>	<b>\$16,675,317</b>	<b>\$310,650</b>	<b>\$691,181</b>	<b>(\$1,100,740)</b>	<b>\$0</b>	<b>\$73,147</b>	<b>(\$25,762)</b>
103 American Electric Power Service Corporation	1,481,142,029	1,646,359,987	34,253,661	75,913,360	(108,676,393)	0	8,011,302	9,501,930
293 Elmwood	1,282,274	6,923,770	0	60,292	(457,039)	0	6,936	(389,811)
292 AEP River Operations LLC	11,823,540	62,277,796	0	577,067	(4,110,964)	0	63,952	(3,469,945)
<b>American Electric Power Service Corp</b>	<b>\$1,494,247,843</b>	<b>\$1,715,561,553</b>	<b>\$34,253,661</b>	<b>\$76,550,719</b>	<b>(\$113,244,396)</b>	<b>\$0</b>	<b>\$8,082,190</b>	<b>\$5,642,174</b>
143 AEP Pro Serv. Inc.	890,576	997,750	0	44,561	(65,862)	0	4,817	(16,484)
189 Central Coal Company	0	0	0	0	0	0	0	0
<b>Miscellaneous</b>	<b>\$890,576</b>	<b>\$997,750</b>	<b>\$0</b>	<b>\$44,561</b>	<b>(\$65,862)</b>	<b>\$0</b>	<b>\$4,817</b>	<b>(\$16,484)</b>
270 Cook Coal Terminal	3,275,464	4,581,981	81,782	166,592	(302,457)	0	17,717	(36,366)
<b>AEP Generating Company</b>	<b>\$3,275,464</b>	<b>\$4,581,981</b>	<b>\$81,782</b>	<b>\$166,592</b>	<b>(\$302,457)</b>	<b>\$0</b>	<b>\$17,717</b>	<b>(\$36,366)</b>
104 Cardinal Operating Company	73,510,854	98,881,864	1,668,136	3,767,814	(6,527,202)	0	397,611	(693,641)
181 Ohio Power Co - Generation	221,546,470	380,649,327	1,546,858	11,070,522	(25,126,701)	0	1,198,316	(11,311,005)
<b>AEP Generation Resources - FERC</b>	<b>\$295,057,324</b>	<b>\$479,531,191</b>	<b>\$3,214,994</b>	<b>\$14,838,336</b>	<b>(\$31,653,903)</b>	<b>\$0</b>	<b>\$1,595,927</b>	<b>(\$12,004,646)</b>
290 Conesville Coal Preparation Company	1,985,098	4,388,173	0	98,570	(289,664)	0	10,737	(180,357)
<b>AEP Generation Resources - SEC</b>	<b>\$297,042,422</b>	<b>\$483,919,364</b>	<b>\$3,214,994</b>	<b>\$14,936,906</b>	<b>(\$31,943,567)</b>	<b>\$0</b>	<b>\$1,606,664</b>	<b>(\$12,185,003)</b>
171 CSW Energy, Inc.	2,502,342	2,800,207	0	125,659	(184,842)	0	13,535	(45,648)
175 AEP Energy Partners	16,625,570	18,814,768	711,289	891,754	(1,241,965)	0	89,926	451,004
419 Onsite Partners	602,896	707,689	49,228	33,746	(46,715)	0	3,261	39,520
<b>AEP Energy Supply</b>	<b>\$316,773,230</b>	<b>\$506,242,028</b>	<b>\$3,975,511</b>	<b>\$15,988,065</b>	<b>(\$33,417,089)</b>	<b>\$0</b>	<b>\$1,713,386</b>	<b>(\$11,740,127)</b>
245 Dolet Hills	8,461,386	10,392,433	1,095,161	490,934	(686,006)	0	45,767	945,856
<b>Dolet Hills</b>	<b>\$8,461,386</b>	<b>\$10,392,433</b>	<b>\$1,095,161</b>	<b>\$490,934</b>	<b>(\$686,006)</b>	<b>\$0</b>	<b>\$45,767</b>	<b>\$945,856</b>
<b>Total</b>	<b>\$4,394,325,380</b>	<b>\$5,241,997,306</b>	<b>\$101,887,023</b>	<b>\$224,715,387</b>	<b>(\$346,024,786)</b>	<b>\$0</b>	<b>\$23,768,328</b>	<b>\$4,345,952</b>
<b>Total without Dolet Hills</b>	<b>\$4,385,863,994</b>	<b>\$5,231,604,873</b>	<b>\$100,791,862</b>	<b>\$224,224,453</b>	<b>(\$345,338,780)</b>	<b>\$0</b>	<b>\$23,722,561</b>	<b>\$3,400,096</b>

American Electric Power System Retirement Plan

AMERICAN ELECTRIC POWER  
QUALIFIED RETIREMENT PLAN  
ESTIMATED 2024 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$288,664,125	\$330,700,443	\$5,833,943	\$15,630,337	(\$22,657,344)	\$0	\$1,370,093	\$177,029
215 Appalachian Power Co - Generation	229,589,756	276,432,912	4,397,848	12,398,448	(18,939,302)	0	1,089,707	(1,053,299)
150 Appalachian Power Co - Transmission	20,092,585	23,114,164	26,040	1,049,143	(1,583,625)	0	95,366	(413,076)
Appalachian Power Co. - FERC	\$538,346,466	\$630,247,519	\$10,257,831	\$29,077,928	(\$43,180,271)	\$0	\$2,555,166	(\$1,289,346)
225 Cedar Coal Co	1,710,818	4,705,988	0	88,050	(322,422)	0	8,120	(226,252)
Appalachian Power Co. - SEC	\$540,057,284	\$634,953,507	\$10,257,831	\$29,165,978	(\$43,502,893)	\$0	\$2,563,286	(\$1,515,598)
211 AEP Texas Central Company - Distribution	240,088,009	282,056,691	6,169,386	13,003,629	(19,324,605)	0	1,139,535	987,945
147 AEP Texas Central Company - Generation	1,297,089	15,500,075	0	66,035	(1,061,960)	0	6,156	(989,769)
169 AEP Texas Central Company - Transmission	28,329,899	32,399,212	933,731	1,551,158	(2,219,774)	0	134,463	399,578
AEP Texas Central Co.	\$269,714,997	\$329,955,978	\$7,103,117	\$14,620,822	(\$22,606,339)	\$0	\$1,280,154	\$397,754
119 AEP Texas North Company - Distribution	57,664,963	65,813,667	1,738,575	3,124,922	(4,509,105)	0	273,697	628,089
166 AEP Texas North Company - Generation	10,715,145	23,945,392	0	547,813	(1,640,575)	0	50,858	(1,041,904)
192 AEP Texas North Company - Transmission	11,889,338	14,407,464	522,790	656,973	(987,101)	0	56,431	249,093
AEP Texas North Co.	\$80,269,446	\$104,166,523	\$2,261,365	\$4,329,708	(\$7,136,781)	\$0	\$380,986	(\$164,722)
AEP Texas	\$349,984,443	\$434,122,501	\$9,364,482	\$18,950,530	(\$29,743,120)	\$0	\$1,661,140	\$233,032
170 Indiana Michigan Power Co - Distribution	143,937,899	171,940,173	3,275,566	7,817,211	(11,780,171)	0	683,176	(4,218)
132 Indiana Michigan Power Co - Generation	89,453,591	117,192,552	1,566,428	4,815,955	(8,029,236)	0	424,576	(1,222,277)
190 Indiana Michigan Power Co - Nuclear	268,246,235	305,857,642	8,298,333	14,832,719	(20,955,284)	0	1,273,184	3,448,952
120 Indiana Michigan Power Co - Transmission	34,621,986	39,262,484	780,747	1,879,504	(2,689,998)	0	164,327	134,580
280 Ind Mich River Transp Lakin	34,852,473	42,062,095	1,004,031	1,913,055	(2,681,809)	0	165,421	200,698
Indiana Michigan Power Co. FERC	\$571,112,184	\$676,314,946	\$14,925,105	\$31,258,444	(\$46,336,498)	\$0	\$2,710,684	\$2,557,735
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$571,112,184	\$676,314,946	\$14,925,105	\$31,258,444	(\$46,336,498)	\$0	\$2,710,684	\$2,557,735
110 Kentucky Power Co - Distribution	67,610,593	76,578,909	1,405,761	3,670,255	(5,246,666)	0	320,902	150,252
117 Kentucky Power Co - Generation	25,569,968	29,700,331	267,983	1,361,069	(2,034,865)	0	21,363	(284,450)
180 Kentucky Power Co - Transmission	2,282,815	2,619,011	4,371	120,202	(179,437)	0	10,835	(44,029)
600 Kentucky Power Co. - Kammer Actives	2,205,827	5,453,514	13,327	117,632	(373,638)	0	10,470	(232,209)
701 Kentucky Power Co. - Mitchell Actives	42,386,139	49,275,717	1,499,550	2,359,122	(3,376,032)	0	201,178	682,813
702 Kentucky Power Co. - Mitchell Inactives	19,322,769	36,089,813	0	1,013,403	(2,472,628)	0	91,712	(1,367,513)
Kentucky Power Co.	\$159,378,111	\$199,717,295	\$3,190,992	\$8,640,683	(\$13,683,271)	\$0	\$756,460	(\$1,095,136)
250 Ohio Power Co - Distribution	371,208,248	447,301,696	8,175,604	20,137,820	(30,646,069)	0	1,761,875	(570,770)
160 Ohio Power Co - Transmission	27,084,024	31,170,913	39,551	1,409,487	(2,135,619)	0	128,550	(558,031)
Ohio Power Co.	\$398,292,272	\$478,472,609	\$8,215,155	\$21,547,307	(\$32,781,688)	\$0	\$1,890,425	(\$1,128,801)
167 Public Service Co of Oklahoma - Distribution	138,061,535	168,085,829	3,935,354	7,509,730	(11,516,097)	0	655,285	584,272
198 Public Service Co of Oklahoma - Generation	72,784,415	87,851,927	2,461,297	3,977,725	(6,019,016)	0	345,458	765,464
114 Public Service Co of Oklahoma - Transmission	18,764,865	23,046,117	654,530	1,034,979	(1,578,963)	0	89,064	199,610
Public Service Co. of Oklahoma	\$229,610,815	\$278,983,873	\$7,051,181	\$12,522,434	(\$19,114,076)	\$0	\$1,089,807	\$1,549,346
159 Southwestern Electric Power Co - Distribution	99,433,072	113,658,676	3,195,091	5,439,884	(7,787,119)	0	471,942	1,319,798
168 Southwestern Electric Power Co - Generation	114,497,585	131,459,648	4,273,757	6,301,860	(9,006,721)	0	543,443	2,112,339
161 Southwestern Electric Power Co - Texas - Distribution	50,083,191	57,114,738	1,431,450	2,730,559	(3,913,113)	0	237,711	486,607
111 Southwestern Electric Power Co - Texas - Transmission	27,106	31,363	0	1,293	(2,149)	0	129	(727)
194 Southwestern Electric Power Co - Transmission	16,220,155	20,473,675	615,877	897,262	(1,402,717)	0	76,986	187,408
Southwestern Electric Power Co.	\$280,261,109	\$322,738,100	\$9,516,175	\$15,370,858	(\$22,111,819)	\$0	\$1,330,211	\$4,105,425
230 Kingsport Power Co - Distribution	12,772,556	14,703,827	293,364	695,488	(1,007,406)	0	60,623	42,069
260 Kingsport Power Co - Transmission	1,246,094	1,437,525	0	64,510	(98,489)	0	5,914	(28,065)
Kingsport Power Co.	\$14,018,650	\$16,141,352	\$293,364	\$759,998	(\$1,105,895)	\$0	\$66,537	\$14,004
210 Wheeling Power Co - Distribution	13,270,701	16,417,940	313,868	720,997	(1,124,846)	0	62,987	(26,994)
200 Wheeling Power Co - Transmission	176,389	602,611	0	8,538	(41,287)	0	837	(31,912)
Wheeling Power Co.	\$13,447,090	\$17,020,551	\$313,868	\$729,535	(\$1,166,133)	\$0	\$63,824	(\$58,906)
103 American Electric Power Service Corporation	1,480,996,051	1,680,541,347	34,608,500	80,547,392	(115,139,258)	0	7,029,287	7,045,921
293 Elmwood	1,095,726	7,132,367	0	56,314	(488,661)	0	5,201	(427,146)
292 AEP River Operations LLC	10,947,225	64,975,793	0	578,524	(4,451,699)	0	51,959	(3,821,216)
American Electric Power Service Corp	\$1,493,039,002	\$1,752,649,507	\$34,608,500	\$81,182,230	(\$120,079,618)	\$0	\$7,086,447	\$2,797,559
143 AEP Pro Serv. Inc.	868,278	996,194	0	46,108	(68,252)	0	4,121	(18,023)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$868,278	\$996,194	\$0	\$46,108	(\$68,252)	\$0	\$4,121	(\$18,023)
270 Cook Coal Terminal	3,217,680	4,661,393	82,629	177,206	(319,367)	0	15,272	(44,260)
AEP Generating Company	\$3,217,680	\$4,661,393	\$82,629	\$177,206	(\$319,367)	\$0	\$15,272	(\$44,260)
104 Cardinal Operating Company	73,543,787	101,783,270	1,685,416	3,999,377	(6,973,497)	0	349,063	(939,641)
181 Ohio Power Co - Generation	213,830,045	386,935,317	1,562,883	11,341,103	(26,510,175)	0	1,014,907	(12,591,282)
AEP Generation Resources - FERC	\$287,373,832	\$488,718,587	\$3,248,299	\$15,340,480	(\$33,483,672)	\$0	\$1,363,970	(\$13,530,923)
290 Conesville Coal Preparation Company	1,905,227	4,499,948	0	100,371	(308,306)	0	9,043	(198,892)
AEP Generation Resources - SEC	\$289,279,059	\$493,218,535	\$3,248,299	\$15,440,851	(\$33,791,978)	\$0	\$1,373,013	(\$13,729,815)
171 CSW Energy, Inc.	2,457,780	2,814,495	0	127,315	(192,830)	0	11,665	(53,850)
175 AEP Energy Partners	17,872,954	20,515,023	718,657	1,013,049	(1,405,550)	0	84,831	410,987
419 Onsite Partners	680,400	803,874	49,738	40,117	(55,076)	0	3,229	38,008
AEP Energy Supply	\$310,290,193	\$517,351,927	\$4,016,694	\$16,621,332	(\$35,445,434)	\$0	\$1,472,738	(\$13,334,670)
245 Dolet Hills	9,827,088	12,055,842	1,106,506	596,932	(825,984)	0	46,643	924,097
Dolet Hills	\$9,827,088	\$12,055,842	\$1,106,506	\$596,932	(\$825,984)	\$0	\$46,643	\$924,097
<b>Total</b>	<b>\$4,373,404,199</b>	<b>\$5,346,179,597</b>	<b>\$102,942,482</b>	<b>\$237,569,575</b>	<b>(\$366,283,848)</b>	<b>\$0</b>	<b>\$20,757,595</b>	<b>(\$5,014,196)</b>
<b>Total without Dolet Hills</b>	<b>\$4,363,577,111</b>	<b>\$5,334,123,755</b>	<b>\$101,835,976</b>	<b>\$236,972,643</b>	<b>(\$365,457,864)</b>	<b>\$0</b>	<b>\$20,710,952</b>	<b>(\$5,938,293)</b>

AMERICAN ELECTRIC POWER  
 QUALIFIED RETIREMENT PLAN  
 ESTIMATED 2025 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$285,825,408	\$336,702,408	\$5,821,401	\$16,353,329	(\$23,925,549)	\$0	\$1,009,856	(\$740,963)
215 Appalachian Power Co - Generation	226,335,040	281,108,995	4,388,394	12,931,997	(19,975,167)	0	799,669	(1,855,107)
150 Appalachian Power Co - Transmission	18,827,364	22,427,957	25,984	1,036,709	(1,593,696)	0	66,519	(464,484)
Appalachian Power Co. - FERC	\$530,987,812	\$640,239,360	\$10,235,779	\$30,322,035	(\$45,494,412)	\$0	\$1,876,044	(\$3,060,554)
225 Cedar Coal Co	1,557,327	4,792,020	0	84,445	(340,513)	0	5,502	(250,566)
Appalachian Power Co. - SEC	\$532,545,139	\$645,031,380	\$10,235,779	\$30,406,480	(\$45,834,925)	\$0	\$1,881,546	(\$3,311,120)
211 AEP Texas Central Company - Distribution	236,518,140	286,232,318	6,156,123	13,560,826	(20,339,223)	0	835,647	213,373
147 AEP Texas Central Company - Generation	1,153,648	16,375,682	0	61,850	(1,163,630)	0	4,076	(1,097,704)
169 AEP Texas Central Company - Transmission	28,327,100	33,263,843	931,724	1,644,047	(2,363,677)	0	100,083	312,177
AEP Texas Central Co.	\$265,998,888	\$335,871,843	\$7,087,847	\$15,266,723	(\$23,866,530)	\$0	\$939,806	(\$572,154)
119 AEP Texas North Company - Distribution	56,608,773	66,465,047	1,734,837	3,237,264	(4,722,903)	0	200,006	449,204
166 AEP Texas North Company - Generation	9,616,688	23,951,480	0	523,164	(1,701,955)	0	33,977	(1,144,814)
192 AEP Texas North Company - Transmission	11,979,348	14,919,392	521,666	702,920	(1,060,149)	0	42,324	206,761
AEP Texas North Co.	\$78,204,809	\$105,335,919	\$2,256,503	\$4,463,348	(\$7,485,007)	\$0	\$276,307	(\$488,849)
AEP Texas	\$344,203,697	\$441,207,762	\$9,344,350	\$19,730,071	(\$31,351,537)	\$0	\$1,216,113	(\$1,001,003)
170 Indiana Michigan Power Co - Distribution	143,025,485	175,946,292	3,268,525	8,210,072	(12,502,470)	0	505,326	(518,547)
132 Indiana Michigan Power Co - Generation	87,781,589	119,260,859	1,563,060	5,016,184	(8,474,491)	0	310,143	(1,585,104)
190 Indiana Michigan Power Co - Nuclear	274,219,863	320,296,651	8,280,494	15,966,474	(22,759,781)	0	968,852	2,456,039
120 Indiana Michigan Power Co - Transmission	34,379,732	40,055,240	779,069	1,975,525	(2,846,263)	0	121,468	29,799
280 Ind Mich River Transp Lakin	35,174,984	43,626,979	1,001,873	2,036,282	(3,100,065)	0	124,278	62,368
Indiana Michigan Power Co. - FERC	\$574,581,653	\$699,186,021	\$14,893,021	\$33,204,537	(\$49,683,070)	\$0	\$2,030,067	\$444,555
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$574,581,653	\$699,186,021	\$14,893,021	\$33,204,537	(\$49,683,070)	\$0	\$2,030,067	\$444,555
110 Kentucky Power Co - Distribution	67,255,526	78,247,607	1,402,739	3,854,873	(5,560,153)	0	237,622	(64,919)
117 Kentucky Power Co - Generation	24,692,212	29,609,810	267,407	1,394,169	(2,104,027)	0	87,241	(355,210)
180 Kentucky Power Co - Transmission	2,175,273	2,578,155	4,361	120,787	(183,200)	0	7,686	(60,366)
600 Kentucky Power Co. - Kammer Actives	2,148,227	5,667,939	13,298	121,367	(402,755)	0	7,590	(260,500)
701 Kentucky Power Co. - Mitchell Actives	43,676,525	51,983,303	1,496,326	2,569,921	(3,693,853)	0	154,316	525,710
702 Kentucky Power Co. - Mitchell Inactives	18,298,599	36,607,431	0	1,011,467	(2,601,267)	0	64,651	(1,525,149)
Kentucky Power Co.	\$158,246,762	\$204,694,245	\$3,184,131	\$9,071,584	(\$14,545,255)	\$0	\$559,106	(\$1,730,434)
250 Ohio Power Co - Distribution	368,294,316	457,323,683	8,158,029	21,108,238	(32,496,709)	0	1,301,229	(1,929,213)
160 Ohio Power Co - Transmission	25,197,252	30,056,834	39,466	1,382,382	(2,135,792)	0	89,025	(624,919)
Ohio Power Co.	\$393,491,568	\$487,380,517	\$8,197,495	\$22,490,620	(\$34,632,501)	\$0	\$1,390,254	(\$2,554,132)
167 Public Service Co of Oklahoma - Distribution	136,815,068	171,736,887	3,926,894	7,877,172	(12,203,356)	0	483,384	84,094
198 Public Service Co of Oklahoma - Generation	72,433,718	90,033,809	2,456,006	4,184,504	(6,397,662)	0	255,917	498,765
114 Public Service Co of Oklahoma - Transmission	19,008,861	23,987,873	653,123	1,109,815	(1,704,541)	0	67,161	125,558
Public Service Co. of Oklahoma	\$228,257,647	\$285,758,569	\$7,036,023	\$13,171,491	(\$20,305,559)	\$0	\$806,462	\$708,417
159 Southwestern Electric Power Co - Distribution	99,341,482	116,604,751	3,188,223	5,753,618	(8,285,752)	0	350,986	1,007,075
168 Southwestern Electric Power Co - Generation	115,203,575	135,728,554	4,264,570	6,717,816	(9,644,660)	0	407,028	1,744,754
161 Southwestern Electric Power Co - Texas - Distribution	49,864,343	58,412,518	1,428,372	2,871,964	(4,150,703)	0	176,177	325,810
111 Southwestern Electric Power Co - Texas - Transmission	20,854	25,675	0	1,033	(1,824)	0	74	(717)
194 Southwestern Electric Power Co - Transmission	16,478,831	21,375,011	614,553	970,215	(1,518,875)	0	58,222	124,115
Southwestern Electric Power Co.	\$280,909,085	\$332,146,509	\$9,495,718	\$16,314,646	(\$23,601,814)	\$0	\$992,487	\$3,201,037
230 Kingsport Power Co - Distribution	12,756,883	15,088,491	292,734	733,581	(1,072,165)	0	45,072	(778)
260 Kingsport Power Co - Transmission	1,148,441	1,375,143	0	62,637	(97,716)	0	4,058	(31,021)
Kingsport Power Co.	\$13,905,324	\$16,463,634	\$292,734	\$796,218	(\$1,169,881)	\$0	\$49,130	(\$31,799)
210 Wheeling Power Co - Distribution	13,184,610	16,824,733	313,193	756,644	(1,195,539)	0	46,583	(79,119)
200 Wheeling Power Co - Transmission	140,301	598,446	0	7,087	(42,525)	0	496	(34,942)
Wheeling Power Co.	\$13,324,911	\$17,423,179	\$313,193	\$763,731	(\$1,238,064)	\$0	\$47,079	(\$114,061)
103 American Electric Power Service Corporation	1,474,958,524	1,719,065,865	34,534,101	84,828,512	(122,154,144)	0	5,211,208	2,419,677
293 Elmwood	994,450	7,473,863	0	53,870	(531,081)	0	3,514	(473,697)
292 AEP River Operations LLC	10,531,359	68,572,120	0	582,321	(4,872,628)	0	37,209	(4,253,098)
American Electric Power Service Corp	\$1,486,484,333	\$1,795,111,848	\$34,534,101	\$85,464,703	(\$127,557,853)	\$0	\$5,251,931	(\$2,307,118)
143 AEP Pro Serv. Inc.	843,627	997,933	0	47,070	(70,912)	0	2,981	(20,861)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$843,627	\$997,933	\$0	\$47,070	(\$70,912)	\$0	\$2,981	(\$20,861)
270 Cook Coal Terminal	3,279,707	4,895,145	82,451	190,393	(347,841)	0	11,588	(63,409)
AEP Generating Company	\$3,279,707	\$4,895,145	\$82,451	\$190,393	(\$347,841)	\$0	\$11,588	(\$63,409)
104 Cardinal Operating Company	73,262,084	105,002,373	1,681,793	4,212,575	(7,461,305)	0	258,844	(1,308,093)
181 Ohio Power Co - Generation	205,647,670	395,054,284	1,559,523	11,514,763	(28,071,942)	0	726,578	(14,271,078)
AEP Generation Resources - FERC	\$278,909,754	\$500,056,657	\$3,241,316	\$15,727,338	(\$35,533,247)	\$0	\$985,422	(\$15,579,171)
290 Conesville Coal Preparation Company	1,821,074	4,634,854	0	101,247	(329,346)	0	6,434	(221,665)
AEP Generation Resources - SEC	\$280,730,828	\$504,691,511	\$3,241,316	\$15,828,585	(\$35,862,593)	\$0	\$991,856	(\$15,800,836)
171 CSW Energy, Inc.	2,268,072	2,693,035	0	123,324	(191,363)	0	8,013	(60,026)
175 AEP Energy Partners	19,030,210	22,279,907	717,112	1,137,412	(1,583,176)	0	67,236	338,584
419 Onsite Partners	759,811	909,433	49,631	46,980	(64,623)	0	2,685	34,673
AEP Energy Supply	\$302,788,921	\$530,573,886	\$4,008,059	\$17,136,301	(\$37,701,755)	\$0	\$1,069,790	(\$15,487,605)
245 Dolet Hills	11,235,185	13,871,312	1,104,128	712,960	(985,674)	0	39,695	871,109
Dolet Hills	\$11,235,185	\$13,871,312	\$1,104,128	\$712,960	(\$985,674)	\$0	\$39,695	\$871,109
<b>Total</b>	<b>\$4,344,097,559</b>	<b>\$5,474,741,940</b>	<b>\$102,721,183</b>	<b>\$249,500,805</b>	<b>(\$389,026,641)</b>	<b>\$0</b>	<b>\$15,348,229</b>	<b>(\$21,456,424)</b>
<b>Total without Dolet Hills</b>	<b>\$4,332,862,374</b>	<b>\$5,460,870,628</b>	<b>\$101,617,055</b>	<b>\$248,787,845</b>	<b>(\$388,040,967)</b>	<b>\$0</b>	<b>\$15,308,534</b>	<b>(\$22,327,533)</b>

American Electric Power System Retirement Plan

AMERICAN ELECTRIC POWER  
QUALIFIED RETIREMENT PLAN  
ESTIMATED 2026 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$285,322,427	\$344,241,024	\$5,848,050	\$17,222,353	(\$24,487,851)	\$0	\$774,013	(\$643,435)
215 Appalachian Power Co - Generation	225,533,928	287,717,661	4,408,482	13,602,701	(20,467,018)	0	611,820	(1,844,015)
150 Appalachian Power Co - Transmission	17,714,177	21,823,161	26,103	1,027,868	(1,552,407)	0	48,054	(450,382)
Appalachian Power Co. - FERC	\$528,570,532	\$653,781,846	\$10,282,635	\$31,852,922	(\$46,507,276)	\$0	\$1,433,887	(\$2,937,832)
225 Cedar Coal Co	1,420,748	4,909,166	0	81,095	(349,217)	0	3,854	(264,268)
Appalachian Power Co. - SEC	\$529,991,280	\$658,691,012	\$10,282,635	\$31,934,017	(\$46,856,493)	\$0	\$1,437,741	(\$3,202,100)
211 AEP Texas Central Company - Distribution	235,750,755	292,615,870	6,184,304	14,260,379	(20,815,456)	0	639,536	268,763
147 AEP Texas Central Company - Generation	1,027,254	17,369,275	0	57,938	(1,235,577)	0	2,787	(1,174,852)
169 AEP Texas Central Company - Transmission	28,747,087	34,484,515	935,989	1,769,202	(2,453,083)	0	77,984	330,092
AEP Texas Central Co.	\$265,525,096	\$344,469,660	\$7,120,293	\$16,087,519	(\$24,504,116)	\$0	\$270,307	(\$575,997)
119 AEP Texas North Company - Distribution	55,856,571	67,241,336	0	3,386,020	(4,783,264)	0	151,526	497,061
166 AEP Texas North Company - Generation	8,834,145	24,328,200	0	503,342	(1,730,605)	0	23,965	(1,203,298)
192 AEP Texas North Company - Transmission	12,299,893	15,643,543	524,054	759,521	(1,112,815)	0	33,367	204,127
AEP Texas North Co.	\$76,990,609	\$107,213,079	\$2,266,833	\$4,648,883	(\$7,626,684)	\$0	\$208,858	(\$502,110)
AEP Texas	\$342,515,705	\$451,682,739	\$9,387,126	\$20,736,402	(\$32,130,800)	\$0	\$929,165	(\$1,078,107)
170 Indiana Michigan Power Co - Distribution	143,372,384	180,877,886	3,283,487	8,689,995	(12,866,888)	0	388,936	(504,470)
132 Indiana Michigan Power Co - Generation	87,636,470	122,746,419	1,570,215	5,278,827	(8,731,661)	0	237,737	(1,644,882)
190 Indiana Michigan Power Co - Nuclear	280,876,077	334,719,685	8,318,400	17,278,461	(23,810,543)	0	761,951	2,548,269
120 Indiana Michigan Power Co - Transmission	34,542,428	41,160,872	782,635	2,094,587	(2,928,010)	0	93,705	42,917
280 Ind Mich River Transp Lakin	35,669,569	45,288,028	1,006,459	2,191,105	(3,221,599)	0	96,763	72,728
Indiana Michigan Power Co. FERC	\$582,096,928	\$724,792,890	\$14,961,196	\$35,532,975	(\$51,558,701)	\$0	\$1,579,092	\$514,562
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$582,096,928	\$724,792,890	\$14,961,196	\$35,532,975	(\$51,558,701)	\$0	\$1,579,092	\$514,562
110 Kentucky Power Co - Distribution	67,349,515	80,171,838	1,409,160	4,071,657	(5,703,086)	0	182,703	(39,566)
117 Kentucky Power Co - Generation	24,226,300	29,863,709	268,631	1,442,548	(2,124,378)	0	65,720	(347,479)
180 Kentucky Power Co - Transmission	2,081,286	2,543,139	4,381	121,839	(180,908)	0	5,646	(49,042)
600 Kentucky Power Co. - Kammer Actives	2,120,565	5,928,494	13,359	125,033	(421,728)	0	5,753	(277,583)
701 Kentucky Power Co. - Mitchell Actives	45,478,000	55,120,758	1,503,176	2,823,913	(3,921,058)	0	123,371	529,402
702 Kentucky Power Co. - Mitchell Inactives	17,380,953	37,269,874	0	1,002,106	(2,651,221)	0	47,150	(1,601,965)
Kentucky Power Co.	\$158,636,619	\$210,897,812	\$3,198,707	\$9,587,096	(\$15,002,379)	\$0	\$430,343	(\$1,786,233)
250 Ohio Power Co - Distribution	368,276,849	469,385,729	8,195,374	22,275,651	(33,390,116)	0	999,048	(1,920,043)
160 Ohio Power Co - Transmission	23,521,183	29,054,753	39,647	1,357,708	(2,066,832)	0	63,807	(605,670)
Ohio Power Co.	\$391,798,032	\$498,440,482	\$8,235,021	\$23,633,359	(\$35,456,948)	\$0	\$1,062,855	(\$2,525,713)
167 Public Service Co of Oklahoma - Distribution	137,169,654	176,702,756	3,944,871	8,359,817	(12,569,887)	0	372,109	106,910
198 Public Service Co of Oklahoma - Generation	72,739,109	92,709,725	2,467,249	4,451,587	(6,594,978)	0	197,324	521,182
114 Public Service Co of Oklahoma - Transmission	19,497,158	25,143,166	656,113	1,196,826	(1,788,579)	0	52,891	117,251
Public Service Co. of Oklahoma	\$229,405,921	\$294,555,647	\$7,068,233	\$14,008,230	(\$20,953,444)	\$0	\$622,324	\$745,343
159 Southwestern Electric Power Co - Distribution	100,468,331	120,520,927	3,202,818	6,142,448	(8,573,349)	0	272,547	1,044,464
168 Southwestern Electric Power Co - Generation	117,554,611	141,383,161	4,284,092	7,218,819	(10,057,400)	0	318,898	1,764,409
161 Southwestern Electric Power Co - Texas - Distribution	50,032,529	59,598,714	1,434,911	3,049,254	(4,265,209)	0	135,726	354,682
111 Southwestern Electric Power Co - Texas - Transmission	15,531	20,786	0	793	(1,479)	0	42	(644)
194 Southwestern Electric Power Co - Transmission	17,142,422	22,669,354	617,366	1,065,727	(1,612,602)	0	46,503	116,994
Southwestern Electric Power Co.	\$285,213,424	\$344,552,942	\$9,539,187	\$17,477,041	(\$24,510,039)	\$0	\$773,716	\$3,279,905
230 Kingsport Power Co - Distribution	12,832,997	15,531,845	294,074	778,304	(1,104,870)	0	34,813	2,321
260 Kingsport Power Co - Transmission	1,060,704	1,318,052	0	60,889	(93,761)	0	2,877	(29,995)
Kingsport Power Co.	\$13,893,701	\$16,849,897	\$294,074	\$839,193	(\$1,198,631)	\$0	\$37,690	(\$27,674)
210 Wheeling Power Co - Distribution	13,197,620	17,302,917	314,627	800,558	(1,230,856)	0	35,802	(79,869)
200 Wheeling Power Co - Transmission	109,404	601,669	0	5,747	(42,800)	0	297	(36,756)
Wheeling Power Co.	\$13,307,024	\$17,904,586	\$314,627	\$806,305	(\$1,273,656)	\$0	\$36,099	(\$116,625)
103 American Electric Power Service Corporation	1,483,420,353	1,768,110,347	34,692,187	90,047,908	(125,775,893)	0	4,024,170	2,988,372
293 Elmwood	905,317	7,867,812	0	53,926	(559,883)	0	2,456	(503,301)
292 AEP River Operations LLC	10,010,133	72,416,975	0	591,144	(5,151,437)	0	27,155	(4,533,138)
American Electric Power Service Corp	\$1,494,335,803	\$1,848,395,134	\$34,692,187	\$90,692,978	(\$131,487,013)	\$0	\$4,053,781	(\$2,048,067)
143 AEP Pro Serv. Inc.	816,971	994,666	0	47,820	(70,756)	0	2,216	(20,720)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$816,971	\$994,666	\$0	\$47,820	(\$70,756)	\$0	\$2,216	(\$20,720)
270 Cook Coal Terminal	3,356,017	5,141,669	82,829	206,268	(365,757)	0	9,104	(67,556)
AEP Generating Company	\$3,356,017	\$5,141,669	\$82,829	\$206,268	(\$365,757)	\$0	\$9,104	(\$67,556)
104 Cardinal Operating Company	73,686,488	108,868,937	1,689,492	4,466,990	(7,744,476)	0	199,894	(1,388,100)
181 Ohio Power Co - Generation	199,004,244	405,102,593	1,566,662	11,758,345	(28,817,285)	0	539,852	(14,952,426)
AEP Generation Resources - FERC	\$272,690,732	\$513,971,530	\$3,256,154	\$16,225,335	(\$36,561,761)	\$0	\$739,746	(\$16,340,526)
290 Conesville Coal Preparation Company	1,750,694	4,794,859	0	102,626	(341,086)	0	4,749	(233,711)
AEP Generation Resources - SEC	\$274,441,426	\$518,766,389	\$3,256,154	\$16,327,961	(\$36,902,847)	\$0	\$744,495	(\$16,574,237)
171 CSW Energy, Inc.	2,081,276	2,564,474	0	124,349	(182,426)	0	5,646	(52,431)
175 AEP Energy Partners	20,395,636	24,225,897	720,395	1,284,765	(1,723,328)	0	55,329	337,161
419 Onsite Partners	848,791	1,024,404	49,859	55,031	(72,872)	0	2,303	34,321
AEP Energy Supply	\$297,767,129	\$546,581,164	\$4,026,408	\$17,792,106	(\$38,881,473)	\$0	\$807,773	(\$16,255,186)
245 Dolet Hills	12,824,322	15,871,006	1,109,182	849,158	(1,128,996)	0	34,789	864,133
Dolet Hills	\$12,824,322	\$15,871,006	\$1,109,182	\$849,158	(\$1,128,996)	\$0	\$34,789	\$864,133
Total	\$4,355,958,876	\$5,635,351,646	\$103,191,412	\$264,142,948	(\$400,875,086)	\$0	\$11,816,688	(\$21,724,038)
Total without Dolet Hills	\$4,343,134,554	\$5,619,480,640	\$102,082,230	\$263,293,790	(\$399,746,090)	\$0	\$11,781,899	(\$22,588,171)

AMERICAN ELECTRIC POWER  
 QUALIFIED RETIREMENT PLAN  
 ESTIMATED 2027 NET PERIODIC PENSION COST

Location	Projected Benefit Obligation	Market-Related Value of Assets	Service Cost	Interest Cost	Expected Return on Assets	Amortization of Prior Service Cost	Amortization of Gain/Loss	Net Periodic Pension Cost
140 Appalachian Power Co - Distribution	\$286,853,283	\$352,285,704	\$5,899,387	\$17,971,435	(\$25,958,989)	\$0	\$655,218	(\$1,432,949)
215 Appalachian Power Co - Generation	226,598,090	295,066,039	4,447,182	14,175,500	(21,742,625)	0	517,585	(2,602,358)
150 Appalachian Power Co - Transmission	16,746,300	21,259,944	26,332	1,001,671	(1,566,588)	0	38,251	(500,334)
Appalachian Power Co. - FERC	\$530,197,673	\$668,611,687	\$10,372,901	\$33,148,606	(\$49,268,202)	\$0	\$1,211,054	(\$4,535,641)
225 Cedar Coal Co	1,299,470	5,048,264	0	76,687	(371,993)	0	2,968	(292,338)
Appalachian Power Co. - SEC	\$531,497,143	\$673,659,951	\$10,372,901	\$33,225,293	(\$49,640,195)	\$0	\$1,214,022	(\$4,827,979)
211 AEP Texas Central Company - Distribution	236,651,861	299,434,938	6,238,593	14,875,293	(22,064,558)	0	540,550	(410,122)
147 AEP Texas Central Company - Generation	915,812	18,449,716	0	53,361	(1,359,510)	0	2,092	(1,304,057)
169 AEP Texas Central Company - Transmission	29,702,627	36,103,346	944,206	1,895,065	(2,660,359)	0	67,845	246,757
AEP Texas Central Co.	\$267,270,300	\$353,988,000	\$7,182,799	\$16,823,719	(\$26,084,427)	\$0	\$610,487	(\$1,467,422)
119 AEP Texas North Company - Distribution	56,032,798	68,657,695	1,758,078	3,530,507	(5,059,201)	0	127,988	357,372
166 AEP Texas North Company - Generation	8,049,256	24,710,606	0	476,277	(1,820,858)	0	18,386	(1,326,195)
192 AEP Texas North Company - Transmission	12,667,945	16,354,268	528,654	815,445	(1,205,102)	0	28,936	167,933
AEP Texas North Co.	\$76,749,999	\$109,722,569	\$2,286,732	\$4,822,229	(\$8,085,161)	\$0	\$175,310	(\$80,890)
AEP Texas	\$344,020,299	\$463,710,569	\$9,469,531	\$21,645,948	(\$34,169,588)	\$0	\$785,797	(\$2,268,312)
170 Indiana Michigan Power Co - Distribution	145,009,391	186,385,977	3,312,311	9,112,489	(13,734,283)	0	331,224	(978,259)
132 Indiana Michigan Power Co - Generation	87,964,716	126,313,432	1,584,000	5,486,820	(9,307,698)	0	200,925	(2,035,953)
190 Indiana Michigan Power Co - Nuclear	290,802,275	351,015,999	8,391,423	18,507,958	(25,865,428)	0	664,238	1,698,191
120 Indiana Michigan Power Co - Transmission	34,977,013	42,354,794	789,506	2,200,883	(3,121,011)	0	79,893	(60,729)
280 Ind Mich River Transp Lakin	36,874,064	47,502,516	1,015,295	2,339,235	(3,500,333)	0	84,226	(61,577)
Indiana Michigan Power Co. - FERC	\$595,627,459	\$753,572,718	\$15,092,535	\$37,647,385	(\$55,528,753)	\$0	\$1,360,506	(\$1,428,327)
202 Price River Coal	0	0	0	0	0	0	0	0
Indiana Michigan Power Co. - SEC	\$595,627,459	\$753,572,718	\$15,092,535	\$37,647,385	(\$55,528,753)	\$0	\$1,360,506	(\$1,428,327)
110 Kentucky Power Co - Distribution	67,898,413	82,185,975	1,421,530	4,252,346	(6,056,064)	0	155,091	(227,097)
117 Kentucky Power Co - Generation	23,917,196	30,143,706	270,989	1,476,490	(2,221,209)	0	54,531	(419,099)
180 Kentucky Power Co - Transmission	2,002,744	2,511,618	4,420	121,408	(185,074)	0	4,575	(54,671)
600 Kentucky Power Co. - Kammer Actives	2,061,879	6,160,929	13,476	127,112	(453,982)	0	4,710	(308,684)
701 Kentucky Power Co. - Mitchell Actives	47,819,556	58,685,713	1,516,371	3,059,541	(4,317,024)	0	109,227	368,115
702 Kentucky Power Co. - Mitchell Inactives	16,238,656	37,670,405	0	979,302	(2,775,831)	0	37,052	(1,759,437)
Kentucky Power Co.	\$159,938,444	\$217,258,346	\$3,226,786	\$10,016,199	(\$16,009,184)	\$0	\$365,326	(\$2,400,873)
250 Ohio Power Co - Distribution	371,156,507	482,510,268	8,267,317	23,298,912	(35,554,888)	0	847,779	(3,140,880)
160 Ohio Power Co - Transmission	21,988,487	28,055,278	39,995	1,314,304	(2,067,318)	0	50,225	(662,794)
Ohio Power Co.	\$393,144,994	\$510,565,546	\$8,307,312	\$24,613,216	(\$37,622,206)	\$0	\$898,004	(\$3,803,674)
167 Public Service Co of Oklahoma - Distribution	139,467,925	182,974,413	3,979,501	8,814,469	(13,482,894)	0	318,566	(370,358)
198 Public Service Co of Oklahoma - Generation	74,201,341	96,204,202	2,488,908	4,715,718	(7,089,030)	0	169,487	285,083
114 Public Service Co of Oklahoma - Transmission	20,017,592	26,234,991	661,873	1,275,565	(1,933,186)	0	45,723	49,975
Public Service Co. of Oklahoma	\$233,686,858	\$305,413,606	\$7,130,282	\$14,805,752	(\$22,505,110)	\$0	\$533,776	(\$35,300)
159 Southwestern Electric Power Co - Distribution	102,489,659	124,809,051	3,230,934	6,498,981	(9,196,844)	0	234,102	767,173
168 Southwestern Electric Power Co - Generation	120,448,650	146,959,927	4,321,700	7,675,564	(10,829,083)	0	275,123	1,443,304
161 Southwestern Electric Power Co - Texas - Distribution	50,875,514	61,924,713	1,447,507	3,215,468	(4,563,066)	0	116,208	216,117
111 Southwestern Electric Power Co - Texas - Transmission	11,022	16,603	0	563	(1,223)	0	25	(635)
194 Southwestern Electric Power Co - Transmission	18,016,503	24,102,120	622,786	1,158,289	(1,776,021)	0	41,152	46,206
Southwestern Electric Power Co.	\$291,841,348	\$357,812,414	\$9,622,927	\$18,548,865	(\$26,366,237)	\$0	\$666,610	\$2,472,165
230 Kingsport Power Co - Distribution	12,995,638	15,993,753	296,655	817,365	(1,178,537)	0	29,684	(34,833)
260 Kingsport Power Co - Transmission	981,928	1,263,537	0	58,265	(93,107)	0	2,243	(32,599)
Kingsport Power Co.	\$13,977,566	\$17,257,290	\$296,655	\$875,630	(\$1,271,644)	\$0	\$31,927	(\$67,432)
210 Wheeling Power Co - Distribution	13,357,118	17,866,618	317,389	836,311	(1,316,543)	0	30,510	(132,333)
200 Wheeling Power Co - Transmission	83,119	611,000	0	4,441	(45,023)	0	190	(40,392)
Wheeling Power Co.	\$13,440,237	\$18,477,618	\$317,389	\$840,752	(\$1,361,566)	\$0	\$30,700	(\$172,725)
103 American Electric Power Service Corporation	1,504,196,434	1,821,613,677	34,996,732	94,721,076	(134,229,828)	0	3,435,819	(1,076,201)
293 Elmwood	904,759	8,380,834	0	50,778	(617,561)	0	2,067	(564,716)
292 AEP River Operations LLC	9,829,593	76,848,303	0	583,905	(5,662,745)	0	22,452	(5,056,388)
American Electric Power Service Corp	\$1,514,930,786	\$1,906,842,814	\$34,996,732	\$95,355,759	(\$140,510,134)	\$0	\$3,460,338	(\$6,637,305)
143 AEP Prio Serv. Inc.	787,722	983,893	0	47,719	(72,500)	0	1,799	(22,982)
189 Central Coal Company	0	0	0	0	0	0	0	0
Miscellaneous	\$787,722	\$983,893	\$0	\$47,719	(\$72,500)	\$0	\$1,799	(\$22,982)
270 Cook Coal Terminal	3,485,507	5,431,478	83,556	221,766	(400,231)	0	7,961	(86,948)
AEP Generating Company	\$3,485,507	\$5,431,478	\$83,556	\$221,766	(\$400,231)	\$0	\$7,961	(\$86,948)
104 Cardinal Operating Company	74,551,469	112,880,386	1,704,323	4,677,381	(8,317,853)	0	170,287	(1,765,862)
181 Ohio Power Co - Generation	194,012,905	416,483,737	1,580,415	11,873,567	(30,689,570)	0	443,156	(16,792,432)
AEP Generation Resources - FERC	\$268,564,374	\$529,364,123	\$3,284,738	\$16,550,948	(\$39,007,423)	\$0	\$613,443	(\$18,558,294)
290 Conesville Coal Preparation Company	1,693,191	4,970,767	0	102,782	(366,282)	0	3,868	(259,632)
AEP Generation Resources - SEC	\$270,257,565	\$534,334,890	\$3,284,738	\$16,653,730	(\$39,373,705)	\$0	\$617,311	(\$18,817,926)
171 CSW Energy, Inc.	2,092,829	2,628,826	0	126,716	(193,711)	0	4,780	(62,215)
175 AEP Energy Partners	22,022,372	26,342,201	726,719	1,430,325	(1,941,086)	0	50,303	266,261
419 Onsite Partners	949,294	1,147,321	50,296	63,411	(84,543)	0	2,168	31,332
AEP Energy Supply	\$295,322,060	\$564,453,238	\$4,061,753	\$18,274,182	(\$41,593,045)	\$0	\$674,562	(\$18,582,548)
245 Dolet Hills	14,579,278	17,988,838	1,118,919	993,444	(1,325,549)	0	33,301	820,115
Dolet Hills	\$14,579,278	\$17,988,838	\$1,118,919	\$993,444	(\$1,325,549)	\$0	\$33,301	\$820,115
<b>Total</b>	<b>\$4,406,279,701</b>	<b>\$5,813,428,319</b>	<b>\$104,097,278</b>	<b>\$277,111,910</b>	<b>(\$428,375,942)</b>	<b>\$0</b>	<b>\$10,064,629</b>	<b>(\$37,102,125)</b>
<b>Total without Dolet Hills</b>	<b>\$4,391,700,423</b>	<b>\$5,795,439,481</b>	<b>\$102,978,359</b>	<b>\$276,118,466</b>	<b>(\$427,050,393)</b>	<b>\$0</b>	<b>\$10,031,328</b>	<b>(\$37,922,240)</b>



# Appendix E – Descriptions of funded status measures

## Calculations for Funding Ratios Chart in Section 1: Summary of Results

### Prior Year Ratios

Purpose of Ratio	Asset Measure	Obligation Measure
1 Test ability to apply funding balances to current year MRC	AVA - PFB	FTO
2 Quarterly contribution exemption test for current year	AVA – FSCB - PFB	FT
3 At-risk Prong 1 Test for current year	AVA – FSCB - PFB	FTO
4 At-risk Prong 2 Test for current year	AVA – FSCB - PFB	FTAR, but without loads

### Current Year Ratios

Purpose of Ratio	Asset Measure	Obligation Measure
1 Test ability to apply funding balances to next year's MRC	Same as for analogous Prior Year Ratio	
2 Quarterly contribution exemption test for next year		
3 At-risk Prong 1 Test for next year		
4 At-risk Prong 2 Test for next year		
5 PBGC 4010 filing gateway test (PBGC FTAP) (to determine whether a filing is required next year for the current plan year)	AVA – FSCB - PFB	FTO ignoring interest rate stabilization
6 Exemption from establishing SAB in current year:		
- If PFB applied to current year MRC	AVA - PFB	FT
- If PFB not applied to current year MRC	AVA	FT
7 Eliminate SABs in current year	AVA – FSCB – PFB	FT

### Benefit Restriction Ratios

Purpose of Ratio for Plan Year	Assets	Obligations	Year Ratio is Determined
Adjusted Funding Target Attainment Percentage (AFTAP) – Application of Benefit Restrictions under IRC 436	[AVA if AVA/FTO >= 100%; AVA – FSCB – PFB otherwise] + annuity purchases for NHCEs in previous 2 years	FTO + annuity purchases for NHCEs in previous 2 years	Current

## Definitions of terms

Term	Short for	Definition
FTAP	Funding target attainment percentage	$(AVA - FSCB - PFB) / FTO$
PBGC FTAP	FTAP for exemption from ERISA 4010	$(AVA - FSCB - PFB) / (FTO \text{ ignoring interest rate stabilization})$
FSCB	Funding standard carryover balance	Accumulated contributions in excess of those required in pre-PPA plan years, less amounts applied to MRC or forfeited
PFB	Prefunding balance	Accumulated contributions in excess of those required since PPA applied to the plan, to the extent the plan sponsor elected to create PFB, less amounts subsequently applied to MRC or forfeited
Funding balance	FSCB + PFB	
FTO	Ongoing funding target	Funding target as described in IRC 430, ignoring at-risk assumptions; equals FT for a plan that is not at-risk.
FTO ignoring stabilization	FTO calculated ignoring interest rate stabilization	Same as FTO if the full yield curve is used, or stabilized segment rates fall within the corridors
FTAR	At-risk funding target	Funding target reflecting at-risk assumptions and any applicable loads, as described in IRC 430(i), with no phase-in
FT	Funding target	Funding target used to calculate MRC. Equals: <ul style="list-style-type: none"> <li>■ FTO if the plan is not at-risk.</li> <li>■ FTAR if the plan has been at risk for at least 5 consecutive plan years.</li> <li>■ Otherwise, <math>FTO + 20\% * (\# \text{ of consecutive years at-risk}) * (\text{the excess, if any, of FTAR over FTO})</math>.</li> </ul>
FS	Funding shortfall (surplus)	$FT - (AVA - \text{funding balances})$
PBGC 4010 FS	Funding shortfall for determining whether a controlled group is exempt from an ERISA 4010 filing	$FT \text{ (ignoring interest rate stabilization)} - AVA$ See PBGC reporting requirements section of the report for more information.
SAB	Shortfall amortization base	An SAB is established each year equal to the FS less the present value of the SAs related to SABs established in earlier years. A plan may be exempt from establishing an SAB for a plan year in accordance with the test in the Funding Ratios chart in section 1.

Term	Short for	Definition
TNC	Target normal cost	Present value of benefits expected to accrue, and expenses expected to be paid from plan assets, for the year. Reflects at-risk assumptions if the plan is at-risk (phased-in if plan has been at-risk for fewer than 5 consecutive years as described above)
SAI	Shortfall amortization installment	Amortization for an SAB established in a particular year. SAIs are eliminated if FS is less than or equal to \$0.
MRC	Minimum required contribution	TNC plus SAIs as of the valuation date (assumes no funding waivers and plan is not fully funded). See section 2.4 for more details on this calculation.
AVA	Actuarial value of assets	"Plan assets" under PPA, including discounted receivables and reflecting any smoothing. See section 2.3 for more details.