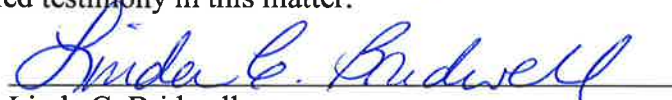


STATE OF Kentucky)
COUNTY OF Fayette)

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Linda C. Bridwell, being by me first duly sworn deposed and said that:

He is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Public Utility Commission, and if present before the Commission and duly sworn, her testimony would be as set forth in her pre-filed testimony in this matter.


Linda C. Bridwell

Sworn to and subscribed before me
this 2nd day of April, 2018.


Notary Public

My Commission Expires: 7/25/2020

TENNESSEE-AMERICAN WATER COMPANY, INC.

DOCKET NO. 18-XXXXX

TESTIMONY

OF

LINDA C. BRIDWELL

ON

**TENNESSEE-AMERICAN WATER COMPANY'S CALCULATION OF IMPACTS OF
THE FEDERAL TAX CUTS AND JOBS ACT OF 2017 ON ITS COST OF SERVICE
AND REVENUE REQUIREMENT AND PROPOSED RATEMAKING ADJUSTMENTS
TO ACCOUNT FOR THE TAX BENEFITS OF THE ACT**

SPONSORING PETITIONER'S EXHIBIT:

PETITIONER'S EXHIBIT – IMPACT OF TAX EXPENSE - LCB
PETITIONER'S EXHIBIT – MOODY'S RATING ACTION -- LCB

1 **Q. PLEASE STATE YOUR NAME.**

2 A. My name is Linda C. Bridwell.

3 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

4 A. I am employed by American Water Works Service Company, Inc. (“Service Company”)
5 as Senior Manager of Rates and Regulation for Tennessee and Kentucky. The Service
6 Company is a subsidiary of American Water Works Company, Inc. (“American Water”)
7 that provides services to American Water’s subsidiaries, including Tennessee-American
8 Water Company (“Tennessee-American,” “TAWC” or the “Company”).

9 **Q. PLEASE STATE YOUR EDUCATIONAL AND PROFESSIONAL**
10 **BACKGROUND.**

11 A. I received a B.S. degree in Civil Engineering from the University of Kentucky in 1988, and
12 I received a M.S. degree in Civil Engineering from the University of Kentucky in 1992,
13 with an emphasis in water resources. I completed a Masters of Business Administration
14 from Xavier University in Cincinnati, Ohio in 2000. I am a registered Professional
15 Engineer in the Commonwealth of Kentucky.

16 I have been employed by American Water (“AWW”) since 1989. I began as a
17 distribution supervisor for Kentucky American Water (“KAWC”) until 1990 when I was
18 promoted to Planning Engineer. Following that I was promoted to Engineering Manager,
19 and later Director of Engineering in 1998. In July 2004, I accepted the position of Project
20 Delivery and Developer Services Manager for the Southeast Region of AWW, responsible
21 for Kentucky, Tennessee, and West Virginia. In 2008, I became the KAWC Project
22 Delivery Manager for the construction of a new water treatment plant, booster station, and
23 transmission main in Kentucky. This project was the largest project completed by

1 American Water, in any of its regulated businesses, at \$164 million. Upon completion of
2 the project in October 2010, I became the Director of Environmental Compliance and
3 Water Quality for KAWC and in February of 2012 I accepted my current position. I am
4 an active member of the American Water Works Association (AWWA), served as
5 president of the local chapter and state section of the American Society of
6 Civil Engineering (ASCE), and served as an officer in the local chapter of the National
7 Society of Professional Engineers (NSPE) and as a State officer. I have served periodically
8 as an Adjunct Professor at the University of Kentucky in the Civil Engineering
9 Department, teaching "Water Quality and Pollution Control" and the "Introduction to
10 Environmental Engineering." I served as a member of the Civil Engineering Industrial
11 Advisory Committee at the University of Kentucky from 2005 until 2012. I served as a
12 Commissioner on the Kentucky Water Resources Development Commission established
13 by Governor Patton and on the Kentucky State Board of Licensure for Professional
14 Engineers and Land Surveyors. I currently serve as Vice Chairman of the Board of
15 Directors for the Kentucky Infrastructure Authority.

16 **Q. WHAT ARE YOUR DUTIES AS SENIOR MANAGER OF RATES AND**
17 **REGULATION?**

18 A. My primary responsibilities encompass the coordination of regulatory issues in Tennessee
19 and Kentucky. This includes coordinating all reports and filings, working with regulatory
20 staff to make sure that all information produced addresses the requirements or requests,
21 and overseeing the preparation and filing of rate cases and tariff changes. I work with the
22 senior management in both states on planning. I am also responsible for keeping abreast
23 of changes in regulation, or trends in regulatory oversight across the United States that may

1 impact our local operations. I report to the Presidents of TAWC and KAWC dually. I am
2 located in Kentucky, but work closely with the TAWC staff in Tennessee as well.

3 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

4 A. On January 26, 2018, the Tennessee Public Utility Commission (the “TPUC” or the
5 “Commission”) the Commission established a Docket Opening an Investigation and
6 Requiring Deferred Accounting Treatment (the “Order”) in Docket No. 18-00001, *In re:*
7 *Tennessee Public Utility Commission Investigation of Impacts of Federal Tax Reform on*
8 *the Public Utility Revenue Requirements*. On February 6, 2018, the Commission entered
9 an Order regarding the decision made on January 26. The Order noted the passage of the
10 federal Tax Cuts and Jobs Act of 2017 (the “TCJA” or the “Act”) and directed the five
11 largest utilities under the Commission’s jurisdiction, including Tennessee-American, to do
12 the following:

- 13 a. Track and accumulate monthly in a deferred account the
14 portion of its revenue representing the difference
15 between the cost of service approved by the Commission
16 in its most recent rate case and the cost of service that
17 would have resulted had the provision for federal income
18 taxes been based on 21 % rather than 35%; and
19
- 20 b. Calculate the excess deferred tax reserve caused by the
21 reduction in the corporate federal income tax rate and
22 recognize as a deferred liability the estimated reduction
23 of the utilities' revenue requirement resulting from the
24 2017 Tax Act; and
25
- 26 c. Calculate and defer any other tax effects resulting from
27 the 2017 Tax Act on revenue requirement that are not
28 included in the preceding calculations.
29

30 The Order further directed TAWC and other utilities to submit these calculations together
31 with proposals to reduce rates or make other ratemaking adjustments to account for the tax
32 benefits resulting from the TCJA.

1 Company witness John R. Wilde submits and explains Tennessee-American's calculations
2 of the tax effects of the Act. The purpose of my testimony is to present Tennessee-
3 American's proposal for ratemaking adjustments to account for the Act's tax benefits.

4 **Q. ARE YOU SPONSORING ANY EXHIBITS?**

5 A. Yes I am. I am sponsoring the following exhibit:

6 **Petitioner's Exhibit – Impact of Tax Expense – LCB**
7

8 I will discuss this exhibit in further detail in my testimony below.

9 **Q. WERE THE PETITIONER'S EXHIBIT LISTED ABOVE PREPARED BY YOU**
10 **OR UNDER YOUR DIRECTION AND SUPERVISION?**

11 A. Yes.

12 **Q. WHAT WERE THE SOURCES OF THE DATA USED TO PREPARE THE**
13 **PETITIONER'S EXHIBIT LISTED ABOVE?**

14 A. The data used to prepare the exhibit was acquired from the books of account and business
15 records of Tennessee American, the officers and associates of Tennessee American with
16 knowledge of the facts based on their job responsibilities and activities, and other internal
17 sources which I examined in the course of my investigation of the matters addressed in this
18 testimony. The Company's filings in this TPUC Docket are complete and accurate to the
19 best of my knowledge and belief.

20 **Q. DO YOU CONSIDER THIS DATA TO BE RELIABLE AND OF A TYPE THAT IS**
21 **NORMALLY USED AND RELIED ON IN YOUR BUSINESS FOR SUCH**
22 **PURPOSES?**

23 A. Yes.

1 **Q. DOES THE PETITIONER'S EXHIBIT LISTED ABOVE ACCURATELY**
2 **SUMMARIZE SUCH DATA AND THE RESULTS OF ANALYSIS USING SUCH**
3 **DATA?**

4 A. Yes, they do.

5 **Q. HAS THE COMPANY TRACKED AND ACCUMULATED MONTHLY IN A**
6 **DEFERRED ACCOUNT THE PORTION OF ITS REVENUE REPRESENTING**
7 **THE DIFFERENCE BETWEEN THE COST OF SERVICE APPROVED BY THE**
8 **COMMISSION IN ITS MOST RECENT RATE CASE AND THE COST OF**
9 **SERVICE THAT WOULD HAVE RESULTED HAD THE PROVISION FOR**
10 **FEDERAL INCOME TAXES BEEN BASED ON 21 % RATHER THAN 35%, AS**
11 **REQUIRED BY THE ORDER?**

12 A. Yes, it has, and it will continue to do so until its next general rate case, when the new
13 income tax rate will be incorporated into rates.

14 **Q. WHAT IMPACT WILL THE TCJA TAX CHANGES HAVE ON THE**
15 **COMPANY'S FEDERAL TAX EXPENSE?**

16 A. As Company Witness John R. Wilde testifies, the TAWC has calculated that the reduction
17 of the corporate federal income tax rate from 35% to 21% has reduced TAWC's annualized
18 federal income tax expense in base rates by \$2,035,031. Please refer to **Petitioner's**
19 **Exhibit – Impact of Tax Expense—LCB** attached to my testimony. In addition, the
20 change in tax rate has reduced the revenue requirement for the Company's Qualified
21 Infrastructure Investment Program Rider, the Economic Development Investment Rider
22 and the Safety and Environmental Compliance Rider (together, "Capital Recovery Riders")

1 by \$632,460.¹ This reduction was proposed by the Company in TPUC Docket No. 17-
2 00124.

3 **Q. HAS THE COMPANY ESTIMATED THE ACT'S EFFECT ON ITS ADIT**
4 **BALANCE?**

5 A. Yes. As Mr. Wilde explains, TAWC's initial estimate of the net excess ADIT balances is
6 \$17,487,688 total (protected/plant-related and unprotected/non-plant-related). Assuming
7 a 50-year normalization period based on the estimated average remaining service life of
8 the assets, this balance would be normalized and returned to customers in the amount of
9 \$349,754 per year for 50 years. Mr. Wilde cautions, however, that these estimates are not
10 suitable for ratemaking purposes and will be revised as more information becomes
11 available. As Mr. Wilde explains, the Company expects to have a more reliable estimate
12 of its excess ADIT balance and the applicable amortization periods by the end of the first
13 quarter of 2019.

14 **Q. WILL THE TCJA'S IMPACT BE DIFFERENT FOR THE VARIOUS**
15 **REGULATED UTILITIES?**

16 A. Yes. There are significant differences among utility sectors, and between utilities within
17 each sector, that should be considered in determining the manner in which changes in
18 revenue requirement resulting from the reduction in the federal corporate income tax rate
19 made by the TCJA should be implemented to benefit customers. In determining how to
20 respond, a "one-size-fits-all" solution on flowing the benefits back to customers will likely
21 not be the best approach. As the Commission is aware, utilities in general are highly capital
22 intensive, and water utilities are the most capital-intensive because of their high rate of

¹ Refer to "Final Version of Exhibits" filed by TAWC in Docket No. 17-00124 on March 15, 2018.

1 replacement and rehabilitation of aging infrastructure and the high levels of capital
2 investment needed to enhance reliability, and assure high-quality customer service (given
3 that water utilities provide a commodity for human consumption). Financing such high
4 levels of annual plant additions has been an ongoing challenge for water utilities, including
5 TAWC.

6 Some stakeholders may advocate a direct and immediate pass-through of the TCJA's
7 federal income tax rate reduction. However, an immediate pass-through would reduce
8 Tennessee-American's cash flow, decrease internally-generated funds available for new
9 investments, and stress various financial metrics that directly bear on credit ratings (and
10 interest rates) for new and refunding debt issuances. Moreover, in addition to reducing the
11 Federal corporate income tax rate, the TCJA eliminated "bonus" depreciation for public
12 utility property, thus further reducing cash available for investment. Moody's Investors
13 Services recognized the adverse effects of the TCJA on public utilities in its Rating Action
14 report issued on January 19, 2018, where it expressed the general view of credit rating
15 agencies that "tax reform is credit negative for US regulated utilities." Please refer to a
16 copy of the Moody's Investors Service Rating Action attached to my testimony as
17 **Petitioner's Exhibit – Moody's Rating Action – LCB.**

18 TAWC believes that the TCJA's benefits should, and, under the Company's proposals,
19 will, be passed on fully to its customers. However, an immediate rate reduction is not in
20 customers' long-term best interests.

1 **Q. WHAT IS THE COMPANY'S PROPOSAL WITH RESPECT TO THE**
2 **REDUCTION IN ITS CAPITAL RECOVERY RIDERS' REVENUE**
3 **REQUIREMENTS?**

4 A. As I explain in my Supplemental Testimony in Docket No. 17-000124,² TAWC proposed
5 to adjust the 2018 Capital Recovery Riders for a reduced federal income tax expense as
6 well as an adjustment of the calculation of the 2018 Capital Recovery Riders ADIT
7 calculation only for the calendar year 2018. TAWC has recalculated the 2018 Capital
8 Recovery Riders to account for those changes. The recalculation was filed as an attachment
9 to my Supplemental Testimony and again with Supplemental Rebuttal Testimony in
10 Docket No. 17-00124. Future Capital Recovery Riders will reflect the new rate.

11 **Q. WHAT IS THE COMPANY'S PROPOSAL WITH RESPECT TO THE**
12 **REDUCTION IN INCOME TAX EXPENSE IN BASE RATES AND EXCESS ADIT**
13 **BALANCE?**

14 A. Tennessee-American proposes to defer both the reduction in the Company's federal
15 income tax expense in base rates and the ADIT normalization amounts as regulatory
16 liabilities and use them to offset the Company's Capital Recovery Riders and Capital
17 Recovery Rider reconciliations, thus reducing our customers' Capital Recovery Rider
18 charges while, at the same time, funding accelerated infrastructure replacement

19 **Q. PLEASE EXPLAIN HOW THE REDUCED INCOME TAX EXPENSE IN BASE**
20 **RATES AND EXCESS ADIT NORMALIZATION WOULD BE USED TO OFFSET**

² Tennessee-American Water Company's Supplemental Testimony of Linda C. Bridwell filed Feb. 8, 2018, *Petition of Tennessee-American Water Company Regarding the 2018 Investment and Related Expenses Under the Qualified Infrastructure Investment Program Rider, the Economic Development Investment Rider and the Safety and Environmental Compliance Rider*, TPUC Docket No. 17-00124.

1 **TENNESSEE-AMERICAN'S CAPITAL RECOVERY RIDERS AND**
2 **RECONCILIATIONS.**

3 A. The Company would continue to track and accumulate monthly in a deferred account the
4 portion of its revenue representing the difference between the cost of service approved by
5 the Commission in its most recent rate case and the cost of service that would have resulted
6 had the provision for federal income taxes been based on 21 % rather than 35%. The
7 accumulated savings in 2018 would be applied to reduce the 2018 Capital Recovery Rider
8 reconciliation amounts. Going forward, Capital Recovery Rider charges for 2019 and
9 future years would be offset by the projected base rate income tax savings for that year.

10 Similarly, the Company would track and accumulate in a deferred account the
11 normalization of its excess ADIT balances once those balances and the amortization
12 periods required for normalization are reliably determined. The 2018 deferred
13 normalization amounts would be applied to reduce the 2018 Capital Recovery Riders
14 reconciliation, and the deferred normalization payments for 2019 and future years would
15 be used to offset the Capital Recovery Rider charges for those years.

16 The deferrals and Capital Recovery Rider offsets would continue until the Company's next
17 rate case, when the new tax rate and excess ADIT normalization are rolled into new rates.

18 **Q. DOES TENNESSEE-AMERICAN'S PROPOSAL BENEFIT CUSTOMERS?**

19 A. Yes. Our proposal benefits our customers in four principal ways. First, the revenue
20 requirement for the Company's Capital Recovery Riders has been reduced by the amount
21 of the tax savings. This produces an immediate and ongoing benefit for customers for the
22 calculated tax expense reduction of \$2,035,031 in each year and can be supplemented with

1 any other tax changes as they become more accurately calculated including the excess
2 ADIT.

3 Second, the Company's proposal uses the base rates tax savings and excess ADIT
4 normalization to reduce or eliminate the Company's Capital Recovery Rider charges and
5 reconciliations. Customers will thus receive the full benefit of the TCJA's tax reductions
6 in the form of actual rate reductions while the Company continues to invest in necessary
7 replacement of infrastructure at a higher rate than before the Capital Recovery Riders were
8 approved.

9 Third, the Company's proposal passes the base rates savings and excess ADIT
10 normalization through in a manner that maintains cash flow and financial stability, keeping
11 lower costs for capital for our customers. The proposal allows the Company to continue
12 to support the maintenance and improvement of essential infrastructure, support
13 opportunities for successful economic development, growth and job creation, and ensure
14 safety and reliability.

15 Fourth, customers will not see a whipsaw effect from rate changes. Customers should
16 receive the benefit of an offset to most, if not all of a rate increase for the Capital Recovery
17 Riders in 2019, and possibly beyond.

18 In addition, the deferral of the return of excess ADIT balances until reliable estimates and
19 appropriate amortization periods can be determined reduces the risk of violating the
20 normalization rules and losing the benefits of accelerated depreciation, as explained by
21 Company witness John Wilde.

1 **Q. HOW DOES TENNESSEE-AMERICAN INTEND TO ADDRESS THE ACT'S**
2 **TREATMENT OF CONTRIBUTIONS IN AID OF CONSTRUCTION ("CIAC")**
3 **AND CUSTOMER ADVANCE CONTRIBUTIONS ("CAC")?**

4 A. Until recently, water utilities like TAWC were exempt from taxation for revenues received
5 for main extensions. Pursuant to the TCJA, CIAC and CAC are now 100% taxable to the
6 Company for contributions to construct utility plant received from outside parties. TAWC
7 intends to pass this new tax expense through to the developers responsible for the cost of
8 the main extensions funded by the CIAC/CAC. CIACs and CACs will be "grossed up" to
9 cover the Company's tax obligation associated with the CIAC/CAC beginning in 2018. In
10 this manner, the additional tax cost will be paid by the customers for whom it is incurred,
11 as opposed to seeking recovery from other ratepayers.

12 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

13 A. Yes.

Tennessee American Water
Docket No. 18-XXXXX

Operating Income Statement Per Docket No. 12-00049 at 35% Federal Tax with Adjustment for Estimated TCJA Change to Tax Expense

Tax Expense Impact Exhibit				
	A	B	C = A + B	
	Per Docket No. 12-00049 Rate Case Update as of 11-30-2013 at 35% Federal Tax	Estimated TCJA Change For 21% Tax Expense	Adjusted	
Revenues	\$ 48,890,079	\$ (2,035,031)	\$ 46,855,048	
O&M	\$ 23,696,337	\$ (3,886)	\$ 23,692,451	
General Tax	\$ 4,510,468		\$ 4,510,468	
Depreciation and Amortization	\$ 6,120,168		\$ 6,120,168	
State Income Tax Expense	\$ 645,214	\$ (132,024)	\$ 513,190	
Federal Income Tax Expense	\$ 4,367,246	\$ (1,899,121)	\$ 2,468,125	
Operating Income	<u>\$ 9,550,647</u>		<u>\$ 9,550,647</u>	

Rating Action: Moody's changes outlooks on 25 US regulated utilities primarily impacted by tax reform

Global Credit Research - 19 Jan 2018

New York, January 19, 2018 -- Moody's Investors Service, ("Moody's") has changed the rating outlooks to negative from stable for 24 regulated utilities and utility holding companies; and to stable from positive for one utility holding company in the United States. The short-term and long-term ratings for all 25 companies were affirmed.

RATINGS RATIONALE

"Today's action primarily applies to companies that already had limited cushion in their rating for deterioration in financial performance, will be incrementally impacted by changes in the tax law and where we now expect key credit metrics to be lower for longer," said Jim Hempstead, a Managing Director at Moody's. "Utilities will work closely with state regulators to try to mitigate the negative impact of tax reform and in some cases they may seek to refine their corporate financial policies. Where successful, their rating outlooks could revert to stable."

Tax reform is credit negative for US regulated utilities because the lower 21% statutory tax rate reduces cash collected from customers, while the loss of bonus depreciation reduces tax deferrals, all else being equal. Moody's calculates that the recent changes in tax laws will dilute a utility's ratio of cash flow before changes in working capital to debt by approximately 150 - 250 basis points on average, depending to some degree on the size of the company's capital expenditure programs. From a leverage perspective, Moody's estimates that debt to total capitalization ratios will increase, based on the lower value of deferred tax liabilities.

The change in outlook to negative from stable for the 24 companies affected in this rating action primarily reflects the incremental cash flow shortfall caused by tax reform on projected financial metrics that were already weak, or were expected to become weak, given the existing rating for those companies. The negative outlook also considers the uncertainty over the timing of any regulatory actions or other changes to corporate finance policies made to offset the financial impact.

The change in outlook to stable from positive for American Electric Power Company, Inc. (AEP, Baa1 stable) reflects Moody's calculations that the projected ratio of cash flow before changes in working capital to debt, incorporating the effects of tax reform, will remain in the mid-teens range. At this level, Moody's believes AEP's Baa1 rating is appropriate.

The vast majority of US regulated utilities, however, continue to maintain stable rating outlooks. We do not expect the cash flow reduction associated with tax reform to materially impact their credit profiles because sufficient cushion exists within projected financial metrics for their current ratings. Nonetheless, further actions could occur on a company specific basis.

Over the next 12 to 18 months, Moody's will continue to monitor the financial impact of tax reform on each company, including its regulatory approach to rate treatment and any changes to corporate finance strategies. This will include balance sheet changes due to the reclassification of excess deferred tax liabilities as a regulatory liability and the magnitude of any amounts to be refunded to customers. If the financial impact of tax reform is more severe than Moody's initial estimates or the companies fail to materially mitigate any weaknesses in their financial profiles, the ratings could be downgraded.

That said, Moody's expects that most utilities will attempt to manage any negative financial implications of tax reform through regulatory channels. Corporate financial policies could also change. The actions taken by utilities will be incorporated into the credit analysis on a prospective basis. As a result, it is conceivable that some companies will sufficiently defend their credit profiles. For these companies, it is possible for the outlook to return to stable.

Potential regulatory offsets to tax-related cash leakage could include: accelerated cost recovery of certain regulatory assets or future investment; changes to the equity layer or allowed ROEs in rates, and other actions. Changes to corporate financial policies could include changes to capitalization, the financing of future

investments, dividend growth, or others. Some of these corporate measures could have a more immediate boost to projected metrics than certain regulatory provisions, which may take time to approve and implement.

Outlook Actions:

..Issuer: American Electric Power Company, Inc.

....Outlook, Changed To Stable From Positive

..Issuer: Avista Corp.

....Outlook, Changed To Negative From Stable

..Issuer: Avista Corp. Capital II

....Outlook, Changed To Negative From Stable

..Issuer: Duke Energy Corporation

....Outlook, Changed To Negative From Stable

..Issuer: Entergy Corporation

....Outlook, Changed To Negative From Stable

..Issuer: New Jersey Natural Gas Company

....Outlook, Changed To Negative From Stable

..Issuer: Northwest Natural Gas Company

....Outlook, Changed To Negative From Stable

..Issuer: ONE Gas, Inc

....Outlook, Changed To Negative From Stable

..Issuer: Piedmont Natural Gas Company, Inc.

....Outlook, Changed To Negative From Stable

..Issuer: Public Service Company of Oklahoma

....Outlook, Changed To Negative From Stable

..Issuer: Questar Gas Company

....Outlook, Changed To Negative From Stable

..Issuer: South Jersey Gas Company

....Outlook, Changed To Negative From Stable

..Issuer: Alabama Power Capital Trust V

....Outlook, Changed To Negative From Stable

..Issuer: Alabama Power Company

....Outlook, Changed To Negative From Stable

..Issuer: Southern Company (The)

....Outlook, Changed To Negative From Stable

..Issuer: Southern Elect Generating Co

....Outlook, Changed To Negative From Stable

..Issuer: Southwestern Public Service Company

....Outlook, Changed To Negative From Stable

..Issuer: Wisconsin Gas LLC

....Outlook, Changed To Negative From Stable

..Issuer: American Water Capital Corp.

....Outlook, Changed To Negative From Stable

Issuer: American Water Works Company, Inc.

....Outlook, Changed To Negative From Stable

Outlook Actions:

..Issuer: Consolidated Edison Company of New York, Inc.

....Outlook, Changed To Negative From Stable

..Issuer: Consolidated Edison, Inc.

....Outlook, Changed To Negative From Stable

..Issuer: Orange and Rockland Utilities, Inc.

....Outlook, Changed To Negative From Stable

..Issuer: Brooklyn Union Gas Company, The

....Outlook, Changed To Negative From Stable

..Issuer: KeySpan Gas East Corporation

....Outlook, Changed To Negative From Stable

Affirmations:

..Issuer: American Electric Power Company, Inc.

.... Commercial Paper, Affirmed P-2

....Senior Unsecured Shelf, Affirmed (P)Baa1

....Junior Subordinated Shelf, Affirmed (P)Baa2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa1

..Issuer: Avista Corp.

.... Issuer Rating, Affirmed Baa1

....Senior Secured First Mortgage Bonds, Affirmed A2

....Underlying Senior Secured First Mortgage Bonds, Affirmed A2

....Senior Secured Medium-Term Note Program, Affirmed (P)A2

....Senior Secured Regular Bond/Debenture, Affirmed A2

....Senior Unsecured Medium-Term Note Program, Affirmed (P)Baa1

..Issuer: Avista Corp. Capital II

....Pref. Stock Preferred Stock, Affirmed Baa2

..Issuer: Duke Energy Corporation

.... Issuer Rating, Affirmed Baa1

....Junior Subordinated Regular Bond/Debenture, Affirmed Baa2

....Senior Unsecured Shelf, Affirmed (P)Baa1

....Senior Unsecured Bank Credit Facility, Affirmed Baa1

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa1

..Issuer: Entergy Corporation

.... Issuer Rating, Affirmed Baa2

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa2

....Senior Unsecured Shelf, Affirmed (P)Baa2

..Issuer: New Jersey Natural Gas Company

.... Commercial Paper, Affirmed P-1

..Issuer: Northwest Natural Gas Company

.... Commercial Paper, Affirmed P-2

....Senior Secured Medium-Term Note Program, Affirmed (P)A1

....Senior Unsecured Medium-Term Note Program, Affirmed (P)A3

....Senior Secured Shelf, Affirmed (P)A1

....Senior Unsecured Shelf, Affirmed (P)A3

....Preferred Shelf, Affirmed (P)Baa2

....Senior Secured First Mortgage Bonds, Affirmed A1

....Senior Secured Regular Bond/Debenture, Affirmed A1

..Issuer: ONE Gas, Inc

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: Piedmont Natural Gas Company, Inc.

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: Public Service Company of Oklahoma

.... Issuer Rating, Affirmed A3

....Senior Unsecured Regular Bond/Debenture, Affirmed A3

..Issuer: Questar Gas Company

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Medium-Term Note Program, Affirmed (P)A2

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: Alabama Power Capital Trust V

....Pref. Stock Preferred Stock, Affirmed A2

..Issuer: Alabama Power Company

.... Commercial Paper, Affirmed P-1

.... Issuer Rating, Affirmed A1

....Senior Unsecured Shelf, Affirmed (P)A1

....Preferred Shelf, Affirmed (P)A3

....Preference Shelf, Affirmed (P)A3

....Pref. Stock Preferred Stock, Affirmed A3

....Senior Unsecured Bank Credit Facility, Affirmed A1

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A1

..Issuer: Columbia (Town of) AL, Industrial Dev. Board

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: Eutaw (City of) AL, Industrial Dev. Board

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: Mobile (City of) AL, I.D.B.

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: Walker County Econ & Ind Dev Authority

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: West Jefferson (Town of) AL, Ind. Devel. Bd.

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

..Issuer: Wilsonville (Town of) AL, I.D.B.

....Senior Unsecured Revenue Bonds, Affirmed A1

....Senior Unsecured Revenue Bonds, Affirmed VMIG 1

....Underlying Senior Unsecured Revenue Bonds, Affirmed A1

..Issuer: South Jersey Gas Company

.... Issuer Rating, Affirmed A2

....Senior Secured First Mortgage Bonds, Affirmed Aa3

....Senior Secured Medium-Term Note Program, Affirmed (P)Aa3

....Senior Secured Regular Bond/Debenture, Affirmed Aa3

....Senior Unsecured Commercial Paper, Affirmed P-1

..Issuer: New Jersey Economic Development Authority

....Senior Secured Revenue Bonds, Affirmed Aa3

....Underlying Senior Secured Revenue Bonds, Affirmed Aa3

....Senior Secured Revenue Bonds, Affirmed Aa2

....Underlying Senior Secured Revenue Bonds, Affirmed Aa2

..Issuer: Southern Company (The)

.... Commercial Paper, Affirmed P-2

....Junior Subordinated Regular Bond/Debenture, Affirmed Baa3

....Senior Unsecured Shelf, Affirmed (P)Baa2

....Junior Subordinated Shelf, Affirmed (P)Baa3

....Senior Unsecured Bank Credit Facility, Affirmed Baa2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa2

..Issuer: Southern Elect Generating Co

.... Issuer Rating, Affirmed A2

....Senior Unsecured Regular Bond/Debenture, Affirmed A1

..Issuer: Southwestern Public Service Company

.... Issuer Rating, Affirmed Baa1

....Senior Secured Shelf, Affirmed (P)A2

....Senior Unsecured Shelf, Affirmed (P)Baa1

....Senior Secured First Mortgage Bonds, Affirmed A2

....Senior Unsecured Bank Credit Facility, Affirmed Baa1

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed Baa1

..Issuer: Wisconsin Gas LLC

.... Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: American Water Capital Corp.

.... Issuer Rating, Affirmed A3

....Senior Unsecured Shelf, Affirmed (P)A3

....Senior Unsecured Commercial Paper, Affirmed P-2

....Senior Unsecured Regular Bond/Debenture, Affirmed A3

..Issuer: American Water Works Company, Inc.

.... Issuer Rating, Affirmed A3

..Issuer: Berks County Industrial Development Auth., PA

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: California Pollution Control Financing Auth.

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Illinois Development Finance Authority

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Illinois Finance Authority

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Indiana Finance Authority

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: MARICOPA COUNTY INDUSTRIAL DEVELOPMENT AUTHORITY,AZ

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Northampton County I.D.A., PA

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Owen (County of) KY

....Senior Unsecured Revenue Bonds, Affirmed A3

..Issuer: Consolidated Edison Company of New York, Inc.

.... Issuer Rating, Affirmed A2

....Senior Unsecured Shelf, Affirmed (P)A2

....Subordinate Shelf, Affirmed (P)A3

....Preferred Shelf, Affirmed (P)Baa1

....Senior Unsecured Commercial Paper, Affirmed P-1

....Senior Unsecured Regular Bond/Debenture, Affirmed A2

....Underlying Senior Unsecured Regular Bond/Debenture, Affirmed A2

..Issuer: New York State Energy Research & Dev. Auth.

....Senior Unsecured Revenue Bonds, Affirmed A2

....Underlying Senior Unsecured Revenue Bonds, Affirmed A2

..Issuer: New York State Research & Development Auth.
Senior Unsecured Revenue Bonds, Affirmed A2
Underlying Senior Unsecured Revenue Bonds, Affirmed A2
 ..Issuer: Consolidated Edison, Inc.
 Issuer Rating, Affirmed A3
Senior Unsecured Shelf, Affirmed (P)A3
Senior Unsecured Commercial Paper, Affirmed P-2
Senior Unsecured Regular Bond/Debenture, Affirmed A3
 ..Issuer: Orange and Rockland Utilities, Inc.
 Issuer Rating, Affirmed A3
Senior Unsecured Commercial Paper, Affirmed P-2
Senior Unsecured Regular Bond/Debenture, Affirmed A3
 ..Issuer: Brooklyn Union Gas Company, The
LT Issuer Rating, Affirmed A2
Senior Unsecured Regular Bond/Debenture, Affirmed A2
 ..Issuer: New York State Energy Research & Dev. Auth.
Backed LT IRB/PC Insured, Affirmed A2
 ...Underlying LT IRB/PC, Affirmed A2
 Issuer: KeySpan Gas East Corporation
LT Issuer Rating, Affirmed A2
Senior Unsecured Regular Bond/Debenture, Affirmed A2

The principal methodology used in rating Public Service Company of Oklahoma, Southwestern Public Service Company, Southern Company (The), Alabama Power Company, Alabama Power Capital Trust V, Southern Elect Generating Co, South Jersey Gas Company, Wisconsin Gas LLC, American Electric Power Company, Inc., Duke Energy Corporation, Piedmont Natural Gas Company, Inc., Avista Corp., Avista Corp. Capital II, ONE Gas, Inc, New Jersey Natural Gas Company, Northwest Natural Gas Company, Questar Gas Company, Entergy Corporation, Consolidated Edison, Inc., Consolidated Edison Company of New York, Inc., Brooklyn Union Gas Company, The, KeySpan Gas East Corporation, and Orange and Rockland Utilities, Inc. was Regulated Electric and Gas Utilities published in June 2017. The principal methodology used in rating American Water Works Company, Inc. and American Water Capital Corp. was Regulated Water Utilities published in December 2015. Please see the Rating Methodologies page on www.moodys.com for a copy of these methodologies.

REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be

assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

For any affected securities or rated entities receiving direct credit support from the primary entity(ies) of this credit rating action, and whose ratings may change as a result of this credit rating action, the associated regulatory disclosures will be those of the guarantor entity. Exceptions to this approach exist for the following disclosures, if applicable to jurisdiction: Ancillary Services, Disclosure to rated entity, Disclosure from rated entity.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

The relevant office for each credit rating is identified in "Debt/deal box" on the Ratings tab in the Debt/Deal List section of each issuer/entity page of the website.

Please see www.moodys.com for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the ratings tab on the issuer/entity page on www.moodys.com for additional regulatory disclosures for each credit rating.

Ryan Wobbrock
Vice President - Senior Analyst
Infrastructure Finance Group
Moody's Investors Service, Inc.
250 Greenwich Street
New York, NY 10007
U.S.A.
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

Jim Hempstead
MD - Utilities
Infrastructure Finance Group
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

Releasing Office:
Moody's Investors Service, Inc.
250 Greenwich Street
New York, NY 10007
U.S.A.
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

Moody's
INVESTORS SERVICE

© 2018 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY

OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from \$1,500 to approximately \$2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.