Edison Electric INSTITUTE

Rate Review Summary

Q4 2018

REGULATORY & FINANCIAL UPDATE

QUARTERLY REPORT
OF THE U.S. INVESTOR-OWNED
ELECTRIC UTILITY INDUSTRY

About EEI

EEI is the association that represents all U.S. investor-owned electric companies. Our members provide electricity for 220 million Americans, and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than 7 million jobs in communities across the United States. In addition to our U.S. members, EEI has more than 60 international electric companies, with operations in more than 90 countries, as International Members, and hundreds of industry suppliers and related organizations as Associate Members. Organized in 1933, EEI provides public policy leadership, strategic business intelligence, and essential conferences and forums.

About EEI's Quarterly Financial Updates

EEI's quarterly regulatory and financial updates present industry trend analyses and financial data covering 47 U.S. investor-owned electric utility companies. These 47 companies include 42 electric utility holding companies whose stocks are traded on major U.S. stock exchanges and five electric utilities who are subsidiaries of non-utility or foreign companies. Financial updates are published for the following topics:

Dividends	Rate Review Summary
Stock Performance	SEC Financial Statements (Holding Companies)
Credit Ratings	FERC Financial Statements (Regulated Utilities)

EEI Finance Department material can be found online at: www.eei.org/QFU.

For EEI Member Companies

EEI's Regulatory Affairs Division tracks and monitors federal and state regulatory activity, including FERC, rate cases, and state regulatory proceedings across issue areas such as grid modernization, distributed generation, and energy storage, among others.

The EEI Finance and Accounting Division maintains current year and historical data sets that cover a wide range of industry financial and operating metrics. We look forward to serving as a resource for member companies who wish to produce customized industry financial data and trend analyses for use in:

- Investor relations studies and presentations
- Internal company presentations
- Performance benchmarking
- Peer group analyses
- Annual and quarterly reports to shareholders

We Welcome Your Feedback

EEI is interested in ensuring that our publications and industry data sets best address the needs of member companies and the regulatory and financial communities. We welcome your comments, suggestions and inquiries.

Contacts

Regulatory

Alison Williams
Director, State Energy & Regulatory Policy
(202) 508-5026, awilliams@eei.org

Molly Garcia
Manager, State Policy Analysis
(202) 508-5121, mgarcia@eei.org

Finance and Analytics

Mark Agnew
Senior Director, Financial Analysis
(202) 508-5049, magnew@eei.org

Bill Pfister
Director, Financial Analysis
(202) 508-5531, bpfister@eei.org

Michael Buckley
Manager, Financial Analysis
(202) 508-5614, mbuckley@eei.org

Devin James
Manager, Investor Relations & ESG
(202) 508-5057, djames@eei.org

Steve Frauenheim
Manager, Business Information
(202) 508-5580, sfrauenheim@eei.org

Future EEI Finance Meetings

EEI Financial Conference
November 10-13, 2019
Orlando World Center Marriott
Orlando, Florida

For more information about future EEI Finance Meetings, please contact Devin James at (202) 508-5057 or djames@eei.org.

Edison Electric Institute
701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004-2696
202-508-5000
www.eei.org

The 47 U.S. Investor-Owned Electric Utilities

The companies listed below all serve a regulated distribution territory. Other utilities, such as transmission provider ITC Holdings, are not shown below because they do not serve a regulated distribution territory. However, their financial information is included in relevant EEI data sets, such as transmission-related construction spending.

ALLETE, Inc. (ALE)
Alliant Energy Corporation (LNT)
Ameren Corporation (AEE)
American Electric Power Company, Inc. (AEP)
AVANGRID, Inc. (AGR)
Avista Corporation (AVA)
Berkshire Hathaway Energy
Black Hills Corporation (BKH)
CenterPoint Energy, Inc. (CNP)
Cleco Corporation
CMS Energy Corporation (CMS)
Consolidated Edison, Inc. (ED)
Dominion Resources, Inc. (D)
DPL, Inc.
DTE Energy Company (DTE)
Duke Energy Corporation (DUK)
Edison International (EIX)
El Paso Electric Company (EE)
Entergy Corporation (ETR)
Evergy, Inc. (EVRG)
Eversource Energy (ES)
Exelon Corporation (EXC)
FirstEnergy Corp. (FE)
Hawaiian Electric Industries, Inc. (HE)
IDACORP, Inc. (IDA)
IPALCO Enterprises, Inc.
MDU Resources Group, Inc. (MDU)
MGE Energy, Inc. (MGEE)
NextEra Energy, Inc. (NEE)
NiSource Inc. (NI)
NorthWestern Corporation (NWE)
OGE Energy Corp. (OGE)
Otter Tail Corporation (OTTR)
PG&E Corporation (PCG)
Pinnacle West Capital Corporation (PNW)
PNM Resources, Inc. (PNM)
Portland General Electric Company (POR)
PPL Corporation (PPL)
Public Service Enterprise Group Inc. (PEG)
Puget Energy, Inc.
SCANA Corporation (SCG)
Sempra Energy (SRE)
Southern Company (SO)
Unitil Corporation (UTL)
Vectren Corporation (VVC)
WEC Energy Group, Inc. (WEC)
Xcel Energy, Inc. (XEL)

Note: Companies shown in italics are not listed on U.S. stock exchanges for one of the following reasons — they are subsidiaries of an independent power producer; they are subsidiaries of foreign-owned companies; or they were acquired by other investment firms.

Companies Listed by Category

(Based on Business Segmentation Data as of 12/31/2017)

Please refer to the Quarterly Financial Updates webpage for previous years' lists.

Given the diversity of utility holding company corporate strategies, no single company categorization approach will be useful for all EEI members and utility industry analysts. Nevertheless, we believe the following classification provides an informative framework for tracking financial trends and the capital markets' response to business strategies as companies depart from the traditional regulated utility model.

Regulated	80% or more of total assets are regulated
Mostly Regulated	Less than 80% of total assets are regulated

Categorization is based on year-end business segmentation data presented in SEC 10-K filings, supplemented by discussions with and information provided by parent company IR departments.

The EEI Finance and Accounting Division continues to evaluate our approach to company categorization and business segmentation. In addition, we can produce customized categorization and peer group analyses in response to member company requests. We welcome comments, suggestions and feedback from EEI member companies and the financial community.

Regulated (34 of 47)

Alliant Energy Corporation
Ameren Corporation
American Electric Power Company, Inc.
Avista Corporation
Black Hills Corporation
Cleco Corporation
CMS Energy Corporation
Consolidated Edison, Inc.
DPL Inc.
Duke Energy Corporation
Edison International
El Paso Electric Company
Entergy Corporation
Evergy, Inc.
Eversource Energy
FirstEnergy Corp.
IDACORP, Inc.
IPALCO Enterprises, Inc.
NiSource Inc.
NorthWestern Corporation
OGE Energy Corp.
Otter Tail Corporation
PG&E Corporation
Pinnacle West Capital Corporation
PNM Resources, Inc.
Portland General Electric Company
PPL Corporation
Puget Energy, Inc.
SCANA Corporation
Southern Company
Unitil Corporation
Vectren Corporation
WEC Energy Group, Inc.
Xcel Energy Inc.

Mostly Regulated (13 of 47)

ALLETE, Inc.
AVANGRID, Inc.
Berkshire Hathaway Energy
CenterPoint Energy, Inc.
Dominion Resources, Inc.
DTE Energy Company
Exelon Corporation
Hawaiian Electric Industries, Inc.
MDU Resources Group, Inc.
MGE Energy, Inc.
NextEra Energy, Inc.
Public Service Enterprise Group Incorporated
Sempra Energy

Note: Companies shown in italics are not listed on U.S. stock exchanges for one of the following reasons — they are subsidiaries of an independent power producer; they are subsidiaries of foreign-owned companies; or they were acquired by other investment firms.

Q4 2018

Rate Review Summary

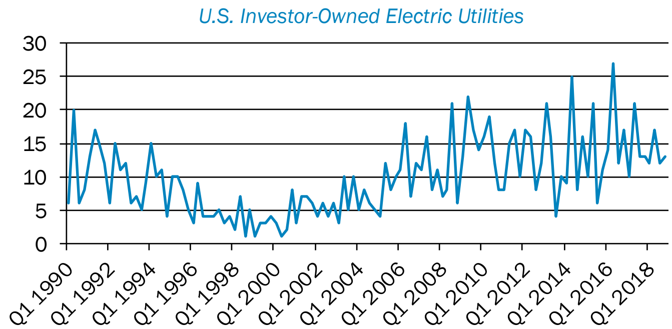
HIGHLIGHTS

- The fourth quarter is often busy for rate review activity and Q4 2018 was no exception. Electric utilities filed 13 new rate reviews while 23 ongoing reviews were decided. The quarter's average awarded and requested ROE were each near 30-year lows.
- Requests for changes in rate design to more accurately and efficiently recover costs were a significant part of many filings in Q4 and throughout the year. The most frequently requested change was an attempt to increase the residential customer charge.
- Federal tax reform continued to play a major role in both filings and decided reviews, with most addressing the means of passing the benefit of lower tax rates back to customers. Rate treatment for electric vehicles was also a theme in many decided reviews.
- Regulatory lag, at 8.3 months, was slightly below its 10-month average in recent years.

COMMENTARY

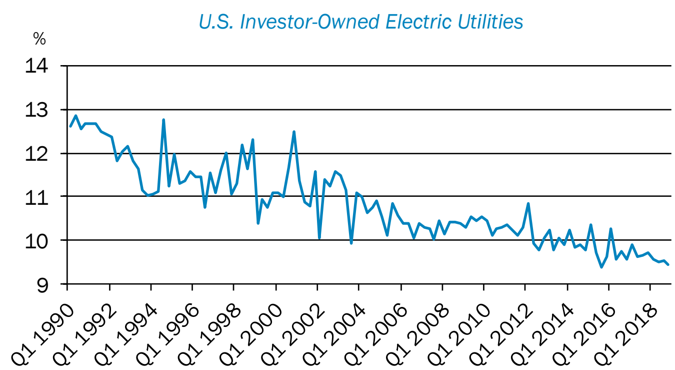
The fourth quarter is often a busy one for rate review activity and Q4 2018 was no exception. Electric utilities filed 13 new rate reviews while 23 ongoing reviews were decided. The average awarded return on equity (ROE) for the quarter was 9.45%, the second-lowest reading in our 30 years of data. The average requested ROE was 10.06%, the third lowest in our dataset. Both ROE numbers remained at the low end of a long-term declining trend resulting largely from declining interest rates since the 1980s. Average regulatory lag, at 8.26 months, was slightly below the industry's 10-month average in recent years. However, this is likely a temporary fluctuation rather than evidence of an acceleration in rate review time frames by state commissions.

I. Number of Rate Cases Filed (Quarterly)



Source: S&P Global Market Intelligence / Regulatory Research Assoc. and EEI Rate Department

II. Average Awarded ROE (Quarterly)

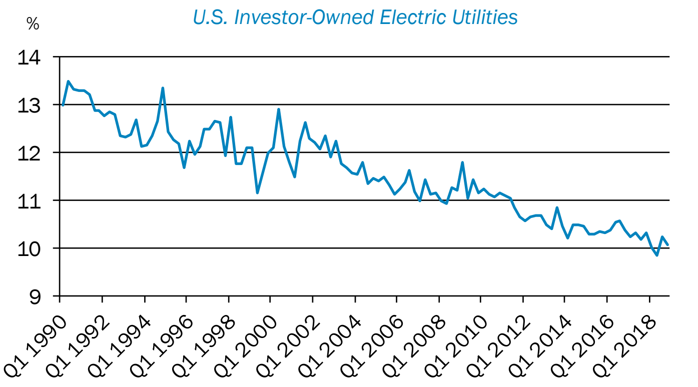


Source: S&P Global Market Intelligence / Regulatory Research Assoc. and EEI Rate Department

Filed Rate Reviews in Q4 2018

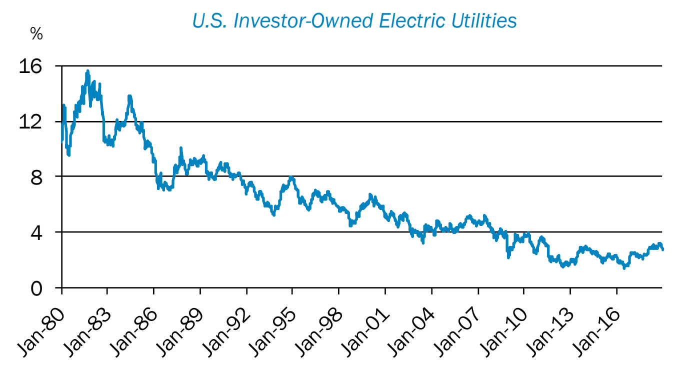
Broadly speaking, the primary reason for rate review filings is to recover capital expenditures (capex), and this was the case in Q4. Electric utilities often seek changes to rate design to more accurately and efficiently recover their costs, such as requests to increase the residential customer charge. Electric

III. Average Requested ROE (Quarterly)



Source: S&P Global Market Intelligence / Regulatory Research Assoc. and EEI Rate Department

V. 10-Year Treasury Yield (1/1980 — 12/2018)



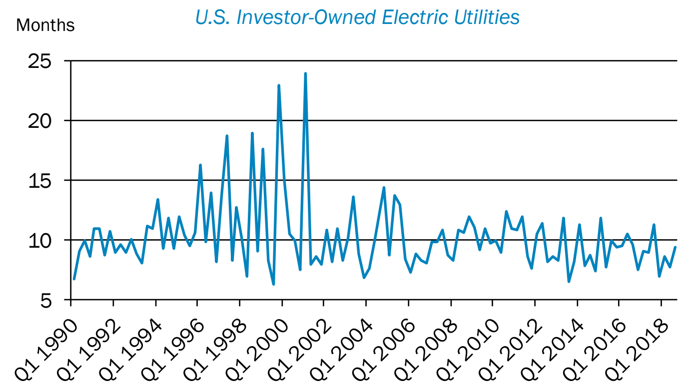
Source: U.S. Federal Reserve

companies prefer that customer charges accurately reflect fixed costs of service and do not unfairly shift costs between customers. These requests were a significant part of filings in Q4. Federal tax reform continued to play a major role in both filings and decided reviews, with most rate actions addressing the means of incorporating lower tax rates and passing benefits back to customers.

Virginia Electric & Power's Energy Efficiency Rider

Virginia Electric & Power (VEPCO) issued separate filings for individual riders in Q4, which is allowed by Virginia's regulatory system. One pertains to the company's investment in demand-side management and energy conservation programs. The rider was started in previous quarters with eight separate programs, including an electric vehicle pilot program. The Q4 filing adds 11 additional programs, in compliance with Virginia's Grid Transformation and Security Act, which requires the company to spend no less than $870 million between 2018 and 2028 on energy efficiency programs. If the commission approves this filing, it will bring total committed spending so far to $262 million. Other VEPCO filings for riders in Q4 covered investment in utility-scale solar facilities, coal ash storage and disposal, and a gas-fired combined-cycle plant.

IV. Average Regulatory Lag (Quarterly)



Source: S&P Global Market Intelligence / Regulatory Research Assoc. and EEI Rate Department

Northern Indiana Public Service's Rate Design

Northern Indiana Public Service requested to "align depreciation rates for . . . coal fired generating assets more closely to the expected useful life of those assets." The company intends to retire five coal units by 2028 but wants to extend the recovery of accruals to the end of 2030 to diminish the effect on rates. "The timeline for retirement is faster than indicated in NIPSCO's last [integrated resource plan], as the energy market has produced more competitive and cost-effective options for NIPSCO customers," the company stated. It intends to pursue renewable resources, such as solar and wind combined with battery storage, to replace the coal plants. It also wants to change its rate structure for large industrial customers "to accommodate the . . . customers who want to reduce their dependence on NIPSCO generation . . . moderate rate shock for other classes . . . and ensure that rate design calculations are simple and transparent." NIPSCO filed to replace certain industrial rate classes with a new rate available to customers with a load of at least 10 MW and certain metering infrastructure willing to sign a five-year contract. The company says the contract is necessary to ensure that these customers contribute to fixed costs long enough to achieve an orderly retirement of coal plants.

Empire District Electric Kansas's Rate Mechanisms

Empire District Electric in Kansas filed for a rate stabilization mechanism (a decoupling mechanism). A decoupling mechanism improves the incentive for electric utilities to support energy conservation by breaking the link between electricity sales and revenue, and by allowing utilities to "true up" the difference between collections in rates and the utilities' revenue requirement. This is done by adding any revenue shortfall to or subtracting any overcollection from future rates through adjustments in energy charges. The company also hopes to implement a capital tracker that would allow it to recover costs related to grid resiliency and generation capacity, among certain other costs, between rate reviews.

VI. Rate Case Data: From Tables I-V

U.S. Investor-Owned Electric Utilities

Quarter	Number of Rate Cases Filed	Average Awarded ROE	Average Requested ROE	Average 10-Year Treasury Yield	Average Regulatory Lag
Q1 1990	6	12.62	13.00	8.42	6.71
Q2 1990	20	12.85	13.51	8.68	9.07
Q3 1990	6	12.54	13.34	8.70	9.90
Q4 1990	8	12.68	13.31	8.40	8.61
Q1 1991	13	12.66	13.29	8.02	11.00
Q2 1991	17	12.67	13.23	8.13	11.00
Q3 1991	15	12.49	12.89	7.94	8.70
Q4 1991	12	12.42	12.90	7.35	10.70
Q1 1992	6	12.38	12.77	7.30	8.90
Q2 1992	15	11.83	12.86	7.38	9.61
Q3 1992	11	12.03	12.81	6.62	9.00
Q4 1992	12	12.14	12.36	6.74	10.10
Q1 1993	6	11.84	12.33	6.28	8.87
Q2 1993	7	11.64	12.39	5.99	8.10
Q3 1993	5	11.15	12.70	5.62	11.20
Q4 1993	9	11.04	12.12	5.61	10.90
Q1 1994	15	11.07	12.15	6.07	13.40
Q2 1994	10	11.13	12.37	7.08	9.28
Q3 1994	11	12.75	12.66	7.33	11.80
Q4 1994	4	11.24	13.36	7.84	9.26
Q1 1995	10	11.96	12.44	7.48	12.00
Q2 1995	10	11.32	12.26	6.62	10.40
Q3 1995	8	11.37	12.19	6.32	9.50
Q4 1995	5	11.58	11.69	5.89	10.60
Q1 1996	3	11.46	12.25	5.91	16.30
Q2 1996	9	11.46	11.96	6.72	9.80
Q3 1996	4	10.76	12.13	6.78	14.00
Q4 1996	4	11.56	12.48	6.34	8.12
Q1 1997	4	11.08	12.50	6.56	13.80
Q2 1997	5	11.62	12.66	6.70	18.70
Q3 1997	3	12.00	12.63	6.24	8.33
Q4 1997	4	11.06	11.93	5.91	12.70
Q1 1998	2	11.31	12.75	5.59	10.20
Q2 1998	7	12.20	11.78	5.60	7.00
Q3 1998	1	11.65	NA	5.20	19.00
Q4 1998	5	12.30	12.11	4.67	9.11
Q1 1999	1	10.40	NA	4.98	17.60
Q2 1999	3	10.94	11.17	5.54	8.33
Q3 1999	3	10.75	11.57	5.88	6.33
Q4 1999	4	11.10	12.00	6.14	23.00
Q1 2000	3	11.08	12.10	6.48	15.10
Q2 2000	1	11.00	12.90	6.18	10.50
Q3 2000	2	11.68	12.13	5.89	10.00
Q4 2000	8	12.50	11.81	5.57	7.50
Q1 2001	3	11.38	11.50	5.05	24.00
Q2 2001	7	10.88	12.24	5.27	8.00
Q3 2001	7	10.78	12.64	4.98	8.62
Q4 2001	6	11.57	12.29	4.77	8.00
Q1 2002	4	10.05	12.22	5.08	10.80
Q2 2002	6	11.41	12.08	5.10	8.16
Q3 2002	4	11.25	12.36	4.26	11.00
Q4 2002	6	11.57	11.92	4.01	8.25
Q1 2003	3	11.49	12.24	3.92	10.20
Q2 2003	10	11.16	11.76	3.62	13.60
Q3 2003	5	9.95	11.69	4.23	8.80
Q4 2003	10	11.09	11.57	4.29	6.83
Q1 2004	5	11.00	11.54	4.02	7.66
Q2 2004	8	10.64	11.81	4.60	10.00
Q3 2004	6	10.75	11.35	4.30	12.50
Q4 2004	5	10.91	11.48	4.17	14.40
Q1 2005	4	10.55	11.41	4.30	8.71

VI. Rate Case Data: From Tables I-V (cont.)

U.S. Investor-Owned Electric Utilities

Quarter	Number of Rate Cases Filed	Average Awarded ROE	Average Requested ROE	Average 10-Year Treasury Yield	Average Regulatory Lag
Q2 2005	12	10.13	11.49	4.16	13.70
Q3 2005	8	10.84	11.32	4.21	13.00
Q4 2005	10	10.57	11.14	4.49	8.44
Q1 2006	11	10.38	11.23	4.57	7.33
Q2 2006	18	10.39	11.38	5.07	8.83
Q3 2006	7	10.06	11.64	4.90	8.33
Q4 2006	12	10.38	11.19	4.63	8.11
Q1 2007	11	10.30	11.00	4.68	9.88
Q2 2007	16	10.27	11.44	4.85	9.82
Q3 2007	8	10.02	11.13	4.73	10.80
Q4 2007	11	10.44	11.16	4.26	8.75
Q1 2008	7	10.15	10.98	3.66	7.33
Q2 2008	8	10.41	10.93	3.89	10.80
Q3 2008	21	10.42	11.26	3.86	10.60
Q4 2008	6	10.38	11.21	3.25	11.90
Q1 2009	13	10.31	11.79	2.74	11.10
Q2 2009	22	10.55	11.01	3.31	9.13
Q3 2009	17	10.46	11.43	3.52	10.90
Q4 2009	14	10.54	11.15	3.46	9.69
Q1 2010	16	10.45	11.24	3.72	10.00
Q2 2010	19	10.12	11.12	3.49	9.00
Q3 2010	12	10.27	11.07	2.79	12.40
Q4 2010	8	10.30	11.17	2.86	10.90
Q1 2011	8	10.35	11.11	3.46	10.80
Q2 2011	15	10.24	11.06	3.21	12.00
Q3 2011	17	10.13	10.86	2.43	8.64
Q4 2011	10	10.29	10.66	2.05	7.60
Q1 2012	17	10.84	10.57	2.04	10.50
Q2 2012	16	9.92	10.66	1.82	11.40
Q3 2012	8	9.78	10.68	1.64	8.20
Q4 2012	12	10.05	10.69	1.71	8.65
Q1 2013	21	10.23	10.48	1.95	8.24
Q2 2013	16	9.77	10.40	2.00	11.80
Q3 2013	4	10.06	10.85	2.71	6.55
Q4 2013	10	9.90	10.46	2.75	8.14
Q1 2014	9	10.23	10.22	2.76	11.30
Q2 2014	25	9.83	10.48	2.62	7.83
Q3 2014	8	9.89	10.48	2.50	8.67
Q4 2014	16	9.78	10.47	2.28	7.42
Q1 2015	10	10.37	10.29	1.97	11.80
Q2 2015	21	9.73	10.30	2.17	7.74
Q3 2015	6	9.40	10.35	2.22	10.00
Q4 2015	11	9.62	10.33	2.19	9.44
Q1 2016	14	10.26	10.39	1.92	9.45
Q2 2016	27	9.57	10.55	1.75	10.50
Q3 2016	12	9.76	10.57	1.56	9.62
Q4 2016	17	9.57	10.38	2.13	7.54
Q1 2017	10	9.89	10.24	2.44	9.04
Q2 2017	21	9.63	10.32	2.26	8.89
Q3 2017	13	9.66	10.18	2.24	11.30
Q4 2017	12	9.73	10.33	2.37	6.91
Q1 2018	12	9.58	10.02	2.78	8.60
Q2 2018	17	9.51	9.86	2.92	7.74
Q3 2018	12	9.53	10.25	2.93	9.38
Q4 2018	13	9.45	10.06	3.03	8.26

NA = Not available / Source: S&P Global Market Intelligence/ Regulatory Research Assoc. and EEI Rate Department

Decided Reviews: Residential Customer Charges

Company	State	Original	Filed	Decided
UGI Utilities	Pennsylvania	$5.50	$14.00	$14.00
Public Service Electric & Gas	New Jersey	$2.27	$4.24 first year $6.21 second year $8.18 third year	$4.64
Indianapolis Power & Light	Indiana	$17 for customers who use 350 kWh per month and above $11.25 for customers who use less than 350 kWh	$27 $16	$17 $12.50
Kansas City Power & Light	Kansas	$14	$15.18	$14.25
Duquesne Light	Pennsylvania	$10	$16.25	$12.50
PECO Energy	Pennsylvania	$8.45	$12.50	$10
Entergy Texas	Texas	$7	$13.64	$10
Texas-New Mexico Power	Texas	$6.25		$7.85

Pacific Gas and Electric's Efforts to Address Wildfires

Pacific Gas and Electric sought to address wildfire issues in a December 13 filing. The company asked for a $925 million rate increase, partly to implement wildfire safety and reliability measures. This does not include potential rate increases related to claims associated with 2017 and 2018 wildfires, which are still being investigated. The company also sought a ratemaking mechanism that would increase rates by $454 million in 2021 and $486 million in 2022. The company proposed to invest $5 billion (approximately $3 billion between 2018 and 2022) on wildfire safety measures such as fire prevention, risk monitoring, emergency response efforts, vegetation management and system hardening to reduce wildfire risks. These would include installing stronger and more resilient poles and covered power lines, adding 1,300 new weather stations, and placing more than 600 high-definition cameras across 2,000 miles of high-fire-risk areas by 2022. The company also asked to establish balancing accounts, including one to capture the difference between covered and non-covered liabilities up to $2 billion. The company would return to customers any overcollections resulting from inaccurate forecasts. The company said the 2018 Camp Fire weakened its credit, thereby impairing its ability to raise debt and equity, which could in turn negatively impact its ability to address wildfire risk.

Federal Tax Reform Act

Northern Indiana Public Service's filing in Q4 addresses tax reform by preserving previous rate adjustments that reflect the lower tax rate and by incorporating the impact of tax reform on the accumulated deferred income tax balance. Other utilities that addressed tax reform in their filings were Duke Energy South Carolina, Duke Energy Progress South Carolina, and Empire District Electric in Kansas.

Decided Rate Reviews in Q4 2018

Rate Treatment of Cloud-Based Computing in Pennsylvania

The Pennsylvania Commission's decision in UGI Utilities' rate review allows the utility to capitalize and include in rate base costs for its cloud-based computing initiative. The commission accepted the administrative law judges' conclusion that "the new databases will provide benefits to customers over extended periods of time and not just the period in which the costs are incurred." A settlement in Duquesne Light's review stipulated that the company capitalize cloud-based information system expenditures from May 1, 2015 forward as a regulatory asset.

Rate Treatment of Electric Vehicle Initiatives

Kansas City Power & Light in Missouri and KCP&L Greater Missouri Operations filed four partial settlements as part of their rate review. One of the settlements allows the companies to include electric vehicle charging stations in rate base. Previously, the commission had ruled that electric vehicle charging stations did not constitute electric plant and could not be included in rate base. The appeals court reversed this decision saying, "Just as in the case of a self-service gasoline station, what takes place at one of KCP&L's [charging stations] is not the service of charging a battery; instead it is the sale of electricity to the vehicle owner, for use to power his or her electric vehicle. While the vehicle's batteries may store the purchased electricity temporarily until that electricity is needed to power the vehicle, the battery is merely a storage device — it is not the 'sole source of power' driving the vehicle. . . . The fact that electricity is used to charge a battery, rather than to immediately operate a machine, does not convert the transaction into a 'service,' rather than a sale or furnishing of electricity for use as power." The court concluded that the commission has the authority to specify rate designs such that a particular customer class bears the costs of specific activities, such as electric vehicle charging. However, the electric utilities cannot expand the vehicle charging program without commission approval. The settlement requires the companies to create a new customer class for electric vehicle charging stations and not subsidize that class with revenues from another class.

In Kansas, Kansas City Power & Light's settlement approves the company's proposed electric vehicle (EV) rate schedule but does not address the effect on rate base of the plant and costs associated with EV infrastructure. Referring to its experience in Missouri, the company said in its application that EV charging stations allow it to provide regulated service to its mobile customers, that the charging stations are part of the company's electric plant, and that electric utilities should recover for this regulated service in rates. The company said it may address this issue in its next rate review in Kansas, although that may not occur for five years because approval of the company's recent merger with Westar required a five-year rate freeze.

Duquesne Light's settlement in Pennsylvania allows the company to implement its proposed EV pilot program. The program includes four components:

1. Installing level-two charging stations at company-owned facilities for employee use and at certain Port Authority locations to facilitate the Authority's electric bus evaluation program. The settlement limits investment in this part of the program to $500,000.
2. Installing fast-charging stations at certain make-ready locations. The settlement limits investment in this part of the program to $1.3 million, half in front of and including the meter and half behind the meter in the form of rebates.
3. An education and outreach program the settlement limits to $200,000.
4. Incentives for customers who register their electric vehicle with the company. The settlement limits these incentives to $70,000. The settlement includes in rate base infrastructure costs associated with the program and all program costs will flow through base rates.

Federal Tax Reform

UGI Utilities' decision in Pennsylvania requires the company to refund to customers overcollections resulting from the federal tax reform act plus interest (based on mortgage interest rates) from January 1, 2018 through the date the rates go into effect. The overcollections are estimated to be $212,000. The decision requires that the company amortize the regulatory liability associated with the excess accumulated deferred income taxes (EADIT) over the life of the company's assets with the unamortized balance used to offset rate base.

The company objected to the offset, saying that it treats "an expense item (federal corporate income taxes) and provide[s] customers a return thereon. . . . and violates ratemaking principles by deducting the unamortized balance of an operating expense (taxes) from rate base. The fact that [the balance] has been deferred to the balance sheet should not affect this analysis."

The commission rejected this argument, accepting the administrative law judges' conclusion (derived from commission staff) that "the fact that the [deferred tax balance] is no longer due in future income tax payments, but is now due to ratepayers via a refund over the remaining useful life of the affected plant, does not change the fact that the Company has received this money from ratepayers in prior years, and the money has been available for infrastructure improvements. [The] original intent should be considered and that because the funds were an interest-free loan from the government (taxes due at some point in the future), and now due to the reclassification, the money is basically an interest-free loan from the ratepayers, the ratepayers should not be required to pay the Company a return on this balance during the time it takes to refund the money to them." (Pennsylvania electric utilities had argued that any mechanism that required flowback of cost savings from the tax reform act constituted retroactive ratemaking.) The commission said "the tax savings and associated reductions in utility revenue requirements should be flowed back to consumers on a current basis. While ratemaking is generally prospective in nature, an exception to this rule applies in the case of expenses that are extraordinary, substantial, and nonrecurring . . ."

In Texas, Southwestern Public Service's settlement lowers the revenue requirement by $26.5 million to address federal tax reform. The settlement also addresses the disposition of EADIT liability to be returned to customers and the treatment of net operating losses and balances. The revenue requirement reflects the amortization of protected and unprotected EADIT balances using the average rate assumption method over essentially the remaining life of the related assets. The company is to amortize unprotected, non-plant EADIT balances over five years and net operating loss balances over a 44-year period.

Entergy Texas's settlement incorporates the effects of federal tax reform by granting rate credits to customers totaling $25 million for overcollections in 2018. The credits will extend over ten months for large customers and over four years for smaller customers. The settlement stipulates that the company return the protected portion of the EADIT liability of $242.5 million to customers through rate basing and amortizing using the average rate assumption method. The company must amortize the unprotected liability of $185.2 million over four years for residential and small commercial customers and over one year for large customers with a 7.73% carrying charge to accrue on the unamortized balance. The company must return these amounts to customers through a rider. Excluding the effect of tax reform, customers would receive a 5.9% rate increase under the settlement. The impact of tax reform results in a current rate reduction of 7.6%.

Several additional decisions in Q4 addressed federal tax reform. While the details of how individual electric utilities address tax reform vary, the broad outlines show great similarity. The prime characteristic is that tax reform benefits will flow almost exclusively to customers.

Rate Change Allocation Across Rate Classes

Across the industry and in general, a utility's rate structure can result in situations where the utility recovers costs disproportionately across customer rate classes. This means that some customer classes can essentially subsidize others. Consequently, electric utilities and commissions regularly allocate a rate change unevenly across classes to reduce existing cross-subsidization (or to achieve other policy objectives). If rates were perfectly allocated among customer classes, rate changes would be equally applied to all classes; if rates were increased five percent, the rates for each customer class would increase five percent. Q4 offered several examples of electric utility and commission attempts to correct for cross-subsidization.

In Public Service Electric & Gas's settlement in New Jersey, residential customers receive a 3.16% bill increase, general lighting and power customers receive a 0.85% bill increase, and large customers receive increases between 0.45% and 0.65%. Indianapolis Power & Light's settlement raises residential customer rates by five percent, commercial and industrial rates by two percent and lighting customers' rates by six percent. Kansas City Power & Light's settlements in Missouri allocates the company's rate decrease so that residential and lighting customers get a 1.43% reduction, medium-sized customers get a 2.39% reduction, and large customers get a 2.99% reduction.

UGI Utilities in Pennsylvania requested an increase in the residential customer charge from $5.50 to $14.00, noting that its customer charge is below those of other Pennsylvania utilities and cooperatives, and its fixed costs for residential customers are approximately $19.00. The commission agreed with the administrative law judges, who said that the request was not unreasonable given the cost of service study results and the length of time since the last rate increase. The commission said: "The record indicates the residential class has been significantly subsidized by other customer classes relative to its cost of service." Commission staff and the Office of Consumer Advocate argued that the commission should employ gradualism in alleviating subsidies, while the commission said "gradualism concerns should not trump cost of service considerations."

Return on Equity

UGI Utilities in Pennsylvania had asked for a 20-basis-point return on equity (ROE) premium to reflect the company's service quality improvement initiatives such as its long-term infrastructure improvement program, voluntary energy efficiency programs, customer satisfaction initiatives, and workforce safety and training programs. The commission said the company "has been consistently recognized for high customer satisfaction. Additionally, UGIU has consistently exceeded its benchmark service reliability metrics. . . . In light of the above, we are of the opinion that UGIU has demonstrated its commitment to, and focus on, providing and improving its provision of safe, reliable and quality distribution services to its customers. As such, we find that the management efforts UGIU has highlighted in the record evidence in this proceeding support an additional upward adjustment to the company's rate of return." The commission awarded the company a five-basis-point ROE premium.

Otherwise, the commission based the ROE calculation primarily on discounted cash flow analysis, rejecting two of the utilities in the proxy group suggested by the company because less than 50% of those utilities' revenue came from their electric business. UGIU had identified several forward-looking financial market risk factors it suggested warranted a higher ROE, such as a potential rise in interest rates. The commission rejected these as speculations about the future.

Entergy Arkansas's formula rate plan specifies a target ROE of 9.75% with a dead band of plus or minus 50 basis points. This ROE would have supported a $189.7 million revenue increase for the company. However, state law caps any increase for any customer class to four percent, which limits the increase to $66.7 million and makes the target ROE unachievable.

Grid Modernization

Duke Energy Ohio's settlement allows the company to implement a non-bypassable rider for costs of "the continued evolution of the distribution grid and an enhanced customer experience, including programs, modifications, and offerings that may be engendered by the Commission's PowerForward, or grid modernization review." The rider has three components. The first will address commission directives from the PowerForward proceeding. The second will address data access and advanced metering infrastructure. The third will address infrastructure modernization.

The Virginia commission approved increased investment in Virginia Electric & Power's rider to recover costs of undergrounding at-risk facilities. The review was filed in response to Virginia Senate Bill 966, which addressed grid reliability and modernization, among other issues. The law permits investment in these types of programs up to five percent of the distribution rate base. The law also provides that electric utilities replace with underground facilities any overhead distribution tap lines that have averaged nine or more unplanned outages over the past ten years.

The Maine commission did not exclude certain distribution investments, such as a Tesla Powerwall residential battery storage pilot program, in Green Mountain Power's rate review. However, the commission required the company "to explain its plans for a modern and reliable grid," and noted that "in addition to the traditional regulatory principles that utility investments must be prudent, useful, and measurable, GMP's reliability and automation investments must be the product of sound planning principles that are consistent with Vermont's energy policies."

Miscellaneous

- *Test Year* — The Pennsylvania commission in UGI Utilities' review allowed the company to use a fully forecasted test year with a test-year-end rate base. This technique helps decrease regulatory lag.
- *Intention of Environmental Remediation* — In the same review, the commission disallowed certain expenses for environmental remediation, finding that those were not intended to serve customers but to improve property the company intends to sell.
- *Time-of-Use Rates* — Settlements in Missouri require Kansas City Power & Light and KCP&L Greater Missouri Operations to file an optional residential time-of-use rate and create a customer research, education, and marketing plan for the program. Duquesne Light's settlement in Pennsylvania requires the parties to participate in a collaborative process on implementing time-of-use rates.
- *Value of Renewable Energy Credits* — Southwestern Public Service's settlement in Texas requires the company to lower the (ordinarily commission-set) value of renewable energy credits the company acquires through purchased power agreements from $0.39 to $0.27 to reflect the lower renewable energy costs.
- *Utility Owned Universal Solar* — Kansas City Power & Light's settlement in Texas allows the company to build or buy solar generation to serve customers opting into the company's universal solar program. However, the company cannot pursue the program until it is 75% subscribed. The utility would pay 75% of the costs of any unsubscribed portion of the program and customers would pay 25%.
- *Rate Design in the Competitive Market* — NRG Energy opposed PECO Energy's settlement in Pennsylvania. The settlement did not adopt NRG's proposal to change the way costs had been allocated since the start of competition in the state. NRG's proposal would have increased the competitive portion of the rate and thus made the utility's optional rate less competitive in the market. The commission commented that NRG "has presented no persuasive or compelling evidence demonstrating that the current allocations are unfair, or that its proposed reallocations are a more equitable result than PECO's proposed rates."
- *Peak Demand Rates for Low Load Factor Customers* — Madison Gas and Electric's settlement in Wisconsin incorporates the company's proposal for customers with a load factor less than 15% that will reduce maximum monthly on-peak demand rates by 50%. The company found evidence that low load factor customers were not causing demand-related costs consistent with their demand charges. ■