Edison Electric
INSTITUTE

Q4 2018 Industry Financial Highlights

February 6, 2019

This document is comprised of EEI-prepared Q4 2018 Financial Updates for Stock Performance and Dividends, as well as the Rate Review Summary from EEI's Regulatory Department.

This report and other EEI Finance Department material can be found at: www.eei.org/QFU.

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

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

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.

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

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

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

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

Stock Performance

HIGHLIGHTS

- Utility stocks performed well as a portfolio diversifier and reliable hedge on broad market weakness in 2018. The EEI Index gained 1.3% in Q4 and 3.7% for the year, strongly outperforming the major averages by 10 to 12 percentage points for the quarter and seven to eight percent for the year as a whole.
- A hot summer across much of the U.S. powered electricity demand 3.1% higher in 2018. However, nationwide demand, flat in recent years, fell by 2.0% in 2017; that was the largest year-to-year decline since 2009.
- The industry's fundamental outlook was little changed in 2018. Most utilities are pursuing investment programs focused on regulated operations, and targeting earnings growth rates in the mid-single digits with similar dividend growth.
- Rising interest rates seem the biggest potential threat to utility stocks. Analysts view state regulatory relations as balancing the interests of ratepayers, utilities and other stakeholders, with support for investments that advance state renewable energy goals, reliability and jobs creation.

COMMENTARY

The market's dive in late 2018 gave investors quite a surprise given the optimism that drove major averages higher for most of the year. However, utility stocks performed well as an effective portfolio diversifier and reliable hedge on broad market weakness in both Q4 and for the year as a whole.

At September 30, the EEI Index had gained about 2.2% year-to-date versus more sizeable advances by the Dow Jones Industrials (+8.8%), the S&P 500 (+10.6%) and the Nasdaq

I. Index Comparison (% Return)

Index	2012	2013	2014	2015	2016	2017	2018
EEI Index	2.1	13.0	28.9	-3.9	17.4	11.7	3.7
Dow Jones Inds.	10.2	29.6	10.0	0.2	16.5	28.1	-3.5
S&P 500	16.0	32.4	13.7	1.4	12.0	21.8	-4.4
Nasdaq Comp.^	15.9	38.3	13.4	5.7	7.5	28.2	-3.9

Calendar year returns shown for all periods, except where noted.
^Price gain/loss only. Other indices show total return.
Source: EEI Finance Department, S&P Global Market Intelligence

II. Category Comparison (% Return)

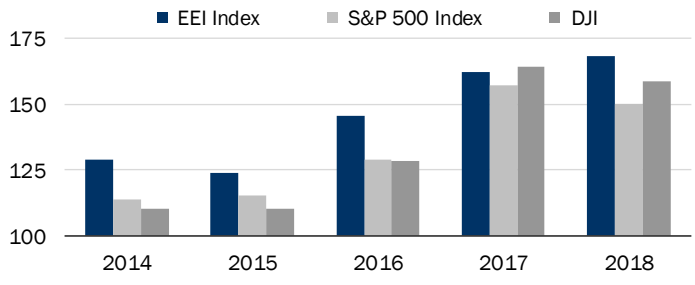
U.S. Investor-Owned Electric Utilities

Index	2012	2013	2014	2015	2016	2017	2018
All Companies	4.8	17.3	27.6	-2.0	22.2	11.6	4.3
Regulated	4.7	17.0	28.9	-0.7	21.2	11.7	4.5
Mostly Regulated	5.8	16.0	27.5	-3.7	24.6	11.3	3.6
Diversified	0.8	47.5	6.6	-14.4	25.6	n/a*	n/a*

Calendar year returns shown for all periods except where noted.
Returns shown here are unweighted averages of constituent company returns.
The EEI Index return shown in Table I above is cap-weighted.
*Diversified category eliminated in 2017 due to lack of constituent companies.
Source: EEI Finance Department, S&P Global Market Intelligence and company reports

III. Total Return Comparison

Value of $100 invested at close on 12/31/2013



Source: EEI Finance Department, S&P Global Market Intelligence

IV. 10-Year Treasury Yield — Monthly

Average Monthly Yield, 1/1/1980 through 12/31/2018

Source: U.S. Federal Reserve

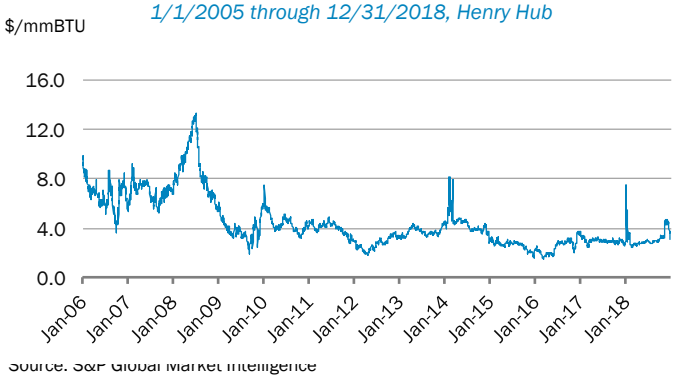
V. 10-Year Treasury Yield — Weekly

Daily Yield, 1/1/2008 through 12/31/2018

Source: U.S. Federal Reserve

VI. Natural Gas Spot Prices

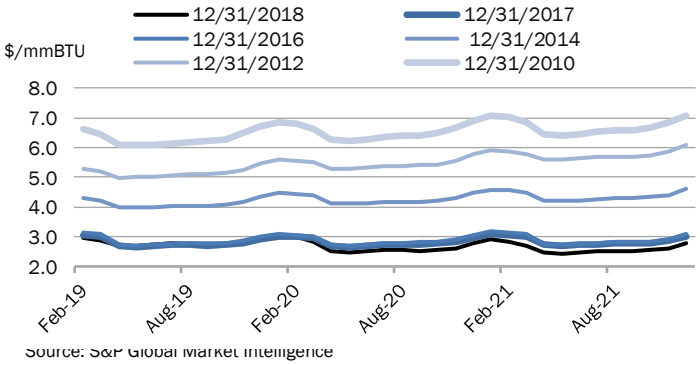
1/1/2005 through 12/31/2018, Henry Hub



Source: S&P Global Market Intelligence

VII. NYMEX Natural Gas Futures

February 2019 through December 2021, Henry Hub



Source: S&P Global Market Intelligence

VIII. Returns by Quarter

U.S. Investor-Owned Electric Utilities

Index	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4
EEI Index	15.6	6.9	-5.4	0.5	6.1	2.4	2.7	0.1	-3.3	3.8	2.0	1.3
Dow Jones Industrials	2.2	2.1	2.8	8.7	5.2	4.0	5.3	11.3	-2.0	1.3	9.6	-11.3
S&P 500	1.4	2.5	3.9	3.8	6.1	3.1	4.5	6.6	-0.8	3.4	7.7	-13.5
Nasdaq Comp.^	-2.8	-0.6	9.7	1.3	9.8	3.9	5.8	6.3	2.3	6.3	7.1	-17.5

Category*	2016 Q1	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4
All Companies	15.5	7.7	-4.3	2.7	5.2	2.5	3.2	0.2	-3.0	5.3	1.4	0.8
Regulated	15.9	7.2	-4.3	1.9	5.8	2.7	3.5	-0.7	-3.5	5.4	2.0	0.7
Mostly Regulated	13.2	10.1	-3.7	3.8	3.9	2.0	2.5	2.5	-1.9	5.0	-0.3	0.9
Diversified	21.6	2.2	-7.8	9.5	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**	n/a**

^Price gain/(loss) only. Other indices show total return. / * Returns shown here are unweighted averages of constituent company returns. The EEI Index return shown above is cap-weighted.
** Diversified category eliminated in 2017 due to lack of constituent companies.
Source: EEI Finance Department, S&P Global Market Intelligence

IX. Sector Comparison, Trailing 3 mo. Total Return

For the three-month period ending 12/31/2018

Sector	Total Return
EEI Index	1.3%
Utilities	0.8%
Telecommunications	-4.4%
Consumer Goods	-9.7%
Healthcare	-9.9%
Financials	-11.9%
Basic Materials	-14.3%
Consumer Services	-14.4%
Industrials	-17.3%
Technology	-17.5%
Oil & Gas	-25.1%

Note: Sector Comparison page based on the Dow Jones U.S. Indexes, which are market-capitalization-weighted indices.
Source: EEI Finance Dept., Dow Jones & Company, Google Finance, Y Charts

X. Sector Comparison, 2018 Total Return

For the twelve-month period ending 12/31/2018

Sector	Total Return
Healthcare	6.2%
Utilities	4.4%
EEI Index	3.7%
Consumer Services	2.0%
Technology	-0.6%
Telecommunications	-6.8%
Financials	-9.0%
Industrials	-11.3%
Consumer Goods	-13.4%
Basic Materials	-16.2%
Oil & Gas	-19.0%

Note: Sector Comparison page based on the Dow Jones U.S. Indexes, which are market-capitalization-weighted indices.
Source: EEI Finance Dept., Dow Jones & Company, Google Finance, Y Charts

XI. Market Capitalization at December 31, 2018 (in $ Mil.)

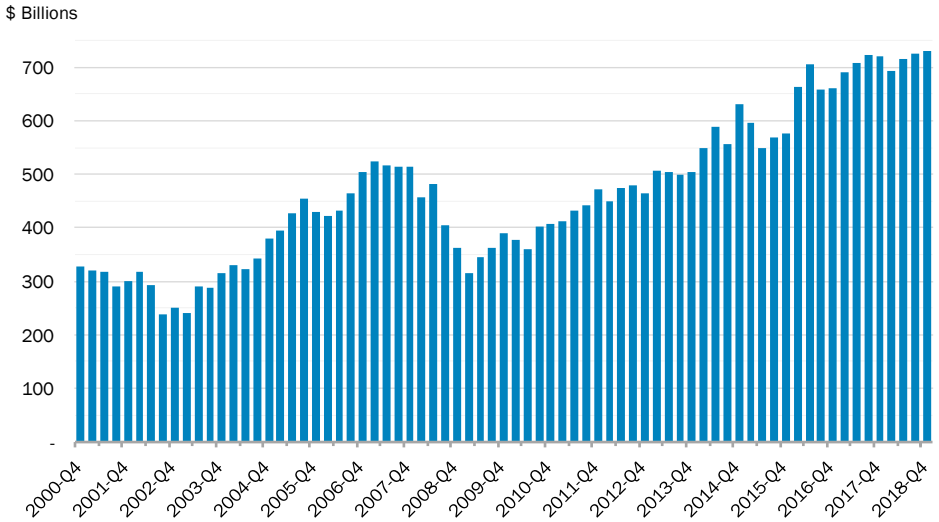
U.S. Investor-Owned Electric Utilities

Company	Stock Symbol	$ Market Cap	% Total
NextEra Energy, Inc.	NEE	82,234	11.24%
Duke Energy Corporation	DUK	61,532	8.41%
Dominion Energy, Inc.	D	46,728	6.39%
Southern Company	SO	44,930	6.14%
Exelon Corporation	EXC	43,657	5.97%
American Electric Power Co., Inc.	AEP	36,846	5.04%
Sempra Energy	SRE	29,638	4.05%
Public Svc. Enter. Group Inc.	PEG	26,233	3.59%
Xcel Energy Inc.	XEL	25,128	3.44%
Consolidated Edison, Inc.	ED	23,787	3.25%
WEC Energy Group, Inc.	WEC	21,852	2.99%
Eversource Energy	ES	20,641	2.82%
DTE Energy Company	DTE	20,075	2.75%
PPL Corporation	PPL	19,937	2.73%
FirstEnergy Corp.	FE	18,888	2.58%
Edison International	EIX	18,507	2.53%
Ameren Corporation	AEE	15,923	2.18%
Entergy Corporation	ETR	15,579	2.13%
AVANGRID, Inc.	AGR	15,502	2.12%
Evergy, Inc.	EVRG	15,248	2.09%
CMS Energy Corporation	CMS	14,026	1.92%
PG&E Corporation	PCG	12,279	1.68%
CenterPoint Energy, Inc.	CNP	12,183	1.67%
Alliant Energy Corporation	LNT	9,937	1.36%
Pinnacle West Capital Corp.	PNW	9,555	1.31%
NiSource Inc.	NI	9,225	1.26%
OGE Energy Corp.	OGE	7,826	1.07%
SCANA Corporation	SCG	6,833	0.93%
Vectren Corporation	VVC	5,982	0.82%
IDACORP, Inc.	IDA	4,693	0.64%
MDU Resources Group, Inc.	MDU	4,673	0.64%
Portland General Electric Co.	POR	4,092	0.56%
Hawaiian Electric Industries, Inc.	HE	3,987	0.55%
ALLETE, Inc.	ALE	3,918	0.54%
Black Hills Corporation	BKH	3,350	0.46%
PNM Resources, Inc.	PNM	3,282	0.45%
NorthWestern Corporation	NWE	2,991	0.41%
Avista Corporation	AVA	2,790	0.38%
MGE Energy, Inc.	MGEE	2,079	0.28%
El Paso Electric Company	EE	2,032	0.28%
Otter Tail Corporation	OTTR	1,967	0.27%
Unitil Corporation	UTL	751	0.10%
Total Industry		**731,313**	**100.00%**

Source: EEI Finance Dept., S&P Global Market Intelligence

XII. EEI Index Market Capitalization (at Period End)

U.S. Investor-Owned Electric Utilities

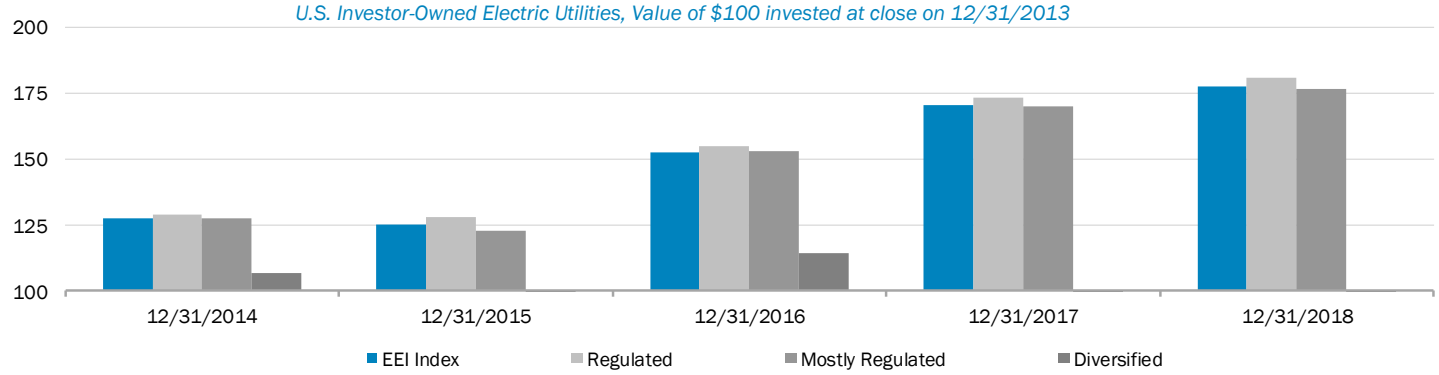


Note: Change in EEI Index market capitalization reflects the impact of buyout and spin-off activity in addition to stock market performance.

	EEI Index Market Cap (in $Millions)		
Q1-03	240,598	Q1-11	411,164
Q2-03	289,454	Q2-11	433,236
Q3-03	288,073	Q3-11	442,352
Q4-03	314,324	Q4-11	471,635
Q1-04	329,601	Q1-12	450,597
Q2-04	323,193	Q2-12	475,083
Q3-04	342,460	Q3-12	479,540
Q4-04	380,305	Q4-12	463,916
Q1-05	395,663	Q1-13	507,163
Q2-05	425,989	Q2-13	505,091
Q3-05	454,727	Q3-13	499,776
Q4-05	428,825	Q4-13	504,365
Q1-06	422,899	Q1-14	548,006
Q2-06	432,848	Q2-14	587,735
Q3-06	464,281	Q3-14	557,472
Q4-06	503,858	Q4-14	632,185
Q1-07	525,088	Q1-15	596,851
Q2-07	515,565	Q2-15	549,164
Q3-07	514,946	Q3-15	568,250
Q4-07	514,486	Q4-15	576,819
Q1-08	456,711	Q1-16	662,574
Q2-08	482,024	Q2-16	706,366
Q3-08	404,472	Q3-16	658,728
Q4-08	361,921	Q4-16	659,845
Q1-09	316,070	Q1-17	690,205
Q2-09	343,844	Q2-17	708,329
Q3-09	363,185	Q3-17	722,423
Q4-09	389,672	Q4-17	720,427
Q1-10	377,281	Q1-18	692,282
Q2-10	360,044	Q2-18	716,350
Q3-10	402,014	Q3-18	724,766
Q4-10	407,275	Q4-18	731,313

XIII. Comparative Category Total Annual Returns

U.S. Investor-Owned Electric Utilities, Value of $100 invested at close on 12/31/2013



	2013	2014	2015	2016	2017	2018
EEI Index Annual Return (%)		27.63	(2.05)	22.21	11.56	4.28
EEI Index Cumulative Return ($)	100.00	127.63	125.01	152.77	170.43	177.73
Regulated EEI Index Annual Return		28.92	(0.67)	21.16	11.66	4.55
Regulated EEI Index Cumulative Return	100.00	128.92	128.05	155.15	173.24	181.11
Mostly Regulated EEI Index Annual Return		27.46	(3.67)	24.57	11.32	3.62
Mostly Regulated EEI Index Cumulative Return	100.00	127.46	122.78	152.94	170.26	176.42
Diversified EEI Index Annual Return		6.61	(14.43)	25.59	-	-
Diversified EEI Index Cumulative Return	100.00	106.61	91.23	114.57	-	-

Calendar year returns shown, except where noted.
Diversified category eliminated in 2017 due to lack of constituent companies.
Returns are unweighted averages of constituent company returns.
Source: EEI Finance Dept., S&P Global Market Intelligence

(+16.6%). Stocks rose on bullish economic data and strong corporate earnings. Real gross domestic product (GDP) grew at a 4.2% annual pace in Q2 and at 3.4% in Q3, both up from Q1's 2.2% rate and the strongest quarterly readings since Q3 2014's 4.9%. The U.S. unemployment rate fell below 4% in July and August, reaching 3.7% in September — its lowest level since 1969. Lifted in part by lower tax rates under the Trump administration's tax reform, corporate profits boomed. Based on earnings data compiled by Zacks Investment Research, S&P 500 profits rose 25% year-to-year in each of the 2018's first three quarters. Given this backdrop, it's not surprising that utilities lagged the major averages.

The broad market had surged 40% since Trump's 2016 election win and may have been primed for a correction. An excuse was given by emerging trade war tensions with China, disappointing global economic data late in the year (with a focus on weakness in China), and a sense that red-hot corporate profit gains were peaking. Indeed, the pace of Q4 corporate earnings gains was revised downward as the quarter progressed, and 2019's profit outlook dimmed along with economic sentiment. The fourth quarter market correction took the Nasdaq Composite down 17.5%, while the S&P 500 and Dow Jones Industrials lost 13.5% and 11.3%, respectively,

XIV. EEI Index Top Ten Performers

For the nine-month period ending 12/31/2018

Company	% Return	Category
FirstEnergy Corp.	27.7	R
OGE Energy Corp.	23.8	R
SCANA Corporation	23.2	R
Exelon Corporation	18.2	MR
Otter Tail Corporation	14.9	R
Unitil Corporation	14.3	R
NextEra Energy, Inc.	14.3	MR
Ameren Corporation	13.9	R
Vectren Corporation	13.6	R
Evergy, Inc.	10.9	R

Note: Return figures include capital gains and dividends.
R = Regulated, MR = Mostly Regulated
Source: EEI Finance Department

from September highs. These declines fully erased the strong advance through Q3, leaving the major indices with 3% to 4% losses for the full-year. By contrast, the EEI Index gained 1.3% in Q4 and returned a positive 3.7% in 2018, outperforming the major averages by 10 to 12 percentage points in Q4 and about seven to eight percentage points for the year as a whole

Rate Rally Stalls in Q4

The EEI Index delivered a positive return through the year's first nine months even in the face of rising interest rates. The U.S. Federal Reserve hiked the overnight Fed Funds rate by 25 basis points four times in 2018, to a target range of 2.25% to 2.50% at its December Federal Open Market Committee (FOMC) meeting. The three-month Treasury bill yield rose steadily during the year, from 1.4% in January to 2.4% by December. However, the 10-year Treasury yield is a far more important influence than short-term rates on utility stocks, whose dividend yields give them bond-like qualities but with dividend growth potential. The 10-year yield climbed from 2.5% in January to 3.2% in September in synchronization with strong U.S. economic data, but fell back to 2.7% by late December on fears of slowing growth. The pullback in this widely watched risk-free benchmark yield undoubtedly buttressed utilities' performance in Q4.

Power Demand Rises 3% in 2018

Short-term changes in power demand that impact utilities' revenue generally result from fluctuations in weather. These rarely shift long-term utility stock trends since the effect is small and transitory. But they can slightly boost or detract from quarterly earnings and may, in some cases, illuminate tightening supply trends in power markets with potential for new generation build and rate base growth.

A hot summer across much of the U.S. powered electricity demand higher in 2018. Electric output grew by 4.2% in Q3 and by 3.1% for the full-year, reaching a record high that marginally surpassed 2007's total output. The gain was largely due to weather, as weather-adjusted output was flat year-to-year. National Oceanic and Atmospheric Administration (NOAA) data shows nationwide cooling degree days — a measure of air conditioning demand — were 14% higher in Q3 2018 than their 10-year average, and 17% higher versus the same quarter last year. California's statewide average temperature in July surpassed the previous record set in 1931 and the Energy Information Administration (EIA) reports that record-high temperatures in the western U.S. drove peak wholesale electricity prices in July to their highest level since 2008. Eastern seaboard temperatures were hot as well; cooling degree days were 45% above the 10-year average in New England and 30% higher in the mid-Atlantic region.

However, electricity demand has been flat in recent years due to energy efficiency measures and the slow erosion in industrial demand from the changing structure of the U.S. economy. Nationwide demand fell 2.0% in 2017, the largest year-to-year decline since the 2009 recession year. The temporary lift from 2018's weather is unlikely to alter the slow demand-growth outlook facing the industry.

Steady Fundamentals

There was little change in the industry's generally good business fundamentals in 2018.

Demand growth during the key summer cooling season helped power electric utility industry earnings up about 10% year-to-year in Q3. Wall Street analysts also reported that many utility managements in Q4 affirmed and/or slightly raised 2018 earnings guidance along with their capex and rate base growth outlooks for the next several years.

Most utilities have exited unregulated operations and are now seeking earnings growth from regulated rate base investment programs. Most are targeting earnings per share growth rates in the mid-single digits, along with similar dividend growth targets. Investment programs include new renewables generation and new gas-fired generation, transmission and distribution modernization and expansion, smart-grid deployment, and reliability-related network hardening.

Analysts view state regulatory relations as generally fair — balancing the interests of ratepayers, utilities and other stakeholders — with support for investments that advance state renewable energy goals, reliability, jobs creation and the enlarged tax base that comes with it. In recent years, utilities have also successfully advocated for changes to rate design — such as forward test years, rate mechanisms and adjustment clauses — that allow more timely recovery of costs associated with big-ticket capital investment programs. Industry capex has risen from $74 billion in 2010 to a projected $127 billion for 2018. Capex was $40 billion in 2004, the cyclical low following the competitive generation buildout.

Other favorable fundamental trends for regulated utilities include continued low natural gas prices and the generally low level of interest rates. Since regulated utilities pass fuel and interest expense through to customers (and fuel can account for 40% or more of the customer's bill), cost stability in these key areas helps keep bill inflation down and makes it easier to gain regulatory approval for rate base expansion. Despite the steep capex ramp up of recent years, the average nationwide cost of electricity for residential customers has only risen from $0.1126/kilowatt hour (kWh) in 2008 to $0.1289/kWh in 2017, which was barely changed from 2014's $0.1252, according to Energy Information Administration (EIA) data.

Historically Elevated Valuations

By yearend 2018, Wall Street analysts were unanimous in observing that the industry's stock valuations seemed high whether measured in absolute price/earnings (PE) ratios, PEs relative to the S&P 500, or dividend/earnings yields relative to interest rates. By yearend 2018, all metrics were near the top of their range in recent years. The industry's PE on 2019 earnings is roughly 19, more than the S&P 500's and almost double the electric utility industry's 10 to 12 PE multiple in the late 1990s. Of course, the 10-year Treasury yield was about 6% in the late 1990s, also about double today's sub-3% level.

Low interest rates are no doubt partly responsible for today's seemingly lofty valuations. But industry fundamentals are too. Utilities offer investors the appealing package of mid-single-digit earnings growth and a 3% dividend yield with dividend growth potential, all generated by investment programs that have fairly high predictability, relatively low execution risk and support from state regulators. S&P 500 earnings by contrast are more cyclical and far more subject to the whims of the economic cycle.

It's hard to predict with any certainty the long-run impact of electric vehicle adoption, energy efficiency measures, energy storage innovation, smart-grid transformation, rising demand for renewable power, along with the public's need for reliable power around the clock. But it's likely that the industry will maintain a key role in transforming and modernizing the nation's power network into a true 21st century grid. And much of the nation's aging baseload generation infrastructure will require replacement in the decades ahead, which could extend the visible horizon for utility capex and rate base growth

Rising Interest Rates Seen as Main Risk

Utility stock moves are caused more by shifts in macroeconomic data and fast-changing investor sentiment than changes in fundamental outlooks — except when company-specific events impact individual utilities.

Merger and acquisition (M&A) activity is one company-specific theme. Industry consolidation has been a structural trend for many years; the universe of U.S. investor-owned electric utilities tracked by EEI has fallen to 42 at year-end 2017 from 83 at the start of 2000. Dominion announced in early January 2018 that it would seek to buy neighboring utility SCANA. In April 2018, Centerpoint Energy announced a bid for Vectren — a deal the companies said was motivated by synergistic growth opportunities in natural gas distribution. Both utilities were among the top-ten performers in the EEI Index in 2018. Several other smaller utilities in the Regulated category also made the top-ten list; these may have received some price support from speculation over potential M&A activity.

Less favorable is the impact of California's tragic 2017-2018 wildfires on California utilities, which are now working with state regulators and other officials to investigate causes of the fires and develop the best path forward to achieve the state's aggressive renewable energy goals while ensuring California's electric network provides safe, economical and reliable service. [California utility PG&E in January 2019 said it would seek bankruptcy protection while it worked through this process.]

A sharp rise in interest rates is widely seen as the biggest macro threat facing utility investors. Although it's hard to see just what would cause it. CPI inflation excluding volatile food and energy costs (a widely watched inflation benchmark) held near 2% throughout 2018, even as the economy roared. As Q4's sentiment shift showed, the main risk to the very-long-lived economic expansion seems to be weakness rather than more red-hot growth. Interest rates would likely fall if economic data turns weak, as they did in Q4. Analysts note the impact of rising rates would be on stock prices rather than earnings. Higher rates can translate into higher allowed ROEs and improved pension funding. Many companies have embedded low-cost debt from years of low rates, and interest rates still remain very low by historical standards.■

Q4 2018

Dividends

HIGHLIGHTS

- The investor-owned electric utility industry extended its long-term trend of widespread dividend increases in 2018; 39 utilities increased or reinstated their dividend, similar to the 38 in 2017, 40 in 2016 and 39 in 2015.
- The percentage of companies that raised or reinstated their dividend in 2018 was 93%, a new record high. As of December 31, 2018, 41 of the 42 publicly traded utilities in the EEI Index were paying a common stock dividend.
- The Regulated and Mostly Regulated categories each had a 3.4% average dividend yield at year-end 2018, mirroring their yields at year-end 2017.
- The average dividend increase during 2018 was 6.1%, with a range of 1.2% to 18.8% and a median of 5.6%.
- The industry's dividend payout ratio was 54.4% for the twelve months ended September 30, 2018, remaining among the highest of all U.S. business sectors.
- The Tax Cuts and Jobs Act signed into law in December 2017 maintained pre-existing tax rates for dividends and capital gains. This is crucial to avoid a capital raising disadvantage for high-dividend companies.

COMMENTARY

The investor-owned electric utility industry added to its long-term trend of widespread dividend increases during 2018. A total of 39 companies increased or reinstated their dividend compared to 38 in 2017, 40 in 2016, 39 in 2015, 38 in 2014 and 36 in both 2013 and 2012. In 2003, only 27 of the 65 utilities tracked by EEI increased their dividend. This was just prior to the passage of legislation that reduced dividend tax rates. (Note: M&A activity reduced the number of utilities tracked by EEI from 65 in 2003 to 42 at year-end 2018).

I. Sector Comparison, Dividend Payout Ratio

Last Twelve Months

Sector	Payout Ratio (%)
EEI Index Companies*	54.4%
Utilities	59.2%
Consumer Staples	53.8%
Energy	53.6%
Industrial	34.0%
Materials	31.0%
Consumer Discretionary	29.6%
Health Care	27.7%
Technology	26.7%
Financial	25.7%

*For this table, EEI (1) sums dividends and (2) sums earnings of all index companies and then (3) divides to determine the comparable dividend payout ratio (DPR).

EEI Index Companies payout ratio based on LTM common dividends paid and income before nonrecurring and extraordinary items.

S&P sector payout ratios based on 2018E dividends and earnings per share (estimates as of 12/31/2018).

For more information on constituents of each S&P sector see www.sectorspdr.com.

Source: AltaVista Research, S&P Global Market Intelligence, EEI Finance Department

II. Sector Comparison, Dividend Yield

at 12/31/2018

Sector	Yield (%)
EEI Index Companies	3.4%
Energy	3.7%
Utilities	3.5%
Consumer Staples	3.0%
Materials	2.4%
Financial	2.3%
Industrial	2.3%
Health Care	1.7%
Consumer Discretionary	1.6%
Technology	1.6%

*EEI Index Companies' yield based on last announced, annualized dividend rates (as of 12/31/2018); S&P sector yields based on 2018E cash dividends (estimates as of 12/31/2018).

For more information on constituents of each S&P sector see www.sectorspdr.com.

Source: AltaVista Research, S&P Global Market Intelligence, EEI Finance Department

III. Dividend Patterns 1994–2018

U.S. Investor-Owned Electric Utilities

	Raised	No Change	Lowered	Omitted	Reinstated	Not Paying	Total	Dividend Payout Ratio*
1994	54	37	6	0	0	3	100	79.8%
1995	52	40	3	0	0	3	98	75.3%
1996	48	44	2	1	1	2	98	70.7%
1997	40	45	6	2	0	3	96	84.2%
1998	40	37	7	0	0	5	89	82.1%
1999	29	45	4	0	3	2	83	74.9%
2000	26	39	3	1	0	2	71	63.9%
2001	21	40	3	2	0	3	69	64.1%
2002	26	27	6	3	0	3	65	67.5%
2003	26	24	7	2	1	5	65	63.7%
2004	35	22	1	0	0	7	65	67.9%
2005	34	22	1	1	2	5	65	66.5%
2006	41	17	0	0	0	6	64	63.5%
2007	40	15	0	0	3	3	61	62.1%
2008	36	20	1	0	1	1	59	66.8%
2009	31	23	3	0	0	1	58	69.6%
2010	34	22	0	0	0	1	57	62.0%
2011	31	22	0	1	1	0	55	62.8%
2012	36	14	0	0	1	0	51	64.2%
2013	36	12	1	0	0	0	49	61.5%
2014	38	9	1	0	0	0	48	60.4%
2015	39	7	0	0	0	0	46	67.0%
2016	40	4	0	0	0	0	44	62.9%
2017	38	4	0	1	0	0	43	64.0%
2018	39	1	1	0	0	1	42	58.4%

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Avg. Increase	6.1%	11.1%	5.8%	18.7%	8.4%	9.2%	7.4%	9.4%	7.2%	8.2%	6.8%	7.2%	5.3%	5.7%	5.8%	5.6%	5.6%	6.1%
Avg. Decrease	43.7%	48.3%	38.4%	47.4%	40.0%	NA	NA	45.7%	46.4%	NA	100%	NA	41.0%	34.5%	NA	NA	NA	79.8%

Note: Prior to 2000: Total industry dividends/total industry earnings. Starting in 2000: Average of all companies paying dividend. Only one action per company per year is counted. If a company raised its dividend twice, this counts as one in the Raised column. / * Current year figures reflect dividend changes (raised, lowered, etc.) through 12/31/2018 and earnings and dividends through 9/30/2018 (payout ratio). / Source: AltaVista Research, S&P Global Market Intelligence, EEI Finance Department

IV. Category Comparison, Dividend Payout Ratio

Last Twelve Months

Category	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*
EEI Index	69.6	62.0	62.8	64.2	61.5	60.4	67.0	62.9	62.1	58.4
Regulated	68.2	64.1	63.4	62.1	60.5	59.4	68.7	61.1	57.7	60.7
Mostly Reg.	72.2	60.7	63.1	69.7	64.7	63.8	62.6	68.0	72.2	53.0
Diversified	69.2	49.7	54.7	53.4	44.7	56.4	64.9	64.6	–	–

Regulated: 80% or more of total assets are regulated
Mostly Regulated: Less than 80% of total assets are regulated
Diversified: Prior to 2017, less than 50% of total assets are regulated
*2018 figures reflect earnings and dividends through 9/30/2018.
Source: EEI Finance Department, S&P Global Market Intelligence and company reports.

V. Category Comparison, Dividend Yield

at 12/31/2018

Category	Dividend Yield (%)
EEI Index	3.4
Regulated	3.4
Mostly Regulated	3.4

Regulated: 80% or more of total assets are regulated
Mostly Regulated: Less than 80% of total assets are regulated
Source: EEI Finance Department, S&P Global Market Intelligence and company reports.

The percentage of companies that raised or reinstated their dividend in 2018 was 93%, a new record high; this exceeded 2017's 88% and the previous record of 91% in 2016, the next two highest historical results. Both totals followed results of 85% in 2015 and a range of 73% to 79% back to 2012. The 2018 record high is based on data beginning in 1988. The 15% dividend tax rate has supported the high number of increases in recent years.

As of December 31, 2018, 41 of the 42 publicly traded utilities in the EEI Index were paying a common stock dividend. Table III shows the industry's dividend paying patterns over the past 25 years. Each company is limited to one action per year. For example, if a company raised its dividend twice during a year, that counts as one in the Raised column. Companies generally use the same quarter each year for dividend changes, with the first quarter the most common for electric utilities.

VI. Dividend Summary

U.S. Investor-Owned Electric Utilities (at 12/31/2018)

Company (Stock Symbol)	Company Category	Annualized Dividend	Payout Ratio (%)	Yield (%)	Last Action	To	From	Date Announced
ALLETE (ALE)	MR	$2.24	73.8	2.9	Raised	$2.24	$2.14	2018 Q1
Alliant Energy (LNT)	R	$1.34	57.6	3.2	Raised	$1.34	$1.26	2018 Q1
Ameren (AEE)	R	$1.90	64.2	2.9	Raised	$1.90	$1.83	2018 Q4
American Electric Power (AEP)	R	$2.68	60.6	3.6	Raised	$2.68	$2.48	2018 Q4
AVANGRID, Inc.	MR	$1.76	50.3	3.5	Raised	$1.76	$1.73	2018 Q3
Avista Corp. (AVA)	R	$1.49	80.0	3.5	Raised	$1.49	$1.43	2018 Q1
Black Hills Corp. (BKH)	R	$2.02	36.3	3.2	Raised	$2.02	$1.90	2018 Q4
CenterPoint Energy (CNP)	MR	$1.15	30.8	4.1	Raised	$1.15	$1.11	2018 Q4
CMS Energy (CMS)	R	$1.43	70.7	2.9	Raised	$1.43	$1.33	2018 Q1
Consolidated Edison (ED)	R	$2.86	53.6	3.7	Raised	$2.86	$2.76	2018 Q1
Dominion Resources (D)	MR	$3.67	68.2	5.1	Raised	$3.67	$3.34	2018 Q4
DTE Energy (DTE)	MR	$3.78	48.9	3.4	Raised	$3.78	$3.53	2018 Q4
Duke Energy (DUK)	R	$3.71	66.6	4.3	Raised	$3.71	$3.56	2018 Q3
Edison International (EIX)	R	$2.45	57.9	4.3	Raised	$2.45	$2.42	2018 Q4
El Paso Electric (EE)	R	$1.44	53.2	2.9	Raised	$1.44	$1.34	2018 Q2
Entergy (ETR)	R	$3.64	74.5	4.2	Raised	$3.64	$3.56	2018 Q4
Evergy (EVRG)	R	$1.90	74.1	3.3	Raised	$1.90	$1.84	2018 Q4
Eversource Energy (ES)	R	$2.02	60.3	3.1	Raised	$2.02	$1.90	2018 Q1
Exelon (EXC)	MR	$1.38	35.9	3.1	Raised	$1.38	$1.31	2018 Q1
FirstEnergy (FE)	R	$1.52	119.4	4.0	Raised	$1.52	$1.44	2018 Q4
Hawaiian Electric (HE)	MR	$1.24	72.4	3.4	Raised	$1.24	$1.22	1998 Q1
IDACORP (IDA)	R	$2.52	49.7	2.7	Raised	$2.52	$2.36	2018 Q3
MDU Resources (MDU)	MR	$0.81	49.7	3.4	Raised	$0.81	$0.79	2018 Q4
MGE Energy (MGEE)	MR	$1.35	43.5	2.3	Raised	$1.35	$1.29	2018 Q3
NextEra Energy, Inc. (NEE)	MR	$4.44	39.5	2.6	Raised	$4.44	$3.93	2018 Q1
NiSource (NI)	R	$0.78	NM	3.1	Raised	$0.78	$0.70	2018 Q1
NorthWestern Corporation (NWE)	R	$2.20	60.2	3.7	Raised	$2.20	$2.10	2018 Q1
OGE Energy (OGE)	R	$1.46	39.9	3.7	Raised	$1.46	$1.33	2018 Q3
Otter Tail (OTTR)	R	$1.34	60.9	2.7	Raised	$1.34	$1.28	2018 Q1
PG&E (PCG)	R	$0.00	—	0.0	Omitted	$ —	$2.12	2017 Q4
Pinnacle West Capital (PNW)	R	$2.95	57.8	3.5	Raised	$2.95	$2.78	2018 Q4
PNM Resources (PNM)	R	$1.16	63.9	2.8	Raised	$1.16	$1.06	2018 Q4
Portland General Electric (POR)	R	$1.45	60.5	3.2	Raised	$1.45	$1.36	2018 Q2
PPL Corp. (PPL)	R	$1.64	75.0	5.8	Raised	$1.64	$1.58	2018 Q1
Public Svc. Enter. Group (PEG)	MR	$1.80	40.9	3.5	Raised	$1.80	$1.72	2018 Q1
SCANA Corporation (SCG)	R	$0.49	39.0	1.0	Lowered	$0.49	$2.45	2018 Q2
Sempra Energy (SRE)	MR	$3.58	82.3	3.3	Raised	$3.58	$3.29	2018 Q1
Southern Company (SO)	R	$2.40	67.8	5.5	Raised	$2.40	$2.32	2018 Q2
Unitil Corporation (UTL)	R	$1.46	64.5	2.9	Raised	$1.46	$1.44	2018 Q1
Vectren Corporation (VVC)	R	$1.92	66.8	2.7	Raised	$1.92	$1.80	2018 Q4
WEC Energy Group (WEC)	R	$2.21	53.4	3.2	Raised	$2.21	$2.08	2018 Q1
Xcel Energy (XEL)	R	$1.52	58.8	3.1	Raised	$1.52	$1.44	2018 Q1
Industry Average			**58.4**	**3.4**				

Categories — R = Regulated (80% or more of total assets are regulated), MR = Mostly Regulated (Less than 80% of total assets are regulated); based on assets at 12/31/2017.
Dividend Per Share — Per share amounts are annualized declared figures as of 12/31/2018.
Dividend Payout Ratio — Dividends paid for 12 months ended 9/30/2018 divided by net income before nonrecurring and extraordinary items for 12 months ended 9/30/2018.
Dividend Yield — Annualized Dividends Per Share at 12/31/2018 divided by stock price at market close on 12/31/2018.
NM applies to companies with negative earnings or payout ratios greater than 200%.

While net income is after-tax, nonrecurring and extraordinary items are pre-tax, as there is no consistent method of gathering these items on a tax adjusted basis under current reporting guidelines. On an individual company basis, the Payout Ratio in the table could differ slightly from what is reported directly by the company.

Source: EEI Finance Department and S&P Global Market Intelligence

VII. Free Cash Flow

U.S. Investor-Owned Electric Utilities

($ Billions)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Net Cash Provided by Oper. Activities	69.4	61.1	61.3	82.9	77.7	84.4	84.0	87.1	89.0	101.6	98.3	101.6
— Capital Expenditures	(59.9)	(74.1)	(82.8)	(77.6)	(74.2)	(78.6)	(90.3)	(90.3)	(96.1)	(104.0)	(112.5)	(113.6)
— Div. Paid to Common Shareholders	(16.1)	(15.4)	(16.5)	(17.1)	(18.0)	(19.3)	(20.5)	(20.8)	(21.1)	(22.5)	(23.8)	(25.5)
Free Cash Flow	(6.6)	(28.4)	(38.0)	(11.8)	(14.4)	(13.5)	(26.8)	(24.0)	(28.2)	(24.8)	(38.0)	(37.5)

Source: S&P Global Market Intelligence and EEI Finance Department

2018 Increases Average 6.1%

The average dividend increase per company during 2018 was 6.1%, with a range of 1.2% to 18.8% and a median increase of 5.6%. Evergy (+18.8% including both its Q3 and Q4 raises), NextEra Energy (+13.0% in Q1), NiSource (+11.4% in Q1) and Dominion Energy (+9.9% in Q4) posted the largest total percentage increases.

Evergy, based in Kansas City, Missouri, was formed in May 2018 with the merger of neighboring utilities Westar Energy and Great Plains Energy. The company's two increases in 2018 raised its quarterly dividend from $0.40 to $0.46 and then to $0.475.

NextEra Energy, headquartered in Juno Beach, Florida, raised its quarterly dividend from $0.9825 to $1.11 per share in Q1. The increase is consistent with the company's plan, announced in 2015, to target 12% to 14% annual growth in dividends per share through at least 2018. NextEra recorded the industry's largest percentage increases in both 2017 (+12.9%) and 2016 (+13.0%, along with Edison International and DTE Energy).

NiSource, based in Merrillville, Indiana, announced a quarterly increase of $0.02 per share in Q1, from $0.175 to $0.195. The company highlighted the increase as consistent with its focus on sustainably increasing shareholder value. NiSource produced a total shareholder return of 133% for the five years ending December 31, 2018, winning the EEI Index Award in four of the last five years.

Dominion Energy, based in Richmond, Virginia, announced in Q4 an increase in its quarterly dividend from $0.835 to $0.9175 per share. This marked the 16th consecutive year in which the company's annual dividend rose from the previous year's amount.

Payout Ratio and Dividend Yield

The industry's dividend payout ratio was 54.4% for the twelve months ended September 30, 2018, remaining among the highest of all U.S. business sectors. Only the broader Utilities sector (consisting of electric, gas and water utilities) was higher, at 59.2%. The industry's payout ratio was 58.4% when measured as an un-weighted average of individual company ratios; 54.4% represents an aggregate figure. It should be noted that this result represents the twelve months ending September 30, 2018. EEI will calculate the final calendar year 2018 result based on data in 2018 10Ks. As shown in Table III, from 2000 through 2017 the industry's annual payout ratio ranged from 60.4% to 69.6%.

While the industry's net income has fluctuated from year to year, its payout ratio has remained relatively consistent after eliminating non-recurring and extraordinary items from earnings. We use the following approach when calculating the industry's dividend payout ratio:

1. Non-recurring and extraordinary items are eliminated from earnings.
2. Companies with negative adjusted earnings are eliminated.
3. Companies with a payout ratio in excess of 200% are eliminated.

The industry's average dividend yield was 3.4% on December 31, 2018, trailing only the Energy sector's 3.7% and the broader Utilities sector's 3.5% yields. The industry's yield was 3.4% on September 30, 3.3% on June 30 and 3.6% on March 31. This was the third straight year of a 3.4% yield at year-end, following yields of 3.8% at year-end 2015, 3.3% at year-end 2014, 4.0% at year-end 2013 and 4.3% at year-end 2012.

We calculate the industry's aggregate dividend yield using an un-weighted average of the yields of EEI Index companies that are paying a dividend. The strong yields prevalent among most electric utilities have helped support their share prices over the past decade, especially given the period's historically low interest rates. The Tax Cuts and Jobs Act signed into law in December 2017 maintained pre-existing tax rates for dividends and capital gains. This is crucial to avoid a capital raising disadvantage for high-dividend companies.

The EEI Index delivered a positive total shareholder return of 3.7% in 2018, outperforming the Dow Jones Industrial Average's negative 3.5% return and the S&P 500's negative 4.4% return. This followed an EEI Index return of 11.7% in 2017, 17.4% in 2016, a negative 3.9% return in

2015 and positive returns from 2014 back to 2009 that ranged from 2% to nearly 30%. The EEI Index has produced a positive total return in 14 of the last 16 years.

Business Category Comparison

As shown in Table IV, the Regulated category had a dividend payout ratio of 60.7% in 2018 compared to 53.0% for the Mostly Regulated group. The Regulated category produced the highest annual payout ratio in 2017, 2015, 2011 and 2010 and in each year from 2003 through 2008. It was exceeded by the Mostly Regulated category in 2016, 2014, 2013, 2012 and 2009; it's likely that the weaker earnings from the competitive power business contributed to the higher payout ratio among Mostly Regulated companies in those years.

As shown in Table V, at year-end 2018 the Regulated and Mostly Regulated categories each had a 3.4% average dividend yield, mirroring their yields at year-end 2017. The Diversified category no longer exists, as the only two remaining companies from 2016 were merged into the Mostly Regulated category for 2017. The yields for the Regulated and Mostly Regulated categories were 3.4% and 3.5%, respectively, on December 31, 2016.

Share Repurchases Remain Low

Thirteen of the industry's publicly traded companies repurchased an aggregate $300 million of common shares during the twelve months ending September 30, 2018 as an alternate way of returning cash to shareholders. This compares to the following results for the past ten calendar years:

2017: 12 companies, $194 million
2016: 10 companies, $267 million
2015: 11 companies, $1.9 billion
2014: 12 companies, $668 million
2013: 10 companies, $410 million
2012: 14 companies, $821 million
2011: 15 companies, $1.8 billion
2010: 13 companies, $2.7 billion
2009: 11 companies, $908 million
2008: 8 companies, $2.4 billion

All these levels were far below the $11.9 billion of 2007. The industry's common share repurchases exceeded $6.0 billion in 2004, 2005 and 2006 after rising from only $120 million in 2003.■

Q4 2018

Rate Review Summary

HIGHLIGHTS

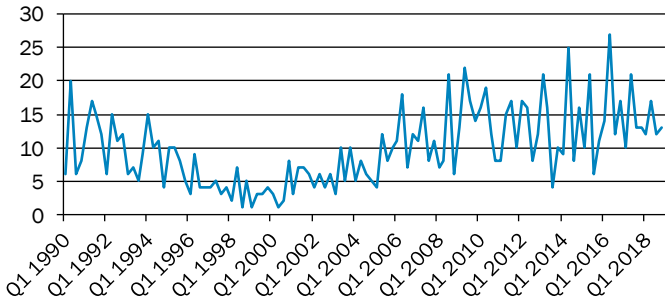
- The fourth quarter is often busy for rate review activity and Q4 2018 was no exception. Electric utilities filed 13 new rate reviews while 23 ongoing reviews were decided. The quarter's average awarded and requested ROE were each near 30-year lows.
- Requests for changes in rate design to more accurately 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)

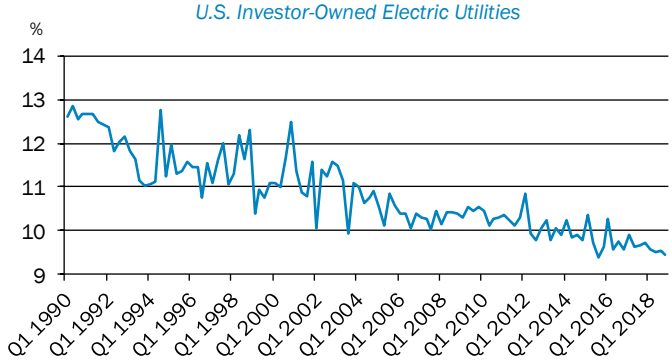
U.S. Investor-Owned Electric Utilities



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

II. Average Awarded ROE (Quarterly)

U.S. Investor-Owned Electric Utilities

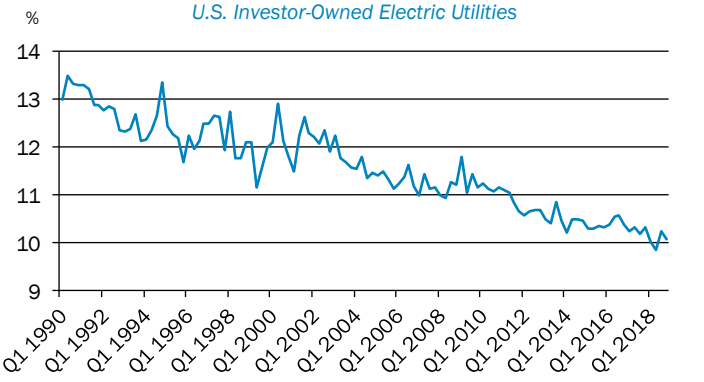


Source: S&P Global Market Intelligence / Regulatory Research Assoc. and EEI Rate Department

Filed Rate Reviews in Q4 2018

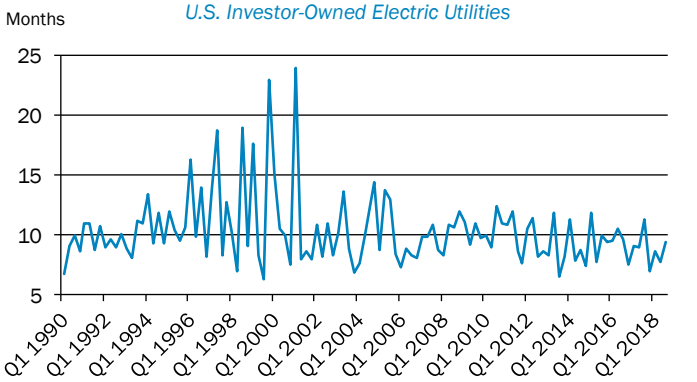
Broadly speaking, the primary reason for rate review filings is to recover capital expenditures (capex), and this was the case in Q4. Electric utilities often seek changes to rate design to more accurately and efficiently recover their costs, such as requests to increase the residential customer charge.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

III. Average Requested ROE (Quarterly)



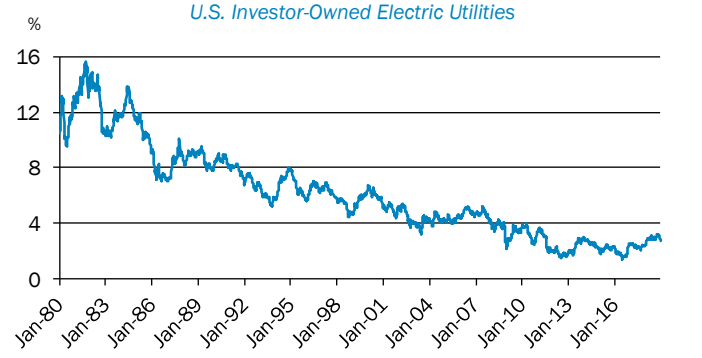
Source: S&P Global Market Intelligence / Regulatory Research Assoc. and EEI Rate Department

IV. Average Regulatory Lag (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.

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 non-recurring . . ."

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 un-

dergrounding 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. ■