

Exhibit No.:

Issue(s):

Witness/Type of Exhibit:

Sponsoring Party:

Case No.:

Trackers/
Return on Equity
Riley/Surrebuttal
Public Counsel
GR-2018-0013

SURREBUTTAL TESTIMONY

OF

JOHN S. RILEY

Submitted on Behalf of the Office of the Public Counsel

**LIBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP.
D/B/A LIBERTY UTILITIES'**

FILE NO. GR-2018-0013

May 9, 2018

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

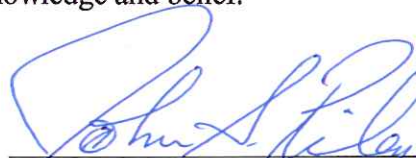
In the Matter of Liberty Utilities)
(Midstates Natural Gas) Corp. d/b/a)
Liberty Utilities' Tariff Revisions Designed) File No. GR-2018-0013
to Implement a General Rate Increase for)
Natural Gas Service in the Missouri Service)
Areas of the Company)

AFFIDAVIT OF JOHN S. RILEY

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

John S. Riley, of lawful age and being first duly sworn, deposes and states:

1. My name is John S. Riley. I am a Public Utility Accountant III for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.




John S. Riley, C.P.A.
Public Utility Accountant III

Subscribed and sworn to me this 9th day of May 2018.



JERENE A. BUCKMAN
My Commission Expires
August 23, 2021
Cole County
Commission #13754037



Jerene A. Buckman
Notary Public

My Commission expires August 23, 2021.

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SURREBUTTAL TESTIMONY
OF
JOHN S. RILEY
LIBERTY UTILITIES (MIDSTATES NATURAL GAS) CORP.
CASE NO. GR-2018-0013

1 **Q. What is your name and what is your business address.**

2 A. John S. Riley, PO Box 2230, Jefferson City, Missouri 65102

3 **Q. By whom are you employed and in what capacity?**

4 A. I am employed by the Missouri Office of the Public Counsel (“OPC”) as a
5 Public Utility Accountant III.

6 **Q. Are you the same John S. Riley that filed Direct and Rebuttal testimony in
7 this Docket Case No. GR-2018-0013?**

8 A. Yes.

9 **Q. What is the purpose of your testimony?**

10 A. The purpose to my surrebuttal testimony is to respond to Liberty witnesses
11 Timothy Lyons concerning the use of trackers and Keith McGee’s rebuttal
12 testimony concerning ROE.

13 **Q. What is your understanding of Liberty’s request to include trackers in this
14 case?**

15 A. Generally, Mr. Lyons claims Liberty needs these trackers because these costs
16 are variable and unpredictable. He specifically stated the Capital Reliability
17 (“CR”) tracker was needed because the replacement of PVC pipe is not legally
18 included in the ISRS recovery mechanism. He did not provide a replacement
19 dollar amount to consider in deciding if the expense is extraordinary.

1 **TRACKERS**

2 **Q. Has OPC’s position changed at all regarding these trackers?**

3 A. No. Property taxes are an annual expense. Vegetation clearing is not unusual
4 and tracking this expense may cause the Company to be less aggressive in its
5 cost management, and Mr. Lyons’ graph in his rebuttal testimony actually
6 displays a downward trend in bad debt expense. The carrying charges that
7 Liberty would like to track have been addressed as capitalization in the rate base
8 process.

9 **Q. What has been the Commissions opinion of trackers in past cases?**

10 A. Generally, the Commission uses them sparingly and usually when the expense
11 cannot be reasonably estimated or is extraordinary. I believe the Commission
12 summed it up well in a 2014 case:

13 Tracker mechanisms can be a useful regulatory tool in
14 the correct circumstances, but they should be used
15 sparingly because they can reduce the incentive of the
16 utility to closely control its costs.¹

17
18 These are not the correct circumstances and would reduce the incentive for
19 the Company to control its costs. The Commission should deny the
20 Company’s request relating to trackers.

¹ Report and order, Case No. ER-2014-0258 Ameren Electric

1 **RETURN ON EQUITY**

2 **Q. Does Mr. McGee continue to recommend an inappropriate ROE range?**

3 A. Yes.

4 **Q. Mr. McGee states on page 2 of his rebuttal that his ROE range 9.9 percent**
5 **to 10.35 percent. What concerns you?**

6 A. I spoke in rebuttal about how Mr. McGee started with a very wide range and
7 then applied unnecessary risk adjustments to narrow his range to less than 50
8 basis points. What most concerns me is Mr. McGee's ROE range is not
9 comparable to industry averages over the last six years.

10 **Q. What is the basis of your findings?**

11 A. The April 17, 2018 addition of the **RRA Regulatory Focus, Major Rate**
12 **Case Decisions January through March, 2018** I have attached the entire
13 article as exhibit JSR-S-1.

14 **Q. What does the article reveal about Mr. McGee's recommendation?**

15 A. Mr. McGee's 9.9% low end of his range exceeds the *average* authorized ROE
16 since 2012. The Commission cannot make an informed decision on the
17 information presented to it when the information doesn't represent what ROE
18 trends have been experiencing in the pertinent timeframe.

19 **Q. What has the gas industry seen in the way of authorized ROE in recent**
20 **quarters?**

1 A. The first quarter of 2018 shows the average ROE to be 9.68%. The annual
 2 average for 2017 was 9.72%, 2016 was 9.54%, 2015 was 9.6% and 2014 was
 3 9.78%. The industry hasn't seen an average above 9.90% since 2012. Mr.
 4 McGee is attempting to provide a limited choice that excludes the recent norm
 5 in authorized ROEs for the industry.

6

Gasutilities—summary table

Period	ROR (%)	Number of observations	ROE (%)	Number of observations	Capital structure	Number of observations	\$M	Number of observations
2004 Full year	8.51	23	10.63	22	45.81	22	306.0	33
2005 Full year	8.24	29	10.41	26	48.40	24	465.4	35
2006 Full year	8.44	17	10.40	15	47.24	16	392.5	23
2007 Full year	8.11	31	10.22	35	48.47	28	645.3	43
2008 Full year	8.49	33	10.39	32	50.35	32	700.0	40
2009 Full year	8.15	29	10.22	30	48.49	29	438.6	36
2010 Full year	7.99	40	10.15	39	48.70	40	776.5	50
2011 Full year	8.09	18	9.92	16	52.49	14	367.0	31
2012 Full year	7.98	30	9.94	35	51.13	32	264.0	41
2013 Full year	7.43	21	9.68	21	50.60	20	498.7	39
2014 Full year	7.65	27	9.78	26	51.11	28	529.2	48
2015 Full year	7.34	16	9.60	16	49.93	16	494.1	40
2016 Full year	7.08	28	9.54	26	50.06	26	1,263.9	59
1st quarter	7.20	2	9.60	3	51.57	3	71.0	9
2nd quarter	7.27	5	9.47	7	49.15	5	85.2	13
3rd quarter	7.07	8	10.14	6	46.58	7	128.6	17
4th quarter	7.43	9	9.68	8	52.30	9	130.8	15
2017 Full year	7.26	24	9.72	24	49.88	24	410.7	54
2018 1st quarter	7.14	5	9.68	6	51.05	6	241.6	9

Data compiled April 16, 2018

Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

7
8
9

10 The publication also provides a table that lists all of the cases from the first
 11 quarter of this year.

1

Gas utility decisions

Date	Company	State	ROR (%)	ROE (%)	Common equity % capital	as of Test year	Rate base	Amt. (\$M)	Footnotes
1/24/18	Indiana Gas Company, Inc.	IN	—	—	—	6/17	Year-end	8.4	LIR,8
1/24/18	Southern Indiana Gas and Electric Company, Inc.	IN	—	—	—	6/17	Year-end	1.3	LIR,8
1/31/18	Northern Illinois Gas Company	IL	7.26	9.80	52.00	12/18	Average	137.1	9
2/21/18	Missouri Gas Energy	MO	7.20	9.80	54.16	12/16	Year-end	15.2	
2/21/18	Spire Missouri Inc.	MO	7.20	9.80	54.16	12/16	Year-end	18.0	
2/27/18	Atmos Energy Corporation	KS	—	—	—	9/17	—	0.8	LIR,10
2/28/18	Northern Utilities, Inc.	ME	7.53	9.50	50.00	12/16	Average	-0.1	
3/15/18	Niagara Mohawk Power Corporation	NY	6.53	9.00	48.00	3/19	Average	45.5	B, Z
3/26/18	Pivotal Utility Holdings, Inc.	FL	—	10.19	48.00	12/18	—	15.3	B, Z, I
2018	1st quarter: averages/total		7.14	9.68	51.05			241.6	
	Observations		5	6	6			9	

Data compiled April 16, 2018
 Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

2

3 **Q. What is your recommendation to the Commission?**

4 A. The Commission weighed all the expert testimony and substantial evidence
 5 presented to it in its most recent Spire, Inc rate case that was decided in the
 6 first quarter of this year. It noted current financial conditions and what it
 7 expected interest rates to do. Nothing has changed since that case, and OPC
 8 recommended a 9.80% ROE for Liberty in this current case.

9 **Q. Does this conclude your testimony?**

10 A. Yes.

RRA Regulatory Focus

Major Rate Case Decisions – January – March 2018

The average ROE authorized electric utilities was 9.75% in rate cases decided in the first quarter of 2018, virtually identical to the 9.74% for cases decided in calendar-2017. There were 13 electric ROE determinations in the first three months of 2018 versus 53 in the full year 2017. This data includes several limited issue rider cases; excluding these cases from the data, the average authorized ROE was 9.59% in rate cases decided in the first quarter of 2018, somewhat below the 9.68% in full year 2017. The differential in the ROEs averages including and excluding the rider cases, is largely driven by ROE premiums of up to 200 basis points approved by the Virginia State Corporation Commission for certain generation projects, as permitted by state law (see the [Virginia Commission Profile](#)).

The average ROE authorized gas utilities was 9.68% in the first quarter of 2018 versus 9.72% in full year 2017. There were only six gas cases that included an ROE determination in the first three months of 2018, versus 24 in full year 2017. RRA notes that the 2017 data includes an 11.88% ROE determination for an Alaska utility. Absent this “outlier,” the 2017 gas ROE average is 9.63%.

In the first three months of 2018, the median authorized ROE for all electric utilities was 9.9% versus 9.6% in full year 2017. For gas utilities, the median authorized ROE in the first three months of 2018 was 9.8% versus 9.6% in 2017.

Over the last several years, the persistently low interest rate environment has put downward pressure on authorized ROEs. As shown in the graph below, the annual average ROE has generally declined since 1990 and has been below 10% for electrics since 2014, and below 10% for gas utilities since 2011.

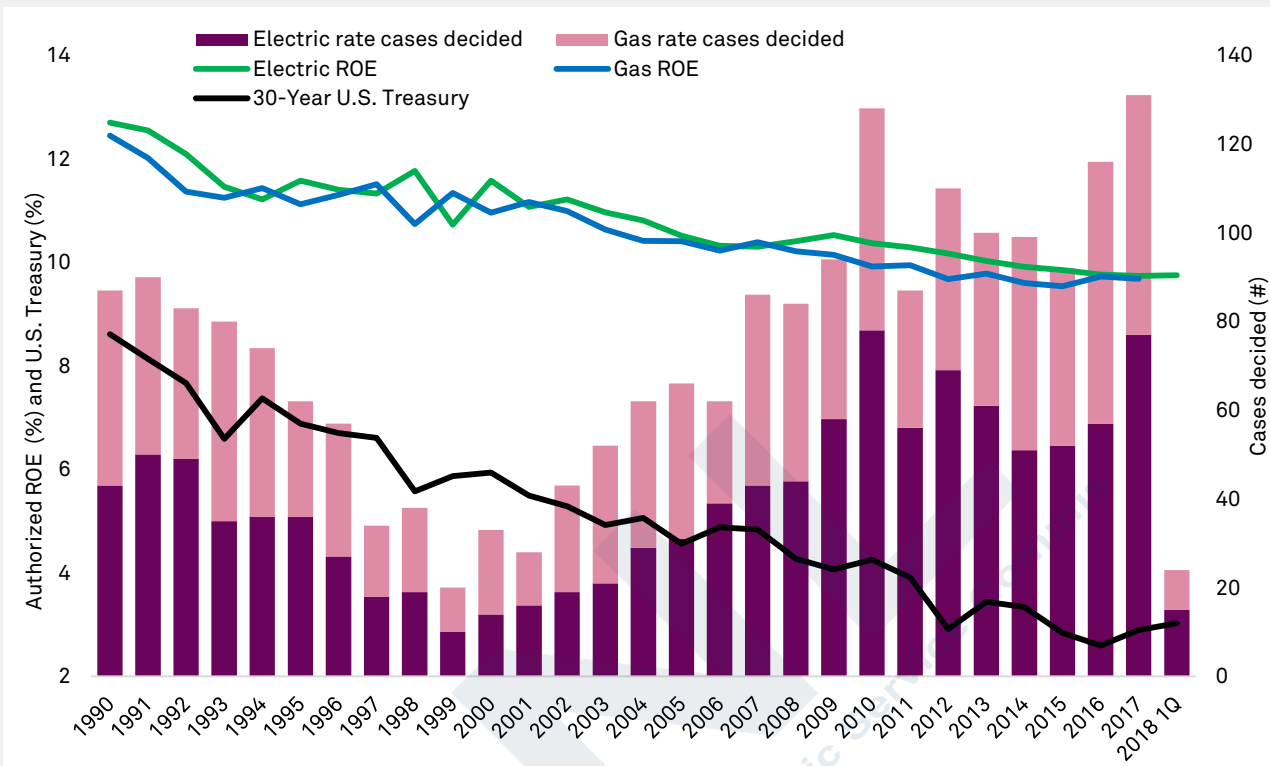
After a busy 2017, where 133 cases were decided, there were 24 electric and gas cases resolved in the first quarter of 2018, including cases where no ROEs were specified. Rate case activity has been quite robust over the last several years, with more than 100 cases decided in four of the last five full calendar years. Increased costs associated with environmental compliance, generation and delivery infrastructure upgrades and expansion, renewable generation mandates and employee benefits argue for the continuation of an active rate case agenda over the next few years. In addition, the need to address the impacts of federal tax reform will likely cause rate case agendas to be more active than previously expected.

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Average electric and gas authorized ROEs and number of rate cases



Data compiled April 16, 2018
Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

In addition, rising interest rates could also contribute to increased rate case activity, if the Federal Reserve continues its policy initiated in December 2015 to gradually raise the federal funds rate, utilities will likely face higher capital costs and need to initiate rate cases to reflect the higher capital costs in rates. Since the December 2015 hike, the Fed has increased the federal funds an additional five times, the latest hike in March 2018 to a target range of 1.5% to 1.75%. The Fed has indicated that it expects to continue to raise rates an additional two or three times in 2018 as the U.S. economy, including labor markets, remain strong.

However, conflicting forces are at work that create additional uncertainty around the actions the Fed might take. While an increase in the rate of price inflation would point to additional Fed tightening, a significant weakening in the economy would likely cause the Fed to reconsider further interest rate hikes. Also, higher interest rates and borrowing costs could increase the U.S. budget deficit, which is already quite significant, and is expected to further increase due to the new federal tax legislation enacted in December 2017.

A more granular look at ROE trends

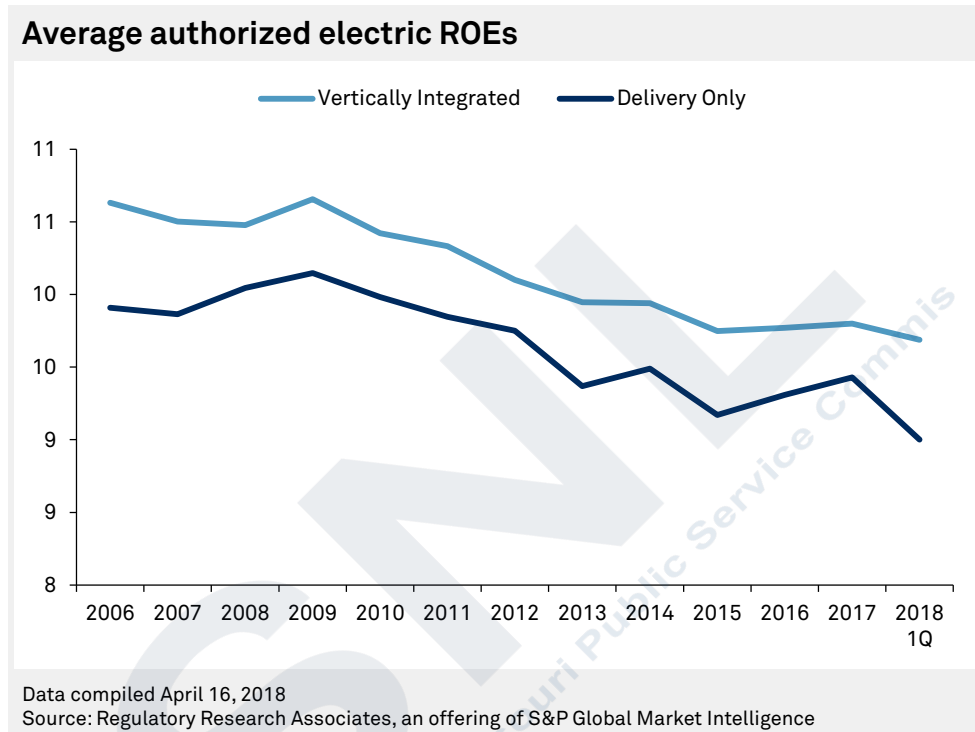
The discussion thus far has looked broadly at trends in authorized ROEs, the sections that follow, provide a more granular view based upon the types of proceedings/decisions in which these ROEs were authorized.

RRA has observed that there can be significant different between the ROE averages from one sub-category of cases to another.

As a result of electric industry restructuring, certain states unbundled electric rates and implemented retail competition for generation. Commissions in those states now have jurisdiction only over the revenue requirement and return parameters for delivery operations.

Comparing electric vertically integrated cases versus delivery only proceedings, RRA finds that the annual average authorized ROEs in vertically integrated cases typically are from roughly 40 to 70 basis points higher than in delivery only cases, arguably reflecting the increased risk associated with generation assets.

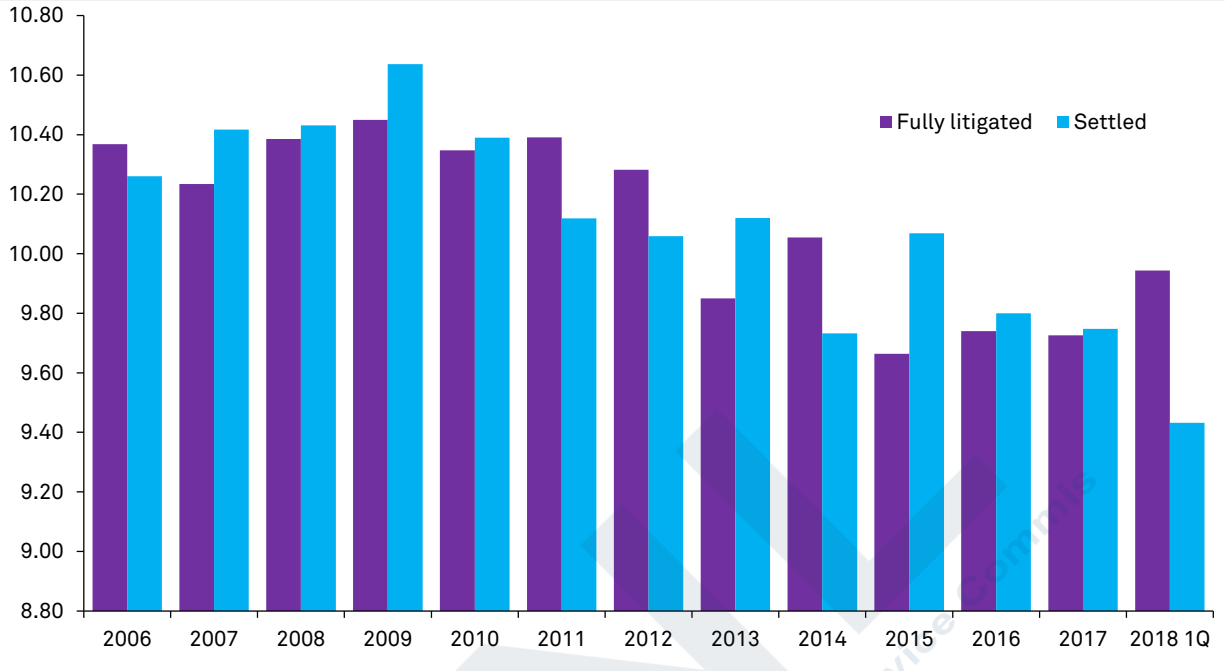
For vertically-integrated electric utilities, the average ROE authorized was 9.69% in the first quarter of 2018 versus 9.8% in full year 2017. For electric distribution-only utilities, the average ROE authorized in the first quarter of 2018 was 9% versus 9.43% in full year 2017.



Settlements have frequently been used to resolve rate cases over the last several years, and in many cases, these settlements are “black box” in nature and do not specify the ROE and other typical rate case parameters underlying the stipulated rate change. However, some states preclude this type of treatment and so, settlements must specify these values, if not the specific adjustments from which these values were derived. For both electric and gas cases, RRA has found no discernible pattern in average authorized ROEs in cases that were settled versus those that were fully litigated. In some years, the average authorized ROE was higher for fully litigated cases, in others it was higher for settled cases, and in a few years the authorized ROE was similar for fully litigated versus settled cases.

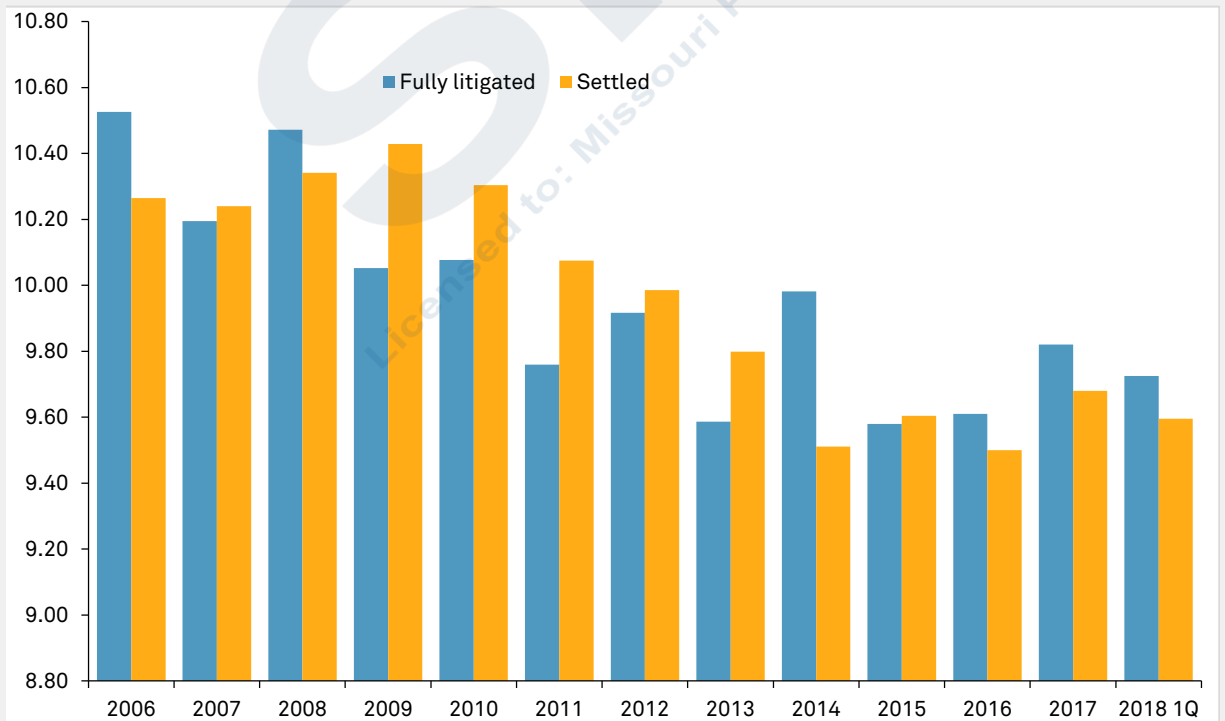
Regarding electric cases that involve limited issue riders, over the last several years the annual average authorized ROEs in these cases was typically at least 70 basis points higher than in general rate cases, driven by the ROE premiums authorized in Virginia. Limited issue rider cases in which an ROE is determined have had extremely limited use in the gas industry.

Average authorized electric ROEs, settled versus fully litigated cases



Data compiled April 16, 2018
Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

Average authorized gas ROEs, settled versus fully litigated cases



Data compiled April 16, 2018
Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

The table on page 6 shows the average ROE authorized in major electric and gas rate decisions annually since 1990, and by quarter since 2014, followed by the number of observations in each period. The tables on page 7 indicate the composite electric and gas industry data for all major cases summarized annually since 2004 and by quarter for the past five quarters. The individual electric and gas cases decided in 2017 are listed on page 10, with the decision date shown first, followed by the company name, the abbreviation for the state issuing the decision, the authorized rate of return, or ROR, ROE, and percentage of common equity in the adopted capital structure. Next, we indicate the month and year in which the adopted test year ended, whether the commission utilized an average or a year end rate base, and the amount of the permanent rate change authorized. The dollar amounts represent the permanent rate change ordered at the time decisions were rendered. Fuel adjustment clause rate changes are not reflected in this study.

Included in tables on page 8 of this report are comparisons, since 2006, of average authorized ROEs by settled versus fully litigated cases, general rate cases versus limited issue rider proceedings and vertically integrated cases versus delivery only cases.

The simple mean is utilized for the return averages. In addition, the average equity returns indicated in this report reflect the cases decided in the specified time periods and are not necessarily representative of the returns actually earned by utilities industry wide.

Please Note: In an effort to align data presented in this report with data available in S&P Global Market Intelligence's online database, earlier historical data provided in previous reports may not match historical data in this report due to certain differences in presentation, including the treatment of cases that were withdrawn or dismissed.

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ROEs authorized January 1990 - March 2018

Year	Period	Electric utilities			Gas utilities		
		Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations
1990	Full year	12.70	12.77	38	12.68	12.75	33
1991	Full year	12.54	12.50	42	12.45	12.50	31
1992	Full year	12.09	12.00	45	12.02	12.00	28
1993	Full year	11.46	11.50	28	11.37	11.50	40
1994	Full year	11.21	11.13	28	11.24	11.27	24
1995	Full year	11.58	11.45	28	11.44	11.30	13
1996	Full year	11.40	11.25	18	11.12	11.25	17
1997	Full year	11.33	11.58	10	11.30	11.25	12
1998	Full year	11.77	12.00	10	11.51	11.40	10
1999	Full year	10.72	10.75	6	10.74	10.65	6
2000	Full year	11.58	11.50	9	11.34	11.16	13
2001	Full year	11.07	11.00	15	10.96	11.00	5
2002	Full year	11.21	11.28	14	11.17	11.00	19
2003	Full year	10.96	10.75	20	10.99	11.00	25
2004	Full year	10.81	10.70	21	10.63	10.50	22
2005	Full year	10.51	10.35	24	10.41	10.40	26
2006	Full year	10.32	10.23	26	10.40	10.50	15
2007	Full year	10.30	10.20	38	10.22	10.20	35
2008	Full year	10.41	10.30	37	10.39	10.45	32
2009	Full year	10.52	10.50	40	10.22	10.26	30
2010	Full year	10.37	10.30	61	10.15	10.10	39
2011	Full year	10.29	10.17	42	9.92	10.03	16
2012	Full year	10.17	10.08	58	9.94	10.00	35
2013	Full year	10.03	9.95	49	9.68	9.72	21
	1st quarter	10.23	9.86	8	9.54	9.60	6
	2nd quarter	9.83	9.70	5	9.84	9.95	8
	3rd quarter	9.87	9.78	12	9.45	9.33	6
	4th quarter	9.78	9.80	13	10.28	10.20	6
2014	Full year	9.91	9.78	38	9.78	9.78	26
	1st quarter	10.37	9.83	9	9.47	9.05	3
	2nd quarter	9.73	9.60	7	9.43	9.50	3
	3rd quarter	9.40	9.40	2	9.75	9.75	1
	4th quarter	9.62	9.55	12	9.68	9.75	9
2015	Full year	9.85	9.65	30	9.60	9.68	16
	1st quarter	10.29	10.50	9	9.48	9.50	6
	2nd quarter	9.60	9.60	7	9.42	9.52	6
	3rd quarter	9.76	9.80	8	9.47	9.50	4
	4th quarter	9.57	9.58	18	9.68	9.73	10
2016	Full year	9.77	9.75	42	9.54	9.50	26
	1st quarter	9.87	9.60	15	9.60	9.25	3
	2nd quarter	9.63	9.50	14	9.47	9.60	7
	3rd quarter	9.66	9.60	5	10.14	9.90	6
	4th quarter	9.73	9.60	19	9.68	9.55	8
2017	Full year	9.74	9.60	53	9.72	9.60	24
2018	1st quarter	9.75	9.90	13	9.68	9.80	6

Data compiled April 16, 2018

Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

Electric utilities — summary table

Period	ROR (%)	Number of observations	ROE (%)	Number of observations	Capital structure	Number of observations	\$M	Number of observations
2004 Full year	8.71	20	10.81	21	46.96	19	1,806.3	29
2005 Full year	8.44	23	10.51	24	47.34	23	936.1	31
2006 Full year	8.32	26	10.32	26	48.54	25	1,318.1	39
2007 Full year	8.18	37	10.30	38	47.88	36	1,405.7	43
2008 Full year	8.21	39	10.41	37	47.94	36	2,823.2	44
2009 Full year	8.24	40	10.52	40	48.57	39	4,191.7	58
2010 Full year	8.01	62	10.37	61	48.63	57	4,921.9	78
2011 Full year	8.00	43	10.29	42	48.26	42	2,595.1	56
2012 Full year	7.95	51	10.17	58	50.69	52	3,080.7	69
2013 Full year	7.66	45	10.03	49	49.25	43	3,328.6	61
2014 Full year	7.60	32	9.91	38	50.28	35	2,053.7	51
2015 Full year	7.38	35	9.85	30	49.54	30	1,891.5	52
2016 Full year	7.28	41	9.77	42	48.91	41	2,332.1	57
1st quarter	6.97	15	9.87	15	47.95	15	1,015.8	23
2nd quarter	7.11	9	9.63	14	48.77	9	597.0	19
3rd quarter	7.43	5	9.66	5	49.63	5	558.6	10
4th quarter	7.32	19	9.73	19	49.51	19	593.8	23
2017 Full year	7.18	48	9.74	53	48.90	48	2,734.7	77
2018 1st quarter	6.89	13	9.75	13	48.89	13	586.7	14

Gas utilities — summary table

Period	ROR (%)	Number of observations	ROE (%)	Number of observations	Capital structure	Number of observations	\$M	Number of observations
2004 Full year	8.51	23	10.63	22	45.81	22	306.0	33
2005 Full year	8.24	29	10.41	26	48.40	24	465.4	35
2006 Full year	8.44	17	10.40	15	47.24	16	392.5	23
2007 Full year	8.11	31	10.22	35	48.47	28	645.3	43
2008 Full year	8.49	33	10.39	32	50.35	32	700.0	40
2009 Full year	8.15	29	10.22	30	48.49	29	438.6	36
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1st quarter	7.20	2	9.60	3	51.57	3	71.0	9
2nd quarter	7.27	5	9.47	7	49.15	5	85.2	13
3rd quarter	7.07	8	10.14	6	46.58	7	128.6	17
4th quarter	7.43	9	9.68	8	52.30	9	130.8	15
2017 Full year	7.26	24	9.72	24	49.88	24	410.7	54
2018 1st quarter	7.14	5	9.68	6	51.05	6	241.6	9

Data compiled April 16, 2018

Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

Electric authorized ROEs: 2006 — March 2018

Settled versus fully litigated cases

Year	All cases			Settled cases			Fully litigated cases		
	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations
2006	10.32	10.23	26	10.26	10.25	11	10.37	10.12	15
2007	10.30	10.20	38	10.42	10.33	14	10.23	10.15	24
2008	10.41	10.30	37	10.43	10.25	17	10.39	10.54	20
2009	10.52	10.50	40	10.64	10.62	16	10.45	10.50	24
2010	10.37	10.30	61	10.39	10.30	34	10.35	10.10	27
2011	10.29	10.17	42	10.12	10.07	16	10.39	10.25	26
2012	10.17	10.08	58	10.06	10.00	29	10.28	10.25	29
2013	10.03	9.95	49	10.12	9.98	32	9.85	9.75	17
2014	9.91	9.78	38	9.73	9.75	17	10.05	9.83	21
2015	9.85	9.65	30	10.07	9.72	14	9.66	9.62	16
2016	9.77	9.75	42	9.80	9.85	17	9.74	9.60	25
2017	9.74	9.60	53	9.75	9.60	29	9.73	9.55	24
2018 Q1	9.75	9.90	13	9.43	9.70	5	9.94	10.10	8

General rate cases versus limited issue riders

Year	All cases			General rate cases			Limited issue riders		
	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations
2006	10.32	10.23	26	10.34	10.25	25	9.80	9.80	1
2007	10.30	10.20	38	10.32	10.23	36	9.90	9.90	1
2008	10.41	10.30	37	10.37	10.30	35	11.11	11.11	2
2009	10.52	10.50	40	10.52	10.50	38	10.55	10.55	2
2010	10.37	10.30	61	10.29	10.26	58	11.87	12.30	3
2011	10.29	10.17	42	10.19	10.14	40	12.30	12.30	2
2012	10.17	10.08	58	10.02	10.00	51	11.57	11.40	6
2013	10.03	9.95	49	9.82	9.82	40	11.34	11.40	7
2014	9.91	9.78	38	9.76	9.75	32	10.96	11.00	5
2015	9.85	9.65	30	9.60	9.53	23	10.87	11.00	6
2016	9.77	9.75	42	9.60	9.60	32	10.31	10.55	10
2017	9.74	9.60	53	9.68	9.60	42	10.01	9.95	10
2018 Q1	9.75	9.90	13	9.59	9.70	7	9.93	10.20	6

Vertically integrated cases versus delivery only cases

Year	All cases			Vertically integrated cases			Delivery only cases		
	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations
2006	10.32	10.23	26	10.63	10.54	15	9.91	10.03	10
2007	10.30	10.20	38	10.50	10.45	26	9.86	9.98	10
2008	10.41	10.30	37	10.48	10.47	26	10.04	10.25	9
2009	10.52	10.50	40	10.66	10.66	28	10.15	10.30	10
2010	10.37	10.30	61	10.42	10.40	41	9.98	10.00	17
2011	10.29	10.17	42	10.33	10.20	28	9.85	10.00	12
2012	10.17	10.08	58	10.10	10.20	39	9.75	9.73	12
2013	10.03	9.95	49	9.95	10.00	31	9.37	9.36	9
2014	9.91	9.78	38	9.94	9.90	19	9.49	9.55	13
2015	9.85	9.65	30	9.75	9.70	17	9.17	9.07	6
2016	9.77	9.75	42	9.77	9.78	20	9.31	9.33	12
2017	9.74	9.60	53	9.80	9.65	28	9.43	9.55	14
2018 Q1	9.75	9.90	13	9.69	9.80	6	9.00	9.00	1

Data compiled April 16, 2018

Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

Gas average authorized ROEs: 2006 — March 2018

Settled versus fully litigated cases

Year	All cases			Settled cases			Fully litigated cases		
	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of Observations
2006	10.40	10.50	15	10.26	10.20	7	10.53	10.80	8
2007	10.22	10.20	35	10.24	10.18	22	10.20	10.40	13
2008	10.39	10.45	32	10.34	10.28	20	10.47	10.68	12
2009	10.22	10.26	30	10.43	10.40	13	10.05	10.15	17
2010	10.15	10.10	39	10.30	10.15	12	10.08	10.10	27
2011	9.92	10.03	16	10.08	10.08	8	9.76	9.80	8
2012	9.94	10.00	35	9.99	10.00	14	9.92	9.90	21
2013	9.68	9.72	21	9.80	9.80	9	9.59	9.60	12
2014	9.78	9.78	26	9.51	9.50	11	9.98	10.10	15
2015	9.60	9.68	16	9.60	9.60	11	9.58	9.80	5
2016	9.54	9.50	26	9.50	9.50	16	9.61	9.58	10
2017	9.72	9.60	24	9.68	9.60	17	9.82	9.50	7
2018 Q1	9.68	9.80	6	9.60	9.60	2	9.73	9.80	4

General rate cases versus limited issue riders

Year	All cases			General rate cases			Limited issue riders		
	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations	Average ROE (%)	Median ROE (%)	Number of observations
2006	10.40	10.50	15	10.40	10.50	15	—	—	0
2007	10.22	10.20	35	10.22	10.20	35	—	—	0
2008	10.39	10.45	32	10.39	10.45	32	—	—	0
2009	10.22	10.26	30	10.22	10.26	30	—	—	0
2010	10.15	10.10	39	10.15	10.10	39	—	—	0
2011	9.92	10.03	16	9.91	10.05	15	10.00	10.00	1
2012	9.94	10.00	35	9.93	10.00	34	10.40	10.40	1
2013	9.68	9.72	21	9.68	9.72	21	—	—	0
2014	9.78	9.78	26	9.78	9.78	26	—	—	0
2015	9.60	9.68	16	9.60	9.68	16	—	—	0
2016	9.54	9.50	26	9.53	9.50	25	9.70	9.70	1
2017	9.72	9.60	24	9.72	9.60	24	—	—	0
2018 Q1	9.68	9.80	6	9.68	9.80	6	—	—	0

Data compiled April 16, 2018

Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

Electric utility decisions

Date	Company	State	ROR (%)	ROE (%)	Common equity as % of capital	Test year	Rate base	Amt. (\$M)	Footnotes
1/18/18	Kentucky Power Company	KY	6.44	9.70	41.68	2/17	Year-end	12.3	B
1/31/18	Public Service Company of Oklahoma	OK	6.88	9.30	48.51	12/16	Year-end	75.5	R
2/2/18	Interstate Power and Light Company	IA	7.49	9.98	49.02	12/16	Average	130.0	B, I
2/6/18	Mississippi Power Company	MS	6.62	8.58	50.45	12/18	Average	—	B, LIR, 1
2/9/18	Delmarva Power & Light Company	MD	—	—	—	9/17	—	13.4	B, D
2/9/18	Virginia Electric and Power Company	VA	7.21	10.20	50.23	3/19	Average	-6.0	LIR,2
2/14/18	Virginia Electric and Power Company	VA	7.21	10.20	50.23	3/19	Average	-11.5	LIR,3
2/20/18	Virginia Electric and Power Company	VA	7.21	10.20	50.23	3/19	Average	-24.6	LIR,4
2/21/18	Virginia Electric and Power Company	VA	6.71	9.20	50.23	3/19	Average	0.2	LIR,5
2/23/18	Duke Energy Progress, LLC	NC	7.09	9.90	52.00	12/16	Year-end	194.0	B
2/27/18	Virginia Electric and Power Company	VA	7.2	11.20	50.23	3/19	Average	14.9	LIR,6
3/12/18	ALLETE (Minnesota Power)	MN	7.06	9.25	53.81	12/17	Average	12.6	I
3/15/18	Niagara Mohawk Power Corporation	NY	6.53	9.00	48.00	3/19	Average	160.0	B, D, Z
3/20/18	Georgia Power Company	GA	—	—	—	12/18	—	-50.0	LIR,7
3/29/18	Consumers Energy Company	MI	5.89	10.00	40.89	9/18	Average	65.8	I,*
2018	1st quarter: averages/total		6.89	9.75	48.89			586.7	
	Observations		13	13.0	13.0			14	

Data compiled April 16, 2018

Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

Gas utility decisions

Date	Company	State	ROR (%)	ROE (%)	Common equity as % of capital	Test year	Rate base	Amt. (\$M)	Footnotes
1/24/18	Indiana Gas Company, Inc.	IN	—	—	—	6/17	Year-end	8.4	LIR,8
1/24/18	Southern Indiana Gas and Electric Company, Inc.	IN	—	—	—	6/17	Year-end	1.3	LIR,8
1/31/18	Northern Illinois Gas Company	IL	7.26	9.80	52.00	12/18	Average	137.1	9
2/21/18	Missouri Gas Energy	MO	7.20	9.80	54.16	12/16	Year-end	15.2	
2/21/18	Spire Missouri Inc.	MO	7.20	9.80	54.16	12/16	Year-end	18.0	
2/27/18	Atmos Energy Corporation	KS	—	—	—	9/17	—	0.8	LIR,10
2/28/18	Northern Utilities, Inc.	ME	7.53	9.50	50.00	12/16	Average	-0.1	
3/15/18	Niagara Mohawk Power Corporation	NY	6.53	9.00	48.00	3/19	Average	45.5	B, Z
3/26/18	Pivotal Utility Holdings, Inc.	FL	—	10.19	48.00	12/18	—	15.3	B, Z, I
2018	1st quarter: averages/total		7.14	9.68	51.05			241.6	
	Observations		5	6	6			9	

Data compiled April 16, 2018

Source: Regulatory Research Associates, an offering of S&P Global Market Intelligence

FOOTNOTES

- A Average
- B Order followed stipulation or settlement by the parties. Decision particulars not necessarily precedent-setting or specifically adopted by the regulatory body.
- CWIP Construction work in progress
- D Applies to electric delivery only
- DcT Date certain rate base valuation
- E Estimated
- F Return on fair value rate base
- Hy Hypothetical capital structure utilized
- I Interim rates implemented prior to the issuance of final order, normally under bond and subject to refund.
- LIR Limited-issue rider proceeding
- M "Make-whole" rate change based on return on equity or overall return authorized in previous case.
- R Revised
- Te Temporary rates implemented prior to the issuance of final order.
- Tr Applies to transmission service
- U Double leverage capital structure utilized.
- YE Year-end
- Z Rate change implemented in multiple steps.
- * Capital structure includes cost-free items or tax credit balances at the overall rate of return.
- 1 Decision adopted a company filing specifying a \$99.3 million plant specific retail revenue requirement. According to the company, this results in an annual rate reduction of approximately \$26.8 million.
- 2 "Represents rate increase associated with the company's Rider R proceeding, which is the mechanism through which the company recovers the investment in the Bear Garden generating facility."
- 3 Represents rate decrease associated with the company's Rider W, which reflects in rates investment in the Warren County Power Station.
- 4 "This proceeding determines the revenue requirement for Rider S, which recognizes in rates the company's investment in the Virginia City Hybrid Energy Center"
- 5 "This proceeding determines the revenue requirement for Rider GV, which is the mechanism through which the company recovers the costs associated with the new gas fired generation facility, the Greenville County project."
- 6 "Proceeding determines the revenue requirement for Rider B, which is the mechanism through which the company recovers costs associated with its plan to convert the Altavista, Hopewell and Southampton Power Stations to burn biomass fuels."
- 7 Reduction ordered to the nuclear construction cost recovery tariff associated with the company's two new units being built at its Vogtle plant.
- 8 Proceeding to establish the rates to be charged to customers under the company's "compliance and system improvement adjustment," or CSIA, mechanism, which includes both federally mandated pipeline-safety initiatives and projects that are permitted under the state's "transmission, distribution, and storage system improvement charge," or TDSIC, statute.
- 9 Authorized rate change to be amended to reflect the impact of the federal tax law.
- 10 Reflects update to the company's gas system reliability surcharge, or GSRS, rider since its most recent base rate case.