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RRA Water Major Rate Case Decisions — Wading Through Water Trends

This is the first in a series of reports that Regulatory Research Associates will publish on a semi-annual basis. These reports will highlight key rate case developments for water utilities and examine industry trends as compared to the electric and gas utilities. RRA currently evaluates water utility regulation in 25 state jurisdictions and monitors rate proceedings involving rate change requests of \$0.5 million or greater for the fourteen largest investor-owned and privately-held water utilities. This report examines trends from over 200 rate case proceedings currently accumulated, spanning a time period between January 2006 and May 31, 2017.

As RRA broadens its water utility coverage to encompass all 46 states that currently regulate water utilities, this data set will continue to expand, which will likely result in some adjustments to the historical water industry averages. As investors familiar with the water utility sector are aware, there can be challenges discussing industry averages for such a small peer group. Some of these challenges are addressed in the discussion of ROE trends and comparisons.

For cases decided in the first five months of 2017, the average ROE authorized for water utilities was 9.43%, as compared to 9.68% for cases decided in calendar-2016. By comparison, the average ROE approved in cases decided for natural gas utilities in the first five months of 2017 was 9.44%, compared to 9.50% in 2016. Including returns used in limited issue rider cases, electric utilities were authorized an average ROE of 9.77% in cases decided in the first five months of 2017, comparable to 2016 results. In the table below, the (# cases) listed is the amount of ROE data points available in a given year, not the amount of rate cases completed during the period.

Average equity returns authorized January 2006-May 2017

Year	Water utilities		Electric utilities *		Gas utilities	
	ROE %	(No. cases)	ROE %	(No. cases)	ROE %	(No. cases)
2006	10.23	(7)	10.32	(26)	10.40	(15)
2007	10.07	(15)	10.30	(38)	10.22	(35)
2008	10.24	(15)	10.41	(37)	10.39	(32)
2009	10.18	(17)	10.52	(40)	10.22	(30)
2010	10.18	(25)	10.37	(61)	10.15	(39)
2011	10.04	(8)	10.29	(42)	9.92	(16)
2012	9.90	(23)	10.17	(58)	9.94	(35)
2013	9.73	(11)	10.03	(49)	9.68	(21)
2014	9.60	(16)	9.91	(38)	9.78	(26)
2015	9.78	(12)	9.85	(30)	9.60	(16)
2016	9.68	(12)	9.77	(42)	9.50	(24)
2017	9.43	(6)	9.77	(23)	9.44	(7)

As of May 31, 2017.

* Electric ROE includes general rate cases and limited rider proceedings.

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

For additional details on rate case trends for electric and gas utilities, refer to the April 20, 2017 report titled "[Major Rate Case Decisions — January-March 2017](#)". Please note that the instant water report discusses trends through May 31, 2017, while the aforementioned energy report discusses results through March 30, 2017.

Since 2012, the number of water rate cases has moderated somewhat. Many water utilities have consolidated their smaller operating companies, decreasing the frequency of rate filings. California Water Service Group had previously requested rate changes for its 24 systems on a cycle of eight systems per year, but starting with its 2009 general rate case, now files for all its jurisdictions in a single filing every three years. The two other large, multi-system water utilities in California similarly transitioned to consolidated rate proceedings.

By consolidating its small subsidiaries in each of the sixteen states in which Utilities Inc. operates, the company has also decreased the frequency of base rate case filings. These actions streamline the rate case process and save money for customers through lower rate case expenses.

During the 2010-to-2012 time frame, American Water and Aqua America swapped assets in four states, leaving each company's customer count largely unchanged, while allowing for a more targeted approach to managing regulated operations and optimizing cost structures. Aqua America gained customers in Texas and Ohio in exchange for its New York and Missouri customers. As these systems were consolidated, rate case frequency declined in these jurisdictions.

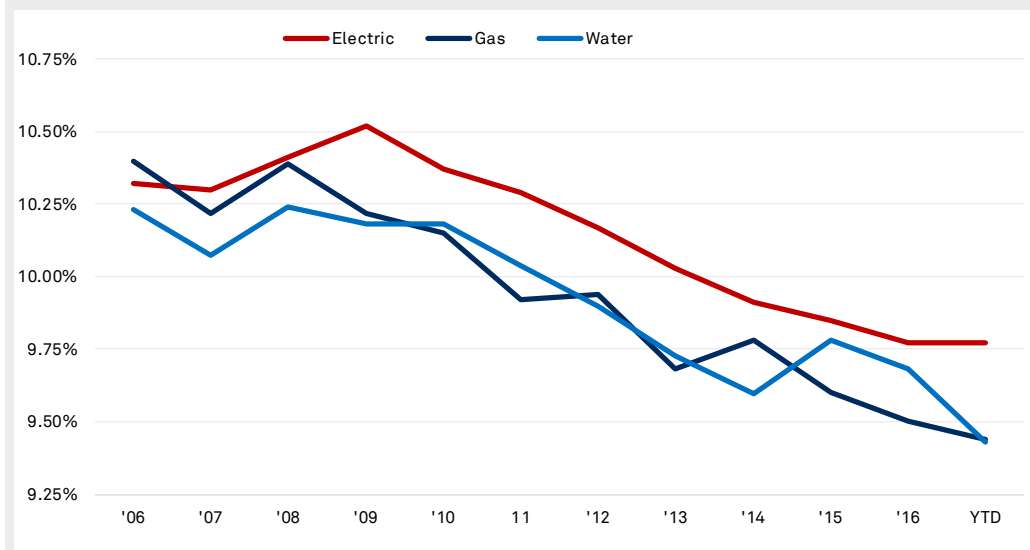
Lastly, the expansion of infrastructure surcharge mechanisms, has slowed the frequency of rates cases in some jurisdictions. Commonly referred to as a distribution system improvement charge, or DSIC, the mechanism allows water utilities to earn a return on incremental qualifying, non-revenue producing infrastructure replacement in between general rate cases. DSIC mechanisms for water utilities are utilized in sixteen states, with varying parameters regarding: defining qualifying investments; stipulating surcharge caps and frequencies; and, determining program oversight. Not all infrastructure surcharge programs are created equal.

The water utility sector faces increasing capital investment needs, driven by increasing environmental standards and aging infrastructure, namely distribution pipes. Widely-cited estimates of the spending needed to upgrade, replace, and expand water & wastewater infrastructure over the next 20 years range from \$600 billion to \$1.3 trillion. It stands to reason that this accelerated spending would warrant the continuation of an active rate case agenda over the next few years.

In addition, if the Federal Reserve continues its policy initiated in December 2015 to gradually raise the federal funds rate, utilities eventually would face higher capital costs and would need to initiate rate cases to reflect the higher capital costs in rates. While the Fed has indicated its intention to continue to raise the federal funds rate during 2017, the magnitude and pace of any additional Federal Reserve action after this year is uncertain. An increase in the rate of price inflation would point to additional Fed tightening, but a significant weakening in the economy would likely cause the Fed to reconsider further interest rate hikes.

The following graph, shows the historical ROE trend of the three utility sub-sectors. While authorized ROEs for all three sectors have declined since 2006, the authorized ROE for electric utilities has trended higher than the natural gas and water utility sectors, due in part to the authorized ROEs for electric companies including generation assets, which are generally accorded higher returns than lower-risk delivery assets.

Graph 1: Average authorized ROEs — electric, gas and water rate decisions



As of May 31, 2017.

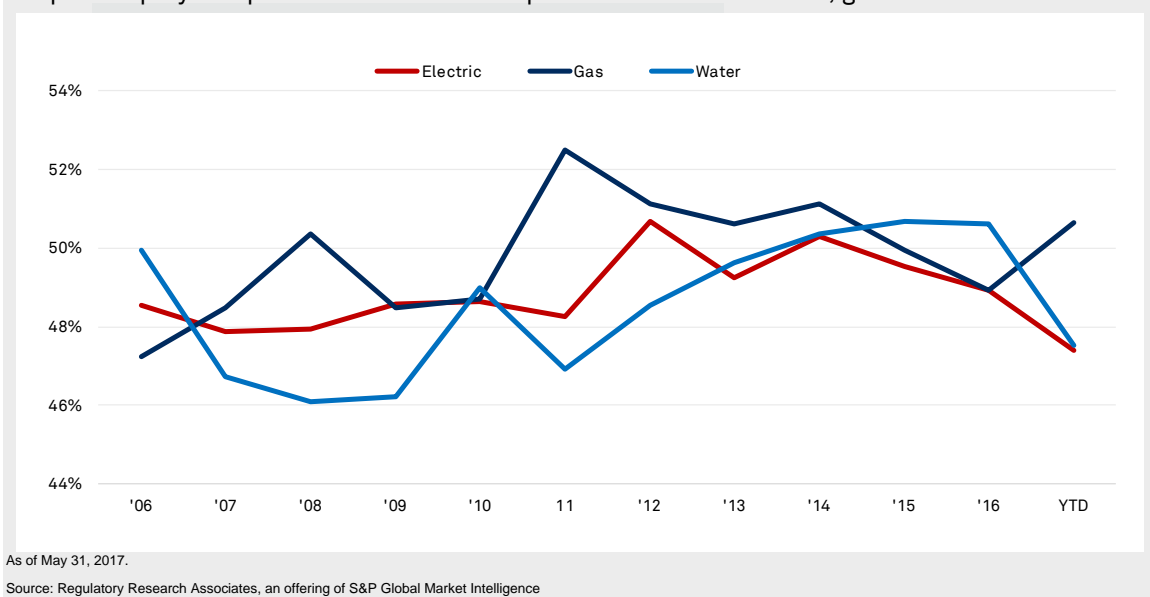
Note: Electric ROE includes general rate cases and limited rider proceedings.

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

The water and natural gas ROEs have trended more similarly. What appears to be a recovery in the water utility authorized ROE from 2014 to 2015, exposes the challenges that can come with a limited dataset. The 2014 average includes three New York rate decisions of 9.2%, a state that tends to authorize ROEs below the national average. In contrast, the 2015 water ROE average includes two relatively high ROEs, 10.0% and 10.1% in states with a small water footprint, Maryland and Hawaii. The combined rate base of these two decisions totaled less than \$25 million. Excluding these outliers, the ROE trend line for water utilities would appear a bit smoother.

As shown in Graph 2 below, there seems to be no discernible trend for capital structures used across the three sectors. The equity components of the capital structures approved for the water utility sector have averaged between 46.1% and 50.8% during the observed time period. For the electric sector the annual equity component average has ranged from 47.4% to 50.7% and for natural gas from 47.2% to 52.5%.

Graph 2: Equity component of authorized capital structure — electric, gas & water rate decisions



In the water sector, the highest authorized equity components of capital, topping out at between 55% and 60%, were observed in rate decisions for certain California water utilities. Tennessee, which utilizes double-leverage capital structures for water utilities, has approved the lowest equity components in the industry, below 40%.

For rate cases completed in 2014 and beyond, decisions in New York, Virginia, and West Virginia had the lowest equity component of capital, in a range of 44% to 47%. On the other end, California, Hawaii, Illinois, and New Jersey, had equity components in a range of 52.9% to 55%.

The individual water utility rate cases for 2014 through 2017 are listed on pages 4 through 5, 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, and the rate base.

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.

Heike Doerr

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Water utility decisions

Date	Company	State	ROR %	ROE %	Common equity as % of capital	Rate base (\$M)	Test year
01/09/14	The York Water Co.	PA	NA	NA	NA	NA	2/15
02/21/14	Aqua Virginia Utilities Inc.	VA	7.24	9.75	NA	NA	12/12
02/28/14	Iowa American Water Co.	IA	8.47	9.41	52.57	101	12/12
03/10/14	Carolina Water Service of North Carolina	NC	8.18	9.75	50.27	36	12/12
03/04/14	Carolina Water Services Inc.	SC	7.97	9.50	NA	27	12/12
04/15/14	Golden States Water	CA	8.34	9.99	55.00	695	12/10
05/02/14	Aqua North Carolina	NC	7.52	9.75	50.00	126	3/13
05/23/14	Waikoloa Utilities	HI	7.75	9.89	50.00	17	6/13
06/18/14	Middlesex Water Co.	NJ	6.72	9.75	50.71	209	3/14
06/24/14	SUEZ Water New York Inc.	NY	6.88	9.20	44.00	273	5/16
06/24/14	SUEZ Water Westchester	NY	7.52	9.20	47.00	38	5/16
08/14/14	San Jose Water	CA	8.68	9.43	51.35	517	12/13
08/18/14	California Water	CA	7.94	9.43	52.00	861	12/14
08/19/14	Tidewater Utilities Inc.	DE	7.92	9.75	50.96	NA	9/13
08/20/14	Aqua New Jersey	NJ	7.70	9.75	52.47	115	4/14
09/10/14	Aqua Ohio Water Co.	OH	7.47	9.80	51.60	152	3/14
11/14/14	SUEZ Water New Rochelle Inc.	NY	7.52	9.20	47.00	207	10/15
12/18/14	Suburban Water	CA	NA	NA	NA	120	12/15
2014	AVERAGES/TOTAL		7.74	9.60	50.35		
	OBSERVATIONS		16	16	14		

Date	Company	State	ROR %	ROE %	Common equity as % of capital	Rate base (\$M)	Test year
01/28/15	Indiana American Water Co.	IN	6.60	9.75	41.55	842	11/16
02/19/15	Waikoloa Water	HI	7.75	9.89	50.00	NA	6/13
03/11/15	Maine Water	ME	7.20	9.50	48.50	18	12/13
03/25/15	Aqua Illinois	IL	8.09	9.81	53.26	87	12/15
04/09/15	California American Water Co.	CA	8.41	9.99	53.00	443	12/15
05/26/15	Maryland American Water	MD	NA	10.00	NA	NA	9/14
06/29/15	Kona Water Service	HI	7.75	10.10	53.00	11	6/15
08/19/15	SUEZ Toms River	NJ	7.65	9.75	53.00	99	12/15
08/19/15	Middlesex Water Co.	NJ	6.73	9.75	51.36	219	6/15
09/11/15	New Jersey American Water Co. Inc	NJ	7.55	9.75	52.00	2,390	7/15
10/29/15	SUEZ Water Pennsylvania	PA	NA	NA	NA	NA	10/16
12/07/15	Carolina Water Service of North Carolina	NC	8.20	9.75	51.00	59	12/14
12/22/15	Carolina Water Services Inc.	SC	7.99	9.34	NA	51	12/14
2015	AVERAGES/TOTAL		7.63	9.78	50.67		
	OBSERVATIONS		11	12	10		

As of May 31, 2017.

NA = data unavailable

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

Water utility decisions

Date	Company	State	ROR %	ROE %	Common equity as % of capital	Rate base (\$M)	Test year
01/07/16	Aqua Virginia Inc.	VA	6.94	9.25	49.20	60	12/14
01/19/16	Artesian Water	DE	7.82	9.75	50.54	217	12/17
01/25/16	Utilities Inc. of Central Nevada (UICN)	NV	6.94	9.50	49.45	60	NA
02/24/16	West Virginia American Water Co.	WV	7.31	9.75	45.84	529	2/16
02/24/16	CWS Systems Inc.	NC	8.20	9.75	51.00	14	12/14
04/27/16	SUEZ New Jersey Inc.	NJ	7.60	9.75	53.00	735	6/16
05/26/16	Missouri American Water Co.	MO	NA	NA	NA	NA	12/14
06/16/16	San Jose Water Co.	CA	8.00	9.43	51.35	659	12/16
08/09/16	Aqua New Jersey	NJ	7.48	9.75	52.86	133	4/16
08/23/16	Kentucky American Water Co.	KY	NA	NA	NA	NA	8/17
09/12/16	Hawaii Water Service/K'Anapali Division	HI	7.75	10.10	53.00	12	12/16
12/13/16	Illinois American Water Co.	IL	7.47	9.79	49.80	883	12/17
12/15/16	Golden States Water	CA	NA	NA	NA	700	12/16
12/15/16	California Water Co.	CA	NA	NA	NA	996	12/17
2016	AVERAGES/TOTAL		7.55	9.68	50.60		
	OBSERVATIONS		10	10	10		
Date	Company	State	ROR %	ROE %	Common equity as % of capital	Rate base (\$M)	Test year
01/27/17	SUEZ Water New York	NY	6.92	9.00	46.00	332	1/18
02/24/17	SUEZ Water Delaware	DE	NA	9.75	NA	NA	6/16
02/27/17	Iowa American Water	IA	8.28	9.60	52.04	108	12/15
03/22/17	Aqua Ohio, Inc.	OH	7.47	9.87	NA	169	12/16
05/18/17	New York American Water Co.	NY	6.56	9.10	46.00	276	3/18
05/24/17	Virginia-American Water	VA	7.13	9.25	46.09	148	6/15
2017	AVERAGES/TOTAL		7.27	9.43	47.53		
	YTD OBSERVATIONS		5	6	4		

As of May 31, 2017.

NA = data unavailable

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