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Utilities – U.S. Out with the Old-In With the New



Source: thirdway.org

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US Utilities – Out With the Old- In With the New

In 2023, the S&P Utility Index returned a negative -7.1% and materially underperformed the S&P 500 Composite, which returned 26.3%. (See Table 1). After outperformance in 2022, the sector buckled under the pressure of higher interest rates and ongoing economic strength. Over the past two years, the US Treasury yield curve rose dramatically as the Fed employed an aggressive eleven rate hikes to tame inflation and cool the economy (Exhibit 1). Short-term rates rose from zero to 5.5%, the Ten-Year Treasury yield from rose 1.5% to 3.9% (5.0% in mid-October 2023) and utility stocks seemed to fluctuate with the market's outlook for a recession. Indeed, the SPSU fell 12.3% in the two-weeks following the September 20th FOMC meeting where the Fed emphasized a "higher-for-longer" interest rate outlook and raised concern that rates could go even higher than 5.0%. Alas, the SPSU hit a multi-year bottom (down -19% year-to-date) on October 4, 2023. In the fourth quarter, cooling inflation data and a softer economic outlook pulled the 10-Year Treasury yield down 110-basis points, which led to a modest 12% utility stock rebound.

Table 1

Utilities Over the Past Several Periods

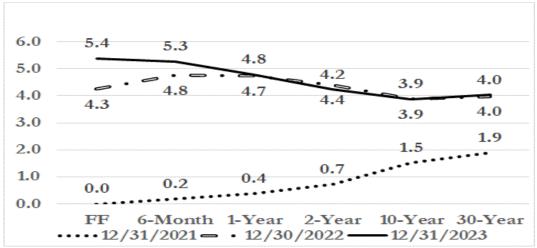
As of December 29, 2023	2023 Total <u>Return</u>	9/20- 10/3/2023 <u>Return</u>	2022A Total <u>Return</u>	2021A Total <u>Return</u>	3-Year Total <u>Return</u>	5-Year Total <u>Return</u>
S&P 500 Utilities	- 7.1%	- 12.3%	1.6%	17.7%	11.1%	41.0%
S&P 500 Index	26.3	-3.5	-18.1	28.7	33.1	107.2
10-Year Treasury Yield (Beginning of Period)	3.88	4.35	1.52	0.92	0.92	2.69
10-Year Treasury Yield (End of Period)	3.88	4.81	3.88	1.52	3.88	3.88

Source: Thomson One

Higher interest rates hurt utility stocks (and all investments) by raising the discount rate used to determine the present value of future cash flows. In addition, the higher interest rate/lower stock price environment make it more expensive for capital intensive utilities (and many companies) to fund growth and achieve historically high utility EPS targets ("5-7%" and "6-8%" CAGR's). Finally, 5%-plus short-term treasuries represent an attractive risk-averse return relative to the 3.7% current return on high quality utility stocks. All that said, the Fed appears likely to lower short-term rates in 2024-2025 and utility valuations now reflect some growth moderation.

Exhibit 1

US Treasury Yield Curve Rose And Inverted; Long-End Unchanged in 2023



Source: US Department of Treasury



The long-term fundamental prospects for utility stocks remain compelling. Utilities have substantial opportunity to invest in the infrastructure (rate base growth) needed to power a low-carbon economy. Electric demand could be on the verge of a structural acceleration driven by the intense power needs of a digitized and electrified world. Utilities with strong management teams and operating in constructive regulatory environments have the opportunity to deliver healthy EPS and dividend CAGR's for years to come. Over the long-term, utilities are "winners" in the long-term energy transition and the 2022 Inflation Reduction Act (IRA) provides tax incentives for accelerated clean energy investment. In 2024, lower inflation and lower gas prices have eased affordability headwinds. Finally, the impact of the historic rate hike cycle could result in a lower yield curve.

The 2023/2022 Performance See-Saw

Table 2

In 2023, the S&P Utility Index was the worst performing of the 11 S&P 500 Sector Indices with a negative -7.1% total return. (Table 2). In 2023, the better-performing S&P industry sectors were technology, communications, consumer discretionary and industrials (growth and economically cyclical sectors). Each of these sectors was among the worst performing sectors in 2022. On the other hand, defensive sectors (utilities, healthcare and consumer staples) were among the worst performing sectors in 2023, but better performers in 2022. The reversal of performance reflected the fluctuating economic outlook as fears for a recession faded.

S&P 500 Sector Performation	nce <u>Ranked Bes</u>	t to Worst 2	021-2023
			Two-Year
Sector	<u>2023</u>	<u>2022</u>	<u>2021-2023</u>
Energy	-1.3%	65.7%	63.5%
Info Tech	57.8	-28.5	13.3
Consumer Discretionary	42.4	-37.0	10.3
Industrials	30.4	-19.7	5.1
S&P 500	26.3	-18.1	3.4
Financial Services	12.2	-10.5	0.3
Health Care	2.1	-2.0	0.1
Consumer Staples	0.5	-0.6	-0.1
Materials	12.6	-11.8	-1.3
Utilities	-7.1	1.9	-5.6
Communication Services	55.8	-39.9	-6.3
Real Estate	12.4	-26.1	-17.0
ISH Clean Energy ETF	-20.4	-5.4	-24.7
Invesco Solar ETF	-26.8	-5.2	-32.6

S&P 500 Sector Performance Compared to Utilities and Clean Energy

Source: Thomson One

With the rapid rise in the yield curve over the past two years, we present the sectors ranked by best-to-worst two-year total returns. The utility sector returned a negative -5.6% relative to the S&P 500 +3.4%. The S&P 500 Energy sector was the best two-year performer due to high oil and gas prices and recognition that fossil fuels will be important to global economies for some time. We also highlight the poor total returns of the clean energy ETF's over each of the two years, with IShares Clean Energy ETF (ICLN) negative return of -24.7% and the Invesco Solar Index (TAN) negative return of -32.6%.



More on 2023: Higher Rates Explained Most, But Not All

Higher interest rates explained much of the under-performance, but utility stocks were also "shaken" by handful of other developments, including a NEP growth moderation, a tragic August 2023 Hawaii wildfire, a December 2023 punitive Illinois rate decision, and uneconomic offshore wind projects.

- **Growth rates:** On September 27, 2023, NextEra Energy Partners, (55%-owned by NextEra Energy (NEE), lowered its distribution CAGR to 5-8%, from 12-15%, due to the higher cost of capital. NEP is non-regulated and more vulnerable to higher rates than regulated utilities, but the action resonated throughout the sector and exacerbated concern that utility growth rates could moderate. Clean energy developers and utilities with clean energy segments do not have the ability to recover the higher cost of capital in rate cases. As a result, clean energy stocks fared much worse than regulated utilities, including AES (-30.1% return), NEP (-52.3%) and NEE (-25.3%). In 2024, the IShares Clean Energy ETF declined -25.7% and the Invesco Solar Index (TAN) declined -20.8%.
- Wildfire: On August 8, 2023, the Maui/Lahaina fire resulted in 98 deaths and significant property damage (<\$6 billion). Hawaii is not subject to the inverse condemnation laws that impacted PG&E, but Hawaiian Electric (HE -64% return) was named as defendants in 64/65 lawsuits claiming losses/damages from the windstorms and wildfire. The severity of the wildfires and a surprisingly negative jury verdict (June 2023) against Berkshire Hathaway's PacifiCorp utility regarding 2020 Oregon wildfires raised concerns regarding potential wildfire risk and liabilities for some utilities in the arid/dry/vegetative environments, including Xcel Energy (XEL/-8.7%), Portland General (POR/-7.6%), and Avista (AVA/-15.1%). Meanwhile, PG&E (PCG/+11.0%) and Edison International (EIX/+17.4%) saw wildfire multiple discounts diminish as investors grew more comfortable with CA wildfire legislation and company prevention efforts.
- **Punitive Illinois rate decision:** On December 14, 2023, the Illinois Commerce Commission issued surprisingly negative electric rate decisions for Ameren's and Exelon's electric utilities. The ICC's authorized ROE was a historically low 8.72%/8.94%, which was substantially lower than previous ROE's (9.9%) and Staff recommendations. The ICC also ordered the two companies to refile grid modernization plans without rate base recognition until approved. EXC and AEE shares declined 12% and 11%, respectively, following the order.
- Uneconomic Offshore wind: In mid-to-late 2023, several major offshore wind developers took large impairments and terminated purchased power contracts because higher costs of capital, inflation, supply chain issues and delays made projects "suddenly uneconomic." While only two US utilities were impacted (Eversource -23% return and Avangrid -20% return), investors questioned the economics of aggressive US clean energy plans.

Finally, most of the nation experienced warm first and fourth quarter temperatures, which negatively impacted 2023 EPS.

Best and Worst Performers

In 2023, the top performing power stocks were not utility stocks, but non-regulated independent power producers (IPP's), including NRG Energy (NRG/+67.4%), Vistra Energy (VST/+69.7%), and Constellation Energy (CEG/+36.9%). These three companies are the only US publicly-traded IPPs (with traditional generation nuclear/coal/gas) remaining after two decades of consolidation and bankruptcies. IPPs have lower capital budgets (ie, free cash flow) than utilities and are beneficiaries of higher power prices. As the nation's only non-regulated nuclear generator, CEG benefitted from improved outlook for nuclear power as well as state and federal nuclear subsidies (IRA). On November 2, 2023, CEG acquired NRG Energy's 44% ownership in the South Texas Nuclear Plant, while VST announced an agreement to buy Energy Harbor's 4 GW nuclear portfolio in March of 2023. In May of 2023, activist Elliott disclosed a 13% position in NRG and a desire to replace management as well as restructure the company, which includes a rooftop solar/home services company (Vivent).



The best and worst utility stock performers are listed below and include small-cap takeover candidates, Otter Tail Power Corp (OTTR) and Unitil (UTL), gas utilities Atmos Energy (ATO) and Southwest Gas (spinning off non-regulated business) and rebounding California utilities, Edison International (EIX) and PG&E (PCG). See Table 3.

Table 3

	Best US Utility	Stock Perfo	rmers in 2023		
			2023	12-Mon	ths (mos)
Electric & Gas Utility	<u>Symbol</u>	<u>Price (\$)</u>	<u>Return (%)</u>	<u>High</u>	Low
Otter Tail Power	OTTR	84.97	48	93	57
Edison International	EIX	71.49	17	75	59
PG&E Corp	PCG	18.03	11	18	15
Southwest Gas	SWX	63.35	6	68	54
Atmos Energy	ATO	115.90	6	125	101
Unitil	UTL	52.57	6	61	41

Worst US Utility Stock Performers in 2023

			2023	12-Mont	hs (mos)
Electric & Gas Utility	<u>Symbol</u>	<u>Price (\$)</u>	<u>Return (%)</u>	<u>High</u>	Low
Hawaiian Electrc	HE	14.19	-64	44	9
AES	AES	19.25	-31	29	11
UGI Corp	UGI	24.60	-30	43	20
NextEra Energy Partners	NEP	30.41	-52	77	20
Artesian Water	ARTNA	41.45	-27	63	39
NextEra Energy	NEE	60.74	-25	86	47
Source: Thomson One					

Please see Table 4 for Utility Subgroup Metrics and appendix on pages 19-20 for more utility stock financials.

- Electric utility valuation multiples have declined from 23x forward earnings in early 2020 to less than 16x 2024 • earnings estimates. Over the past twenty-five years, utility forward multiples have ranged between 10x and 23x earnings with a median of 17.1x.
- The gas utility performance reflects recovered investor sentiment offset by greater challenges to maintain earnings outlooks. Gas utilities currently trade at 15x 2024 and 14x 2025 earnings estimates despite significant consolidation activity at higher multiples over the past few years.
- The water utility under-performance reflects the impact of higher interest rates on higher multiple stocks. Water utilities trade at the highest multiples due to their scarcity, small size, takeover premium, ESG value, and longterm growth potential through consolidation and privatization.
- The six Canadian electric and gas utilities have outperformed in 2023, after underperforming in 2022. Given lower growth rates and higher current returns, interest rates have less of an impact on share prices. Canadian provincial regulatory environments are more challenging (lower allowed ROEs and equity ratios) than many US utility jurisdictions.

Table 4		Utili									
	Total									One-Year	EV/EBITDA
	Return	Pri	ce/Earning	<u>s</u>	E	PS Growth	l I	CAGR	Current	Dividend	Multiple
Utility Subgroup	2023A	2023E	2024E	2025P	2023E	2024E	2025P	2022-2025	Return	Growth	2023E
US Electric	-5%	16.5X	15.6X	14.6X	3.3%	6.5%	6.9%	5.5%	3.7%	5.1%	11.3X
Power Developers	-10	18.5	23.8	26.3	8.0	9.0	9.0	9.0	2.9	6.0	10.6
Canadian Electric	6	15.3	13.4	12.9	-4.8	12.7	5.2	5.7	5.0	4.5	11.9
US Gas Utilities	-7	15.4	15.2	13.7	9.8	6.6	8.3	6.0	3.9	5.6	10.5
Water Utilities	-12	25.4	24.8	23.6	8.1	4.2	5.1	8.1	2.2	5.0	15.7

Source: Thomson, First Call, Gabelli Funds Estimates



EPS Outlook

We expect EPS growth targets of 5-7% and 6-8% to moderate to mid-single digit growth (4-7%) as a higher cost-ofcapital to fund rate base growth (and refinance existing fixed cost debt) pressures regulators to minimize rate increases. Utilities have significant rate base growth opportunities driven by de-carbonization, electrification and grid modernization. Gas and water utilities also have long pipe replacement-driven capex runways.

Investors have grown to expect consistent compounding of EPS and dividend growth. However, the days of feasting on low-coupon debt/high multiple stock issuances to fund growth have at least temporarily ended. Affordability issues pressure regulators to minimize bill increases, though moderating natural gas prices (40% of power generation) and inflation relieve some bill pressure. Strong management teams are important to execute the optimal balance of capital investment, funding, cost-controls, and rate increases, while constructive regulatory environments are important to getting investment recognized in rates. Following third quarter, managements of 17 utilities target "5-7%" EPS CAGR, 12 utilities target "6-8%", and 2 utilities target 7-9%, one (PCG) targets 10% growth (Table 5). Recent growth target changes, include Evergy (4-6%, from 6-8%) and Northwestern Corp (4-6%, from 3-6%).

Table 5

EPS Growth Rates For Selected Utilities

	nt S&P	Management	Concensus	Track Becord							
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	BB									PCG	PG&E Corporation
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Sempra Energy SRE 9.21 4.57 -50.4 4.80 4.94 13.4 -18.7 6-8% Source: Company documents, Thomson One, and Gabelli FUnds. 5.0 3.7 5.8	BBB+	6-8%			4.94	4.80					



The August 2022 Inflation Reduction Act (IRA) offers "game-changing" financial incentives (\$272 billion) for clean energy investment through the extension and expansion of investment (30-40% investment tax-credits) and production tax credits. The tax credits allow the utilities to lower the development, construction and operating costs of renewable energy generation, which means lower future customer bill increases. The increased rate base investment will help achieve ambitious carbon-reduction plans and aid earnings growth.

Capital Investment (Rate Base) Continues to Rise and Drive Healthy Earnings Growth

In 2023, EEI member electric utilities forecast capital investment of nearly \$167.8 billion, which would mark the eleventh consecutive year of record investment. This compares to an estimated 2022 record investment of \$150.8 billion (\$136.6 billion in 2021) in utility infrastructure, including distribution (\$51 billion, or 33%), generation (\$37 billion, or 24%), transmission (\$32 billion, or 20%), gas-related (\$22 billion, or 14%) and other (\$13 billion, or 8%). Over the next several years, we expect increasing utility capital needs for the following:

- Clean energy transformation (coal retirements, on/off-shore wind, solar, and storage).
- Electric transmission and distribution (grid modernization, hardening, undergrounding).
- Electrification, EV charging, efficiency, etc.
- Natural gas infrastructure (pipeline expansion and replacement, green hydrogen, and carbon capture).

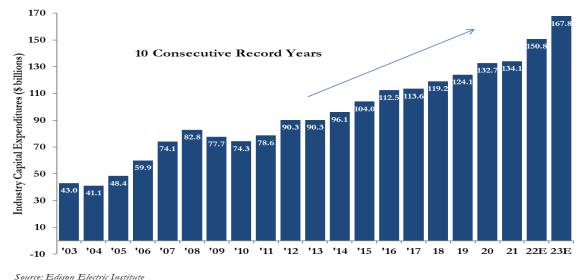


Exhibit 2

Record Capital Investment

Given the higher cost debt, utilities expect to issue more equity over the next several years. The record capital programs are manageable given strong balance sheets, reasonable payout ratios, healthy valuations over book value, and the industry's high investment grade credit-rating (BBB+). The industry has maintained an S&P Credit rating of BBB+ average (25%: A- or higher; 70%: BBB-, BBB, or BBB+) since increasing from a BBB average in 2014. All three credit rating agencies (S&P, Moody's and Fitch) have expressed concern regarding higher natural gas prices, inflation, interest rates, and increased capital spending but also note that regulatory relations have generally been constructive.

State Public Utility Commissions As Important As Ever For EPS Growth

State political and regulatory environments are as important as ever in determining the performance of individual utility stocks. Utility regulation generally remains supportive of investment, but some PUCs are more constructive than others. See Exhibit 3. Many jurisdictions have adopted changes to rate design, such as forward test years, rate mechanisms and adjustment clauses to allow timely recovery and return on costs associated with various capital investment programs (environmental, pipe replacement) and weather normalization. The allowed returns on equity (ROE) set by PUCs play a major role in utility earnings growth.



In the second half of 2023, a handful of disappointing rate cases, including Illinois electric and gas cases for Ameren (8.72%) and Exelon (8.94%), Evergy's (KS silent on ROE) and XEL's MN (9.25%) rate case, reminded investors of the uncertainty associated with politically-charged rate cases. On a positive note, several larger utilities saw jurisdictions raise allowed ROEs, including North Carolina (Duke Energy 10.1%, form 9.6%) and California. The three large California electric utilities (PG&E/10.7%, SCE/10.75%, SDG&E/10.65%) will see allowed ROE's increase by 70 basis effective January 1, 2024. In addition, Georgia approved a rate settlement to recognize the over-budget Vogtle Nuclear Units, and several other cases were generally constructive.

Exhibit 3

State PUC Regulatory Rankings

RRA State Regulatory Evaluations — Energy*

(By category, jurisdictions to watch highlighted)

Above Average/1	Above Average/2	Above Average/3	Average/1	Average/2	Average/3	Below Average/1	Below Average/2	Below Average/3
Alabama	Florida	lowa	Arkansas	Delaware	Louisiana — NOCC	Alaska	Connecticut	Arizona
	Georgia	Michigan	California	Hawaii	Maine	Kansas	Dist. of Columbia	
	Pennsylvania	Mississippi	Colorado	Idaho	Missouri	Montana	Maryland	
		North Carolina	Indiana	Illinois	Oklahoma	New Jersey		
		Tennessee	Nebraska	Kentucky	South Carolina	New Mexico		
		Wisconsin	Nevada	Louisiana — PSC	Texas — PUC	West Virginia		
			North Dakota	Massachusetts	Vermont			
			Texas - RRC	Minnesota	Washington			
				New Hampshire				
				New York				
				Ohio				
				Oregon				
	110			Rhode Island				6
				South Dakota				
				Utah				
				Virginia				
				Wyoming				

Data compiled Nov. 30, 2023.

NOCC = New Orleans City Council; PSC = Public Service Commission; PUC = Public Utility Commission; RRC = Railroad Commission.

*Within a given subcategory, states are listed in alphabetical order, not by relative ranking.

Source: Regulatory Research Associates, a group within S&P Global Commodity Insights. © 2023 S&P Global.

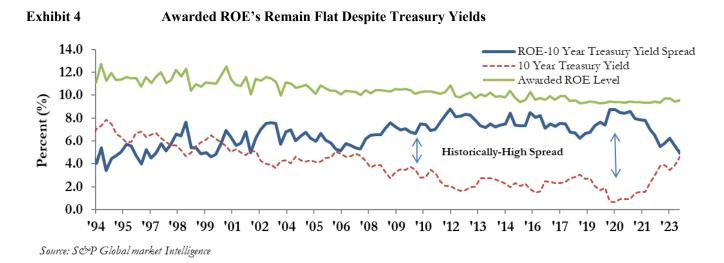
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Source: Regulatory Research Associates (Part of S&P Global Market Intelligence SPGMI)



Utility Rate Cases and ROE's

In the first nine-months of 2023, the average authorized ROE for electric utilities (37 rate cases) rose modestly to 9.55% (37 cases), from 9.54% (53 cases) for the full year 2022. For gas utilities, the average ROE decided during the first nine months of 2023 was 9.66%, up from the 9.53% average for the full year 2022. In recent quarters, utility allowed ROEs have begun to rise (albeit modestly), after declining over the past 30-years. The average authorized gas ROE in recent fully litigated cases was 9.96% for cases decided during the first three quarters of 2023 and 9.87% for the 12 months ended September 30, 2023.



The spread between the allowed-ROE and the 10-year U.S. Treasury yield is currently 570-basis points, and it has ranged between 550-900 basis points over the past few years. During the 1990s, the utility sector averaged roughly 400-600 basis points spread. Given the dramatic rise in interest rates, we expect allowed ROEs to rise, but note that PUCs historically have taken a gradual and measured approach to changes in authorized ROE levels.

Inflation, interest rates and growing utility capital spending plans have led to an active regulatory calendar, including 54 electric and 41 gas rate cases pending in 34 states and the District of Columbia.

Trend Emerging-Electric Demand Growth

After a decade of flat growth, US electric demand appears on the verge a long-term structural acceleration. In 2022, US electric output rose 2.8% to 4.1 million GWhs, which is a record annual high. According to EIA, US electric demand grew a modest 5% over the past 10 years (2013-22 was 5.4%). Many utilities and the North American Electric Reliability Council (NERC) are raising previous forecasts and expect much stronger growth over the next decade driven by electrification, reshoring of manufacturing, data centers and growing use of power hungry technology (artificial intelligence) as well as bitcoin mining. Manufacturing reshoring is aided by incentives under the IRA and CHIPS Act.

A December 2023 report "The Era of Flat Power Demand is Over" by Grid Strategies, grid planners nearly doubled the 5-year load growth forecast over the past year. The nationwide forecast of electricity demand shot up from 2.6% to 4.7% growth over the next five years, as reflected in 2023 FERC filings.

Technology companies are rapidly installing data centers, which can require as much as 500 MWs (equivalent to 375,000 homes), with capacity factors of nearly 100% (runs non-stop all year). In November 2023, WEC Energy Group raised its 2024-26 electric demand growth forecast to 4.5-5.0%, from 0.7%, to reflect growing data center and technology demand. Microsoft plans a \$1 billion data center outside of Milwaukee on the science/technology hub developed in collaboration with Foxcon. In Virginia, Dominion Energy, has connected 75 new data centers since 2019.

EEI forecasts electric vehicle (EV) adoption from 3 million EVs to 26 million by 2030 and the need for 140,000 EV fast charging ports, which would boost load by 1% annually. Forecasts for electric demand growth are an emerging trend and has not really showed up in data yet, but below are some notable comments from November/December utility presentations and conference calls:



- Southern Company (SO) "During 2023, we have continued to see an extraordinary level of economic development activity...We will update forecasts in February but want to highlight the magnitude of potential change in electricity sales growth. Recall our previous forecast assumed annual electricity sales growth of 0% to 1%. Factoring in the power needs of these new, highly data-centric businesses and manufacturing facilities, electricity sales are likely to have an annual growth rate closer to a mid-to-high single-digit range over the next 5 years."
- Entergy (ETR) ETR forecasts 6-7% industrial sales growth 2022-2026 (16% cumulative) driven by Gulf Coast industries (petrochemicals, refining, industrial gases, chemicals) data centers, and IRA/clean energy transition. ETR projects industrial sales will increase by 16 TWh by 2022-26, a 30% increase to TWh. (an annual increase in overall electricity demand CAGR of ~3.5% during the period '23-26).
- **Portland General (POR)** In the Northwest, Oregon is home to 15% of the US semiconductor manufacturing and POR has experienced 6.8% industrial load growth from 2017-2022 and highlights increased digital expansion and data centers. "Many large high-tech companies in our footprint have signaled upcoming growth projects concentrated among digital and high-tech customers."
- **IDACORP (IDA)** In in its 2023 integrated resource plan, IDACORP raised its annual peak demand forecast to 3.7%, from 2.1% in 2021, and has experienced 2.4% annual customer growth.
- Edison International (EIX) The greater LA area is home to ~12.5% of all the EVs in the U.S. In 2023, EVs are expected to account for 3.2 TWh of load, or ~4% of total expected demand. By 2045, EIX estimates the demand from EVs alone could total 50+ TWh. (an increase to overall electricity CAGR of ~2%).

Growing electric demand leads to rate base growth and helps spread fixed costs over a larger base, which improves affordability.



Election Year Politics: Great Power Transformation Will March On

As we progress through 2024, we expect some sentiment shifts and angst regarding ambitious US clean energy plans and specifically rhetoric about a potential repeal of the Inflation Reduction Act (IRA). Should Republicans show polling strength (with anti-clean energy rhetoric), clean energy developers and suppliers could see weakness. However, we do not expect any material changes to the IRA or policies even under a "red-wave". Many US states (29) have set renewable energy standards, including 22 with 100% clean energy targets. The more aggressive include Rhode Island (2030), D.C. (2032), Connecticut (2040), Minnesota (2040), New York (2040), Oregon (2040), California (2045), Hawaii (2045), New Mexico (2045), and Washington (2045). Republican "Red" states have benefitted from IRA tax incentives for major green-energy investments and the political and public support for clean energy is significant. Texas is home to more renewables than any state in the nation and Florida has ambitious solar power plans. Please see Exhibit 5.

Exhibit 5

US state clean energy goals, political affiliations and renewables rankings¹

State	Ultimate clean energy goals, standards	Political trifecta	Q3 2023 renewables rank
California	100% carbon-free power by 2045	D	1
Colorado	100% clean energy by 2050	D	8
Minnesota	100% carbon-free power by 2040	D	10
New York	100% carbon-free power by 2040	D	1
Oregon	50% renewables by 2040; 100% GHG emissions cut from 1990 levels by 2040	D	1:
Michigan	100% carbon-free power by 2040; economywide carbon neutral by 2050	D	1
Washington	100% carbon-free power by 2030	D	20
Maine	100% clean energy by 2050	D	29
	Net-zero GHG emissions by 2050	D	33
Illinois	100% clean energy by 2050	D	34
New Mexico	100% carbon-free power by 2045	D	31
Maryland	100% clean electricity by 2040	D	3
Hawaii	100% renewable energy by 2045	D	31
Connecticut	100% carbon-free power by 2040	D	4
Rhode Island	100% fossil fuel-free power by 2033	D	43
New Jersey	100% clean energy by 2035	D	41
Delaware	40% clean energy by 2035; 90% GHG emissions cut from 2005 levels by 2050		49
Kansas	20% renewables by 2020 (voluntary)	No	
North Carolina	Carbon-neutral power by 2050	No	1
Nevada	100% carbon-free power by 2050	No	1
Vermont	90% renewables by 2050; 80% GHG emissions cut from 1990 levels by 2050	No	24
Pennsylvania	18% renewables by 2001; 80% GHG emissions cut from 2005 level by 2050	No	2
Wisconsin	100% carbon-free power by 2050	No	3
Alaska	50% renewables by 2025	No	39
Arizona		No	4:
	15% renewables by 2025 100% carbon-free power by 2045 (Dominion); 2050 (Appalachian Power)	No	4
Virginia Kontuolov	No goal	No	50
Kentucky Texas	10,000 MW of renewables by 2025, which ends Sept. 1, 2025	R	50
Idaho		R	
	No goal 15% representation by 2015	R	
Oklahoma	15% renewables by 2015		
Indiana Florida²	10% renewables by 2025 (voluntary)	R	
	No goal		
Nebraska	No state goals, but utilities have goals of net-zero emissions by 2050	R	5
lowa	No goal	R	1:
Arkansas	No goal	R	1.
North Dakota	10% renewables by 2015 (governor requests carbon neutrality by 2030)	R	18
Georgia	No goal	R	19
	25.2% renewables by 2021	R	2
South Dakota	10% renewables by 2015 (voluntary)	R	2
Wyoming	20% low-carbon power by 2030	R	23
Mississippi	No goal	R	2
Utah	20% renewables by 2025	R	2
Ohio	8.5% renewables by 2026	R	2
Montana	15% renewables by 2015	R	30
WestVirginia	No goal	R	3
South Carolina	2% renewables by 2021 (voluntary)	R	3:
Tennessee	No goal	R	4
Missouri	15% renewables for investor-owned utilities by 2021	R	4
Alabama	No goal	R	4
Louisiana®	Net-zero GHG emissions by 2050 (aspirational executive order)	R	41

Data accessed Nov. 22, 2023.

GHG = greenhouse gases

Combined capacity of wind, utility-scale solar and battery storage

² Florida's Department of Agriculture set a goal for the state of 100% renewable energy for utilities by 2050, but the goal was not endorsed by the state's government. ^a In 2020, Louislana's governor set a climate action plan with a net-zero goal by 2050.

Includes the results of fall 2023 elections.

A government trifecta is a political situation in which the same political party controls the executive branch and both chambers of the legislative branch. Sources: ACP; S&P Global Commodity Insights; EIA; National Conference of State Legislatures; individual state agencies; S&P Global Market Intelligence; US Energy Information Administration.

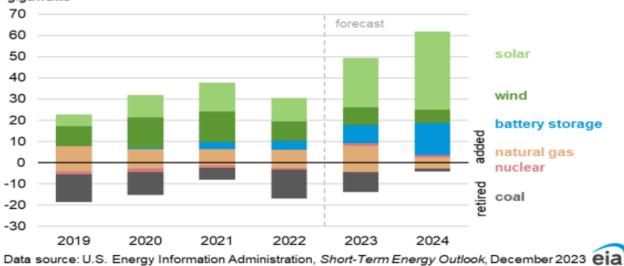
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The Great Power Transformation Marches On

EIA's December 2023 *Energy Outlook* forecasts that the 2023 US power generation fuel mix will be 22% renewable energy (wind, solar, hydro, and battery storage) and 24% in 2024, while coal declines to 17% in 2023 and less than 15% in 2024. U.S. natural gas generation will average 42% in each 2023 and 2024. In 2023, wind, solar and battery storage account for 82% of the new, utility-scale generating capacity. (EIA June Update). EIA forecast includes 23 gigawatts of new solar generating online in 2023 (a 33% increase from 2022) and 37 GW in 2024 (up 39% from 2023). New solar generating capacity is accompanied by 9 GWs of new U.S. battery storage capacity in 2023, doubling the total amount compared with what was operating at the end of 2022.

Exhibit 6



Annual change in U.S. electric power sector generating capacity by source gigawatts

In 2022, the US electric fuel mix was 40% gas, 20% coal, 18% nuclear, 20% renewable (10% wind, and 6% hydro) and 2% other, which means 60% fossil-fuel fired and 40% zero carbon. In the mid-1980s, US power generation was nearly 60% coal-fired. Given planned retirement schedules, coal's rapid decline will continue. All new capacity will be renewable, battery-storage and/or natural gas-fired (excluding the 2.2 GWs Vogtle nuclear expansion scheduled for 2023-24). Over the past decade, less-efficient nuclear (13 retirements since 2013) and gas power plants were retired and replaced with highly efficient natural gas plants and renewable generation.

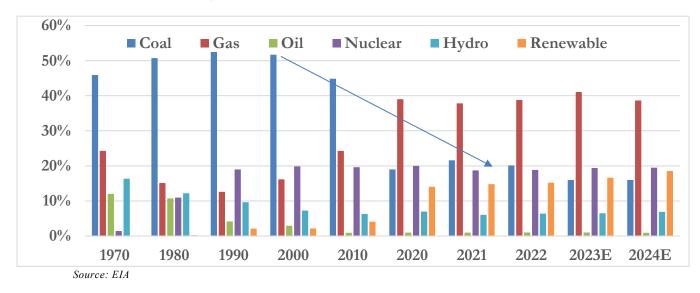


Exhibit 7 Fuel Mix Changes; Coal Falls to 16% in 2022, and Gas Rises to 38%



In 2023, the US has ~1,200 GWs of power capacity, including 215 GWs of renewables (74 GWs of utility-scale solar and 141 GWs of wind capacity (12%). According to EEI (April 2023), developers plan to add 478 GWs of capacity over 2023-2027, including 228 GWs of solar, 104 GWs of wind, and 101 GWs of storage. Over the same period, EEI projects 102 GWs of capacity retirements (42 GWs of coal, 40 GWs of gas, and 16 GWs of oil).

Table 6

Proposed New Power Capacity Additions

Stage of Announced Capacity Additions (MW) 2023–2027

			U.S. ELECTR	C UTILITY AND	NON-UTILITY			
			Application			Under		
Fuel	Proposed	Feasibility	Pending	Permitted	Site Prep	Construction	Testing	Total
Natural Gas	13,699	497	5,129	7,484	175	6,564	3,978	37,525
Nuclear	1,753	-	-	-	-	-	2,200	3,953
Solar	105,689	200	41,616	43,734	100	31,101	5,197	227,638
Wind	63,858	2,212	13,239	11,256	352	10,772	1,963	103,652
Energy Stora	ge 41,368	8,971	27,634	13,537	-	8,657	953	101,121
Other	1,340	1,943	66	316	-	233	2	3,900
Grand Total	227,707	13,823	87,684	76,327	627	57,328	14,292	477,789

Notes: Other includes biomass, diesel/fuel oil, fuel cells, geothermal, landfill gas, pet coke, waste heat, hydroelectric turbines, and wood. Totals may reflect rounding. Data includes new plants and expansions of existing plants, including nuclear uprates. Data includes projects with an expected online date up to 2027.

Source: The Velocity Suite, Hitachi Energy, EEI Energy Supply and Finance Department, April 2023

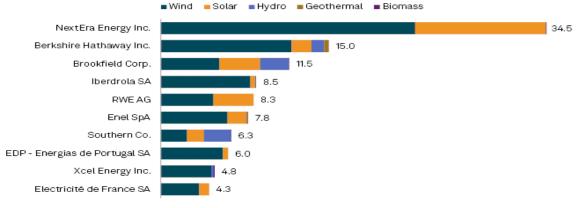
Renewables Developers Have Huge Opportunities And Challenges

NextEra Energy Resources (wholly-owned by NextEra Energy) is the largest renewable owner, operator and developer in the US with the largest development pipeline. Other large owners, include Berkshire Energy, Brookfield, and Iberdrola/Avangrid. (See Exhibit 8 below) AES Corp, Invenergy (private), Apex (private) and Hecate (private) have ambitious renewable development plans. Regulated utilities Consolidated Edison, Eversource, Duke Energy and American Electric Power have strategically chosen to divest non-regulated renewable development businesses to focus on the regulated business. Renewable development challenges include higher interest costs, inflation, tariff and supply chain issues as well as integrating into the existing transmission system. Developers face clogged interconnection queues, permitting delays and a congested power grid. The transmission system was not designed to accommodate the massive renewable additions, particularly given wind/solar intermittency.



Large Renewable Owners in the US

10 largest owners of operating utility-scale renewable capacity 2023 (GW)



Source: S&P Global Market Intelligence 12/4/2023



Interest Rates, Inflation Hamper Offshore Wind Goals

The Northeast/New England states and politicians expect offshore wind to be a major piece of future energy consumption. However, the Northeastern Offshore Wind (OSW) target for 30 GW (enough to power 10 million homes) by 2030 is likely unachievable given the challenges from higher interest rates, inflation, supply chains and red-tape delays. The US currently has 42 MWs (0.042 GWs) of OSW in operation with two projects under construction. Europe and Asia have over 10 GWs in operation. In 2024, Vineyard Wind (800-MW's/Martha's Vineyard) and South Fork (122 MWs/Long Island) are expected to come on line.

In the second half of 2023, several large developers, including Orsted, BP, Shell, Equinor, took large impairments, requested contract repricings, and/or delayed projects. In late October, Ørsted, the world's largest offshore wind developer, canceled two New Jersey projects (Ocean Wind 1 & 2). The states remain committed and plan to "rebid/reauction" for capacity. In late January 2024, MA. CT, and RI are holding a joint bidding process to reduce costs and risk for developers. The Biden Administration announced a memorandum of understanding between nine states (CT, MA, MD, ME, NC, NH, NJ, NY, and RI) and four federal agencies, pledging to coordinate efforts to identify and address domestic resources for steel, vessels, port infrastructure, and components for offshore wind resources.

Table 7Offshore Wind Project Development (Major Global Players and Oil Co's)

Project	Size (MW's)	Date	Buyer	Owners
Block Island Wind	30	2016	Rhode Island/Connecticut	Deepwater Wind
South Fork Wind	132	2024	New York	EverSource/Orsted
Vineyard Wind	800	2024	Massachusetts	Avangrid/Copenhagan I.P.
MarWin Wind	270	2024	Maryland	Renexia SPA
Revolution Wind	704	2025	Rhode Island/Connecticut	EverSource/Orsted
Park City Wind	804	2025	Rebidding	Avangrid
Sunrise Wind	924	2026	New York (Rebid?)	EverSource/Orsted
Empire Wind	816	2026	New York (Rebid?)	Equinor/BP
Community Offshore Wind	1,314	2026	New York	RWE/National Grid
Skipjack Wind	966	2026	Deleware	Orsted
Momentum Wind	800	2026	Maryland	Renexia/Orsted
Virginia Beach	2,600	2026	Virginia	Dominion Energy
Commonwealth Wind	1,232	2027	Rebidding	Avangrid/Copenhagan I.P.
South Coast Wind	1,200	2027	Rebidding	Shell/EDP Renewables
Atlantic Shores	1,510	2027	New Jersey	Shell/EDF
Beacon Wind	1,230	2029	New York (Rebid?)	Equinor/BP
Empire Wind 2	1,260	2029	New York (Rebid?)	Equinor/BP
Excelsior Wind	1,314	2030	New York	Copenhagan Infrastrucure Ptnrs
Attentive Energy	1,404	2030	New York	Total Energies
Kitty Hawk	2,500	2030	North Carolina	Avangrid/Iberdrola
Ocean Wind 1	1,100		Cancelled (Rebid?)	Orsted
Ocean Wind 2	1,148		Cancelled (Rebid?)	Orsted
	23,896			
*Source: Company documents and C	Gabelli Funds			

We expect that offshore wind will become a significant part (though expensive) of the Northeast power capacity, but projects will not be owned by US utilities (except AGR). We expect Eversource to complete the sale of its three joint ventures in two phases (South Fork and Revolution in early 2024/Sunrise in the spring of 2024).

FERC-Regulated Transmission. Red Flag Alert: NERC Concerned About Reliability

The North American Electric Reliability Corp. Annual Long-Term Reliability Assessment-December 2023 raised some concern that rising peak demand and the planned retirement of 83 GW of fossil fuel and nuclear generation over the next 10 years creates blackout risks for most of the US. The Northeast and Western half of the U.S. face an elevated risk of blackouts in extreme weather conditions and parts of the Midwest and central South areas could see power supply shortfalls during normal peak operations. To address the growing risk, NERC recommends new gas capacity and transmission investment.



In 2023, EEI member utilities invested \$30.7 billion in electric transmission compared with \$31.7 billion in 2022. Over the next few years, we expect FERC to solidify numerous policy directives and incentives, including ROE methodology, transmission planning and the interconnect process, as well as the need to alleviate the clean energy logjam, and gas pipelines. In mid-2022, the Midwest Independent System Operator (MISO) approved Tranche 1 of its \$100 billion long-term planning projects, which included 18 transmission projects, totaling \$10.3 billion and spanning IA, IL, IN, MI, MN, MO and WI. Winning bidders, included:

- Ameren (AEE) (\$1.7-1.8 billion)
- Fortis (FTS)\$1.0-1.5 billion
- WEC Energy Group (\$800 million)
- XEL (\$1-2 billion)

The projects are expected to be in-service in 2028 - 2030. LRTP projects are significant because they will help accommodate the influx of renewables needed to meet state and utility clean energy goals. We expect Tranche 2 to be awarded in 2024.

M&A Activity – Still Quiet Corporate Strategies Simplifying, Transforming, and "Greening"

Utility financial engineering (subsidiary acquisitions, spins, and/or divestments) remains active, but takeover activity of investor-owned utilities has slowed in recent years. Since 1995, the US electric utility sector has experienced over 145 acquisition announcements and over 120 completed deals. From 2016-2020, 23 deals were announced. Merger activity declined during the pandemic-impaired 2020-21 COVID-19 era. In 2022, five "whole" company mergers closed. In 2023, one deal closed and one agreement terminated. On February 1, 2023, Infrastructure Investment closed on the acquisition of South Jersey Industries (SJI) for an \$8.1 billion in enterprise value, or \$36.00 per share (53% premium and ~15X EV/EBITDA multiple). On April 17, 2023, AEP and Algonquin (AQN) mutually agreed to terminate the Kentucky Power transaction following FERC approval challenges.

Investor-owned utilities prefer organic rate base growth (pay 1x rate base) to the takeover of rate base at a multiple of rate base. Regulated utility acquisitions can lead to a lengthy regulatory approval process and require onerous concessions. For example, Avangrid's acquisition (announced October 2020) of PNM Resources was terminated on January 2, 2024 after stuck in the approval process for over three years. In addition, a higher cost of capital hampers some buyer willingness to engage.

Over the past few years, many utilities have restructured, including sales of fossil generation assets, natural gas midstream operations, international operations, and non-utility subsidiaries, and the spin-off of competitive generation. Some have been the subject of activists including Jeff Ubben through Value Act and Inclusive Capital, Elliott Management (EVRG and NRG), Bluescape (EVRG), and Carl Icahn (First Energy and Southwest Gas). More recently, private infrastructure funds and investors, have taken advantage of the opportunity by buying gas utilities and gas infrastructure.

However, the sector remains ripe for consolidation as smaller companies face growing challenges to fund growth opportunities and need greater economies of scale. On December 11, 2023, media articles speculated that Allete (ALE) was exploring a sale. ALE is a Duluth, MN based utility with sizeable transmission growth opportunities. In 2023, several Mid/Large cap utilities sold gas utilities and other non-core assets primarily as a means to improve balance sheets and/or mitigate external equity needs.

Gas Utility Sales

- On December 1, 2023 (announced 9/26/23), Chesapeake Utilities (CPK) closed on the \$923 Florida City Gas acquisition from NextEra Energy for \$923.4 million in cash. Based on an approved average 2023 rate base of \$487 million, the EV/rate base is nearly 2X. Based on \$28 million of earnings power, the implied P/E is in the mid-20s.
- On September 5, 2023, Dominion Energy (D) agreed to sell three natural gas distribution utilities, the East Ohio Gas Company, Questar Gas/Wexpro Company (UT, WY, ID) and Public Service Company of North Carolina to Enbridge (ENB) for \$14.0 billion (\$9.4 billion cash and \$4.6 billion assumed debt). The purchase price

represents a consolidated 16.6x estimated 2023 operating earnings of \$564 million (16.7x estimated 2024 operating earnings of \$561 million) and ~1.3x Enterprise Value-to-2024 (Estimated Rate Base (8% CAGR). The sales are expected to close by the end of 2024. Closing of each transaction is not conditioned upon each other.



• On October 30, 2023, Entergy agreed to sell its gas distribution business to Bernhard Capital Partners (private equity), for \$484 million in cash, which represents 1.3-1.4x rate base.

Equity Stake Sales

- On June 20, 2023, NiSource (NI-27.38) reached agreement with Blackstone's dedicated Infrastructure group to sell a 19.9% equity interest in NIPSCO for \$2.150 billion. NIPSCO is Indiana's largest vertically integrated electric and gas distribution company with 1.3 million customers. The transaction implies an equity value of \$10.8 billion and enterprise value of \$14.3 billion for 100% of NIPSCO. Other NI highlighted multiples: 32.5x LTM P/E and 1.85x rate base (\$4.9 billion electric and \$2.0 billion gas).
- On February 2, 2023, FirstEnergy Corp. (FE) agreed to sell an additional 30% equity stake in FirstEnergy Transmission, LLC (FET) to Brookfield Super-Core Infrastructure Partners for \$3.5 billion. On May 31, 2022, FirstEnergy Corp. (FE) completed the sale of a 19.9% minority equity stake to Brookfield Super-Core Infrastructure Partners for \$2.375 billion. FirstEnergy retains a 50.1% equity interest in FET.

Renewable Segment Sales

- On June 12, 2023, Duke reached an agreement to sell its renewables business (3,400 MWs) to Brookfield Renewable for \$2.8 billion with net proceeds of \$1.1 billion.
- On March 1, 2023, Consolidated Edison sold its Clean Energy Businesses (4 GWs of renewables) to RWE Renewables Americas for \$6.8 billion.
- On February 22, 2023, American Electric Power (AEP) agreed to sell its 1,365 MW unregulated, portfolio to IRG Acquisition Holdings, a partnership owned by Invenergy, CDPQ and funds managed by Blackstone Infrastructure, at an enterprise value of \$1.5 billion including project debt.
- On November 3, 2023, NRG sold its 44% stake in the 2,645 MW South Texas Project nuclear plant to CEG for \$1.75 billion. The price implies 11.7x EV/EBITDA.
- On May 25, 2023, EverSource (ES) agreed to sell its offshore land lease and expects winning bids for its 50% interest in three offshore wind projects (South Fork Wind, Revolution Wind, and Sunrise Wind) totaling 1,758 MW by the end first quarter 2024.
- On March 6, 2023, Vistra Energy (VST) agreed to buy Energy Harbor's nuclear (4.0 GWs, including Beaver Valley 1 and 2, Perry, and Davis Besse) and retail businesses for \$3.4 billion and combine to form "Vistra Vision" (VV). Vistra will own a controlling 85% ownership interest in Vistra Vision; Nuveen and Avenue Capital will own the remaining 15%. VV will include 6.4 GW of nuclear generation, ~5 million retail customers, and ~2.4 GW of online and near-term pipeline of renewable and storage assets.

Activism

- On May 15, 2023, Elliott announced that it sent a letter and presentation to NRG's Board outlining a path to shareholder value after meaningful under-performance. Elliott claims to own 13% of shares. Elliott seeks to: 1) add new independent board members; 2) push for \$500M of cost reductions; and 3) conduct a strategic review of the home services strategy including Vivint.
- In August 2023, Southwest Gas (SWX) confidentially submitted draft Registration Form S-1 for a potential IPO of Centuri either through a shareholder spin (1Q 2024) or an IPO of 19.9% followed by sell-down of owned shares. Icahn owns 10.8 million shares and Corvex owns 4.1 million.



Electric and gas utilities will likely continue to explore assets sales to fund rate base growth. Utilities with ongoing strategic reviews or assets for sale, include: AGR (stakes in renewable assets), AQN (renewables), EMA-TSE (regulated & non-regulated assets), UGI Corp (UGI) selling propane and Southwest Gas (SWX). Utilities with non-regulated businesses, include ALE (renewables), Centerpoint Energy (CNP) (gas LDCs), DTE (non-regulated assets), Otter Tail Corp (OTTR)

Table 8

Recent Utilities Transactions

Date			Value	Premium	Date
Announced	Target Entity	Acquirer	(\$ Millions)	<u>Paid (%)</u>	Closed
10/30/2023	Entegy LA LDC	Bernhard Capital	484	NA	Pending
9/26/2023	Florida Ciry Gas	Chesapeake Utilities	924	NA	12/1/2023
9/5/2023	Dominion LDC's	Enbridge	14,000	NA	Pending
2/24/2022	South Jersey Industries	Infrastructure Invt Fund	8,100	53%	2/2/2023
11/7/2021	First Energy Transmission (20%)	Brookfield Infra. Ptrs.	2,375	NA	5/31/2022
10/26/2021	AEP's Kentucky subsy	Algonquin Power	2,846	NA	Terminated
6/14/2021	Hawaii Gas	Argo Infrastructure	514	NA	7/21/2022
4/29/2021	Centerpoint's Arkamsas & OK Gas	Summit Utilities	2,050	NA	1/10/2022
3/18/2021	Narragansett Electric	PPL Corp	5,270	NA	5/25/2022
1/28/2021	Duke Energy-Indiana (20%)	GIC Partners	2,050	NA	9/8/2021
1/13/2021	Corning Gas	Argo Infrastructure	130	44	7/6/2022
10/21/2020	PNM Resources	Avangrid	8,300	10	Terminated
11/4/2019	Pattern Energy	Canadian Pension	6,100	15	3/16/2020
6/3/2019	Bermuda Electric	Algonquin Pwr & Utilities	366	NA	11/9/2020
6/3/2019	El Paso Electric	JP Morgan	4,300	17	7/29/2020
10/23/2018	Peoples Gas	Essential Utilities (AquaAmeric		NA	2/3/2020
10/18/2018		Sempra Energy	1,275	18	5/16/2019
5/21/2018	Gulf Power	NextEra Energy	5,800	NA	12/31/2018
4/23/2018	Vectren	Centerpoint Energy	8,100	17	2/1/2019
1/3/2018	SCANA	Dominion Energy	14,600	42	12/31/2018
	Dynegy, Inc.	Vistra Energy	11,100	12	4/9/2018
8/18/2017	Calpine	Energy Capital Partners	5,600	23	3/12/2018
8/21/2017	Oncor	Sempra Energy	18,800	NA	03/09/18
7/19/2017	Avista	Hydro One	5,300	24	Terminated
7/6/2017	Oncor	Berkshire Energy	18,500	NA	Terminated
2/21/2017	Delta Gas	Steel River	258	17	09/20/17
1/25/2017	WGL Holdings	AltaGas	6,400	12	07/06/18
10/10/16	Gas Natural	First Reserve	196	39	08/04/17
07/29/16	Oncor	NextEra Energy	18,400	NA	Terminated
06/03/16	Talen Energy	Riverstone Partners	5,200	56	12/06/16
05/31/16	Westar Energy	Great Plains Energy	12,200	13	06/04/18
04/26/16	Energy South	Spire	344	NA	09/12/16
04/20/10	Empire Distric Electric	Algonquin Power & Utilities	2,370	21	01/03/17
02/08/16		Fortis Inc.	11,300	14	
	ITC Holdings			22	10/14/16
01/29/16	Questar Corp.	Dominion Resources Inc.	6,000	42	09/16/16
10/26/15	Piedmont Natural Gas Company	Duke Energy Group	6,700		10/03/16
09/04/15	TECO Energy AGL Resources	Emera Inc.	10,400	31	07/01/16
08/24/15		Southern Company	12,000	38	07/01/16
07/12/15	SourceGas Holdings	Black Hills Corp	1,890	NA 25	02/12/16
02/25/15	UIL Holdings Corp.	Iberdrola S.A.	4,700	25	12/17/15
12/03/14	Hawaiian Electric Industries	NextEra Energy	4,300	21	Terminated
10/20/14	CLECO Corp	Macquarie	4,700	15	04/13/16
06/23/14	Integrys Energy Group	Wisconsin Energy	9,100	17	06/29/15
05/01/14	AltaLink L.P.	Berkshire Hathaway	5,900	NA	12/01/14
04/30/14	PEPCO Holdings, Inc.	Exelon	11,900	20	03/23/16
04/07/14	Alabama Gas Corporation	Laclede Group	1,600	NA	08/26/14
03/03/14	Philadelphia Gas Works	UIL Holdings Corp	1,860	NA	Terminated
12/11/13	UNS Energy	Fortis	4,300	31	08/15/14
05/29/13	NVE Energy	Mid-American	5,600	23	12/19/13
05/28/13	New Mexico Gas	TECO Energy	950	NA	09/03/14
02/11/13	New England Gas Company	Algonquin Power	74	NA	12/20/13
12/20/12	EQT Distribution Assets	Peoples Natural Gas	1,080	NA	12/17/13
12/17/12	Missouri Gas & New England Gas	Laclede Group	1,020	NA	09/01/13
07/22/12	GenON	NRG Energy Inc	3,400	21	12/14/12
02/21/12	CH Energy Group	Fortis	1,267	10.5	06/27/13

Source: Public Data



Valuation

Over the past twenty years, electric utility multiples climbed from roughly 10x forward earnings to over 23x, driven by improving fundamentals and higher growth rates (Exhibit 12). Electric utilities trade at 15.0x consensus 2024 earnings estimates which is below the historical median. We consider the multiple attractive given higher utility earning growth rates and strong fundamentals.

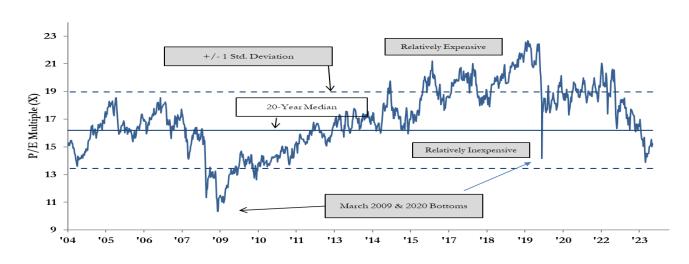
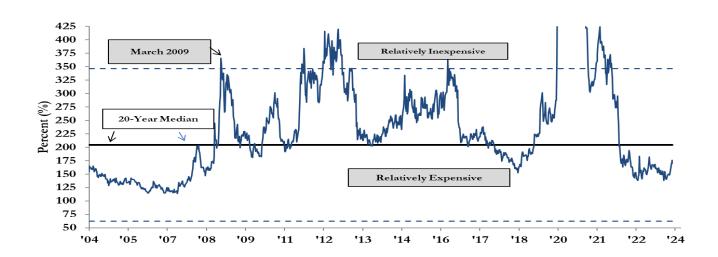


Exhibit 9 Absolute P/E Multiple Range

Given that long-term interest rates (specifically the 10-year and 30-year Treasury yields) have risen dramatically to nearly 4.0% following a long-term secular decline since the late 1980's, we measure the earnings yield (1/P/E) as a percent of the 10-Year T-Bond Yield to gauge interest rate adjusted valuations. As can be seen in Exhibit 10, the current ratio of 175% indicates the sector P/E is modestly higher than its historical median relationship with the 10-Year T-Bond Yield.



Utility Earnings Yield as a Percent of 10-Year T-Bond Yield



Source: Thomson One, Company documents, Gabelli Funds estimates



Interest Rates and the Fed

While utility stocks are not bond proxies, and share prices are a function of earnings and dividend growth rates, higher (lower) rates negatively (positively) impact equities, given that future cash flows are impacted by the assumed discount rate.

In addition, current utility dividend returns become less compelling when returns on other investments increase, including Treasury yields. The current 6-month Treasuries yield over 5.0% and US Treasuries hold even greater defensive appeal than utilities. The factors below mitigate the negative impact of higher rates.

- Annual dividend hikes: Utilities target annual dividend increases, which serve to mitigate the negative impact of higher rates. In 2023, electric utilities increased the annual dividend by a median of 5.0%.
- ROE is set based on interest rates: A utility's cost-of-capital, including equity returns (ROEs), is set by state PUCs and increases (decreases) as interest rates rise (fall).
- Annual riders minimize inflation risk: State PUCs and FERC regulatory principles have improved to include more frequent rate adjustments, which mitigate inflation risk.
- Utility stocks pay higher dividends than other sectors: The present value of a higher near term dividend stream is less impacted by changes in interest rates than a lower near term dividend stream.

While utility dividend yields and 10-year U.S. Treasury yields are highly correlated and will likely remain so in the future, utility dividends have risen over time (most on annual basis) while the Treasury yield remains fixed. Utility stock prices, unlike Treasury bond prices, are likely to rise should earnings and dividends grow over time.

Conclusion

The utility sector offers a 3.7% current return and many utility managements target 4-7% annual earnings and dividend growth. The utility business model represents a safe-haven in the face of recession and/or inflation fears. In addition, the transformation of the utility sector from fossil fuel-fired to renewables provides the environment for strong annual earnings and dividend growth. We believe that the combination of strong utility fundamentals, and the potential for escalating geopolitical volatility and/or domestic economic slow-down bode well for the relative performance of utilities.



Appendix 1

Large, Small/Mid Cap & Canadian Utilities Select Statistics

			2023	Equity	Enterprise	Annual	Current	Payout	EPS	EPS	EPS	EPS	EPS 3-Year	2023E	2024P	2025P	EV/
Company Name	<u>SYM</u>	Price	Return	Cap	Value	Dividend	Return	<u>2024E</u>	<u>2022A</u>	2023E	2024P	<u>2025P</u>	CAGR	<u>P/E</u>	P/E	P/E	EBITDA
		\$	%	\$	\$	\$	%	%	\$	\$	\$	\$	%	Х	X	X	X
AES Corp	AES	19.25	-31	12,890	42,351	0.69	3.6%	36%	1.67	1.72	1.90	2.07	7.4%	11.2	10.1	9.3	13.0
Alliant Energy	LNT	51.30	-4	13,091	22,224	1.81	3.5%	60%	2.80	2.89	3.02	3.27	5.3%	17.8	17.0	15.7	12.9
Ameren Energy	AEE	72.34	-16	19,021	35,147	2.52	3.5%	56%	4.14	4.38	4.50	4.85	5.4%	16.5	16.1	14.9	11.4
American Electric Pov	AEP	81.22	-11	42,712	84,353	3.52	4.3%	63%	5.09	5.28	5.60	5.96	5.4%	15.4	14.5	13.6	11.1
Avangrid	AGR	32.41	-21	12,535	24,280	1.76	5.4%	77%	2.33	2.11	2.28	2.44	1.5%	15.4	14.2	13.3	10.8
CMS Energy	CMS	58.07	-5	16,943	33,022	1.95	3.4%	58%	2.89	3.10	3.34	3.60	7.6%	18.7	17.4	16.1	12.2
Consolidated Edison	ED	90.97	-1	31,405	54,104	3.24	3.6%	61%	4.57	5.02	5.29	5.59	6.9%	18.1	17.2	16.3	10.8
Dominion Energy	D	47.00	-19	39,329	82,576	2.67	5.7%	86%	4.11	2.87	3.12	3.45	-5.7%	16.4	15.1	13.6	11.9
DTE Energy	DTE	110.26	-3	22,742	42,805	4.08	3.7%	61%	6.10	5.78	6.64	7.17	5.5%	19.1	16.6	15.4	11.9
Duke Energy	DUK	97.04	-2	74,790	157,740	4.10	4.2%	69%	5.27	5.60	5.97	6.33	6.3%	17.3	16.3	15.3	12.1
Edison Internatioanl	EIX	71.49	17	27,421	64,327	3.12	4.4%	68%	4.63	4.50	4.60	4.80	1.2%	15.9	15.5	14.9	10.3
Entergy	ETR	101.19	-6	21,399	47,761	4.52	4.5%	63%	6.42	6.74	7.20	7.73	6.4%	15.0	14.1	13.1	10.3
EverSource	ES	61.72	-23	21,560	47,737	2.70	4.4%	59%	4.09	4.36	4.57	4.81	5.5%	14.2	13.5	12.8	12.8
Exelon	EXC	35.90	-14	35,736	78,196	1.44	4.0%	59%	2.27	2.36	2.44	2.66	5.4%	15.2	14.7	13.5	10.4
First Energy	FE	36.66	-9	21,036	45,817	1.64	4.5%	62%	2.41	2.54	2.66	2.84	5.6%	14.4	13.8	12.9	11.8
Iberdrola	IBE-MC	11.87	13	83,187	138,615	0.01	0.0%	1%	0.50	0.75	0.60	0.65	9.1%	15.8	19.8	18.3	9.5
National Grid	NGG	67.99	19	50,077	102,339	3.54	5.2%	82%	3.84	6.35	4.30	4.75	5.3%	10.7	15.8	14.3	12.0
Nextera Energy	NEE	60.74	-25	124,621	204,189	1.87	3.1%	55%	2.90	3.13	3.40	3.66	8.1%	19.4	17.9	16.6	14.5
PG&E	PCG	18.03	11	47,081	101,706	0.04	0.2%	3%	1.10	1.21	1.35	1.47	10.1%	14.9	13.4	12.3	12.0
PPL Corp	PPL	27.10	-4	19,976	34,103	0.96	3.5%	56%	1.41	1.58	1.71	1.83	9.1%	17.2	15.8	14.8	10.4
PS E&G	PEG	61.15	4	30,472	50,056	2.28	3.7%	62%	3.47	3.46	3.68	4.08	5.5%	17.7	16.6	15.0	12.7
Sempra Energy	SRE	74.73	1	47,030	82,005	2.38	3.2%	50%	4.61	4.57	4.80	4.94	2.3%	16.4	15.6	15.1	14.0
Southern Company	SO	70.12	2	76,474	139,494	2.80	4.0%	69%	3.60	3.60	4.03	4.32	6.3%	19.5	17.4	16.2	13.6
WEC Energy Group	WEC	84.17	-7	26,550	45,027	3.34	4.0%	68%	4.45	4.61	4.91	5.25	5.7%	18.3	17.1	16.0	13.5
Xcel Energy	XEL	61.91	-9	34,163	59,448	2.08	3.4%	58%	3.17	3.36	3.58	3.84	6.6%	18.4	17.3	16.1	11.5
Group Median			-5				3.7%	61%	1.6%	4.5%	6.5%	7.2%	5.6%	16.4	15.8	14.9	11.9

			2023	Equity	Enterprise	Annual	Current	Payout	EPS	EPS	EPS	EPS	EPS 3-Year	2023E	2024P	2025P	EV/
Company Name	<u>SYM</u>	Price	YTD	Cap	Value	Dividend	Return	<u>2023E</u>	<u>2022A</u>	<u>2023E</u>	<u>2024P</u>	<u>2025P</u>	CAGR	P/E	P/E	P/E	EBITDA
		\$	%	\$	\$	\$			\$	\$	\$	\$		Х	Х	Х	Х
Allete	ALE	61.16	-1	3,515	5,796	2.71	4.4%	66%	3.38	4.27	4.11	4.30	8.3%	14.3	14.9	14.2	12.6
Avista	AVA	35.74	-15	2,765	5,598	1.84	5.1%	76%	2.12	1.50	2.41	2.60	7.0%	23.8	14.8	13.7	9.7
Black Hills Corp	BKH	53.95	-20	3,668	8,084	2.50	4.6%	67%	3.97	3.97	3.75	3.95	-0.2%	13.6	14.4	13.7	10.1
Centerpoint Energy	CNP	28.57	-2	18,034	35,068	0.80	2.8%	49%	1.38	1.50	1.62	1.74	8.0%	19.0	17.6	16.4	10.9
Evergy	EVRG	52.20	-13	11,984	24,722	2.57	4.9%	67%	3.71	3.62	3.84	4.04	2.9%	14.4	13.6	12.9	10.5
Hawaiian Electric	HE	14.19	-64	1,563	4,732	0.00	0.0%	0%	2.20	2.03	2.10	2.30	1.5%	7.0	6.8	6.2	7.7
IdaCorp	IDA	98.32	-6	4,976	7,365	3.32	3.4%	61%	5.11	5.13	5.46	5.85	4.6%	19.2	18.0	16.8	14.0
MDU Resources	MDU	19.80	-2	4,032	6,371	0.50	2.5%	32%	1.81	1.52	1.54	2.50	11.4%	13.0	12.9	7.9	8.5
MG&E	MGEE	72.31	5	2,615	3,339	1.71	2.4%	48%	2.60	3.41	3.58	3.76	13.1%	21.2	20.2	19.2	13.6
NiSource	NI	26.55	0	10,976	25,837	1.00	3.8%	58%	1.47	1.59	1.71	1.84	7.8%	16.7	15.5	14.4	11.6
Northwestern	NWE	50.89	-10	3,117	5,749	2.48	4.9%	67%	3.21	3.50	3.70	3.90	3.7%	14.5	13.8	13.0	11.6
OGE Energy	OGE	34.93	-7	6,996	11,744	1.67	4.8%	78%	3.32	2.06	2.14	2.27	-11.9%	17.0	16.3	15.4	10.2
Otter Tail Power	OTTR	84.97	48	3,544	4,230	1.75	2.1%	43%	6.78	6.86	4.09	3.76	-17.8%	12.4	20.8	22.6	8.7
Pinnacle West	PNW	71.84	-1	8,147	17,083	3.52	4.9%	72%	4.26	4.25	4.89	5.12	6.3%	16.9	14.7	14.0	10.5
PNM Resources	PNM	41.60	-12	3,571	8,463	1.55	3.7%	56%	2.69	2.78	2.79	2.93	2.9%	15.0	14.9	14.2	10.7
Portland Gneral	POR	43.34	-8	4,383	8,403	1.90	4.4%	62%	2.74	2.62	3.05	3.19	5.2%	16.5	14.2	13.6	9.3
Unitil	UTL	52.57	6	846	1,486	1.62	3.1%	55%	2.59	2.79	2.93	3.10	6.2%	18.8	17.9	17.0	9.9
SMID Cap Median			-2				3.7%	61%		5.0%	9.0%	6.6%	4.9%	16.7	14.9	14.2	10.2
Electric Universe M	edian		-5				3.7%	61%		3.3%	6.2%	6.9%	5.5%	16.5	15.6	14.6	11.3

Canadian Utilities	<u>SYM</u>	Price	2023 <u>YTD</u>	Equity <u>Cap</u>	Enterprise <u>Value</u>	Annual <u>Dividend</u>	Current <u>Return</u>	Payout 2023E	EPS <u>2022A</u>	EPS <u>2023E</u>	EPS <u>2024P</u>	EPS 2025P	EPS 3-Year <u>CAGR</u>	2023E <u>P/E</u>	2024P <u>P/E</u>	2025P <u>P/E</u>	EV/ <u>EBITDA</u>
		\$	%	\$	\$	\$	%	%	\$	Ş	\$	\$		X	X	X	Х
Algnoquin	AQN	6.32	4	4,354	15,004	0.43	6.9%	54%	0.66	0.52	0.80	0.90	10.9%	12.2	7.9	7.0	12.4
Alta-Gas	ALA-T	27.82	24	6,231	17,648	1.19	4.3%	56%	1.87	1.95	2.14	2.33	7.6%	14.3	13.0	11.9	11.2
Canadian Utilities	CU-T	31.89	-8	4,869	18,212	1.79	5.6%	78%	2.43	2.19	2.31	2.38	-0.7%	14.6	13.8	13.4	9.0
Emera	EMA-T	50.30	3	10,567	34,524	2.87	5.7%	88%	3.20	3.06	3.27	3.34	1.4%	16.4	15.4	15.1	11.8
Fortis	FTS	41.13	8	20,091	45,064	1.78	4.3%	56%	2.78	2.55	3.19	3.34	6.3%	16.1	12.9	12.3	11.9
Hydro-One	H-T	39.70	13	17,956	39,238	1.19	3.0%	63%	1.75	1.81	1.89	2.03	5.1%	21.9	21.0	19.6	13.8
			6				5.0%	59%		-4.8%	12.6%	5.3%	5.7%	15.3	13.4	12.9	11.9

Source: Public data, Gabelli Funds estimates

Appendix 2 Clean, Independent Power, Gas & Water Selected Statistics



			2023	Equity	Enterprise	Annual	Current	Payout	EPS	EPS	EPS	EPS	EPS 3-Year	2023E	2024P	2025P	EV/
Clean Power IPP's	<u>SYM</u>	Price	YTD	<u>Cap</u>	Value	Dividend	Return	<u>2023E</u>	<u>2022A</u>	<u>2023E</u>	<u>2024P</u>	<u>2025P</u>	CAGR	<u>P/E</u>	<u>P/E</u>	<u>P/E</u>	EBITDA
		\$	%	\$	\$	\$			\$	\$	\$	\$		Х	Х	Х	Х
Atlantica Sustainable	AY	21.50	-10	2,497	7,371	1.78	8.3%	297%	-0.05	0.28	0.60	0.47	-	76.8	35.8	45.7	9.3
Boralex	BLX-T	33.68	-14	2,613	6,929	0.66	2.0%	61%	0.30	1.06	1.09	1.11	54.6%	31.8	30.9	30.3	10.7
Brookfield Renewable	BEP	26.28	9	7,550	54,475	1.35	5.1%	-1227%	-0.60	-0.28	-0.11	0.29	-	-93.9	-238.9	90.6	23.8
Canadian Solar	CSIQ	26.23	-15	1,696	4,255	0.00	0.0%	0%	3.44	3.82	3.47	4.64	10.5%	6.9	7.6	5.7	5.3
Clearway Energy	CWEN	27.43	-9	5,322	13,790	1.59	5.8%	-	-	-	-	-	-	-	-	-	-
Constellation Energy	CEG	116.89	37	37,333	42,378	1.13	1.0%	17%	-0.49	6.42	6.56	6.63	-	18.2	17.8	17.6	10.7
Innergex Renewable	INE-T	9.19	-39	1,418	7,996	0.72	7.8%	900%	-0.17	0.28	0.08	0.24	-	32.8	114.9	38.3	11.1
NextEra Energy Partı	NEP	30.41	-52	2,841	19,736	3.47	11.4%	475%	5.62	1.61	0.73	0.58	-	18.9	41.7	52.4	10.6
NRG Energy	NRG	51.70	67	11,672	19,861	1.51	2.9%	24%	5.17	4.78	6.39	6.84		10.8	8.1	7.6	6.3
Ormat	ORA	75.79	-12	4,574	6,275	0.48	0.6%	19%	1.63	2.11	2.54	3.41	27.9%	35.9	29.8	22.2	13.0
Vistra Energy	VST	38.52	70	13,773	22,080	0.85	2.2%	22%	-3.26	4.10	3.91	4.26		9.4	9.9	9.0	5.6
Group Median			-10				2.9%	23%						18.5	23.8	26.3	10.6

Midstream Gas Co'	<u>SYM</u>	Price	2023 <u>YTD</u>	<u>Cap</u>	Enterprise <u>Value</u>	Annual <u>Dividend</u>	Current <u>Return</u>	Payout <u>2023E</u>	EPS <u>2022A</u>	EPS <u>2023E</u>	EPS <u>2024P</u>	EPS 2025P	EPS 3-Year <u>CAGR</u>	2023E <u>P/E</u>	2024P <u>P/E</u>	2025P <u>P/E</u>	EV/ <u>EBITDA</u>
		\$	%	\$	\$	\$			\$	\$	\$	\$		Х	Х	Х	X
Enbridge	ENB	36.02	1	76,563	140,790	2.77	7.7%	101%	2.81	2.12	2.75	3.01	2.3%	17.0	13.1	12.0	11.4
Kinder Morgan	KMI	17.64	4	39,210	71,358	1.13	6.4%	93%	1.16	1.10	1.21	1.25	2.5%	16.0	14.6	14.1	9.4
ONEOK	OKE	70.22	13	40,907	62,573	3.82	5.4%	77%	3.84	5.46	4.97	5.43	12.2%	12.9	14.1	12.9	12.2
TC Energy Corp	TRP	39.09	7	40,555	89,723	2.81	7.2%	70%	4.30	3.17	4.01	4.18	-0.9%	12.3	9.7	9.4	11.2
TransAlta	TAC	8.31	-5	2,575	6,031	0.18	2.2%	50%	0.01	2.24	0.36	0.20		3.7	23.1	41.6	4.6
Williams	WMB	34.83	11	42,371	68,238	1.79	5.1%	95%	1.67	2.03	1.89	2.18	9.3%	17.2	18.4	16.0	10.1
			6				5.1%	70%					5.9%	16.0	14.6	14.1	10.6

			2023		Enterprise	Annual	Current	Payout	EPS	EPS	EPS	EPS	EPS 3-Year	2023E	2024P	2025P	EV/
Gas Utilities	<u>SYM</u>	Price	YTD	Cap	Value	Dividend	Return	2023E	<u>2022A</u>	<u>2023E</u>	<u>2024P</u>	<u>2025P</u>	CAGR	<u>P/E</u>	P/E	<u>P/E</u>	EBITDA
		\$	%	\$	\$	\$			\$	\$	\$	\$		Х	Х	Х	Х
Atmos Energy	ATO	115.90	6	17,482	24,351	3.22	2.8%	46%	6.10	6.53	6.97	7.45	6.9%	17.7	16.6	15.6	12.2
Black Hills Corp	BKH	53.95	-20	3,668	8,084	2.50	4.6%	67%	3.97	3.60	3.75	3.95	-0.2%	15.0	14.4	13.7	10.1
Chesapeake Utilities	CPK	105.63	-9	2,349	3,129	2.36	2.2%	43%	5.04	5.03	5.45	6.18	7.0%	21.0	19.4	17.1	13.0
MDU Resources	MDU	19.80	-2	4,032	6,371	0.50	2.5%	32%	1.81	1.52	1.54	1.50	-6.1%	13.0	12.9	13.2	8.5
National Fuel Gas	NFG	50.17	-18	4,607	7,094	1.98	3.9%	28%	5.17	5.47	6.99	7.35	12.4%	9.2	7.2	6.8	5.6
NiSource	NI	26.55	0	10,976	25,837	1.00	3.8%	58%	1.47	1.59	1.71	1.84	7.8%	16.7	15.5	14.4	11.6
NJ Resources	NJR	44.58	-7	4,359	7,443	1.68	3.8%	57%	2.70	2.78	2.93	2.55	-1.9%	16.0	15.2	17.5	12.0
Northwest Natural G	NWN	38.94	-14	1,432	2,924	1.95	5.0%	71%	2.54	2.66	2.75	2.96	5.2%	14.6	14.2	13.2	9.4
OneGas	OGS	63.72	-12	3,534	6,505	2.60	4.1%	63%	4.08	4.14	4.15	4.35	2.2%	15.4	15.4	14.6	10.3
RGC Resources	RGCO	20.34	-4	204	342	0.80	3.9%	63%	1.14	1.16	1.27	1.35	5.8%	17.5	16.0	15.1	
Southwest Gas	SWX	63.35	6	4,531	9,906	2.48	3.9%	81%	2.99	3.32	3.07	4.85	17.5%	19.1	20.6	13.1	10.9
Spire	SR	62.34	-5	3,318	8,237	3.02	4.8%	66%	4.05	4.32	4.55	4.84	6.1%	14.4	13.7	12.9	10.7
UGI	UGI	24.60	-30	5,154	12,163	1.50	6.1%	51%		2.95	2.93	2.87		8.3	8.4	8.6	7.1
Group Median			-7				3.9%	58%		9.8%	6.6%	8.3%	6.0%	15.4	15.2	13.7	10.5

			2022	Equity	Enterprise	Annual	Current	Payout	EPS	EPS	EPS	EPS	EPS 3-Year	2023E	2024P	2025P	EV/
Water Utilities	<u>SYM</u>	Price	YTD	Cap	Value	Dividend	Return	<u>2023E</u>	<u>2022A</u>	<u>2023E</u>	<u>2024P</u>	<u>2025P</u>	CAGR	<u>P/E</u>	P/E	P/E	EBITDA
		\$	%	\$	\$	\$	%	%	\$	\$	\$	\$	%	Х	Х	Х	Х
American States Wate	AWR	80.42	-11	2,974	3,813	1.72	2.1%	58%	2.11	2.83	2.95	3.28	15.8%	28.4	27.3	24.5	18.2
American Water Worl	AWK	131.99	-12	25,699	37,231	2.83	2.1%	55%	4.43	4.81	5.16	5.60	8.1%	27.4	25.6	23.6	16.4
Artesian Water	ARTNA	41.45	-27	426	603	1.16	2.8%	72%	1.45	1.63	1.60	1.70	5.4%	25.4	-	-	16.5
California Water Serv	CWT	51.87	-13	2,993	4,097	1.04	2.0%	47%	1.77	1.82	2.20	2.37	10.2%	28.5	23.6	21.9	14.4
Consolidated Water	CWCO	35.60	143	561	517	0.38	1.1%	30%	0.38	1.76	1.25	0.70	22.6%	20.2	28.5	50.9	12.9
Essential Utilities	WTRG	37.35	-19	10,203	17,001	1.23	3.3%	61%	1.77	1.87	2.00	2.14	6.5%	20.0	18.7	17.5	15.7
Global Water Resourc	GWRS	13.08	1	316	418	0.30	2.3%	120%	0.24	0.25	0.25	0.20	24.0%	52.3	52.3	-	17.0
SJW Corp	SJW	65.35	-18	2,087	3,771	1.52	2.3%	54%	2.43	2.68	2.79	2.95	6.7%	24.4	23.4	22.2	14.4
York Water	YORW	38.62	-12	553	721	0.84	2.2%	52%	1.40	1.59	1.61	1.45	1.2%	24.3	24.0	26.6	17.1
			-12				2.2%	55%		20.4%	3.0%	2.9%	8.1%	25.4	24.8	23.6	15.7

Source: Public data, Gabelli Funds estimates



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