

US Utilities & IPPs

Utility Inflation Accelerates... but (warm) Winter is Coming. Clean energy vs rates

Industry Overview

Utility inflation picks up in November but relief ahead

Seasonally adjusted utilities CPI increased in November 2023 with electricity +1.4% and utility (piped) gas service +2.8% per the Bureau of Labor Statistics (BLS). On an unadjusted TTM basis electricity is +3.4% vs all items +3.1% while natural gas is still the largest contributor to deflation on an unweighted basis after fuel oil -25%. With expectation for winter weather shifting increasingly warm, the outlook for customer bills should improve. As evidence, cal-2024 NYMEX natural gas forwards have declined - \$1/mmbtu since November 6th to \$2.50 from \$3.50. The front of the natural gas curve is even lower at \$2.25-\$2.35/mmbtu which should help customers with relief.

Warm winter ahead a pressure for utes 4Q23/FY24 EPS

On the favorable side, this should manifest in less contentious regulatory proceedings in the months ahead. Unfortunately, a warm winter 2023-2024 represents the latest challenge for regulated utilities FY23 earnings vs guidance midpoints and FY24 initiations. After generally mild weather in 2023, many companies resorted to large operating cost cuts/deferrals and other one-time items to support FY23 earnings. Much of these items are not sustainable into 2024 which creates a difficult backdrop for many companies. Companies with weather decoupling such as Consolidated Edison (ED) and those with conservatism embedded in FY24 guidance including Entergy (ETR) should be relative beneficiaries if the mild weather forecast holds. *Maintain Buy on shares of both ED and ETR which have positive risk/reward setups. Companies with high exposure to winter weather such as UGI Corp (UGI) could see more pressure – maintain Underperform.*

Declining utility rates would be latest resi solar challenge

For residential solar companies, any moderation in customer bills from the commodity side will likely more than offset the benefit from mortgage and broad financing rates pulling back approximately -75bp from the peak. California is a key market for residential solar installers where the increase in PG&E customer bills is expected to be +13% purely from the recent rate case before moderating to +2% in 2025 then -3% in 2026 (3.6% CAGR). This is just one of three major IOUs and there could be intrastate differences.

Utilities and clean energy equities diverging from rates

In the full report we show two exhibits comparing US utilities and Clean Energy companies vs the 30Yr US Treasury. The US utilities continue to have a tight correlation with rates (0.71 r^2 , down from 0.81 TTM) in the past month, whereas clean energy has fully decoupled at 0.34 r^2 (down from 0.89 TTM). We attribute clean energy's relative weakness vs interest rates to continued uncertainty into the fundamentals, particularly demand and margin for many companies. Visibility into demand remains the core challenge for a wide range of renewables companies: here we prefer a 'flight to quality' with FirstSolar (FSLR) offering one of the best total packages – Buy. See more in our recent 2023 Renewables Conference: [Flight to quality - Hoping for a better 2024](#). The question is which companies can offer reinvigorated confidence in 2024 recovery amongst a slew of more subdued outlooks. Similarly, we look for 45X tax credit guide to support [Array Technologies and NextTracker](#) (see note) too, potentially later this week.

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Utilities

Julien Dumoulin-Smith
Research Analyst
BofAS
+1 646 855 5855
julien.dumoulin-smith@bofa.com

Paul Zimbaro
Research Analyst
BofAS
+1 646 855 1470
paul.zimbaro@bofa.com

Dariusz Lozny, CFA
Research Analyst
BofAS
+1 646 743 2122
dariusz.lozny@bofa.com

Cameron Lochridge
Research Analyst
BofAS
+1 337 962 0696
cameron.lochridge@bofa.com

Morgan Reid
Research Analyst
BofAS
+1 646 855 4329
morgan.reid@bofa.com

Tanner W. James, CFA
Research Analyst
BofAS
+1 646 855 2689
tanner.w.james@bofa.com

Glossary

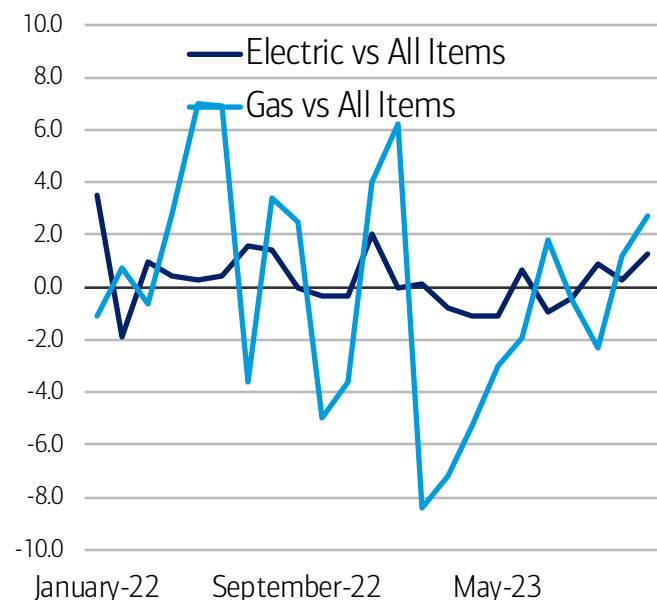
BLS: Bureau of Labor Statistics
CPI: Consumer Price Index
IOU: Investor-owned utilities
mmbtu: Million British thermal units
NYMEX: New York Mercantile Exchange
PG&E: Pacific Gas & Electric (PCG subsidiary)

Inflation: Utilities have been outpacing recently

Below we show two-year and one-year electric and natural gas relative CPI versus all items. Natural gas was very deflationary early in 2023 off elevated 2022 levels but has crept higher. The latest contraction in the commodity should be a benefit for ratepayers although lower consumption has negative impacts for utility earnings and balance sheets.

Exhibit 1: Electric & Gas Piped CPI vs All Items MoM: Jan. 2022-Present

Natural gas is inherently more volatile than electricity

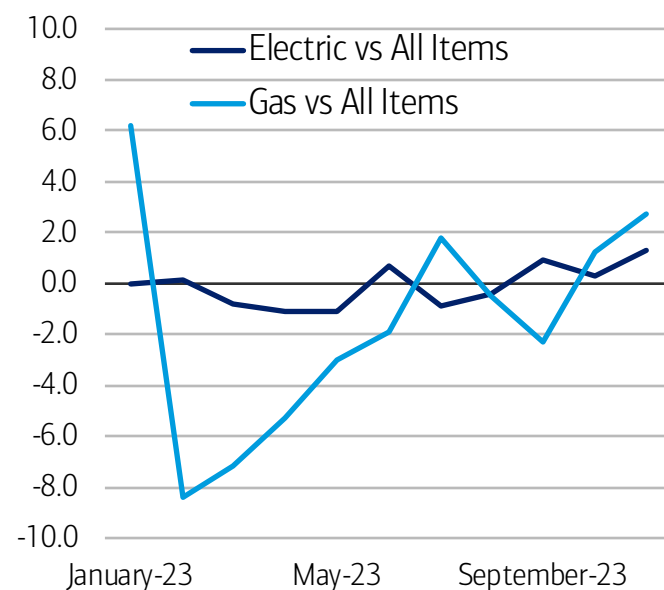


Source: Bureau of Labor Statistics

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Exhibit 2: Electric & Gas Piped CPI vs All Items MoM: Jan. 2023-Present

Both electricity and natural gas have been contributors to inflation recently



Source: Bureau of Labor Statistics

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Utilities vs Clean Energy: Interest rate linkage breaking

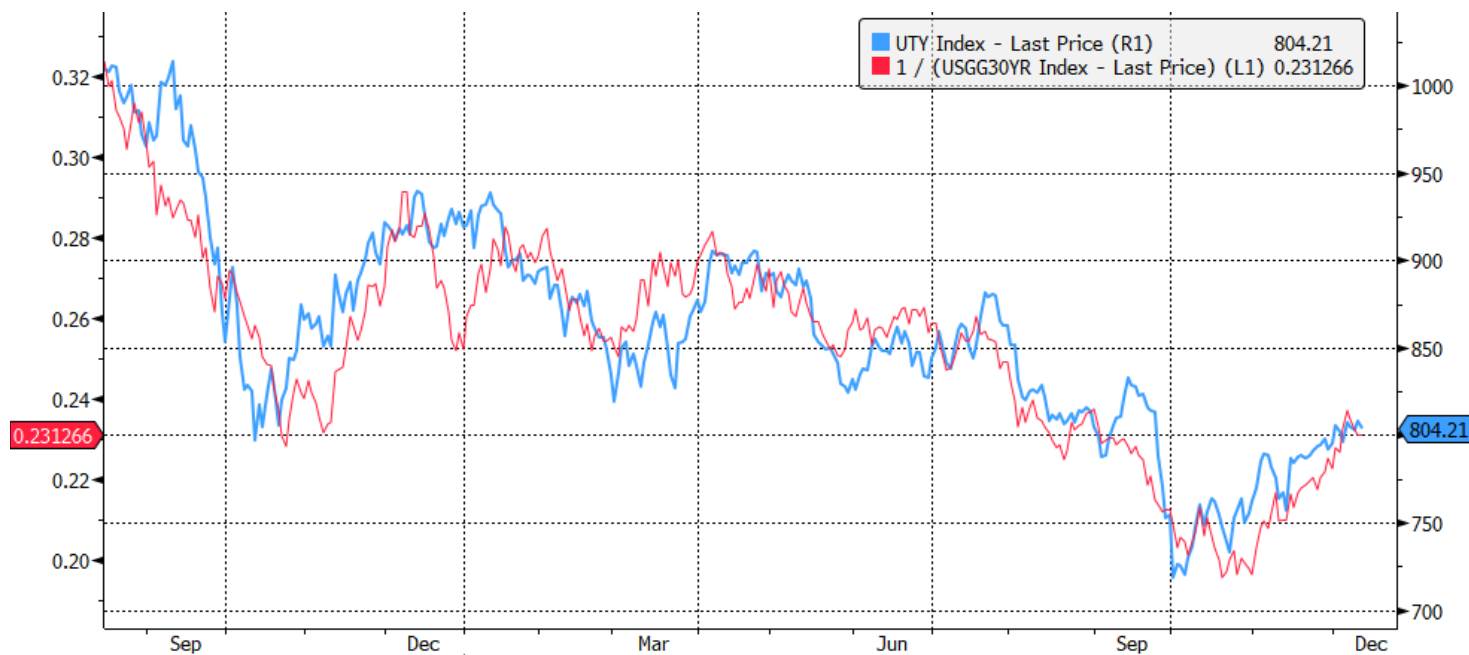
Perhaps counterintuitively, clean energy has had a higher inverse correlation with interest rates than US utilities which are viewed more as bond proxies. The r^2 correlation between Clean Energy companies and the 30Yr Treasury rate is 0.89 TTM, even higher than the 0.81 for US Utilities vs 30Yr Treasury TTM. The relationship for clean energy has weakened to 0.85 from June 12th to 0.4 from September 12th and 0.34 from November 12th.

Overall the risk/return on US utilities looks fairly balanced and investors have been quite bullish for the last three months from our conversations due to growing expectations for interest rate cuts in 2024. The reduction in the US30Yr to 4.3% from 5.0%+ does significantly reduce the pressure on many companies' long-term earnings profiles but we do still see many companies with net earnings guidance headwinds. The twin improvement in US equity markets and -75bp reduction in interest/discount rates is positive for companies pension plans and should lead to more pension income for companies such as FirstEnergy (FE), Eversource Energy (ES), Dominion Energy (D), Pinnacle West (PNW), and others relative to 9/30/23 mark-to-markets.

[US Utilities & IPPs: Pension Pain 2023 Edition: Rising interest rates inflect more damage on the sector 24 October 2023](#)

Exhibit 3: US Utilities Equities vs 30Yr Treasury Rates

Utilities have had a very high correlation with interest rates since August 2022



Source: Bloomberg and BofA Global Research

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Exhibit 4: Clean Energy Equities vs 30Yr Treasury Rates

Clean energy equities have lagged the implied move from interest rate correlations in recent weeks. This is likely due to low visibility to fundamentals



Source: Bloomberg and BofA Global Research

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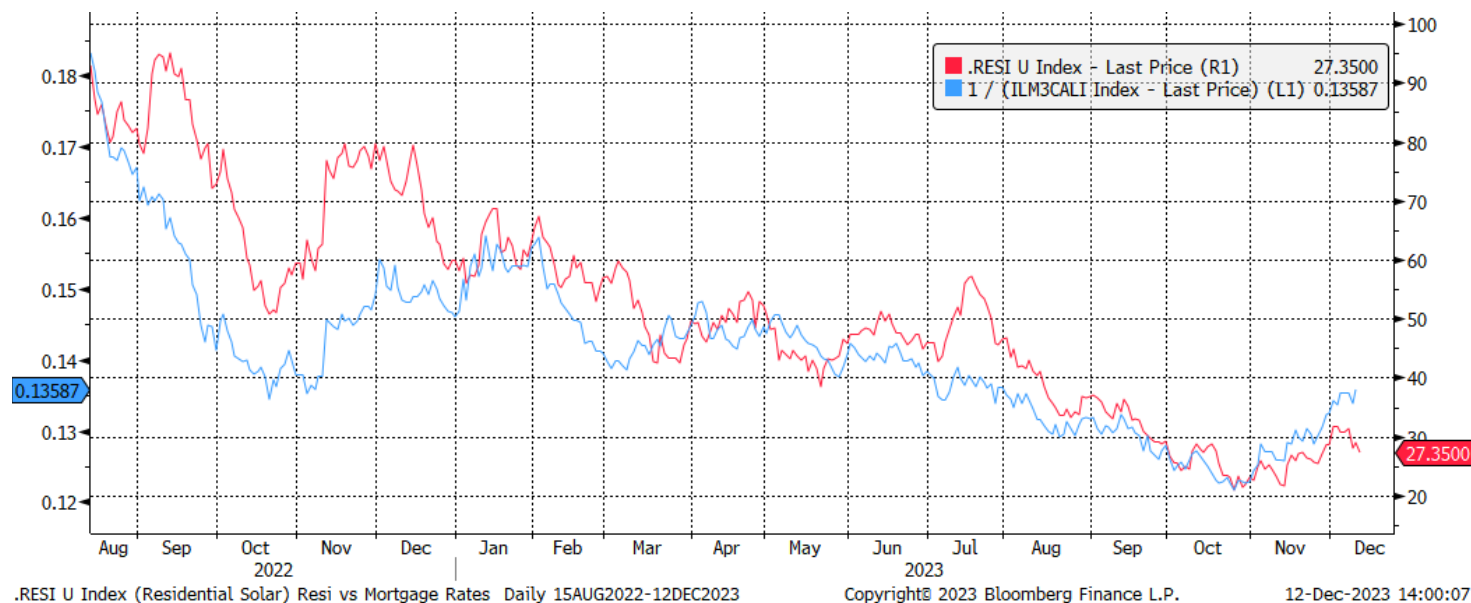
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Finally we show US Residential solar equities versus California mortgage rates where a similar but weaker correlation holds versus overall clean energy.

Exhibit 5: US Residential Solar Equities (RUN, NOVA, & SPWR) vs California Mortgage Rates

Residential solar equities have recovered off the bottom, but not the degree interest rates would dictate from the historical correlation



Source: Bloomberg and BofA Global Research

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Exhibit 6: Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
ARRY	ARRY US	Array Technologies	US\$ 16.73	C-1-9
ED	ED US	Consolidated Edison	US\$ 91.73	A-1-7
ETR	ETR US	Entergy Corp.	US\$ 101.59	B-1-7
FSLR	FSLR US	First Solar	US\$ 139.9	C-1-9
NXT	NXT US	Nextracker	US\$ 41.88	C-1-9
UGI	UGI US	UGI Corp.	US\$ 22.1	B-3-7

Source: BofA Global Research

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Price objective basis & risk

Array Technologies (ARRY)

Our \$23/share PO is based on a 50/50 weighted discounted cash flow (DCF) and EV/EBITDA multiple methodology. Our DCF valuation is \$16.50/share, and our EV/EBITDA valuation is \$31/share based on the average of comps at 13x/10x 2024E / 2025E EBITDA. We use an average given ongoing uncertainties in the utility scale solar market which we expect to be reflected in valuation alongside a more normalized business outlook in 2024.

DCF approach:

- We derive FCFF and net off stock-based compensation and contribution to margins from Inflation Reduction Act Credits which are valued separately
- FCFF discounted at a 12% cost of capital given risk associated with the execution of the growth strategy but noting ARRY is financed with lower cost debt
- Terminal multiple of 12.0x akin to where ARRY has traded on an average 2 year forward basis.
- We add in the discounted value of tax credit upside also at 12% through full phase down in 2023

Upside risks to our PO are (1) a stronger-than-anticipated outlook for solar projects in the US, (2) higher cost deflation on key inputs, including steel and freight, and accretion to margins (3) policy clarity in the US, which would give more long-term certainty for ARRY's buyers

Downside risks to our PO are (1) a slower recovery in US solar projects, (2) lack of execution on margin advancement and cost-cutting initiatives, and (3) an increasingly inflationary backdrop on supply chain

Consolidated Edison (ED)

Our \$96 PO is based on a sum-of-the-parts analysis applying premiums and discounts to the regulated group multiples 14.8x/14.3x for electric/gas respectively with an in-line multiple for Electric, Steam, & Gas to reflect a combination of historically challenging regulation but above-peer growth and de-risked profile. We apply a 2x premium to electric and 1x premium to gas to reflect regulatory de-risk and growth prospects. Both electric and gas peer 2025 P/E multiples are grossed up by 5% to reflect capital appreciation across the sector.

For noncore segments we apply an in line valuation to Con Edison Electric Transmission (CET) given potential for earnings growth and attractive regulatory characteristics. For the Mountain Valley Pipeline stake we apply a 10x EBITDA multiple to our 2024 EPS estimate reflecting recent positive legal and legislative developments.

Upside/downside risks are 1) earned regulatory returns, 2) capital expenditures, 3) regulatory/political/legislative changes, 4) interest rates, 5) natural disasters, 6) execution on unregulated projects. Additional downside risk: lack of approval or modification of the JP by the New York state commission.

Entergy (ETR)

Our \$110 price objective is based on a 2026 sum-of-the-parts analysis. The 2026E electric utilities 13.6x average P/E is grossed-up +5%, to reflect capital appreciation across the sector. We apply -1x discounts to Mississippi, New Orleans, and SERI to reflect elevated regulatory uncertainty. We value Louisiana at a -2x discount due to an even more challenging regulatory climate with elevated volatility versus jurisdictions. Texas has a +2x premium applied for premium growth potential. We net out 50% of the parent HoldCo long-term debt and apply a P/E multiple to 50% of the interest expense.

Positive and negative risks to achievement of our Price Objective are: (1) regulatory, political, and legislative changes, (2) natural or nuclear disasters including hurricanes, (3) ability to deploy capital expenditures consistent with guidance, (4) earned rates of returns at the jurisdictions, (5) interest rates fluctuations, (6) equity issuances relative to management's forecast and access to capital markets, (7) pension and nuclear decommissioning fund performance (8) nuclear accidents, and (9) management turnover.

First Solar, Inc. (FSLR)

Our price objective is \$272/share, based on an EV/EBITDA method. We use 8x our 2026E EBITDA, in-line with US Industrial comp group/module peers. Given FSLR's contracted margins through 2027+, we now see US Industrials as the best comp group. We apply a discount versus industrials given FSLR high free-cash-flow reinvestment need, despite IRA which supports near-term competitive positioning. We also add net cash balance and \$80/share net present value to account for production tax credits stipulated in Inflation Reduction Act.

Downside risks: 1) worse/declining price environment, 2) declining margins or worse-than-expected cost structure, 3) unfavorable trade policy dynamics, 5) worse Chinese/global demand environment, 6) worse execution on systems business, and 7) technology fails to live up to expectations 8) FSLR capture of production tax credits fall short of expectations

Nextracker Inc (NXT)

Our \$46/share PO is based on a 50/50 weighted discounted cash flow (DCF) and EV/EBITDA multiple methodology. Our DCF valuation is \$34.50/share, and our EV/EBITDA valuation is \$58/share based on a 4x premium over the average of tracker comps at 10x / 9x CY24E / CY25E EBITDA. We use an average given uncertainty about the ramp in utility scale solar which may normalize more fully in 2025.

DCF approach:

- We derive FCFF and net off stock-based compensation and contribution to margins from Inflation Reduction Act Credits which are valued separately
- FCFF discounted at a 11% cost of capital given risk associated with the execution of the growth strategy but noting NXT holds a clean balance sheet.
- Terminal multiple of 13.0x akin to where NXT's leading public peer has traded on an average 2 year forward basis.

Upside risks to our PO are (1) a stronger-than-anticipated outlook for solar projects in the US, (2) higher cost deflation on key inputs, including steel and freight, and accretion to margins (3) policy clarity in the US, which would give more long-term certainty for ARRY's buyers

Downside risks to our PO are (1) a slower recovery in US solar projects, (2) lack of execution on margin advancement and cost-cutting initiatives, and (3) an increasingly inflationary backdrop on supply chain

UGI Corp. (UGI)

Our \$22 PO is derived from our SOTP analysis. We mark-to-market (MtM) our UGI Utilities segment to 2025E peer 2025E P/E multiples of 14.9x for gas & 14.7x for electric. For U.S. & international LPG, we apply an 8.9x EBITDA base multiple in-line with propane comps & apply a -4x discount to UGI International (based on a challenged energy environment in Europe) and a -4x discount to AmeriGas based on challenges to customer retention & a slow return to the M&A market. We apply an 8.9x 2025E EV/EBITDA multiple to the midstream segment with premiums based on the asset. For the renewables business, we take the NPV of future cash flows, which implies a 0.9x

FY25E EV/EBITDA multiple. For parent debt in the Corp & Other segment we net out 50/50 weighting for recapitalization & add back 50% of parent interest exp.

Upside risks: favorable weather, improving propane logistics efficiencies domestically or in Europe, increased conversion rates or faster new home construction within PA, and favorable currency exchange rates. Macroeconomic concerns are declining interest rates, lack of volatility and declining natural gas prices, and a general economic upturn.

Downside risks: unfavorable weather, propane logistics issues and shortages domestically or in Europe, reduced conversion rates or slower new home construction within PA, and unfavorable currency exchange rates. Macroeconomic concerns are rising interest rates, volatile and rising natural gas prices, and a general economic slowdown.

Analyst Certification

We, Julien Dumoulin-Smith and Paul Zimbardo, hereby certify that the views each of us has expressed in this research report accurately reflect each of our respective personal views about the subject securities and issuers. We also certify that no part of our respective compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Alliant Energy Corporation	LNT	LNT US	Julien Dumoulin-Smith
	Ameren Corporation	AEE	AEE US	Julien Dumoulin-Smith
	Ameresco	AMRC	AMRC US	Julien Dumoulin-Smith
	Array Technologies	ARRY	ARRY US	Julien Dumoulin-Smith
	Atlantica Sustainable Infrastructure	AY	AY US	Julien Dumoulin-Smith
	Atmos Energy Corporation	ATO	ATO US	Julien Dumoulin-Smith
	CenterPoint Energy	CNP	CNP US	Julien Dumoulin-Smith
	Cheniere Energy Inc	LNG	LNG US	Julien Dumoulin-Smith
	Clearway Energy	CWENA	CWEN/A US	Julien Dumoulin-Smith
	Clearway Energy	CWEN	CWEN US	Julien Dumoulin-Smith
	CMS Energy	CMS	CMS US	Julien Dumoulin-Smith
	Consolidated Edison	ED	ED US	Julien Dumoulin-Smith
	DTE Energy	DTE	DTE US	Julien Dumoulin-Smith
	Duke Energy	DUK	DUK US	Julien Dumoulin-Smith
	Enlight Renewable Energy Ltd	ENLT	ENLT US	Julien Dumoulin-Smith
	Enlight Renewable Energy Ltd	XENLF	ENLT IT	Julien Dumoulin-Smith
	Entergy	ETR	ETR US	Paul Zimbardo
	Exelon	EXC	EXC US	Paul Zimbardo
	First Solar, Inc.	FSLR	FSLR US	Julien Dumoulin-Smith
	Fluence Energy	FLNC	FLNC US	Julien Dumoulin-Smith
	Hannon Armstrong	HASI	HASI US	Julien Dumoulin-Smith
	Hydro One	YH	H CN	Dariusz Lozny, CFA
	MDU Resources Group, Inc.	MDU	MDU US	Dariusz Lozny, CFA
	Nexttracker Inc	NXT	NXT US	Julien Dumoulin-Smith
	NiSource Inc	NI	NI US	Julien Dumoulin-Smith
	NorthWestern Corporation	NWE	NWE US	Julien Dumoulin-Smith
	PG&E Corporation	PCG	PCG US	Julien Dumoulin-Smith
	PNM Resources Inc.	PNM	PNM US	Julien Dumoulin-Smith
	Portland General Electric Company	POR	POR US	Julien Dumoulin-Smith
	PPL Corporation	PPL	PPL US	Paul Zimbardo
	Public Service Enterprise Group	PEG	PEG US	Julien Dumoulin-Smith
	Sempra Energy	SRE	SRE US	Julien Dumoulin-Smith
	Sunnova Energy	NOVA	NOVA US	Julien Dumoulin-Smith
	SunRun	RUN	RUN US	Julien Dumoulin-Smith
	TPI Composites	TPIC	TPIC US	Julien Dumoulin-Smith
	Vistra Energy	VST	VST US	Julien Dumoulin-Smith
	Xcel Energy Inc	XEL	XEL US	Julien Dumoulin-Smith
NEUTRAL				
	AES	AES	AES US	Julien Dumoulin-Smith
	Algonquin Power & Utilities Corp	AQN	AQN US	Dariusz Lozny, CFA
	Algonquin Power & Utilities Corp	YAQN	AQN CN	Dariusz Lozny, CFA
	AltaGas	YALA	ALA CN	Dariusz Lozny, CFA
	American Electric Power	AEP	AEP US	Julien Dumoulin-Smith
	Bloom Energy	BE	BE US	Julien Dumoulin-Smith
	ChargePoint Holdings	CHPT	CHPT US	Cameron Lochridge
	Constellation Energy Corp	CEG	CEG US	Paul Zimbardo
	Emera Inc	YEMA	EMA CN	Dariusz Lozny, CFA
	Essential Utilities	WTRG	WTRG US	Julien Dumoulin-Smith
	Evergy, Inc	EVERG	EVERG US	Julien Dumoulin-Smith
	Generac Holdings Inc.	GNRC	GNRC US	Julien Dumoulin-Smith
	Idacorp	IDA	IDA US	Paul Zimbardo
	Maxon Solar Technologies	MAXN	MAXN US	Julien Dumoulin-Smith
	New Fortress Energy	NFE	NFE US	Cameron Lochridge
	NextEra Energy	NEE	NEE US	Julien Dumoulin-Smith
	NextEra Energy Partners	NEP	NEP US	Julien Dumoulin-Smith
	OGE Energy Corp	OGE	OGE US	Julien Dumoulin-Smith
	Ormat Technologies	ORA	ORA US	Julien Dumoulin-Smith
	Pinnacle West	PNW	PNW US	Julien Dumoulin-Smith
	Southern Company	SO	SO US	Julien Dumoulin-Smith
	Southwest Gas Holdings	SWX	SWX US	Julien Dumoulin-Smith
	TransAlta Corp	TAC	TAC US	Dariusz Lozny, CFA
	TransAlta Corporation	YTA	TA CN	Dariusz Lozny, CFA
	WEC Energy Group Inc	WEC	WEC US	Julien Dumoulin-Smith

North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
UNDERPERFORM	Allete Inc	ALE	ALE US	Julien Dumoulin-Smith
	American Water Works	AWK	AWK US	Julien Dumoulin-Smith
	Avangrid	AGR	AGR US	Paul Zimbardo
	Avista	AVA	AVA US	Julien Dumoulin-Smith
	Black Hills Corporation	BKH	BKH US	Julien Dumoulin-Smith
	Dominion Energy	D	D US	Paul Zimbardo
	Edison International	EIX	EIX US	Paul Zimbardo
	Enphase Energy	ENPH	ENPH US	Julien Dumoulin-Smith
	Eversource Energy	ES	ES US	Paul Zimbardo
	FirstEnergy	FE	FE US	Julien Dumoulin-Smith
	Fortis	YFTS	FTS CN	Dariusz Lozny, CFA
	Fortis Inc	FTS	FTS US	Dariusz Lozny, CFA
	FREYR Battery	FREY	FREY US	Julien Dumoulin-Smith
	FTC Solar	FTCI	FTCI US	Julien Dumoulin-Smith
	Hawaiian Electric Industries	HE	HE US	Julien Dumoulin-Smith
	MGE Energy	MGEE	MGEE US	Julien Dumoulin-Smith
	New Jersey Resources Corp	NJR	NJR US	Julien Dumoulin-Smith
	ONE Gas, Inc.	OGS	OGS US	Julien Dumoulin-Smith
	SolarEdge Technologies	SEDG	SEDG US	Julien Dumoulin-Smith
	Spire	SR	SR US	Julien Dumoulin-Smith
	Stem, Inc.	STEM	STEM US	Julien Dumoulin-Smith
	SunPower Corp.	SPWR	SPWR US	Julien Dumoulin-Smith
	UGI Corp.	UGI	UGI US	Julien Dumoulin-Smith
RSTR				
	NRG Energy	NRG	NRG US	Julien Dumoulin-Smith
RVW				
	Tellurian Inc	TELL	TELL US	Julien Dumoulin-Smith

Disclosures

Important Disclosures

Equity Investment Rating Distribution: Alternative Energy Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	12	70.59%	Buy	10	83.33%
Hold	3	17.65%	Hold	2	66.67%
Sell	2	11.76%	Sell	1	50.00%

Equity Investment Rating Distribution: Energy Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	78	58.21%	Buy	59	75.64%
Hold	33	24.63%	Hold	25	75.76%
Sell	23	17.16%	Sell	14	60.87%

Equity Investment Rating Distribution: Utilities Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	80	51.28%	Buy	51	63.75%
Hold	42	26.92%	Hold	32	76.19%
Sell	34	21.79%	Sell	22	64.71%

Equity Investment Rating Distribution: Global Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1869	53.48%	Buy	1046	55.97%
Hold	828	23.69%	Hold	461	55.68%
Sell	798	22.83%	Sell	370	46.37%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.



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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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