

US Utilities & IPPs

Reviewing the Utility Macro Trends into EEI. Micro over macro? Debate rages on.

Industry Overview

We provide a picture of the latest Utilities macro

Are utilities cheap? Marginally on a long-term basis, but we see no major catalysts to unlock plus lots of micro headwinds. Utilities are largely following the same historical correlation to rates we have consistently seen. Thus we are not surprised by the underperformance and latest move higher either (see all our updated charts below). The latest tick back up actually brings the sector back to near 30-year averages relative to the market when adjusted for rates. In aggregate, with earnings headwinds and generally downside to consensus estimates, the backdrop is not particularly constructive. By contrast, clean energy has underperformed its historical correlation to rates and is a stand-out vs other tech sectors such as industrials and semis when looking at growth vs valuation. This has a much better chance of bottoming for companies that can show stabilization. The continued compression in premium valuations stands out – now at a 10-year low. What constitutes a ‘premium’ utility appears to be shifting; we see overall valuation discrepancies between these two groups as offering quality at compressed spread. See our questions for companies ahead of the Edison Electric Institute (EEI) Financial Conference: [EEI 2023 Question Bank: Can Utilities Rise from The Ashes in Phoenix? What to Ask.](#)

What have been the trends across 3Q for utilities?

There have really been a few key consistent trends: **1)** long-term load growth guidance – and accelerating medium term opportunities. We anticipate more updates to come on from this. In many respects, the key question could increasingly be: who are *without* this opportunity? Related, **2)** generation opportunities are re-accelerating clearly. Between an already tight reserve margin backdrop across much of the country we see a cogent set of arguments in favor of more rate base. Ownership is key as much of the accelerating industrial load growth as contributing only modestly to utility margins. We see enhanced competitiveness of utilities in ownership under IRA rules as well as for battery assets as offering a uniquely ripe backdrop. **3)** O&M cuts are coming in clearly across the sector as the antidote to interest rate headwinds. We are seeing a return to sizable cuts anew, with AEP’s 4Q \$100 Mn O&M one of the largest offsets recently. We are struck by the pace of AI opportunities to realize cost reductions; this may yet get verbalized in meetings. **4)** Are ROEs really going up? Not so fast. Muted improvements in ROE & equity capital structure in rate cases despite the decisively clear arguments in favor of such revisions. **5)** Pensions and Interest rate headwinds are the clearest macro challenges – but even utility recovery is an issue.

What are the ‘stories’ of EEI? Offense in ’24 is key.

We see NI ([see note](#)), PPL, and XEL ([see note](#)) as likely the most intriguing Buy-rated equities going into the premier utility finance event of the year this weekend. We see PPL’s latest success ([see note](#)) in Kentucky – and reaffirmation of its 6-8% as uniquely constructive in its timing heading into the weekend. XEL is one of the few companies with potential upside to guidance and a standout versus peers. Finally, we see new legislation in Michigan ([see note](#)) turning the tables potentially sharply for both CMS and DTE. We maintain Buys on the shares of NI, PPL, XEL, CMS, and DTE with attractive risk/reward profiles.

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Utilities

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

Paul Zimbardo
Research Analyst
BofAS
+1 646 855 1470
paul.zimbardo@bofa.com

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

Alex Vrabel
Research Analyst
BofAS
+1 713 247 7751
alexander.vrabel@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

O&M: Operating and maintenance
AI: Artificial intelligence
ROE: Return on equity

Tickers mentioned
NI: NiSource
PPL: PPL Corp
XEL: Xcel Energy
CMS: CMS Energy
DTE: DTE Energy

Estimate Revisions vs Performance – Who Stands Out?

We see this as the greatest ‘equalizer’ for investors to square YTD performance against estimate revisions across forward years across Utilities. Overall, it's striking to see a further compression in premium company valuations (-15.5% YTD) vs value names (-13.5%) , where overall estimates have proven much more intact than the more vulnerable Value bucket to swings in interest rates (+0.2% on '24 EPS vs -1.9% for Value on '24 on average).

Among premium companies, most striking is the relative underperformance of NEE given still positive YTD estimate revisions across near-years. We see relative integrity of the outlook of late across 10Q and EPS release as enabling shares to recover, particularly given the challenging backdrop across clean energy.

We appreciate that DTE is among the worst performing large-cap utilities in '23 with both cautious revisions YTD and forward year implications. Between their own cost mgmt. efforts and latest legislation we see this name among premiums as most likely to pivot.

The best performer YTD, ConEd among premiums has seen the most substantive estimate revisions and sharpest acceleration in EPS of any peers out there. We anticipate a further step-up on '24 and sustained execution off '24 to both earn its premium as well as argues for a higher potential premium.

Finally, we see ability for XEL to argue its case for a EPS CAGR revision higher alongside framing of wildfire liabilities as helping boost prospects for shares which have been among the worst (on par with DTE) despite still positive EPS revisions.

Among value names, it is striking to see relative contraction in AGR and ES despite only nominal estimate revisions so far. We still see revision potentially as likely meaningfully cautious. Dominion is unique in having real estimate revisions substantively collapse among any large-cap equity. As such we see its relative underperformance as readily explained by its estimate swings.

Conversely, PNW is the best estimate revision story across estimates while seeing only modestly higher revisions. We perceive shares as ‘topping out’ of late.

IPPs remain unique outliers in this same screen as well with P/E multiple of AES and VST poised to converge. We flag the muted negative EPS revisions of AES against its sharp underperformance is likely to garner sizable attention if asset sales do not prove meaningfully dilutive to the outlook in the year ahead.

Exhibit 1: Utilities & IPPS: consensus estimate revisions YTD for 23/24/25

Comparison of Consensus revisions across equities and classes

	Market Cap \$M	YTD performance	2-YR Fwd P/E	YTD Est Revisions - 2023E	YTD Est Revisions - 2024E	YTD Est Revisions - 2025E	EPS Growth 2024- 2023	EPS Growth 2025- 2024	Avg EPS Growth - 2017- 2022	2017- 2022 EPS CAGR	2022- 2025 EPS CAGR
Premium											
AEE	19,995	-14%	16.3x	0.5%	0.4%	0.7%	7.0%	7.2%	8.1%	7.9%	6.6%
CMS	15,971	-14%	16.4x	-0.4%	-1.0%	-1.1%	7.8%	7.6%	6.0%	5.9%	7.6%
CNP	16,892	-11%	16.5x	0.8%	0.5%	0.3%	8.1%	7.1%	1.6%	0.1%	8.0%
DTE	20,317	-16%	14.9x	-6.1%	-1.5%	-1.6%	12.3%	7.8%	5.3%	5.1%	5.3%
ED	30,811	-6%	17.0x	3.3%	3.2%	4.9%	5.6%	5.4%	2.2%	2.1%	6.7%
LNT	12,404	-12%	15.8x	-0.3%	-0.1%	0.3%	6.5%	6.8%	7.8%	7.7%	5.4%
NEE	112,270	-35%	16.1x	1.1%	0.4%	-0.1%	8.6%	7.3%	11.6%	11.6%	8.0%
WEC	25,118	-15%	16.2x	0.1%	0.0%	0.1%	6.7%	6.8%	7.2%	7.2%	5.7%
XEL	32,392	-16%	16.4x	-0.6%	0.1%	0.2%	6.4%	7.1%	6.6%	6.6%	6.5%
Average		-15.5%	16.2x	-0.2%	0.2%	0.4%	7.7%	7.0%	6.3%	6.0%	6.6%
Value											
AEP	40,629	-19%	13.8x	-0.4%	-1.1%	-0.5%	6.0%	6.8%	6.7%	6.7%	5.5%
AGR	11,684	-30%	12.9x	-6.9%	-0.3%	-1.9%	10.1%	8.1%	1.3%	1.2%	2.7%
D	37,547	-27%	14.4x	-37.1%	-29.2%	-17.2%	14.9%	10.9%	3.2%	2.7%	-5.5%

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DUK	67,792	-15%	14.7x	-1.5%	-0.9%	-0.5%	6.8%	6.1%	2.9%	2.9%	6.3%
EIX	24,230	-1%	12.3x	-1.6%	-0.1%	1.9%	8.6%	9.6%	0.8%	0.6%	6.6%
ES	18,947	-35%	11.9x	-1.0%	-3.1%	-5.9%	5.0%	5.6%	5.6%	5.6%	5.5%
ETR	20,477	-14%	13.5x	-0.2%	-0.8%	-0.3%	6.7%	7.3%	-1.4%	-2.3%	6.3%
EVRG	11,332	-22%	12.9x	-2.3%	-3.4%	-5.1%	6.6%	5.0%	10.4%	10.3%	2.8%
EXC	39,071	-9%	15.7x	0.0%	-0.3%	-0.4%	6.1%	8.7%	4.6%	4.1%	6.3%
FE	20,307	-16%	13.3x	1.9%	-0.6%	-1.3%	5.0%	6.8%	-4.4%	-4.7%	5.8%
NI	10,261	-9%	14.7x	2.8%	1.4%	2.0%	6.8%	7.5%	4.0%	4.0%	7.4%
OGE	6,798	-14%	15.9x	-0.6%	-2.5%	-2.9%	4.4%	5.9%	3.0%	2.7%	1.0%
PCG	35,182	1%	12.2x	-1.6%	-0.5%	-0.5%	11.7%	8.8%	-16.6%	-21.5%	10.1%
PNW	8,054	-7%	14.2x	1.0%	8.5%	8.9%	18.0%	4.6%	0.3%	-0.4%	7.1%
PPL	18,576	-14%	14.7x	-0.1%	0.4%	-0.2%	7.9%	6.7%	-3.1%	-8.9%	9.0%
PEG	30,412	0%	16.5x	-0.7%	-0.7%	-1.3%	6.6%	10.3%	3.5%	3.4%	5.5%
SO	74,206	-5%	16.9x	-4.0%	-1.5%	-1.1%	11.8%	7.3%	3.6%	3.6%	6.3%
SRE	43,782	-10%	14.5x	1.0%	-0.2%	1.1%	5.5%	6.6%	11.4%	11.2%	3.5%
Average		-13.5%	14.2x	-2.9%	-1.9%	-1.4%	8.3%	7.4%	2.0%	1.2%	5.1%
SMID											
ALE	3,104	-16%	13.2x	1.5%	1.8%	-3.8%	1.5%	5.0%	1.6%	1.2%	8.2%
AVA	2,600	-24%	13.6x	-1.8%	0.9%	2.4%	7.3%	4.9%	0.0%	-0.2%	6.8%
BKH	3,294	-31%	12.6x	-9.5%	-12.9%	-12.3%	1.8%	6.5%	3.4%	3.4%	1.0%
HE	1,536	-67%	6.5x	-11.8%	-12.5%	-11.5%	5.1%	9.0%	6.5%	5.9%	2.0%
IDA	4,790	-12%	17.5x	-1.3%	-0.3%	1.5%	6.2%	7.1%	4.0%	4.0%	4.4%
MDU	3,694	-13%	13.2x	-9.0%	-13.4%	-48.2%	3.6%	-38.1%	9.2%	8.7%	-12.8%
MGEE	2,590	2%	19.2x	-1.2%	-1.8%	-0.2%	9.4%	7.8%	6.7%	6.6%	9.5%
NWE	2,995	-18%	13.8x	-8.9%	-2.9%	-4.3%	10.9%	4.7%	-0.6%	-0.7%	5.3%
PNM	3,629	-13%	15.1x	4.9%	3.0%	0.8%	1.5%	5.0%	6.8%	6.8%	3.1%
POR	4,089	-17%	13.2x	-3.1%	1.4%	-0.7%	16.1%	5.0%	3.8%	3.7%	5.5%
UTL	774	-6%	16.4x	2.3%	1.4%	1.8%	5.0%	5.7%	4.9%	4.7%	6.1%
Average		-19.7%	14.0x	-3.4%	-3.2%	-6.8%	6.2%	2.0%	4.2%	4.0%	3.6%
Gas											
ATO	16,522	-1%	16.1x	1.8%	1.1%	1.0%	6.3%	6.6%	9.2%	9.2%	7.3%
SR	3,007	-17%	13.3x	1.2%	-1.2%	0.5%	2.7%	8.0%	2.8%	1.6%	6.3%
NJR	4,013	-17%	14.8x	8.6%	2.6%	2.5%	3.3%	6.2%	11.1%	7.6%	5.8%
NWN	1,328	-24%	13.1x	-1.7%	-1.7%	-0.7%	3.4%	7.5%	2.7%	2.5%	5.3%
OGS	3,338	-20%	14.3x	0.1%	-2.8%	0.0%	2.3%	6.5%	5.8%	5.8%	3.4%
UGI	4,378	-44%	6.8x	-9.5%	-9.2%	-17.6%	11.3%	-4.1%	5.8%	4.8%	0.4%
Average		-20.5%	13.1x	0.1%	-1.9%	-2.4%	4.9%	5.1%	6.2%	5.3%	4.7%
Water											
AWK	24,196	-18%	24.1x	1.0%	0.0%	-0.3%	6.9%	8.7%	8.3%	8.3%	7.5%
WTRG	9,252	-29%	17.0x	-1.4%	-1.8%	-2.6%	6.9%	6.4%	5.3%	5.3%	6.3%
SJW	1,983	-24%	22.7x	2.7%	-1.5%	1.9%	3.8%	8.5%	-1.3%	-3.2%	6.8%
ARTNA	420	-30%	20.4x	-20.9%	-8.7%	na	22.7%	5.0%	4.8%	4.7%	na
MSEX	1,124	-19%	27.8x	-22.8%	-12.6%	0.3%	12.9%	19.0%	12.7%	11.6%	na
CWT	2,852	-19%	22.3x	-5.8%	2.2%	0.4%	19.0%	5.1%	6.7%	4.8%	9.6%
YORW	527	-18%	22.8x	11.2%	8.8%	na	1.3%	4.3%	6.8%	6.7%	6.3%
AWR	2,886	-16%	26.1x	2.4%	1.2%	3.0%	7.4%	9.8%	3.6%	2.3%	16.0%
GWRS	256	-20%	36.0x	8.0%	7.3%	na	9.3%	na	32.8%	22.0%	na
Average		-21.5%	24.4x	-2.8%	-0.6%	0.4%	10.0%	8.4%	8.9%	7.0%	8.7%
IPPs											
AES	10,466	-46%	8.3x	-3.7%	-1.5%	0.8%	11.4%	10.8%	9.2%	9.1%	7.7%
NRG	10,175	42%	6.5x	17.4%	21.7%	23.4%	3.9%	0.2%	-3.8%	-5.9%	23.6%
VST	12,357	49%	8.1x	9.7%	19.5%	15.6%	8.8%	-1.9%	26.8%	16.4%	10.9%
Average		15.0%	7.7x								

Source: BofA Global Research, Company filings, Factset

* Estimate revisions reflect EBITDA for NRG/VST

Exhibit 2: Scatter: 2 YR Fwd P/E vs EPS CAGR 2022-2025 (excl HE)

This scatter plot displays the relationship between the 2-year forward P/E ratio (X-axis) and the expected EPS CAGR from 2022 to 2025 (Y-axis) for various companies. The X-axis ranges from 5.0x to 30.0x, and the Y-axis ranges from -15.0% to 15.0%.

Companies are represented by blue squares. Many points are labeled with company tickers. Lines connect some labels to their corresponding data points, indicating a specific company's position. For example, UGI is at a low P/E and low CAGR, while AWR is at a high P/E and high CAGR. A dense cluster of companies is located between 10x and 20x P/E and 0% to 10% CAGR.

Company	2 YR Fwd P/E (Approx.)	EPS CAGR 2022-2025 (Approx.)
UGI	7.0x	0.5%
MDU	13.0x	-13.0%
D	14.5x	-5.5%
AGR	12.5x	1.5%
EVRG	12.0x	3.5%
NWN	12.5x	4.5%
NWE	13.0x	4.0%
ES	10.5x	5.5%
POR	12.0x	6.0%
EIX	10.0x	7.0%
FE	12.5x	8.5%
SR	12.0x	8.5%
ETR	12.0x	9.0%
ALE	13.0x	9.0%
AVA	13.5x	8.5%
PCG	12.5x	10.0%
PPL	14.5x	9.0%
PNW	14.0x	7.0%
NEE	15.5x	8.5%
CMS	16.0x	9.0%
ATO	15.5x	7.5%
NI	16.0x	7.5%
EXC	16.5x	7.5%
CNP	17.0x	8.0%
AEE	17.0x	7.5%
XEL	17.0x	7.5%
ED	18.0x	6.5%
WTRG	18.0x	6.5%
SO	18.0x	6.0%
UTL	17.5x	6.0%
PEG	18.0x	4.5%
IDA	18.5x	3.5%
WEC	17.5x	3.5%
LNT	16.5x	5.0%
PNM	16.5x	3.0%
DTE	15.5x	4.0%
SRE	15.0x	2.5%
OGE	16.0x	1.0%
BKH	13.5x	1.0%
OGS	14.0x	3.0%
NJR	14.0x	5.0%
AEP	14.0x	6.0%
DUK	14.5x	6.5%
MGE	19.5x	9.5%
CWT	22.5x	9.5%
AWK	24.5x	7.5%
SJW	23.0x	6.5%
YORW	23.5x	6.0%
AWR	26.5x	15.5%
ARTNA	20.5x	0.0%
MSEX	28.0x	0.0%

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Scatter of Growth vs P/E

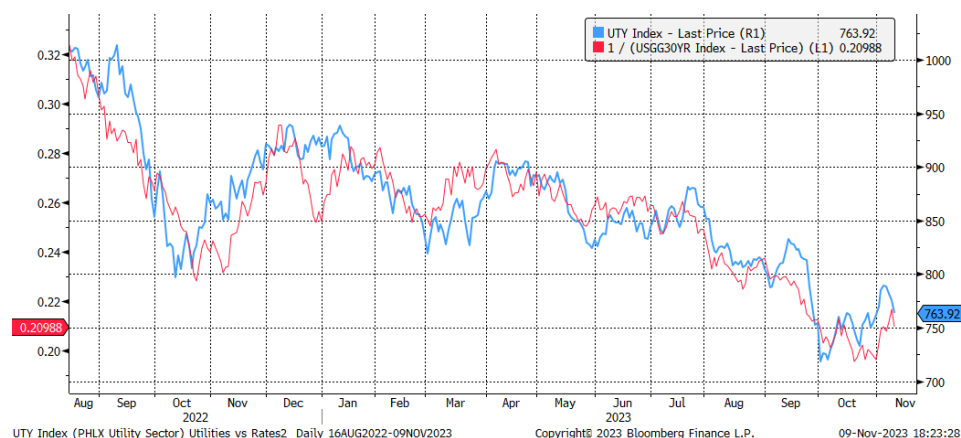
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Interest rates dominate everything

Utilities have had an ~ 0.8 inverse r^2 with daily 30Yr US Treasury interest rates from August 15th through November 9th. There have been more pockets of utility outperformance, notably September 2023 and late October into early November. The strong true impact of rates is far more important and nuances as the sector has a high degree of 'micro' relationships with unrecoverable interest expense at holding companies. With most utilities offering pre-tax dividend yields of 3.5-4.5%, below the 4.6%+ tax advantaged treasury yield. This has been a new phenomenon versus prior decades and is a significant detriment to attracting inflows.

Exhibit 3: Utilities (Blue) vs 30Yr Us Treasury Rates (Red)

Utilities have had a very high correlation with interest rates



Source: Company Filings, Bloomberg, & BofA Global Research

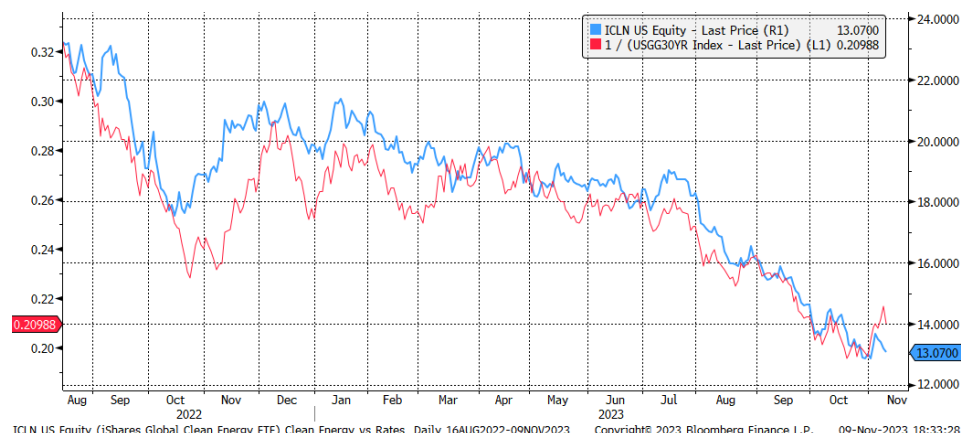
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The real rate exposure is actually with clean energy shares...

Clean energy companies have had an even higher relationship with treasury rates at ~ 0.9 r^2 . Interestingly for the first time all year, clean energy has underperformed what the interest rate correlation would dictate. Rather than sending a 'buying signal', we attribute this relative weakness to significant negative idiosyncratic events during earnings season for companies including Maxeon, SolarEdge, Enphase, Array, SunPower, and Orsted. We perceive the sector as presenting value amidst what has been among the worst earning seasons on record for the sector. We continue to see real reasons to remain cautious even coming out of 3Q as results have yet to realize the full extent of sector challenges – this all being despite the full release of treasury relates benefits.

Exhibit 4: Clean Energy (Blue) vs 30Yr Us Treasury Rates (Red)

Clean energy companies have had an even stronger relationship with treasuries than utilities have



Source: Company Filings, Bloomberg, & BofA Global Research

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Utilities remain attractively valued on a long-term basis

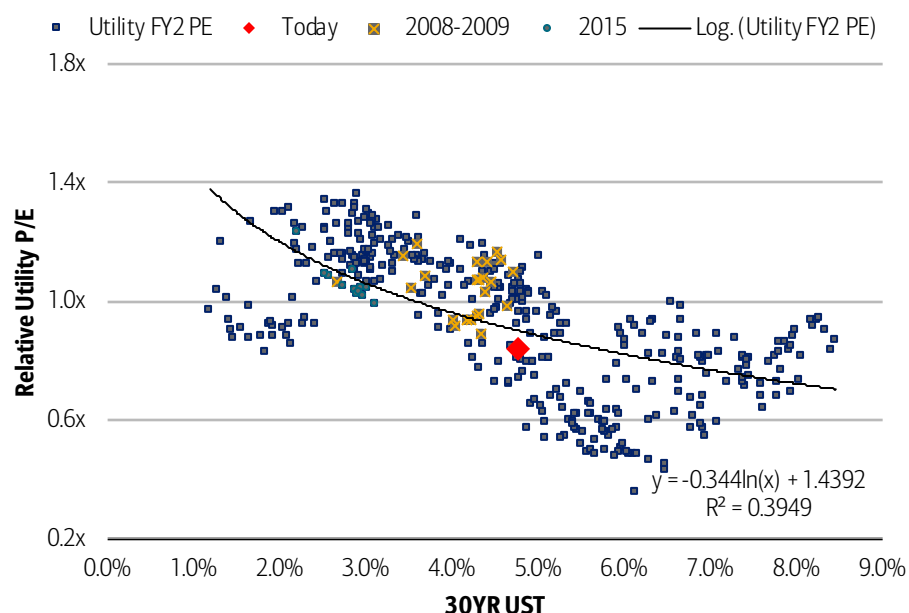
After an inauspicious start to October with a single-day 5.3% decline, utility performance steadily rebounded, ending the month up 1.4%, within a half-percentage point of where they currently are now as of November 9. In our last update, we had remarked that after a significant late summer correction, the sector had begun to appear attractively valued relative to historical relationships between credit and equity benchmarks. After modest improvement in October, this mostly continues to be the case, although there are early indications that utility sector valuations have potentially bottomed.

Still cheap against rates, but less cheap than last month

The sector's late summer correction brought utility sector shares to discounted levels versus that of their historical relationship to rates. Our latest refresh indicates shares are still cheap, albeit less so than as of the end of September.

Exhibit 5: Relative PE vs 30Y UST

Utilities continue to screen as cheap based on nonlinear relationship vs rates



Source: BofA Global Research, Bloomberg

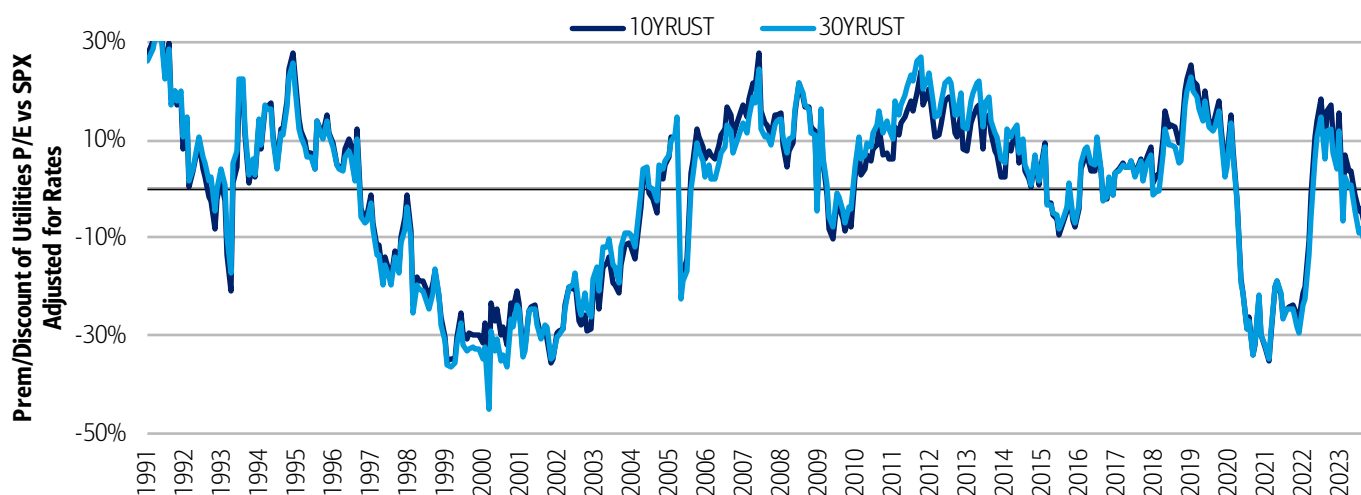
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Valuations tick upward after bottoming this past month

We highlight the time series for the nonlinear data shown above, showing deviations from the long-term average as a time-series: after bottoming at near-decade lows (excluding COVID) last month's update, utility sector valuations relative to rates began to tick upward as the end of October. The relative P/E to the U.S. 10-year treasury for the sector even momentarily crossed into positive territory on October 31.

Exhibit 6: 10Y and 30Y relative value over time – nascent signs of a potential rebound from 2009 and 2015 valuation lows

Ex-COVID utility discount showing early signs of improvement



Source: BofA Global Research, Bloomberg

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Utilities still cheap relative to broader equity markets

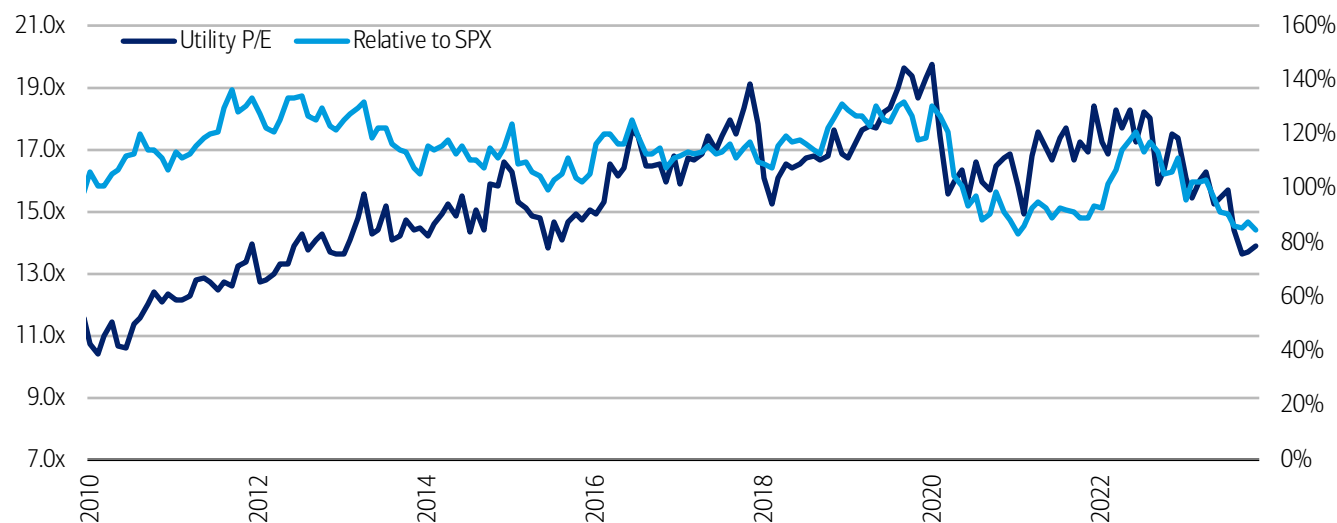
Despite the recent foray upward for utility valuations relative to rates, they continue to trade at a 20% discount relative to the S&P 500 on a forward PE basis. This discount relative to the broader market has persisted through much of 2023, generally worsening



as the year progresses. The most recent month-end valuation in which utilities traded at a relative premium to the S&P 500 was April 30, 2023.

Exhibit 7: Utilities relative PE vs S&P 500

Valuation vs rest of market still screens attractive (P/E on LHS and Relative % to SPX on RHS)



Source: BofA Global Research, Bloomberg

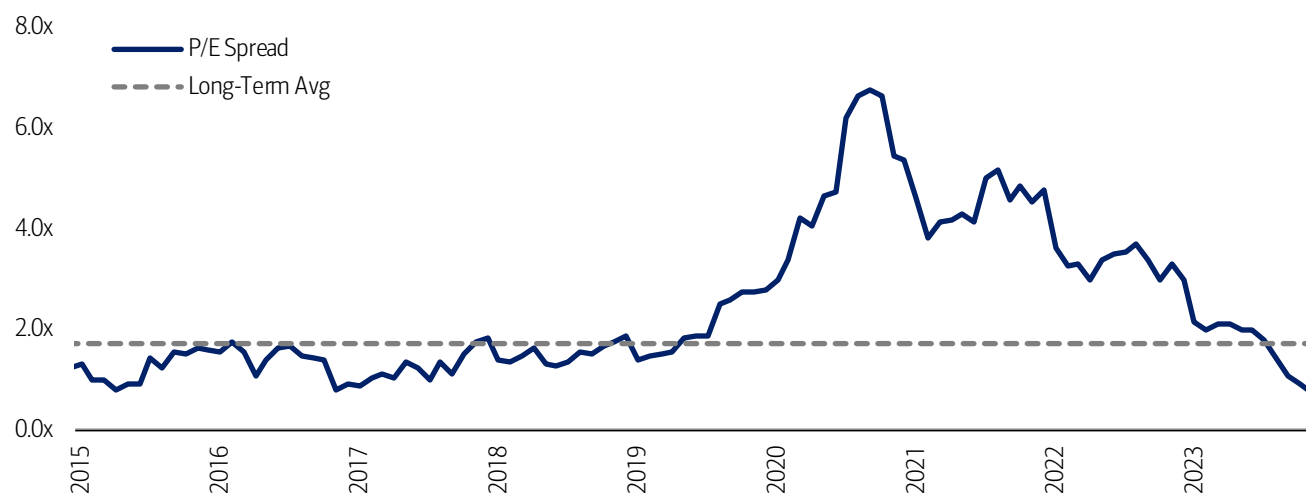
BofA GLOBAL RESEARCH

“Premium” Utility valuations continue to contract

The significant bifurcation between a small number of premium utility stocks that first emerged in late 2019 and accelerated in 2020 has largely reversed in 2023. This has only intensified throughout the year. We have previously pointed out NEE’s outsized effect on this assessment, which continues to suggest that the sector has sold off largely due to elevated macro/interest concerns.

Exhibit 8: Premium-value spread: back to multi-year lows; we think this is the time to buy premiums

Spread between premium utilities and the rest of the group continues to decline, implying there may be a latent opportunity for quality names. We also appreciate that what is defined as premium vs value today may well be evolving and impacting this chart.



Source: BofA Global Research, Bloomberg

BofA GLOBAL RESEARCH

Exhibit 9: Primary stocks mentioned in this report

Prices and ratings for primary stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
NI	NI US	NiSource Inc	US\$ 24.82	B-1-7
PPL	PPL US	PPL Corp.	US\$ 25.2	B-1-7
XEL	XEL US	Xcel Energy	US\$ 58.7	B-1-7
CMS	CMS US	CMS Energy	US\$ 54.74	B-1-7
DTE	DTE US	DTE Energy	US\$ 98.5	A-1-7

Source: BofA Global Research

BofA GLOBAL RESEARCH

Price objective basis & risk**CMS Energy (CMS)**

Our PO of \$60 is based on a SotP relying on 2025E forward P/E multiples for the utility business and a 2025E forward EV/EBITDA multiple for CMS' IPP assets. For the utility seg we apply a 3.0x prem to the average 2025E regulated multiple P/E of 14.3x for the electric segment and of 13.5x for the gas segment, with the 10-yr capex update providing clear sight on ratebase growth and further upside, as well as continued favorable regulatory environment, and finally historically proven ability to consistently perform at the high end of guidance range. Both electric and gas peer P/E multiples are grossed up +5% to reflect capital appreciation across the sector. For CMS' merchant business we apply a 4x EV/EBITDA multiple, in line with current market value of CMS' power plants. We value Dearborn Industrial Generation (DIG) on a DCF basis through 2030 given the plant is no longer expected to be sold to Consumers.

Downside risks are: 1) earned ROEs declining which reduce CMS utility earnings 2) execution risk on capex and cost cutting which would primarily affect the utility earnings, 3) negatives changes to market energy prices which could affect the DIG plant's ability to re-contract at the assumed prices.

DTE Energy (DTE)

We value DTE Energy at \$104 using a sum-of-the-parts (SOTP) approach. We value the utility segment on a 2025E forward P/E multiple basis and the non-utility segment on a 2024E forward EV/EBITDA multiple basis. For the utility segment we apply an in line premium to both our regulated electric and gas utility peer multiples (of 14.4x and 13.3x, respectively). Both electric and gas peer P/E multiples are grossed up by 5% to reflect capital appreciation across the sector. We value the DTE Vantage segment on a multiple of 2025 EPS - the grossed-up electric multiple of 14.6x to account for the renewable natural gas (RNG) business. We assign an equity value based on a -7x discount to the Equity Trading segment given potential for earnings volatility and opacity of the segment. We also reduce the equity value for estimated unallocated parent debt by applying a 14.5x multiple to both the interest expense and corporate overhead expenses at the parent. Risks are: regulatory/political/legislative actions, realized returns from the unregulated Vantage segment, changes in equity needs, load growth/class mix, equity needs, weather/natural disasters, and interest rate fluctuations.

NiSource Inc (NI)

The NiSource \$29 PO is based on a 2025 sum of the parts valuation. We value each gas and electric utility separately using 2025 forward P/E multiples that are marked-to-market to the latest peer utility multiples of 13.9x for gas and 14.4x for electric. Consistent across our coverage universe, the base electric & gas peer P/E multiples are grossed up by +5% to reflect capital appreciation across the sector. We utilize a +1x premium for NIPSCO Gas/Electric due to generally constructive regulatory outcomes. We subtract the value of excess holding company debt at the parent not supporting the



utility subsidiaries.

Upside and downside risks to our Price Objective are changes in 1) regulatory, political, and legislative outcomes, 2) ability to execute on capital expenditure plan, 3) inflation, operating expense, and interest rates as they influence earned rates of return, 4) customer count and load growth, 5) commodities, 6) natural disasters, 7) pension plan returns, 8) equity and asset sale needs.

PPL Corporation (PPL)

Our \$32 price objective is based on a sum of the parts methodology applying respective premium/discounts to the 2025E peer group multiple of 16.0x. Electric peer P/E multiple is grossed up by 5% to reflect capital appreciation across the sector, a consistent methodology across our coverage universe. We value all of the utility subsidiaries at +0.5x premium to the sector to reflect the lack of regulatory activity, above-average credit metrics, transmission earnings mix, and reasonable jurisdictions.

Risks to the achievement of our Price Objective are: 1) Integration of Rhode Island assets, 2) regulatory/political/legislative changes, 3) capital markets, 4) ability to earn at or above the regulatory allowed return on equity, 5) cost control, 6) capital expenditures forecasts and execution, 7) natural disasters/weather, 8) equity issuance/repurchase plans, 9) corporate taxes, 10) pension returns, and 11) litigation.

Xcel Energy Inc (XEL)

Our PO is \$68. We value Xcel Energy using a sum of the parts (SOTP) approach. Given the difference in geography, earnings strength, growth opportunity and risk profile, we divide the segments by subsidiary.

We use 2025E forward P/E multiple of 14.0x to derive a value for the different business segments, including the parent segment. Electric peer P/E multiple is grossed up for a year to reflect capital appreciation across the sector. We make an additional adjustment to reflect the difference in interest rate forecasts between BofA and Street as well as historical valuation sensitivity to rates.

We apply a 2x premium to XEL subsidiaries in MN and 3x for CO, 3x for NM/TX, and 3x for WI as both utilities present solid or improving regulatory treatment with tangible investment upside. We see this multiple as appropriate as the company has growth opportunities, resolving regulatory drag and resolving uncertainty around rate cases. We also net back 50% of the parent interest expense and instead subtract out 50% of parent debt to more accurately reflect HoldCo leverage.

Risks to achievement of the price objective are interest rate changes, regulatory risk, such as lower authorized ROEs or less favorable riders/trackers for renewables and transmission, inability to deploy capital at guided levels, adverse legislation, execution delays, and weather/natural disasters

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
	Bloom Energy	BE	BE US	Julien Dumoulin-Smith
	CenterPoint Energy	CNP	CNP US	Julien Dumoulin-Smith
	ChargePoint Holdings	CHPT	CHPT US	Alex Vrabel
	Cheniere Energy Inc	LNG	LNG US	Julien Dumoulin-Smith
	Clearway Energy	CWENA	CWENA 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
	Exelon	EXC	EXC US	Paul Zimbardo
	First Solar, Inc.	FSLR	FSLR US	Julien Dumoulin-Smith
	Fluence Energy	FLNC	FLNC US	Julien Dumoulin-Smith
	FREYR Battery	FREY	FREY 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
	Nextracker Inc	NXT	NXT US	Julien Dumoulin-Smith
	NiSource Inc	NI	NI US	Julien Dumoulin-Smith
	NorthWestern Corporation	NWE	NWE US	Julien Dumoulin-Smith
	NRG Energy	NRG	NRG 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
	Constellation Energy Corp	CEG	CEG US	Paul Zimbardo
	Emera Inc	YEMA	EMA CN	Dariusz Lozny, CFA
	Entergy	ETR	ETR US	Paul Zimbardo
	Essential Utilities	WTRG	WTRG US	Julien Dumoulin-Smith
	Evergy, Inc	EVRG	EVRG 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



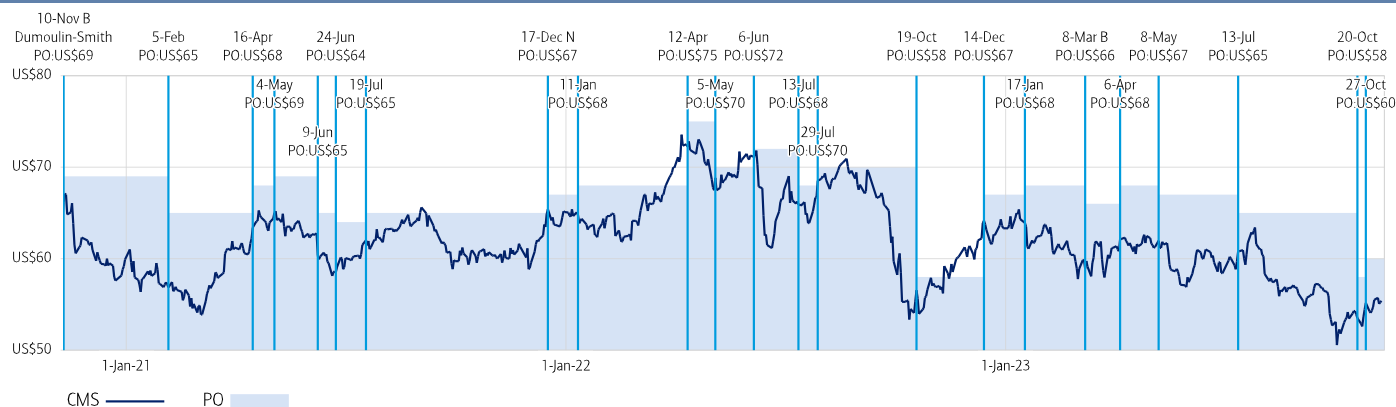
North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	WEC Energy Group Inc	WEC	WEC US	Julien Dumoulin-Smith
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
	FTC Solar	FTCI	FTCI US	Julien Dumoulin-Smith
	Generac Holdings Inc.	GNRC	GNRC 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
RVW				
	Tellurian Inc	TELL	TELL US	Julien Dumoulin-Smith

Disclosures

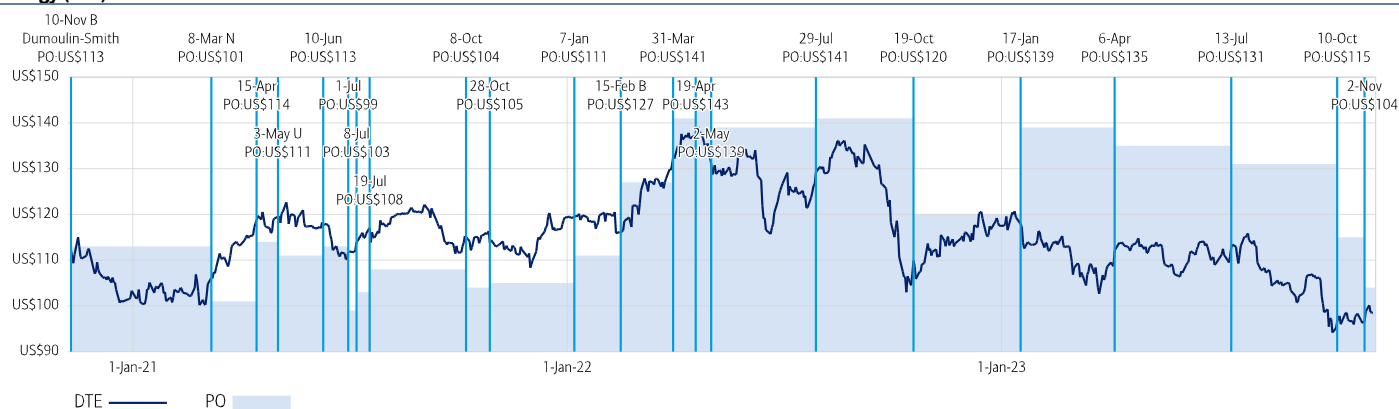
Important Disclosures

CMS Energy (CMS) Price Chart



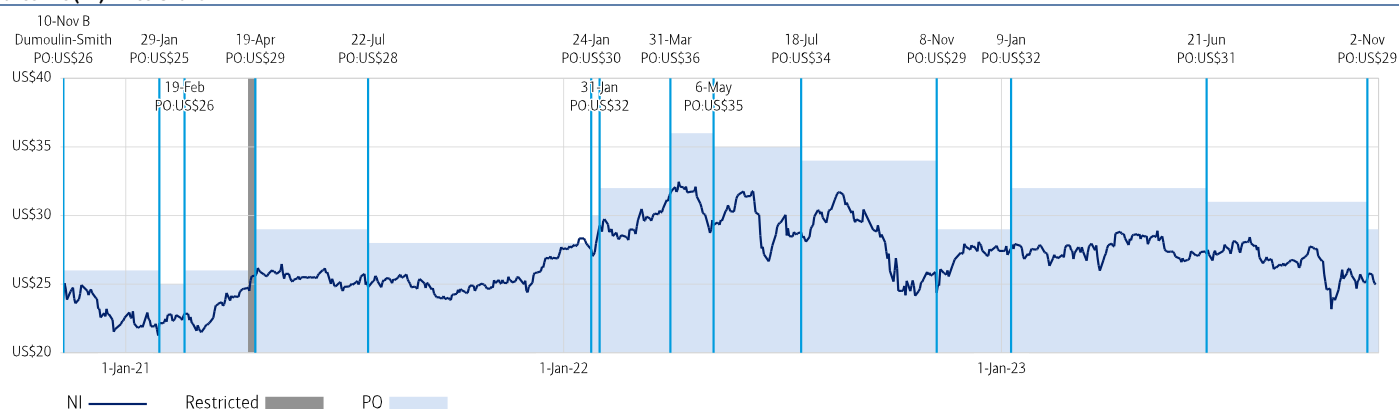
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

DTE Energy (DTE) Price Chart

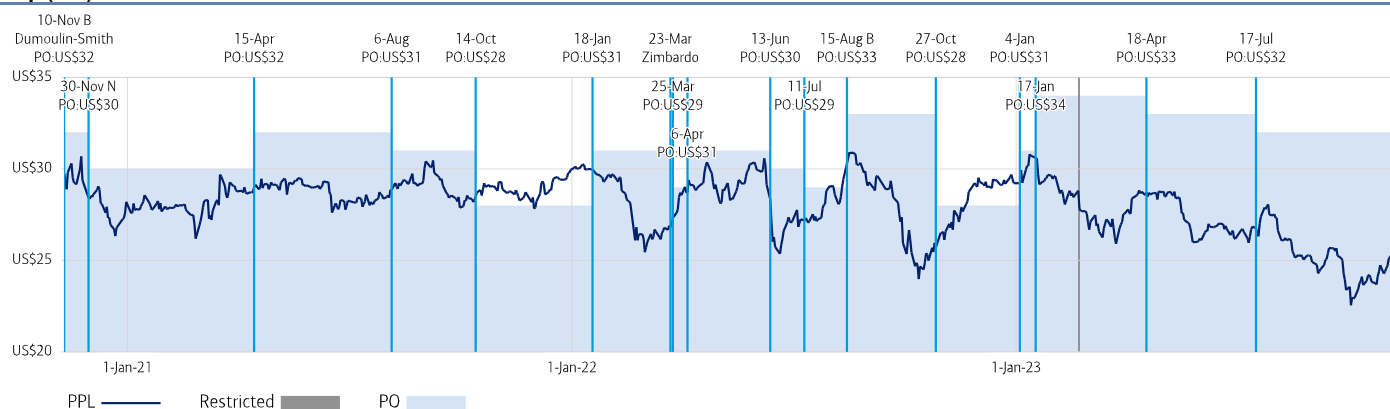
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

NiSource Inc (NI) Price Chart

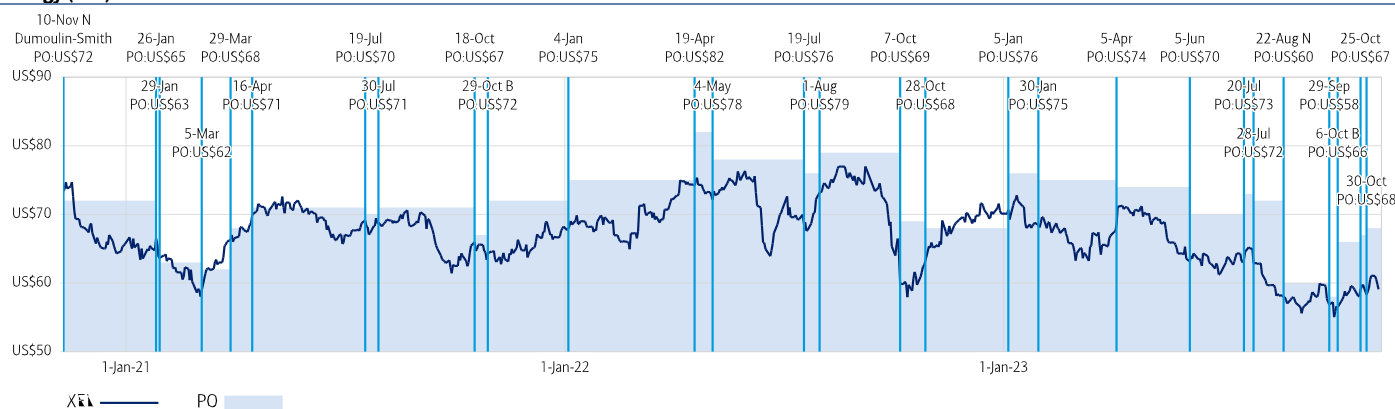
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

PPL Corp. (PPL) Price Chart

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Xcel Energy (XEL) Price Chart

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

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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