US Utilities & Clean Tech

Earnings: AEP Beat, DUK Cut, SO Beat, EXC In-Line, CWEN Guide, NRG, EIX, OGE, ALE

Industry Overview

02 November 2023

Equity
United States
Utilities & Clean Tech

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
dariusz.lozny@bofa.com

Alex Vrabel
Research Analyst
BofAS
alexander.vrabel@bofa.com

Cameron Lochridge
Research Analyst
BofAS
cameron.lochridge@bofa.com

Morgan Reid
Research Analyst
BofAS
morgan.reid@bofa.com

Tanner W. James, CFA
Research Analyst
BofAS
tanner.w.james@bofa.com

EEI: Edison Electric Institute
O&M: Operating and maintenance

AEP: Beat and narrow 2023. Details on 2024 to come

American Electric Power (AEP) delivered Q3 EPS of $1.77, ahead of our estimate of $1.69 and Street $1.71. Key deltas include positive performance from generation and renewables within Generation and Marketing. For the full year AEP narrowed the guidance range by 5c at both the high end and the low end to $5.24-5.34. Updates on ongoing strategic items were incremental with the New Mexico solar sale now potentially slipping to 2024, along with a slightly higher book value estimate for the retail business at $244m (prev $205m). On credit metrics AEP reported a trailing FFO to debt of 11.4% with improvement to 13-14% by year end on roll offs of items along with beginning of deferred fuel recovery in Q4, with incremental items expected to bring it up to the 14-15% target range in early 2024. Expect full EPS CAGR and forward guidance updates to come ahead of the EEI conference. *Maintain Neutral on fair valuation*.

DUK: Beat and reduce upper end of 2023 on weather/rates

Duke Energy (DUK) Q3 EPS of $1.94 beat Street estimates of $1.92 and missed BofA at $1.99. The full range was reduced to $5.55-5.65, bringing down the upper end by 10c. The cut is not a surprise given well-known pressures from interest rates and weather for most of 2023. The company provided a long-term load growth metric of 0.5-1.0% touting both growth in its residential customer base as well as the impacts of economic development, with a timeframe of 2022-27. While 2024 guidance was not provided, DUK's drivers for the year include mostly known and measurables including positive contributions from rate decisions and riders along with normalization of this year's weather pressure. An incremental positive on O&M - DUK now expects 100% of its $300m cost initiative to be sustainable beyond 2023 (previously this was 75%) and also is targeting an incremental 50% of the $300m agility measures put in place in 2023 to offset weather. The 5-7% long-term growth rate was reaffirmed. *Maintain Buy on relative valuation and growth outlook with reduced risk after rate cases.*

SO: Beat and reaffirm 2023 around the midpoint

Southern Company (SO) reported Q3 EPS of $1.42, ahead of BofA/Street at $1.29/$1.32. For the full year SO is pointing to the middle of its range of $3.55-3.65, a contrast to earlier years in the upper-half. The main source of the beat was weather which came in at +9c vs. our +1c. O&M savings were +7c vs. our +10c estimate. One incremental cautious note has a higher impact of a 3-month delay at Vogtle Unit4, up from -5c to -9c per quarter if the in service date is extended beyond March 31, 2024. The driver of the change is a treatment of capital above $2.1B of Unit 3 (0% ROE stipulated) *if* the in-service date is missed. Between this and incremental interest rate impacts (some already reflected in the lower top end) we could see some additional pressure on the top end of the range. This is the first call since the Georgia Power subsidiary integrated plan was filed - expect this and associated economic development/growth in the service territory to be leading talking points. Maintain Neutral on SO which which we think trades at an appropriate premium to peers.

Refer to important disclosures on page 10 to 13. Analyst Certification on page 8. Price Objective Basis/Risk on page 5.
12621452

Timestamp: 02 November 2023 11:24AM EDT

EXC: Delivering solid 2023. $850Mn transmission award

Exelon Corp (EXC) reported $0.67 adjusted EPS, in-line with $0.66 Consensus and the implied quarterly guidance. Management described quarterly earnings as in-line with expectations. $0.70 GAAP EPS was adjusted lower to exclude +$0.05 positive income-tax adjustments and -$0.01 separation costs. FY23 guidance $2.36 guidance midpoint was reaffirmed with the range tightened $0.02 to $2.32-$2.40 from $2.30-$2.42. This is consistent with $2.34 BofA/$2.36 Consensus. Exelon reaffirmed the 2021-2025 and 2022-2026 6-8% EPS CAGR with an expectation to be at 7% midpoint or higher. Critically there were no changes of the detailed subsidiary-by-subsidiary annual EPS drivers. Similarly, the credit metric guidance was reaffirmed at 13-14% average funds from operations (FFO) / debt 2023-2026 average, still at the low-end of the range. Weather normalized sales were in -2.6% ComEd and BGE -1.3% but strong in Pepco +2.0%, PECO +1.7%, and ACE +0.7%.

Transmission will drive the long-term outlook in a renewed way

Transmission opportunities will be a key driver for Exelon with the company highlighting +$850Mn awards in PJM: this appears to be the (1) $781Mn 500kV upgrades around Chalk Point-Calvert Cliff & Peach Bottom; and (2) $60Mn substation projects around Peach Bottom. The required in-service for the $781Mn large project is June 2027 but PJM projects 2028-2030 commercial operations. This is **incremental** to the ~$785Mn Brandon Shores retirement driven transmission award previously. These visible projects represent +5% upside to the $31Bn five-year plan and position the company well to extend the rate 8% rate base CAGR on the annual roll forward next year.

Solid update for EXC with in-line earnings, narrowed FY23 guidance, reaffirmed long-term outlook, and no major surprises. The PJM transmission wins are positive and were disclosed late last week. We continue to see the large pending rate cases as a risk to the outlook, primarily Maryland and Illinois, but we see incremental transmission earnings opportunities for reliability and load growth needs as underappreciated offsets if necessary. We maintain Buy on shares which offer an attractive risk/reward profile with further re-rating to a premium assuming reasonable outcomes in the pending slate of multi-year rate cases.

CWEN: Weak 2023-2024 guidance but more LT visibility

Clearway Energy (CWEN) reported 3Q23 EBITDA of $323Mn and cash available for distribution (CAFD) of $156Mn. Mgmt. reiterated 2023 CAFD guidance of $330-360Mn, and we are at the low-end at $333Mn which management made some commentary around given more challenging weather and market conditions YTD. For 2024, mgmt. sees CAFD of $395Mn, which is below our estimate of $431Mn but the company also indicated additional conservatism after a challenging 2023 missing targets.

CWEN indicated enhanced visibility to growth beyond 2026 driven by elevated resource adequacy (RA) pricing in California for conventional (gas) assets. CWEN signed a 400 megawatt (MW) RA contract for Marsh Landing, representing 63% of the assets capacity, through 2027. El Segundo also reached a 274MW agreement representing 50% of capacity through 2027. Mgmt. stated that current RA pricing alone could deliver CAFD per share growth towards the low end of the 5-8% target growth range in 2027 (assuming uncontracted capacity was re-contracted at current rates). This CWEN received new drop offers at prices representing the remaining portion of thermal proceeds at a weighted average CAFD yield of ~10%. Commercial operation dates (CODs) on the most recent offers are expected in 1H25. Mgmt. indicated the current macro environment is not without challenges, though still sees potential CAFD/share of ~$2.15 following recent drop offers. While this is a slight change from the >$2.15 previously communicated by mgmt., we note CWEN continues to expect no external financing needs through 2026. *Maintain Buy on CWEN given attractive conventional asset base and no external financing needs.*

NRG: 2023 guide raised, 2024 guide above expectations

NRG Energy (NRG) reported 3Q23 EBITDA of $973Mn, which is ~4% above our estimate of $937Mn and compares favorably to Consensus expectations of $969Mn. Free cash flow before growth (FCFbG) for the quarter came in at $355Mn. Results for the quarter reflect a $125Mn tailwind from improved operations and margins, which compares to our expectation of +$50Mn. Mgmt. raised the FY23 EBITDA guidance to a range of $3.15-3.30Bn from $3.01-3.25Bn previously. *Investors we have spoken to before earnings expected the company to be at the high-end of FY23 around ~$3.25Bn so this is positive.* FCFbG guidance for 2023 was increased to $1.725-1.875Bn from $1.62-7.86Bn previously. **Additionally, following successful asset sales of $1.85Bn, mgmt. raised the FY23 share buyback guidance by 15% to $1.15Bn, implying remaining buybacks for 2023 of ~$0.95Bn.**

FY24 guidance was initiated at $3.3-3.55Bn and FCFbG of $1.825-2.075Bn. 2024 guidance is ~$160Mn above the prior plan laid out at the June '23 Investor Day reflecting improved operations and margins (primarily retail). **The FY24 $3,425Mn adjusted EBITDA guidance midpoint is above $3,385Mn BofA/$3,263Mn Consensus.** Mgmt. expects to complete $825Mn of share buybacks in 2024 after debt paydown of $500Mn. We are encouraged by NRG's 3Q23 results and outlook and maintain Buy on shares which trade at an attractive risk-adjusted free cash flow yield.

EIX: Cost of capital described as a upside and a hedge

Edison International (EIX) $1.38 adjusted EPS, below $1.44 Consensus/$1.58 BofA (included +$0.14 Catastrophic Event. Memorandum Account [CEMA] true-up). Management described themselves with pleased with YTD performance and reaffirmed FY23 guidance, 2023-2025 5-7%, and 2025-2028 5-7% adjusted EPS CAGRs.

$4.55-$4.85 FY23 guidance was reaffirmed which includes $0.14 non-recurring CEMA true-up and an unquantified non-recurring tender for preferred stock. The non-recurring tender was framed as $0.02 EPS for every $100Mn preferred stock tendered, or up to $0.15 for the full $750Mn. **Management stated that it would be at the $4.85 top-end of the guidance range with both non-recurring items**. If the full $750Mn is tendered this would represent $0.29 combined between the two items. This indicates that EIX expects FY23 to be around the $4.70 guidance midpoint without the non-recurring CEMA true-up ($4.85 high-end minus $0.14 CEMA) and further below the midpoint without the other non-recurring gain on tender (up to $0.15). While the inclusion of non-core drivers in adjusted EPS earnings is not new, we have observed an elevated investor focus on earnings drivers after the earnings updates this year for a variety of companies including CMS Energy (CMS) who also included a tender gain. EIX stated that it would include the $0.14 non-recurring CEMA true-up in FY24 adjusted earnings if the final decision is next year.

Wildfire costs increase again

EIX increased the best estimate of expected losses for 2017/2018 on the wildfire/mudslide events with a -$475Mn pre-tax and -$323Mn net post-tax loss excluded from adjusted earnings. Management attributed the latest increase to higher settlement costs with ~67% related to Woolsey. As of 6/30/23 the remaining best estimate was $600Mn and it has increased to $700Mn QoQ with the total best estimate rising by more than settlements. Assuming 100% debt financed, this will lead to ~$15Mn (-$0.04) higher after-tax interest expense relative to guidance.

SCE will be making a regulatory filing related to monetization for $20Mn revenue related to telecom which management described as an efficient form of financing.

Cost of capital: +$0.39 EPS for 2025 but potential for reinvestment

EIX described the potential for a higher cost of capital as **upside** to its $5.50-$5.90 2025 EPS guidance and growth rate at the start of prepared remarks. Later in the prepared remarks and in the Q&A portion of the call, the cost of capital mechanism was messaged as a "hedge against future increases in interest rates" rather than upside to its EPS guidance.

Key takeaways: (1) new wildfire impairment drives ~$0.04 BofA EPS drag if 100% debt financed; (2) annualized unrecoverable wildfire disclosure increased to $274Mn from $244Mn QoQ ~$0.06 BofA EPS drag; (3) 2023 costs excluded from authorized unfavorably increased -$0.025 but was fully offset by lower parent operational expenses: (4) no changes apparent in the 2025 and 2028 EPS guidance assumptions despite the increase in interest rates QoQ.

We maintain Underperform on shares of EIX which are relatively expensive. Our base care remains that the cost of capital trigger will not be enforced due to continuation of extraordinary market conditions which is the primary driver for our below Consensus adjusted EPS forecasts. If the California electric utilities are successful in achieving the higher allowed ROE, that represents upside to our EPS estimates but potentially not to guidance and Consensus expectations if it is reinvested as a 'hedge'.

OGE: 3Q beat, FY23 load growth forecast still strong but down 125 bps at midpoint

OGE Energy (OGE) reported 3Q23 EPS of $1.20 vs. consensus of $1.17 and prior-year quarter EPS of $1.31 ($1.23 ex. divested midstream operations). Regulated utility earnings declined 4c year-over-year due to milder weather (-7c headwind relative to normal) and higher depreciation on a growing asset base, although weather-normalized load was strong (total retail load up 2.0%; commercial up 9.5%). OG&E's load forecast for 2023 was reduced 125 basis points at the midpoint to 3-3.5% for the year, still reflecting well-above average service territory load growth relative to peers. On the conference call, OGE ascribed the lower growth outlook to **timing** of large-scale projects coming online – entering the year commercial load was expected to rise 11-15%, and was on track for the first few quarters (YTD 13.5% weather-normalized load growth vs. 2022), yet decelerated to 9.5% in the third quarter. Management remains confident that commercial load growth will land within its 11-15% target range.

OGE raised its consolidated earnings guidance 5c at the midpoint to $2.02-2.07 versus $1.93 to $2.07 prior, with utility guidance raised 7c to $2.11 at the midpoint; other operations are expected to lose 6-7c versus prior expectations for a 2-6c loss, reflecting higher interest expense on short-term debt. Regulatory items to watch include the Oklahoma Corporation Commission's pending final order on the Horseshoe Lake settlement, as well as an upcoming general rate review in Oklahoma by year-end. In Arkansas, OG&E recently filed its final formula rate plan, indicating their next formal rate proceeding will be a general rate case. OG&E has also secured approval for construction of Horseshoe Lake in Arkansas, but will need to circle back for a formal determination of prudence. *We maintain our Neutral rating on OGE, with continued drag of HoldCo debt refinancings to the consolidated EPS CAGR offsetting the growth outlook.*

ALE: Big 3Q beat and guidance raise on one-time items; MN rate case filed yesterday

ALLETE, Inc. (ALE) reported 3Q23 EPS of $1.49 vs. consensus of 63c and prior-year EPS of 59c, reflecting a favorable arbitration award for ALLETE Clean Energy (ACE); regulated operations were down -7c year-over-year due to interim rate refund reserves recognized in 2023. With the one-time benefit from ACE and a strong fourth quarter pipeline at New Energy Equity, ALE raised 2023 guidance to $4.30-$4.40 or +70c versus the midpoint of prior guidance. New guidance reflects a net +30c impact from one-time items, including the one-time arbitration award at ACE, the unfavorable impact of a third-party network outage at the Caddo wind facility, as well as the unquantified impact of observably lower wind generation in the region. New Energy Equity is performing at or slightly better than original expectations, although quarterly earnings were down year-over-year due to timing of project closings pushed into 4Q23. Minnesota Power filed its next electric rate case yesterday (Docket E-014/GR-23-155), requesting an $89Mn rate increase and ROE of 10.3% on 53% common equity to total capital. Minnesota uses a forward rate case test year ending December 31, 2024. Interim rates of +$64Mn have been requested to go into effect January 1, 2024. *We maintain our Underperform rating on unbalanced risk/reward at current levels given peer average EPS growth that lags rate base growth and heavier reliance on unregulated renewables performance.*

Exhibit 1: Primary stocks mentioned in this report
Prices and ratings for primary stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
AEP	AEP US	American Elec Power	US$ 76.48	A-2-7
DUK	DUK US	Duke Energy	US$ 89.54	A-1-7
SO	SO US	Southern Company	US$ 68.43	A-2-7
EXC	EXC US	Exelon Corp	US$ 39.53	B-1-7
CWEN	CWEN US	Clearway Energy	US$ 22.12	B-1-7
CWENA	CWEN/A US	Clearway Energy	US$ 20.79	B-1-7
NRG	NRG US	NRG Energy	US$ 43.86	B-1-7
EIX	EIX US	Edison Intl	US$ 63.97	B-3-7
OGE	OGE US	OGE Energy Corp	US$ 34.5	B-2-7
ALE	ALE US	Allete Inc	US$ 53.91	B-3-7

Source: BofA Global Research

BofA GLOBAL RESEARCH

BofA Global Research Reports

Title: Subtitle	Primary Author	Date Published
SunRun: 3Q23 Review: Leaning into storage, but will investors believe the value?	Julien Dumoulin-Smith	02 November 2023
SolarEdge Technologies: One shoe drops at 3Q23 results with another to come in 4Q23+	Julien Dumoulin-Smith	02 November 2023
US Utilities & IPPs: PowerPoints: AWK EPS & LT roll, NRG nuclear, NFE permit risk, BKH earnings	Julien Dumoulin-Smith	02 November 2023
SunPower Corp.: 3Q23: Another cut and no clear recovery in 2024	Julien Dumoulin-Smith	02 November 2023
NorthWestern Corporation: Outlook De-risked on Strong Rate Case Outcome, Higher EPS CAGR	Julien Dumoulin-Smith	02 November 2023
NiSource Inc: Building the premium track record quarter by quarter, year by year. Reiterate Buy	Julien Dumoulin-Smith	02 November 2023
DTE Energy: A very "un-premium" quarter, but rate case fears acute already, reiterate Buy	Julien Dumoulin-Smith	02 November 2023
US Utilities & Clean Tech: PowerPoints: DTE Cut, ETR Guide Up, GNRC Beat, AVA Capex, Offshore Challenge	Julien Dumoulin-Smith	01 November 2023
First Solar, Inc.: 3Q23 Review: Is First Solar just a victim of its own success?	Julien Dumoulin-Smith	01 November 2023
Spire: Emerging source of downside risk in gas marketing expectations for 2024	Julien Dumoulin-Smith	01 November 2023
Public Service Enterprise Group: Only treats for shareholders this Halloween: reiterate Buy	Julien Dumoulin-Smith	01 November 2023
US Utilities & IPPs: PowerPoints: WEC Equity, PEG Beat, OGS Beat, HE Banking, and Nuclear M&A	Julien Dumoulin-Smith	31 October 2023
Cheniere Energy Inc: Very Much On-Track: Early Construction & Cumulative DCF above Guide despite rates.	Julien Dumoulin-Smith	31 October 2023
Southern Company: Large customers drive sharp upward inflection in latest IRP load forecast	Julien Dumoulin-Smith	31 October 2023
Hawaiian Electric Industries: First Earnings Update After Hawaiian Fires: What Will We Learn? Underperform	Julien Dumoulin-Smith	31 October 2023
US Alt. Energy: Investors still missing the nuances in solar: Thoughts on modules and project returns	Julien Dumoulin-Smith	31 October 2023
Utilities & IPPs: Refinancing pressures quantified: Who has needs, how much, when, & what offsets?	Julien Dumoulin-Smith	31 October 2023
US Utilities & IPPs: PowerPoints: D biennial review, IDA rate case, NFE term loan, AGR	Julien Dumoulin-Smith	30 October 2023

Price objective basis & risk

Allete Inc (ALE)

Our $53 PO is based on a SOTP analysis.

For regulated utilities (Minnesota Power, Superior Water Light & Power, and American Transmission Co), we apply an electric peer P/E of 15.8x grossed up by 5% to account for capital appreciation across the sector. For MP and SWL&P, we apply a +1x premium to the peer P/E to account for above-peer growth. For ATC, we apply a +3x premium consistent with other owners of transmission assets given upside potential, federal equity layer & ROE.

We value contracted wind on a DCF basis with WACC of 9.9%, for an implied EV/EBITDA valuation of 9.0x 2025E. We value the wind development company (devco) based on est. weighted avg MWs in development and assuming a 2.0x EBITDA development spread.

We value the New Energy solar devco using an 10x 2023 EBITDA, in line with recent transaction multiples and recognizing the growth pipeline of the asset. We value the BNI coal mine asset at 7.0x 2025E EPS, in line with publicly-traded peers. We value the Corporate & Other segments at 7.0x 2025 EPS, reflecting modest visibility.

Upside risks: constructive regulatory/legislative outcomes, lower ROE lag, lower interest rate/cost of capital, favorable returns on unregulated projects, capex vs guidance, load growth, lower commodity price volatility. Downside risks: regulatory/legislative outcomes, capex vs guidance, taconite/industrial sales changes, returns on unregulated projects, interest rates & commodity price volatility, weather, natural disasters

American Electric Power (AEP)

Our price objective of $77 is based on sum-of-the-parts (SOTP) analysis. We ascribe a peer forward FY25E P/E multiple (14.2x) with a 1.0x premium for its Texas transmission and distribution utilities and transmission-only utilities segments and a 0x premium (in-line multiple) for Ohio. We apply a -3x for ApCo on under-earn and coal securitization risk. We apply -4x at SWEPCO on regulatory execution risk. Elsewhere we apply -2x on earnings lag and below-average jurisdictions. Vertically integrated utilities are assigned a -2x discount on regulatory and execution risks. For the unregulated portion, we apply a 3.5x discount to the legacy energy supply and marketing business and an 8x premium to the contracted renewables business to reflect sale aspirations. Risks to achievement of the price objective are 1) regulatory outcomes are less favorable than expected, which could result in reduced return on equity (ROE), 2) large capital intensive projects are subject to delays or cost overruns, which can change the return profile, 3) natural disasters or catastrophic events can affect system reliability and are subject to regulatory cost recovery risk, 4) utilities are subject to interest rate risk to fund their business, which affects cost of capital, 5) uncertainty around announced asset divestitures versus guidance expectations, 6) volatility in volume of electric sales, 7) other adverse regulatory, political, or similar actions.

Clearway Energy (CWENA / CWEN)

Our $27/sh PO is based on 67/33 weighted DDM/DCF methodologies. Our DDM value is $30 and our DCF value is $20. We use a 67% weighting to reflect disproportionate focus on existing and future yield over core asset cash flows. Perceived growth remains the prevailing methodology employed across the market.

In our DCF, we discount the current portfolio's expected cash flows. Main assumptions include:
- Our 8.63% cost of equity applies a CAPM methodology and includes 1.0% company-specific premium
- Outstanding corporate debt is assumed to be refinanced and amortized on a 20-year term.

Assumptions under our DDM approach are:

- 8.0% growth through 2026
- A 2.0% required yield based on the 2023E dividend yield for the YieldCo peer set.

Risks are 1) misalignment between the new sponsor and the company's growth strategy, 2) the inability to purchase high-quality assets at accretive multiples, 3) the failure to successfully develop projects, 4) the inability to access capital markets at attractive terms, and 5) PCG related counterparty exposure is among the nearest exposures to watch.

Duke Energy (DUK)
Our $94 PO is derived from a sum-of-the-parts valuation. We value the Electric and Gas utilities using peer 2025E P/E multiples. We apply a 2x multiple premium to Duke's operations in FL and 2x in IN to reflect more favorable regulatory environments (and potential generation opps in IN). We apply a 1x multiple to the Carolinas given upside to spending in improving regulatory construct combined with latest IRP & wider legislative reforms into 2023. We value the other regulated electric utilities at 14.0x and the gas utilities at peer group multiples of 14.7x 2025E P/E, respectively. Both electric and gas peer P/E multiples are grossed up by 5% for the groups CAGR to reflect capital appreciation across the sector. The commercial midstream, and transmission are valued on a 2025E EV/EBITDA basis. We use 8.0x multiples for midstream and 9.0x for transmission segments. We subtract out the impact of commercial debt, and add back for the renewable debt. Upside risks: constructive rate case results, higher capital expenditure additions vs our assumptions, lower interest rates. Downside risks: poor rate case results, operating errors, and negative changes in the regulatory environment, Macro risks: Increases in interest rates and decreases in equity market valuations.

Edison International (EIX)
Our $57 PO is based on sum of the parts analysis with a peer 16.3x 2024 P/E grossed-up 5% for group growth. A -3x P/E discount is applied to the CPUC, as well as the Parent/Other segment, and -1x P/E discount to FERC jurisdictional utilities. The discount reflects below-average growth and regulatory considerations, albeit FERC risk profile is less challenging than the CPUC. The negative wildfire adjustments are netted-out to reflect a probabilistic approach to the risk of shareholder funded wildfires and the ongoing contribution to the CA fund on an NPV basis.

Positive and negative risks are changes in: 1) Wildfire and other natural disasters/catastrophic events, 2) regulatory outcomes, 3) interest rates, 4) equity needs, 5) earned returns and operating costs, 6) Edison Energy returns, 7) ability to deploy capital, 8) environmental, social, & governance [ESG] profile, and 9) wildfire liabilities for shareholders.

Exelon (EXC)
Our $46 PO is based on an sum of the parts valuation. Our base electric peer 2025 P/E multiple of 15.8x is grossed up for a year by 5% to reflect capital appreciation across the sector. We apply an in-line multiple across EXC utilities ComEd, PECO, BGE, PHI with above-average growth prospects and below average risks counterbalanced but non-linear growth and inconsistent execution.

Risks to achievement of the rating and price objective include: 1) Adverse regulatory, political, and legislative outcomes, 2) inability to deploy the guided capital expenditures, 3) equity needs that differ from guidance, 4) storms and other natural disasters, 5) inability to control operating costs, 6) changes in effective tax and interest rates, and 7) changes in credit rating agency metric requirements.

NRG Energy (NRG)
Our $47 price objective is based on our 2025E sum-of-the-parts analysis. We value NRG in six parts based on approximately EV/FCF: (1) 6.5x Legacy Retail, (2) 6.0x Direct

Energy, (3) 7.0x Vivint, (4) 5.5x Gas, and (5) 2.0x Coal plus Hedges. The debt and preferred stock obligations are reductions from equity value.

We value Legacy Retail at a slight premium to peers given strong competitive positioning. We value Direct Energy in line with the Legacy Retail portfolio. For Vivint, our target multiple is a discount to NRG's other retail platforms given lower free cash flow conversion. Gas value reflects fair near-term profitability opportunity but limited long-term visibility. Last, our subdued Coal value is driven by limited terminal value for the assets.

Risks to the price objective are changes in 1) commodity prices, 2) operating cost, 3) environmental requirements, 4) cost of capital, 5) retail margins and customer counts, 6) natural disasters, 7) regulatory, legislative, and political changes, 8) customer acquisition costs, 9) retail competition, 10) pension and nuclear decommissioning trust assets/liabilities, and 11) interest rates.

OGE Energy Corp (OGE)

Our OGE PO is $39/share based on a sum of the parts. For the utility and holdco we apply the FY25 peer multiple of 16.0x. Electric peer P/E multiple is grossed up for +5% to reflect capital appreciation across the sector, a consistent methodology across our coverage universe. We apply a 1x premium for incremental growth not yet embedded in plan as well as the above-average balance sheet metrics

Upside and downside risks are changes in: 1) regulatory, legislative, and political outcomes, 2) ability to earn the allowed rate of return, 3) interest rates and commodity costs, 4) customer and sales growth, particularly energy and data mining customers, 5) natural disasters, 6) credit rating agency requirements, 7) capital expenditure plan, and 8) request for proposal outcomes.

Southern Company (SO)

Our $66 PO is derived from a sum-of-the-parts analysis (SOTP). We use a P/E valuation approach on 2025 estimates and use peer multiples of 14.0x for electric and 14.7x for gas, respectively (with dis/prem applied per asset depending on growth/risk): we then gross up these multiples by +5% to account for sector wide EPS growth to derive a 12-month forward PO. We also apply an adjustment factor to reflect slightly higher interest rate expectations than Street consensus. We subtract 50% of the 2025 parent interest expense multiple by an electric P/E peer multiple to reflect parent leverage supporting the utilities. We net out total parent drag and add back the remaining parent interest expense with a 50% weighting. Upside/downside risks to achievement of the PO are: 1) Vogtle construction timing and costs, 2) regulatory, political, and legislative changes, 3) ability to earn the allowed rate of return, 4) changes to the capital expenditure forecast, 5) nuclear incidents, weather, and natural disasters, 6) rate of customer and sales growth, 7) O&M trends, 8) interest rates, 9) environmental policies and regulations, 10) M&A, and 11) interest rates.

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	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
	Exelon	EXC	EXC US	Paul Zimbardo
	First Solar, Inc.	FSLR	FSLR US	Julien Dumoulin-Smith
	FREYR Battery	FREY	FREY US	Julien Dumoulin-Smith
	FTC Solar	FTCI	FTCI 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
	ReNew Power	RNW	RNW 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
	Fluence Energy	FLNC	FLNC US	Julien Dumoulin-Smith
	Idacorp	IDA	IDA US	Paul Zimbardo
	Maxeon 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
	Northwest Natural Holdings	NWN	NWN 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

North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	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
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
	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
	Tellurian Inc	TELL	TELL US	Julien Dumoulin-Smith
	UGI Corp.	UGI	UGI US	Julien Dumoulin-Smith

Disclosures

Important Disclosures

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.

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. VOLATILITY RISK RATINGS, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. INVESTMENT RATINGS reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperform stocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

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.

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. *Coverage Cluster* is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

Price Charts for the securities referenced in this research report are available on the Price Charts website, or call 1-800-MERRILL to have them mailed.
BofAS or one of its affiliates acts as a market maker for the equity securities recommended in the report: Allete Inc, American Elec Power, Clearway Energy, Duke Energy, Edison Intl, Exelon Corp, NRG Energy, OGE Energy Corp, Southern Company.
BofAS or an affiliate was a manager of a public offering of securities of this issuer within the last 12 months: Allete Inc, Duke Energy, Edison Intl, NRG Energy, Inc., Southern Company.
The issuer is or was, within the last 12 months, an investment banking client of BofAS and/or one or more of its affiliates: Allete Inc, Amer Elec Power, Clearway Energy, Duke Energy, Edison Intl, Exelon Corp., NRG Energy, Inc., OGE Energy Corp, Southern Company.
BofAS or an affiliate has received compensation from the issuer for non-investment banking services or products within the past 12 months: Allete Inc, Amer Elec Power, Clearway Energy, Duke Energy, Edison Intl, Exelon Corp., NRG Energy, Inc., OGE Energy Corp, Southern Company.
The issuer is or was, within the last 12 months, a non-securities business client of BofAS and/or one or more of its affiliates: Allete Inc, Amer Elec Power, Clearway Energy, Duke Energy, Edison Intl, Exelon Corp., NRG Energy, Inc., OGE Energy Corp, Southern Company.
BofAS or an affiliate has received compensation for investment banking services from this issuer within the past 12 months: Allete Inc, Amer Elec Power, Clearway Energy, Duke Energy, Edison Intl, Exelon Corp., NRG Energy, Inc., OGE Energy Corp, Southern Company.
BofAS or an affiliate expects to receive or intends to seek compensation for investment banking services from this issuer or an affiliate of the issuer within the next three months: Amer Elec Power, Clearway Energy, Duke Energy, Edison Intl, Exelon Corp., NRG Energy, Inc., Southern Company.
BofAS together with its affiliates beneficially owns one percent or more of the common stock of this issuer. If this report was issued on or after the 9th day of the month, it reflects the ownership position on the last day of the previous month. Reports issued before the 9th day of a month reflect the ownership position at the end of the second month preceding the date of the report: Amer Elec Power, Duke Energy, NRG Energy, Inc., Southern Company.
BofAS or one of its affiliates is willing to sell to, or buy from, clients the common equity of the issuer on a principal basis: Allete Inc, American Elec Power, Clearway Energy, Duke Energy, Edison Intl, Exelon Corp, NRG Energy, OGE Energy Corp, Southern Company.
The issuer is or was, within the last 12 months, a securities business client (non-investment banking) of BofAS and/or one or more of its affiliates: Allete Inc, Amer Elec Power, Clearway Energy, Duke Energy, Edison Intl, Exelon Corp., NRG Energy, Inc., Southern Company.
BofA Global Research personnel (including the analyst(s) responsible for this report) receive compensation based upon, among other factors, the overall profitability of Bank of America Corporation, including profits derived from investment banking. The analyst(s) responsible for this report may also receive compensation based upon, among other factors, the overall profitability of the Bank's sales and trading businesses relating to the class of securities or financial instruments for which such analyst is responsible.

Other Important Disclosures

From time to time research analysts conduct site visits of covered issuers. BofA Global Research policies prohibit research analysts from accepting payment or reimbursement for travel expenses from the issuer for such visits.
Prices are indicative and for information purposes only. Except as otherwise stated in the report, for any recommendation in relation to an equity security, the price referenced is the publicly traded price of the security as of close of business on the day prior to the date of the report or, if the report is published during intraday trading, the price referenced is indicative of the traded price as of the date and time of the report and in relation to a debt security (including equity preferred and CDS), prices are indicative as of the date and time of the report and are from various sources including BofA Securities trading desks.
The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

Recipients who are not institutional investors or market professionals should seek the advice of their independent financial advisor before considering information in this report in connection with any investment decision, or for a necessary explanation of its contents.
Officers of BofAS or one or more of its affiliates (other than research analysts) may have a financial interest in securities of the issuer(s) or in related investments.
Refer to BofA Global Research policies relating to conflicts of interest.
"BofA Securities" includes BofA Securities, Inc. ("BofAS") and its affiliates. Investors should contact their BofA Securities representative or Merrill Global Wealth Management financial advisor if they have questions concerning this report or concerning the appropriateness of any investment idea described herein for such investor. "BofA Securities" is a global brand for BofA Global Research.
Information relating to Non-US affiliates of BofA Securities and Distribution of Affiliate Research Reports:
BofAS and/or Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") may in the future distribute, information of the following non-US affiliates in the US (short name: legal name, regulator): Merrill Lynch (South Africa): Merrill Lynch South Africa (Pty) Ltd., regulated by The Financial Service Board; MLI (UK): Merrill Lynch International, regulated by the Financial Conduct Authority (FCA) and the Prudential Regulation Authority (PRA); BofASE (France): BofA Securities Europe SA is authorized by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers (AMF). BofA Securities Europe SA ("BofASE") with registered address at 51, rue La Boétie, 75008 Paris is registered under no. 842 602 690 RCS Paris. In accordance with the provisions of French Code Monétaire et Financier (Monetary and Financial Code), BofASE is an établissement de crédit et d'investissement (credit and investment institution) that is authorised and supervised by the European Central Bank and the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and regulated by the ACPR and the Autorité des Marchés Financiers. BofASE's share capital can be found at www.bofaml.com/BofASEdisclaimer; BofA Europe (Milan): Bank of America Europe Designated Activity Company, Milan Branch, regulated by the Bank of Italy, the European Central Bank (ECB) and the Central Bank of Ireland (CBI); BofA Europe (Frankfurt): Bank of America Europe Designated Activity Company, Frankfurt Branch regulated by BaFin, the ECB and the CBI; BofA Europe (Madrid): Bank of America Europe Designated Activity Company, Sucursal en España, regulated by the Bank of Spain, the ECB and the CBI; Merrill Lynch (Australia): Merrill Lynch Equities (Australia) Limited, regulated by the Australian Securities and Investments Commission; Merrill Lynch (Hong Kong): Merrill Lynch (Asia Pacific) Limited, regulated by the Hong Kong Securities and Futures Commission (HKSFC); Merrill Lynch (Singapore): Merrill Lynch (Singapore) Pte Ltd, regulated by the Monetary Authority

of Singapore (MAS); Merrill Lynch (Canada): Merrill Lynch Canada Inc, regulated by the Investment Industry Regulatory Organization of Canada; Merrill Lynch (Mexico): Merrill Lynch Mexico, SA de CV, Casa de Bolsa, regulated by the Comisión Nacional Bancaria y de Valores; Merrill Lynch (Argentina): Merrill Lynch Argentina SA, regulated by Comisión Nacional de Valores; BofAS Japan: BofA Securities Japan Co., Ltd., regulated by the Financial Services Agency; Merrill Lynch (Seoul): Merrill Lynch International, LLC Seoul Branch, regulated by the Financial Supervisory Service; Merrill Lynch (Taiwan): Merrill Lynch Securities (Taiwan) Ltd., regulated by the Securities and Futures Bureau; BofAS India: BofA Securities India Limited, regulated by the Securities and Exchange Board of India (SEBI); Merrill Lynch (Israel): Merrill Lynch Israel Limited, regulated by Israel Securities Authority; Merrill Lynch (DIFC): Merrill Lynch International (DIFC Branch), regulated by the Dubai Financial Services Authority (DFSA); Merrill Lynch (Brazil): Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários, regulated by Comissão de Valores Mobiliários; Merrill Lynch KSA Company: Merrill Lynch Kingdom of Saudi Arabia Company, regulated by the Capital Market Authority.

This information: has been approved for publication and is distributed in the United Kingdom (UK) to professional clients and eligible counterparties (as each is defined in the rules of the FCA and the PRA) by MLI (UK), which is authorized by the PRA and regulated by the FCA and the PRA - details about the extent of our regulation by the FCA and PRA are available from us on request; has been approved for publication and is distributed in the European Economic Area (EEA) by BofASE (France), which is authorized by the ACPR and regulated by the ACPR and the AMF; has been considered and distributed in Japan by BofAS Japan, a registered securities dealer under the Financial Instruments and Exchange Act in Japan, or its permitted affiliates; is issued and distributed in Hong Kong by Merrill Lynch (Hong Kong) which is regulated by HKSFC; is issued and distributed in Taiwan by Merrill Lynch (Taiwan); is issued and distributed in India by BofAS India; and is issued and distributed in Singapore to institutional investors and/or accredited investors (each as defined under the Financial Advisers Regulations) by Merrill Lynch (Singapore) (Company Registration No 198602883D). Merrill Lynch (Singapore) is regulated by MAS. Merrill Lynch Equities (Australia) Limited (ABN 65 006 276 795), AFS License 235132 (MLEA) distributes this information in Australia only to 'Wholesale' clients as defined by s.761G of the Corporations Act 2001. With the exception of Bank of America N.A., Australia Branch, neither MLEA nor any of its affiliates involved in preparing this information is an Authorised Deposit-Taking Institution under the Banking Act 1959 nor regulated by the Australian Prudential Regulation Authority. No approval is required for publication or distribution of this information in Brazil and its local distribution is by Merrill Lynch (Brazil) in accordance with applicable regulations. Merrill Lynch (DIFC) is authorized and regulated by the DFSA. Information prepared and issued by Merrill Lynch (DIFC) is done so in accordance with the requirements of the DFSA conduct of business rules. BofA Europe (Frankfurt) distributes this information in Germany and is regulated by BaFin, the ECB and the CBI. BofA Securities entities, including BofA Europe and BofASE (France), may outsource/delegate the marketing and/or provision of certain research services or aspects of research services to other branches or members of the BofA Securities group. You may be contacted by a different BofA Securities entity acting for and on behalf of your service provider where permitted by applicable law. This does not change your service provider. Please refer to the Electronic Communications Disclaimers for further information.

This information has been prepared and issued by BofAS and/or one or more of its non-US affiliates. The author(s) of this information may not be licensed to carry on regulated activities in your jurisdiction and, if not licensed, do not hold themselves out as being able to do so. BofAS and/or MLPF&S is the distributor of this information in the US and accepts full responsibility for information distributed to BofAS and/or MLPF&S clients in the US by its non-US affiliates. Any US person receiving this information and wishing to effect any transaction in any security discussed herein should do so through BofAS and/or MLPF&S and not such foreign affiliates. Hong Kong recipients of this information should contact Merrill Lynch (Asia Pacific) Limited in respect of any matters relating to dealing in securities or provision of specific advice on securities or any other matters arising from, or in connection with, this information. Singapore recipients of this information should contact Merrill Lynch (Singapore) Pte Ltd in respect of any matters arising from, or in connection with, this information. For clients that are not accredited investors, expert investors or institutional investors Merrill Lynch (Singapore) Pte Ltd accepts full responsibility for the contents of this information distributed to such clients in Singapore.

General Investment Related Disclosures:

Taiwan Readers: Neither the information nor any opinion expressed herein constitutes an offer or a solicitation of an offer to transact in any securities or other financial instrument. No part of this report may be used or reproduced or quoted in any manner whatsoever in Taiwan by the press or any other person without the express written consent of BofA Securities.

This document provides general information only, and has been prepared for, and is intended for general distribution to, BofA Securities clients. Neither the information nor any opinion expressed constitutes an offer or an invitation to make an offer, to buy or sell any securities or other financial instrument or any derivative related to such securities or instruments (e.g., options, futures, warrants, and contracts for differences). This document is not intended to provide personal investment advice and it does not take into account the specific investment objectives, financial situation and the particular needs of, and is not directed to, any specific person(s). This document and its content do not constitute, and should not be considered to constitute, investment advice for purposes of ERISA, the US tax code, the Investment Advisers Act or otherwise. Investors should seek financial advice regarding the appropriateness of investing in financial instruments and implementing investment strategies discussed or recommended in this document and should understand that statements regarding future prospects may not be realized. Any decision to purchase or subscribe for securities in any offering must be based solely on existing public information on such security or the information in the prospectus or other offering document issued in connection with such offering, and not on this document.

Securities and other financial instruments referred to herein, or recommended, offered or sold by BofA Securities, are not insured by the Federal Deposit Insurance Corporation and are not deposits or other obligations of any insured depository institution (including, Bank of America, N.A.). Investments in general and, derivatives, in particular, involve numerous risks, including, among others, market risk, counterparty default risk and liquidity risk. No security, financial instrument or derivative is suitable for all investors. Digital assets are extremely speculative, volatile and are largely unregulated. In some cases, securities and other financial instruments may be difficult to value or sell and reliable information about the value or risks related to the security or financial instrument may be difficult to obtain. Investors should note that income from such securities and other financial instruments, if any, may fluctuate and that price or value of such securities and instruments may rise or fall and, in some cases, investors may lose their entire principal investment. Past performance is not necessarily a guide to future performance. Levels and basis for taxation may change.

This report may contain a short-term trading idea or recommendation, which highlights a specific near-term catalyst or event impacting the issuer or the market that is anticipated to have a short-term price impact on the equity securities of the issuer. Short-term trading ideas and recommendations are different from and do not affect a stock's fundamental equity rating, which reflects both a longer term total return expectation and attractiveness for investment relative to other stocks within its Coverage Cluster. Short-term trading ideas and recommendations may be more or less positive than a stock's fundamental equity rating.

BofA Securities is aware that the implementation of the ideas expressed in this report may depend upon an investor's ability to "short" securities or other financial instruments and that such action may be limited by regulations prohibiting or restricting "shortselling" in many jurisdictions. Investors are urged to seek advice regarding the applicability of such regulations prior to executing any short idea contained in this report.

Foreign currency rates of exchange may adversely affect the value, price or income of any security or financial instrument mentioned herein. Investors in such securities and instruments, including ADRs, effectively assume currency risk.

BofAS or one of its affiliates is a regular issuer of traded financial instruments linked to securities that may have been recommended in this report. BofAS or one of its affiliates may, at any time, hold a trading position (long or short) in the securities and financial instruments discussed in this report.

BofA Securities, through business units other than BofA Global Research, may have issued and may in the future issue trading ideas or recommendations that are inconsistent with, and reach different conclusions from, the information presented herein. Such ideas or recommendations may reflect different time frames, assumptions, views and analytical methods of the persons who prepared them, and BofA Securities is under no obligation to ensure that such other trading ideas or recommendations are brought to the attention of any recipient of this information.

In the event that the recipient received this information pursuant to a contract between the recipient and BofAS for the provision of research services for a separate fee, and in connection therewith BofAS may be deemed to be acting as an investment adviser, such status relates, if at all, solely to the person with whom BofAS has contracted directly and does not extend beyond the delivery of this report (unless otherwise agreed specifically in writing by BofAS). If such recipient uses the services of BofAS in connection with the sale or purchase of a security referred to herein, BofAS may act as principal for its own account or as agent for another person. BofAS is and continues to act solely as a broker-dealer in connection with the execution of any transactions, including transactions in any securities referred to herein.

BofA ESGMeter Methodology:

ESGMeter is a proprietary metric based on quantitative analysis and fundamental analyst inputs that reflects our assessment of a company's Environmental, Social and Governance-related attributes. The ESGMeter is intended to indicate a company's likelihood of experiencing stronger financial stability (higher return on equity and lower earnings and price volatility) over the next three years relative to peer group. There are three ESGMeter levels - Low, Medium, and High - which indicate whether a company has attributes most likely to translate into superior financial stability (in the case of a High level) or weaker financial stability (in the case of a Low level) over the next three years relative to its peer group. A Medium level suggests that a company exhibits ESG characteristics that are likely associated with financial stability results in line with its peer group over the next three years. Full details of our methodology, financial stability definition and disclaimers are available at BofA ESGMeter methodology. ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of the BofA Global Research fundamental equity analyst's investment rating, volatility risk rating, income rating or price objective for that company.

Copyright and General Information: