BofA GLOBAL RESEARCH



AES

Debating valuation, catalysts, and more. Can AES catch the datacenter halo?

Maintain Rating: NEUTRAL | PO: 18.00 USD | Price: 16.00 USD

Shares have been volatile with interest rates

We maintain our Neutral rating on shares of AES Corp (AES) while highlighting some of the key debate points on shares. AES has been particularly volatile in 2023-2024 after crashing to ~\$13/share in October before recovering to \$20/share, only to slump back down to \$16. The recent pullback has increasingly gained attention from investors seeking to capitalize on the buildout of new renewables and data center angle at a reasonable price. AES is among the largest and fastest growing renewable developers in the space, with a contracted backlog of ~13 gigawatts (GW). While we see AES as well-positioned to achieve mgmt.'s growth targets for renewables, we see limited upside for shares on underwhelming consolidated growth the appears appropriately priced in. With the backdrop, we are more constructive after the relative weakness as management has made progress on asset sales and balance sheet improvement in recent months.

Datacenter talks has largely skipped renewables firms

We have received intense inbound interest from generalist and tech investors across the coverage universe regarding ways to invest in the emerging datacenter and artificial intelligence theme. Despite the flurry of investor attention, we have received almost no inquiries related to AES or renewable development peers. This is despite AES actually hosting a data center investor event on January 18th discussing the company's historical and prospective attributes.

Three key debates: renewables growth, asset sales, value

We summarize three key areas of investor focus in the full report: (1) can management deliver its renewables development targets underlying its EBITDA CAGR? (2) will the company be successful in executing asset sales to reduce the need for common equity? (3) what is the right valuation methodology and level for the complex business without clear comparable peers?

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E
EPS	1.52	1.67	1.72	1.89	2.15
GAAP EPS	(0.62)	(0.77)	1.26	1.87	2.13
EPS Change (YoY)	5.6%	9.9%	3.0%	9.9%	13.8%
Consensus EPS (Bloomberg)			1.72	1.89	2.06
DPS	0.67	0.73	0.80	0.87	0.95
Valuation (Dec)					
P/E	10.5x	9.6x	9.3x	8.5x	7.4x
GAAP P/E	NM	NM	12.7x	8.6x	7.5x
Dividend Yield	4.2%	4.6%	5.0%	5.4%	5.9%
EV / EBITDA*	NM	48.5x	14.0x	11.2x	10.4x
Free Cash Flow Yield*	-1.9%	-16.1%	-13.7%	-9.4%	-7.6%
* For full definitions of <i>IQ</i> method SM measures, see page 8.					

14 February 2024

Equity

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Stock Data

 Price
 16.00 USD

 Price Objective
 18.00 USD

 Date Established
 5-Dec-2023

 Investment Opinion
 B-2-7

 52-Week Range
 11.43 USD - 26.77 USD

 Mrkt Val (mn) / Shares Out
 11,384 USD / 711.5

 (mn)
 11.43 USD - 26.77 USD

 (mn)

 Free Float
 98.2%

 Average Daily Value (mn)
 94.37 USD

 BofA Ticker / Exchange
 AES / NYS

 Bloomberg / Reuters
 AES US / AES.N

 ROE (2023E)
 69.4%

 Net Dbt to Eqty (Dec-2022A)
 376.8%

 ESGMeter™
 High

ESGMeter is not indicative of a company's future stock price performance and is not an investment recommendation or rating. ESGMeter is independent of BofA Global Research's equity investment rating, volatility risk rating, income rating, and price objective for that company. For full details, refer to "BofA ESGMeter Methodology".

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Refer to important disclosures on page 9 to 11. Analyst Certification on page 6. Price
Objective Basis/Risk on page 6.

iQprofile[™]AES

(US\$ Millions)	2021A	2022A	2023E	2024E	2025
Return on Capital Employed	-2.3%	0.6%	2.8%	4.9%	5.1%
Return on Equity	43.9%	66.4%	69.4%	58.9%	50.0%
Operating Margin	-9.6%	-1.3%	12.5%	18.4%	20.19
Free Cash Flow	(214)	(1,836)	(1,554)	(1,070)	(870
Q method [™] – Quality of Earnings*					
US\$ Millions)	2021A	2022A	2023E	2024E	2025
Cash Realization Ratio	1.9x	2.3x	2.0x	2.2x	2.0
Asset Replacement Ratio	2.0x	4.3x	2.7x	2.6x	2.5
Tax Rate	7.9%	NM	56.3%	30.7%	31.29
Net Debt-to-Equity Ratio	304.9%	376.8%	388.6%	370.6%	340.09
Interest Cover	-1.2x	-0.2x	1.6x	NA	N/
ncome Statement Data (Dec)					
(US\$ Millions)	2021A	2022A	2023E	2024E	2025
Sales	11,141	12,617	12,487	12,319	12,708
% Change	15.3%	13.2%	-1.0%	-1.3%	3.29
Gross Profit	2,711	2,548	2,317	2,047	2,334
% Change	0.7%	-6.0%	-9.1%	-11.6%	14.09
EBITDA	(8)	884	3,071	3,816	4,12
% Change	NM	NM	247.4%	24.2%	8.09
Net Interest & Other Income	(613)	(728)	(573)	397	40
Net Income (Adjusted)	1,011	1,187	1,224	1,345	1,530
% Change	5.6%	17.4%	3.1%	9.9%	13.8%
US\$ Millions)	2021A	2022A	2023E 434	2024E	2025
Net Income from Cont Operations (GAAP) Depreciation & Amortization	(1,544) 1,056	(1,162) 1,053	1,506	1,843 1,553	2,032 1,569
Change in Working Capital	(1,362)	(289)	0	0	1,00:
Deferred Taxation Charge	(406)	(203)	4	4	
Other Adjustments, Net	4,158	3,109	501	(469)	(474
Capital Expenditure	(2,116)	(4,551)	(4,000)	(4,000)	
Free Cash Flow	-214	-1,836	-1,554	(1,000)	
% Change				-1.070	(4,000
		•	•	-1,070 31.2%	(4,000 -87 (
	NM	- 757.9%	15.3%	-1,070 31.2%	(4,000 - 87 (18.7 %
Share / Issue Repurchase	NM	- 757.9%	15.3%	31.2% 0	(4,000 - 87 (18.7 %
	NM 0	-757.9%	15.3%	31.2%	(4,000 - 870 18.7% (674
Share / Issue Repurchase Cost of Dividends Paid	NM 0 (401)	- 757.9% 0 (422)	15.3% 0 (567)	31.2% 0 (618)	(4,000 - 870 18.7% (674
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions)	NM 0 (401) (37)	-757.9% 0 (422) 3,432 2022A	15.3% 0 (567) 2,122 2023E	31.2% 0 (618) 1,688 2024E	(4,000 -870 18.7% (674 88
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents	NM 0 (401) (37) 2021A 943	-757.9% 0 (422) 3,432 2022A 1,551	15.3% 0 (567) 2,122 2023E 1,551	31.2% 0 (618) 1,688 2024E 1,551	(4,000 -87(18.7% (674 88 2025
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables	NM 0 (401) (37) 2021A 943 1,418	-757.9% 0 (422) 3,432 2022A 1,551 1,799	15.3% 0 (567) 2,122 2023E 1,551 1,799	31.2% 0 (618) 1,688 2024E 1,551 1,799	(4,000 -87(18.79) (674 88 2025 1,55
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets	NM 0 (401) (37) 2021A 943 1,418 2,995	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293	(4,000 -87(18.7% (674 88 2025 1,55 1,79 4,29
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment	0 (401) (37) 2021A 943 1,418 2,995 19,906	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980	(4,000 -87(18.7% (674 88 2025 1,55 1,79(4,29) 30,41
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets	0 (401) (37) 2021A 943 1,418 2,995 19,906 7,701	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039 7,681	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533 7,681	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980 7,681	(4,000 -87(18.7% (674 88 2025 1,55 1,79(4,29) 30,41 7,68
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets	NM 0 (401) (37) 2021A 943 1,418 2,995 19,906 7,701 32,963	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039 7,681 38,363	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533 7,681 40,857	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980 7,681 43,304	(4,000 -87(18.7% (674 88 2025 1,55 1,79(4,29) 30,41 7,68 45,73
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt	NM 0 (401) (37) 2021A 943 1,418 2,995 19,906 7,701 32,963 1,367	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039 7,681 38,363 1,758	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533 7,681 40,857 1,758	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980 7,681 43,304 1,758	(4,000 -87(18.7% (674 88 2025 1,55 1,79 4,29 30,41 7,68 45,73 1,75
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt Other Current Liabilities	NM 0 (401) (37) 2021A 943 1,418 2,995 19,906 7,701 32,963 1,367 3,365	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039 7,681 38,363 1,758 4,733	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533 7,681 40,857 1,758 4,733	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980 7,681 43,304 1,758 4,733	(4,000 -87(18.79) (674 88) 2025 1,55 1,799 4,293 30,41 7,68 45,733 1,756 4,733
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt Other Current Liabilities Long-Term Debt	NM 0 (401) (37) 2021A 943 1,418 2,995 19,906 7,701 32,963 1,367 3,365 17,332	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039 7,681 38,363 1,758 4,733 21,740	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533 7,681 40,857 1,758 4,733 23,862	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980 7,681 43,304 1,758 4,733 25,549	(4,000 -87(18.7% (674 88 2025 1,55 1,79 4,29 30,41 7,68 45,73 1,75 4,73 26,43
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt Other Current Liabilities Long-Term Debt Other Non-Current Liabilities	NM 0 (401) (37) 2021A 943 1,418 2,995 19,906 7,701 32,963 1,367 3,365 17,332 5,075	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039 7,681 38,363 1,758 4,733 21,740 4,307	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533 7,681 40,857 1,758 4,733 23,862 4,311	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980 7,681 43,304 1,758 4,733 25,549 4,314	(4,000 -87(18.7% (674 88' 2025 1,55' 1,799 4,293 30,41' 7,68' 45,73! 4,733 26,43(4,98'
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt Other Current Liabilities Long-Term Debt Other Non-Current Liabilities Total Liabilities	NM 0 (401) (37) 2021A 943 1,418 2,995 19,906 7,701 32,963 1,367 3,365 17,332 5,075 27,139	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039 7,681 38,363 1,758 4,733 21,740 4,307 32,538	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533 7,681 40,857 1,758 4,733 23,862 4,311 34,663	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980 7,681 43,304 1,758 4,733 25,549 4,314 36,355	(4,000 -870 18.7% (674 88° 2025 1,55° 1,799 4,293 30,41° 7,68° 45,735 4,733 26,430 4,98° 37,902
Share / Issue Repurchase Cost of Dividends Paid Change in Debt Balance Sheet Data (Dec) (US\$ Millions) Cash & Equivalents Trade Receivables Other Current Assets Property, Plant & Equipment Other Non-Current Assets Total Assets Short-Term Debt Other Current Liabilities Long-Term Debt Other Non-Current Liabilities	NM 0 (401) (37) 2021A 943 1,418 2,995 19,906 7,701 32,963 1,367 3,365 17,332 5,075	-757.9% 0 (422) 3,432 2022A 1,551 1,799 4,293 23,039 7,681 38,363 1,758 4,733 21,740 4,307	15.3% 0 (567) 2,122 2023E 1,551 1,799 4,293 25,533 7,681 40,857 1,758 4,733 23,862 4,311	31.2% 0 (618) 1,688 2024E 1,551 1,799 4,293 27,980 7,681 43,304 1,758 4,733 25,549 4,314	(4,000 -87(18.79) (674 88) 2025 1,55 1,799 4,293 30,41 7,68 45,733 1,750 4,733 26,430 4,98

Company Sector

Electric Utilities

Company Description

The AES Corporation is a global power company with 38+GW of generation capacity, operations in 24 countries, and goals to expand generation and utility segments in mature and emerging markets. AES operates four main business segments: contracted generation, competitive supply, large utilities, and growth distribution. A domestic and global player, 28% of the company's capacity is derived from South America generation, 26% from North America generation, and 19% from North America utilities.

Investment Rationale

We rate AES as Neutral, seeing sizable execution from renewable development buildout offset by legacy fossil/thermal biz exit risks. We see both ambiguities in the ramp of the renewable biz as well as dilution in the divestment of the legacy assets as key execution challenges. Will become among largest global renewable development companies in short order.

Stock Data

Average Daily Volume

6,038,237

Quarterly Earnings Estimates

	2022	2023
Q1	0.21A	0.22A
Q2	0.36A	0.21A
Q3	0.63A	0.60A
04	0.47A	0.69E

Debate #1: AES will outpace peers in terms of renewables growth

AES's backlog is impressive and supports multiple years of growth ahead. Following 3.5GW of deployments in 2023, we forecast additions of 4.25GW in 2024E and 5.0GW in 2025E. Together with further growth in 2026E and 2027E, our current forecast calls for cumulative deployments of 25.0GW from 2023E-2027E. While this is at the low end of management's guidance for deployments of 25.0-30.0GW, we see potential for upside to our forecast to the extent AES continues to deliver against origination targets. The company has discussed 'dozens of gigawatts' of non-AES distressed power purchase agreements (PPAs) that could be attractive acquisition targets. We look for management to continue to drive growth by both 'organic' originations as well as smaller 'tuck-in' acquisitions. Management's ability to deliver on return targets in the low to mid-teens will be key to watch as these 'brownfield' projects come into the capacity mix. This will be critical for AES to achieve its 19-21% EBITDA CAGR target through 2027. We see data centers as another key end market to watch that could drive upside to deployments in the coming years. While still early, we sense mgmt. is acutely focused on this angle and sees opportunity to capitalize on end market growth.

Considering data center focused growth, we see AES as among the only companies to have seriously engaged the investor community on this subject with specific growth ambitions. We remain surprised this has not entered the wider investor thematic debate of late. We see this as a latent source of potential upside to investor perceptions.

Debate #2: Asset sales will support funding in lieu of equity issuances

A precipitous decline in AES share price following the May 2023 Analyst Day led the company to re-tool the renewables buildout funding plan. Originally AES had targeted equity issuances of \$1.6-1.9Bn and asset sale proceeds of \$2.7-3.0bn to fund the long-term capex program. Now, assets sales are targeted to bring in at least \$3.5Bn of proceeds and mgmt. stresses equity issuances will not be pursued with shares at current levels. We see ample opportunity for AES to sell-down stakes across the asset base – both renewable and conventional assets alike. At the same time, earnings dilution from asset sales remains a key consideration that could threaten consolidated growth targets. Mgmt. targets a consolidated EBITDA CAGR of 3-5% (2023-2027) and EPS CAGR of 6-8% (2023-2027). Our latest forecast calls sits approximately at the midpoint for EPS and the high-end of EBITDA. Given a somewhat opaque financing backdrop we see several moving factors limiting clarity on this front.

Recent datapoints on potential Brazil exit per media add to our curiosity on the latest divestment perspectives. Timing of dilution from exits remains a key nuance to watch. Considering renewable opportunities available in Brazil we're curious on wider potential implications.

Debate #3: Shares are increasingly attractive at current valuation

We struggle to fully agree with the argument that shares screen attractive at current valuation, and attempt to illustrate this in the below charts. Despite the latest pull-back in shares, we estimate current levels imply a ~11% free cash flow (FCF) yield based on our 2025E or ~12% excluding the value of Fluence (FLNC) shares owned. We view this an appropriate level of risk-reward and highlight that it approximates our implied valuation on shares of Constellation Energy (CEG). On an EV/EBITDA basis, shares imply a ~10x multiple on 2025E. This has moved higher over the last several months as Consensus has recalibrated to align with mgmt.'s focus on EBITDA as the preferred KPI. Importantly, current levels show only a ~1x discount to shares of NextEra (NEE), which remains the largest developer in the space: this last point is potentially the biggest bear point on shares. We stress that with renewable sector valuations still depressed, we see muted willingness to return to more bullish sum-of-the-parts development company (DevCo) valuations to potential development activity.

Lastly, on a P/E basis, valuation has declined throughout the last year even despite lower EPS estimates. We view this as likely signifying investors' tendency not to capitalize



investment tax credits (ITCs) in valuation. We also highlight the relative spread to NextEra (NEE) has remained largely consistent over the last year.

Exhibit 1: AES share price and FCF Yield

Shares remain below the \$20 level while FCF yield (2025 - BofAe) has risen - still view current ~11% level as appropriate risk-reward



Source: Bloomberg, BofA Global Research

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Exhibit 2: AES EBITDA forecast and EV/EBITDA (2025E - Consensus)

Decline in Consensus forecast reflects recalibration to mgmt.'s newly preferred KPI (EBITDA) – valuation appears appropriate at ~1x discount to NEE



Source: Bloomberg, BofA Global Research

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The best pitch remains simply that shares of AES below their long-term average P/E multiples, even as the company has repositioned around renewable growth. Given the ongoing ambiguity in the balance sheet reset, this remains the biggest pushback to leveraging historical valuation metrics for shares. Related, we see ongoing pressure in regional peers such as European Utility peers limiting the re-rating potential of AES, which is frequently subject to regional comparisons given their comparable multi-region footprints and hybrid Utility/Renewable platforms.

Exhibit 3: AES EPS forecast and P/E (2025E)

Depressed P/E likely reflects investors' unwillingness to capitalize tax credit earnings – still P/E valuation appears stable relative to NEE spread



Source: Bloomberg, BofA Global Research

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BofA Global Research Reports

Title: SubtitleAES: Asset sales to accelerate in lieu of equity – Reiterate Neutral
AES: Asset sale shifts but no big surprises with 3Q likely: Stay Neutral
AES: Resetting the outlook as growth pressured – Reiterate Neutral

Primary Author	Date Published
Julien Dumoulin-Smith	07 November 2023
Julien Dumoulin-Smith	24 October 2023
Julien Dumoulin-Smith	12 October 2023



Price objective basis & risk

AES (AES)

Our price objective is \$18 and is based on a sum of the parts analysis applying a blended valuation approach which is the summation of: 1) EV/EBITDA approach for US Renewable Generation using a 10.0x 2025E base for US peers 2.) NPV approach for DevCo using a 13% discount on 5.0GW+ of annual renewables beyond '25, 3.) EV/EBITDA approach for Legacy Southland (US), 4.) NPV for Warrior Run (US) 5.) P/E approach for US Utilities using a 13.4x 2025E base for US peers plus a premium/discount, 6.) EV/EBITDA approach for LATAM non-public subsidiaries, 7.) MTM value of publicly listed LATAM subsidiaries, 8.) Asia Generation is marked to carrying value while the Asian LNG import facility is valued on EPS accretion relative to total build cost. We also credit the company with its investment in Uplight and Fluence.

Risks are: 1) regulatory, legislative, and political changes, 2) international currencies devaluing against the US dollar, 3) changes in value of Fluence (FLNC) subsidiary stock, 4) overall inability to execute on the renewables plan, 5) ability to control costs, 6) financing needs, and 7) tax policies. Upside risk from declining rates & improved commodity backdrop enabling robust divestment values on infra biz. Downside risk principally tied to timely execution of renewable execution ramp.

Analyst Certification

I, Julien Dumoulin-Smith, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my 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
	Array Technologies	ARRY	ARRY US	Julien Dumoulin-Smith
	Atlantica Sustainable Infrastructure	AY	AY US	Julien Dumoulin-Smith
	Atmos Energy Corporation	ATO	ATO US	Julien Dumoulin-Smith
	CenterPoint Energy	CNP	CNP US	Julien Dumoulin-Smith
	Cheniere Energy Inc	LNG	LNG US	Julien Dumoulin-Smith
	Clearway Energy	CWENA	CWEN/A US	Julien Dumoulin-Smith
	Clearway Energy	CWEN	CWEN US	Julien Dumoulin-Smith
	CMS Energy	CMS	CMS US	Julien Dumoulin-Smith
	Consolidated Edison	ED	ED US	Julien Dumoulin-Smith
	DTE Energy	DTE	DTE US	Julien Dumoulin-Smith
	Enlight Renewable Energy Ltd	ENLT	ENLT US	Julien Dumoulin-Smith
	Enlight Renewable Energy Ltd	XENLF	ENLT IT	Julien Dumoulin-Smith
	Entergy	ETR	ETR US	Paul Zimbardo
	First Solar, Inc.	FSLR	FSLR US	Julien Dumoulin-Smith
	Fluence Energy	FLNC	FLNC US	Julien Dumoulin-Smith
	Hannon Armstrong	HASI	HASI US	Julien Dumoulin-Smith
	Hydro One	YH	H CN	Julien Dumoulin-Smith
	MDU Resources Group, Inc.	MDU	MDU US	Julien Dumoulin-Smith
	Nextracker Inc	NXT	NXT US	Julien Dumoulin-Smith
	NiSource Inc	NI	NI US	Julien Dumoulin-Smith
	NorthWestern Energy Group	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
	PPL Corporation	PPL	PPL US	Paul Zimbardo
	Public Service Enterprise Group	PEG	PEG US	Julien Dumoulin-Smith
	Sempra	SRE	SRE US	Julien Dumoulin-Smith
	Sunnova Energy	NOVA	NOVA US	Julien Dumoulin-Smith
	SunRun	RUN	RUN US	Julien Dumoulin-Smith



North America - Utilities and Alt Energy Coverage Cluster

nvestment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	TPI Composites	TPIC	TPIC US	Julien Dumoulin-Smith
	Vistra Corp	VST	VST US	Julien Dumoulin-Smith
	Xcel Energy Inc	XEL	XEL US	Julien Dumoulin-Smith
EUTRAL				
	AES	AES	AES US	Julien Dumoulin-Smith
	Algonquin Power & Utilities Corp	AQN	AQN US	Paul Zimbardo
	Algonquin Power & Utilities Corp	YAQN	AQN CN	Paul Zimbardo
	AltaGas	YALA	ALA CN	Cameron Lochridge
	Ameren Corporation	AEE	AEE US	Julien Dumoulin-Smith
	Ameresco	AMRC	AMRC US	Julien Dumoulin-Smith
	American Electric Power	AEP	AEP US	Julien Dumoulin-Smith
	ChargePoint Holdings	CHPT	CHPT US	Cameron Lochridge
	e e	CEG	CEG US	Paul Zimbardo
	Constellation Energy Corp			
	Duke Energy	DUK	DUK US	Julien Dumoulin-Smith
	Emera Inc	YEMA	EMA CN	Julien Dumoulin-Smith
	Essential Utilities	WTRG	WTRG US	Julien Dumoulin-Smith
	Evergy, Inc	EVRG	EVRG US	Julien Dumoulin-Smith
	Exelon	EXC	EXC US	Paul Zimbardo
	Generac Holdings Inc.	GNRC	GNRC 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
	OGE Energy Corp	OGE	OGE US	Julien Dumoulin-Smith
	Ormat Technologies	ORA	ORA US	Julien Dumoulin-Smith
	<u> </u>			,
	Pinnacle West	PNW	PNW US	Julien Dumoulin-Smith
	Portland General Electric Company	POR	POR 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	Julien Dumoulin-Smith
	TransAlta Corporation	YTA	TA CN	Julien Dumoulin-Smith
NDERPERFORM				
	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
	Bloom Energy	BE	BE US	Julien Dumoulin-Smith
	Dominion Energy	D DC	D US	Paul Zimbardo
	63			
	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	Julien Dumoulin-Smith
	Fortis Inc	FTS	FTS US	Julien Dumoulin-Smith
	FREYR Battery	FREY	FREY US	Julien Dumoulin-Smith
	FTC Solar	FTCI	FTCIUS	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
		SEDG	SEDG US	Julien Dumoulin-Smith
	SolarEdge Technologies			·
	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. WEC Energy Group Inc	UGI	UGI US	Julien Dumoulin-Smith
		WEC	WEC US	Julien Dumoulin-Smith



*IQ*method[™] Measures Definitions

Business Performance	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) \times (1 $-$ Tax Rate) + Goodwill Amortization	Total Assets — Current Liabilities + ST Debt + Accumulated Goodwill Amortization
Return On Equity	Net Income	Shareholders' Equity
Operating Margin	Operating Profit	Sales
Earnings Growth	Expected 5 Year CAGR From Latest Actual	N/A
Free Cash Flow	Cash Flow From Operations — Total Capex	N/A
Quality of Earnings	Numerator	Denominator
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt - Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense
Valuation Toolkit	Numerator	Denominator
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations – Total Capex	Market Cap = Current Share Price × Current Basic Shares
Enterprise Value / Sales	EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities	Sales

EV / EBITDA Enterprise Value Basic EBIT + Depreciation + Amortization

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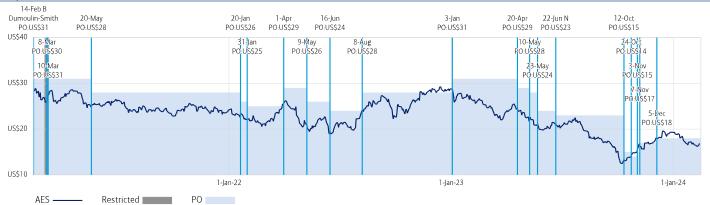
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Equity Investment Rating Distribution: Utilities Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	72	46.45%	Buy	52	72.22%
Hold	45	29.03%	Hold	32	71.11%
Sell	38	24.52%	Sell	21	55.26%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

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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%
Jnderperform	N/A	≥ 20%

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