

Array Technologies

Hitting the reset button to kick off '24 – Reiterate Buy

Reiterate Rating: BUY | PO: 17.00 USD | Price: 13.64 USD

Eyeing the bottom in 1Q as order influx benefits 2H24

Despite a weaker than expected FY24 guidance, we reiterate our Buy rating on shares of Array Technologies (ARRY) following the 4Q23 update. ARRY initiated FY24 revenue guidance at a range of \$1.25-1.40Bn, which was well-below our forecast of \$1.67Bn and Consensus of \$1.86Bn. Mgmt. indicated customer project delays continue to pressure backlog conversions, leading to a back-half weighted revenue ramp in FY24. While we clearly acknowledge the subpar optics of a sizable guidance miss, we remain constructive on shares. Orders in 4Q23 were notable at \$600Mn, and ARRY exited the year with a contracted backlog of \$1.8Bn. Importantly, mgmt. reiterated the solid nature of this figure, likely indicating no meaningful cancellations have occurred to-date. Further, mgmt. indicated the order book has benefited from the emergence of a secondary market for late-stage projects. On balance, see the coming inflection in shipments as a catalyst off low expectations; reiterate Buy as we see clear silver lining.

Margin expansion story remains intact with more ahead

ARRY remains principally a margin expansion story and we see this as continuing into 2024. Mgmt. guided to gross margins in the low-30% range for FY24 inclusive of 45x manufacturing tax credit benefits while underlying gross margins are expected to remain in the mid-20% range. This is despite modest pricing reductions in 2024 which are purely a result of passing through lower commodity prices and the sharing of cost savings with customers. We look for the benefits of ARRY's disciplined approach to pricing and margins to support shares in the coming quarters. 45x tax credit benefits should further bolster margins, and mgmt. indicated \$50Mn in credits was recognized in 4Q23. Look for further upside as mgmt. seeks clarity on structural fasteners for 45x eligibility; we get that this has been protracted but still adds to upside.

Valuation still screens attractive after latest update

While we reduce our estimate and PO following the 4Q update, we still see compelling upside for shares. Our PO moves to \$17 from \$21 as we mark-to-market (MtM) our peer multiples and discount rate. We continue to apply a 50/50 approach across our EV/EBITDA and DCF methodologies off our lower estimates (full tables below). We also continue to layer in \$3/sh in value from 45X tax credits, which we value on an NPV basis. On balance, see reasons for optimism as 4Q fends off worst fears with robust margin outlook still coupled with among best quarters in backlog adds in last year +\$0.2 Bn. Fears of market share loss have been weighing acutely on shares, in our view.

Estimates (Dec) (US\$)	2022A	2023A	2024E	2025E	2026E
EPS	0.31	1.13	1.00	1.36	1.71
EPS Change (YoY)	342.9%	264.5%	-11.5%	36.0%	25.7%
Consensus EPS (Bloomberg)			1.25	1.61	1.81
DPS	0	0	0	0	0
Valuation (Dec)					
P/E	44.0x	12.1x	13.6x	10.0x	8.0x
EV / EBITDA*	21.8x	9.9x	9.2x	7.5x	6.3x
Free Cash Flow Yield*	6.3%	10.4%	4.5%	20.8%	11.9%

* For full definitions of *IQmethod*SM measures, see page 11.

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Timestamp: 28 February 2024 05:00AM EST

28 February 2023

Equity

Key Changes

(US\$)	Previous	Current
Price Obj.	21.00	17.00
2024E Rev (m)	1,666.5	1,367.5
2025E Rev (m)	1,825.1	1,578.3
2026E Rev (m)	2,112.7	1,806.0
2024E EPS	1.28	1.00
2025E EPS	1.54	1.36
2026E EPS	1.98	1.71

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Stock Data

Price	13.64 USD
Price Objective	17.00 USD
Date Established	27-Feb-2024
Investment Opinion	C-1-9
52-Week Range	12.52 USD - 26.64 USD
Mkt Val (mn) / Shares Out (mn)	2,063 USD / 151.2
Free Float	94.9%
Average Daily Value (mn)	73.18 USD
BoFA Ticker / Exchange	ARRY / NAS
Bloomberg / Reuters	ARRY US / ARRY.OQ
ROE (2024E)	44.7%
Net Dbt to Eqty (Dec-2023A)	71.0%
ESGMeter TM	Medium

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".

IRA: Inflation Reduction Act

NXT: Nextracker

ENPH: Enphase Energy

iQprofileSM Array Technologies

iQmethodSM – Bus Performance*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Return on Capital Employed	-1.0%	12.2%	11.9%	13.6%	14.5%
Return on Equity	170.2%	89.3%	44.7%	38.9%	33.4%
Operating Margin	-0.7%	13.6%	17.7%	19.9%	21.3%
Free Cash Flow	131	215	92	428	246

iQmethodSM – Quality of Earnings*

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash Realization Ratio	3.0x	1.4x	0.7x	2.1x	1.0x
Asset Replacement Ratio	0.1x	0.3x	0.6x	0.7x	0.8x
Tax Rate	NM	24.2%	27.0%	27.0%	27.0%
Net Debt-to-Equity Ratio	147.5%	71.0%	43.8%	-8.7%	-25.8%
Interest Cover	-0.3x	5.2x	6.5x	10.0x	16.1x

Income Statement Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Sales	1,638	1,577	1,367	1,578	1,806
% Change	91.9%	-3.7%	-13.3%	15.4%	14.4%
Gross Profit	227	423	405	474	545
% Change	174.3%	86.0%	-4.2%	16.9%	15.1%
EBITDA	131	288	311	382	452
% Change	202.7%	120.2%	7.8%	22.9%	18.5%
Net Interest & Other Income	13	(38)	(29)	(24)	(16)
Net Income (Adjusted)	47	171	153	210	266
% Change	413.7%	266.3%	-10.5%	37.0%	26.8%

Free Cash Flow Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Net Income from Cont Operations (GAAP)	3	133	155	212	269
Depreciation & Amortization	108	65	24	22	21
Change in Working Capital	42	7	0	0	0
Deferred Taxation Charge	(32)	(9)	0	0	0
Other Adjustments, Net	20	35	(73)	210	(26)
Capital Expenditure	(11)	(17)	(14)	(16)	(18)
Free Cash Flow	131	215	92	428	246
% Change	NM	64.3%	-57.0%	363.1%	-42.6%
Share / Issue Repurchase	49	(2)	0	0	0
Cost of Dividends Paid	NA	NA	NA	NA	NA
Change in Debt	(18)	(99)	17	(6)	(6)

Balance Sheet Data (Dec)

(US\$ Millions)	2022A	2023A	2024E	2025E	2026E
Cash & Equivalents	134	249	359	781	1,021
Trade Receivables	421	332	404	232	270
Other Current Assets	276	251	372	254	280
Property, Plant & Equipment	23	32	46	61	79
Other Non-Current Assets	852	843	818	796	775
Total Assets	1,706	1,707	1,999	2,125	2,426
Short-Term Debt	39	21	0	0	0
Other Current Liabilities	427	314	422	327	348
Long-Term Debt	720	661	700	694	688
Other Non-Current Liabilities	97	100	100	100	100
Total Liabilities	1,282	1,096	1,221	1,120	1,136
Total Equity	424	611	778	1,005	1,291
Total Equity & Liabilities	1,706	1,707	1,999	2,125	2,426

* For full definitions of iQmethodSM measures, see page 11.

Company Sector

Renewable Energy

Company Description

Array Technologies (ARRY) produces solar tracker solutions and operates in a duopoly. ARRY is market leader both in the US and globally.

Headquartered in Albuquerque NM, customers are principally focused in the United States, Europe and Latin America. Besides trackers, the Company also provides software solutions to optimize the yield of its products as well as for project management.

Investment Rationale

We rate ARRY as Buy, as we see ARRY offering an attractive gross margin and EBITDA margin expansion at a more palatable valuation. While interest rate and credit market volatility persists, we suspect investor preference for structural growth stories with minimal interest rate exposure will persist.

Stock Data

Average Daily Volume 5,365,221

Quarterly Earnings Estimates

	2023	2024
Q1	0.25A	-0.03E
Q2	0.47A	0.12E
Q3	0.21A	0.41E
Q4	0.21A	0.51E

How to frame shares from here?

We reiterate our Buy on shares despite the cautious update on '24 revenues, well below our estimates and the Street. Yes, we have been wrong on the trend of '24 sales as renewable project delays remain the norm across the industry (NXT remains the standout vs any indicator of the norm in our view). We stress that ARRY's results themselves affirm a similar trend from NXT of sustained elevator gross margins available in the US, with mid-20% excluding tax credits still firmly within grasp.

We appreciate that shares could sink modestly off the latest falloff temporarily, but akin to ENPH, could very well see support for shares where doubts have pervaded. Comments of a meaningful expansion in pipeline opportunities coupled with reaccelerated in booked backlog (+\$0.2Bn to \$1.8Bn QoQ after several flattish quarters) is indeed a strong affirmation. With so many appear concerned about structural market share loss, adding sales at 1.7x book-to-bill ratio and the ability to do so with sustained record margin profiles adds to the confidence in the market backdrop – and ARRAY's ability to compete specifically.

While we expect shares to be bid in the near-term, the wider question is just can ARRY meet the ramp implied in FY24 guidance considering the shallow 1H start to the year. This may well make shares more of a 2H stock to 'really work'. Note that US sales are expected to trend lower in 1H here – seemingly on account of purposeful sales that ARRY elected to forgo. Either way, confidence in the recovery may well be missing from results, limiting confidence on follow-thru. We anticipate 1H will be ever more biased to follow thru on backlog adds to enable shares higher.

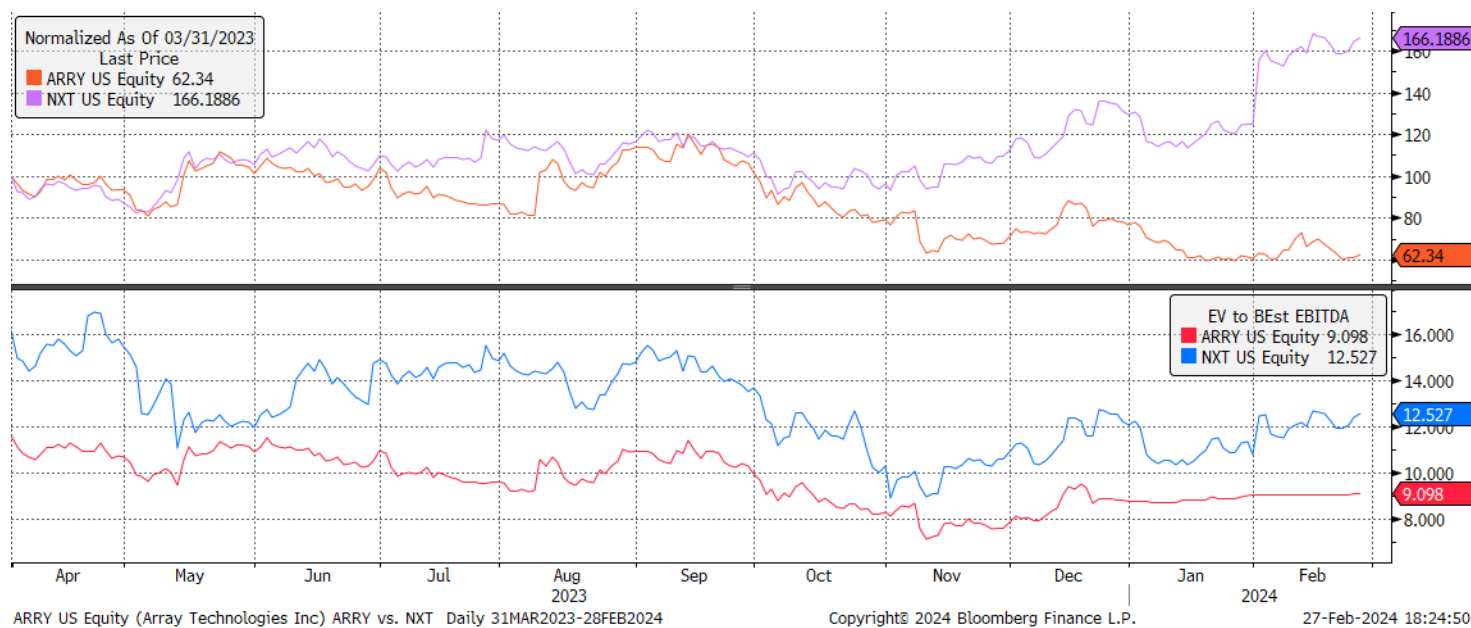
We perceive clear ongoing confidence on the call as it pertains to commercial success (akin to that shared in meetings during 4Q). Commercial wins in recent months have contributed to seeming management confidence despite the delay narrative. Adding further quarters with continued positive momentum on sales/backlog should work well to shed the worst fears of the market as it pertains to NXT & GameChange market share losses.

Industry discussions with developers and competitors do *not* suggest to us that ARRY is any way competitively disadvantaged, rather delays discussed remain a symptom of a wider slate of ongoing renewable delays. The core issues of permits, interconnection queues, coupled with supply chain availability, and constantly evolving labor schedules (that compounds delays should they happen) appear the same issues impacting all the players across the market. Stay tuned. We expect this trend to be only further reaffirmed in final 4Q results to be posted ahead.



Exhibit 1: ARRY vs. NXT

Relative share performance and valuation



Source: Bloomberg

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BofA Global Research Reports**Title: Subtitle**

[US Clean Tech: \(45\)X-mas comes early for Clean Tech: Walking through the proposed regulations](#)
[Array Technologies: 3Q23 Review: Tough comps in a tough market, but executing where it counts](#)
[Array Technologies: ARRY to US 1 List: Best in class margin potential with a growth option still](#)
[US Alternative Energy: In trackers... it's the little things that matter. IRA value is underappreciated](#)
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[Array Technologies: A structural margin play forged in steel: Buy ARRY's defensive outlook in 2023](#)

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Updating estimates to reflect continued customer delays

We take down our estimates for 2024 and beyond as shown below. ARRY initiated FY24 revenue guidance at a range of \$1.25-1.40Bn, which was well-below our forecast of \$1.67Bn and Consensus of \$1.86Bn. Management indicated customer project delays continue to pressure backlog conversions, leading to a back-half weighted revenue ramp in FY24. Specifically, mgmt. expects FY24 revenue to be 30% weighted to 1H24 and 70% weighted to 2H24. While we clearly acknowledge the subpar optics of a sizable guidance miss, we remain constructive on the shares.

ARRY remains principally a margin expansion story and we see this as continuing into 2024. Management guided to gross margins in the low-30% range for FY24 inclusive of 45x manufacturing tax credit benefits while underlying gross margins are expected to remain in the mid-20% range. This is despite modest pricing reductions in 2024 which are purely a result of passing through lower commodity prices and the sharing of cost savings with customers. 45x tax credit benefits should further bolster margins, and management indicated \$50Mn in credits was recognized in 4Q23.

Exhibit 2: BofA earnings revisions

Estimates down across the board, but still see strong inflection post 2024 as backlog conversion materializes

	2022	2023	Q124	Q224	Q324	Q424	2024	2025	2026
Revenue									
Current	1,637.5	1,576.6	141.2	251.0	443.6	531.6	1,367.5	1,578.3	1,806.0
Prior	1,637.5	1,539.1	366.9	452.3	496.7	350.6	1,666.5	1,825.1	2,112.7
% Chng	0%	2%	-62%	-45%	-11%	52%	-18%	-14%	-15%
Consensus	1,605	1,549	390	495	507	482	1,853	2,190	2,344
Gross Margin									
Current	14%	27%	28%	29%	30%	30%	30%	30%	30%
Prior	14%	27%	29%	29%	29%	29%	30%	30%	30%
% Chng	0%	0%	-4%	-1%	2%	5%	-1%	0%	0%
Consensus	14%	27%	24%	24%	24%	24%	24%	24%	25%
Adj. EBITDA									
Current	130.8	288.1	17.8	49.2	111.7	132.0	310.6	381.7	452.2
Prior	130.8	279.1	79.4	102.9	118.2	69.1	370.3	420.8	508.1
% Chng	0%	3%	-78%	-52%	-6%	91%	-16%	-9%	-11%
Consensus	125.1	284.2	65.4	92.8	93.3	86.0	331.3	396.0	405.5
EPS									
Current	0.31	1.13	(0.03)	0.12	0.41	0.51	1.00	1.36	1.71
Prior	0.31	1.05	0.24	0.36	0.43	0.17	1.29	1.55	1.99
% Chng	0%	8%	-113%	-68%	-4%	199%	-22%	-12%	-14%
Consensus	0.34	1.03	0.22	0.36	0.35	0.31	1.25	1.61	1.81

Source: Company filings, Bloomberg, BofA Global Research

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Exhibit 3: ARRY earnings dashboard

See below for a complete summary of our earnings forecast for ARRY

\$000s, except per share	2022	2023	Mar-24	Jun-24	Sep-24	Dec-24	2024	2025	2026
MW shipped	14,999	15,144	825	2,356	4,123	4,477	15,230	16,809	19,664
Revenue	1,638	1,577	141	251	444	532	1,367	1,578	1,806
Guidance (Current)	1500-1600	1525-1575					1250-1400		
Guidance (old; 2Q23)		1650-1725							
Guidance (old; 1Q23)		1800-1900							
Guidance (original)		1800-1950							
VA Consensus - US	1,252	1,166	316	368	363	353	1,399	1,558	1,590
VA Consensus - RoW	385	417	91	122	127	118	458	603	575
VA Consensus - Total	1,637	1,584	407	490	490	471	1,857	2,161	2,164
Cost of Revenue	1,410	1,154	102	178	311	372	962	1,105	1,261
VA Consensus	1,410	1,134	296	365	372	346	1,386	1,618	1,702
Gross Profit (Loss)	227	423	40	73	133	159	405	474	545
VA Consensus	230	415	101	127	124	115	467	540	573
Gross Margin (%)	14%	27%	28%	29%	30%	30%	30%	30%	30%



Exhibit 3: ARRY earnings dashboard

See below for a complete summary of our earnings forecast for ARRY

\$000s, except per share	2022	2023	Mar-24	Jun-24	Sep-24	Dec-24	2024	2025	2026
VA Consensus (Implied)	14%	26%	25%	26%	25%	24%	25%	25%	26%
Operating Income	(12)	214	(0)	32	95	115	242	315	385
VA Consensus	(11.2)	210.7	51.5	77.5	72.5	61.9	264.0	326.8	343.4
Adjusted EBITDA	131	288	18	49	112	132	311	382	452
EBITDA Growth	203%	120%					8%	23%	18%
	\$122-	\$280-					\$285-		
Guidance	132	290					315		
Guidance (old, 2Q23)		\$280-							
		295							
Guidance (old, 1Q23)		\$240-							
		265							
Guidance (original)		\$240-							
		265							
VA Consensus	124.7	283.9	70.0	93.8	87.3	76.6	326.9	378.4	405.3
Adjusted NI	47	171	(5)	18	63	78	154	210	266
VA Consensus	53	157	37	55	52	43	188	235	266
EPS - Basic	0.31	1.13	-0.03	0.12	0.42	0.51	1.01	1.37	1.73
EPS - Diluted	0.31	1.13	-0.03	0.12	0.41	0.51	1.00	1.36	1.71
VA Consensus	0.36	1.03	0.24	0.37	0.34	0.28	1.24	1.55	1.74
	0.32-	\$1.00-					\$1.00-		
Guidance	0.37	1.05					1.15		
		\$1.00-							
Guidance (old, 2Q23)		1.07							
		\$0.75-							
Guidance (old, 1Q23)		0.85							
		\$0.75-							
Guidance (original)		0.85							
Shares O/S - Diluted	150,787	151,537	152,341	152,573	152,804	153,036	153,291	154,398	155,663

Source: Company filings, Visible Alpha, BofA Global Research

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Still see upside despite negative revisions

While we reduce our estimates and PO following the 4Q update, we still see compelling upside potential for shares. Our PO moves to \$17 from \$21 as we mark-to-market (MtM) our peer multiples and discount rate. We continue to apply a 50/50 approach across our EV/EBITDA and DCF methodologies. We also continue to layer in \$3/sh in value from 45X tax credits, which we value on an NPV basis. See below for a full view of our valuation inputs and outputs.

Exhibit 4: ARRY EV/EBITDA valuation

We arrive at a \$14/sh EV/EBITDA valuation

ARRY EV/EBITDA Valuation

	2024	2025
Revenues	\$1,367	\$1,578
Gross Margin	\$405	\$474
EBITDA	\$311	\$382
Tax Credits	\$73	\$88
EBITDA (ex-Tax Credits)	\$238	\$294
EV/EBITDA	10.0x	8.0x
Previous EV/EBITDA	11.0x	9.5x
Value (implied)	\$2,379	\$2,353
Net (Debt) Cash	(\$341)	\$87
Equity Value	\$2,038	\$2,441
Shares Outstanding	152	152
Valuation per Share	\$14	\$16
Dividend	0%	0%
Vs. Current Value (w/o div)	-1%	17%
Vs. Current Value (w/ Div)	-1%	17%

Exhibit 4: ARRY EV/EBITDA valuation

We arrive at a \$14/sh EV/EBITDA valuation

ARRY EV/EBITDA Valuation

EPS	\$1.00	\$1.36
Implied P/E (excl. Net Cash)	15.7x	11.4x
ARRY Share Price	\$14	\$14
Average Valuation	\$14	

Source: Company filings, Bloomberg, BofA Global Research

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Exhibit 5: ARRY DCF valuation

We arrive at a \$14/sh DCF valuation

DCF Methodology in \$000s	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
DCF - less Stock Comp and Debt Amortization										
Unlevered Free Cash Flows	\$119,482	\$451,238	\$263,474	\$325,120	\$347,543	\$389,035	\$443,419			
Less: Benefit Assumed for Domestic Content	72,763	87,562	100,605	105,919	114,639	130,606	105,208	70,139	35,069	-
Credit Value (% of face value)	100%	100%	100%	100%	100%	100%	75%	50%	25%	0%
Less: Stock Based Compensation	\$12,645	\$14,594	\$16,700	\$17,493	\$18,870	\$21,211	\$22,681			
Free Cash Flows after SBC(\$Mn)	\$106,838	\$436,644	\$246,774	\$307,627	\$328,673	\$367,824	\$420,737			
FCF net of Tax Credits (\$Mn)	\$34,075	\$349,082	\$146,170	\$201,709	\$214,034	\$237,218	\$315,529			
Discount Rate- Cost of Equity	12%	12%	12%	12%	12%	12%	12%	12%	12%	0%
Discount Factor	0.89	0.79	0.71	0.63	0.56	0.50	0.44	0.40	0.35	
Discounted Free Cash Flows	\$30,343	\$276,801	\$103,209	\$126,825	\$119,835	\$118,269	\$140,082			
DCF Value through '30	\$915,364									
Lifecycle value of Credits to ARRY	\$487,940									
Lifecycle value of Credits to ARRY (per share)	\$3.00									
Terminal Value (Applied to ex-credit FCF)	12.0x									
Discount Factor	0.44									
Terminal Value	\$3,786,349									
Terminal FCF Yield	8.3%									
PV of Terminal FCFE Value	\$1,680,979									
Less: Recourse Debt	(\$682,420)									
Plus: Cash on Balance Sheet	\$249,080									
Net Cash	(\$433,340)									
Total FCFE (ex-credit FCF)	\$2,163,003									
DCF Value/Share	\$14.00									
Shares O/S (Fully Diluted)	152,110									
Price as of close	\$13.66									
DCF value vs. Current Share Price	2%									
Discount Rate	12.3%									

Source: Company filings, Bloomberg, BofA Global Research

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Exhibit 6: ARRY valuation summary

We arrive at a \$17 PO

ARRY Valuation			
	<i>Value/Sh</i>	<i>Weight</i>	<i>Weighted Value</i>
EV/EBITDA	\$13.50	50%	\$6.75
DCF	\$14.00	50%	\$7.00
PLUS : NPV of Tax Credits	\$3.00		
ARRY Value/Share			\$17.00
Share Price (As of 02/27/24)			\$13.66
Premium (Discount) to Share Price			24.5%
Total Expected Return			24.5%

Source: Company filings, Bloomberg, BofA Global Research

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Price objective basis & risk

Array Technologies (ARRY)

Our \$17/share PO is based on a 50/50 weighted DCF and EV/EBITDA multiple methodology. We also add NPV of tax credits. Our DCF valuation is \$14.00/sh, and our EV/EBITDA valuation is \$13.50/sh. NPV of tax credits is \$3.00/sh.

EV/EBITDA approach:

- Based on the average of comps at 10.0x/8.0x 2024E/2025E EBITDA. We use an average given ongoing uncertainties in the utility scale solar market which we expect to be reflected in valuation alongside a more normalized business outlook in '25.

DCF approach:

- We derive FCFF and net off stock comp and contribution to margins from Inflation Reduction Act Credits which are valued separately
- FCFF discounted at a 12.3% cost of capital given risk associated with the execution of the growth strategy but noting ARRY is financed with lower cost debt
- Terminal multiple of 12.0x akin to where ARRY has traded on an average 2 year forward basis.

NPV of tax credits:

- We add in the discounted value of tax credit upside also at 12% through full phase down in 2032

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

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

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



North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	Fluence Energy	FLNC	FLNC US	Julien Dumoulin-Smith
	Hannon Armstrong	HASI	HASI US	Julien Dumoulin-Smith
	MDU Resources Group, Inc.	MDU	MDU US	Julien Dumoulin-Smith
	Nextacker 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
	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

NEUTRAL

	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
	Constellation Energy Corp	CEG	CEG US	Paul Zimbardo
	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	EVERG	EVERG US	Julien Dumoulin-Smith
	Exelon	EXC	EXC US	Paul Zimbardo
	Generac Holdings Inc.	GNRC	GNRC US	Julien Dumoulin-Smith
	Hydro One	YH	H CN	Julien Dumoulin-Smith
	Idacorp	IDA	IDA US	Paul Zimbardo
	Maxon Solar Technologies	MAXN	MAXN 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
	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

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
	Bloom Energy	BE	BE 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	Julien Dumoulin-Smith
	Fortis Inc	FTS	FTS US	Julien Dumoulin-Smith
	FREYR Battery	FREY	FREY US	Julien Dumoulin-Smith
	FTC Solar	FTCI	FTCI US	Julien Dumoulin-Smith
	Hawaiian Electric Industries	HE	HE US	Julien Dumoulin-Smith
	MGE Energy	MGEE	MGEE US	Julien Dumoulin-Smith
	New Jersey Resources Corp	NJR	NJR US	Julien Dumoulin-Smith

North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	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
	WEC Energy Group Inc	WEC	WEC US	Julien Dumoulin-Smith
RSTR				
	New Fortress Energy	NFE	NFE US	Cameron Lochridge
	NextEra Energy	NEE	NEE US	Julien Dumoulin-Smith

iQmethodSM Measures Definitions**Business Performance**

Return On Capital Employed

Return On Equity
Operating Margin
Earnings Growth
Free Cash Flow

Quality of Earnings

Cash Realization Ratio
Asset Replacement Ratio
Tax Rate
Net Debt-To-Equity Ratio
Interest Cover

Valuation Toolkit

Price / Earnings Ratio
Price / Book Value
Dividend Yield
Free Cash Flow Yield
Enterprise Value / Sales

EV / EBITDA

Numerator

NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization

Net Income
Operating Profit
Expected 5 Year CAGR From Latest Actual
Cash Flow From Operations – Total Capex

Numerator

Cash Flow From Operations
Capex
Tax Charge
Net Debt = Total Debt – Cash & Equivalents
EBIT

Numerator

Current Share Price
Current Share Price
Annualised Declared Cash Dividend
Cash Flow From Operations – Total Capex
EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities
Enterprise Value

Denominator

Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill
Amortization
Shareholders' Equity
Sales
N/A
N/A

Denominator

Net Income
Depreciation
Pre-Tax Income
Total Equity
Interest Expense

Denominator

Diluted Earnings Per Share (Basis As Specified)
Shareholders' Equity / Current Basic Shares
Current Share Price
Market Cap = Current Share Price × Current Basic Shares
Sales

Basic EBIT + Depreciation + Amortization

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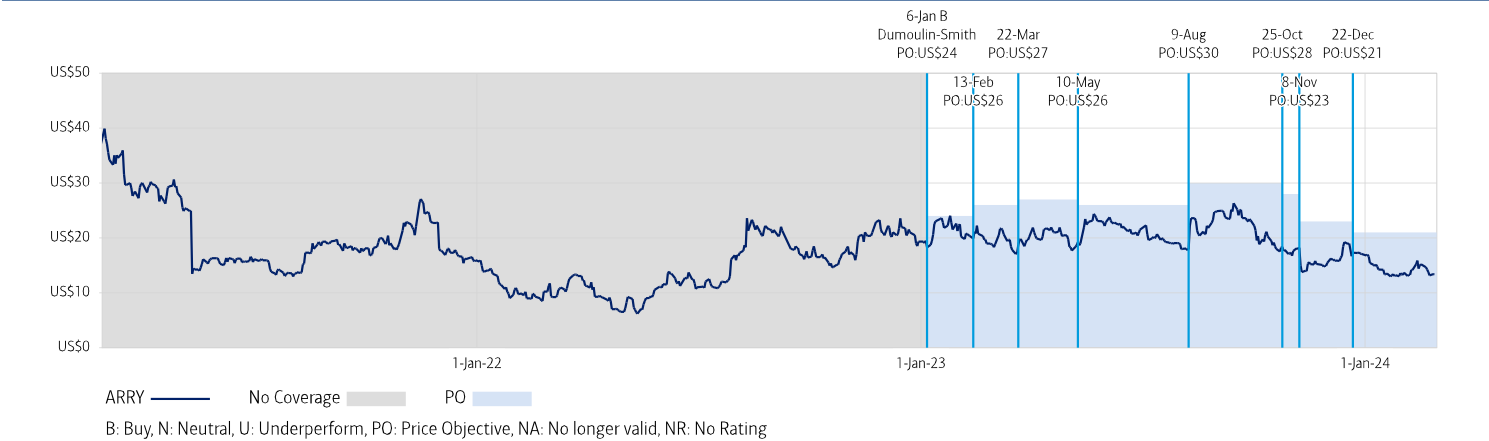
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Array Technologies (ARRY) Price Chart



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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%

^{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%

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