

Sunnova Energy

Holding the Line: We're Still Positive FY24 growth, deleveraging & more

Reiterate Rating: BUY | PO: 16.00 USD | Price: 10.52 USD

Expect several potential positive catalysts on 4Q23 call

We reiterate our Buy rating on Sunnova (NOVA). We revisit our outlook, including our FY24 customer additions estimate and remain constructive at +5% higher than consensus. We stress fears on dealer turnover have added to ongoing pessimistic views on IRA repeal. While we appreciate political fears are endemic to the sector and likely to be outsized given DOE headlines, recent headlines around dealer closures are weighing on shares. Mgmt remains adamant in reconstituting its employee base in other end markets. We see a potential catalyst in SPWR toady (2/1) in any further resolution or extension of its credit backdrop: success would be perceived as a constructive factor supporting NOVA into its results. Fears of residential solar contraction and the impact of higher-for-longer interest rates to profitability are relatively misplaced in NOVA, which continues to drive 400-500+bps spread on originations and could benefit from ITC sale upside in both 4Q23 and FY24; BofA FY24 EBITDA 18% above the Street. As outlined in our prior note (linked here), we appreciate its intact profile, likely sharp pivot towards deleveraging and substantive leverage to lower rate environment. Reiterate Buy.

First securitization of 2024 soon; cash focus

NOVA expects to publicly announce details of the year's first large securitization of third party owned solar and storage assets by the 4Q23 earnings call. We see little risk to pricing but sense that placement on positive terms could ease investor anxiety over NOVA's ability to sustain cash flow generation, especially in the context of multiple 2026 Holdco debt maturities. Expect greater delineation of contracted cash values with 4Q alongside loan asset sale effort to bolster both cash visibility & mgmt. confidence

PO to \$16: latest pullback is an opportunity to us into 4Q

We reduce our PO to \$16 on more conservative assumptions for ITC adders in 2024 and 2025, though we still expect NOVA to significantly outperform peers and deliver positive volumetric growth. For our SOTP valuation using discounted cash flows for the Opco and DevCo, we now discount growth at a 20% discount rate vs. 19% prior, in line with the yield on NOVA's convertible debt expected to mature in 2026. We still apply a 15% levered discount rate for the OpCo, in line with NOVA's implied equity hurdle rate. Attributing \$12/share value to the OpCo and just \$4/sh for growth, we perceive negligible growth attribution. See favorable recovery skew, particularly against cautious sector attributes. Yes, meaningful recovery remains pending IRA repeal details in '25.

Estimates (Dec) (US\$)	2021A	2022A	2023E	2024E	2025E	
EPS	(1.19)	(1.06)	(1.78)	(1.40)	(1.62)	
EPS Change (YoY)	58.5%	10.9%	-67.9%	21.3%	-15.7%	
Consensus EPS (Bloomberg)			(2.18)	(1.51)	(1.01)	
DPS	0	0	0	0	0	
Valuation (Dec)						
EV / EBITDA*	128.6x	92.5x	46.0x	26.5x	24.5x	
Free Cash Flow Yield*	-59.3%	-95.8%	-172.0%	-199.5%	-201.2%	
* For full definitions of <i>iQmethod</i> [≤] measures, see page 10.						

01 February 2024

Equity

ŀ	Key Changes		
(US\$)	Previous	Current
F	Price Obj.	17.00	16.00

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Stock Data

Price	10.52 USD
Price Objective	16.00 USD
Date Established	1-Feb-2024
Investment Opinion	C-1-9
52-Week Range	7.62 USD - 24.56 USD
Mrkt Val (mn) / Shares Out	1,288 USD / 122.4
(mn)	
Free Float	86.7%
Average Daily Value (mn)	54.97 USD
BofA Ticker / Exchange	NOVA / NYS
Bloomberg / Reuters	NOVA US / NOVA.N
ROE (2023E)	-16.8%
Net Dbt to Eqty (Dec-2022A)	267.5%
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".

SPWR: SunPower Corp.

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Refer to important disclosures on page 11 to 13. Analyst Certification on page 8. Price
Objective Basis/Risk on page 8.

iQprofile[™] Sunnova Energy

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iQmethod SM − Bus Performance*					
(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Return on Capital Employed	-1.1%	1.3%	-1.0%	0.3%	0.6%
Return on Equity	-12.6%	-9.8%	-16.8%	-14.5%	-18.7%
Operating Margin	-22.7%	17.4%	-12.9%	3.5%	7.3%
Free Cash Flow	(764)	(1,234)	(2,215)	(2,570)	(2,592)
<i>iQ</i> method SM − Quality of Earnings*					
(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash Realization Ratio	NM	NM	NM	NM	NM
Asset Replacement Ratio	6.5x	8.0x	15.3x	13.5x	11.5x
Tax Rate	NM	NM	NM	NM	NM
Net Debt-to-Equity Ratio	186.4%	267.5%	269.6%	260.6%	257.7%
Interest Cover	-0.7x	1.3x	-1.0x	0.2x	0.3x
Income Statement Data (Dec)					
(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Sales	242	558	799	1,078	1,338
% Change	50.3%	130.7%	43.3%	34.9%	24.1%
Gross Profit	222	521	731	987	1,243
% Change	53.7%	134.5%	40.4%	34.9%	26.0%
EBITDA	86	119	239	416	450
% Change	43.7%	39.0%	100.8%	73.9%	8.2%
Net Interest & Other Income	(92)	(69)	(102)	(199)	(284)
Net Income (Adjusted)	(135)	(121)	(205)	(161)	(186)
% Change	46.5%	10.2%	-69.1%	21.4%	-15.5%
Free Cash Flow Data (Dec)					
(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Net Income from Cont Operations (GAAP)	(148)	(154)	(205)	(161)	(186)
Depreciation & Amortization	86	108	121	165	201
Change in Working Capital	(227)	(346)	(432)	(553)	(490)
Deferred Taxation Charge	NA 70	NA	NA 155	NA 106	NA
Other Adjustments, Net	79	(27	155	196	204
Capital Expenditure Free Cash Flow	(555)	(868)	(1,855)	(2,216)	(2,321)
% Change	-764 -7.6%	-1,234 -61.5%	-2,215 -79.6%	-2,570 -16.0%	-2,592 -0.8%
Share / Issue Repurchase	-7. 6%	- 01.5%	- 79.6%	-16.0%	-0.6%
Cost of Dividends Paid	0	0	0	0	0
Change in Debt	1,221	2,115	1,891	2,267	2,381
Balance Sheet Data (Dec)					
(US\$ Millions)	2021A	2022A	2023E	2024E	2025E
Cash & Equivalents	243	360	128	101	102
Trade Receivables	76	237	237	237	202
Other Current Assets	296	351	587	838	838
Property, Plant & Equipment	2,907	3,785	5,419	7,346	9,380
Other Non-Current Assets	1,979	3,604	4,822	6,069	7,414
Total Assets	5,501	8,337	11,193	14,591	17,935
Short-Term Debt	0	0	0	0	0
Other Current Liabilities	137	256	179	224	269
Long-Term Debt	3,265	5,409	7,326	9,621	12,035
Other Non-Current Liabilities	480	784 6 440	1,019	1,092	998
Total Liabilities	3,883 1,622	6,449 1,887	8,523 2,670	10,938 3,654	13,302 4,630
Total Equity Total Equity & Liabilities	5,504	8,337	11,193	3,654 14,591	
* For full definitions of <i>IQmethod</i> measures, see page 10	•	0,337	11,133	14,331	17,932

Company Sector

Alternative Energy

Company Description

Founded in 2012, Sunnova (NOVA) is a technology-agnostic residential solar service provider headquartered in Houston, TX. Similar to residential solar service provider peer SunRun (RUN), NOVA principally finances, installs, services, and owns solar panel and battery storage systems on residential customer premises.

Investment Rationale

We are Buy rated on NOVA as we see value in shares with the company offering an optimistic growth outlook for 2024 and benefitting from declining rates. We emphasize prospective storage attachment, and limited absolute exposure to a downside case in California as supporting a value in a stock where very little growth is embedded into the current valuation.

Stock Data

Average Daily Volume 5,208,160

Quarterly Earnings Estimates

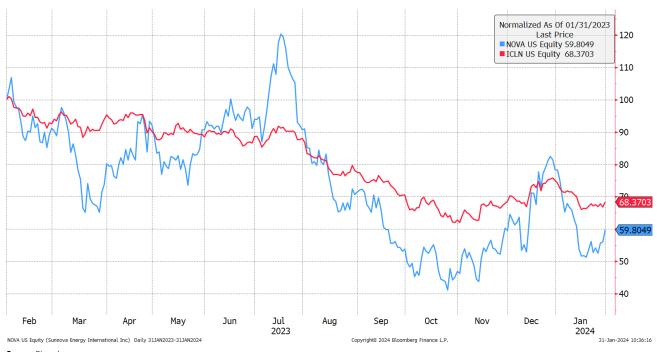
	2022	2023
Q1	-0.70A	NAE
Q2	-0.74A	NAE
Q3	-0.55A	NAE
Q4	0.55A	NAE

Growth still attractive and cheap

In 2024, NOVA shares have severely underperformed clean energy peers, down -28% versus -11% for ICLN and -25% for competitor Sunrun (RUN). While certainly related to interest rate expectations, we also attribute much of the investor concern to readthroughs from the worsening 2024 residential solar outlook to NOVA's ability to demonstrate meaningful cash generation to repay their upcoming 2026 out-of-themoney convertible debt maturity. We assess maturity concerns to be somewhat premature given the multiple years to the nearest repayment debt in late 2026, though investors clearly seek comfort with visibility to recurring cash generation to satisfy these obligations. Further, the convertible debt is exceptionally cheap at 0.25% annual interest, which does not increase the urgency for management to prepay. In our minds, the solution for repayment likely entails significant loan portfolio monetization; we expect management to disclose higher visibility regarding sales of loans via forward flow agreements priced at a premium on the 4Q23 earnings call. NOVA could soon announce pricing on its first solar securitization of the year prior to earnings (see TPO, Loan & Hestia securitization deals in near-term to thoroughly demonstrate market access). We expect this securitization to garner outsized attention as investors assess the health of securitization backdrop amidst perceived cautious sentiment on IRA. We stress success here coupled with affirmation on SPWR refi should strike a clear positive tone. Look for general incoming net cash flow guidance to improve as a response to investor concerns for visibility to sustainable cash flow generation.

Exhibit 1: NOVA Equity (Blue) vs Clean Energy Peers (Red)

NOVA much more volatile than clean energy equities over last year



Source: Bloomberg

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We view January's downward move in shares to be overly punitive given NOVA's growth leadership in the residential solar space. With 4Q23 earnings, we expect disclosures sizing the opportunity for and visibility to loan portfolio modernization in the current and ongoing declining interest rate environment could reverse sentiment and support shares higher. Additionally, we believe there is significant potential for NOVA to provide corporate level free cash flow guidance with disclosures that improve visibility to meeting long-term cash generation targets, which could ultimately improve comfort levels with upcoming maturities.

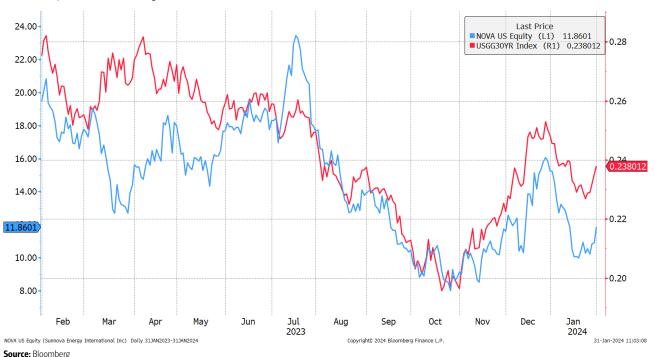


We stress recent pressures area due to both Suntuity and Infinity Solar pressures – both larger dealers of NOVA, which have exited the market. Management remains unphased by the loss of these making up with them through reconstituting the same sales force elsewhere, Home Depot in-store consult award (displacing RUN's historic alignment), and even gaining from SPWR's declining biz prospects with vacating dealers. On balance, we're less concerned on these near-term acute concerns.

The IRA repeal narrative remains powerful in our mind to many investors despite the low confidence we have in credits being repealed but given the clear exposure to ITCs and substantive use of such credits to enable the biz, no meaningful recovery is possible without confidence in this outlook. Expect extreme volatility in 2H and into any potential 1H25 legislative action (or lack thereof).

Exhibit 2: NOVA Equity (Blue) vs 30Yr US Treasury Rates (Red)

NOVA underperformance mirroring rate movements



Estimates: 4Q23 and FY24 key metrics unchanged

Below we detail our assumptions for FY23 and FY24 key metrics, which remain unchanged from our update earlier this month. Given recent upheaval in the market, the relative health of several competitors has made headlines, including ADT's announcement to shutter its solar division and continued ongoing liquidity concerns at SunPower. With this backdrop in mind, some may question if NOVA can continue to generate positive growth in 2024 and 2025. In all, we still see customer additions within NOVA's target guidance range, with EBITDA and P&I largely unchanged. One area where we did edit our assumptions is for ITC% scale-up for leases: we now assume the ITC will not immediately scale toward our prior 34% assumption (+2% for bonus ITC for domestic content and +2% bonus ITC for energy communities, in addition to other requirements and adders) until 2025-2026, in line with assumptions that there could be delays in implementation and recognition for domestic content. We still believe there could be meaningful upside to our \$416Mn adjusted EBITDA estimate in FY24, depending on levels of loan portfolio monetization that could drive gains on sale over the course of the year. See further conservatism in implied \$50-90Mn of ITC-related EBITDA in FY24 guidance versus what could be over \$100Mn of ITC-related EBITDA just in 4Q24 alone. Below we discuss the relative merits of keeping our assumptions for

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growth and profitability despite indications of the broader residential solar market worsening.

Exhibit 3: Sunnova Guidance - BofA vs Consensus

Consensus customer growth estimates have edged down below guide but our expectations remain unchanged.

	2023 BofA Est	2023 Prior BofA Est	2023 Cons Est	FY23 Guidance	2024 BofA Est	2024 Prior BofA Est	2024 Cons Est	FY24 Guidance
New Customer Additions	144,500	144,500	141,591	135-145	188,375	188,375	178,752	185-195
Adj. EBITDA	\$239	\$239	\$214	235-255	\$416	\$416	\$352	350-450
P&I	\$268	\$268	\$268	260-300	\$426	\$426	\$402	360-440
Principal	\$156	\$156		150-190	\$247	\$247		210-250
Interest	\$112	\$112		110-120	\$180	\$180		150-190

Source: BofA Global Research, Company filings, Bloomberg

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- Share gain drives FY24 growth assumption NOVA is uniquely positioned for growth given current market conditions. NOVA has remarked on what it views as a period of consolidation in the residential solar space, albeit not through M&A but through exit of the market, evidenced by ADT Solar earlier this month. There are now independent or soon-to-be-independent dealers available to integrate into NOVA's expansive installer base. NOVA's unique business structure also enables the company to pursue business that would be otherwise uneconomic to competitors; we expect NOVA could be competitive in securing an agreement to drive lead generation from Home Depot, which was previously a single-digit % mix for originations at SunRun before being discontinued. Less constructive residential solar market conditions are still clearly a net negative for NOVA, but we consider the company to be more advantaged in handling adversity to growth relative to peers.
- Not just an installation business NOVA does not just rely on originations to drive growth. Rather, NOVA operates a number of different origination-independent business lines such as accessory loans, battery upsells to customers with existing competitor systems, miscellaneous services, etc. While installations are expected to be nominally positive in 2024, we expect a disproportionate amount of growth could be derived from these assorted non-origination revenue streams.
- California exposure favorable NOVA's growth is much less tied California than
 the general residential solar industry. Even in California, NOVA typically focuses on
 new homes, which features a different demand profile than the traditional door-todoor model for residential solar.
- Still see market shifting from loans to leases/PPAs Market conditions
 generally favor relative demand for solar leases and PPA agreements versus that of
 loans, and originations are expected to continue bearing out this trend into early
 2024. This advantages both RUN and NOVA relative to smaller, generally less
 sophisticated peer offerings.
- Pricing power has held, for now Generally speaking, NOVA sees protection to
 its profitability through still-elevated utility rates; generally, the company has been
 able to pass through price to customers to protect its 400-500bps spread between
 fully unburdened levered return and cost of capital. Recognizing that headroom for
 price increases is not unlimited, the company continues to eye lower input costs,
 particularly hardware costs, to continue delivering growth with strong economics.
- Upside to ITC Sales in 4Q23, FY24 Expectations We expect there could be upside to management's stated target of \$100Mn in ITC sales in 4Q23. That would



represent upside to our numbers and bode well for FY24 figures, even though we would not anticipate that being an appropriate run-rate for ITC sales going forward.

BofA Global Research Reports

Title: Subtitle	Primary Author	Date Published
Sunnova Energy: 2024 looks bright with potential EBITDA upside: multi-faceted derisk & recovery	Julien Dumoulin-Smith	05 January 2024
Sunnova Energy: 3Q23 First Look: No, it's not growth at any cost. Encouraging guide on 2024	Julien Dumoulin-Smith	26 October 2023
US Alternative Energy: 3023 Preview – What is embedded in shares of RUN and NOVA today?	Julien Dumoulin-Smith	25 October 2023
Sunnova Energy: NOVA is leaning in, but will the market reward the growth? Growth debate revived	Julien Dumoulin-Smith	08 August 2023

Valuation: PO down slightly to \$16

Below we detail our updated sum-of-the-parts valuation for NOVA. We continue to use a 15% discount rate for NOVA's OpCo resulting in an unchanged overall ~\$12/sh, reflecting inclusion of updated cash, CWIP, and inventory balances following 3Q23 earnings. We principally detail our growth below where we now use an elevated 20% discount rate, reflecting the yield on NOVA's convertible debt. We attribute \$4/sh of value to growth, which appears unappreciated by the Street at current levels. Our assumption for delayed ITC % adders into 2025-26 results in a net reduction in our PO by -\$1/sh to \$16 from \$17. We remain confident in overall volumetric growth trends despite a likely underwhelming trend for the wider sector in '24.

Exhibit 4: NOVA SOTP

OpCo \$12/sh, growth now \$5/sh = Total Is \$17

Year Ending	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029
	2023	2024	2025	2026	2027	2028	2029
Solar Lease / PPA							
Customers	57,317	72,604	81,589	82,246	82,148	87,802	91,303
MW added	424	508	571	576	575	615	639
Unlevered IRR Solar	12.9%	12.4%	12.7%	12.9%	12.5%	12.4%	12.3%
Unlevered IRR Storage	8.5%	7.4%	7.1%	7.6%	8.9%	8.4%	8.7%
Storage Attach Rate	35.0%	50.0%	60.0%	60.0%	60.0%	60.0%	60.0%
NPV / W Unlevered (6%							
Discount Rate) NPV / W Levered (10%	\$1.45	\$1.31	\$1.25	\$1.20	\$1.17	\$1.13	\$1.12
discount rate)	\$0.69	\$0.49	\$0.47	\$0.49	\$0.47	\$0.45	\$0.45
Value Created (\$mm) Implied Multiple on	\$292	\$250	\$271	\$281	\$271	\$277	\$291
Value Created (EV /							
Unlevered Cash Flow)	13.8x	12.6x	12.5x	12.8x	12.8x	12.8x	12.9x
Solar Loan							
Customers	32,155	30,045	29,953	37,041	44,450	46,672	49,006
MW added	244	240	240	296	356	373	392
Unlevered IRR Solar	11.0%	10.8%	11.8%	10.5%	10.5%	10.5%	10.5%
Unlevered IRR Storage	12.4%	12.2%	13.3%	12.0%	12.0%	12.0%	12.0%
Storage Attach Rate	20.0%	35.0%	50.0%	50.0%	50.0%	50.0%	50.0%
NPV / W Unlevered (6%							
Discount Rate)	\$1.40	\$1.30	\$1.35	\$0.79	\$0.79	\$0.79	\$0.79
NPV / W Levered (10%							
discount rate)	\$0.74	\$0.92	\$0.89	\$0.36	\$0.36	\$0.36	\$0.36
Value Created (\$mm)	\$180	\$221	\$214	\$107	\$128	\$134	\$141
Accessory Loan							

Exhibit 4: NOVA SOTPOpCo \$12/sh, growth now \$5/sh = Total Is \$17

Year Ending	12/31/2023	12/31/2024	12/31/2025	12/31/2026	12/31/2027	12/31/2028	12/31/2029
Customers	40,000	64,000	76,800	88,320	101,568	116,803	128,484
Assumed Customer	40,000	04,000	70,000	00,320	101,500	110,003	120,707
Balance	\$6,000	\$8,000	\$10,000	\$12,000	\$12,000	\$12,000	\$12,000
NPV per Customer	30,000	30,000	\$10,000	\$12,000	\$12,000	\$12,000	\$12,000
(10% Discount Rate)	\$171	\$227	\$284	\$341	\$341	\$341	\$341
Value Created (\$mm)	\$171	\$15	\$22	\$30	\$35	\$40	\$44
Service Customers	12,000	18,000	27,000	40,500	60,750	91,125	136,688
Cash Sales	3,028	3,726	27,000 5,014	5,766	6,631	7,626	
Casii Sales	3,026	3,720	5,014	3,700	0,031	7,020	7,626
Total Customers	144,500	188,375	220,356	253,874	295,547	350,029	413,105
Memo Total Solar	<u>-</u>						
Customers	89,472	102,649	111,542	119,287	126,597	134,474	140,308
Total Customer Growth	•	30%	17%	15%	16%	18%	18%
Blended IRR Solar							
Leases	12.3%	11.3%	11.3%	11.7%	11.7%	11.6%	11.6%
Blended IRR Solar	12.5 /0	11.5 /0	11.5 /0	11.770	11.7 70	11.070	11.070
Loans	11.2%	11.0%	12.1%	10.9%	10.9%	10.9%	10.9%
IRR Accessory Loans	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%	9.8%
IKK Accessory Loans	5.0 70	3.0 /0	3.0 /0	3.0 /0	3.0 /0	3.0 /0	3.0 /0
Weighted Average							
Return	11.5%	10.9%	11.1%	10.8%	10.8%	10.8%	10.8%
Cost of Debt Solar							
Lease / PPA	7.0%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Cost of Debt Solar Loan		7.3%	7.3%	7.5%	7.5%	7.5%	7.5%
Cost of Debt Accessory							
Loans	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%	7.8%
Weighted Average Cost							
of Debt	7.4%	7.5%	7.5%	7.6%	7.6%	7.6%	7.6%
Spread on Origination	4.1%	3.4%	3.6%	3.2%	3.2%	3.2%	3.2%
Total Value Generated							
(ex Service Customers)	\$479	\$486	\$507	\$417	\$434	\$452	\$476
Less Cash G&A and SBC							
Opex (\$mm)	(\$229)	(\$261)	(\$393)	(\$420)	(\$434)	(\$437)	(\$431)
Total Value Generated	\$250	\$225	\$114	(\$3)	(\$0)	\$15	\$44
		ĄŁŁJ		1. 1	(/	\$15 65	\$44 \$12
Discounted Value	\$208	\$156	\$66	(\$1)	(\$0)	\$5	\$12
Discounted Value							
Created Through 2029	****						
(\$mm)	\$446						
Terminal Multiple	6.0x						
Terminal Value	•						
(Discounted) (\$mm)	\$62						
Total Value	\$508						
\$/sh	4						
Shares Outstanding	120						

Shares Outstanding OpCo Value Including

Net Debt \$12 Price Objective \$/sh \$16

Source: BofA Global Research estimates, Company filings, Bloomberg

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Price objective basis & risk

Sunnova Energy (NOVA)

Our price objective for Nova is \$16/share based on sum-of-the-parts valuation. We value the PowerCo portion of the company by taking NPV of Net Customer Value (excl. Net Cash), equivalent to discounting cash flows from the existing asset base by a 15% discount rate. This equates to \$12/sh.

We value expected future installed assets through 2029 on a DCF basis with value created discounted to present at a 20% cost of equity assumption. Including a 6x terminal value multiple on 2029E NPV and the NPV of 6A expense, including non-cash SBC costs and future expected corp capital needs, this equates to 4/8h.

Downside risks to PO being achieved: NOVA is particularly exposed to rate sensitivity, credit spreads, net metering policies, and risk of broadly competitive environment for customer acquisition squeezing development margins.

Upside risks to PO being achieved: Better than expected recovery in rates and capital market conditions, better than expected growth prospects, better NEM 3.0 outcome, and if the ITC is extended beyond the current schedule.

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
	Duke Energy	DUK	DUK US	Julien Dumoulin-Smith
	Enlight Renewable Energy Ltd	ENLT	ENLT US	Julien Dumoulin-Smith
	Enlight Renewable Energy Ltd	XENLF	ENLT IT	Julien Dumoulin-Smith
	Entergy	ETR	ETR US	Paul Zimbardo
	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
	Portland General Electric Company	POR	POR US	Julien Dumoulin-Smith
	PPL Corporation	PPL	PPL US	Paul Zimbardo
	Public Service Enterprise Group	PEG	PEG US	Julien Dumoulin-Smith
	Sempra	SRE	SRE US	Julien Dumoulin-Smith



North America - Utilities and Alt Energy Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
	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	33			•
HEO HOAL	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
		CEG	CEG US	Paul Zimbardo
	Constellation Energy Corp Emera Inc	YEMA	EMA CN	Julien Dumoulin-Smith
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	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
	Pinnacle West	PNW	PNW US	Julien Dumoulin-Smith
	Southern Company	SO	SO US	Julien Dumoulin-Smith
	Southwest Gas Holdings	SWX	SWX US	Julien Dumoulin-Smith
	TransAlta Corp	TAC	TAC US	Julien Dumoulin-Smith
	TransAlta Corporation	YTA	TA CN	Julien Dumoulin-Smith
UNDERPERFORM	'			<i>,</i>
JIIDERI ERI ORIII	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	Iulien Dumoulin-Smith
	Black Hills Corporation	BKH	BKH US	Julien Dumoulin-Smith
		BE	BE US	Julien Dumoulin-Smith
	Bloom Energy			·
	Dominion Energy	D	DUS	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
	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
			5 55	,
	UGI Corp.	UGI	UGI US	Julien Dumoulin-Smith



IQmethod[™] Measures Definitions

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Business Performance	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) × (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 +	Sales
,	Other LT Liabilities	

EV / EBITDA Enterprise Value Basic EBIT + Depreciation + Amortization

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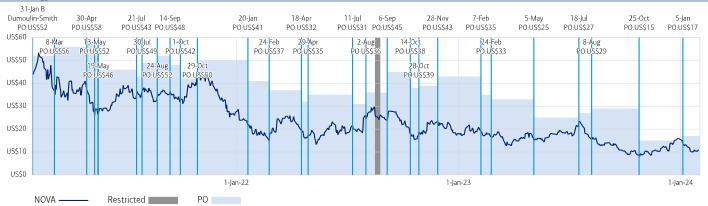
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Equity Investment Rating Distribution: Alternative Energy Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	8	47.06%	Buy	8	100.00%
Hold	5	29.41%	Hold	3	60.00%
Sell	4	23.53%	Sell	1	25.00%

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%	≤ /0%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

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