

Q4: Quarterly Industry Update

AS OF December 31, 2024



Solar Energy Industry Summary

COGENT VALUATION identified **Solar Energy** publicly traded companies, IPOs, and recent M&A transactions within the Solar Energy industry, which provides a basis for market and transaction pricing that can be used by your firm in estimating market sentiment and its impact on your firm's value. Over the last year since December 31, 2023, the median 52-week share price return of the Solar Energy industry decreased from 6.6% to 5.1%, and the median YTD return was 5.1%. Between December 31, 2023 and December 31, 2024, the median EV/Revenue multiple decreased from 7.8 to 1.7 and the median EV/EBITDA multiple decreased from 20.2 to 18.7. The median price-to-earnings multiple increased from 2.5 to 6.3 and the median EV/Gross Profit multiple decreased from 30.3 to 27.6 over the same period. The median MVIC/ Earnings multiple decreased from 2.2 to 1.3. The median Price/Revenue multiple increased from .4 to 1.2 over the same period.

Public Company Key Statistics

Median 52-Week Return	Median YTD Return	Median EV/Revenue Multiple	Median EV/EBITDA Multiple
5.1%	5.1%	1.7x	18.7x
Median Price/Earnings Multiple	Median EV/Gross Profit Multiple	Median MVIC/ Earnings Multiple	Median Price/Revenue Multiple
6.5x	27.6x	1.3x	1.2x

Public Company Median Multiples by Quarter

	12/31/24	9/30/24	6/30/24	3/31/24	12/31/23	9/30/23	6/30/23	3/31/23
Median EV/Revenue Multiple	6x	3.2x	3.4x	1.7x	3.1x	3.2x	2.9x	3.0x
Median EV/EBITDA Multiple	3.4x	18.0x	17.6x	13.4x	24.6x	14.6x	18.7x	10.7x
Median Price/Earnings Multiple	23.2x	30.1x	20.3x	21.2x	20.8x	19.7x	17.9x	17.7x
Median EV/Gross Profit Multiple	46.6x	22.2x	31.3x	23.6x	24.5x	23.3x	12.4x	46.9x
Median MVIC/Earnings Multiple	23.2x	11.6x	12.7x	13.7x	15.4x	26.5x	12.2x	13.2x
Median Price/ Revenue Multiple	6.9x	3.2x	3.4x	2.7x	10.6x	2.5x	3.2x	3.2x

■ Highest Multiple
 ■ Median Multiple
 ■ Lowest Multiple

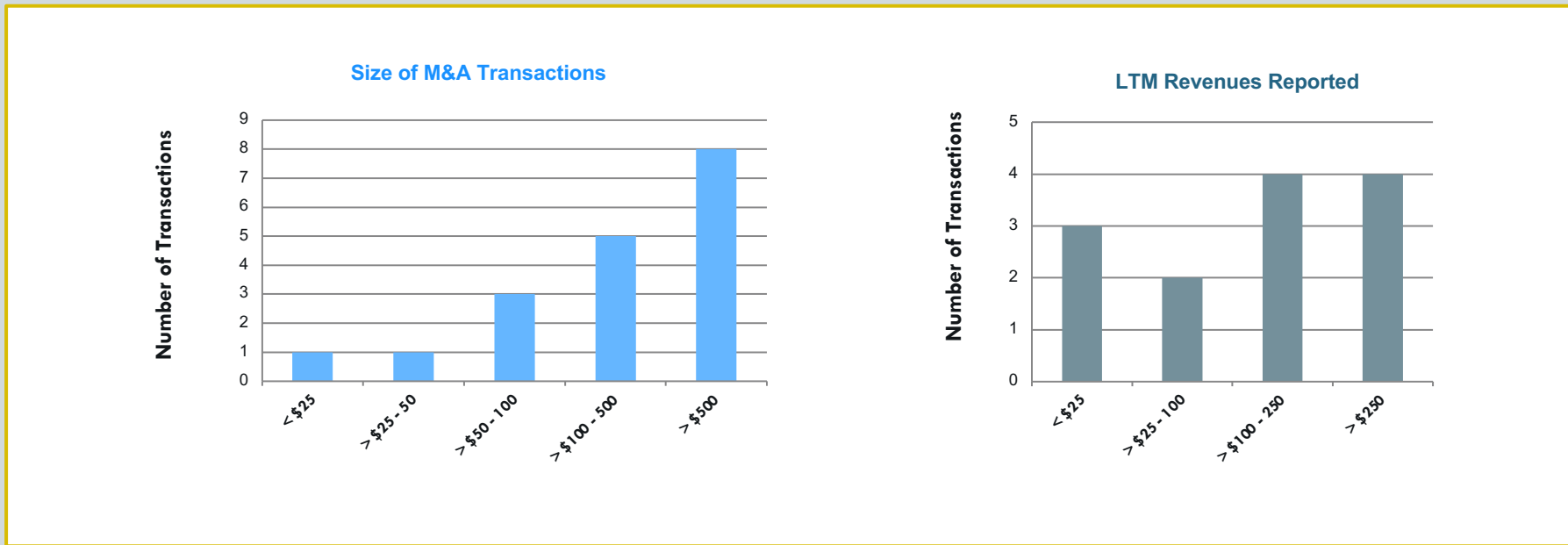
Comparable Public Company Market Price Returns as of December 31, 2024

	Q4 2024	12-months 2024	Two Year ¹	Three Year ¹	2024	2023	2022
Ascent Solar Technologies, Inc.	-44.4%	-68.8%	-98.0%	-97.2%	-69.0%	-99.9%	-86.4%
Canadian Solar Inc.	-3.5%	32.6%	-8.1%	-21.3%	38.4%	-57.9%	19.7%
China Sunergy Co., Ltd.	-14.9%	-34.9%	-67.0%	-72.7%	95.1%	-98.1%	-9.8%
Ellomay Capital Ltd.	-1.7%	10.2%	2.0%	1.7%	11.2%	-6.0%	-11.2%
Enphase Energy, Inc.	89.6%	233.6%	40.0%	-29.8%	138.6%	-71.2%	-75.4%
First Solar, Inc.	5.1%	161.9%	1.8%	5.9%	110.4%	-51.7%	48.0%
JA Solar Holdings Co., Ltd.	-12.1%	0.3%	-12.7%	-11.8%	56.7%	-50.9%	18.5%
JinkoSolar Holding Co., Ltd.	-24.1%	10.1%	-6.6%	-10.7%	57.9%	-45.0%	40.4%
Song Da Industry Trade	-15.6%	-7.6%	-15.6%	-7.9%	-6.1%	0.6%	-18.1%
SunPower Corporation	-5.3%	30.8%	-40.2%	-36.6%	27.5%	-78.0%	16.5%
ThinkSmart Limited	21.9%	-49.0%	N/A	N/A	-60.5%	N/A	N/A
Yingli Green Energy	-0.6%	-22.6%	-39.4%	-55.1%	-35.0%	-42.6%	-80.7%
Median of Industry Public Companies	-4.5%	5.1%	-12.7%	-21.3%	33.0%	-51.7%	-9.8%

■ Highest Return
 ■ Lowest Return
 ■ Median Return

Multiple year periods are calculated as the average annual return.

Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions) as of December 31, 2024



Size of Recent Merger and Acquisition Transactions for a Majority Stake (dollars in millions)

Transaction Date	Target	Acquirer	Transaction Size	% Bought	LTM Revenues	EV/ Revenues
12/22/24	SolarCity Corporation	Tesla Motors, Inc.	\$6,543.2	100%	\$139.30	6.6x
1/21/24	Human Energy Alliance Labs	MJP International Ltd. (nka:Bionovate Technologies Corp.)	\$4.4	100%	\$51.10	5.0x
11/20/23	Global Resource Options	EDF Renewable Energy	\$34.8	100%	\$77.6	7.5x
7/21/23	Desri Portal Ridge	Firstar Development, LLC	\$37.8	100%	\$10.0	6.1x
6/24/23	Caithness Energy	Global Infrastructure Partners	\$20.0	100%	\$544.0	5.3x
6/21/23	Gestamp Asetym Solar	KKR & Co. L.P.	\$800.0	100%	N/A	N/A
6/22/23	Aaron Services Ltd.	Lakehouse plc	\$15.4	100%	\$249.0	3.6x
5/30/23	Suniva Inc.	Shunfeng International	\$45.0	100%	\$483.8	7.0x
5/23/23	Energy Source Partners	Revolution Lighting Tech	\$30.1	100%	N/A	N/A
12/12/22	Solairedirect SA	ENGIE SA	\$275.3	81%	\$43.2	N/A
11/3/22	Solar Alliance of Amer.	Finavera Wind Energy	\$5.0	100%	\$41.7	N/A
8/28/22	Solar Juice Pty Ltd.	SPI China (HK) Limited	\$28.0	100%	N/A	N/A
8/15/21	REC Solar ASA	Bluestar Elkem Investment	\$634.4	100%	N/A	N/A
5/13/21	Recurrent Energy, LLC	Canadian Solar Inc.	\$265.0	100%	\$1.3	N/A
9/15/20	Next Phase Solar, Inc.	Enphase Energy, Inc.	\$2.5	100%	\$50.0	4.0x
6/22/20	Avacos Solar	ONEnergy Inc.	\$423.5	100%	\$193.7	1.9x
5/30/20	Hudson Energy Solar Corp.	SunEdison, Inc.; TerraForm Power, Inc.	\$57.0	81%	\$23.0	2.3x
5/23/20	Tripod Energy AB	Innotech Solar AS	\$2,216.5	100%	\$544.3	3.9x
	Median of M&A Transaction Targets		\$452.0	100%	\$160.0	5.0x

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This industry research is provided at no charge. Further research or detailed information not covered in this report can be obtained for a fee. **Contact Steven Kam at 415-392-0888 or kam@cogentvaluation.com** for additional information or questions in connection with this research report.

Definitions of Financial Terms Used in this Quarterly Industry Update:

Enterprise Value (EV): Market Value of Equity + Market Value of Debt - Cash

Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA): Profitability metric sometimes also referred to as operating profit or operating earnings.

Gross Cash Flows: Net Income + Depreciation and Amortization Expense

Latest Twelve Months (LTM): Financial information is as of the latest twelve months through the date of this Quarterly Industry Update.

Market Value of Invested Capital (MVIC): Market Value of Equity + Market Value of Debt

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