

# Stock Index

## Solar Energy

Q1 2018



### Solar Energy Highlights

- Overall Solar Index increased 2.5% from last quarter
- Wafers / Ingots Index decreased 7.2% from last quarter
- Systems Components Index increased 22.9% from last quarter
- Vertically Integrated Index increased 2.0% from last quarter
- EPC Integrators / Developers Index decreased 1.9% from last quarter

### About the Solar Energy Stock Index

Similar to the S&P 500 Index, the Solar Stock Index<sup>(1)</sup> is a market cap weighted composite index. The index is prepared by first selecting a base period, in this case, Q1 2009, and totaling the market caps of the companies in each sector in this period. This period and total market cap

is set to a base index, in this case, 1000. Next, for each sector, the current period's total market cap is calculated, divided by the base period's total market cap and then multiplied by the base index (1000). The result is the index value used for plotting in the graph on the following page.

### Solar Energy Index Outperforms S&P in Q1 2018

Winner's Circle		Sector
GCL-Poly Energy Holdings Ltd.	(26%)	W
Motech Industries, Inc.	21%	S
Canadian Solar Inc.	(27%)	I
Azure Power Global Limited	31%	D
Worst Performers		Sector
Daqo New Energy Corp.	(68%)	W
SolarEdge Technologies, Inc.	(59%)	S
First Solar, Inc.	(60%)	I
BPCG Public Company Limited	(52%)	D

Based on quarter-over-quarter share price performance

EBITDA Margins	
Wafers / Ingots	28%
Systems Components	6%
Vertically Integrated	8%
EPC Integrators / Developers	55%
3 Year Revenue CAGR	
Wafers / Ingots	5%
Systems Components	0%
Vertically Integrated	13%
EPC Integrators / Developers	71%

Source: Capital IQ as of March 31, 2018

Note: Average for each sector; CAGR stands for compound annual growth rate

#### Solar Energy Sector Guide

Wafers/Ingots Producers (W)

Systems Components (S)

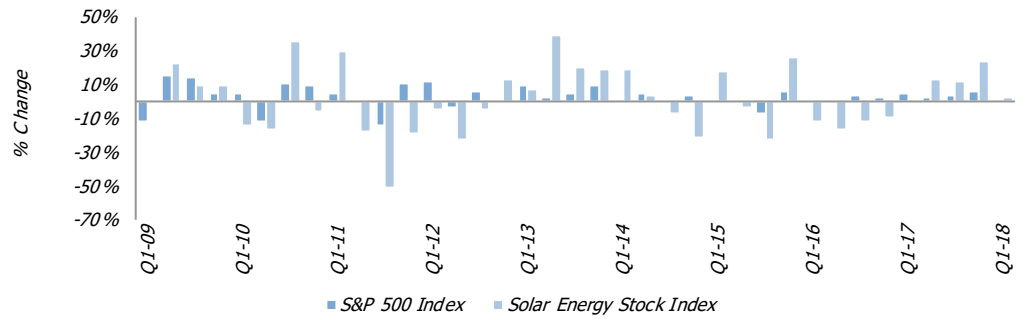
Vertically Integrated Companies (I)

Engineering, Procurement and Construction ("EPC") Integrators / Developers (D)

(1) As of Q4 2017, the Solar Stock Index was reevaluated to depict a more accurate representation of the contemporary solar energy environment

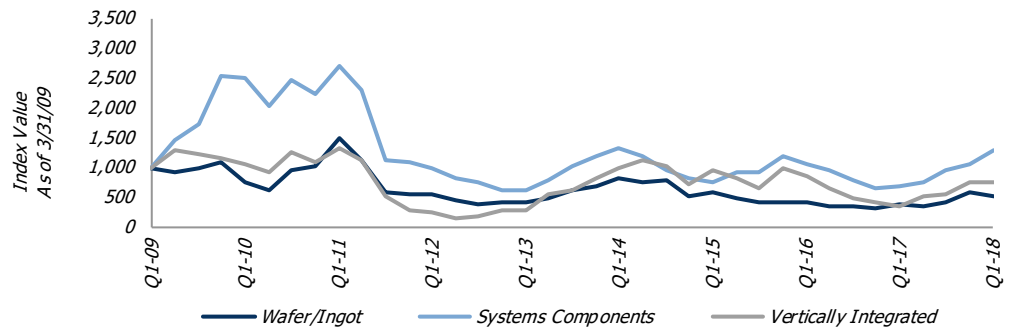
### S&P Index vs. Solar Energy Stock Index

Quarter / Quarter Change



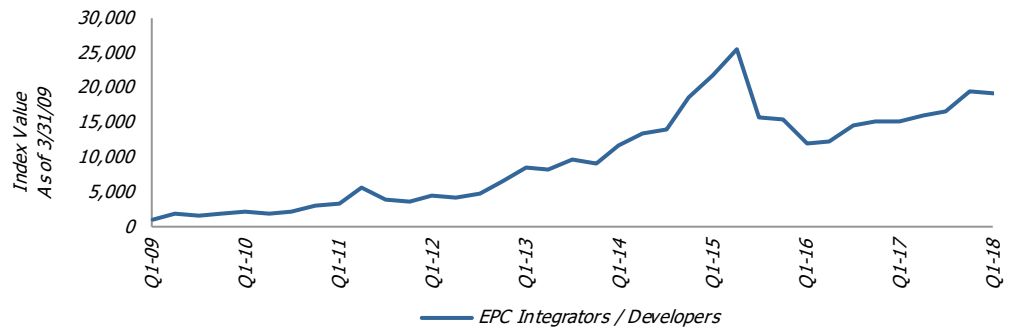
### Solar Energy Stock Index by Sector

Wafers / Ingots, Systems Components and Vertically Integrated



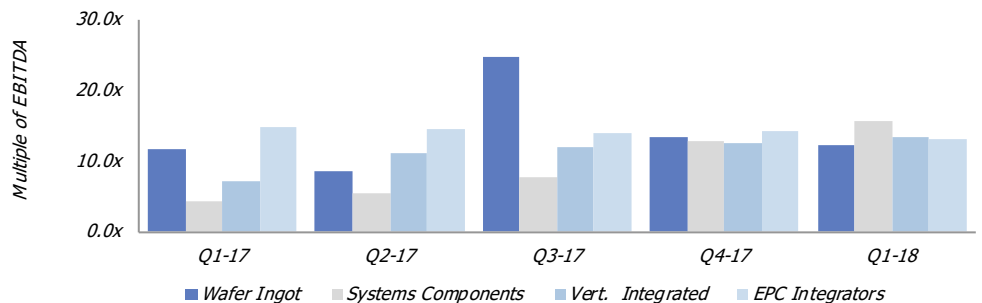
### Solar Energy Stock Index by Sector<sup>(1)</sup>

EPC Integrators / Developers



(1) EPC Integrator / Developers sector performance shown separately due to rapidly changing dynamics within this sector

### Enterprise Value<sup>(2)</sup> / EBITDA



(2) Enterprise Value is calculated as market cap as of the end of each quarter plus debt, preferred equity and minority interest less cash

## Solar Energy Stock Index Data

Company	Exchange	Stock Price	LTM Sales (\$ in millions)	Diluted EPS	Current Ratio	EV/ EBITDA	EV/ Sales	Market Cap (\$ in millions)	Net Debt (\$ in millions)
<b>Wafers / Ingots</b>									
Daqo New Energy Corp.	New York	\$18.77	\$255	\$5.51	0.4	3.9x	1.6x	\$197	\$191
GCL-Poly Energy Holdings Ltd.	Hong Kong	0.13	3,657	0.02	0.8	6.9x	2.1x	2,464	5,546
REC Silicon	Oslo	0.12	272	(0.04)	2.7	NM	1.5x	305	97
Sino-American Silicon Products Inc.	Taiwan	1.55	2,001	(0.13)	0.8	24.4x	1.0x	918	887
Average Wafers / Ingots			\$1,546		1.2	11.8x	1.5x	\$971	\$1,680
<b>Systems Components</b>									
Gintech Energy Corporation	Taiwan	\$0.58	w\$482	\$(0.26)	2.5	NM	0.6x	\$302	\$(18)
JA Solar Holdings Co., Ltd.	New York	6.54	524	(0.11)	2.5	NM	1.6x	311	560
Motech Industries, Inc.	Taiwan	0.91	782	(0.18)	1.3	7.8x	0.7x	451	80
Neo Solar Power Corporation	Taiwan	0.50	345	(0.25)	1.2	NM	2.3x	510	322
SMA Solar Technology AG	Frankfurt	25.04	1,070	0.52	2.5	3.8x	0.5x	878	(429)
SolarEdge Technologies, Inc.	New York	15.60	607	1.01	4.7	6.5x	0.8x	647	(202)
Average Systems Components			\$635		2.4	6.0x	1.1x	\$517	\$52
<b>Vertically Integrated</b>									
Canadian Solar Inc.	New York	\$12.27	\$3,390	\$0.50	0.9	14.5x	0.8x	\$709	\$1,916
First Solar, Inc.	New York	27.10	2,941	(5.26)	6.3	1.5x	0.4x	2,820	(2,055)
JinkoSolar Holding Co., Ltd.	New York	16.57	4,069	7.13	1.0	5.5x	0.4x	525	1,318
SunPower Corporation	New York	6.10	1,872	(3.41)	1.8	NM	1.3x	846	1,445
Average Vertically Integrated			\$3,068		2.5	7.1x	0.7x	\$1,225	\$656
<b>EPC Integrators / Developers</b>									
8point3 Energy Partners LP	New York	\$12.55	\$71	\$0.81	1.6	20.7x	19.2x	\$381	\$704
Azure Power Global Limited	New York	18.66	106	(1.72)	1.6	23.4x	7.6x	484	407
BCEG Public Company Limited	Bangkok	0.35	103	0.02	4.4	11.2x	7.7x	724	50
Capital Stage AG	Frankfurt	6.40	267	0.26	1.5	18.4x	6.6x	836	1,435
China Singyes Solar Technologies	Hong Kong	0.44	872	0.07	1.6	8.5x	1.1x	376	515
Scatec Solar ASA	Oslo	4.38	137	0.07	2.8	11.5x	7.4x	461	461
SPCG Public Company Limited	Bangkok	0.59	184	0.07	1.4	7.9x	4.9x	573	289
Sunrun Inc.	New York	5.40	530	0.86	1.4	NM	3.4x	565	911
TerraForm Power, Inc.	New York	10.13	610	(1.82)	0.4	15.6x	10.4x	1,162	3,349
Average EPC Integrators / Developers			\$320		1.9	14.7x	7.6x	\$618	\$902
Average Solar Energy Index			\$1,392		2.0	9.9x	2.7x	\$666	\$823

Note: Data in table above is sourced from Capital IQ as of March 31, 2018 or latest available data.  
Stock price adjusted for dividends and splits.

## Global Industry Groups

Business Services  
Consumer  
Energy, Power & Infrastructure  
Healthcare  
Industrials  
Technology, Media & Telecom

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