

# Solar Energy Index Underperforms S&P in Q3 2011

## Winner's Circle\* Sector

PV Crystalox Solar plc	(51%)	W
Aleo Solar AG	-	C
Solar Power Inc.	(35%)	I
SAG Solarstrom AG	(28%)	D

## Worst Performers\* Sector

ReneSola Ltd.	(67%)	W
Evergreen Solar Inc.	(94%)	C
Trina Solar Ltd.	(73%)	I
Conergy	(75%)	D

\*Based on quarter-over-quarter share price performance

## Solar Energy Highlights

From last quarter:

- Overall Index decreased 55.4%
- Wafers / Ingots Index decreased 59.4%
- Cells / Modules Index decreased 53.0%
- Vertically Integrated Index decreased 63.2%
- EPC Integrators / Developers Index decreased 38.9%

## EBITDA Margins\*

Wafers / Ingots	23%
Cells / Modules	11%
Vertically Integrated	22%
EPC Integrators / Developers	6%

## 3 Year Revenue CAGR\*

Wafers / Ingots	28%
Cells / Modules	21%
Vertically Integrated	31%
EPC Integrators / Developers	27%

\*Source: Capital IQ as of September 30, 2011 or latest available  
Note: Average for each sector; CAGR stands for compound annual growth rate

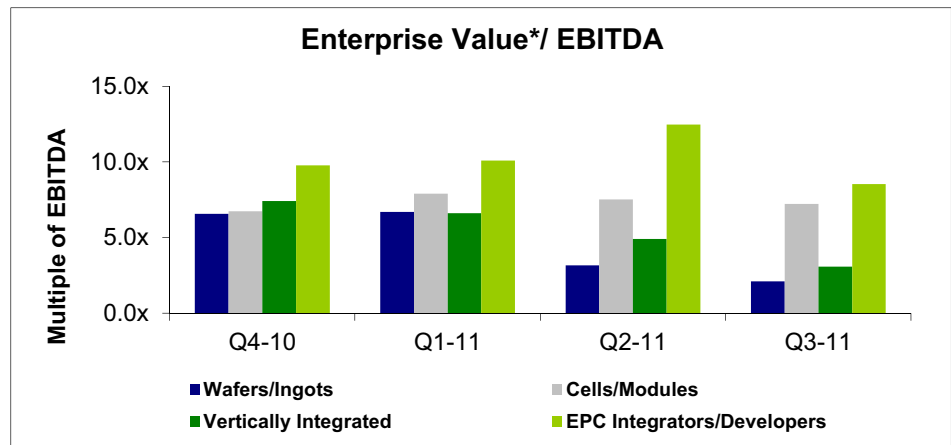
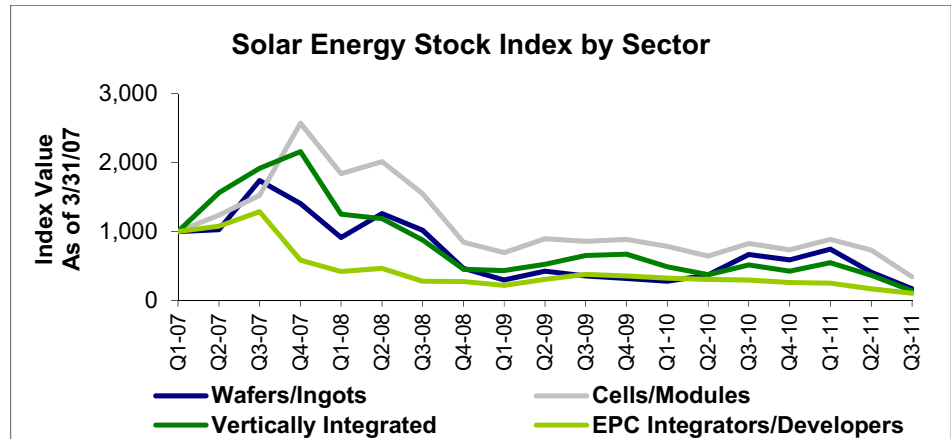
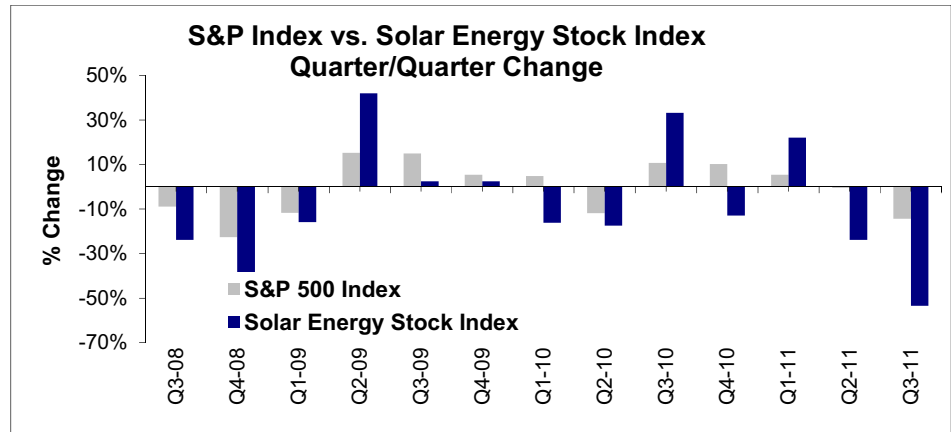
## Solar Energy Sector Guide

Wafers / Ingots Producers (W)

Cells / Modules Production (C)

Vertically Integrated Companies (I)

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



\* Enterprise Value is calculated as Market Cap on September 30, 2011 plus debt, preferred equity and minority interest less cash

## About the Solar Energy Stock Index

Similar to the S&P 500 Index, the Solar Stock Index is a market cap weighted composite index. The index is prepared by first selecting a base period, in this case, Q1 2007, 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 above.

# Solar Energy Stock Index Data

Company	Exchange	Stock		Diluted		Ave. Cash		EV/ EBITDA	EV/ Sales	Market Cap	Net Debt
		Price	LTM Sales	EPS	Conversion	Current	Ratio				
			(\$M)		(days)					(\$M)	(\$M)
<b>Wafers / Ingots</b>											
LDK Solar Co.Ltd.	New York	\$ 3.12	\$ 2,862	\$ 2.09	66	0.7	4.6x	1.2x	\$	459	\$ 2,679
PV Crystalox Solar plc	London	0.20	393	0.12	146	2.0	0.3x	0.1x		85	(60)
ReneSola Ltd.	London	1.72	1,354	1.81	23	1.1	1.4x	0.3x		150	319
<b>Average Wafers / Ingots</b>			<b>1,536</b>		<b>78</b>	<b>1.3</b>	<b>2.1x</b>	<b>0.5x</b>		<b>231</b>	<b>979</b>
<b>Cells / Modules</b>											
Aleo Solar AG	Frankfurt	\$ 34.69	\$ 738	\$ 1.26	29	2.3	16.9x	0.6x	\$	452	\$ 1
Canadian Solar Inc.	Nasdaq	3.68	1,755	1.35	85	1.2	5.6x	0.6x		159	829
Centrosolar AG	Frankfurt	2.46	502	(0.27)	98	1.8	14.8x	0.3x		50	127
China Sunergy Co. Ltd.	Nasdaq	1.37	605	0.46	59	1.4	5.3x	0.4x		61	196
Delsolar Co. Ltd.	Taiwan	0.87	470	(0.11)	44	2.4	NM	0.5x		216	9
Energy Conversion Devices, Inc.	Nasdaq	0.53	233	(6.40)	115	3.8	NM	0.7x		28	133
E-Ton Solar Tech. Co. Ltd	Taiwan	0.50	608	(0.19)	44	0.9	NM	0.6x		240	107
Evergreen Solar Inc.	Nasdaq	0.03	296	(13.69)	97	3.2	NM	1.2x		1	363
First Solar, Inc.	Nasdaq	63.21	2,508	5.87	113	3.1	6.8x	2.1x		5,455	(103)
Gintech Energy Corporation	Taiwan	1.30	887	0.21	52	1.1	4.8x	0.6x		442	104
Hanwha SolarOne Co., Ltd	Nasdaq	2.41	1,281	0.97	34	1.6	1.5x	0.2x		202	93
JA Solar Holdings Co., Ltd.	Taiwan	1.78	2,132	1.41	32	3.2	1.7x	0.2x		304	217
Motech Industries, Inc.	Paris	1.62	1,429	0.27	45	1.8	3.7x	0.5x		708	(20)
Q-Cells SE	Frankfurt	0.79	1,785	(3.09)	167	1.4	NM	0.5x		140	803
Solar-Fabrik AG	Frankfurt	2.93	318	(0.07)	58	3.7	5.2x	0.1x		38	(2)
Solaria Energia y Medio Ambiente, S.A.	Madrid	2.05	220	0.10	386	2.0	19.0x	1.7x		204	195
Solon AG für Solartechnik	Frankfurt	1.85	877	(6.17)	114	1.0	NM	0.6x		32	581
SunPower Corporation	Nasdaq	8.09	2,531	0.27	62	1.7	5.6x	0.5x		778	573
Suntech Power Holdings Co. Ltd.	New York	2.31	3,396	0.89	90	0.9	3.0x	0.7x		416	1,787
Sunways AG	Frankfurt	2.73	254	0.15	83	1.9	NM	0.2x		32	25
<b>Average Cells / Modules</b>			<b>1,141</b>		<b>90</b>	<b>2.0</b>	<b>7.2x</b>	<b>0.7x</b>		<b>498</b>	<b>301</b>
<b>Vertically Integrated</b>											
Renewable Energy Corporation ASA	Oslo	\$ 0.90	\$ 3,015	\$ (1.36)	118	2.4	2.6x	0.7x	\$	893	\$ 1,274
Solar Power, Inc.	OTC	0.32	38	(0.09)	121	2.6	NM	1.2x		59	(14)
SolarWorld AG	Frankfurt	4.21	1,818	1.00	263	3.8	5.0x	0.8x		466	1,040
Trina Solar Ltd.	New York	6.08	2,280	3.87	55	1.8	1.6x	0.3x		478	232
Yingli Green Energy Holding Co. Ltd.	New York	3.10	2,351	1.67	45	1.2	3.1x	0.7x		490	786
<b>Average Vertically Integrated</b>			<b>1,900</b>		<b>120</b>	<b>2.3</b>	<b>3.1x</b>	<b>0.7x</b>		<b>477</b>	<b>664</b>
<b>EPC Integrators / Developers</b>											
Akeena Solar, Inc.	Nasdaq	\$ 0.75	\$ 10	\$ (1.06)	49	1.2	NM	1.0x	\$	11	\$ (2)
Conergy AG	Frankfurt	0.40	1,325	(2.59)	64	0.8	NM	0.4x		64	434
Kerself S.p.A.	Milan	1.87	672	(2.11)	94	0.7	7.3x	0.5x		33	337
Phönix Solar AG	Frankfurt	11.19	601	(3.10)	136	1.8	NM	0.2x		82	52
Premier Power Renewable Energy, Inc.	OTC	0.48	114	(0.23)	2	1.0	NM	0.1x		12	(3)
Real Goods Solar, Inc.	Nasdaq	1.82	82	(0.03)	70	1.4	10.4x	0.3x		33	(8)
SAG Solarstrom AG	Frankfurt	4.28	369	0.74	60	1.4	7.9x	0.5x		54	146
<b>Average EPC Integrators / Developers</b>			<b>453</b>		<b>68</b>	<b>1.2</b>	<b>8.5x</b>	<b>0.4x</b>		<b>41</b>	<b>137</b>
<b>Average Solar Energy Index</b>			<b>1,146</b>		<b>89</b>	<b>1.8</b>	<b>6.0x</b>	<b>0.6x</b>		<b>381</b>	<b>378</b>

Note: Data in table above is sourced from Capital IQ as of September 30, 2011 or latest available data.

Stock price adjusted for dividends and splits.

Stock Index does not include polysilicon producers, diversified multi-divisional electronics firms such as Bosch, Kyocera, Mitsubishi Electric, Sanyo and Sharp, and diversified energy firms such as BP.

## Contact

Lincoln International's Renewable Energy Group is led by a former CEO of a public company. The firm's Renewable Energy team provides transactional, financial and strategic advisory services to renewable energy companies and private equity groups with an interest in the renewable energy space.

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## About Lincoln International

About Lincoln International

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