

## Solar Energy Highlights

- Overall Solar Index increased 14.7% from last quarter
- Wafers / Ingots Index decreased 17.2% from last quarter
- Cells / Modules Index decreased 3.5% from last quarter
- Vertically Integrated Index increased 40.1% from last quarter
- EPC Integrators / Developers Index increased 5.8% from last quarter

## **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 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 Q2 2017

| Winner's Circle                           |                | Sector      |
|---|----------------|-------------|
| ReneSola                                  | 2%             | W           |
| Solaria Energía y Medio Ambiente          | 35%            | С           |
| SunPower Corporation                      | 53%            | I           |
| Capital Stage AG                          | 10%            | D           |
|   |                |             |
| Worst Performers                          |                | Sector      |
| Worst Performers GCL-Poly Energy Holdings | (18%)          | Sector<br>W |
|   | (18%)<br>(11%) |             |
| GCL-Poly Energy Holdings                  |                | W           |

Based on quarter-over-quarter share price performance

| EBLIDA Margins               |       |
|------------------------------|-------|
| Wafers / Ingots              | 21%   |
| Cells / Modules              | 18%   |
| Vertically Integrated        | 9%    |
| EPC Integrators / Developers | 71%   |
| 3 Year Revenue CAGR          |       |
| Wafers / Ingots              | (10%) |
| Cells / Modules              | 5%    |
| Vertically Integrated        | 5%    |
| EPC Integrators / Developers | 3%    |
|                              |       |

Source: Capital IQ as of June 30, 2017 or latest available Note: Average for each sector; CAGR stands for compound annual growth rate

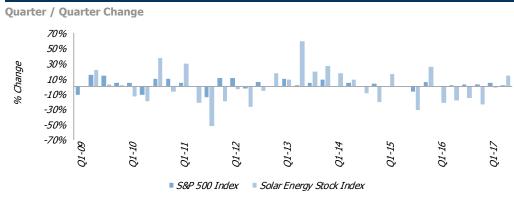
#### **Solar Energy Sector Guide**

Wafers/Ingots Producers (W) Cells/Modules Production (C) Vertically Integrated Companies (I)

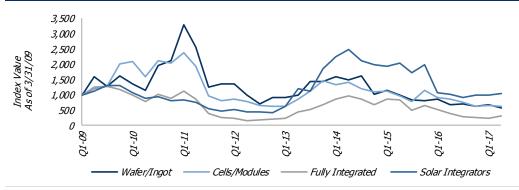
Engineering, Procurement and Construction ("EPC") Integrators / Developers (D)



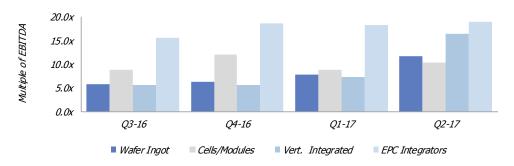
## S&P Index vs. Solar Energy Stock Index



## **Solar Energy Stock Index by Sector**



## **Enterprise Value**<sup>(1)</sup> / **EBITDA**



(1) Enterprise Value is calculated as market cap on June 30, 2017 plus debt, preferred equity and minority interest



Solar Energy Stock Index Data

| Company                                | Exchange  | Stock<br>Price | LTM Sales<br>(\$ in millions) | Diluted<br>EPS | Current<br>Ratio | EV/ EBITDA | FV/ Sales | Market Cap<br>(\$ in millions) |                     |
|--|-----------|----------------|-------------------------------|----------------|------------------|------------|-----------|--------------------------------|---------------------|
| Wafers / Ingots                        | Exchange  | Price          | (\$ 111 1111110115)           | EFS            | Katio            | EV/ EBIIDA | EV/ Sales | (\$ 111 1111110115)            | (\$ 111 1111110115) |
| GCL-Poly Energy Holdings Ltd.          | Hong Kong | \$0.11         | \$3,172                       | \$0.02         | 0.8              | 6.3x       | 2.3x      | \$2,024                        | \$4,896             |
| PV Crystalox Solar plc                 | London    | 0.25           | 60                            | 0.01           | 12.4             | NM         | 0.1x      | 39                             | (30)                |
| ReneSola Ltd.                          | New York  | 2.44           | 826                           | (3.20)         | 0.6              | 16.9x      | 0.8x      | 49                             | 652                 |
| Average Wafers / Ingots                |           |                | \$1,353                       | (3 3)          | 4.6              | 11.6x      | 1.1x      | \$704                          | \$1,839             |
| Cells / Modules                        |           |                | ,,,,,,,                       |                |                  |            |           | ,                              | , , , , , ,         |
| E-Ton Solar Tech. Co. Ltd              | Taiwan    | \$0.29         | \$118                         | (\$0.04)       | 2.0              | NM         | 1.6x      | \$224                          | (\$31)              |
| Gintech Energy Corporation             | Taiwan    | 0.53           | 524                           | (0.11)         | 2.5              | NM         | 0.5x      | 273                            | (18)                |
| Hanwha Q CELLS Co., Ltd.               | New York  | 7.15           | 2,343                         | 1.21           | 1.2              | 4.2x       | 0.5x      | 595                            | 560                 |
| JA Solar Holdings Co., Ltd.            | Nasdaq    | 6.35           | 2,319                         | 1.67           | 1.1              | 3.9x       | 0.4x      | 302                            | 560                 |
| Motech Industries, Inc.                | Taiwan    | 0.82           | 803                           | (0.18)         | 1.3              | NM         | 0.6x      | 401                            | 80                  |
| Neo Solar Power Corporation            | Taiwan    | 0.48           | 421                           | (0.25)         | 1.2              | NM         | 2.0x      | 489                            | 322                 |
| Solaria Energía y Medio Ambiente, S.A. | Madrid    | 1.56           | 18                            | 0.08           | 4.0              | 22.8x      | 16.7x     | 169                            | 117                 |
| Average Cells / Modules                |           |                | \$935                         |                | 1.9              | 10.3x      | 3.2x      | \$350                          | \$227               |
| Vertically Integrated                  |           |                |                               |                |                  |            |           |                                |                     |
| Canadian Solar Inc.                    | Nasdaq    | \$15.92        | \$2,809                       | \$0.50         | 0.9              | 25.7x      | 1.0x      | \$923                          | \$1,916             |
| First Solar, Inc.                      | Nasdaq    | 39.88          | 2,967                         | (5.26)         | 6.3              | 3.9x       | 0.7x      | 4,159                          | (2,059)             |
| JinkoSolar Holding Co., Ltd.           | New York  | 20.80          | 3,180                         | 7.13           | 1.0              | 7.5x       | 0.6x      | 666                            | 1,318               |
| REC Silicon ASA                        | Oslo      | 0.13           | 260                           | (0.04)         | 2.7              | NM         | 1.6x      | 330                            | 97                  |
| SolarWorld AG                          | Frankfurt | 1.48           | 856                           | (6.52)         | 1.9              | NM         | 0.4x      | 22                             | 304                 |
| SunPower Corporation                   | Nasdaq    | 9.34           | 2,574                         | (3.76)         | 2.0              | NM         | 1.2x      | 1,302                          | 1,597               |
| Trina Solar Ltd.                       | New York  | 0.19           | 18                            | (0.02)         | 2.3              | 5.2x       | 0.9x      | 20                             | (3)                 |
| Yingli Green Energy Holding Co. Ltd.   | New York  | 2.27           | 1,055                         | (18.87)        | 0.5              | NM         | 1.7x      | 41                             | 1,600               |
| Average Vertically Integrated          |           |                | \$1,715                       |                | 2.2              | 10.6x      | 1.0x      | \$933                          | \$596               |
| <b>EPC Integrators / Develope</b>      | ers       |                |                               |                |                  |            |           |                                |                     |
| Capital Stage AG                       | Frankfurt | \$7.02         | \$173                         | \$0.26         | 1.5              | 18.8x      | 14.2x     | \$888                          | \$1,435             |
| Real Goods Solar, Inc.                 | Nasdaq    | 0.98           | 16                            | (19.63)        | 4.3              | NM         | (0.4x)    | 7                              | (14)                |
| Average EPC Integrators / Developers   |           |                | \$94                          |                | 2.9              | 18.8x      | 6.9x      | \$448                          | \$710               |
| Average Solar Energy Index             |           |                | \$1,225                       |                | 2.5              | 11.5x      | 2.4x      | \$646                          | \$665               |
|  |           |                |                               |                |                  |            |           |                                |                     |

Note: Data in table above is sourced from Capital IQ as of June 30, 2017 or latest available data. Stock price adjusted for dividends and splits.



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