

# DealReader Solar Energy

Q1 2018



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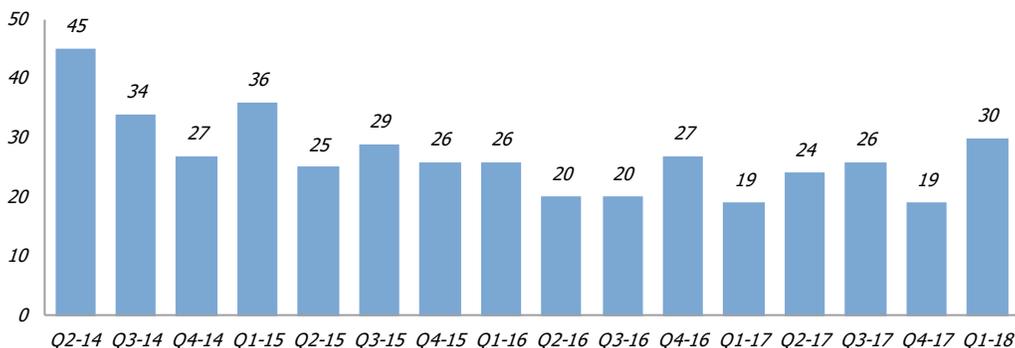
**Announcements**

- Innergex Renewable Energy Inc. has acquired Alterra Power Corp. (Feb-18)
- Risen Energy Co., Ltd. has acquired a 121 MW solar farm from Yarranlea Solar (Feb-18)
- ACI Solar Holdings NA Inc. has acquired Merlin Solar Technologies (Feb-18)
- Petersen-Dean, Inc. has acquired Haleakala Solar, Inc. (Mar-18)
- NRG Energy, Inc. has acquired four community solar projects in Minnesota (Mar-18)

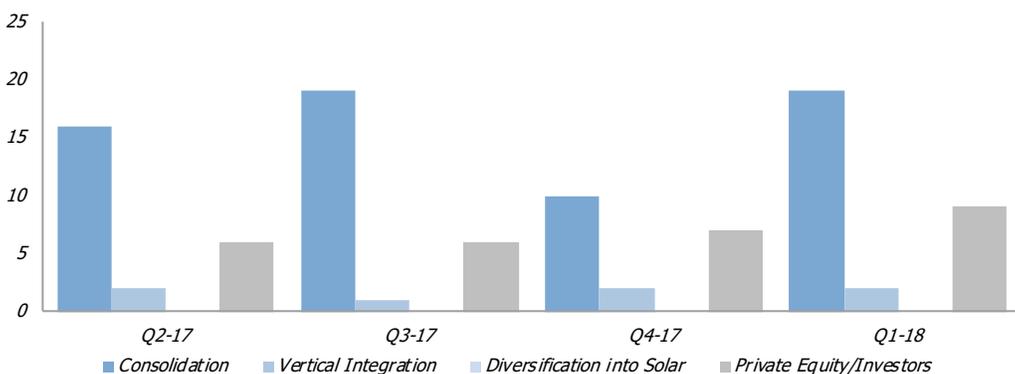
Sources: All information contained in this newsletter including the charts was obtained from company websites, Lincoln International's internal data and Capital IQ.

# Q1 2018 Deal Volume Comparison

## Completed Solar Energy Transaction Volume



## Completed Solar Energy Transaction Volume



There were 30 completed solar energy M&A transactions in Q1 2018, which represents an increase from the 19 transactions recorded in Q4 2017. On a comparative basis, this also represents an increase from the 19 transactions reported in Q1 2017.

Within the solar M&A transactions, consolidation represented 63% of the volume, or 19 deals in Q1 2018. The next largest category was investment in the solar energy industry by private equity or private investors with 30% of transactions, or 9 deals this quarter. There were two transactions categorized as vertical integration in Q1 2018. There were no transactions categorized as diversification into the solar energy industry.

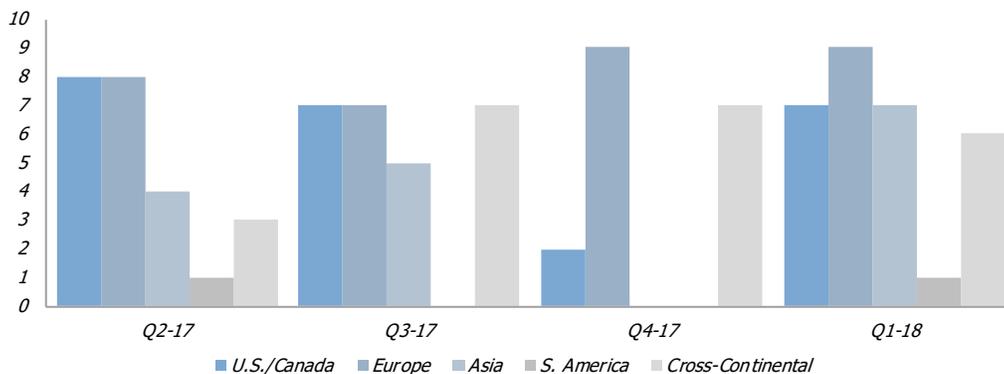
In Q1 2018, 30% of the solar energy M&A transactions occurred within Europe. Although Europe remains the most active geography for M&A transactions in the sector, its share of the solar M&A market has decreased 20% compared to the prior quarter. Deals within Asia accounted for 7 transactions, or approximately 23% of the total for Q1 2018, representing a 23% increase in solar M&A market share for this geography. The U.S. and Canada also

recorded 7 transactions, or 23% of the total, a 12% increase from the prior quarter. Cross-continental deals accounted for 6 transactions in Q1 2018, while one transaction took place in South America.

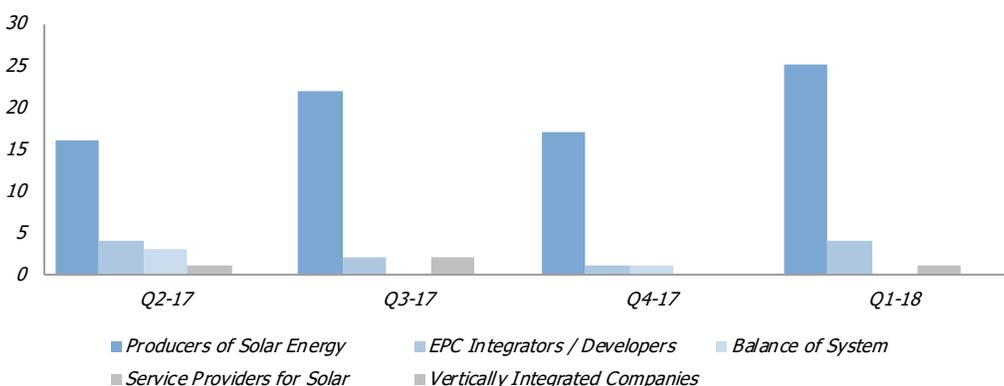
There were 25 acquisitions of companies categorized as producers of solar energy, representing the most common category of targets at 83% of the Q1 2018 total. This category primarily represents the acquisition of solar projects. EPC integrators/developers were the next most frequent acquisition targets, accounting for 4 transactions, or 11% of the total. Acquisitions of companies categorized as service providers for solar accounted for one transaction in Q1 2018. There were no acquisitions of companies categorized as balance of system providers nor any acquisitions of vertically integrated companies in Q1 2018.

Consolidation for producers of solar power continued to be the primary source of deal activity in Q1 2018, in addition to continued volume from the private equity/investors category.

**Quarterly Comparison – M&A by Geography**



**Quarterly Comparison – M&A by Sector of Target Company**



**Global Solar Energy Ratio Analysis**

Several key efficiency, profitability, liquidity and leverage ratios provide useful insight into the solar industry’s performance and trends over time.

One such ratio is Total Asset Turnover (“TAT”), which is calculated as total revenue divided by total assets. This ratio is a measure of how efficiently a business generates sales on each dollar of assets, where an increasing ratio indicates more productive use of assets. While wafer/ingot, developers and vertically integrated companies have maintained relatively stable TATs over the last five years, the dynamics of the solar industry can be seen in the shift of this ratio among systems components. Recently, systems components have experienced declining ratio levels while the ratio levels of vertically integrated companies and developers have remained stable. Wafer/ingot has increased in recent periods.

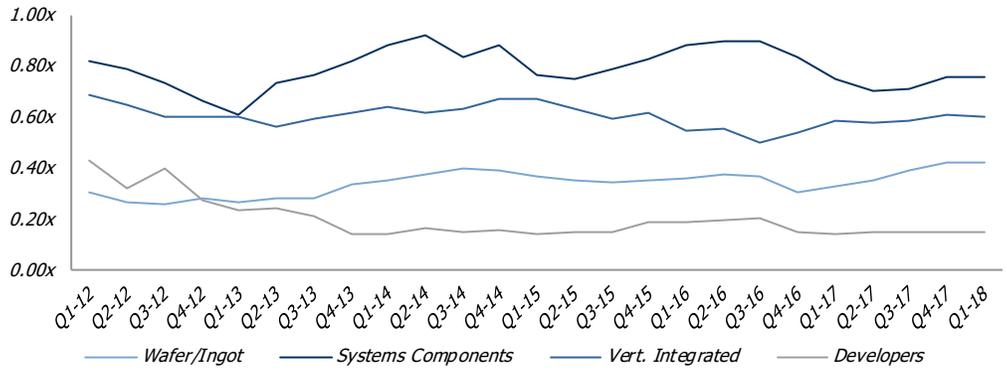
In combination with the TAT ratio it is helpful to review the sector’s profitability through the Return on Assets (“ROA”) ratio. ROA is a profitability ratio that measures a company’s ability to turn assets into profit. It is calculated by dividing earnings by total assets. The higher the ROA number, the better, because

the company is earning more money on less investment. The solar industry experienced a significant decline in profitability beginning in mid-2011. After experiencing stable, increasing ROA levels from late-2013 through early-2016, the industry experienced declining ROA levels towards the end of 2016. ROA levels have remained relatively stable, albeit negative through Q1 2018.

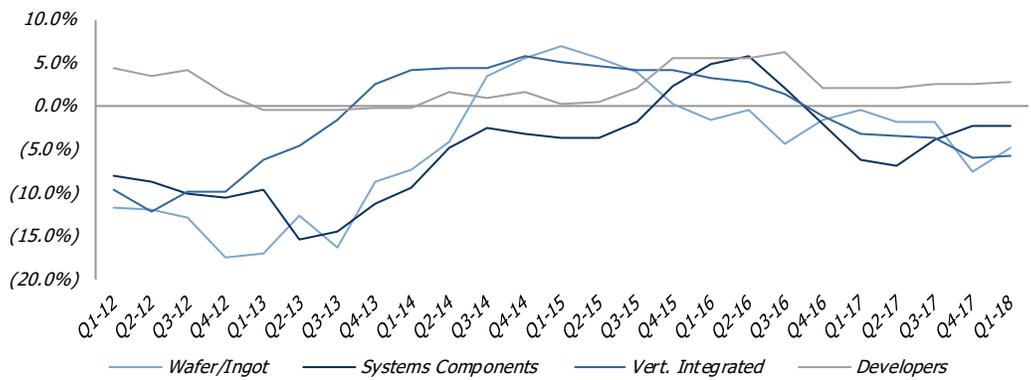
The Current Ratio is a key measure of liquidity and indicates a business’ ability to meet short term obligations with short term assets. It is calculated as current assets divided by current liabilities. A ratio between 1.2 and 2.0 is generally considered sufficient, but a ratio less than 1 may indicate liquidity issues. The industry’s Current Ratio has increased steadily over the past several quarters, with slight fluctuations during late-2014 into mid-2016.

The Debt to Equity Ratio is a leverage ratio that exhibits a company’s capital structure. It is calculated as total liabilities divided by total equity. A high ratio can indicate elevated business risk, while a low ratio can indicate that a company may not be fully utilizing available leverage in its capital structure. The industry’s Debt to Equity Ratio has remained relatively stable in recent periods.

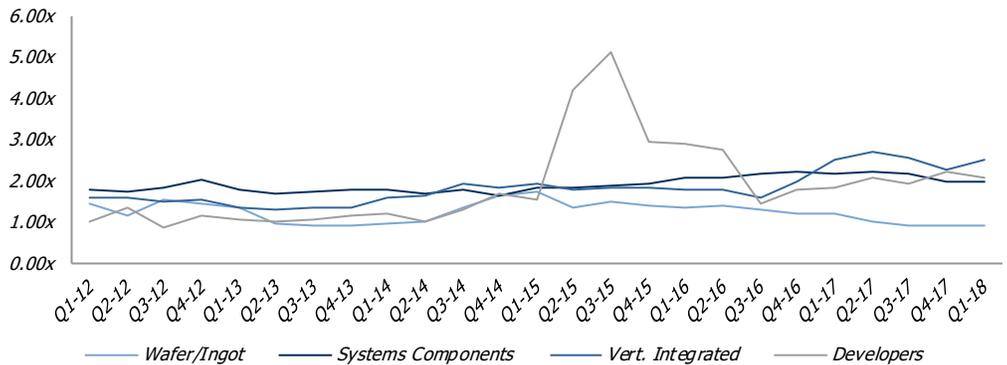
**Total Asset Turnover by Sector**



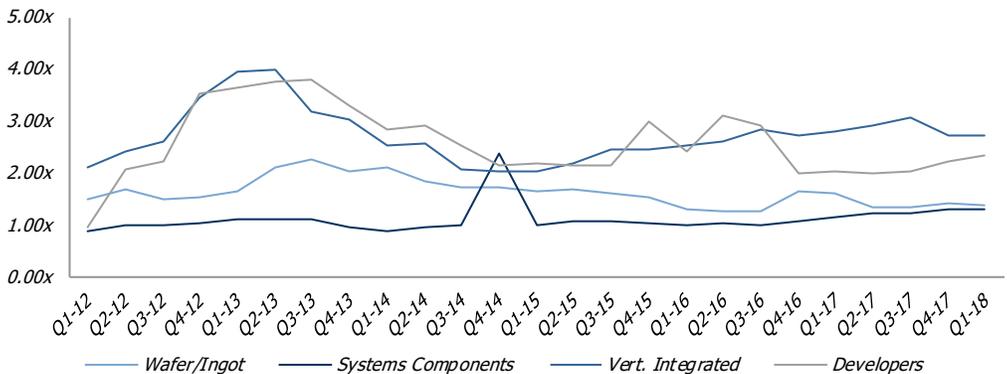
**Return on Assets**



**Current Ratio**



**Debt to Equity Ratio**



## Global Industry Groups

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

## Global Locations

Amsterdam  
Beijing  
Chicago  
Dallas  
Frankfurt  
London  
Los Angeles  
Madrid  
Milan  
Moscow  
Mumbai  
Munich  
New York  
Paris  
San Francisco  
São Paulo  
Stockholm  
Tokyo  
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