

DealReader

Solar Energy

Q2 2016



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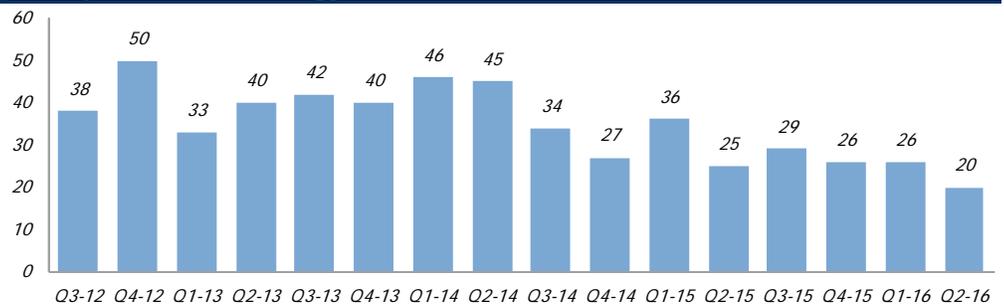
Margin Performance in the Solar Energy Industry

Announcements

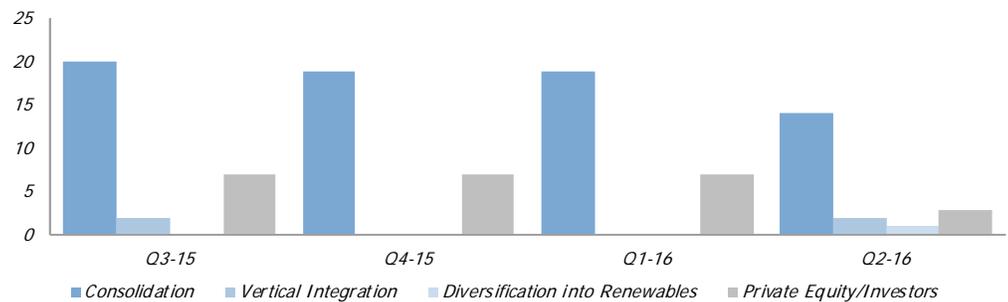
- Ecotricity Group has acquired SunEdison's U.K.-based residential solar business unit (April-16)
- GE Energy Financial Services has acquired a 14 MW utility-scale solar project in Japan from Trina Solar (April-16)
- EDF Renewable Energy has acquired groSolar (May-16)
- Cubico Sustainable Investments has acquired ten solar projects in the U.K. from British Solar Renewables (June-16)

Q2 2016 Deal Volume Comparison

Completed Solar Energy Transactions



Quarterly Comparison – M&A by Category



There were 20 completed solar energy transactions in Q2 2016, which represents a decrease from the 26 transactions recorded in Q1 2016. On a comparative basis, this represents a decrease from the 25 transactions reported in Q2 2015.

Within the solar energy transactions, consolidation represented 70% of M&A activity, or 14 deals in Q2 2016. The next largest category was investment by private equity/investors with 3 transactions, or 15% of the deals in Q2 2016. There were two transactions categorized as vertical integration and one transaction categorized as diversification into the solar industry this quarter.

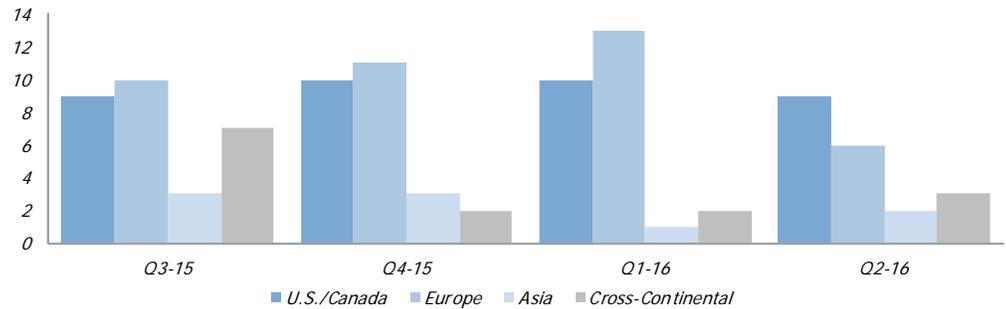
In Q2 2016, 45% or 9 of the 20 total transactions occurred in the U.S. and Canada. This represents a 7% increase in M&A activity in this geography from Q1 2016. Europe recorded 6 transactions, or 30% of the Q2 2016 total. Cross-continental deals accounted for three transactions, or 15% of the total in

Q2 2016, while Asia recorded two transactions, or 10% of the Q2 2016 total. South America did not record a solar energy transaction this quarter.

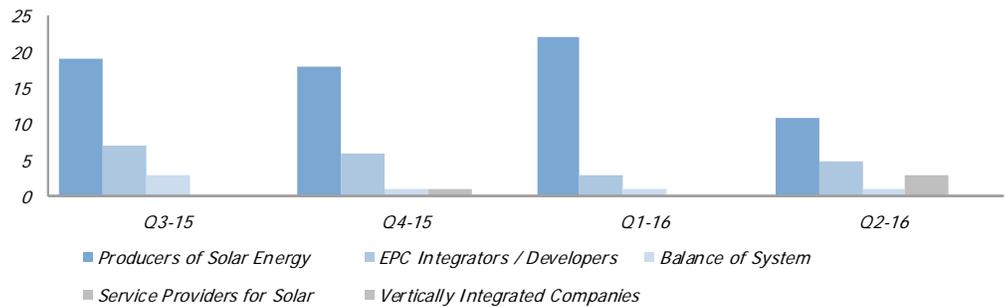
In addition, there were 11 acquisitions of producers of solar energy (this category includes acquisitions of solar projects), or 55% of the total. There were 5 acquisitions of EPC integrators/developers, or 25% of the total transaction volume. Acquisitions of companies categorized as service providers for solar accounted for three transactions, or 15% of the Q2 2016 total. Acquisitions of solar companies categorized as balance of system providers accounted for one transaction, or 5% of the total in Q2 2016. There were no acquisitions of vertically integrated solar companies.

Consolidation for producers of solar power continued to be the primary source of deal activity, 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



Margin Performance in the Solar Energy Industry

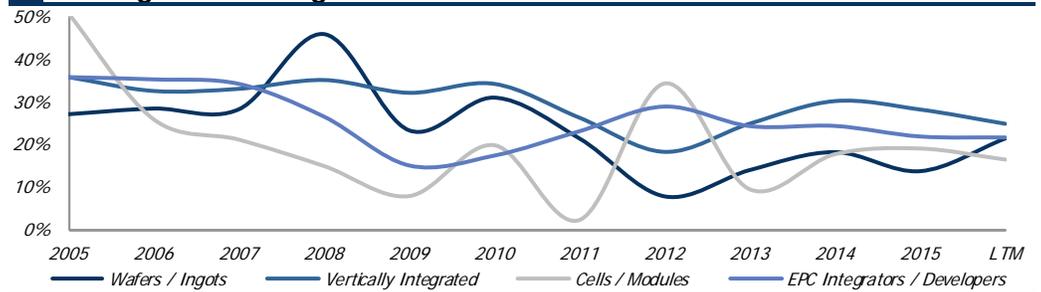
The majority of sectors within the solar energy industry are exhibiting stronger bottom line margins, as solar companies are benefitting from continued decreases in balance of system costs, industry consolidation and continued growth for solar in certain geographies. Additionally, the vertically integrated models are continuing to show benefits with consistent margin improvement.

The three graphs on the following page provide an overview of gross margin, operating income margin, and EBITDA margin performance from 2005 through today. Each graph shows the margin performance by sector within the solar energy industry.

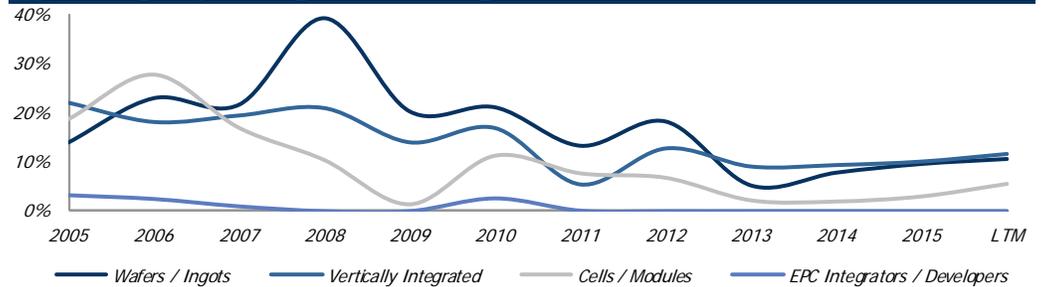
In terms of margin performance by sector, wafers/ingots companies saw improvement in gross, operating and EBITDA margins in LTM Q2 2016. Vertically integrated companies saw declining gross margins, but improvement in operating and EBITDA margins compared to a year ago. The cells/modules companies saw increasing operating margins but declining gross and EBITDA margins during the LTM Q2 2016 period.

Overall, solar companies categorized as wafer/ingot producers experienced the strongest margin performance over the last year, while each sector exhibited certain levels of improvement.

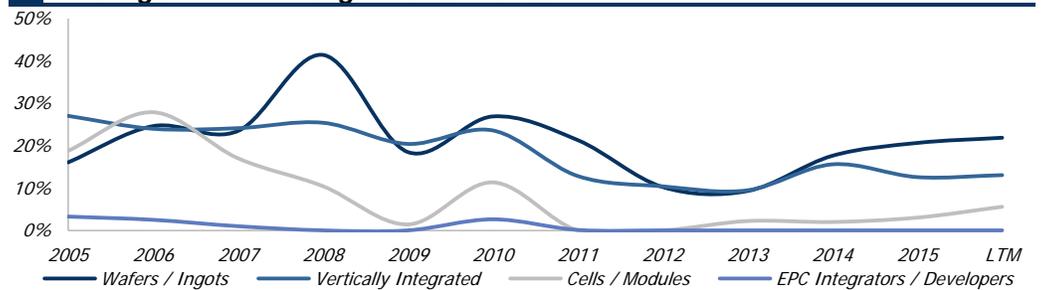
Average Gross Margin Performance



Average Operating Income Margin Performance



Average EBITDA Margin Performance



Solar Energy Margins by Sector

(LTM)	Gross Margin	Operating Margin	EBITDA Margin
GCL-Poly Energy Holdings Ltd.	26.5%	16.4%	31.4%
PV Crystalox Solar plc	-	-	-
ReneSola Ltd.	16.4%	4.9%	12.4%
Average Wafers / Ingots	21.5%	10.7%	21.9%
E-Ton Solar Tech. Co., Ltd.	-	-	3.2%
Gintech Energy Corporation	8.5%	4.5%	14.4%
Hanwha Q CELLS Co., Ltd.	19.9%	7.7%	12.0%
JA Solar Holdings Co., Ltd.	17.0%	6.7%	12.0%
Motech Industries, Inc.	10.4%	5.1%	12.6%
Neo Solar Power Corporation	6.1%	-	5.7%
Solaria Energía y Medio Ambiente, S.A.	57.9%	3.9%	34.8%
Average Cells / Modules	20.0%	5.6%	13.5%
Canadian Solar Inc.	16.1%	7.0%	10.0%
First Solar, Inc.	28.9%	19.0%	25.4%
JinkoSolar Holding Co., Ltd.	20.6%	8.8%	12.5%
Renewable Energy Corporation ASA	53.8%	-	-
SolarWorld AG	35.9%	-	2.9%
SunPower Corporation	12.5%	-	-
Trina Solar Limited	18.4%	7.2%	11.5%
Yingli Green Energy Holding Co. Ltd.	13.2%	-	-
Average Vertically Integrated	24.9%	10.5%	12.4%
Capital Stage AG	97.4%	33.7%	71.6%
Real Goods Solar, Inc.	14.1%	-	-
SolarCity Corporation	29.3%	-	-
Average EPC Integrators / Developers¹	21.7%	-	-

Note: (1) Averages exclude Capital Stage AG

Global Industry Groups

Aerospace & Defense
Automotive & Truck
Building & Infrastructure
Business Services
Chemicals
Consumer
Distribution
Electronics
Energy & Power
Financial Institutions
Food & Beverage
Healthcare
Industrials
Packaging
Technology & Media

Global Locations

Amsterdam
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