



Thursday, January 12, 2012

Solar Photovoltaics: Stocks to rock or is it a trade to fade?

Leading solar PV stocks rally 20% to 45%+ year-to-date in 2012 on positive data flow, value perception, and short covering.

Rally from the Bottom Raises Hopes as Price Elasticity makes its Presence felt

- **Stocks rally from bottom:** U.S. listed Solar PV stocks have rallied ~20% to 45%+ year-to-date after being down 70% to 80% in 2011. We believe positive data flow, value perception, and short covering triggered it.
- **Strong December Installations** pushing preliminary 2011 installations to ~23GWp was key, with Germany (~2-3GWp in December, ~7.5GWp for 2011) and Italy (~5.5GWp) leading the way.
- **Price Erosion Helped:** Most companies in their 3Q11 call indicated module pricing for 4Q11 at \$0.90 to \$1.05 range, but with December pricing at ~\$0.80 to \$0.90 volume growth meant more margin sacrifice.
- **Financing was the key:** Going into 4Q11, industry concern was adequate availability of financing despite healthy project returns following sharp module ASP erosion. We believe the November 30 decision by global central banks to inject liquidity via currency swaps, and also China's decision to lower reserve requirements amidst on-going European financial crisis played its part in boosting December installation growth.
- **4Q11 Results:** Expect some surprises both positive and negative depending on ASP and volume dynamic; expect more asset/inventory write-offs as well. Lowest cost players would have positioned themselves better for 2012 with a rapid burn inventory off - hopeful about First Solar, Trina Solar and Yingli Green on that front.

Inventories Bloat versus Capacity Optimization

- **Inventories:** We are NOT of the view that solar PV module inventories are lean by any means even accounting for higher installations and underutilization of capacity in 4Q11. This dynamic will play out further into 2012.
- **~7.0GWp of module inventory versus ~4.5GWp desired levels:** We reckon based on ~23GWp installations in 2011 and our preliminary expectations of ~26GWp to ~27GWp installations for 2012 desired inventory level is ~4.5GWp, but our rough estimates indicate that inventories are at ~7.0GWp. The excess inventory will likely be worked off by 3Q12 via inventory liquidation as well as underutilization of capacity, and capacity fall-off.

2012 seems Hopeful on Installations but cost Elasticity/Earnings won't be seen until 4Q

- **2012 installation at ~26Gp to 27GWp:** Our preliminary estimate for 2012 is ~26GWp to ~27GWp tracking ~15% growth against a backdrop of continued pressure on module pricing, but a lot is predicated on stable financing environment, China policy/installations, traction on shift away from Europe into newer geographies.
- **Subsidies:** Despite solar PV subsidies being cut sharply, installations are surging and the feedback loop is leading to more cuts in 2012 (Germany 15% in January, ~15% more in July, U.K 50% cut, others to follow).
- **Financing will still be a major issue in 2012:** While recent sovereign debt financings are relatively stable, we do not expect it to last as fundamental issues relating to European liquidity/solvency have yet to be addressed.
- **ASP versus Cost:** Module ASPs will match policy/financing so project returns stay healthy for installations to grow in 2012 irrespective of cost catching up. Polysilicon price stability at ~\$25-\$30/Kg may not hold.
- **China dynamic is key for 2012:** If Chinese downstream solar installations are encouraged by policy (in addition to current pace) it will be a major boost for the industry. On the other hand, if the supply side for local solar PV companies continues unabated, other countries (U.S., others) could impose tariffs or have local content requirements - a drag on the industry will continue with negative implications for the stocks despite eventual adjustment to the altered dynamic without the benefit of a market mechanism for price discovery.
- **2012 earnings:** Given these dynamics, we DO NOT expect most companies to have earnings until 4Q12.
- **Are solar PV stocks appealing?** Solar PV stocks have value appeal now but need operational readjustment, and accordingly we expect stocks to display manic behavior in 2012 but with a constructive bent.
- **Stock ratings:** Maintain sector upgrade from 11/30/11 for now but will reassess in the coming weeks. Maintain Buy on FSLR, SPWR, WFR, TSL, YGE; Hold on STP. Expect ~1/3rd of stock gains to fade away near-term.

IMPORTANT DISCLOSURES

Important Disclosure Footnotes for Companies Mentioned in this Report that Are Covered by AURIGA USA, LLC:

Companies Mentioned in this Report that Are Not Covered by AURIGA USA, LLC:

Stock Prices as of January 12, 2012:

Price Target and Rating History (See Rating Definitions for Explanation)

Auriga USA, LLC disclosure price charts are updated within the first fifteen days of each new calendar quarter per FINRA regulations. Price charts for companies initiated upon in the current quarter, and rating and target price changes occurring in the current quarter, will not be displayed until the following quarter. Additional information on recommended securities is available on request.

Contact Auriga for the charts containing rating and price target information of covered companies.

Rating Distributions

Auriga USA, LLC rating distribution by percentage (as of December 31, 2011):

All companies under coverage: All companies under coverage to which it has provided investment banking services in the previous 12 months:

| | | | |
|------|-----|------|----|
| Buy | 69% | Buy | 0% |
| Hold | 29% | Hold | 0% |
| Sell | 2% | Sell | 0% |

Explanation of Ratings

Buy: Expected to produce a total return of 15% or better in the next 12 months.

Hold: Fairly valued; total return in the next 12 months expected to be \pm 15%.

Sell: Stock is expected to decline by 15% or more in the next 12 months.

Auriga USA, LLC Equity Research Disclosures as of January 12, 2012

| Company | Disclosure |
|--------------------------------------|------------|
| First Solar, Inc. | |
| MEMC Electronic Materials, Inc. | |
| SunPower Corp. | |
| Suntech Power Holdings Co. Ltd. | |
| Trina Solar Ltd. | |
| Yingli Green Energy Holding Co. Ltd. | |

Auriga USA, LLC Equity Research Disclosure Legend

1. Auriga USA, LLC makes a market in the securities of the subject company.
2. The analyst serves as an officer, director, or advisory board member of the subject company.
3. The analyst or a member of the analyst's household has a financial interest in the securities of the subject company (this interest may include, without limitation, whether it consists of any option, right, warrant, future, long or short position).
4. Auriga USA, LLC or an affiliate of Auriga USA, LLC has managed or co-managed a public offering of securities for the subject company in the last 12 months.
5. Auriga USA, LLC or an affiliate of Auriga USA, LLC has received compensation for investment banking services from the subject company in the last 12 months.
6. Auriga USA, LLC expects to receive or intends to seek compensation for investment banking services from the subject company in the next three months.
7. Auriga USA, LLC or its affiliates beneficially own 1% or more of the common stock of the subject company as calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934.
8. The subject company is, or during the past 12 months was, a client of Auriga USA, LLC, which provided non-investment banking, securities-related services to, and received compensation from, the subject company for such services. The analyst or employees of Auriga USA, LLC with the ability to influence the substance of this report knows the foregoing facts.
9. An affiliate of Auriga USA, LLC received compensation from the subject company for products or services other than investment banking services during the past 12 months. The analyst or employees of Auriga USA, LLC with the ability to influence the substance of this report know or have reason to know the foregoing facts.

Analyst Certification

I, Hari Chandra Polavarapu, was principally responsible for the preparation of this research report, and I hereby certify that the recommendations and opinions expressed in this publication accurately reflect my personal views about the company and securities that are mentioned in this report and that I have not received and will not receive direct or indirect compensation in exchange for the specific recommendations or views expressed in this report.

Disclaimers

This report has been prepared by AURIGA USA, LLC in New York. It may not be reproduced, redistributed or copied in whole or in part for any purpose.

This report is published for informational purposes and does not constitute an offer or solicitation to buy or sell any securities, products or services or participate in any trading strategy referred to herein. Investors should consider this report as only a single factor in making any investment decisions. This report does not provide individually tailored investment advice. The information and opinions provided in this report take no account of the individual client risk and return requirements. The securities discussed in this report may not be suitable for all investors. AURIGA USA, LLC accepts no liability for any direct or consequential loss or damage arising from the use of all or part of this publication. The information in this report has been obtained from sources that AURIGA USA, LLC believes to be reliable and accurate. However, no representation or warranty, express or implied, is made as to the accuracy or completeness of any information obtained from third parties. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. The information or opinions are provided as of the date of this report and are subject to change without notice.

AURIGA USA, LLC is fully disclosed with its clearing firm, Pershing LLC, is not a market maker and does not sell to or buy from customers on a principle basis.

We, our affiliates, any officer, director or stockholder or any other member of their family may from time to time purchase or sell any of the above mentioned or related securities. The Analyst(s) principally responsible for the preparation of this research report are prohibited from buying or selling securities issued by the companies that the Analyst(s) has a research relationship with, except if ownership of such securities was prior to the start of such relationship, then the Analyst(s) may sell such securities after obtaining express written permission from the Director of Research or the Chief Compliance Officer.

Additional information on recommended securities is available on request

AURIGA USA LLC.

546 Fifth Avenue, 9th Floor, New York, NY 10036

Toll free: +1-877-8-AURIGA (+1-877-828-7442) email: research.disclosures@aurigausa.com

Member SIPC and FINRA

© 2012 AURIGA USA. All rights reserved.