

## Alternative Energy Industry Brief

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# EQUITY RESEARCH

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### Think-Tank Calls for a 30% Cut in Germany's Solar Feed-In Tariff, but Odds Minimal – Buy on the Weakness

- ◆ An article published today in the *Handelsblatt*, a German business newspaper, reported a proposal made by the Rheinisch-Westfaelisches Institut (RWI) calling for a 30% cut to the German solar feed-in tariff because of rising costs associated with the policy (costs that are borne by German utilities and ultimately consumers, not the government itself). RWI, a leading German economic think-tank, is one of the advisors to the German government on the issue of renewable energy subsidies, so this news is clearly weighing on solar shares today. However, we would dismiss the suggestion of a 30% cut out of hand, for the following reasons. First, political support for renewable energy in Germany is arguably the highest in Europe, and both major parties – SPD and CDU, not to mention the influential Greens – are on the record as supporting wider adoption of solar power. Second, like all European Union members, Germany must significantly increase its renewable energy market share – from 5.8% in 2005 to 18% by 2020. Third, as of 2007 there were 38,600 German jobs that depend specifically on the solar industry, up from 25,100 in 2004, according to German government data. **Bottom line: We think that a cut of anywhere near 30% is virtually inconceivable politically.**
- ◆ By way of background, the German feed-in tariff structure is the world's oldest (dating back to 2000) and probably the most complex, with various levels for different types of PV installations (for example, residential vs. utility) and system sizes. The overarching premise, however, is that the tariff rates decline over time, reflecting the gradual improvements in solar economics relative to conventional generation. Under the current law, the annual deflators are 5.0% to 6.5% (depending on system type). Under the most recent proposal, approved by the German cabinet last December following months of fine-tuning and anticipated to be enacted into law this summer, average deflators would be 9.5% in 2009, 7% in 2010, and 8% in 2011 and thereafter.
- ◆ Because Germany is currently roughly 50% of the global PV market, the German feed-in tariff reductions can be thought of as leading price indicators. In other words, given the proposed 9.5% reduction in 2009, a safe "base case" assumption is that module average selling prices (ASPs) will, on average, also decrease 9.5% in 2009. In actuality, however, ASPs are likely to diminish less than that, because PV demand is increasingly being driven not by Germany (or Japan) but by second-tier markets – the U.S., Spain, Italy, and Australia. Growth is also starting to come from markets in the earliest phases of PV development – for example, Greece, Portugal, and South Korea. What this means is that German PV demand is not likely to be as dominant a market driver in 2009 and on as it was in 2006 or 2007.
- ◆ In addition to the diminishing importance of Germany within the PV market, there are two other reasons why we do not view Germany's slightly accelerated tariff cuts as a major negative for the PV industry. First, while the tariffs are decreasing, they will remain very generous in absolute terms – ranging from €0.32 to €0.42 (\$0.49 to \$0.65) in 2009, roughly double the price of conventional power in Germany (and three times the average U.S. price). Second, investing in PV capacity is a long-term proposition, and clarity regarding the future policy framework is of high importance for the market. Insofar as the latest iteration of the German feed-in tariff now appears basically finalized (unless the Bundestag materially changes it during the enactment process, which is not likely), the improvement in visibility is positive. To restate the point we made at the beginning: Notwithstanding the views of one German think-tank,

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slashing the tariff by 30% is an exceedingly unlikely proposition, in our view. On the other hand, modest tariff deflators are normal, and indeed healthy, for continued market development.

- ◆ Clearly there is a need to balance the fiscal impact of policy support for solar and other renewables with broader economic considerations, and there is no question that feed-in tariffs and other means of direct support will, and should, decrease gradually as grid parity comes closer to fruition. That said, we would encourage investors to look past this latest datapoint from Germany, as the political landscape for the solar industry overall has, in many ways, never been better. As the strong global demand growth trend continues, we believe that PV manufacturers, such as Ascent Solar, Evergreen Solar, JA Solar Holdings, SunPower Corp., Suntech Power Holdings, and Trina Solar stand to gain.

Public companies mentioned in this report.

| Company Name                     | Ticker | Priced as<br>of<br>05/02/08 | RJ&A Rating<br>(if Applicable) |
|----------------------------------|--------|-----------------------------|--------------------------------|
| Ascent Solar Technologies, Inc.  | ASTI   | \$15.14                     | Outperform                     |
| Evergreen Solar, Inc.            | ESLR   | \$8.43                      | Outperform                     |
| JA Solar Holdings Co., Ltd.      | JASO   | \$21.93                     | Strong Buy                     |
| SunPower Corp.                   | SPWR   | \$82.10                     | Strong Buy                     |
| Suntech Power Holdings Co., Ltd. | STP    | \$43.30                     | Outperform                     |
| Trina Solar Limited              | TSL    | \$41.19                     | Strong Buy                     |

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##### **Conventional Energy Price Risk**

Alternative energy competes with conventional energy sources, the most important of which are crude oil, natural gas, and coal. Declines in the price of conventional energy can make alternative energy less competitive, and in some cases make it economically unviable. Consumers are less likely to view alternative energy as a practical option if conventional energy is relatively more attractive from an economic standpoint.

##### **Commerciality and Technology Risk**

Not all types of alternative energy are currently commercial, and some may never reach full commercial viability. There is no guarantee that future technological developments will be favorable to alternative energy, and in fact, some developments could render some types of alternative energy obsolete or unattractive.

##### **Public Policy Risk**

Many types of alternative energy currently benefit from favorable government policies, including tax incentives for producers and/or consumers, direct and indirect subsidies, and mandatory use requirements. These policies are subject to change and may become less favorable in the future.

##### **Regulatory Risk**

Like all subsectors of energy, alternative energy is subject to many government regulations at various levels, including environmental and land use regulations. These rules can reduce the profitability of alternative energy and could potentially result in delay or loss of commerciality.

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