

**Energy**

**December 21, 2010**

Earnings Update

**Pavel Molchanov**, (713) 278-5270, Pavel.Molchanov@RaymondJames.com  
**Cory Garcia**, Sr. Res. Assoc., (713) 278-5240, Cory.Garcia@RaymondJames.com  
**Alex Morris**, Res. Assoc., (713) 278-5235, Alex.Morris@RaymondJames.com  
**Stacey Hudson**, Res. Assoc., (713) 278-5258, Stacey.Hudson@RaymondJames.com

**Alternative Energy: Proactive Earnings Change**

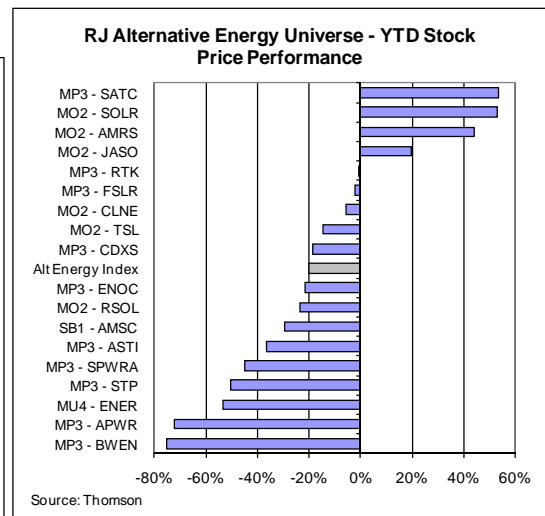
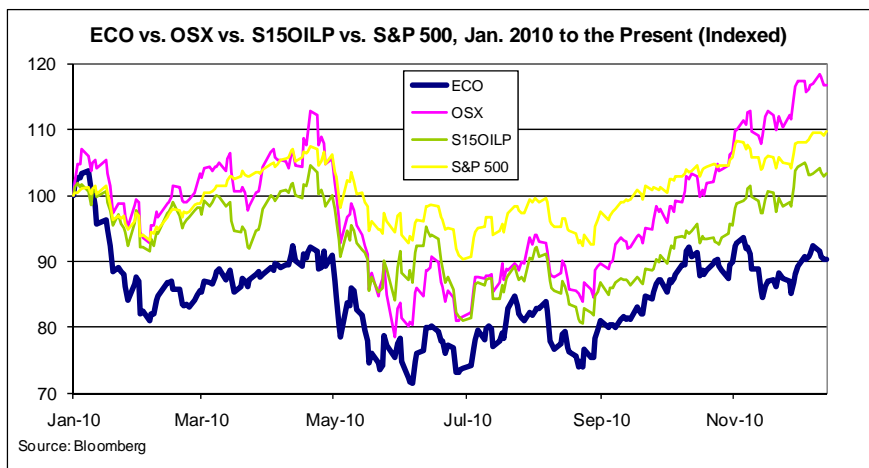
**Alt Energy 4Q10 Earnings Update; Previewing 2011, Initiating 2012 Estimates**

In this earnings update, we are adjusting 4Q10 and 2011 estimates for our alternative energy coverage universe, and concurrently we are initiating 2012 estimates (while readily acknowledging that visibility that far ahead is practically nonexistent in this sector). After a rather schizophrenic ride for these stocks in 2010, we review the past year and look ahead to 2011. Lastly, we take this opportunity to summarize our current thesis on each of the 18 stocks we cover. Reflecting our highly selective stance on the sector, we are currently recommending just over a third of our coverage list: 7 out of 18.

**A year in review: The ECO Index underperformed, but it was a stock picker’s market. What’s on deck for 2011?**

Year-to-date, the WilderHill Clean Energy Index (ECO) – the main benchmark index for alt energy – turned in a disappointing performance, declining by 7%. The ECO underperformed the S&P 500 (up 12%) as well as its oil and gas counterparts, as shown below. For some perspective, the ECO beat the S&P in 2009 though still came in below conventional energy. Why the underperformance in 2010? There are many distinct drivers, but if we had to identify the single biggest factor, it would be wide-ranging multiple compression, with solar stocks the most affected. The median 2011 P/E in our coverage universe declined from 22.6x at the start of the year to 11.3x currently – a 50% haircut!

Other factors were at work as well. In the solar space, frequent weakness in the euro (within the context of a global PV market that’s ~80% Europe-driven) clearly contributed to the volatility, notably in April/May and November. Also, despite a much better-than-expected 2010 from the standpoint of industry profitability, concerns about overcapacity in 2011 have been weighing on stocks. Wind stocks have been affected by the collapse in U.S. wind installations (thanks, \$4/Mcf gas!) and periodic concerns about changes in Chinese wind policy. Biofuels have faced mixed newsflow, with surging feedstock prices eating into margins but the EPA finally allowing higher levels of ethanol blending. A rather straightforward observation is that the recent jump in crude oil prices carries minimal read-through for most of alt energy, since fuel companies comprise only a small fraction of the overall sector, and so much of ECO’s underperformance came during 4Q10.



Please read domestic and foreign disclosure/risk information beginning on page 21 and Analyst Certification on page 21.

The past year has offered a true stock picker's market in alt energy stocks. Zeroing in on the solar space, such winners as Power-One (up 149%), Renesola (up 74%) and GT Solar (up 53%) massively outperformed, though of course on the flip side their performance was more than offset by the likes of Suntech, Energy Conversion and Evergreen (all down more than 50%). Some of the biggest winners were companies in the more exotic areas of alt energy, such as Active Power in flywheels (up 152%) and Amyris in next-generation biofuels (up 40% since its September IPO).

Our sense is that 2011 will be more of the same – that is to say, there will continue to be a vast divergence between the relative winners and losers. The key point we would underscore is that alt energy simply does not lend itself to making broad calls – say, long solar / short wind, or even long Chinese solar / short U.S. solar. Within each subsector – even the narrow “niche” ones, with a handful of public players – we still have to focus on each individual company's positioning (product mix, margin structure, industry partners, geographic footprint, etc.) With this in mind, the next four pages provide our stock-specific thoughts, including observations on how each stock performed in 2010 relative to our expectations.

## Review of Our Current Thesis on Alternative Energy Stocks

**American Superconductor (AMSC/Strong Buy).** This has been our only stock with a Strong Buy rating throughout all of 2010, and we readily acknowledge that it hasn't worked. Essentially, it's been a story of sentiment-driven multiple compression, despite the fact that the company been a model of consistency, just notching its 15<sup>th</sup> consecutive quarter of sequential revenue growth. The stock entered the year with a FY11 EPS multiple of 32x and is currently at (drumroll, please)... 17x. Ouch. Even with a 21% increase in our FY11 EPS estimate year-to-date, the shares have undoubtedly been disappointing. American Superconductor's leverage to the high-growth Chinese wind market remains a central aspect of the story. A few weeks ago, the Chinese government raised its 2020 wind capacity forecast to 180 GW (from ~40 GW currently), a six-fold increase over the forecast just two years ago. The company's #1 customer, Sinovel Wind, aims to control 40% of the Chinese market in the next 3-5 years, and combined with the other four Chinese licensees, American Superconductor's electrical components could eventually be in 50% of China's wind turbines. All that being said, the company's revenue concentration – Sinovel currently drives more than two-thirds of revenue – has been a source of controversy, as seen most recently in the negative article in *Barron's* earlier this month. Within the context of market concerns about China's commitment to sustained wind market development – concerns that, for the record, we do not believe are warranted – this has certainly contributed to the multiple compression. It's worth pointing out that American Superconductor has plenty of opportunities outside China, including but not limited to wind. For example, the superconductor segment is finally beginning to take off, pocketing the world's largest-ever superconductor contract earlier this year. For now, the wind segment's exposure to China is driving profitability, but we believe that the shares are pricing in essentially nothing for the superconductor segment.

**Amyris, Inc. (AMRS/Outperform).** Amyris went public in late September, making it one of the very few publicly traded companies in the next-generation biofuel arena. We initiated coverage of this early-stage story on October 8. Since that time, the shares have gained significantly within the context of a robust rally in oil prices and oil/fuel stocks. While the risk/reward profile in the shares does not look quite as appealing as it had been two months ago, we believe there is upside left. We believe that the relatively high degree of visibility for Amyris' route to commercialization, as well as its multi-faceted partnership approach (partners include Total and Procter & Gamble), provide positive differentiation. For the next two years, the company's main focus will be on selling farnesene into the specialty chemicals market, with contract manufacturing of farnesene set to begin in 2Q11. This month, the company breaks ground on its first plant, a 50/50 joint venture with Brazilian sugar producer Usina São Martinho, which is expected to start up in 2Q12. Although Amyris is not expected to enter the biofuel arena until 2013, it is already laying the groundwork by pursuing regulatory approval in key end markets.

**A-Power Energy Generation (APWR/Market Perform).** Let's be blunt: this was our worst call of 2010. A-Power is partly a play on wind in China, similar in that respect to American Superconductor, but execution-wise the two companies couldn't be more different. A-Power has consistently under-delivered over the past 12 months, and by the time we downgraded the shares on November 15 they had already plummeted 61% year-to-date (admittedly, after hefty gains in 4Q09). The vast majority of A-Power's current revenue stems from the distributed generation (DG) arena, which has recently seen a sales drop-off, hence the massive guidance cut when 3Q10 results were reported on December 1. However, the wind segment has been the biggest disappointment of the year, with almost no turbine revenue recognized year-to-date, and financing question marks continuing to delay the 600 MW wind project in West Texas – more than a year after the original project announcement. There is slim visibility on when (if ever) that project begins construction, and our assumption that turbine sales pick up in 2010 is based solely on the Chinese market. Lastly, we would highlight the factor that prompted our recent downgrade: A loss of confidence in management. The slow and confusing way in which the company reported the renegotiation of its joint venture with General Electric is just one example of management's minimal transparency in communicating with the Street. Although there are certainly some positive fundamental drivers in the story – leverage to the long-term growth potential of the wind industry and China's need for DG to address the problem of an overworked grid – we remain on the sidelines until visibility materially improves.

**Ascent Solar Technologies (ASTI/Market Perform).** Ascent is a development-stage company with de minimis revenue historically, and our Market Perform rating throughout 2010 reflected the slow but steady progress along the commercialization roadmap. After a slower-than-expected start to commercial sales, 4Q10 / 1Q11 should mark the company's "graduation" to volume production. In 2011, we're expecting sales to hit 15 MW, mostly in specialty applications (portable electronics, military, etc) with modest volumes but commensurately premium ASPs. Arguably Ascent's #1 milestone in 2010 came in October, when it became the first manufacturer of flexible CIGS modules to achieve the IEC certification, a key "stamp of approval" in the space. Ascent has also signed a wave of new industry partnerships that should gradually work their way to sales contracts in 2011 and 2012. Having priced a \$20 million equity raise in November, the company has the cash it needs to complete its Fab 2 plant (30 MW), but another capital raise will be necessary for further expansion.

**Broadwind Energy (BWEN/Market Perform).** As the only North American wind pure-play in our coverage universe, Broadwind's 2010 results have been dominated by the painful reality of the U.S. wind market. After yet another disappointing quarter and guidance reduction, we downgraded the shares in August. The American Wind Energy Association is projecting 2010 installations of just ~5,000 MW, down 50% y/y and roughly on par with 2007 levels. Although the industry's development backlog has been on the rebound, which offers glimmers of hope for 2011, the main challenges remain (1) structurally depressed natural gas prices, which hinders the relative economics of wind; (2) no realistic prospect of federal RPS legislation anytime soon; and (3) continued difficulties in project financing, notwithstanding the one-year extension of the Treasury grant program in the compromise tax package passed by Congress last week. While Broadwind boasts a broad base of customer relationships and the advantages of vertical integration, the unusually low visibility on a recovery of U.S. wind installations muddles the timeline for a meaningful rebound in the company's financial metrics.

**Clean Energy Fuels (CLNE/Outperform).** After a stellar 1Q10, CLNE shares melted down along with oil prices in early summer and failed to participate in oil's recent rally. While the stock's YTD performance has been broadly in line with the ECO Index, it clearly hasn't met our expectations. A major source of pressure on the shares was the protracted political overhang from Washington. Recall, the volumetric excise tax credit (VETC) – a meaningful contributor to the company's margins – expired at year-end 2009. At the start of the year, it looked set for a quick extension, but it was not to be. It was only last week, as part of the congressional tax compromise, that the VETC got a new lease on life. (If in place, the VETC would have added ~\$12 million to Clean Energy's bottom line in the first three quarters of the year.) The so-called NatGas Act – legislation to upsize federal incentives that encourage conversion of conventional vehicles to natural gas – has also been stalled in Congress, a function not of any specific opposition but rather the general partisan gridlock. While waiting on Washington, Clean Energy has been busy enhancing its vertically integrated, turnkey NGV fueling platform, announcing two upstream acquisitions (bringing fuel station hardware and technology in-house) in the past six months. These acquisitions should prove beneficial as Clean Energy makes progress on its fuel station backlog, which stood at 250 locations as of 3Q10. Given the prospect of (eventually) greater federal policy backing and the extremely favorable economics from a commodity price standpoint – the oil/gas price ratio is set to remain ultra-wind for a long time – we remain positive on the outlook for sustained expansion of CNG/LNG within the U.S. fuel market. As far and away the largest producer of natural gas fuels in the U.S., Clean Energy is a clear beneficiary of this secular growth trend.

**Codexis, Inc. (CDXS/Market Perform).** Similar to Amyris, Codexis is a fairly recent (April) IPO in the next-generation biofuels space, and we initiated coverage in June. We would attribute the stock's weak post-IPO performance – especially when contrasted with the solid gains of Amyris – to two factors. First, Codexis' strategic biofuels partnership with Shell limits its freedom of action; Codexis must work exclusively with Shell on biofuels R&D, whereas Shell can work with multiple partners, and in fact has no less than five. By contrast, Amyris has a more diversified set of non-exclusive industry partners. Second, because Codexis is purely a provider of biocatalysts, its commercialization roadmap is heavily dependent on Shell, which, like all supermajors, tends to move slowly, especially with regard to new technology. That said, Codexis has a strong management team and technology platform, and it has been taking some steps to reduce its dependence on Shell. Most recently, the company partnered with French industrial conglomerate Alstom to develop carbon capture technology, with Alstom providing the funding. These plans to diversify Codexis' business carry positive long-term potential, but they are still largely conceptual at this time.

**Energy Conversion Devices (ENER/Underperform).** We have not recommended ENER shares since early 2009, and on October 19 of this year we downgraded them yet again to Underperform. This has been one of the worst-performing stocks in the solar space over the past 12 months, and we see minimal reason for hope in 2011. While Energy Conversion has opportunities in the niche building-integrated PV market and a restructuring plan aimed at bringing down consistently high operating costs, low-efficiency a-Si modules are struggling to remain competitive amid falling prices for other thin film products (CIGS, CdTe) as well as crystalline silicon. This point was amply confirmed in our channel checks at the Solar Power International conference in October, prompting our downgrade. The economics of a-Si look increasingly problematic, and it does not appear to be a viable PV technology over the long run. The shares may appear inexpensive as they are well below book value, but this reflects the cash burn for the foreseeable future.

**EnerNOC, Inc. (ENOC/Market Perform).** Until our downgrade on November 9, we had a constructive stance on EnerNOC as it continued to make impressive progress in growing megawatts under management – up over 40% year-to-date. The shares modestly outperformed the ECO Index during that time, though multiple compression resulted in flattish performance in absolute terms. We continue to expect meaningful top-line growth, given that EnerNOC's current market penetration is less than 1%, and 10% is an entirely realistic long-term goal. Spurring our downgrade were concerns about heightened competitive pressures in the DR market. This point was punctuated by the gross margin shortfall in the 3Q10 results, which served as the catalyst for our downgrade and subsequent sell-off in the shares. Our channel checks continued to indicate that DR intermediaries across the board are facing mounting pressure from traditional electrical equipment providers, IT companies and energy auction providers. While EnerNOC is making a concerted effort to diversify into non-DR opportunities (especially energy efficiency), DR will remain the vast majority of the company's revenue mix for the foreseeable future. We are projecting gross margin degradation of 200 bps in 2011 and another 150 bps in 2012. Pending greater visibility on the evolution of DR margins and/or expansion of non-DR revenue generation, we are staying on the sidelines.

**First Solar (FSLR/Market Perform).** First Solar ticked off most boxes on investor wish lists in 2010: earnings beats, industry-leading production costs, well-executed hedges mitigating dollar/euro volatility, and improving visibility on growth in its systems segment. We downgraded the shares on October 19, soon after Solar Power International. Although First Solar currently enjoys a virtual monopoly position in the global thin film market, it is important to point out the rapidly growing profile of CIGS thin film producers, as was very much on display at the conference. Virtually all are private (mainly venture-backed), and none have First Solar's scale as of yet, but when it comes to conversion efficiency some are giving First Solar a run for its money (targeting as much as 13% conversion efficiency within a year). Similarly, First Solar's dominance in CdTe won't last forever either, as at least one high-profile private competitor, Abound Solar, is aggressively scaling up production, supported by \$400 million in federal loan guarantees and its most recent equity raise (announced just last week) of \$110 million. Balancing First Solar's strong overall fundamentals with a tougher competitive landscape and a choppy quarterly margin profile, the current valuation (15x 2011E EPS – a premium to nearly all solar peers) seems like fair value.

**GT Solar International (SOLR/Outperform).** With a YTD gain of 53% (despite a compressing multiple), GT Solar sits just behind Satcon as the top performer out of the 10 solar stocks we cover, and many investors continue to ask us why we retain a positive stance on the shares, especially against the backdrop of a plateauing Asian PV capacity expansion cycle. Here are the reasons for our bullish stance. First, GT Solar's \$1.2 billion backlog (as of September), secured by non-refundable prepayments, continues to equate to nearly two years of revenue at the recent run-rate (first half of FY11). Keep in mind, we're conservatively assuming almost no revenue growth in FY12. Second, we continue to view GT Solar as one of the most defensive ways to gain exposure to the solar space. It boasts what we believe is the best balance sheet in the space (zero debt and a sizable cash balance even after recent share buybacks) and what we estimate is FY12 free cash flow of \$168 million – a roughly 15% FCF yield, almost unheard of in the space. Finally, we believe the shares aren't giving credit to the company's new sapphire business segment, which provides a hedge to the core solar business. In-house merchant sapphire production is already sold-out through FY11, with FY12 demand exceeding planned capacity, and the company announced its first large-scale orders earlier this month.

**JA Solar Holdings (JASO/Outperform).** No stock we cover better exemplifies the multiple compression trend than JA Solar. Using our overly conservative estimates, it began the year at a 2011 P/E of 27.2x (12.8x based on consensus). The current multiple is 5.0x (4.8x based on consensus) – yes, you read that right. The only conclusion we can draw is that the Street apparently believes 2011 estimates to be overstated by a factor of 2:1, if not more. Notwithstanding this astounding multiple compression, JASO shares have still been among the better performers in the solar space, and our outlook for 2011 is positive. Within the context of a looser PV supply/demand environment in which ASPs resume their slide, manufacturers that combine a low cost structure and above-average bankability – such as JA Solar – should do quite well. Having solidified its position as the world's largest cell manufacturer, JA Solar is actively pursuing its vertical integration roadmap, expanding both upstream (ingots/wafers) and downstream (modules). The one negative we see is the likelihood of a lower y/y gross margin structure (relative to the upside surprises of 2010), but if JA Solar remains anywhere near as successful in taking market share as it has been in 2010, EPS growth could well be achievable.

**Real Goods Solar (RSOL/Outperform).** This micro-cap was a disappointing stock in 2010, despite positive earnings momentum – yet another instance of multiple compression. As one of the very few publicly traded PV installers/integrators, Real Goods is a beneficiary of falling module ASPs, since it can pass on the reduced costs directly to its customers. While mixed consumer confidence, a tough California real estate market and tight credit have undoubtedly presented challenges, the company has now been profitable for five straight quarters, with record revenue in 3Q10. Real Goods has also made headway in entering the larger-scale commercial project arena, as shown by its contracts with the Fremont Union High School District and Northrop Grumman. With gross margins set to settle in the mid-20% range and a sizable "war chest" to evaluate future acquisition opportunities, we remain positive on Real Goods due to its: (1) strong brand name and marketing expertise; (2) synergistic relationship with its parent company, Gaiam; (3) M&A opportunities in current markets (California and Colorado) as well as geographic diversification potential; and (4) direct leverage to the secular trend of greater residential and small commercial PV adoption.



**Rentech, Inc. (RTK/Market Perform).** Rentech continues to be a development-stage business with limited visibility on its commercialization of synthetic fuels. Although it has secured offtake agreements with several airlines, Rentech remains years away from commercially producing synfuels – the end of calendar 2012 at the earliest, based on the anticipated timeline for its biomass-to-liquids project in Rialto, California. In the meantime, Rentech’s fertilizer business continues to fund current corporate costs, and management expects EBITDA from the fertilizer plant to nearly double in FY11 on strength in margins. This improvement in profitability, combined with the \$52 million incremental loan announced last month, should provide the necessary funding for Rentech’s near-term capital spending. Rentech plans to complete front-end engineering and design work for the Rialto project in the spring of 2011, with construction expected to begin in the summer. Rentech is a candidate to receive a DOE loan guarantee for the Rialto project, but visibility is limited as the application process is highly competitive and painfully slow. Meanwhile, scaled-down plans for the Natchez project remain largely up in the air, with the company still evaluating feedstock options. Balancing the lack of visibility with the long-term potential of the Rentech Process, our neutral rating reflects the risk/reward profile of the shares.

**Satcon Technology (SATC/Market Perform).** We missed the boat on Satcon in 2010, with its 54% year-to-date gain making it the top performer among the 10 solar stocks we cover. Quite simply, we underestimated the pace at which Satcon would grab market share in the utility-scale inverter market, particularly in China, resulting in the emergence of profitability much faster than we had expected. Satcon has traditionally dominated the North American market but has made very impressive headway in broadening its geographic sales mix. Half of the company’s record \$133 million backlog now comes from overseas, with a third from Asia. Thanks to its successful partnership with GCL Solar, a leading Chinese PV developer, Satcon has 30% market share in of China. For 2011, management is targeting 20% share of the global 250+ KW inverter market, an achievable if ambitious target. Margins also continue to improve as the company shifts its manufacturing base to China, up 600 bps sequentially in 3Q10 and set to go higher into next year. At 22x our 2011 EPS estimate, the valuation is clearly on the richer end of the spectrum, so the shares are pricing in the continuation of a robust growth curve. The inverter market is set to loosen in 2011, potentially leading to some competitive headwinds.

**SunPower Corp. (SPWRA/Market Perform).** Other than a four-week “tactical” upgrade during September, after the shares briefly traded down to tangible book value, we haven’t been recommending SunPower shares since late 2009. The stock’s YTD decline puts it near the bottom of the solar space. To be clear, there are some aspects of the story that we view favorably. SunPower’s vertically integrated business model, diversified sales strategy (with active footprints in residential, commercial and utility-scale projects in multiple geographies), and premium product portfolio support the company’s status as one of the better-positioned PV players. Having acquired several project pipelines in recent years, the company is finally starting to reap the benefits of its extensive Italian project portfolio, where it recently priced a “solar bond” – the first-ever offering of its kind. However, we remain concerned about SunPower’s fixed cost structure, which continues to wipe out the vast majority of gross profit, leading to razor-thin operating margins (4% in 2010, and we project a similar level in 2011). The mediocre GAAP profitability keeps us on the sidelines.

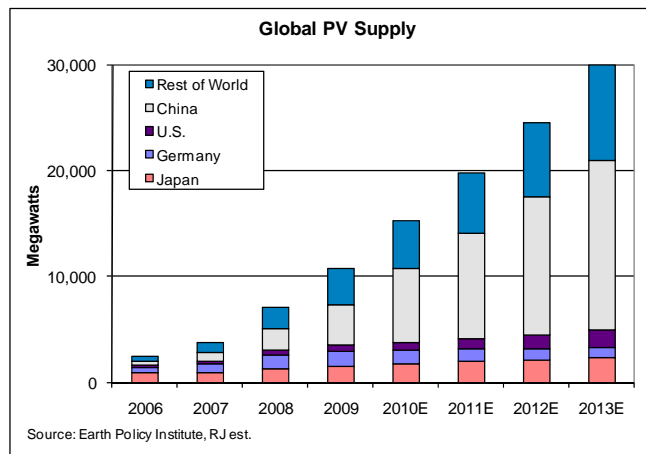
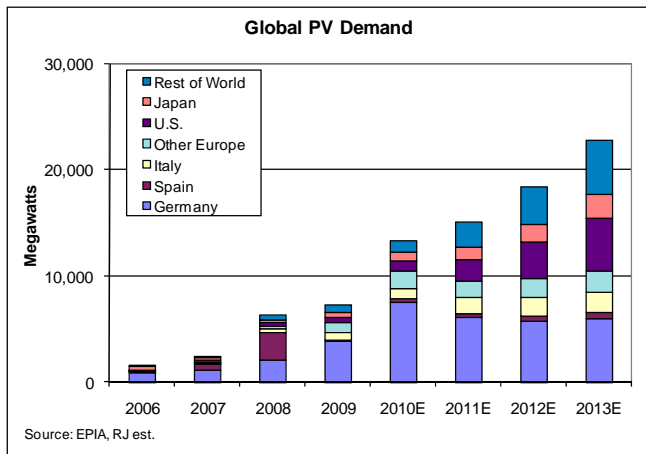
**Suntech Power Holdings (STP/Market Perform).** It has been more than two years since we turned cautious on STP shares, and the stock’s underperformance in 2010 – near the bottom of the space, just marginally ahead of Energy Conversion – has certainly justified the caution. Though multiple compression played a role, we think the main reason for the 2010 underperformance has been Suntech’s chronically mediocre margin structure. While many of its Chinese peers have been continually beating expectations, Suntech has been lagging behind, missing our gross margin estimates for the past three quarter. The balance sheet has been another concern, with Suntech carrying one of the heaviest debt loads in the space. Top line, by contrast, has clearly not been a problem: Suntech is targeting global market share of 13% in 2011 (up from 11% in 2010), with shipments of 2.2 GW up nearly 50% y/y. For 2011, Suntech is guiding 2011 GMs of 20-22%, up as much as 500 bp from the 2010 level of 17%. This is partially due to the acquisition of 375 MW of ingot/wafer capacity from Glory Silicon, which should mitigate some wafer price instability. We are encouraged by the 2011 outlook, which indicates that the worst is behind Suntech, though we would “take the under” on the 500 bps GM improvement.

**Trina Solar (TSL/Outperform).** Similar to JA Solar, Trina has been a clear-cut example of multiple compression in 2010. The difference is that the sheer magnitude of JA Solar’s estimate increases was enough to more than offset the lower multiple, but the same wasn’t quite true of Trina, which is therefore down 17% YTD (vs. JA Solar up 19%). As a company, however, Trina had an excellent 2010, and it remains well-positioned into 2011. Trina’s position as a highly bankable “tier 1” producer with one of the industry’s lowest ingot-to-module cost structures have led it become one of the most profitable Chinese PV companies. One of the key reasons for Trina’s success on the cost side is its high degree of vertical integration – its entire supply chain with the exception of raw poly (ingot/wafer/cell/module) is in-house. This integration enables the company to capture additional margin through the implementation of cost control measures at each step along the value chain, particularly in shortening the production cycle. As of 3Q10, the total production cost was just \$1.08/watt – again among the best in the space. As a result, GMs have continually topped expectations; we’re currently projecting a small decline in 2011 to 28%. While earnings risk from exchange rate volatility (76% of 3Q10 sales were into Europe) does exist, we see the current 2011 P/E of 7.1x as an attractive entry point.

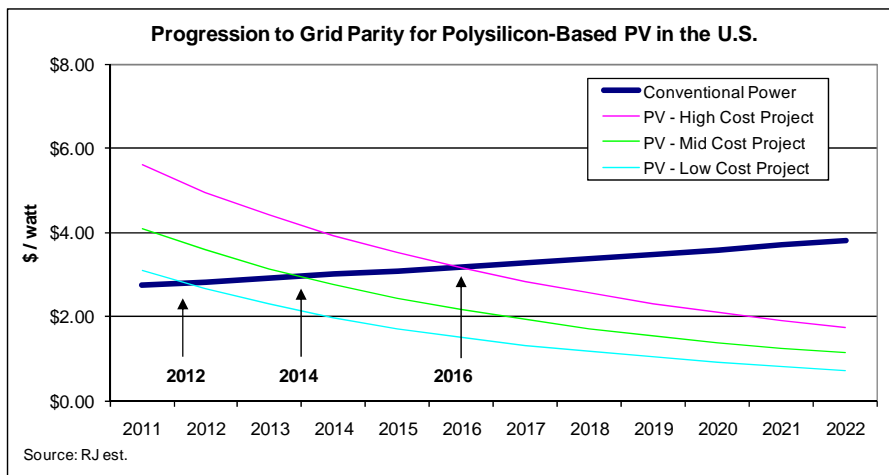
**Outlook on Solar Power**

Driven by generally rising prices for conventional power, all-in system cost reductions and public policy support, the global photovoltaic (PV) industry has historically been on a rapid growth curve. Following modest demand growth in 2009, 2010 demand has been exceptionally robust, with the uncertainty surrounding 2011 beginning to clear. While Europe (especially Germany, Spain and Italy) has historically comprised the vast majority of global demand, growth is increasingly coming from the U.S., Canada, and longer-term, China and other emerging markets. On the supply side of the equation, production capacity additions are set to continue to outpace global demand for the foreseeable future, particularly as Chinese wafer/cell/module manufacturers strive to take market share from higher-cost European competitors.

Longer-term, PV demand growth could be even greater under a higher-than-expected level of government support, particularly the setting of binding carbon limitation policies in key markets. Meanwhile, renewable energy targets are steadily materializing. Notably, the European Union has an ambitious target of, on average, 20% renewable energy within the EU’s energy mix by 2020. Over 25 U.S. states have enacted similar policies, Renewable Portfolio Standards (RPSs), and some of these states have “carve-out” mandates specifically for solar power.



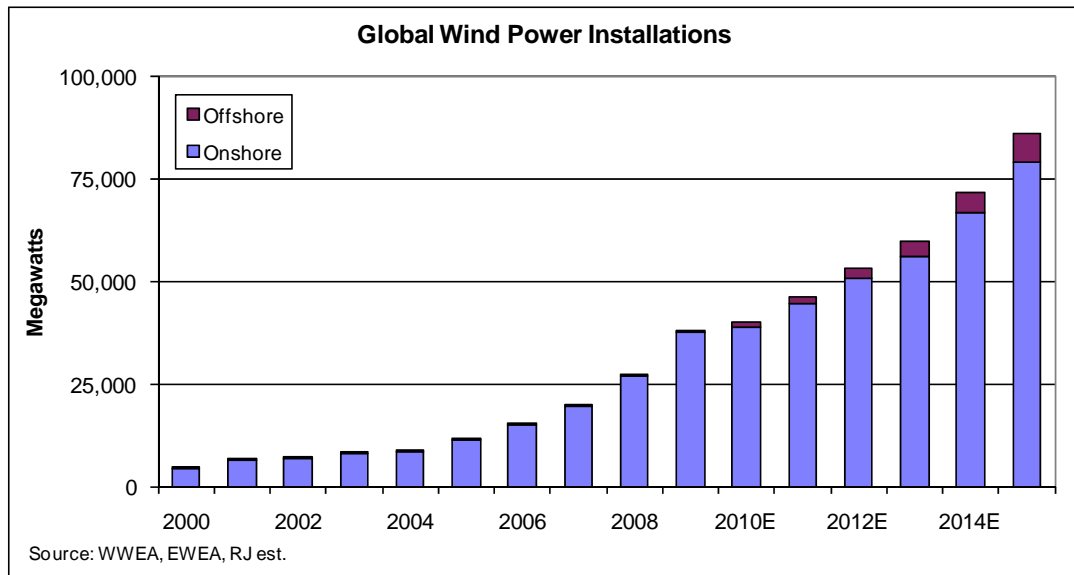
While its unit costs have decreased over time, commerciality of solar power is constrained by average prices that are, in general, higher than that of conventional power (in the U.S., mainly coal and natural gas). In order for the solar industry to make a systematic penetration into the U.S. electricity market, installed solar system costs will need to drop from \$3.50-5.50 per watt to \$2.00-3.00 per watt. This is achievable through a combination of (1) increasing conversion efficiency, (2) progressively cheaper polysilicon, (3) decreasing processing costs, and (4) decreasing balance of system costs. We believe grid parity will materialize between 2012 and 2015 in the U.S., and likely even earlier in markets with higher power prices (such as Japan and Italy).



Of course, the flip side of the cost reduction curve is an ongoing decline in average selling prices (ASPs) of modules – down from a peak of \$4.00+/watt in mid-2008 to roughly \$1.70/watt currently (Chinese “tier 1” pricing). While inherently beneficial for solar economics, this ASP meltdown and the resulting pressure on margins has caused widespread disruption in the PV industry. ASPs stabilized temporarily in 2010 as a result of the demand surge, but declines are set to resume in 2011, and the long-term trend remains firmly downward.

## Outlook on Wind Power

Much like solar power, wind power has been on a strong growth curve. Wind's market share within the overall power market remains quite small, which bodes well for sustainable future growth. We view the key growth drivers as the following: (1) continual improvement in wind generation technology, which reduces costs and facilitates more scalable systems; (2) the fact that wind power economics are already at grid parity in many markets; (3) the clear environmental benefits of this clean, renewable source of electric power; and (4) a high degree of government support in the form of direct subsidies and other incentives. Limits on growth include (1) constrained project financing amid broader financial market uncertainty; (2) grid interconnection bottlenecks; and (3) "not in my backyard" concerns in some areas. While offshore wind remains a small component of the overall wind market, in part due to higher costs, its growth is well above average.

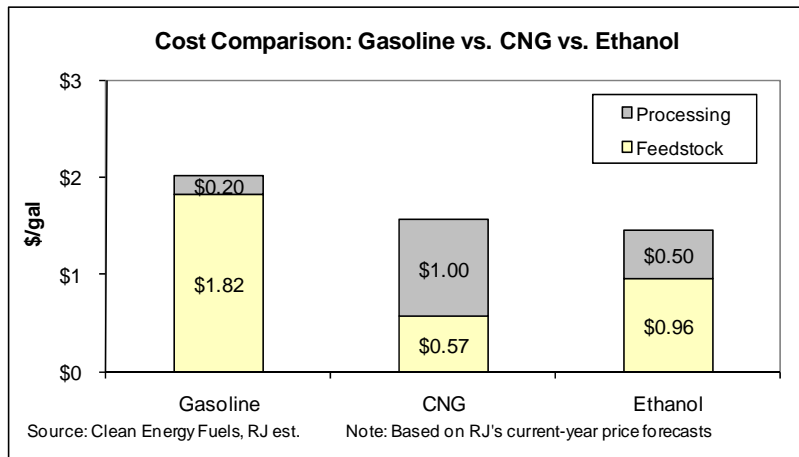


The cost of wind power, which, as is the case with solar, essentially represents the capital cost of the installed system, has decreased over 60% since the emergence of the industry in the mid-1980s, reaching approximately \$1.50-2.00 per watt (for onshore wind farms). These cost reductions have been driven primarily by more efficient engineering and system designs (for example, wind turbine blades made from carbon fiber) and steadily greater system scalability. Wind is broadly cost-competitive with conventional generation in almost all regions of the U.S. and many international markets. The National Renewable Energy Laboratory (NREL) has reported that wind is at or below grid parity almost everywhere in the U.S. except the Southeast. Internationally, wind is highly viable in China (the world's #1 wind market), around the North Sea (for example, in the UK, Denmark and the Netherlands), as well as in parts of South America and Australia.

## Outlook on Natural Gas Fuels (Compressed Natural Gas / Liquefied Natural Gas)

The fundamental differences between the global oil market and North American natural gas market have resulted in a wide divergence between oil and gas prices, with the current price ratio of ~20:1 far above the more balanced 7:1 ratio that has historically prevailed. We believe that oil and gas prices will remain disconnected until: (1) the massive domestic shale gas resources are depleted; (2) meaningful domestic gas export capacity is built; and/or (3) infrastructure for natural gas demand (or fuel-switching capacity) is significantly enhanced – none of which is likely to materialize for the foreseeable future.

To zero in on the third scenario: Natural gas has a great deal of long-term potential as a transportation fuel in North America, as is already true of several South American and Middle Eastern countries. While natural gas vehicles (NGVs) make up less than 0.1% of U.S. vehicles on the road today, the adoption of compressed natural gas (CNG) and liquefied natural gas (LNG) as fuels has been gaining traction. The primary driver behind this adoption is economic, with the depressed cost of natural gas compared to conventional fuel (gasoline and diesel) incentivizing commercial and institutional fuel users (such as airports, bus fleets and refuse truck operators) to switch to NGVs. We believe that CNG/LNG economics are attractive as long as the oil-gas price ratio stays at 8:1 or higher. In addition to the economic benefits, other advantages of CNG/LNG vs. petroleum include environmental benefits (lower carbon footprint and emissions), higher octane, and reduced noise. A key advantage of CNG/LNG vs. biofuels is that CNG/LNG avoids the "food vs. fuel" issue. The biggest downside is this: Existing vehicles must be specially modified to use a natural gas fuel, though factory-built models are increasingly available. Federal tax incentives offset up to 80% of the incremental cost of NGVs.



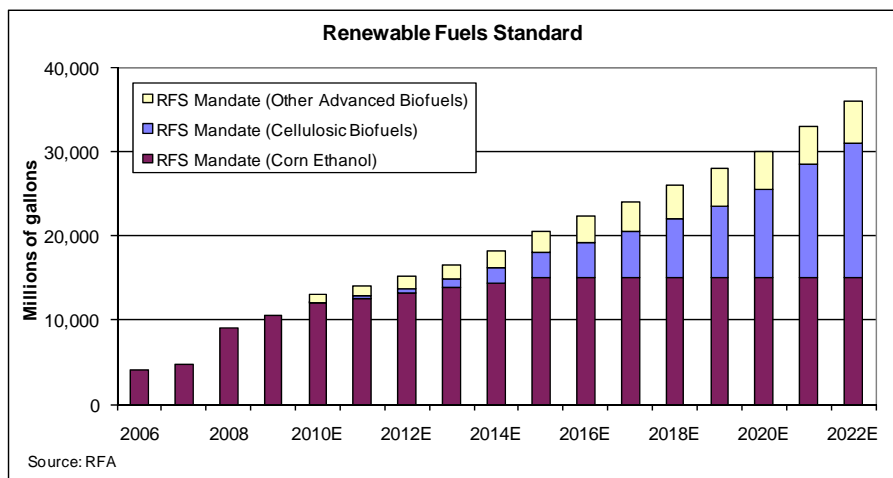
**Outlook on Biofuels**

Conventional ethanol – produced from corn in the U.S. and sugarcane in Brazil – has long been used as a mainstream fuel component for blending into gasoline. While conventional ethanol is not without some merits, its central economic flaw is the systemic challenge of effectively managing the “crush spread” between the price of ethanol (an energy commodity loosely linked to gasoline) and the cost of corn/sugarcane (an agricultural commodity). Cellulosic ethanol addresses this problem. Since cellulosic ethanol is produced from non-food feedstocks such as wood chips or switchgrass (materials that have almost no intrinsic value), the cost side of the economic equation is immune from day-to-day volatility in the agricultural market.

It remains unclear when cellulosic ethanol will become a mainstream, mass-produced product, with 2012 looking like the “best case” scenario. This is for two reasons. First, cellulosic ethanol is a novel, disruptive technology, and its commercialization roadmap involves significant execution and timing risks. Finding the optimal enzymes to break down the cellulose in a cost-efficient way is no small feat. Second, with venture capital funding obviously tougher to come by in recent years, and public capital also scarce for early-stage companies, at least some of today’s next-generation biofuel developers simply will not make it, even if the science behind their concept is sound. Federal loan guarantees in the U.S. are available, but they are ultra-competitive. Many developers have been turning to strategic partners (integrated majors, refiners and chemical producers) to support their scale-up efforts.

Given the higher adoption rates of diesel engines in Europe vs. the U.S., biodiesel has historically been more common in European countries, including Germany, France and Italy. Biodiesel margins are a function of the crush spread between the price of biodiesel (which is linked to diesel) and the price of feedstock. The bulk of U.S. biodiesel plants use soybean oil as their principal (or sole) feedstock, so the price of soybean oil, and, by extension, soybeans themselves, is an extremely important variable for the U.S. biodiesel industry. Of course, there are exceptions. Some biodiesel producers – those that are able to utilize and source feedstocks other than U.S. soybean oil, such as palm oil and jatropha oil – have a cost advantage. Longer-term, algae holds out the prospect of producing biodiesel and its close cousin, renewable diesel, from non-food feedstocks.

The most important federal policy supporting biofuels is the Renewable Fuels Standard (RFS), which provides a guaranteed demand floor for both conventional and next-generation biofuels through 2022.





## Outlook on Synthetic Fuels

Based on the Fischer-Tropsch concept, coal-to-liquids (CTL) is the process of converting coal (a solid hydrocarbon) into synthetic diesel or other refined products (liquid hydrocarbons). While there are no commercial CTL operations currently in the U.S., South Africa provides a unique example of CTL being used on a nationwide scale. One of the main appeals of CTL is that the reserve life of the world's proved coal reserves is estimated at over 200 years, while for oil it is only about 40 years. Coal is a plentiful and widely available resource. Unlike oil, which is highly concentrated in the northern part of the world (particularly, of course, the Middle East), large quantities of coal are found both north and south of the Equator, with the largest known reserves in the U.S., Russia, China, India, Australia, Germany, and South Africa.

The viability of CTL in the U.S. benefits from plentiful coal supply and well-developed coal infrastructure, but there are many challenges that slow down the roadmap to commercialization. There are high labor costs and complex environmental regulations, particularly in regard to silting. Capital costs are very high. Time value of money represents a challenge, because the lead time for a greenfield coal refinery, as with all refineries, is five years under optimal circumstances. We would also point out that the carbon footprint of CTL entails additional costs within the context of a cap-and-trade policy. The use of biomass instead of coal can reduce feedstock costs and carbon risk but does not alleviate the hefty capital requirements.

We estimate the break-even oil price for a U.S. CTL project at \$60/Bbl to \$70/Bbl (for West Texas Intermediate, or WTI, oil). This is, of course, a wide range, reflecting operational and other uncertainties involved. For example, if coal prices were to sharply rise from current levels, the break-even oil price could be materially higher. Similarly, escalating CTL project costs and unforeseen delays or other difficulties could also necessitate higher oil prices for CTL investments to succeed. These uncertainties help explain why there are currently no CTL projects that operate on a commercial scale domestically.

Gas-to-liquids (GTL) is essentially analogous to CTL, except that the raw feedstock is natural gas rather than coal. GTL can be utilized in areas where there are large amounts of "stranded gas," which have historically lacked a market. These include a number of Middle Eastern countries, notably Qatar, and also several South Pacific countries, such as Malaysia and Papua New Guinea. GTL creates a local market for the gas or can provide an export outlet.

## Outlook on Fuel Cells

Against the background of broad-based global growth in power demand, distributed generation – small- to mid-size power plants located at the point of use – complements the existing power grid structure and offers both economic and environmental benefits. These benefits include (1) reduced transmission and distribution (T&D) losses; (2) greater reliability and user control; and (3) wider access to electricity, especially in rural areas and emerging markets. Distributed generation is primarily employed by commercial and industrial end users, such as hotels, data centers, industrial facilities, and wastewater treatment plants.

Within the distributed generation arena, stationary fuel cells compete with both conventional options (such as combustion gas turbines) as well as alternative power options (such as microturbines and photovoltaics). Fuel cells have relatively high installed costs, but they offer above-average electrical efficiency and low emissions of NO<sub>x</sub> and CO<sub>2</sub>. Fuel cell efficiency can be especially impressive with co-generation (in which excess thermal energy from electricity generation is used for heat). Key markets for stationary fuel cells include California, the U.S. Northeast, South Korea, and Japan.

|   | Combustion Gas Turbine | Microturbine       | Solar Power (Photovoltaics) | Fuel Cell          |
|---|------------------------|--------------------|-----------------------------|--------------------|
| Typical System Size (mW)                          | 0.5 to 30+             | 0.03 to 0.4        | 0.01 to 5+                  | 0.1 to 3+          |
| Installed Cost (\$/kW)                            | \$400 to \$900         | \$1,200 to \$1,700 | \$3,500 to \$5,500          | \$2,500 to \$3,500 |
| Maintenance Costs (\$/kWh)                        | \$0.004 to \$0.01      | \$0.008 to \$0.015 | \$0.001 to \$0.003          | \$0.002 to \$0.015 |
| Electrical Efficiency (%)                         | 21% to 40%             | 14% to 30%         | 10% to 25%                  | 36% to 50%         |
| Overall Efficiency, incl. Combined Heat+Power (%) | 80% to 90%             | 80% to 85%         | NM                          | 80% to 85%         |
| Combustion-Based?                                 | Yes                    | Yes                | No                          | No                 |
| Renewable?  | No                     | No                 | Yes                         | Various            |
| Emissions (lbs/mWh)                               |                        |                    |                             |                    |
| NO <sub>x</sub>                                   | 0.467                  | 0.490              | 0                           | 0.016              |
| SO <sub>x</sub>                                   | 0                      | 0                  | 0                           | 0                  |
| CO <sub>2</sub>                                   | 1,244                  | 1,862              | 0                           | 967                |

Source: Distributed Power Coalition of America, company websites and filings

Stationary power is (in relative terms) the most mature application for fuel cells. By comparison, automotive fuel cells are an essentially development-stage technology. Very few fuel-cell-powered vehicles are currently in use. However, almost every major auto manufacturer has a fuel-cell vehicle program, with various target dates for commercial sales.

## Outlook on Demand Response

Within the context of increasingly congested power grids, demand response is steadily gaining traction among both electricity providers (utilities and grid operators) and end-use customers (commercial, institutional and industrial users). The central idea is that power consumption can be temporarily curtailed in times of peak demand, but instead of doing it abruptly as is the case with a blackout, it is done in a controlled manner. The role of demand response service providers is to monitor electricity consumption and alert end-use customers to reduce their usage during peak periods. This can take the form of simple demand reduction (for example, by dimming lights, resetting air conditioning set-points or shutting down production lines), or the end user can self-generate electricity (for example, by means of a back-up generator or cogeneration). The service providers typically receive revenue from grid operators and utilities, and pay end users for being “available” to reduce usage and for actually doing so when called upon.

Demand response helps economically balance electric supply and demand, while also providing an environmentally sound alternative to building conventional supply-side resources, such as peaking power plants, to meet infrequent periods of peak demand. Demand response addresses extreme peaks in demand more efficiently than adding supply-side capacity, because over 10% of this capacity is typically built to meet peaks in demand that occur less than 1% of the time. In the U.S., demand response has historically been utilized mainly in the Northeast and Mid-Atlantic, but it is starting to make inroads in the Southeast, Rockies and Pacific states.

Utilities have offered less technology-enabled forms of demand response to their largest electricity consumers for decades in the form of interruptible tariffs. This is a mechanism that allows utilities to call on customers to reduce consumption during periods of peak demand in exchange for lower rates. However, these programs typically lack an affordable means of real-time data communication and automation to make demand response participation viable for most large enterprises. The Internet, as well as cost-effective and robust metering and control technologies, have created opportunities for technology-based demand response solutions.

## Long-Term Alternative Energy Thesis

Within the context of our bullish long-term thesis on the energy sector as a whole, alternative energy (AE) presents energy investors with opportunities to gain from the development of some of the key growth industries for the long run. This growth trend, of course, must be balanced against the frequently high risk profile of AE companies, reflecting the often brutal competitive dynamics in young, rapidly evolving industries. We see the following as the main investment themes for AE. First, concerns about near-term security and long-term availability of oil and gas supply highlight the importance of diversifying the energy mix. Second, even though hydrocarbon energy sources will continue to comprise the vast majority of the energy mix for the foreseeable future, the growth of AE significantly exceeds that of conventional energy. Third, a downward cost curve helps AE technologies increasingly become commercially viable options, but rapid cost reductions can cause dislocation for companies across the value chain. Fourth, governments worldwide provide support to AE with subsidies, mandates and other policies – though in some markets, incentives are being curtailed over time. Fifth, the global debate about climate change and sustainable development underscores the benefits of zero-carbon and low-carbon AE.

## Raymond James - Alternative Energy Research Universe

## Market Valuation Database

| Company  | Ticker | AE Subsector(s)    | Rating | Current        |                | Target Price | % App. Pot. | Target Mult. | Equity Value (\$ MM) | Raymond James Valuation Ratios |             |               |              |              |              | Consensus    |              |
|--|--------|--------------------|--------|----------------|----------------|--------------|-------------|--------------|----------------------|--------------------------------|-------------|---------------|--------------|--------------|--------------|--------------|--------------|
|  |        |                    |        | Price 12/20/10 | 3-Month Volume |              |             |              |                      | EV / Revenue                   | EV / EBITDA | Price / EPS   | Price / EPS  | 2010         | 2011         | 2010         | 2011         |
| <b>Mid &amp; Large Cap (Market Cap &gt; \$1 Bln)</b> |        |                    |        |                |                |              |             |              |                      |                                |             |               |              |              |              |              |              |
| American Superconductor                              | AMSC   | Wind Power         | SB1    | \$28.87        | 945,236        | \$44.00      | 52%         | 22.3x        | 1,334                | 2.6x                           | 2.1x        | 13.4x         | 10.3x        | 21.3x        | 17.5x        | 25.0x        | 18.3x        |
| China Ming Yang Wind Power                           | MY     | Wind Power         | NC     | \$10.61        | N/A            |              |             |              | 1,358                |                                |             |               |              |              |              | -            | -            |
| Cosan Ltd.   | CZZ    | Biofuels           | NC     | \$12.74        | 1,231,028      |              |             |              | 2,221                |                                |             |               |              |              |              | 11.6x        | 10.1x        |
| First Solar  | FSLR   | Solar Power        | MP3    | \$132.24       | 1,847,156      | NM           | -           | NM           | 11,453               | 4.0x                           | 2.8x        | 11.5x         | 9.5x         | 17.1x        | 14.7x        | 17.3x        | 14.6x        |
| GT Solar International                               | SOLR   | Solar Power        | MO2    | \$8.50         | 3,488,801      | \$12.00      | 41%         | 9.7x         | 1,282                | 2.0x                           | 1.3x        | 7.0x          | 4.4x         | 14.2x        | 7.9x         | 8.7x         | 7.0x         |
| JA Solar Holdings                                    | JASO   | Solar Power        | MO2    | \$6.82         | 10,055,203     | \$12.00      | 76%         | 7.9x         | 1,115                | 0.6x                           | 0.5x        | 2.7x          | 2.6x         | 4.7x         | 5.0x         | 5.1x         | 4.8x         |
| LDK Solar  | LDK    | Solar Power        | NC     | \$10.43        | 6,990,980      |              |             |              | 1,354                |                                |             |               |              |              |              | 7.0x         | 5.9x         |
| Pow er-One, Inc.                                     | PWER   | Solar Power        | NC     | \$10.83        | 5,845,036      |              |             |              | 1,151                |                                |             |               |              |              |              | 10.7x        | 8.7x         |
| Sasol Ltd.   | SSL    | Synthetic Fuels    | NC     | \$48.83        | 251,688        |              |             |              | 31,252               |                                |             |               |              |              |              | 12.9x        | 10.8x        |
| SunPow er Corp.                                      | SPWRA  | Solar Power        | MP3    | \$13.06        | 2,091,798      | NM           | -           | NM           | 1,380                | 0.6x                           | 0.4x        | 5.7x          | 4.3x         | 8.2x         | 6.8x         | 8.5x         | 7.0x         |
| Suntech Pow er Holdings                              | STP    | Solar Power        | MP3    | \$8.28         | 4,327,825      | NM           | -           | NM           | 1,501                | 0.7x                           | 0.5x        | 5.0x          | 3.5x         | 14.2x        | 6.4x         | NM           | 6.6x         |
| Trina Solar  | TSL    | Solar Power        | MO2    | \$23.10        | 3,928,355      | \$35.00      | 52%         | 9.7x         | 1,821                | 0.8x                           | 0.7x        | 3.2x          | 3.1x         | 7.0x         | 7.1x         | 7.0x         | 6.5x         |
| Yingli Green Energy                                  | YGE    | Solar Power        | NC     | \$10.36        | 3,852,591      |              |             |              | 1,539                |                                |             |               |              |              |              | 8.4x         | 7.5x         |
| <b>Median</b>  |        |                    |        |                |                |              | <b>52%</b>  | <b>9.7x</b>  | <b>\$1,380</b>       | <b>0.8x</b>                    | <b>0.7x</b> | <b>5.7x</b>   | <b>4.3x</b>  | <b>14.2x</b> | <b>7.1x</b>  | <b>8.7x</b>  | <b>7.3x</b>  |
| <b>Mean</b>  |        |                    |        |                |                |              | <b>55%</b>  | <b>12.4x</b> | <b>\$4,520</b>       | <b>1.6x</b>                    | <b>1.2x</b> | <b>6.9x</b>   | <b>5.4x</b>  | <b>12.4x</b> | <b>9.3x</b>  | <b>11.1x</b> | <b>9.0x</b>  |
| <b>Small Cap (Market Cap &lt; \$1 Bln)</b>           |        |                    |        |                |                |              |             |              |                      |                                |             |               |              |              |              |              |              |
| Amtech Systems                                       | ASYS   | Solar Power        | NC     | \$26.13        | 308,789        |              |             |              | 236                  |                                |             |               |              |              |              | 24.1x        | 13.1x        |
| Amyris, Inc.   | AMRS   | Biofuels           | MO2    | \$23.07        | N/A            | \$27.00      | 17%         | NM           | 992                  | 11.0x                          | 6.3x        | NM            | NM           | NM           | NM           | NM           | NM           |
| A-Pow er Energy Generation                           | APWR   | Wind Power         | MP3    | \$5.12         | 1,011,241      | NM           | -           | NM           | 237                  | 0.2x                           | 0.1x        | 2.2x          | 0.9x         | 18.8x        | 6.3x         | 19.0x        | 7.2x         |
| Ascent Solar Technologies                            | ASTI   | Solar Power        | MP3    | \$3.37         | 680,879        | NM           | -           | NM           | 90                   | 13.6x                          | 1.2x        | NM            | NM           | NM           | NM           | NM           | NM           |
| Ballard Pow er Systems                               | BLDP   | Fuel Cells         | NC     | \$1.47         | 233,783        |              |             |              | 124                  |                                |             |               |              |              |              | -            | -            |
| Broadw ind Energy                                    | BWEN   | Wind Power         | MP3    | \$2.02         | 996,067        | NM           | -           | NM           | 216                  | 1.5x                           | 1.0x        | NM            | 17.5x        | NM           | NM           | NM           | 252.5x       |
| Canadian Solar                                       | CSIQ   | Solar Power        | NC     | \$12.90        | 1,603,396      |              |             |              | 551                  |                                |             |               |              |              |              | 10.5x        | 6.3x         |
| China Sunergy  | CSUN   | Solar Power        | NC     | \$4.22         | 380,815        |              |             |              | 188                  |                                |             |               |              |              |              | 4.5x         | 5.7x         |
| China Technology Development                         | CTDC   | Solar Power        | NC     | \$2.66         | 88,597         |              |             |              | 41                   |                                |             |               |              |              |              | 12.1x        | -            |
| China Wind Systems                                   | CWS    | Wind Power         | NC     | \$3.64         | 81,972         |              |             |              | 65                   |                                |             |               |              |              |              | 8.7x         | 5.3x         |
| Clean Energy Fuels                                   | CLNE   | CNG / LNG          | MO2    | \$14.51        | 1,126,164      | \$21.00      | 45%         | 39.4x        | 929                  | 4.9x                           | 2.5x        | 235.4x        | 16.6x        | NM           | 66.3x        | NM           | 250.2x       |
| Codexis, Inc.  | CDXS   | Biofuels           | MP3    | \$10.58        | 115,727        | NM           | -           | NM           | 362                  | 2.7x                           | 2.5x        | NM            | NM           | NM           | NM           | NM           | NM           |
| Composite Technology                                 | CPTC   | Wind Power         | NC     | \$0.23         | 246,996        |              |             |              | 67                   |                                |             |               |              |              |              | -            | -            |
| Comverge, Inc.                                       | COMV   | Demand Response    | NC     | \$6.88         | 254,442        |              |             |              | 174                  |                                |             |               |              |              |              | NM           | NM           |
| Energy Conversion Devices                            | ENER   | Solar Power        | MU4    | \$4.92         | 1,638,398      | NM           | -           | NM           | 227                  | 0.8x                           | 0.6x        | NM            | 24.3x        | NM           | NM           | NM           | NM           |
| EnerNOC, Inc.  | ENOC   | Demand Response    | MP3    | \$23.87        | 336,147        | NM           | -           | NM           | 626                  | 1.6x                           | 1.2x        | 14.9x         | 9.0x         | 62.1x        | 27.9x        | 65.8x        | 32.4x        |
| Evergreen Solar                                      | ESLR   | Solar Power        | NC     | \$0.59         | 3,468,635      |              |             |              | 123                  |                                |             |               |              |              |              | NM           | NM           |
| FuelCell Energy                                      | FCEL   | Fuel Cells         | NC     | \$1.87         | 1,830,458      |              |             |              | 211                  |                                |             |               |              |              |              | NM           | NM           |
| Fuel Systems Solutions                               | FSYS   | CNG / LNG          | NC     | \$30.88        | 322,834        |              |             |              | 544                  |                                |             |               |              |              |              | 12.8x        | 19.7x        |
| Hoku Corp.   | HOKU   | Solar / Fuel Cells | NC     | \$2.45         | 130,931        |              |             |              | 135                  |                                |             |               |              |              |              | NM           | NM           |
| JinkoSolar Holding                                   | JKS    | Solar Power        | NC     | \$21.59        | 1,414,524      |              |             |              | 469                  |                                |             |               |              |              |              | 4.2x         | 4.6x         |
| Plug Pow er  | PLUG   | Fuel Cells         | NC     | \$0.38         | 462,897        |              |             |              | 50                   |                                |             |               |              |              |              | NM           | NM           |
| Real Goods Solar                                     | RSOL   | Solar Power        | MO2    | \$2.46         | 31,618         | \$4.00       | 63%         | 16.9x        | 45                   | 0.3x                           | 0.2x        | 8.3x          | 3.6x         | 37.5x        | 14.7x        | 37.8x        | 16.4x        |
| ReneSola Ltd.  | SOL    | Solar Power        | NC     | \$8.29         | 3,610,570      |              |             |              | 719                  |                                |             |               |              |              |              | 4.4x         | 4.1x         |
| Rentech, Inc.  | RTK    | Synthetic Fuels    | MP3    | \$1.22         | 1,373,541      | NM           | -           | NM           | 264                  | 2.4x                           | 1.8x        | NM            | 30.2x        | NM           | NM           | NM           | NM           |
| Satcon Technology                                    | SATC   | Solar Power        | MP3    | \$4.34         | 2,330,689      | NM           | -           | NM           | 328                  | 1.8x                           | 0.9x        | 256.7x        | 6.2x         | NM           | 21.8x        | NM           | 17.7x        |
| Solarfun Pow er Holdings                             | SOLF   | Solar Power        | NC     | \$8.28         | 3,034,266      |              |             |              | 481                  |                                |             |               |              |              |              | 6.0x         | 4.8x         |
| STR Holdings   | STRI   | Solar Power        | NC     | \$19.67        | 759,394        |              |             |              | 813                  |                                |             |               |              |              |              | 13.1x        | 11.7x        |
| Syntroleum Corp.                                     | SYNM   | Biofuels           | NC     | \$1.89         | 238,398        |              |             |              | 148                  |                                |             |               |              |              |              | 630.0x       | 27.8x        |
| Westinghouse Solar                                   | WEST   | Solar Power        | NC     | \$0.51         | 645,947        |              |             |              | 21                   |                                |             |               |              |              |              | NM           | NM           |
| Westport Innovations                                 | WPRT   | CNG / LNG          | NC     | \$18.73        | 569,036        |              |             |              | 745                  |                                |             |               |              |              |              | -            | -            |
| Zoltek Companies                                     | ZOLT   | Wind Power         | NC     | \$10.29        | 231,184        |              |             |              | 354                  |                                |             |               |              |              |              | NM           | NM           |
| <b>Median</b>  |        |                    |        |                |                |              | <b>45%</b>  | <b>28.1x</b> | <b>\$231</b>         | <b>1.8x</b>                    | <b>1.2x</b> | <b>14.9x</b>  | <b>12.8x</b> | <b>37.5x</b> | <b>21.8x</b> | <b>12.5x</b> | <b>12.4x</b> |
| <b>Mean</b>  |        |                    |        |                |                |              | <b>41%</b>  | <b>28.1x</b> | <b>\$330</b>         | <b>3.7x</b>                    | <b>1.7x</b> | <b>103.5x</b> | <b>13.5x</b> | <b>39.5x</b> | <b>27.4x</b> | <b>60.9x</b> | <b>42.5x</b> |

SB1= Strong Buy; MO2= Outperform; MP3= Market Perform; MU4= Underperform; NC= Not Covered

Note: Some companies in this table operate in more than one AE subsector, and some have business segments outside of AE.

Source: Thomson, RJ est.

|   | Current Price<br>12/20/2010 | RJ&A Rating |     | Projected<br>12-Month Price Target |         |
|---|-----------------------------|-------------|-----|------------------------------------|---------|
|   |                             | Old         | New | Old                                | New     |
| <b>Alternative Fuels</b>                              |                             |             |     |                                    |         |
| Amyris, Inc. (AMRS:NASDAQ)                            | \$23.07                     | 2           | 2   | \$27.00                            | \$27.00 |
| Clean Energy Fuels Corp. (CLNE:NASDAQ)                | \$14.51                     | 2           | 2   | \$21.00                            | \$21.00 |
| Codexis, Inc. (CDXS:NASDAQ)                           | \$10.58                     | 3           | 3   | NM                                 | NM      |
| Rentech, Inc. (RTK:AMEX)                              | \$1.22                      | 3           | 3   | NM                                 | NM      |
| <b>Alternative Power</b>                              |                             |             |     |                                    |         |
| A-Power Energy Generation Systems, Ltd. (APWR:NASDAQ) | \$5.12                      | 3           | 3   | NM                                 | NM      |
| American Superconductor Corp. (AMSC:NASDAQ)           | \$28.87                     | 1           | 1   | \$44.00                            | \$44.00 |
| Ascent Solar Technologies, Inc. (ASTI:NASDAQ)         | \$3.37                      | 3           | 3   | NM                                 | NM      |
| Broadwind Energy, Inc. (BWEN:NASDAQ)                  | \$2.02                      | 3           | 3   | NM                                 | NM      |
| Energy Conversion Devices, Inc. (ENER:NASDAQ)         | \$4.93                      | 4           | 4   | NM                                 | NM      |
| EnerNOC, Inc. (ENOC:NASDAQ)                           | \$23.87                     | 3           | 3   | NM                                 | NM      |
| First Solar, Inc. (FSLR:NASDAQ)                       | \$132.24                    | 3           | 3   | NM                                 | NM      |
| GT Solar International, Inc. (SOLR:NASDAQ)            | \$8.50                      | 2           | 2   | \$12.00                            | \$12.00 |
| JA Solar Holdings Co., Ltd. (JASO:NASDAQ)             | \$6.81                      | 2           | 2   | \$12.00                            | \$12.00 |
| Real Goods Solar, Inc. (RSOL:NASDAQ)                  | \$2.47                      | 2           | 2   | \$4.00                             | \$4.00  |
| Satcon Technology Corp. (SATC:NASDAQ)                 | \$4.34                      | 3           | 3   | NM                                 | NM      |
| SunPower Corp. (SPWR:NASDAQ)                          | \$13.10                     | 3           | 3   | NM                                 | NM      |
| Suntech Power Holdings Co., Ltd. (STP:NYSE)           | \$8.28                      | 3           | 3   | NM                                 | NM      |
| Trina Solar Limited (TSL:NYSE)                        | \$23.10                     | 2           | 2   | \$33.00                            | \$33.00 |

## Energy

### Alternative Fuels

#### Amyris, Inc. (AMRS:NASDAQ)

**Rating: Outperform**

|                           |                   |                       |             |
|---------------------------|-------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$23.07           | Target Price          | \$27.00     |
| 52-Week Range             | \$24.33 - \$16.48 |                       |             |
| Market Cap. (mil.)        | \$1,010           | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 43.8              |                       |             |
| Avg. Daily Vol. (10 day)  | 100,170           | LT Debt (mil.)/% Cap. | \$5/2       |
| Suitability               | Venture Risk      | BVPS (09/10)          | \$7.38      |

| Non-GAAP EPS     | Q1 Mar         | Q2 Jun         | Q3 Sep         | Q4 Dec        | Full Year     | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|----------------|----------------|----------------|---------------|---------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | NA             | NA             | NA             | NA            | \$(13.56)     | \$(13.56)          | \$65            | \$(56)        | \$(11.45)       |
| Old 2010E        | (3.22)A        | (3.94)A        | (3.75)A        | (0.54)        | (5.41)        | (8.33)             | 66              | (74)          | (4.52)          |
| <b>New 2010E</b> | <b>(3.22)A</b> | <b>(3.94)A</b> | <b>(3.75)A</b> | <b>(0.54)</b> | <b>(5.41)</b> | <b>(8.33)</b>      | <b>67</b>       | <b>(74)</b>   | <b>(4.51)</b>   |
| Old 2011E        | (0.57)         | (0.59)         | (0.60)         | (0.57)        | (2.33)        | (2.33)             | 115             | (89)          | (1.85)          |
| <b>New 2011E</b> | <b>(0.57)</b>  | <b>(0.60)</b>  | <b>(0.60)</b>  | <b>(0.57)</b> | <b>(2.34)</b> | <b>(2.34)</b>      | <b>118</b>      | <b>(90)</b>   | <b>(1.87)</b>   |
| Old 2012E        | (0.47)         | (0.40)         | (0.09)         | 0.04          | (0.89)        | (0.89)             | 283             | (28)          | (0.34)          |
| <b>New 2012E</b> | <b>(0.47)</b>  | <b>(0.39)</b>  | <b>(0.09)</b>  | <b>0.04</b>   | <b>(0.88)</b> | <b>(0.88)</b>      | <b>287</b>      | <b>(27)</b>   | <b>(0.33)</b>   |

Initial public offering within last 12 months; trailing 12-month share price figures represent range since that time. Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items. 2010E cash flow/share revised to reflect 10-Q.

Our \$27.00 target price is based on a ~1.2x multiple to discounted cash flow (DCF) per share. We see the premium to DCF as reasonable given Amyris' unique technology platform and "scarcity value" as one of the few publicly traded Gen2 companies. Please see our initiation of coverage report published on October 7 for further detail on our DCF calculations.

#### Clean Energy Fuels Corp. (CLNE:NASDAQ)

**Rating: Outperform**

|                           |                   |                       |             |
|---------------------------|-------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$14.51           | Target Price          | \$21.00     |
| 52-Week Range             | \$23.70 - \$13.14 |                       |             |
| Market Cap. (mil.)        | \$942             | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 64.9              |                       |             |
| Avg. Daily Vol. (10 day)  | 1,148,220         | LT Debt (mil.)/% Cap. | \$33/16     |
| Suitability               | High Risk         | BVPS (09/10)          | \$5.28      |

| Non-GAAP EPS     | Q1 Mar         | Q2 Jun         | Q3 Sep         | Q4 Dec        | Full Year     | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|----------------|----------------|----------------|---------------|---------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$(0.13)       | \$(0.08)       | \$(0.05)       | \$(0.04)      | \$(0.29)      | \$(0.60)           | \$132           | \$13          | \$0.26          |
| Old 2010E        | (0.10)A        | (0.11)A        | (0.15)A        | (0.06)        | (0.42)        | (0.32)             | 199             | 6             | 0.15            |
| <b>New 2010E</b> | <b>(0.10)A</b> | <b>(0.11)A</b> | <b>(0.15)A</b> | <b>(0.09)</b> | <b>(0.45)</b> | <b>(0.36)</b>      | <b>194</b>      | <b>4</b>      | <b>0.12</b>     |
| Old 2011E        | 0.03           | 0.10           | 0.14           | 0.12          | 0.39          | 0.39               | 433             | 72            | 0.94            |
| <b>New 2011E</b> | <b>0.02</b>    | <b>0.05</b>    | <b>0.08</b>    | <b>0.07</b>   | <b>0.22</b>   | <b>0.22</b>        | <b>380</b>      | <b>57</b>     | <b>0.77</b>     |
| Old 2012E        | NA             | NA             | NA             | NA            | NA            | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>0.09</b>    | <b>0.13</b>    | <b>0.16</b>    | <b>0.16</b>   | <b>0.53</b>   | <b>0.53</b>        | <b>574</b>      | <b>97</b>     | <b>1.25</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Our \$21.00 target price is based on an ~14x multiple to our 2012 EBITDA estimate, a premium to other alternative fuel companies (typical multiples of 8x to 12x forward EBITDA), which we believe is warranted given Clean Energy's leading market position and the stock's "scarcity value" as the only public CNG pure-play.



**Codexis, Inc.** (CDXS:NASDAQ)

Rating: Market Perform

|                           |                  |                       |             |
|---------------------------|------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$10.58          | Target Price          | NM          |
| 52-Week Range             | \$14.98 - \$6.88 | Dividend/Yield        | \$0.00/0.0% |
| Market Cap. (mil.)        | \$362            | LT Debt (mil.)/% Cap. | \$0/0       |
| Shares Out. (mil.)        | 34.2             | BVPS (09/10)          | \$3.04      |
| Avg. Daily Vol. (10 day)  | 216,640          |                       |             |
| Suitability               | Venture Risk     |                       |             |

| Non-GAAP EPS     | Q1 Mar         | Q2 Jun         | Q3 Sep         | Q4 Dec        | Full Year     | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|----------------|----------------|----------------|---------------|---------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | NA             | NA             | NA             | NA            | \$(7.74)      | \$(7.74)           | \$83            | \$(11)        | \$(2.94)        |
| Old 2010E        | (0.50)A        | (0.15)A        | (0.08)A        | (0.11)        | (0.48)        | (0.48)             | 102             | (2)           | 0.24            |
| <b>New 2010E</b> | <b>(0.50)A</b> | <b>(0.15)A</b> | <b>(0.08)A</b> | <b>(0.09)</b> | <b>(0.46)</b> | <b>(0.46)</b>      | <b>103</b>      | <b>(2)</b>    | <b>0.26</b>     |
| Old 2011E        | (0.14)         | (0.14)         | (0.14)         | (0.14)        | (0.55)        | (0.55)             | 109             | (9)           | (0.03)          |
| <b>New 2011E</b> | <b>(0.11)</b>  | <b>(0.12)</b>  | <b>(0.12)</b>  | <b>(0.11)</b> | <b>(0.47)</b> | <b>(0.47)</b>      | <b>113</b>      | <b>(7)</b>    | <b>0.06</b>     |
| Old 2012E        | NA             | NA             | NA             | NA            | NA            | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>(0.13)</b>  | <b>(0.10)</b>  | <b>(0.09)</b>  | <b>0.01</b>   | <b>(0.30)</b> | <b>(0.30)</b>      | <b>138</b>      | <b>(1)</b>    | <b>0.21</b>     |

Initial public offering within last 12 months; trailing 12-month share price figures represent range since that time. Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

**Rentech, Inc.** (RTK:AMEX)

Rating: Market Perform

|                           |                 |                       |             |
|---------------------------|-----------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$1.22          | Target Price          | NM          |
| 52-Week Range             | \$1.48 - \$0.69 | Dividend/Yield        | \$0.00/0.0% |
| Market Cap. (mil.)        | \$270           | LT Debt (mil.)/% Cap. | \$90/69     |
| Shares Out. (mil.)        | 221.7           | BVPS (09/10)          | \$0.20      |
| Avg. Daily Vol. (10 day)  | 2,790,340       |                       |             |
| Suitability               | High Risk       |                       |             |

| Non-GAAP EPS     | Q1 Dec        | Q2 Mar        | Q3 Jun      | Q4 Sep        | Full Year     | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|---------------|---------------|-------------|---------------|---------------|--------------------|-----------------|---------------|-----------------|
| 2010A            | \$(0.07)      | \$(0.07)      | \$(0.01)    | \$(0.04)      | \$(0.20)      | \$(0.20)           | \$131           | \$(24)        | \$(0.06)        |
| Old 2011E        | (0.02)        | (0.05)        | 0.02        | 0.00          | (0.04)        | (0.04)             | 181             | 9             | 0.08            |
| <b>New 2011E</b> | <b>(0.02)</b> | <b>(0.05)</b> | <b>0.02</b> | <b>0.00</b>   | <b>(0.04)</b> | <b>(0.04)</b>      | <b>181</b>      | <b>11</b>     | <b>0.08</b>     |
| Old 2012E        | (0.01)        | (0.05)        | 0.01        | (0.02)        | (0.08)        | (0.08)             | 195             | 0             | 0.06            |
| <b>New 2012E</b> | <b>(0.01)</b> | <b>(0.05)</b> | <b>0.01</b> | <b>(0.02)</b> | <b>(0.08)</b> | <b>(0.08)</b>      | <b>195</b>      | <b>2</b>      | <b>0.06</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

**Alternative Power****A-Power Energy Generation Systems, Ltd.** (APWR:NASDAQ)

Rating: Market Perform

|                           |                  |                       |             |
|---------------------------|------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$5.12           | Target Price          | NM          |
| 52-Week Range             | \$21.04 - \$4.55 | Dividend/Yield        | \$0.00/0.0% |
| Market Cap. (mil.)        | \$237            | LT Debt (mil.)/% Cap. | \$59/16     |
| Shares Out. (mil.)        | 46.3             | BVPS (09/10)          | \$6.84      |
| Avg. Daily Vol. (10 day)  | 734,090          |                       |             |
| Suitability               | Growth           |                       |             |

| Non-GAAP EPS     | Q1 Mar       | Q2 Jun       | Q3 Sep       | Q4 Dec      | Full Year   | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|--------------|--------------|--------------|-------------|-------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$0.04       | \$0.09       | \$0.28       | \$0.61      | \$1.03      | \$(0.54)           | \$311           | \$40          | \$1.13          |
| Old 2010E        | 0.05A        | 0.02A        | 0.05A        | 0.15        | 0.27        | 1.01               | 302             | 24            | 0.48            |
| <b>New 2010E</b> | <b>0.05A</b> | <b>0.02A</b> | <b>0.05A</b> | <b>0.15</b> | <b>0.27</b> | <b>1.01</b>        | <b>302</b>      | <b>24</b>     | <b>0.48</b>     |
| Old 2011E        | 0.09         | 0.13         | 0.25         | 0.34        | 0.81        | 0.81               | 497             | 58            | 1.25            |
| <b>New 2011E</b> | <b>0.09</b>  | <b>0.13</b>  | <b>0.25</b>  | <b>0.34</b> | <b>0.81</b> | <b>0.81</b>        | <b>497</b>      | <b>58</b>     | <b>1.25</b>     |
| Old 2012E        | NA           | NA           | NA           | NA          | NA          | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>0.18</b>  | <b>0.23</b>  | <b>0.41</b>  | <b>0.49</b> | <b>1.32</b> | <b>1.32</b>        | <b>732</b>      | <b>95</b>     | <b>1.84</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

### American Superconductor Corp. (AMSC:NASDAQ)

Rating: Strong Buy

|                           |                   |                       |             |
|---------------------------|-------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$28.87           | Target Price          | \$44.00     |
| 52-Week Range             | \$43.95 - \$24.35 |                       |             |
| Market Cap. (mil.)        | \$1,342           | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 46.5              |                       |             |
| Avg. Daily Vol. (10 day)  | 1,306,280         | LT Debt (mil.)/% Cap. | \$0/0       |
| Suitability               | Aggressive Growth | BVPS (09/10)          | \$7.04      |

| Non-GAAP EPS     | Q1 Jun       | Q2 Sep       | Q3 Dec      | Q4 Mar      | Full Year   | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|--------------|--------------|-------------|-------------|-------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$0.12       | \$0.19       | \$0.20      | \$0.18      | \$0.70      | \$0.36             | \$316           | \$49          | \$0.85          |
| Old 2010E        | 0.28A        | 0.32A        | 0.35        | 0.41        | 1.35        | 0.94               | 441             | 86            | 1.63            |
| <b>New 2010E</b> | <b>0.28A</b> | <b>0.32A</b> | <b>0.35</b> | <b>0.41</b> | <b>1.35</b> | <b>0.94</b>        | <b>441</b>      | <b>86</b>     | <b>1.63</b>     |
| Old 2011E        | 0.40         | 0.41         | 0.42        | 0.42        | 1.65        | 1.18               | 548             | 113           | 1.95            |
| <b>New 2011E</b> | <b>0.40</b>  | <b>0.41</b>  | <b>0.42</b> | <b>0.42</b> | <b>1.65</b> | <b>1.18</b>        | <b>548</b>      | <b>113</b>    | <b>1.95</b>     |
| Old 2012E        | NA           | NA           | NA          | NA          | NA          | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>0.45</b>  | <b>0.48</b>  | <b>0.51</b> | <b>0.54</b> | <b>1.98</b> | <b>1.48</b>        | <b>648</b>      | <b>143</b>    | <b>2.33</b>     |

Fiscal years ending before May are treated as previous year. Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Our \$44.00 target price is based on a 22x multiple to our new FY12 non-GAAP EPS estimate of \$1.98, a premium to peers, warranted in our view by leverage to Asia's above-average wind market growth and HTS option value.

### Ascent Solar Technologies, Inc. (ASTI:NASDAQ)

Rating: Market Perform

|                           |                 |                       |             |
|---------------------------|-----------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$3.37          | Target Price          | NM          |
| 52-Week Range             | \$6.19 - \$2.00 |                       |             |
| Market Cap. (mil.)        | \$99            | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 29.5            |                       |             |
| Avg. Daily Vol. (10 day)  | 288,540         | LT Debt (mil.)/% Cap. | \$8/6       |
| Suitability               | Venture Risk    | BVPS (09/10)          | \$5.04      |

| Non-GAAP EPS     | Q1 Mar         | Q2 Jun         | Q3 Sep         | Q4 Dec        | Full Year     | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|----------------|----------------|----------------|---------------|---------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$(0.22)       | \$(0.24)       | \$(0.25)       | \$(0.25)      | \$(0.96)      | \$(0.93)           | \$2             | \$(19)        | \$(0.71)        |
| Old 2010E        | (0.25)A        | (0.29)A        | (0.27)A        | (0.26)        | (1.07)        | (1.07)             | 5               | (23)          | (0.73)          |
| <b>New 2010E</b> | <b>(0.25)A</b> | <b>(0.29)A</b> | <b>(0.27)A</b> | <b>(0.26)</b> | <b>(1.07)</b> | <b>(1.07)</b>      | <b>5</b>        | <b>(23)</b>   | <b>(0.73)</b>   |
| Old 2011E        | (0.21)         | (0.21)         | (0.17)         | (0.10)        | (0.67)        | (0.67)             | 53              | (19)          | (0.39)          |
| <b>New 2011E</b> | <b>(0.23)</b>  | <b>(0.22)</b>  | <b>(0.19)</b>  | <b>(0.11)</b> | <b>(0.73)</b> | <b>(0.73)</b>      | <b>53</b>       | <b>(19)</b>   | <b>(0.42)</b>   |
| Old 2012E        | NA             | NA             | NA             | NA            | NA            | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>(0.10)</b>  | <b>(0.08)</b>  | <b>(0.06)</b>  | <b>(0.05)</b> | <b>(0.29)</b> | <b>(0.29)</b>      | <b>80</b>       | <b>(1)</b>    | <b>0.10</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

**Broadwind Energy, Inc. (BWEN:NASDAQ)****Rating: Market Perform**

|                           |                 |                       |             |
|---------------------------|-----------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$2.02          | Target Price          | NM          |
| 52-Week Range             | \$9.92 - \$1.42 |                       |             |
| Market Cap. (mil.)        | \$216           | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 106.9           |                       |             |
| Avg. Daily Vol. (10 day)  | 745,140         | LT Debt (mil.)/% Cap. | \$14/7      |
| Suitability               | High Risk       | BVPS (09/10)          | \$1.63      |

| Non-GAAP EPS     | Q1 Mar         | Q2 Jun         | Q3 Sep         | Q4 Dec        | Full Year     | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|----------------|----------------|----------------|---------------|---------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$(0.07)       | \$(0.06)       | \$(0.05)       | \$(0.11)      | \$(0.29)      | \$(1.14)           | \$198           | \$(8)         | \$(0.01)        |
| Old 2010E        | (0.14)A        | (0.09)A        | (0.08)A        | (0.06)        | (0.36)        | (0.40)             | 142             | (17)          | (0.17)          |
| <b>New 2010E</b> | <b>(0.14)A</b> | <b>(0.09)A</b> | <b>(0.08)A</b> | <b>(0.06)</b> | <b>(0.36)</b> | <b>(0.40)</b>      | <b>142</b>      | <b>(17)</b>   | <b>(0.17)</b>   |
| Old 2011E        | (0.06)         | (0.04)         | (0.02)         | 0.00          | (0.12)        | (0.12)             | 209             | 11            | 0.12            |
| <b>New 2011E</b> | <b>(0.06)</b>  | <b>(0.04)</b>  | <b>(0.02)</b>  | <b>0.00</b>   | <b>(0.12)</b> | <b>(0.12)</b>      | <b>209</b>      | <b>11</b>     | <b>0.12</b>     |
| Old 2012E        | NA             | NA             | NA             | NA            | NA            | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>(0.02)</b>  | <b>0.01</b>    | <b>0.03</b>    | <b>0.05</b>   | <b>0.07</b>   | <b>0.07</b>        | <b>267</b>      | <b>40</b>     | <b>0.38</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

**Energy Conversion Devices, Inc. (ENER:NASDAQ)****Rating: Underperform**

|                           |                  |                       |             |
|---------------------------|------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$4.93           | Target Price          | NM          |
| 52-Week Range             | \$12.75 - \$3.76 |                       |             |
| Market Cap. (mil.)        | \$227            | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 46.1             |                       |             |
| Avg. Daily Vol. (10 day)  | 1,797,200        | LT Debt (mil.)/% Cap. | \$240/45    |
| Suitability               | Not Meaningful   | BVPS (09/10)          | \$6.45      |

| Non-GAAP EPS     | Q1 Sep         | Q2 Dec        | Q3 Mar        | Q4 Jun        | Full Year     | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share | GAAP EPS      |
|------------------|----------------|---------------|---------------|---------------|---------------|-----------------|---------------|-----------------|---------------|
| 2010A            | \$(0.34)       | \$(0.59)      | \$(0.39)      | \$(0.32)      | \$(1.64)      | \$254           | \$(27)        | \$(1.10)        | \$(10.76)     |
| Old 2011E        | (0.29)A        | (0.27)        | (0.30)        | (0.27)        | (1.12)        | 307             | 0             | (0.28)          | (1.19)        |
| <b>New 2011E</b> | <b>(0.29)A</b> | <b>(0.27)</b> | <b>(0.30)</b> | <b>(0.27)</b> | <b>(1.12)</b> | <b>307</b>      | <b>0</b>      | <b>(0.28)</b>   | <b>(1.19)</b> |
| Old 2012E        | (0.24)         | (0.22)        | (0.22)        | (0.18)        | (0.86)        | 416             | 21            | 0.24            | (0.86)        |
| <b>New 2012E</b> | <b>(0.24)</b>  | <b>(0.22)</b> | <b>(0.22)</b> | <b>(0.18)</b> | <b>(0.86)</b> | <b>416</b>      | <b>21</b>     | <b>0.24</b>     | <b>(0.86)</b> |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

**EnerNOC, Inc. (ENOC:NASDAQ)****Rating: Market Perform**

|                           |                   |                       |             |
|---------------------------|-------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$23.87           | Target Price          | NM          |
| 52-Week Range             | \$37.00 - \$23.00 |                       |             |
| Market Cap. (mil.)        | \$625             | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 26.2              |                       |             |
| Avg. Daily Vol. (10 day)  | 390,270           | LT Debt (mil.)/% Cap. | \$0/0       |
| Suitability               | High Risk         | BVPS (09/10)          | \$9.26      |

| Non-GAAP EPS     | Q1 Mar         | Q2 Jun       | Q3 Sep       | Q4 Dec        | Full Year   | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|----------------|--------------|--------------|---------------|-------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$(0.63)       | \$(0.29)     | \$1.12       | \$(0.64)      | \$(0.31)    | \$(0.31)           | \$191           | \$9           | \$0.92          |
| Old 2010E        | (0.59)A        | 0.04A        | 1.67A        | (0.85)        | 0.38        | 0.38               | 281             | 28            | 1.78            |
| <b>New 2010E</b> | <b>(0.59)A</b> | <b>0.04A</b> | <b>1.67A</b> | <b>(0.85)</b> | <b>0.38</b> | <b>0.38</b>        | <b>281</b>      | <b>28</b>     | <b>1.73</b>     |
| Old 2011E        | (0.61)         | 0.17         | 1.84         | (0.64)        | 0.86        | 0.86               | 363             | 48            | 2.45            |
| <b>New 2011E</b> | <b>(0.61)</b>  | <b>0.17</b>  | <b>1.84</b>  | <b>(0.64)</b> | <b>0.86</b> | <b>0.86</b>        | <b>363</b>      | <b>48</b>     | <b>2.45</b>     |
| Old 2012E        | NA             | NA           | NA           | NA            | NA          | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>(0.58)</b>  | <b>0.33</b>  | <b>1.88</b>  | <b>(0.60)</b> | <b>1.12</b> | <b>1.12</b>        | <b>484</b>      | <b>87</b>     | <b>3.77</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

### First Solar, Inc. (FSLR:NASDAQ)

Rating: Market Perform

|                           |                    |                       |             |
|---------------------------|--------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$132.24           | Target Price          | NM          |
| 52-Week Range             | \$153.30 - \$98.71 |                       |             |
| Market Cap. (mil.)        | \$11,452           | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 86.6               |                       |             |
| Avg. Daily Vol. (10 day)  | 1,656,780          | LT Debt (mil.)/% Cap. | \$250/7     |
| Suitability               | Aggressive Growth  | BVPS (09/10)          | \$38.12     |

| Non-GAAP EPS     | Q1 Mar       | Q2 Jun       | Q3 Sep       | Q4 Dec      | Full Year    | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|--------------|--------------|--------------|-------------|--------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$1.99       | \$2.11       | \$1.79       | \$1.65      | \$7.53       | \$7.53             | \$2,066         | \$807         | \$9.64          |
| Old 2010E        | 2.00A        | 1.84A        | 2.21A        | 1.70        | 7.75         | 7.58               | 2,639           | 906           | 8.47            |
| <b>New 2010E</b> | <b>2.00A</b> | <b>1.84A</b> | <b>2.21A</b> | <b>1.70</b> | <b>7.75</b>  | <b>7.58</b>        | <b>2,639</b>    | <b>906</b>    | <b>8.47</b>     |
| Old 2011E        | 1.50         | 2.13         | 2.50         | 2.86        | 9.00         | 9.00               | 3,779           | 1,097         | 12.54           |
| <b>New 2011E</b> | <b>1.50</b>  | <b>2.13</b>  | <b>2.50</b>  | <b>2.86</b> | <b>9.00</b>  | <b>9.00</b>        | <b>3,779</b>    | <b>1,097</b>  | <b>12.54</b>    |
| Old 2012E        | NA           | NA           | NA           | NA          | NA           | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>2.23</b>  | <b>2.57</b>  | <b>2.74</b>  | <b>2.80</b> | <b>10.34</b> | <b>10.34</b>       | <b>4,665</b>    | <b>1,366</b>  | <b>14.88</b>    |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

### GT Solar International, Inc. (SOLR:NASDAQ)

Rating: Outperform

|                           |                   |                       |             |
|---------------------------|-------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$8.50            | Target Price          | \$12.00     |
| 52-Week Range             | \$10.00 - \$4.90  |                       |             |
| Market Cap. (mil.)        | \$1,057           | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 124.3             |                       |             |
| Avg. Daily Vol. (10 day)  | 4,349,200         | LT Debt (mil.)/% Cap. | \$0/0       |
| Suitability               | Aggressive Growth | BVPS (09/10)          | \$1.84      |

| Non-GAAP EPS     | Q1 Jun       | Q2 Sep       | Q3 Dec      | Q4 Mar      | Full Year   | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|--------------|--------------|-------------|-------------|-------------|--------------------|-----------------|---------------|-----------------|
| 2010A            | \$0.05       | \$0.06       | \$0.25      | \$0.23      | \$0.60      | \$0.60             | \$544           | \$153         | \$0.47          |
| Old 2011E        | 0.11A        | 0.28A        | 0.37        | 0.33        | 1.08        | 1.08               | 828             | 244           | 1.33            |
| <b>New 2011E</b> | <b>0.11A</b> | <b>0.28A</b> | <b>0.37</b> | <b>0.33</b> | <b>1.08</b> | <b>1.08</b>        | <b>828</b>      | <b>242</b>    | <b>1.35</b>     |
| Old 2012E        | 0.32         | 0.32         | 0.31        | 0.30        | 1.24        | 1.24               | 843             | 248           | 1.52            |
| <b>New 2012E</b> | <b>0.32</b>  | <b>0.32</b>  | <b>0.31</b> | <b>0.30</b> | <b>1.24</b> | <b>1.24</b>        | <b>843</b>      | <b>246</b>    | <b>1.52</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Our \$12.00 target price is based on a 10x multiple to our new FY12 EPS estimate of \$1.24, a conservative multiple given the industry's cyclicity and susceptibility to policy changes.

| <b>JA Solar Holdings Co., Ltd. (JASO:NASDAQ)</b> |                   |                       |             | <b>Rating: Outperform</b> |  |
|--|-------------------|-----------------------|-------------|---------------------------|--|
| Current Price(12/20/2010)                        | \$6.81            | Target Price          | \$12.00     |                           |  |
| 52-Week Range                                    | \$10.24 - \$4.22  | Dividend/Yield        | \$0.00/0.0% |                           |  |
| Market Cap. (mil.)                               | \$1,115           | LT Debt (mil.)/% Cap. | \$371/30    |                           |  |
| Shares Out. (mil.)                               | 163.7             | BVPS (09/10)          | \$5.33      |                           |  |
| Avg. Daily Vol. (10 day)                         | 6,246,270         |                       |             |                           |  |
| Suitability                                      | Aggressive Growth |                       |             |                           |  |

| <b>Non-GAAP EPS</b> | <b>Q1 Mar</b> | <b>Q2 Jun</b> | <b>Q3 Sep</b> | <b>Q4 Dec</b> | <b>Full Year</b> | <b>GAAP EPS Full Year</b> | <b>Revenues (mil.)</b> | <b>Cash Flow/Share</b> | <b>EBITDA (mil.)</b> |
|---------------------|---------------|---------------|---------------|---------------|------------------|---------------------------|------------------------|------------------------|----------------------|
| 2009A               | \$(0.18)      | \$(0.09)      | \$0.10        | \$0.14        | \$(0.01)         | \$(0.11)                  | \$554                  | \$0.32                 | \$57                 |
| Old 2010E           | 0.24A         | 0.27A         | 0.56A         | 0.40          | 1.46             | 1.28                      | 1,713                  | 1.66                   | 347                  |
| <b>New 2010E</b>    | <b>0.24A</b>  | <b>0.27A</b>  | <b>0.56A</b>  | <b>0.40</b>   | <b>1.46</b>      | <b>1.28</b>               | <b>1,713</b>           | <b>1.66</b>            | <b>344</b>           |
| Old 2011E           | 0.31          | 0.34          | 0.35          | 0.36          | 1.35             | 1.35                      | 2,100                  | 1.85                   | 363                  |
| <b>New 2011E</b>    | <b>0.31</b>   | <b>0.34</b>   | <b>0.35</b>   | <b>0.36</b>   | <b>1.35</b>      | <b>1.35</b>               | <b>2,100</b>           | <b>1.85</b>            | <b>360</b>           |
| Old 2012E           | NA            | NA            | NA            | NA            | NA               | NA                        | NA                     | NA                     | NA                   |
| <b>New 2012E</b>    | <b>0.34</b>   | <b>0.38</b>   | <b>0.39</b>   | <b>0.40</b>   | <b>1.51</b>      | <b>1.51</b>               | <b>2,504</b>           | <b>2.16</b>            | <b>432</b>           |

Figures are based on ADRs/ADSs. Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Our \$12.00 target price is based on an 8x multiple to our new 2012 EPS estimate of \$1.51, which we believe is warranted given our projection of three-year EPS growth of at least 20% balanced by the elevated earnings risk from continued volatility in exchange rates.

| <b>Real Goods Solar, Inc. (RSOL:NASDAQ)</b> |                 |                       |             | <b>Rating: Outperform</b> |  |
|---|-----------------|-----------------------|-------------|---------------------------|--|
| Current Price(12/20/2010)                   | \$2.47          | Target Price          | \$4.00      |                           |  |
| 52-Week Range                               | \$4.80 - \$2.25 | Dividend/Yield        | \$0.00/0.0% |                           |  |
| Market Cap. (mil.)                          | \$45            | LT Debt (mil.)/% Cap. | \$0/0       |                           |  |
| Shares Out. (mil.)                          | 18.4            | BVPS (09/10)          | \$1.73      |                           |  |
| Avg. Daily Vol. (10 day)                    | 27,290          |                       |             |                           |  |
| Suitability                                 | High Risk       |                       |             |                           |  |

| <b>Non-GAAP EPS</b> | <b>Q1 Mar</b> | <b>Q2 Jun</b> | <b>Q3 Sep</b> | <b>Q4 Dec</b> | <b>Full Year</b> | <b>GAAP EPS Full Year</b> | <b>Revenues (mil.)</b> | <b>EBITDA (mil.)</b> | <b>Cash Flow/Share</b> |
|---------------------|---------------|---------------|---------------|---------------|------------------|---------------------------|------------------------|----------------------|------------------------|
| 2009A               | \$(0.08)      | \$(0.03)      | \$0.01        | \$0.01        | \$(0.09)         | \$(0.09)                  | \$64                   | \$(2)                | \$(0.11)               |
| Old 2010E           | 0.00A         | 0.02A         | 0.04A         | 0.01          | 0.07             | 0.06                      | 78                     | 2                    | 0.16                   |
| <b>New 2010E</b>    | <b>0.00A</b>  | <b>0.02A</b>  | <b>0.04A</b>  | <b>0.01</b>   | <b>0.07</b>      | <b>0.06</b>               | <b>78</b>              | <b>2</b>             | <b>0.13</b>            |
| Old 2011E           | 0.00          | 0.04          | 0.06          | 0.07          | 0.17             | 0.17                      | 120                    | 6                    | 0.36                   |
| <b>New 2011E</b>    | <b>0.00</b>   | <b>0.04</b>   | <b>0.06</b>   | <b>0.07</b>   | <b>0.17</b>      | <b>0.17</b>               | <b>120</b>             | <b>6</b>             | <b>0.36</b>            |
| Old 2012E           | NA            | NA            | NA            | NA            | NA               | NA                        | NA                     | NA                   | NA                     |
| <b>New 2012E</b>    | <b>0.03</b>   | <b>0.05</b>   | <b>0.07</b>   | <b>0.08</b>   | <b>0.24</b>      | <b>0.24</b>               | <b>148</b>             | <b>8</b>             | <b>0.47</b>            |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Our \$4.00 target price is based on a 17x multiple to our new 2012 EPS estimate of \$0.24, which we believe is warranted given our three-year EPS CAGR assumption of at least 20%.

| <b>Satcon Technology Corp. (SATC:NASDAQ)</b> |                 |                       |             | <b>Rating: Market Perform</b> |  |
|--|-----------------|-----------------------|-------------|-------------------------------|--|
| Current Price(12/20/2010)                    | \$4.34          | Target Price          | NM          |                               |  |
| 52-Week Range                                | \$4.53 - \$2.19 | Dividend/Yield        | \$0.00/0.0% |                               |  |
| Market Cap. (mil.)                           | \$582           | LT Debt (mil.)/% Cap. | \$24/41     |                               |  |
| Shares Out. (mil.)                           | 134.0           | BVPS (09/10)          | \$0.15      |                               |  |
| Avg. Daily Vol. (10 day)                     | 1,788,630       |                       |             |                               |  |
| Suitability                                  | Venture Risk    |                       |             |                               |  |



| Non-GAAP EPS     | Q1 Mar         | Q2 Jun         | Q3 Sep       | Q4 Dec      | Full Year     | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|----------------|----------------|--------------|-------------|---------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$(0.13)       | \$(0.16)       | \$(0.11)     | \$(0.08)    | \$(0.47)      | \$(0.57)           | \$53            | \$(22)        | \$(0.31)        |
| Old 2010E        | (0.11)A        | (0.11)A        | 0.00A        | 0.03        | (0.14)        | (0.15)             | 174             | 1             | 0.06            |
| <b>New 2010E</b> | <b>(0.11)A</b> | <b>(0.11)A</b> | <b>0.00A</b> | <b>0.03</b> | <b>(0.14)</b> | <b>(0.15)</b>      | <b>174</b>      | <b>0</b>      | <b>0.06</b>     |
| Old 2011E        | 0.03           | 0.05           | 0.05         | 0.06        | 0.20          | 0.20               | 349             | 49            | 0.43            |
| <b>New 2011E</b> | <b>0.03</b>    | <b>0.05</b>    | <b>0.05</b>  | <b>0.06</b> | <b>0.20</b>   | <b>0.20</b>        | <b>349</b>      | <b>49</b>     | <b>0.43</b>     |
| Old 2012E        | NA             | NA             | NA           | NA          | NA            | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>0.05</b>    | <b>0.07</b>    | <b>0.08</b>  | <b>0.09</b> | <b>0.28</b>   | <b>0.28</b>        | <b>426</b>      | <b>68</b>     | <b>0.57</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

### SunPower Corp. (SPWRA:NASDAQ)

Rating: Market Perform

|                           |                   |                       |             |
|---------------------------|-------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$13.10           | Target Price          | NM          |
| 52-Week Range             | \$26.35 - \$9.61  |                       |             |
| Market Cap. (mil.)        | \$1,383           | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 105.6             |                       |             |
| Avg. Daily Vol. (10 day)  | 1,869,110         | LT Debt (mil.)/% Cap. | \$585/29    |
| Suitability               | Aggressive Growth | BVPS (09/10)          | \$13.52     |

| Non-GAAP EPS     | Q1 Mar       | Q2 Jun       | Q3 Sep       | Q4 Dec      | Full Year   | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|--------------|--------------|--------------|-------------|-------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$(0.09)     | \$0.09       | \$0.46       | \$0.47      | \$1.00      | \$0.35             | \$1,524         | \$146         | \$1.79          |
| Old 2010E        | 0.05A        | 0.15A        | 0.26A        | 1.07        | 1.59        | 0.83               | 2,176           | 191           | 2.59            |
| <b>New 2010E</b> | <b>0.05A</b> | <b>0.15A</b> | <b>0.26A</b> | <b>1.07</b> | <b>1.59</b> | <b>0.83</b>        | <b>2,176</b>    | <b>191</b>    | <b>2.59</b>     |
| Old 2011E        | 0.18         | 0.30         | 0.45         | 0.93        | 1.92        | 0.51               | 2,784           | 260           | 4.36            |
| <b>New 2011E</b> | <b>0.18</b>  | <b>0.30</b>  | <b>0.45</b>  | <b>0.93</b> | <b>1.92</b> | <b>0.51</b>        | <b>2,784</b>    | <b>260</b>    | <b>4.36</b>     |
| Old 2012E        | NA           | NA           | NA           | NA          | NA          | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>0.55</b>  | <b>0.62</b>  | <b>0.65</b>  | <b>0.68</b> | <b>2.50</b> | <b>0.87</b>        | <b>3,531</b>    | <b>370</b>    | <b>5.12</b>     |

Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

### Suntech Power Holdings Co., Ltd. (STP:NYSE)

Rating: Market Perform

|                           |                  |                       |             |
|---------------------------|------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$8.28           | Target Price          | NM          |
| 52-Week Range             | \$18.78 - \$7.05 |                       |             |
| Market Cap. (mil.)        | \$1,501          | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 181.3            |                       |             |
| Avg. Daily Vol. (10 day)  | 3,157,850        | LT Debt (mil.)/% Cap. | \$1,727/54  |
| Suitability               | Growth           | BVPS (09/10)          | \$8.06      |

| Non-GAAP EPS     | Q1 Mar       | Q2 Jun       | Q3 Sep       | Q4 Dec      | Full Year   | GAAP EPS Full Year | Revenues (mil.) | EBITDA (mil.) | Cash Flow/Share |
|------------------|--------------|--------------|--------------|-------------|-------------|--------------------|-----------------|---------------|-----------------|
| 2009A            | \$0.01       | \$0.06       | \$0.16       | \$0.25      | \$0.50      | \$0.50             | \$1,693         | \$246         | \$1.14          |
| Old 2010E        | 0.11A        | 0.03A        | 0.18A        | 0.26        | 0.58        | (0.41)             | 2,808           | 359           | 1.41            |
| <b>New 2010E</b> | <b>0.11A</b> | <b>0.03A</b> | <b>0.18A</b> | <b>0.26</b> | <b>0.58</b> | <b>(0.41)</b>      | <b>2,808</b>    | <b>359</b>    | <b>1.41</b>     |
| Old 2011E        | 0.29         | 0.35         | 0.36         | 0.38        | 1.38        | 1.38               | 3,522           | 537           | 2.43            |
| <b>New 2011E</b> | <b>0.27</b>  | <b>0.33</b>  | <b>0.34</b>  | <b>0.36</b> | <b>1.30</b> | <b>1.30</b>        | <b>3,522</b>    | <b>526</b>    | <b>2.35</b>     |
| Old 2012E        | NA           | NA           | NA           | NA          | NA          | NA                 | NA              | NA            | NA              |
| <b>New 2012E</b> | <b>0.32</b>  | <b>0.38</b>  | <b>0.40</b>  | <b>0.42</b> | <b>1.51</b> | <b>1.51</b>        | <b>3,943</b>    | <b>635</b>    | <b>2.82</b>     |

Figures are based on ADRs/ADSs. Rows may not add due to rounding. Non-GAAP EPS excludes extraordinary items.

Target price is not meaningful.

**Trina Solar Limited (TSL:NYSE)****Rating: Outperform**

|                           |                   |                       |             |
|---------------------------|-------------------|-----------------------|-------------|
| Current Price(12/20/2010) | \$23.10           | Target Price          | \$33.00     |
| 52-Week Range             | \$31.89 - \$14.85 |                       |             |
| Market Cap. (mil.)        | \$1,820           | Dividend/Yield        | \$0.00/0.0% |
| Shares Out. (mil.)        | 78.8              |                       |             |
| Avg. Daily Vol. (10 day)  | 2,960,930         | LT Debt (mil.)/% Cap. | \$670/39    |
| Suitability               | Aggressive Growth | BVPS (09/10)          | \$13.08     |

|                  | Non-GAAP<br>EPS | Q1<br>Mar    | Q2<br>Jun    | Q3<br>Sep   | Q4<br>Dec   | Full<br>Year | GAAP EPS<br>Full Year | Revenues<br>(mil.) | EBITDA<br>(mil.) | Cash<br>Flow/Share |
|------------------|-----------------|--------------|--------------|-------------|-------------|--------------|-----------------------|--------------------|------------------|--------------------|
| 2009A            | \$0.01          | \$0.35       | \$0.64       | \$0.74      | \$1.88      | \$1.70       | \$845                 | \$170              | \$3.11           |                    |
| Old 2010E        | 0.66A           | 0.52A        | 1.08A        | 1.04        | 3.31        | 3.31         | 1,744                 | 441                | 5.07             |                    |
| <b>New 2010E</b> | <b>0.66A</b>    | <b>0.52A</b> | <b>1.08A</b> | <b>1.04</b> | <b>3.31</b> | <b>3.31</b>  | <b>1,744</b>          | <b>441</b>         | <b>5.07</b>      |                    |
| Old 2011E        | 0.71            | 0.77         | 0.84         | 0.93        | 3.24        | 3.24         | 2,092                 | 451                | 5.61             |                    |
| <b>New 2011E</b> | <b>0.71</b>     | <b>0.77</b>  | <b>0.84</b>  | <b>0.93</b> | <b>3.24</b> | <b>3.24</b>  | <b>2,092</b>          | <b>451</b>         | <b>5.61</b>      |                    |
| Old 2012E        | NA              | NA           | NA           | NA          | NA          | NA           | NA                    | NA                 | NA               |                    |
| <b>New 2012E</b> | <b>0.81</b>     | <b>0.87</b>  | <b>0.93</b>  | <b>1.00</b> | <b>3.61</b> | <b>3.61</b>  | <b>2,383</b>          | <b>513</b>         | <b>6.48</b>      |                    |

Figures are based on ADRs/ADSs. Rows may not add due to rounding and changes in the share base. Non-GAAP EPS excludes extraordinary items.

Our \$33.00 target price is based on a 9x multiple to our new 2012 EPS estimate of \$3.61, which we believe is warranted given our three-year EPS CAGR assumption of at least 25% balanced by the elevated earnings risk from continued volatility in exchange rates.

## Important Investor Disclosures

**Raymond James** is the global brand name for Raymond James & Associates (RJA) and its non-US affiliates worldwide. Raymond James & Associates is located at The Raymond James Financial Center, 880 Carillon Parkway, St. Petersburg, FL 33716, (727) 567-1000. Affiliates include the following entities, which are responsible for the distribution of research in their respective areas. In Canada, Raymond James Ltd., Suite 2200, 925 West Georgia Street, Vancouver, BC V6C 3L2, (604) 659-8200. In Latin America, Raymond James Latin America, Ruta 8, km 17,500, 91600 Montevideo, Uruguay, 00598 2 518 2033. In Europe, Raymond James European Equities, 40 rue La Boetie, 75008, Paris, France, +33 1 45 61 64 90.

This document is not directed to, or intended for distribution to or use by, any person or entity that is a citizen or resident of or located in any locality, state, country, or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation. The securities discussed in this document may not be eligible for sale in some jurisdictions. This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction where such an offer or solicitation would be illegal. It does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Past performance is not a guide to future performance, future returns are not guaranteed, and a loss of original capital may occur. **Investors should consider this report as only a single factor in making their investment decision.**

Investing in securities of issuers organized outside of the U.S., including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of, the U.S. Securities and Exchange Commission. There may be limited information available on such securities. Investors who have received this report may be prohibited in certain states or other jurisdictions from purchasing the securities mentioned in this report. Please ask your Financial Advisor for additional details.

The information provided is as of the date above and subject to change, and it should not be deemed a recommendation to buy or sell any security. Certain information has been obtained from third-party sources we consider reliable, but we do not guarantee that such information is accurate or complete. Persons within the Raymond James family of companies may have information that is not available to the contributors of the information contained in this publication. Raymond James, including affiliates and employees, may execute transactions in the securities listed in this publication that may not be consistent with the ratings appearing in this publication.

Additional information is available on request.

### Analyst Information

**Registration of Non-U.S. Analysts:** The analysts listed on the front of this report who are not employees of Raymond James & Associates, Inc., are not registered/qualified as research analysts under FINRA rules, are not associated persons of Raymond James & Associates, Inc., and are not subject to NASD Rule 2711 and NYSE Rule 472 restrictions on communications with covered companies, public companies, and trading securities held by a research analyst account.

**Analyst Holdings and Compensation:** Equity analysts and their staffs at Raymond James are compensated based on a salary and bonus system. Several factors enter into the bonus determination including quality and performance of research product, the analyst's success in rating stocks versus an industry index, and support effectiveness to trading and the retail and institutional sales forces. Other factors may include but are not limited to: overall ratings from internal (other than investment banking) or external parties and the general productivity and revenue generated in covered stocks.

The views expressed in this report accurately reflect the personal views of the analyst(s) covering the subject securities. No part of said person's compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in this research report. In addition, said analyst has not received compensation from any subject company in the last 12 months.

### Ratings and Definitions

#### Raymond James & Associates (U.S.) definitions

**Strong Buy (SB1)** Expected to appreciate and produce a total return of at least 15% and outperform the S&P 500 over the next six months. For higher yielding and more conservative equities, such as REITs and certain MLPs, a total return of at least 15% is expected to be realized over the next 12 months.

**Outperform (MO2)** Expected to appreciate and outperform the S&P 500 over the next 12 months. For higher yielding and more conservative equities, such as REITs and certain MLPs, an Outperform rating is used for securities where we are comfortable with the relative safety of the dividend and expect a total return modestly exceeding the dividend yield over the next 12 months.

**Market Perform (MP3)** Expected to perform generally in line with the S&P 500 over the next 12 months and is potentially a source of funds for more highly rated securities.

**Underperform (MU4)** Expected to underperform the S&P 500 or its sector over the next six to 12 months and should be sold.

#### Raymond James Ltd. (Canada) definitions

**Strong Buy (SB1)** The stock is expected to appreciate and produce a total return of at least 15% and outperform the S&P/TSX Composite Index over the next six months.

**Outperform (MO2)** The stock is expected to appreciate and outperform the S&P/TSX Composite Index over the next twelve months.

**Market Perform (MP3)** The stock is expected to perform generally in line with the S&P/TSX Composite Index over the next twelve months and is potentially a source of funds for more highly rated securities.

**Underperform (MU4)** The stock is expected to underperform the S&P/TSX Composite Index or its sector over the next six to twelve months and should be sold.

#### Raymond James Latin American rating definitions

**Strong Buy (SB1)** Expected to appreciate and produce a total return of at least 25.0% over the next twelve months.

**Outperform (MO2)** Expected to appreciate and produce a total return of between 15.0% and 25.0% over the next twelve months.

**Market Perform (MP3)** Expected to perform in line with the underlying country index.

**Underperform (MU4)** Expected to underperform the underlying country index.

#### Raymond James European Equities rating definitions

**Strong Buy (1)** Absolute return expected to be at least 10% over the next 12 months and perceived best performer in the sector universe.

**Buy (2)** Absolute return expected to be at least 10% over the next 12 months.

**Fair Value (3)** Stock currently trades around its fair price and should perform in the range of -10% to +10% over the next 12 months.

**Sell (4)** Expected absolute drop in the share price of more than 10% in next 12 months.

#### Rating Distributions

Out of approximately 818 rated stocks in the Raymond James coverage universe, 53% have Strong Buy or Outperform ratings (Buy), 41% are rated Market Perform (Hold) and 6% are rated Underperform (Sell). Within those rating categories, 22% of the Strong Buy- or Outperform (Buy) rated companies either currently are or have been Raymond James Investment Banking clients within the past three years; 12% of the Market Perform (Hold) rated companies are or have been clients and 16% of the Underperform (Sell) rated companies are or have been clients.

#### Suitability Categories (SR)

For stocks rated by Raymond James & Associates only, the following Suitability Categories provide an assessment of potential risk factors for investors. Suitability ratings are not assigned to stocks rated Underperform (Sell). Projected 12-month price targets are assigned only to stocks rated Strong Buy or Outperform.

**Total Return (TR)** Lower risk equities possessing dividend yields above that of the S&P 500 and greater stability of principal.

**Growth (G)** Low to average risk equities with sound financials, more consistent earnings growth, possibly a small dividend, and the potential for long-term price appreciation.

**Aggressive Growth (AG)** Medium or higher risk equities of companies in fast growing and competitive industries, with less predictable earnings and acceptable, but possibly more leveraged balance sheets.

**High Risk (HR)** Companies with less predictable earnings (or losses), rapidly changing market dynamics, financial and competitive issues, higher price volatility (beta), and risk of principal.

**Venture Risk (VR)** Companies with a short or unprofitable operating history, limited or less predictable revenues, very high risk associated with success, and a substantial risk of principal.

#### Raymond James Relationship Disclosures

Raymond James expects to receive or intends to seek compensation for investment banking services from the subject companies in the next three months.

| Company Name                            | Disclosure  |
|---|---|
| A-Power Energy Generation Systems, Ltd. | Raymond James & Associates makes a NASDAQ market in shares of APWR.   |
| Alliance Data Systems Corp.             | Raymond James & Associates received non-investment banking securities-related compensation from ADS within the past 12 months.<br>Raymond James & Associates received non-securities-related compensation from ADS within the past 12 months. |
| American Superconductor Corp.           | Raymond James & Associates makes a NASDAQ market in shares of AMSC.   |

| Company Name                     | Disclosure  |
|----------------------------------|---|
| Ascent Solar Technologies, Inc.  | Raymond James & Associates makes a NASDAQ market in shares of ASTI.<br>Raymond James & Associates co-managed a follow-on offering of ASTI shares in October 2009.   |
| Broadwind Energy, Inc.           | Raymond James & Associates makes a NASDAQ market in shares of BWEN.<br>Raymond James & Associates co-managed a follow-on offering of 17.3 million BWEN shares at \$5.75 per share in January 2010.  |
| Clean Energy Fuels Corp.         | Raymond James & Associates makes a NASDAQ market in shares of CLNE.   |
| Codexis, Inc.                    | Raymond James & Associates makes a NASDAQ market in shares of CDXS.   |
| Dollar General Corp.             | Raymond James & Associates received non-securities-related compensation from DG within the past 12 months.  |
| Energy Conversion Devices, Inc.  | Raymond James & Associates makes a NASDAQ market in shares of ENER.   |
| EnerNOC, Inc.                    | Raymond James & Associates makes a NASDAQ market in shares of ENOC.   |
| First Solar, Inc.                | Raymond James & Associates makes a NASDAQ market in shares of FSLR.   |
| GT Solar International, Inc.     | Raymond James & Associates makes a NASDAQ market in shares of SOLR.<br>Raymond James & Associates co-managed a secondary offering of 28.8 million SOLR shares at \$4.85 per share in March 2009.  |
| JA Solar Holdings Co., Ltd.      | Raymond James & Associates makes a NASDAQ market in shares of JASO.   |
| Real Goods Solar, Inc.           | Raymond James & Associates makes a NASDAQ market in shares of RSOL.   |
| Satcon Technology Corp.          | Raymond James & Associates makes a NASDAQ market in shares of SATC.   |
| Southern Pacific Resources Corp. | Raymond James Ltd. has managed or co-managed a public offering of securities within the last 12 months with respect to Southern Pacific Resources Corp..<br>Raymond James Ltd. has provided investment banking services within the last 12 months with respect to Southern Pacific Resources Corp..<br>Raymond James Ltd. has received compensation for investment banking services within the last 12 months with respect to Southern Pacific Resources Corp.. |
| SunPower Corp.                   | Raymond James & Associates makes a NASDAQ market in shares of SPWRA.  |

## Stock Charts, Target Prices, and Valuation Methodologies

**Valuation Methodology:** The Raymond James methodology for assigning ratings and target prices includes a number of qualitative and quantitative factors including an assessment of industry size, structure, business trends and overall attractiveness; management effectiveness; competition; visibility; financial condition, and expected total return, among other factors. These factors are subject to change depending on overall economic conditions or industry- or company-specific occurrences. Only stocks rated Strong Buy (SB1) or Outperform (MO2) have target prices and thus valuation methodologies.

## Risk Factors

**General Risk Factors:** Following are some general risk factors that pertain to the projected target prices included on Raymond James research: (1) Industry fundamentals with respect to customer demand or product / service pricing could change and adversely impact expected revenues and earnings; (2) Issues relating to major competitors or market shares or new product expectations could change investor attitudes toward the sector or this stock; (3) Unforeseen developments with respect to the management, financial condition or accounting policies or practices could alter the prospective valuation; or (4) External factors that affect the U.S. economy, interest rates, the U.S. dollar or major segments of the economy could alter investor confidence and investment prospects. International investments involve additional risks such as currency fluctuations, differing financial accounting standards, and possible political and economic instability.

### Specific Investment Risks Related to the Industry or Issuer

#### 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.

**Additional Risk and Disclosure information, as well as more information on the Raymond James rating system and suitability categories, is available at [rjcapitalmarkets.com/SearchForDisclosures\\_main.asp](http://rjcapitalmarkets.com/SearchForDisclosures_main.asp). Copies of research or Raymond James' summary policies relating to research analyst independence can be obtained by contacting any Raymond James & Associates or Raymond James Financial Services office (please see [raymondjames.com](http://raymondjames.com) for office locations) or by calling 727-567-1000, toll free 800-237-5643 or sending a written request to the Equity Research Library, Raymond James & Associates, Inc., Tower 3, 6<sup>th</sup> Floor, 880 Carillon Parkway, St. Petersburg, FL 33716.**

*For clients in the United Kingdom:*

**For clients of Raymond James & Associates (RJA) and Raymond James Financial International, Ltd. (RJFI):** This report is for distribution only to persons who fall within Articles 19 or Article 49(2) of the Financial Services and Markets Act (Financial Promotion) Order 2000 as investment professionals and may not be distributed to, or relied upon, by any other person.

**For clients of Raymond James Investment Services, Ltd.:** This report is intended only for clients in receipt of Raymond James Investment Services, Ltd.'s Terms of Business or others to whom it may be lawfully submitted.

For purposes of the Financial Services Authority requirements, this research report is classified as objective with respect to conflict of interest management. RJA, Raymond James Financial International, Ltd., and Raymond James Investment Services, Ltd. are authorized and regulated in the U.K. by the Financial Services Authority.

*For institutional clients in the European Economic Area (EEA) outside of the United Kingdom:*

This document (and any attachments or exhibits hereto) is intended only for EEA institutional clients or others to whom it may lawfully be submitted.

*For Canadian clients:*

**Review of Material Operations:** The Analyst and/or Associate is required to conduct due diligence on, and where deemed appropriate visit, the material operations of a subject company before initiating research coverage. The scope of the review may vary depending on the complexity of the subject company's business operations.

This report is not prepared subject to Canadian disclosure requirements.

**Proprietary Rights Notice:** By accepting a copy of this report, you acknowledge and agree as follows:

This report is provided to clients of Raymond James only for your personal, noncommercial use. Except as expressly authorized by Raymond James, you may not copy, reproduce, transmit, sell, display, distribute, publish, broadcast, circulate, modify, disseminate or commercially exploit the information contained in this report, in printed, electronic or any other form, in any manner, without the prior express written consent of Raymond James. You also agree not to use the information provided in this report for any unlawful purpose.

This report and its contents are the property of Raymond James and are protected by applicable copyright, trade secret or other intellectual property laws (of the United States and other countries). United States law, 17 U.S.C. Sec.501 et seq, provides for civil and criminal penalties for copyright infringement.