



2013 North American Solar Energy Market
Price Performance Value Leadership Award



F R O S T & S U L L I V A N



50 Years of Growth, Innovation & Leadership

Price Performance Value Leadership Award Solar Energy Market North America, 2013

Frost & Sullivan's Global Research Platform

Frost & Sullivan is in its 50th year in business with a global research organization of 1,800 analysts and consultants who monitor more than 300 industries and 250,000 companies. The company's research philosophy originates with the CEO's 360-Degree Perspective™, which serves as the foundation of its TEAM Research™ methodology. This unique approach enables us to determine how best-in-class companies worldwide manage growth, innovation and leadership. Based on the findings of this Best Practices research, Frost & Sullivan is proud to present the 2013 North American Price Performance Value Leadership Award in the Solar Energy Market to Alion Energy.

Significance of the Price Performance Value Leadership Award

Key Industry Challenges Addressed by Alion Energy's Process Automation

Frost & Sullivan independent research on the global solar market indicates that solar energy has become, and will continue to be, one of the fastest growing technologies in the global energy industry over the next few years. Globally, cumulative photovoltaic (PV) solar installations reached 69.7 GW in 2011. The European region represented 74.1 percent, or 51.7 GW of the total installed capacity. Europe was the primary location for PV installations in 2011. However, Frost & Sullivan analysis reveals that North America and Asia Pacific are projected to be the regions that will have an increased installed capacity during the forecast period (2012–2016).

In terms of installations, the PV market is projected to have a compound annual growth rate (CAGR) of 30.5 percent for the period 2012 to 2016. This growth in solar installations has not translated into greater revenue, due to the continued decline in the average selling price of solar modules. The PV industry experienced a tremendous supply and demand imbalance throughout the value chain in 2011. Most solar module manufacturers had to reduce prices, decrease margins, and, in some cases, close manufacturing facilities.

Another key issue is the installation process. The typical installation process for utility scale projects has its roots in small-scale, 20-panel, residential installations. Despite incremental improvements to the process, a 200,000-panel installation retains many of the same characteristics as a 20-panel installation. They are both labor-intensive, requiring repetitive bolt-tightening and hauling glass. While these flaws are minor within a 20-panel system, they create major inefficiencies for 20,000- or 200,000-panel systems.

Frost & Sullivan appreciates the fact that Alion Energy redesigned the entire installation process - rather than simply making incremental improvements to existing rack systems. By

combining robotic installation technology with established construction practices, Alion Energy built a system twice as fast, with up to 75% less labor.

In addition, cost-effective robotic cleaning technologies improve energy yields. Alion Energy's automated cleaning robot provides cleaning solutions at lower investment points, so that it is cost-effective to conduct regular cleanings, while reducing water consumption by about 90% in heavy soiling areas, such as the Middle East.

Key Benchmarking Criteria for Price Performance Value Leadership Award

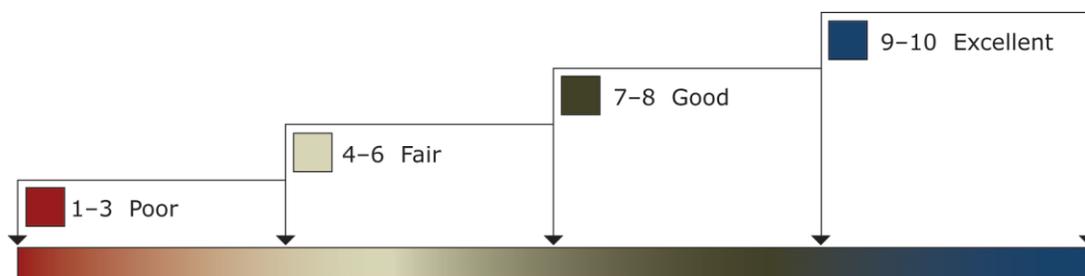
For the Price Performance Value Leadership Award, the following criteria were used to benchmark Alion Energy's performance against key competitors:

- **Price Competitiveness**
- **Features**
- **Ease of use**
- **Service Effectiveness**
- **Product matched to client needs**

Decision Support Matrix and Measurement Criteria

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Matrix (DSM). The DSM is an analytical tool that compares companies' performance relative to each other with an integration of quantitative and qualitative metrics. The DSM features criteria unique to each Award category and ranks importance by assigning weights to each criterion. The relative weighting reflects current market conditions and illustrates the associated importance of each criterion according to Frost & Sullivan. Fundamentally, each DSM is distinct for each market and Award category. The DSM allows our research and consulting teams to objectively analyze each company's performance on each criterion relative to its top competitors and assign performance ratings on that basis. The DSM follows a 10-point scale that allows for nuances in performance evaluation.

Performance-Based Ratings for Decision Support Matrix



This exercise encompasses all criteria, leading to a weighted average ranking of each company. Researchers can then easily identify the company with the highest ranking. As a final step, the research team confirms the veracity of the model by ensuring that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

Frost & Sullivan’s 10-Step Process for Identifying Award Recipients



Best Practice Award Analysis for Alion Energy

The Decision Support Matrix illustrates the relative importance of each criterion for the Price Performance Value Leadership Award and the ratings for each company under evaluation. To remain unbiased while also protecting the interests of the other organizations reviewed, we have chosen to refer to the other key players as Competitor 1 and Competitor 2.

Decision Support Matrix for Price Performance Value Leadership Award

<i>Measurement of 1-10 (1 = lowest; 10 = highest)</i>	Award Criteria					Weighted Rating
	Price Competitiveness	Features	Ease of Use	Service Effectiveness	Product Matched to Client Needs	
Relative Weight (%)	20%	20%	20%	20%	20%	100%
Alion Energy	9.8	9.5	9.5	9.2	9.5	9.5
Competitor 1	8.9	8.7	8.9	8.4	8.5	8.7
Competitor 2	8.2	8.4	8.3	8.0	8.5	8.3

Criterion 1: Price Competitiveness

Alion Energy's robotic technologies deliver revolutionary installation and cleaning services at a highly competitive cost structure. This makes their services extremely cost-effective for building and maintaining utility-scale solar plants.

Frost & Sullivan points out that Alion Energy's disruptive technology provides installation services at quicker speeds and with better installation quality, at lower price points when compared to the most reputable utility scale installers. This is done by changing the materials and design used in the mounting structure and automating the installation work.

Criterion 2: Features

With robotics playing a key role in today's solar industry Alion Energy uses its disruptive robotic technology to build utility scale projects twice as fast, with less than half the labor.

Key features of Alion Energy's robotic technology include:

- Robotic installation vehicle cuts time and labor-intensive installations
- Faster and accurate installations
- Smaller crew and fewer materials deliver high profits
- Cost-effective robotic cleaning technology

Frost & Sullivan expects that Alion Energy's disruptive installation technology and lower levelized cost of energy will consistently offer solar electricity at costs that compete with other energy sources. As a result, utilities now have the ability to better diversify their generation portfolio and add more solar to their total generation mix. Ultimately, Alion Energy's technology enables solar to compete with conventional daytime peak generation - such as natural gas - and opens up the entire energy generation market.

Criterion 3: Ease of Use

Alion Energy makes it easier for the asset owner to operate and maintain systems.

Alion Energy's concrete frames and epoxies minimize corrections to frame and bolt mountings during startup and system testing, as well as corrosion issues over the life of the project. Additionally, the company's cleaning robots reduce the need to manage cleaning crews in the field, substantially reducing both the cost and water usage of cleaning in areas with high soiling.

Alion Energy's technology enables solar to:

- 1) meet the needs of new market segments outside of the traditional solar market

2) better meet the needs of market segments within the traditional solar utility scale market

Alion Energy's non-penetrating technology is perfectly suited for brownfields, landfills and areas susceptible to metal corrosion (e.g., island nations or regions with marine layers), without having to modify the company's standard construction practices. Alion's system is also well suited to coastal areas, due to its ability to withstand hurricane-force winds. It can meet the needs of these systems without significantly increasing costs, unlike conventional systems.

Criterion 4: Service Support

Alion views customer service and support as critical component of their business.

During construction, Alion has onsite superintendents who supervise the work and serve as an on-the-ground staff to meet any service or support needs. Post-construction, the company offers industry-standard workmanship warranties. The cleaning robots are designed to provide immediate notice through wireless networks if problems are to arise. Through this strategy, situations can be remedied immediately.

Most importantly, Alion's technology was designed to reduce the need for customer service and post-installation support from the beginning. Their concrete frames lower failure rates associated with racking and corrosion, while robotic installation processes improve workmanship and failure rates associated with mounting. In short, better quality reduces the need for customer service and post-installation support.

As stated above, Alion's technology reduces the service and support issues found with racking and mounting of solar panels. However, in order to ensure that the entire system functions, the company partners with major equipment suppliers and EPCs who will guarantee the performance of the entire system, including panels and inverters.

Criterion 5: Product Matched to Clients' Needs

The entire industry is working to reduce solar costs so that it can better compete with other energy-generation sources, including natural gas. Alion Energy's disruptive technology enables it to install systems twice as fast, with up to 75% less labor to dramatically reduce costs.

Alion Energy's faster installation technology, fewer labor needs, and maximized energy yield deliver lower cost of energy, while also improving working capital turns. The company uses robotic installation technology and construction industry best practices to build local, utility-scale projects twice as fast and with 75% less labor. Furthermore, energy output is maximized with simple, cost-effective cleaning robots. The entire mounting structure and method is designed from the ground up to work with the robots, and these robots were designed to work with the mounting. Frost & Sullivan notes that the end result is the lowest cost of electricity in the solar industry.

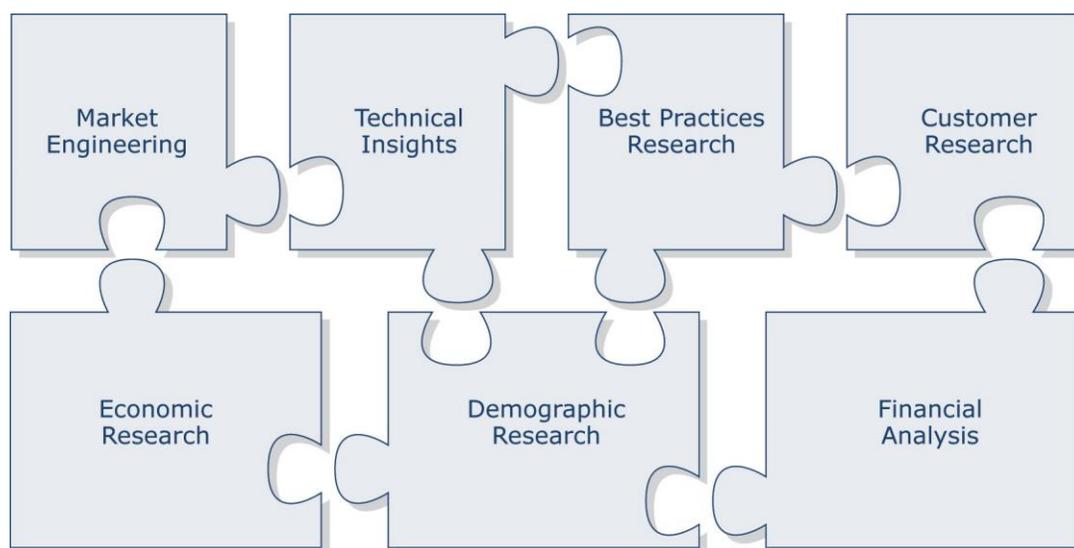
Conclusion

Alion Energy has successfully differentiated itself by continuously reinventing and improving its technology, product quality, and product portfolio. The company is working toward developing a strong brand name, as well as capturing a leading market position in the solar energy market. The company's focus is to increase its growth rates, develop process automation, and enter into more strategic partnerships. In recognition of its ongoing commitment to the solar energy market and its ability to grow and penetrate new markets, Frost & Sullivan is proud to present Alion Energy with the 2013 Price Performance Value Leadership Award.

Critical Importance of TEAM Research

Frost & Sullivan's TEAM Research methodology represents the analytical rigor of our research process. It offers a 360-degree view of industry challenges, trends, and issues by integrating all seven of Frost & Sullivan's research methodologies. Our experience has shown over the years that companies too often make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Frost & Sullivan contends that successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. In that vein, the letters T, E, A and M reflect our core technical, economic, applied (financial and best practices) and market analyses. The integration of these research disciplines into the TEAM Research methodology provides an evaluation platform for benchmarking industry players and for creating high-potential growth strategies for our clients.

Benchmarking Performance with TEAM Research



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Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best-in-class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best-practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from more than 40 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.