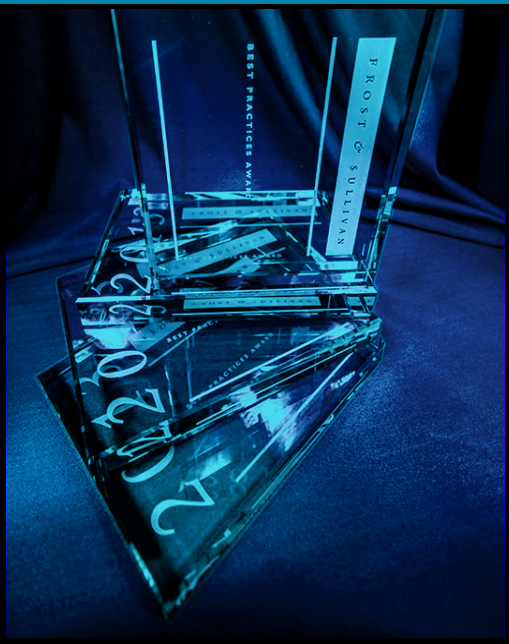


F R O S T & S U L L I V A N

Honeywell

2016 Global Solar Power
New Product Innovation Award



FROST & SULLIVAN

BEST
2016 PRACTICES
AWARD

GLOBAL SOLAR POWER
NEW PRODUCT INNOVATION AWARD

2016
BEST PRACTICES
AWARDS

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Background and Company Performance

Industry Challenges

Without financial support and government incentives, installing solar PV modules is capital intensive with longer return on investment periods. Despite a massive dropdown in solar PV panel prices, they still remain quite expensive for end users to install. This is especially true for emerging countries where GDP per capita is much lower than in developed economies. Thus, solar PV system cost is still a barrier for the technology roll-out. One of the key drivers for this market has been defining the structure of feed-in tariffs (FiTs) for solar PV-generated power. Energy system flexibility, supportive policies and smart energy initiatives will be the game changers in this industry.

Some emerging solar PV markets have gone through rapid market 'bubbles' with new projects being deployed at an unexpectedly high speed. Massive new capacity additions have put strains on solar PV support funds as well as grid management. Citing these two reasons, some governments have enacted retrospective changes to solar PV support schemes in order to limit new installation and bring project returns back to reasonable levels. A retrospective change to the support schemes has negatively affected investor confidence. However, a number of legislative initiatives are expected to boost the proportion of energy coming from 'green sources'. With investment budgets under intense pressure, the focus is on reducing costs, improving productivity and gaining rapid return on investment rates.

New Product Attributes and Customer Impact

This award is in recognition of the company's success and its ability to attain this position through its high performance and technologically advanced solar modules. The 2016 Frost & Sullivan New Product Innovation Award is presented to Global Solar Trading, the licensee of the Honeywell brand for PV Solar Modules, for delivering high end 60 cell and 72 cell solar panels to its customers.

Match to needs

Due to the prevailing economic conditions, the business environment has altered fast; Solar PV is a high growth market now. Global Solar Trading has a centralized approach in terms of quality and efficiency as well as offers an acute focus on its core area by delivering solar PV solutions to meet client expectations. One of the key ingredients behind Global Solar Trading's success in terms of new product innovation applied in Honeywell Solar Modules is the fact that it is very versatile. It is compact, light and suitable to fit on residential, commercial and industrial projects.

Honeywell Solar Modules offer a unique combination of quality, performance and warranty. These solar panels are applicable across a wide range of applications; from residential and commercial to large power plants. These modules are also highly efficient and reliable in a variety of environments such as:

- Salt spray resistance for maritime applications, ammonia resistance for agricultural applications, high snow and wind loads, and light weight for easy installment
- High quality solar panels: Seamless monitoring of production process (ISO), Durable materials and construction and TUV quality checked
- High efficiency solar panels: Positive power tolerance, Excellent low-light response, PID resistance and 4 busbar design for improved performance
- Excellent warranty terms and conditions: 20 years product warranty, 25 years power output and Online Quality Control Check

Reliability

The high module efficiency, excellent low-light response, comprehensive warranty conditions, positive power tolerance and use of high quality materials make both the 60 cell and 72 cell Honeywell Solar Panels the best return on investment. These panels are designed to deliver the highest efficiency and are extremely reliable. The engineering team invests in using durable materials such as anodized aluminum alloy, an efficient busbar design cell configuration, junction box, and ensure that they comply with the country's regulation.

Global Solar Trading also invests in highest health & safety and quality standards. Each project is executed with efficiency and flexibility. The combination of this experience, know-how, customer orientation and project management skills makes Honeywell the right choice for reliable solar PV modules.

By using efficient poly-crystalline cells, the larger 72 cell modules provide an achieved performance efficiency of up to 16.5% compared to the industry average of 15%. In large projects, these modules can also help save cost in installation and labor. The company's solar power technologies are innovative, cost effective, and easy to integrate, enabling the end users to adapt to the changing technological demands of the renewable industry.

Design

The current technological scenario necessitates solar power module providers to rapidly develop innovative products in terms of quality and adaptability. Moreover, the increasing amount of focus on efficiency and reduced emission of new product or technology innovation is likely to meet the changing demands of customers.

Customer Purchase experience

The company's underlying objective has been to offer scalable solutions to its clients in a responsive manner. Global Solar Trading has developed a strategy that has enabled the company to follow a customer oriented approach in its business practices and form strategies accordingly to provide value addition to its customers. It has successfully embarked on a growth strategy, with an aim to market its solutions in the fast-emerging markets. In addition, the company has a dedicated team of experts and resources to

assist support, optimize, and manage not just the solution but to analyze and deliver efficient warranty services.

Customer Service Experience

Global Solar Trading has invested a large amount of time and resources for the development of its technology to be incorporated into the Honeywell Solar Modules. It boasts of a team of skilled technicians with wide and varying experience who have successfully built and brought to market products used by residential, commercial and industrial customers worldwide.

The company is committed to its goal of innovation and has set an example by its unique technology innovation. Exclusively for Honeywell Solar Modules, its customers can check test results of their solar panels through the company's unique Online Quality Control Check. This unique feature allows them to gain complete insight into the quality, performance and detailed specifications of their installed solar modules. Honeywell Solar Modules stand out with the highest-quality materials and components, combined with 20 years of unrivaled warranty terms and conditions.

Brand Equity

In order to cope with the continuously rising market demand for solar PV energy, Global Solar Trading supports an organization wide culture of developing competitive solutions, to cater to the changing needs of the customers in the global renewable energy market. This has been achieved through a diverse team of best-skilled management and professionals utilizing their technological expertise and years of experience.

The company serves the global market with an aim to further strengthen its international position as a leading solar module supplier and maintain sustainable profitability and growth by expanding its business. In order to accomplish this mission, it has followed some key strategies such as superior customer responsiveness, partnering with industry suppliers, expanding its operations worldwide, and providing responsive quality services. These strategies have enabled the company to further develop Honeywell's strong brand equity in the marketplace.

Conclusion

As a provider of competitive and innovative products, Global Solar Trading has exhibited tremendous responsiveness to customers' requirements by providing the highest levels of products and services. Honeywell PV Solar Modules are offered to the global market where reliability, predictability, scalability, efficiency, cost and control are critical. Together with their suppliers, Global Solar Trading is striving to manage costs, increase output, improve ROI, and broaden the market for a clean, renewable energy source.

All the aforementioned factors make Global Solar Trading a worthy recipient of the 2016 New Product Innovation Award in the Global Solar Power market.

Significance of New Product Innovation

Ultimately, growth in any organization depends upon continually introducing new products to the market, and successfully commercializing those products. For these dual goals to occur, a company must be best-in-class in three key areas: understanding demand, nurturing the brand, and differentiating from the competition.



Understanding New Product Innovation

Innovation is about finding a productive outlet for creativity—for consistently translating ideas into high quality products that have a profound impact on the customer.

Key Benchmarking Criteria

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated two key factors— New Product Attributes and Customer Impact—according to the criteria identified below.

New Product Attributes

- Criterion 1: Match to Needs
- Criterion 2: Reliability
- Criterion 3: Quality
- Criterion 4: Positioning
- Criterion 5: Design

Customer Impact

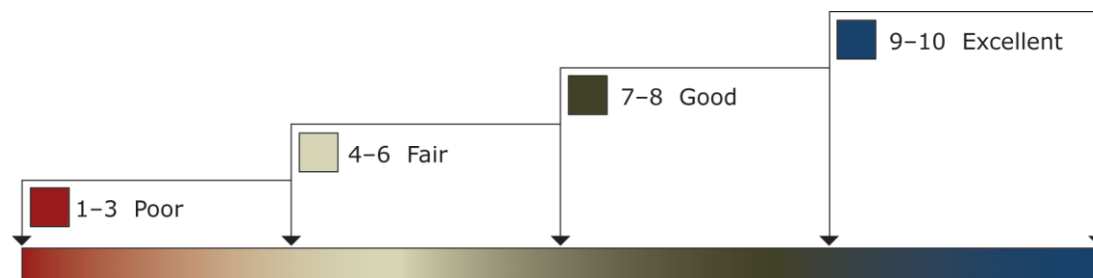
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

Best Practice Award Analysis for Global Solar Trading (for Honeywell Solar Modules)

Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows our research and consulting teams to objectively analyze performance, according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are illustrated below.

RATINGS GUIDELINES



The Decision Support Scorecard is organized by New Product Attributes and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms 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.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, Frost & Sullivan has chosen to refer to the other key players as Competitor 2 and Competitor 3.

DECISION SUPPORT SCORECARD: NEW PRODUCT INNOVATION AWARD

<i>Measurement of 1-10 (1 = poor; 10 = excellent)</i>			
New Product Innovation	New Product Attributes	Customer Impact	Average Rating
Global Solar Trading (for Honeywell PV Modules)	9	9	9.0
Competitor 2	8	8	8.0
Competitor 3	8	7	7.5

New Product Attributes

Criterion 1: Match to Needs

Requirement: Customer needs directly influence and inspire the product’s design and positioning

Criterion 2: Reliability

Requirement: The product consistently meets or exceeds customer expectations for consistent performance during its entire life cycle

Criterion 3: Quality

Requirement: Product offers best-in-class quality, with a full complement of features and functionality

Criterion 4: Positioning

Requirement: The product serves a unique, unmet need that competitors cannot easily replicate

Criterion 5: Design

Requirement: The product features an innovative design, enhancing both visual appeal and ease of use

Customer Impact

Criterion 1: Price/Performance Value

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market

Criterion 2: Customer Purchase Experience

Requirement: Customers feel like they are buying the most optimal solution that addresses both their unique needs and their unique constraints

Criterion 3: Customer Ownership Experience

Requirement: Customers are proud to own the company’s product or service, and have a positive experience throughout the life of the product or service

Criterion 4: Customer Service Experience

Requirement: Customer service is accessible, fast, stress-free, and of high quality

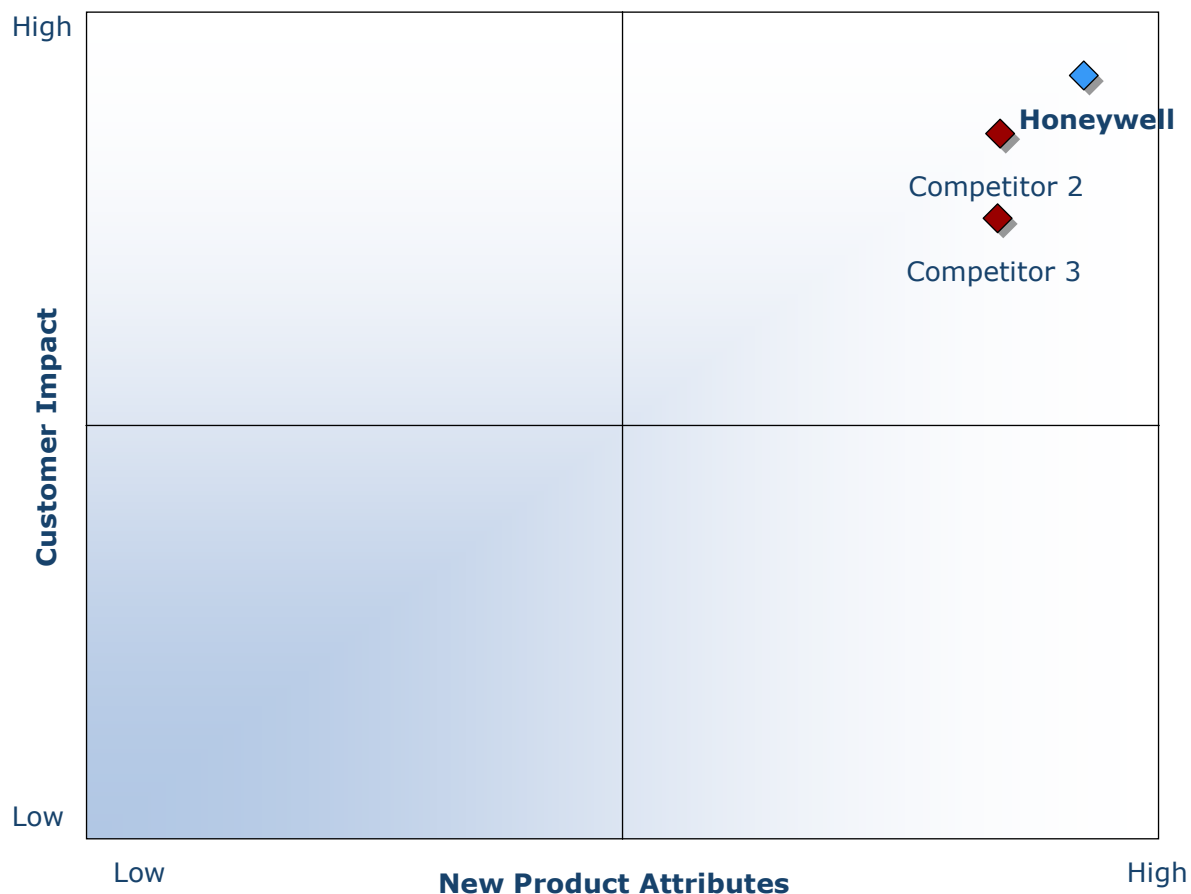
Criterion 5: Brand Equity

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts can then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.

DECISION SUPPORT MATRIX: NEW PRODUCT INNOVATION AWARD



The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree 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 7 of Frost & Sullivan's research methodologies. Too often, companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry players and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



About Frost & Sullivan

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 over 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 40 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.