

Frost & Sullivan Awards for DC-AC Inverters in the  
Asia Pacific Non-renewable Energy Markets

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# Table of Contents

## Chapter 1

### 2007 Frost & Sullivan Awards

|  |     |
|--|-----|
| <b>Market Penetration Leadership Award</b>                                       | 1-1 |
| <i>Market Overview/Key Challenges</i>  | 1-1 |
| Competitive Structure  | 1-1 |
| <i>Award Categories and Relevance</i>  | 1-1 |
| <i>Award Recipient</i>   | 1-2 |
| Award Description  | 1-2 |
| Research Methodology   | 1-2 |
| Measurement Criteria   | 1-2 |
| 2007 Market Penetration Leadership Award for DC-AC Inverters in the Asia Pacific |     |
| Non-renewable Energy Market  | 1-3 |
| Concluding Comments  | 1-4 |
| <i>Summary of Best Practices</i>   | 1-5 |
| Strategic Alliances and Brand Development  | 1-5 |
| Competitively Priced Products  | 1-5 |
| Creating Awareness among End Users   | 1-5 |
| Excellent Customer Service   | 1-5 |
| Identifying New Areas to Expand Market Presence                                  | 1-5 |

# List of Charts

## Chapter 1

### 2007 Frost & Sullivan Awards

|     |   |     |
|-----|---|-----|
| 1.1 | DC-AC Inverters in the Non-renewable Energy Market:<br>Luminous Market Share (Asia Pacific), 2004 | 1-3 |
| 1.2 | DC-AC Inverters in the Non-renewable Energy Market:<br>Luminous Market Share (Asia Pacific), 2006 | 1-4 |

# 1

## 2007 Frost & Sullivan Awards

### Market Penetration Leadership Award

#### Market Overview/Key Challenges

The Asia Pacific region is a growing market for inverters. The DC-AC inverters market is expected to become a significant segment of the total power supplies market, which is dominated by the AC-DC power supplies and the DC-DC converters markets. Inverters are gaining more prominence with the entry of branded manufacturers. The increasing purchasing power of consumers is also driving the market.

#### Competitive Structure

The market participants can be classified into two tiers, taking into account both global and local market participants.

- Tier 1 comprises global manufacturers that manufacture branded inverters. Having globally located manufacturing facilities, extensive distribution networks, and excellent post-sales services, these companies market their products in more than one country
- Tier 2 manufacturers are the numerous small local vendors in different countries across Asia. Most of the Tier 2 manufacturers contribute products to the unorganized sector

#### Award Categories and Relevance

The DC-AC inverters market for non-renewable energy applications is at the growth stage in the Asia Pacific region. Power shortage in developing countries such as India, Indonesia, and Thailand is increasing the demand for inverters. In Asia Pacific, various end-user segments for inverters are expected to grow at an impressive rate. The Asia Pacific inverters market is highly fragmented, with around 60 percent of the market being held by the unorganized sector. The branded manufacturers need to compete with cheaper products from the unorganized sector in order to gain market share and establish their presence in new markets. The Market Penetration Leadership Award recognizes the best practices of the recipient company for market share growth, and the customer acquisition in new markets.

## Award Recipient

### A w a r d D e s c r i p t i o n

The Frost & Sullivan Award for Market Penetration Leadership is presented each year to the company that has demonstrated excellence in capturing market share within its industry. The recipient has demonstrated strategic excellence in product innovation, marketing, and sales strategies that have resulted in the largest gain in market share over the past 2 to 3 years.

### R e s e a r c h M e t h o d o l o g y

To choose the recipient of this Award, the analyst team tracks market share gain, increase in sales, and brand awareness efforts within the industry. This is accomplished through interviews with market participants, end-user studies, and extensive secondary research.

### M e a s u r e m e n t C r i t e r i a

In addition to the methodology described above, there are specific criteria used to determine final competitor rankings within the industry. The recipient of this Award has excelled based on one or more of the following criteria:

- Competitive pricing strategies perceived customer value versus price
- Strong sales force strategy, number of sales people (direct and indirect), sales force specialization, efficiency in distribution, ability to train and educate, and strong customer service
- Ability to establish brand awareness through promotional activities and advertising
- Strategic alliances that expand customer base (increase distribution, marketing and sales resources, and global expansion)
- Product innovation satisfying unmet needs, creating new needs, and developing new technologies

2007 Market Penetration Leadership Award for DC-AC Inverters in the Asia Pacific Non-renewable Energy Market

**Award Recipient: Luminous Power Technologies**

The recipient of the 2007 Frost & Sullivan Market Penetration Leadership Award in the Asia Pacific Non-renewable energy DC-AC inverters market is Luminous Power Technologies (Luminous). The company is a leading global participant in the inverters market and commands a large presence in South Asia. It has excelled in expanding its client base and growing its market share across the Asia Pacific region. Luminous has achieved a stronger market presence with competitive pricing strategies, strategic alliances, strong product development, and superior customer service.

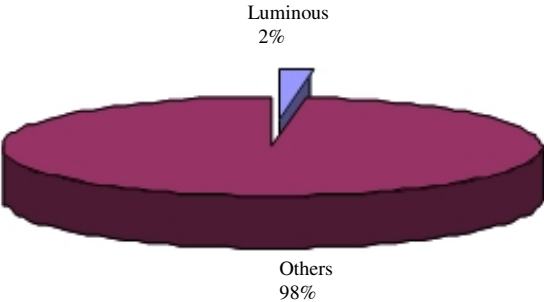
**Market Penetration Leadership**

In 2006, Luminous had approximately 7.2 percent market share for DC-AC Inverters in the Asia Pacific non-renewable energy markets. Luminous had a market share of around 2.0 percent of this market in 2004. Luminous holds 18.0 percent share of the Indian market. Over 2004 to 2006, the company's inverter revenues have been growing at 85 to 95 percent every year, well over the market growth rate of 14 to 15 percent. Its tremendous growth rate indicates the success that the company has had by penetrating new markets and acquiring new customers. The company has achieved a strong presence in South Asia and is currently expanding its presence to Southeast Asia and China.

Chart 1.1 depicts the market share of Luminous for DC-AC inverters in the Asia Pacific non-renewable energy markets in 2004.

Chart 1.1

DC-AC Inverters in the Non-renewable Energy Market: Luminous Market Share (Asia Pacific), 2004



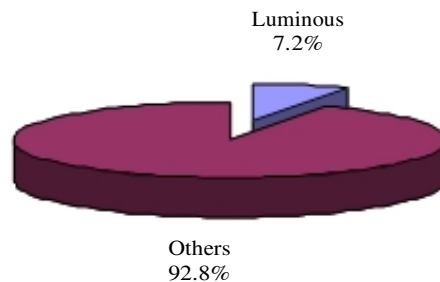
Note: Others include Xantrex Technology, Inc, Mastervolt, Su-Kam Power Systems Ltd, Studer Innotec, Gamatronic Electronic Industries Ltd, PowerStream Technology, Power Master Technology Co., Ltd., Trueful Electronics Co., Ltd., Akowa Electronics Co.,Ltd., Nubel Power Electronics, Exide Technologies, Birla Power Solutions Ltd., and so on

Note: All figures are rounded. Source: Frost & Sullivan

Chart 1.2 depicts the market share of Luminous for DC-AC inverters in the Asia Pacific non-renewable energy markets in 2006.

Chart 1.2

DC-AC Inverters in the Non-renewable Energy Market: Luminous Market Share (Asia Pacific), 2006



Note: Others include Xantrex Technology, Inc, Mastervolt, Su-Kam Power Systems Ltd, Studer Innotec, Gamatronic Electronic Industries Ltd, PowerStream Technology, Power Master Technology Co., Ltd., Trueful Electronics Co., Ltd., Akowa Electronics Co.,Ltd., Nubel Power Electronics, Exide Technologies, Birla Power Solutions Ltd., and so on

Note: All figures are rounded. Source: Frost & Sullivan

### Strategic Alliances and Brand Development

Luminous has built a good brand for inverters in South Asia. Some of its well-known brands are Bi2, Ion, Tiranga, and Tez. To further increase its brand awareness in the Indian market, it has built an alliance with the major South Korean brand, Hyundai. The Hyundai brand signifies quality in the Asian region. The company intends to increase its market share in the Indian market through the Hyundai brand. The association with the Hyundai brand is expected to increase the market share of the company's products in the region.

### Competitive Pricing Strategies

Branded competitors in the Asia Pacific region face tough competition from the unorganized sector. The unorganized sector produces and markets products locally, and is therefore, able to sell at a cheaper price compared to the branded products. Luminous, in a bid to compete with the unorganized sector, launched new inverter products at very competitive prices. Its products also have more features so that they can compete with the other branded products. This strategy has paid rich dividends to the company.

### Concluding Comments

Luminous has formed strategic alliances and has taken initiatives to increase brand value helping the company to strengthen its position in the Asia Pacific region. The company is planning to expand its global operations through strategic acquisitions in China, the Middle East, and Southeast Asia. The company's clear strategic outlook and planning with a firm product offering has enabled the company to outperform the market and its competitors. In recognition of its achievements, Frost & Sullivan presents the 2007 Frost & Sullivan Market Penetration Leadership Award to Luminous Power Technologies.

## Summary of Best Practices

The tremendous growth of Luminous in the Asia Pacific DC-AC inverters market for non-renewable energy applications stems from the following best practices:

### Strategic Alliances and Brand Development

Luminous owns a clutch of well-known brands in South Asia. To further its presence in South Asia, the company formed an alliance with Hyundai. It will use the Hyundai brand to increase its market share in the Indian market.

### Competitively Priced Products

The Asia Pacific region is highly fragmented, with the unorganized sector holding the major market share. Luminous has launched new products at competitive prices to compete with the unorganized sector. The company's products also offer more features at an attractive price, and thereby, fare better than other branded products. This strategy has been successful for the growth of the company.

### Creating Awareness among End Users

Luminous has a strong advertising program that creates awareness among end users. Lack of awareness is a major challenge in this industry. Luminous' advertising campaigns have been successful in acquiring new customers, and this has been proven by the growing market share of the company.

### Excellent Customer Service

Luminous set up a 24-hour service call desk, which increased customer confidence in buying their products. The company has a continual program of retrieving and analyzing customer feedback from its existing customers, new customers, engineers, direct contact, visits with clients, and feedback from campaigns that are undertaken to promote and educate people.

### Identifying New Areas to Expand Market Presence

The company is planning to grow inorganically through acquisitions in high-growth markets such as China and Southeast Asia.