

**Award Description**

The Frost & Sullivan Award for Technology Innovation of the Year is presented to the company that has demonstrated technological superiority within its industry. This Award recognizes the ability of the company to successfully develop and introduce new technology, formulate a well-designed product family, and make significant product performance contributions to the industry.

**Research Methodology**

To choose the recipient of this Award, the analyst team tracks emerging and existing technologies, as well as R&D developments. This is accomplished through interviews with major market participants and extensive secondary research. Also considered are elements such as product launches, customer acceptance, penetration rates, and time to market. Finally, competitors are compared and ranked for relative position. Frost & Sullivan then presents the Award to the company that received the number one industry rank.

**Measurement Criteria**

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

- Technology innovation contrasted against competitors
- R&D expenditures
- New product/process introduction
- Price premium
- First to market
- Adoption rate
- Penetration rate

**2007 North American Battery Charger  
Technology Innovation of the Year Award  
Award Recipient: AccelRate Power Systems, Inc.**

The recipient of the 2007 Battery Charger Market Technology Innovation of the year Award is AccelRate Power Systems Inc. for their superior High-Speed charger technology. The AccelRate Smart Charger is known for its high energy efficiency, high power factor and reduced overcharge. Their fastest charging time is 2 hours on average and is 5 times faster than conventional chargers and existing industry standards in charging.

**Introduction**

AccelRate Power Systems Inc. is located in Vancouver, BC. A Canadian based public company, it has a deep understanding of the dynamics of the battery market. Hence, its investors are assured of superior products to keep up with world wide standards to stay ahead of the other vendors in the market. Currently, AccelRate’s key focus area has been the industrial and the motive power market for battery chargers.

AccelRate (formerly Key Capital Group Inc. [KCG]) was formed in 1989 and has owned and operated several types of businesses for a decade. In 1999, the Company acquired the rights to its current “High-Speed” battery charging technology and became an emerging developer, marketer and seller of products utilizing this technology. In 2005, the Company achieved commercialization and began shipping products incorporating its technology to customers.

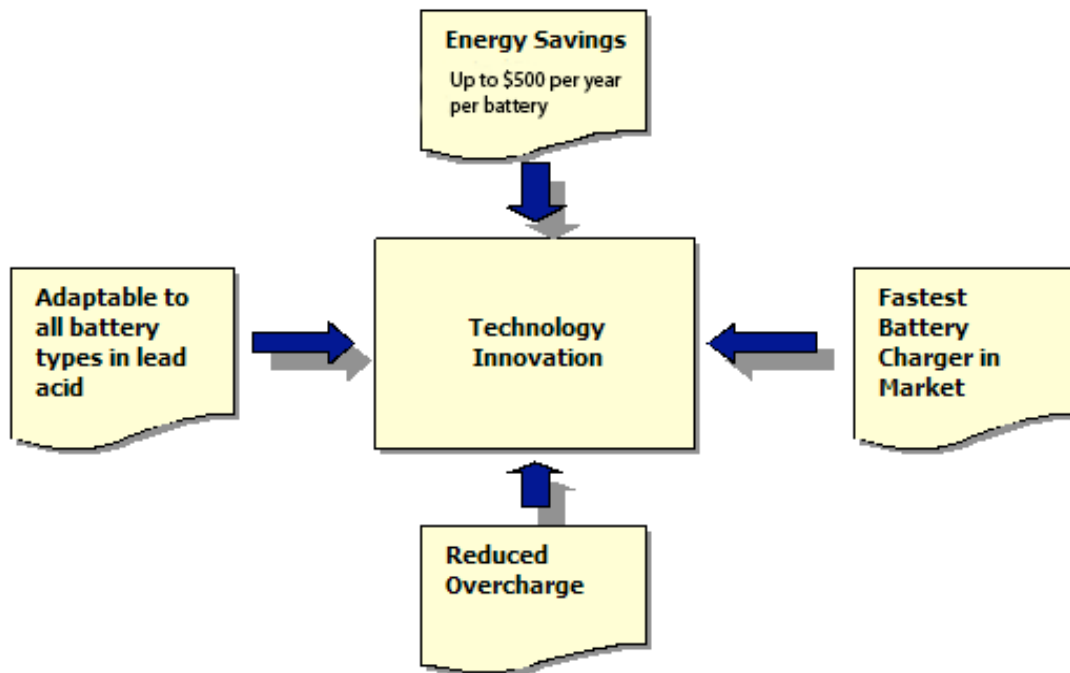
**Technology**

The superiority of AccelRate's technology is evident in its Smart Charge High-Speed charging technology. The key attractive feature of this battery charger is its energy savings capacity of up to \$500 per year per 1000 Ah battery. Energy savings can be further evidenced by a comparison of its efficiency which proves it's losses to be 2.6% compared to up to 33% for conventional charging.

AccelRate's Smart Charger has a broad capability of catering to any battery in the lead acid battery market. This is due to its ability to adapt automatically to various battery voltages, battery capacities and states of charge. They also have high energy efficiency, high power factor and reduced overcharge. It also incorporates the ability to discharge at precise intervals of time in order to homogenize the ion field around the plates.

Chart 1.1 gives a brief summary of the specific features unique to the AccelRate Smart Charger.

Chart 1.1: Technology Innovation AccelRate Power Systems



## Distribution

AccelRate's technology has been recognized by such companies as Hawker Powersource, a subsidiary of EnerSys, a leading battery manufacturer. They have announced the signing of an agreement where Hawker Motive Power has purchased from AccelRate a license to integrate the AccelRate High Speed Charging technology

into their advanced line of High Frequency, Insulated Gated Bipolar Transistor battery chargers.

### **Adoption**

AccelRate's success in North America ever since the introduction of the high speed charger through Hawker in 2005 has been phenomenal. Hence the initiative is being extended to the next popular market for batteries which is Europe with this agreement. This is an important step to popularize the product and increase revenue potential.

### **Looking Ahead**

The company also offers a battery diagnostic device that can be attached to one of the cells of the battery to measure the following parameters.

- Battery identity, age, type and serial number
- Number of cycles
- Total discharge time
- Equalization charges
- Total rest time
- Record of abnormal operating temperatures

This data can then be downloaded to any device and stored for future reference.

The company has successfully launched and popularized their superior High-Speed charging technology and is on the path to find their tier one position in the battery charger market.

### **Conclusion**

The battery charger technology has proved yet again that there is more to the technology than what meets the eye. AccelRate Power Systems has leveraged competition and product superiority in this market by the introduction of their Smart Charger which is currently the fastest battery charger in comparison with the leading brands in the market. In addition to technology they have brought the product to the market through one of the leading brands Hawker, a subsidiary of EnerSys leveraging their brand. Their adoption and penetration rate have been superior in the market and hence they rightfully deserve the 2007 Battery Charger Market Technology Innovation of the Year Award.

### **About Best Practices**

Frost & Sullivan Best Practices Awards recognize companies in a variety of regional and global markets for demonstrating outstanding achievement and superior

performance in areas such as leadership, technological innovation, customer service, and strategic product development. Industry analysts compare market participants and measure performance through in-depth interviews, analysis, and extensive secondary research in order to identify best practices in the industry.

### **About Frost & Sullivan**

Frost & Sullivan, a global growth consulting company, has been partnering with clients to support the development of innovative strategies for more than 40 years. The company's industry expertise integrates growth consulting, growth partnership services, and corporate management training to identify and develop opportunities. Frost & Sullivan serves an extensive clientele that includes Global 1000 companies, emerging companies, and the investment community by providing comprehensive industry coverage that reflects a unique global perspective and combines ongoing analysis of markets, technologies, econometrics, and demographics. For more information, visit [www.frost.com](http://www.frost.com).