

## IEEE STANDARDS ASSOCIATION

# Corporate Program Case Study

# IEEE-SA Mobile Battery Standards

Reliable, long-lasting batteries for increased  
electronic device mobility

The demand for reliable, long-lasting batteries for mobile devices is on the rise as the electronics industry continues to add more features to their laptops, cell phones and other devices in ever greater measure to meet consumer demands for mobility and ease of use. To help industry meet the call for better rechargeable batteries, the IEEE Standards Association (IEEE-SA) Corporate Standards Program has become the place to create production standards for advanced lithium-ion and lithium-ion polymer batteries. The result: Two groundbreaking standards within IEEE's Livium™ battery standards family, one for portable computers and the other for cellular phones.

### **The Livium™ Standards Concept**

Livium™ standards support the manufacture and use of reliable and robust rechargeable batteries. They are the first standards to encompass the entire battery operating design, from cell to pack to device, alone and in concert. Livium™ standards set uniform criteria for battery quality and performance, affecting battery system planning, design, testing and quality assurance. The standards also limit battery failure under multiple stresses, from vibration and moisture to thermal and mechanical shock.

### **Standards for Battery Systems**

The Livium™ laptop battery standard, IEEE 1625™-2004, "IEEE Standard for Rechargeable Batteries for Mobile Computers," was created by many of the world's major battery and computer companies in just 19 months.

## IEEE STANDARDS ASSOCIATION

IEEE 1625-2004 opened the door for more powerful batteries with greater energy density that can undergo more frequent charge-discharge cycles. Such batteries allow portable computers with powerful processors to broaden into advanced graphic and wireless applications. The first revision to IEEE 1625, approved in 2008, built on the success of IEEE 1625-2004 and was completed in 22 months.

The Livium™ mobile phone standard, IEEE 1725™-2006, "IEEE Standard for Rechargeable Batteries for Cellular Telephones," was created in just 18 months and involved the efforts of more than 50 telephone carriers and manufacturers of batteries, cells, components and handsets. This standard improves phone user experience with advanced battery performance as phones gain new features with increased adoption. IEEE 1725 was revised in 2011, completing its work in 17 months.

The accelerated schedules for these standards was made possible by the commitment of the companies involved, as well as by the IEEE Professional Services they used to help keep their efforts on track. These fee-based dedicated services include strategic project and process management, meeting planning and support, and public relations support.

### **The IEEE-SA and the IEEE Corporate Standards Program**

The IEEE-SA, a globally recognized standards-setting body, develops standards through a consensus process that brings diverse parts of an industry together. It has a portfolio of nearly 900 completed standards and more than 500 in development. The IEEE Corporate Standards Program is an industry-oriented program that supports IEEE-SA corporate membership, performs IEEE-SA outreach, and assists corporations and other organizations in creating consensus standards.

#### **Contact the IEEE Corporate Standards Office:**

445 Hoes Lane, Piscataway, NJ 08854 USA  
Tel. +1 732-562-5342 / Fax +1 732-562-1571  
Email: [corp-stds@ieee.org](mailto:corp-stds@ieee.org)