

Sion Power Receives ARPA-E Grant to Develop Batteries for Electric Vehicles

Tucson, Arizona: Sion Power Corporation has received a three-year research grant worth up to \$5 million from the United States Department of Energy Advanced Research Projects Agency - Energy (ARPA-E). Under this program, Sion Power, in collaboration with BASF, Lawrence Berkeley National Lab and Pacific Northwest National Laboratory will accelerate the development of practical, economical and safe lithium-sulfur (Li-S) batteries for powering electric vehicles more than 300 miles between charges.

Li-S chemistry offers the highest energy potential of any two solid elements with more than twice the energy capacity of lithium ion technology at half the weight. This grant will fund a four-way collaboration coupling Sion Power's patented materials and process technologies with expertise provided by national laboratories and the world's largest chemical company, BASF, to expedite commercial success.

According to Sion Power's CEO, Dr. Dennis Mangino, "We believe this ARPA-E grant is a strong vote of confidence in the future of our advantaged Li-S rechargeable battery technology. There is no other known commercial technology that will be able to match the electric vehicle driving performance enabled by Li-S batteries once the hurdles of cycle life and safety are overcome. This grant will allow us to accelerate that reality."

Performance targets for this program are to exceed 500 Wh/kg and 500 cycles at commercially viable recharge rates. By 2016, the goal is to produce a cell with 600 Wh/kg and 1,000 cycles. While the energy potential of Li-S is well known, Sion Power has established proprietary and patented materials and methods for protecting the lithium metal anode which differentiates its approach from all other known Li-S research efforts. These advances directly improve cycle life and safety while allowing higher energy capacities to be achieved. Sion Power batteries contain no heavy metals and are environmentally preferred over other technologies.

All major automotive manufactures are vigorously pursuing the introduction of hybrids, plug-in hybrids and/or all-electric vehicles that provide the range and comfort consumers have come to expect in automobiles. Sion Power's focus is to be the first rechargeable battery company to develop battery technology that can safely and affordably meet these expectations. Sion Power believes that by utilizing Li-S technology, a battery pack weighing less than 700 lbs can power a 3,500 lb five-passenger vehicle more than 300 miles.

About Sion Power:

Privately held Sion Power Corporation is the global leader in the development of a new generation of high-energy, rechargeable lithium sulfur batteries for portable power and electric vehicle markets. Sion Power has assembled a world class team of 62 employees dedicated to advancing Li-S battery technology. The company has more than 100 U.S. and international patents and is headquartered in Tucson, Arizona. Further information is available at www.sionpower.com.