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EMERGING COMPANIES

The NAATBatt 2014 Annual Meeting and Symposium



One of NAATBatt's key missions is to promote the commercialization of new electrochemical energy storage technology. In furtherance of this mission, a committee of NAATBatt member firms has selected the following 20 emerging companies to make "flash" presentations at the annual meeting about the technologies they are working to commercialize. NAATBatt member firms are urged to contact any of these companies whose technology is of interest. Each of these emerging companies is seeking partnership opportunities within the industry to help bring their technology to market.

Ambri
Shamrock Energy
FastCAP Systems
Dreamweaver International
Altium Energy
Battery Innovation Center
Eos Energy
Faraday Energy
Von Ardenne
Earl Energy
Paper Battery Company
XG Sciences
XL Hybrids
Voltaiq
Porous Power Technologies

Design Flux Technologies
Meecotech
Princeton Power
Southern Energy Technology Institute
Spider9



PRESENTER: Mike Kearney, mkearney@ambri.com

DESCRIPTION: Ambri (formerly Liquid Metal Battery Corporation) is developing an electricity storage solution that will change the way electric grids are operated worldwide. Ambri will enable the more widespread use of renewable generation like wind and solar, reduce power prices and increase system reliability. Ambri's technology — the liquid metal battery — was invented in the lab of Dr. Donald Sadoway, a professor at the Massachusetts Institute of Technology.



PRESENTER: Charlie Gibson, cgibson@shamrockenergycorp.com

DESCRIPTION: Shamrock Energy Corporation is working to commercialize ultracapacitors that offer more than 40% higher energy density than conventional ultracapacitors through combined use of: (1) our proprietary low-cost activated carbon, which offers 20% higher specific capacitance than the industry standard YP-50; (2) our novel breakdown inhibitors, which increase operating voltage by 10%; and (3) our low-cost composite separators.



PRESENTER: Riccardo Signorelli, jamie@fastcapsystems.com

DESCRIPTION: FastCAP Systems, an MIT spin off specializing in rugged ultra-high temperature, energy and power ultracapacitor technologies, seeks to transform the automotive industry by commercializing its high-power, high-energy and low-cost energy storage devices. FastCAP's proprietary nanotechnology based solutions have enabled breakthrough performance of up to 10X the power and 5X the energy when compared with commercially available ultracapacitors



PRESENTER: Brian Morin, Brian.Morin@dreamweaverintl.com

DESCRIPTION: DreamWeaver International, Inc. (DW) is an innovative advanced materials company with unique nanofiber-based battery separator technology which dramatically improves rechargeable battery performance for use in cell phones, laptop and tablet computers and electric vehicles.



PRESENTER: Neil Kane, neildkane@gmail.com

DESCRIPTION: Altium Energy, Inc. is a startup formed to commercialize a patented flow battery, with twice the electrochemical potential of any flow battery on the market today, invented at the Gas Technology Institute in Des Plaines, Illinois.



PRESENTER: Chuck LaSota, Charles.lasota@BICIndiana.com

DESCRIPTION: The Battery Innovation Center is a unique not for profit organization that incorporates work-class technical and scientific leadership from Universities, Industry, and Government Laboratories to collaboratively focus on the rapid development, testing and commercialization of safe, reliable, and lightweight energy storage systems for commercial applications and defense customers.



PRESENTER: Philippe Bouchard, pbouchard@eosenergystorage.com

DESCRIPTION: Eos Energy Storage is developing a proprietary rechargeable zinc battery technology with six hours of storage that is less expensive than existing energy storage technologies and lower in cost than incumbent gas fired peaking plants and traditional T&D upgrades



FARADAY ENERGY
NEW FRONTIERS IN MATERIAL SYNTHESIS

PRESENTER: Steve Lipka, steve.lipka@uky.edu

DESCRIPTION: Faraday Energy manufactures advanced carbon materials with tailored properties for energy storage applications. Faraday Energy also offers solutions for assembly and integration into energy systems including batteries and supercapacitors using sustainable, biocompatible materials with ultra-high purity derived from renewable sources.



PRESENTER: Martin Fischer, Fischer.Martin@vonardenne.biz

DESCRIPTION: Von Ardenne develops and manufactures advanced coating equipment that enables the deposition of microscale to nanoscale functional layers on materials such as glass, metal strip, wafers and polymer films.



PRESENTER: Doug Moorehead, dmoorehead@earlenergy.com

DESCRIPTION: Earl Energy is a product development company that integrates advanced energy storage and power conversion technologies to hybridize commercial and military generators drastically reducing fuel consumption, maintenance, and emissions.



PRESENTER: Shreefal Mehta, smehta@paperbatteryco.com

DESCRIPTION: Paper Battery Company's proprietary materials processing technology gives it a strong industry leadership position in the thinnest, high power, ultracapacitor devices (PowerPatch™) that can be wrapped around lithium batteries, or fitted between or around components with minimal change in design required. Ultracapacitors can also increase densification of components, circuit boards and devices, enabling more compact products with better battery and device performance, a major driver for the portable electronics industry, and smartphones in particular.



PRESENTER: Rob Privette, r.privette@xgsciences.com

DESCRIPTION: XG Sciences manufactures energy storage materials based on the company's xGnP® graphene nanoplatelets and XG Leaf™ graphene sheet products. XG Sciences Inc. is a leading supplier of graphene nanoplatelets and custom, graphene-based products to global corporations serving energy storage, aerospace, automotive, industrial and consumer markets. In addition to its electrode materials, XG Sciences makes thermal management materials, and electrically and thermally conductive inks, coatings and adhesives based on its graphene nanoplatelets.



PRESENTER: Tod Hynes, thynes@xlhybrids.com

DESCRIPTION: XL Hybrids has developed and commercialized a cost-effective hybrid electric powertrain for class 1-6 commercial fleet vehicles which can easily be integrated in multiple makes and models and leverages a proprietary cloud based software platform to optimize fuel savings.



PRESENTER: Tal Sholklafter, tal@subwaylabs.com

DESCRIPTION: Voltaiq helps companies develop better, longer lasting energy devices. Our flagship product, Voltaiq Core, is an integrated data informatics platform to track energy device performance throughout the product lifecycle, from R&D to deployment. Voltaiq Core automates routine data management tasks, providing real-time, interactive access to battery data.



PRESENTER: Tim Feaver, tfeaver@porouspower.com

DESCRIPTION: Ceramic-filled SYMMETRIX® separators from Porous Power Technologies are abuse tolerant and stable at high voltage, enabling a proven combination of Safety, Cycle Life and Performance not available from traditional polyolefin separators.



PRESENTER: Kent Kristensen, kkristensen@designfluxtech.com

DESCRIPTION: Design Flux Technologies, LLC designs and sells Software-Defined Power Management Systems(TM) which reduce cost, enhance performance, and ease integration of energy storage systems for Original End Manufacturers by eliminating the need for traditional battery infrastructure.



PRESENTER: Tom Xu, tom@meecotech.com

DESCRIPTION: Meecotech offers a variety of energy storage materials, including cathode materials and anode materials for lithium ion batteries.



PRESENTER: Darren Hammell, fdieso@princetonpower.com

DESCRIPTION: Princeton Power Systems is a leading global designer and manufacturer of technology products for energy management, micro-grid operations, and electric vehicle (EV) charging.



PRESENTER: Scott Pogue, ScottPogue@setillc.com

DESCRIPTION: As energy represents a significant and highly volatile area of expenditure for most businesses, the Southern Energy Technology Institute (SETI) focuses upon fresh solutions for troublesome problems – an example is REMOTA™ - a mobile “Grid on the Go.”



PRESENTER: Michelle Chitambar, mj@spider9.com

DESCRIPTION: Spider9 makes the world’s most advanced energy storage system controllers to enable higher reliability, longer life, and 40% lower lifetime costs for stationary energy storage. Spider9’s patented controls and Spider Sense software platform is the only solution that adapts in real time to optimize system performance, absorbs component failures to eliminate downtime, and future-proofs a system against changing technologies and revenue streams.