



ANNUAL DOE PEER REVIEW MEETING – 2008

DOE Energy Storage & Power Electronics Research Programs

Washington Fairmont Hotel, Washington DC, USA



PRESENTATIONS

Energy Storage Systems (ESS)

PRESENTATION	SPEAKER
Perspective of Energy Storage Advisory Committee	Brad Roberts (S&C Electric)
Overview of ESS Program	John Boyes (Sandia National Laboratories)
Update on the Joint Energy Storage Collaboration Between NYSERDA & DOE	Joe Sayer (N.Y. State Energy Research & Development Association)
Advanced, Sodium-Sulfur, Battery Energy Storage System Project at MTA Long Island Bus	Guy Sliker (N.Y. Power Authority)
300 kW/900 kWh PowerTower Modules Utilizing Axion and Zebra Batteries for Peak Shaving and Substation Upgrade Deferral	Ib I. Olsen (Gaia Power)
Lead-Carbon Devices for Energy Storage	Paula Walmet (MeadWestvaco)
Testing of Energy Storage Devices	Tom Hund (Sandia National Laboratories)
Nanostructured Electrode and Electrolyte Development for Energy Storage Devices	Karen Waldrip (Sandia National Laboratories)
Update on the Joint Energy Storage Collaboration Between the California Energy Commission and DOE	Pramod Kulkarni (Calif. Energy Commission)
Distributed Energy Systems Ultracapacitor (Energy Bridge) Demonstration at Palmdale, CA Water Plant	Chris McKay (Northern Power Systems)
Seventeen Electric Utility-related Electricity Storage Benefits, Featuring T&D Deferral	Jim Eyer (Distributed Utility Associates)
Superconducting Flywheel Development	Phil Johnson (Boeing)

Iowa Stored Energy Plant Project: Project Updates, Utility Resource Planning Models, and Wind Data for Transmission Study

Kent Holst
(Iowa Stored Energy Plant)

Dynamic Islanding Using Utility Energy System to Provide Increased Electric Service Reliability

Ali Nourai
(American Electric Power)

2008 Update to the EPRI-DOE Handbook Supplement of Energy Storage for Grid Connected Wind Generation Applications

Harold Gotschall
(Technology Insights)

Power Electronics Systems

PRESENTATION	SPEAKER
Very High Temp (400+ °C), High Power Density, Silicon Carbide, Power Electronic Converters	Marcelo Schupbach (Arkansas Power Electronics International)
An Advanced Power Converter System Using High Temperature, High Power Density SiC	Tim Lin (Aegis)
SiC Power Device Development for Clean Energy Applications	Andrew Ritenour (Semisouth Labs)
Large Area, Silicon Carbide, GTO Development of WBG High Voltage, High Frequency Switches	Ranbir Singh (GeneSiC Semiconductor)
High Voltage, Silicon ETO	Jerry Melcher (Solitronics)
ETO Device: Converter and Controls Development	Alex Huang (North Carolina State Univ.)
Using an ETO-based, StatCom Device to Smooth Power Output from a Wind Farm	Loren Anderson (Bonneville Power Administration)
FACTS Control for Long- and Short-term Energy Storage	Mehdi Ferdowsi (MS&T)
Enhanced Controller Design and Development: Energy Storage System Testing and Model Validation	Satish Ranade (New Mexico State Univ.)
Development of a Scalable Growth Technique for Bulk Gallium Nitride for High Temperature Power Electronics	Karen Waldrip (Sandia National Laboratories)
Solid-state Fault Current Limiters	Ashok Sundaram (EPRI) and Harshad Mehta (Silicon Power)
ABMAS Engineering Hardening for Coast Guard ABMAS Upgrade	Ben Schenkman (Sandia National Laboratories)

**Silicon Carbide Research for Reliable Electric Power:
Design and Test**

Alan Mantooth
(Univ. of Arkansas)

Accelerated Testing & Modeling of Utility-scale PE Devices

Andrew Wereszczak
(Oak Ridge National Laboratory)

**High Temperature Packaging Research, Including Die
Attached Materials and Composite Solder Research**

Govindarajan Muralidharan
(Oak Ridge National Laboratory)

**Wide Band Gap Materials – CVD Processing, Including
Substrate Research**

Gyula Eres
(Oak Ridge National Laboratory)

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