

2016 DOE ANNUAL MERIT REVIEW and PEER EVALUATION MEETING PROGRAM AT A GLANCE

MONDAY June 6 - Plenary, Overviews, and Awards

1:00 PM	Plenary Session (Salons 2 & 3): Guest Speakers, Overviews of the Hydrogen and Fuel Cells Program and Vehicle Technologies Office, and Awards	
3:00 PM	Break (Salon 1)	
	Salon 2	Salon 3
3:30 PM	Vehicle Technologies Analysis Overview	Production & Delivery Overview
4:00 PM	Vehicle Systems Overview	Hydrogen Storage Overview
4:30 PM	Materials Overview	Fuel Cells Overview
5:00 PM	Electrochemical Energy Storage Overview	Manufacturing Overview
5:30 PM	Reviewer Orientation (Delaware A)	

TUESDAY June 7 - Overviews

	Washington 4	Maryland ABC
8:30 AM	Electric Drive Technologies Overview	Technology Validation Overview
9:00 AM	Advanced Combustion Engines Overview	Market Transformation Overview
9:30 AM	Fuel & Lubricant Technologies Overview	Safety, Codes & Standards Overview
10:00 AM	Technology Integration Overview	Systems Analysis Overview

Schedule as of: **6/3/2016**

Oral Technical Sessions

Session Rooms	Tuesday June 7								Wednesday June 8								Thursday June 9													
	Roosevelt 1	Delaware B	Washington 4	Delaware A	Virginia BC	Roosevelt 3	Washington 2	Virginia A	Maryland ABC	Roosevelt 1	Delaware B	Washington 4	Delaware A	Virginia BC	Roosevelt 3	Washington 2	Lincoln 5	Maryland ABC	Virginia A	Roosevelt 1	Delaware B	Washington 4	Delaware A	Virginia BC	Roosevelt 3	Washington 2	Lincoln 5	Maryland ABC	Virginia A	
7:15 AM	Continental Breakfast (Salon 1, Roosevelt Foyer, Washington 6)								Continental Breakfast (Salon 1, Roosevelt Foyer, Washington 6)								Continental Breakfast (Salon 1, Roosevelt Foyer, Washington 6)													
8:00 AM									ACE											FT				PM						
8:30 AM									ACE	EDT	ES	LM	VS	SA	PD	ST	FC		ACE	FT	ES	PM	VS	TI	H2 IN	ST	FC			
9:00 AM									ACE	EDT	ES	LM	VS	SA	PD	ST	FC		ACE	FT	ES	PM	VS	TI	H2 IN	ST	FC			
9:30 AM									ACE	EDT	ES	LM	VS	SA	PD	ST	FC		ACE	FT	ES	PM	VS	TI	H2 IN	ST	FC			
10:00 AM									ACE	EDT	ES	LM	VS	SA	PD	ST	FC		ACE	FT	ES	PM	VS	TI	H2 IN	ST	FC			
10:30 AM	Break (Salon 1, Roosevelt Foyer, Washington 6)								Break (Salon 1, Roosevelt Foyer, Washington 6)								Break (Salon 1, Roosevelt Foyer, Washington 6)													
11:00 AM	ACE	EDT	ES	LM	VS	TV	PD	SCS	FC	ACE	EDT	ES	LM	VS	SA	PD	ST	FC	ACE	FT	ES	PM	VS	TI	H2 IN	ST	FC			
11:30 AM	ACE	EDT	ES	LM	VS	TV	PD	SCS	FC	ACE	EDT	ES	LM	VS	SA	PD	ST	FC	ACE	FT	ES	PM	VS	TI	H2 IN	ST	FC			
12:00 PM	ACE	EDT	ES	LM	VS	TV	PD	SCS	FC	ACE	EDT	ES	LM	VS	SA	PD	ST	FC	ACE		ES	PM	VS	TI	H2 IN	ST	FC			
12:30 PM	Lunch and Brainstorming Session Salons 2 & 3, 12:30-1:45 PM								Lunch and Poster Session Exhibit Halls (Lower Level), 12:30-1:45 PM								Lunch and Brainstorming Session Salons 2 & 3, 12:30-1:45 PM													
1:45 PM	ACE	EDT	ES	LM	VS	TV	PD	SCS	FC	ACE	FT	ES	LM	VS	SA	PD	ST	FC	ACE	FT	ES	PM	VS	TI	H2 IN	ST		MT		
2:15 PM	ACE	EDT	ES	LM	VS	TV	PD	SCS	FC	ACE	FT	ES	LM	VS	VAN	PD	ST	FC	ACE	FT	ES	PM	VS		H2 IN	ST		MT		
2:45 PM	ACE	EDT	ES	LM	VS	TV	PD	SCS	FC	ACE	FT	ES	LM	VS	VAN	PD	ST	FC	ACE	FT	ES	PM			H2 IN	ST		MT		
3:15 PM	ACE	EDT	ES	LM	VS	TV	PD	SCS	FC	ACE	FT	ES	MN	VS	VAN	PD	ST	FC	ACE	FT	ES	PM			H2 IN			MT		
3:45 PM	Break (Salon 1, Roosevelt Foyer, Washington 6)								Break (Salon 1, Roosevelt Foyer, Washington 6)								Break (Salon 1, Roosevelt Foyer, Washington 6)													
4:15 PM	ACE	EDT	ES	LM	VS		PD	SCS	FC	ACE	FT	ES	MN	VS	VAN	PD	ST	FC	ACE	FT		PM			H2 IN			MT		
4:45 PM	ACE	PM	ES	LM	VS		PD	SCS	FC	ACE	FT	ES	MN	VS	VAN	PD	ST	FC	ACE	FT	ES	PM			H2 IN			MT		
5:15 PM	ACE	EDT	ES		VS		PD		FC	ACE		ES	MN	VS		PD	ST	FC	ACE	FT	ES									
5:45 PM		EDT			VS		PD		FC	ACE			MN			PD		FC	ACE											
	EVENING POSTER SESSION I (Exhibit Halls, Lower Level, 6:30-8:30 PM): Electric Drive Technologies; Electrochemical Storage Part I; Safety, Codes & Standards; Technology Validation; Vehicle Systems								LUNCH POSTER SESSION II (Exhibit Halls, Lower Level, 12:30-1:45 PM): Hydrogen Storage; Manufacturing; H2 Refuel; Vehicle Technologies Analysis EVENING POSTER SESSION III (Exhibit Halls, Lower Level, 6:30-8:30 PM): Hydrogen Production & Delivery; H2 Refuel; Fuel Cells with BES and ARPA-E; Market Transformation; Systems Analysis								EVENING POSTER SESSION IV (Exhibit Halls, Lower Level, 6:30-8:30 PM): Electrochemical Storage Part II													

Vehicle Technology Office Program Areas		Hydrogen & Fuel Cell Program Areas	
ACE	Advanced Combustion Engine R&D	H2IN	Hydrogen Infrastructure
EDT	Electric Drive Technologies	FC	Fuel Cells
ES	Electrochemical Storage	MN	Manufacturing R&D
FT	Fuel & Lubricant Technology	MT	Market Transformation
LM	Lightweight Materials	PD	Production & Delivery
PM	Propulsion Materials	SA	Systems Analysis
TI	Technology Integration	SCS	Safety, Codes & Standards
VAN	Vehicle Technologies Analysis	ST	Hydrogen Storage
VS	Vehicle Systems	TV	Technology Validation
Organizations			
ANL	Argonne National Laboratory	NIST	National Institute of Standards and Technology
BNL	Brookhaven National Laboratory	NREL	National Renewable Energy Laboratory
CaFCP	California Fuel Cell Partnership	ORNL	Oak Ridge National Laboratory
CARB	California Air Resources Board	PNNL	Pacific Northwest National Laboratory
CSULA	California State University, Los Angeles	SCAQMD	South Coast Air Quality Management District
DOE	U.S. Department of Energy	SNL	Sandia National Laboratories
GM	General Motors	SRNL	Savannah River National Laboratory
GTI	Gas Technology Institute	SUNY	State University of New York
INL	Idaho National Laboratory	SwRI	Southwest Research Institute®
LANL	Los Alamos National Laboratory	UCLA	University of California, Los Angeles
LBNL	Lawrence Berkeley National Laboratory	USABC	U.S. Advanced Battery Consortium LLC
LLNL	Lawrence Livermore National Laboratory	USAMP	U.S. Automotive Materials Partnership LLC
MIT	Massachusetts Institute of Technology	UTRC	United Technologies Research Center

MONDAY JUNE 6 plenary

Salons 2 & 3	
1:00 PM	Moderator <i>Reuben Sarkar, Deputy Assistant Secretary for Sustainable Transportation</i>
	Welcome Remarks <i>David Friedman, Acting Assistant Secretary, Office of Energy Efficiency and Renewable Energy</i>
1:20 PM	Keynote Address <i>Honorable Byron Dorgan, U.S. Senate (retired)</i>
1:40 PM	Vehicle Technologies Office Overview <i>Christy Cooper, Acting Director</i>
2:05 PM	Hydrogen and Fuel Cells Program Overview <i>Sunita Satyapal, Director</i>
2:30 PM	Award Ceremony <i>Christy Cooper and Sunita Satyapal</i>
3:00 PM	BREAK

MONDAY JUNE 6 overviews

	Hydrogen and Fuel Cells Program Overviews	Vehicle Technologies Office Overviews
	Salon 3	Salon 2
3:30 PM	Hydrogen Production & Delivery Overview <i>Eric Miller, DOE</i>	Vehicle Technologies Analysis Overview <i>Jacob Ward, DOE</i>
4:00 PM	Hydrogen Storage Overview <i>Ned Stetson, DOE</i>	Vehicle Systems Overview <i>Lee Slezak, DOE</i>
4:30 PM	Fuel Cells Overview <i>Dimitrios Papageorgopoulos, DOE</i>	Materials Overview <i>Felix Wu, DOE</i>
5:00 PM	Manufacturing R&D Overview <i>Nancy Garland, DOE</i>	Electrochemical Energy Storage Overview <i>David Howell, DOE</i>

TUESDAY JUNE 7 overviews

	Hydrogen and Fuel Cells Program Overviews	Vehicle Technologies Office Overviews
	Maryland ABC	Washington 4
8:30 AM	Technology Validation Overview <i>Jason Marcinkoski, DOE</i>	Electric Drive Technologies Overview <i>Susan Rogers, DOE</i>
9:00 AM	Market Transformation Overview <i>Pete Devlin, DOE</i>	Advanced Combustion Engine Overview <i>Gurpreet Singh, DOE</i>
9:30 AM	Safety, Codes & Standards Overview <i>Charles "Will" James, DOE</i>	Fuel & Lubricant Technologies Overview <i>Kevin Stork, DOE</i>
10:00 AM	Systems Analysis Overview <i>Fred Joseck, DOE</i>	Technology Integration Overview <i>Linda Bluestein, DOE</i>

TUESDAY JUNE 7 oral presentations

	Roosevelt 1	Delaware B	Washington 4
11:00 AM	ACE015: Stretch Efficiency for Combustion Engines: Exploiting New Combustion Regimes <i>Jim Szybist, ORNL</i>	EDT032: North American Supply Chain for Traction Motors and PE <i>Christopher Whaling, Synthesis Partners</i>	ES014: Overview and Progress of Applied Battery Research (ABR) Activities <i>Peter Faguy, DOE</i>
11:30 AM	ACE016: High Efficiency Clean Combustion in Multi-Cylinder Light-Duty Engines <i>Scott Curran, ORNL</i>	EDT006: Benchmarking EV and HEV Technologies <i>Tim Burress, ORNL</i>	ES228: BatPaC Model Development <i>Shabbir Ahmed, ANL</i>
12:00 PM	ACE017: Accelerating Predictive Simulation of IC Engines with High Performance Computing <i>Kevin Edwards, ORNL</i>	EDT015: Development of Radically Enhanced alnico Magnets (DREaM) for Traction Drive Motors <i>Matt Kramer, Ames Laboratory</i>	ES097: Overview and Progress of United States Advanced Battery Consortium (USABC) Activity <i>Ron Elder, USABC</i>
12:30 PM	Lunch and Brainstorming Session (Salons 2 & 3)		
1:45 PM	ACE090: High-Dilution Stoichiometric Gasoline Direct-Injection (SGDI) Combustion Control Development <i>Brian Kaul, ORNL</i>	EDT044: Unique Lanthide-Free Motor Construction <i>Josh Ley, UQM Technologies, Inc.</i>	ES210: Advanced High Energy Li-Ion Cell for PHEV and EV Applications <i>Jagat Singh, 3M</i>
2:15 PM	ACE077: Cummins-ORNL Combustion CRADA: Characterization & Reduction of Combustion Variations <i>Bill Partridge, ORNL</i>	EDT062: Advanced Electric Motor Research <i>Tim Burress, ORNL</i>	ES211: High Energy Lithium Batteries for PHEV Applications <i>Subramanian Venkatachala, Envia Systems</i>
2:45 PM	ACE052: Neutron Imaging of Advanced Transportation Technologies <i>Todd Toops, ORNL</i>	EDT045: Alternative High-Performance Motors with Non-Rare Earth Materials <i>Ayman El-Refaie, GE Global Research</i>	ES212: High Energy, Long Cycle Life Lithium-ion Batteries for EV Applications <i>Donghai Wang, Penn State</i>
3:15 PM	ACE014: 2016 KIVA-hpFE Development: A Robust and Accurate Engine Modeling Softwar <i>David Carrington, LANL</i>	EDT064: Electric Motor Thermal Management R&D <i>Kevin Bennion, NREL</i>	ES208: New High-Energy Electrochemical Couple for Automotive Applications <i>Khalil Amine, ANL</i>
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	ACE012: Model Development and Analysis of Clean & Efficient Engine Combustion <i>Russell Whitesides, LLNL</i>	EDT040: Next Generation Inverter <i>Brian Peaslee, General Motors</i>	ES213: High Energy Density Li-ion Cells for EV's Based on Novel, High Voltage Cathode Material Systems <i>Michael Slater, Farasis</i>
4:45 PM	ACE013: Chemical Kinetic Models for Advanced Engine Combustion <i>Bill Pitz, LLNL</i>	PM054: Enabling Materials for High Temperature Power Electronics <i>Andrew Wereszczak, ORNL</i>	ES209: High Energy High Power Battery Exceeding PHEV-40 Requirements <i>Jane Rempel, TIAX</i>
5:15 PM	ACE076: Improved Solvers for Advanced Engine Combustion Simulation <i>Matthew McNeely, LLNL</i>	EDT060: High Performance DC Bus Film Capacitor <i>Dan Tan, GE Global Research</i>	ES030: Cell Analysis, Modeling, and Prototyping (CAMP) Facility Research Activities <i>Andrew Jansen, ANL</i>
5:45 PM		EDT059: High Temperature DC-Bus Capacitor Cost Reduction and Performance Improvements <i>Angelo Yializis, Sigma Technologies International</i>	

TUESDAY JUNE 7 oral presentations

	Delaware A	Virginia B/C	Roosevelt 3
11:00 AM	LM084: Validation of Material Models for Crash Simulation of Automotive Carbon Fiber Composite Structures (VMM) <i>Omar Faruque, Ford</i>	VS095: EV-Smart Grid Research & Interoperability Activities <i>Keith Hardy, ANL</i>	TV019: Hydrogen Component Validation <i>Daniel Terlip, NREL</i>
11:30 AM	LM101: Integrated Computational Materials Engineering (ICME) Development of Carbon Fiber Composites for Lightweight Vehicles <i>Xuming Su, Ford</i>	VS096: Wireless & Conductive Charging Testing to Support Code & Standards <i>Barney Carlson, INL</i>	TV034: Fuel Cell Hybrid Electric Delivery Van Project <i>Jason Hanlin, Center for Transportation and the Environment</i>
12:00 PM	LM102: Predictive Models for Integrated Manufacturing and Structural Performance of Carbon Fiber Composites for Automotive Applications <i>Venkat Aitharaju, General Motors</i>	VS144: SAE J2907 Motor Power Ratings Standards Support <i>John Miller, ORNL</i>	TV029: Performance and Durability Testing of Volumetrically Efficient Cryogenic Vessels and High Pressure Liquid Hydrogen Pump <i>Salvador Aceves, LLNL</i>
12:30 PM	Lunch and Brainstorming Session (Salons 2 & 3)		
1:45 PM	LM103: E. Coli Derived Spider Silk MaSp1 and MaSp2 Proteins as Carbon Fiber Precursors <i>Randy Lewis, Utah State U.</i>	VS029: Advanced Vehicle Testing & Evaluation <i>Jeremy Diez, Intertek</i>	TV001: Fuel Cell Electric Vehicle Evaluation <i>Jennifer Kurtz, NREL</i>
2:15 PM	LM098: Brazing Dissimilar Metals with a Novel Composite Foil <i>Tim Weihs, John Hopkins U.</i>	VS021: Idaho National Laboratory Testing of Advanced Technology Vehicles <i>Shawn Salisbury, INL</i>	TV008: Fuel Cell Bus Evaluations <i>Leslie Eudy, NREL</i>
2:45 PM	LM105: Friction Stir Scribe Joining of Al to Steel <i>Yuri Hovanski, PNNL</i>	VS030: Advanced Technology Vehicle Lab Benchmarking (L1&L2) <i>Kevin Stutenberg, ANL</i>	TV031: Dynamic Modeling and Validation of Electrolyzers in Real Time Grid Simulation <i>Robert Hovsopian, INL</i>
3:15 PM	LM087: Active, Tailorable Adhesives for Dissimilar Material Bonding, Repair and Assembly <i>Mahmood Haq, Michigan State U.</i>	VS001: Medium and Heavy-Duty Vehicle Field Evaluations <i>Kenneth Kelly, NREL</i>	TV032: Fuel Cell Electric Truck (FCET) Component Sizing <i>Ram Vijayagopal, ANL</i>
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	LM097: Laser-Assisted Joining Process of Aluminum and Carbon Fiber Components <i>David Warren, ORNL</i>	VS172: EV Everywhere Charging Infrastructure Roadmap <i>Tom Garetson, EAI</i>	
4:45 PM	LM090: Vehicle Lightweighting: Mass Reduction Spectrum Analysis and Process Cost Modeling <i>Tony Mascarin, IBIS Associates</i>	VS163: Advanced Bus and Truck Radial Materials for Fuel Efficiency <i>Lucas Dos Santos Freire, PPG</i>	
5:15 PM		VS085: System for Automatically Maintaining Pressure in a Commercial Truck Tire <i>Norm Anderson, The Goodyear Tire and Rubber Company</i>	
5:45 PM		VS176: Improved Tire Efficiency through Elastomeric Polymers Enhanced with Carbon-Based Nanostructured Materials <i>Geogios Polyzos, ORNL</i>	

TUESDAY June 7 oral presentations

	Washington 2	Virginia A	Maryland ABC
11:00 AM	PD014: Hydrogen Delivery Infrastructure Analysis <i>Krishna Reddi, ANL</i>	SCS010: R&D for Safety, Codes and Standards: Hydrogen Behavior <i>Ethan Hecht, SNL</i>	FC107: Non-Precious Metal Fuel Cell Cathodes: Catalyst Development & Electrode Structure Design <i>Piotr Zelenay, LANL</i>
11:30 AM	PD088: Vessel Design and Fabrication Technology for Stationary High-Pressure Hydrogen Storage <i>Zhili Feng, ORNL</i>	SCS011: Hydrogen Quantitative Risk Assessment <i>Katrina Groth, SNL</i>	FC130: Development of PGM-free Catalysts for Hydrogen Oxidation Reaction in Alkaline Media <i>Alexey Serov, U. of New Mexico</i>
12:00 PM	PD109: Steel Concrete Composite Vessel for 875 bar Stationary Hydrogen Storage <i>Zhili Feng, ORNL</i>	SCS007: Hydrogen Fuel Quality <i>Tommy Rockward, LANL</i>	FC132: Innovative Non-PGM Catalysts for High-Temperature PEMFCs <i>Sanjeev Mukerjee, Northeastern U.</i>
12:30 PM	Lunch and Brainstorming Session (Salons 2 & 3)		
1:45 PM	PD110: Low Cost Hydrogen Storage at 875 Bar Using Steel Liner and Steel Wire Wrap <i>Ashok Saxena, Wiretough Cylinders</i>	SCS021: NREL Hydrogen Sensor Testing Laboratory <i>Bill Buttner, NREL</i>	FC140: Tailored High Performance Low-PGM Alloy Cathode Catalysts <i>Vojislav Stamenkovic, ANL</i>
2:15 PM	PD025: Fatigue Performance of High-Strength Pipeline Steels and Their Welds in Hydrogen Gas Service <i>Joe Ronevich, SNL</i>	SCS019: Hydrogen Safety Panel, Safety Knowledge Tools and First Responder Training Resources <i>Nick Barilo, PNNL</i>	FC141: Platinum Monolayer Electrocatalysts <i>Radoslav Adzic, BNL</i>
2:45 PM	PD126: Compressor-Less Hydrogen Refueling Station Using Thermal Compression <i>Kenneth Kriha, Gas Technology Institute</i>	SCS001: National Codes and Standards Deployment and Outreach <i>Carl Rivkin, NREL</i>	FC142: Extended Surface Electrocatalyst Development <i>Bryan Pivovar, NREL</i>
3:15 PM	PD108: Hydrogen Compression Application of the Linear Motor Reciprocating Compressor (LMRC) <i>Eugene Broerman, SwRI</i>	SCS022: Fuel Cell & Hydrogen Energy Association Codes and Standards Support <i>Karen Quackenbush, Fuel Cell & Hydrogen Energy Association</i>	FC143: Highly Active, Durable, and Ultra-low PGM NSTF Thin Film ORR Catalysts and Supports <i>Andrew Steinbach, 3M</i>
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	PD132: Advanced Barrier Coatings for Harsh Environments <i>Shannan O'Shaughnessy, GVD</i>	SCS005: R&D for Safety, Codes and Standards: Materials and Components Compatibility <i>Chris San Marchi, SNL</i>	FC144: Highly-Accessible Catalysts for Durable High-Power Performance <i>Anu Kongkanand, General Motors</i>
4:45 PM	PD038: Biomass to Hydrogen (B2H2) <i>Pin-Ching Maness, NREL</i>	SCS026: Compatibility of Polymeric Materials Used in the Hydrogen Infrastructure <i>Kriston Brooks, PNNL</i>	FC145: Corrosion-Resistant Non-Carbon Electrocatalyst Supports for PEFCs <i>Vijay Ramani, IIT</i>
5:15 PM	PD127: Sweet Hydrogen: High-Yield Production of Hydrogen from Biomass Sugars Catalyzed by in vitro Synthetic Biosystems <i>Y-H Percival Zhang, Virginia Tech</i>		FC109: New Fuel Cell Membranes with Improved Durability and Performance <i>Michael Yandrasits, 3M</i>
5:45 PM	PD129: Novel Hybrid Microbial Electrochemical System for Efficient Hydrogen Generation from Biomass <i>Hong Liu, Oregon State U.</i>		FC110: Advanced Hybrid Membranes for Next Generation PEMFC Automotive Applications <i>Andrew Herring, Colorado School of Mines</i>

TUESDAY JUNE 7 poster presentations 6:30-8:30 PM, Exhibit Halls

Hydrogen and Fuel Cells Program - Safety, Codes & Standards		
SCS002	Hydrogen Component R&D	Robert Burgess, NREL
Hydrogen and Fuel Cells Program - Technology Validation		
TV016	Stationary Fuel Cell Evaluation	Jennifer Kurtz, NREL
TV020	Validation of an Advanced High Pressure PEM Electrolyzer and Composite Hydrogen Storage, with Data Reporting, for SunHydro Stations	Larry Moulthrop, Proton OnSite
TV021	Material Handling Equipment Data Collection and Analysis	Christopher Ainscough, NREL
TV024	CSULA Hydrogen Refueling Facility Performance Evaluation and Optimization	David Blekman, CSULA
TV025	Performance Evaluation of Delivered Hydrogen Fueling Stations	Ted Barnes, Gas Technology Institute
TV028	Advanced Hydrogen Fueling Station Supply: Tube Trailers	John Aliquo, Air Products and Chemicals, Inc.
TV038	Overview of an Integrated Research Facility for Advancing Hydrogen Infrastructure	Michael Peters, NREL
Vehicle Technologies Office - Electric Drive Technologies		
EDT049	Advanced Packaging Technologies and Designs	Zhenxian Liang, ORNL
EDT054	Innovative Technologies for Converters and Chargers	Gui-Jia Su, ORNL
EDT070	Thermal Performance Benchmarking	Xuhui Feng, NREL
EDT071	Electric Motor Performance Improvement Techniques	Lixin Tang, ORNL
Vehicle Technologies Office - Electrochemical Storage, Part I		
BESVT021	Superionic Conduction using Ion Aggregates	Janna Maranas, Penn State
ES055	NMR and Pulse Field Gradient Studies of SEI and Electrode Structure	Clare Grey, U. of Cambridge
ES201	Electrochemical Performance Testing	Ira Bloom, ANL
ES202	INL Electrochemical Performance Testing	Matt Shirk, INL
ES203	Battery Safety Testing	Leigh Anna Steele, SNL
ES204	Battery Thermal Characterization	Matthew Keyser, NREL
ES237	Low-cost, High Energy Si/Graphene Anodes for Li-Ion Batteries	Robert Privette, XG Sciences
ES238	Low-Cost, High-Capacity Lithium Ion Batteries through Modified Surface and Microstructure	Pu Zhang, Navitas Systems
ES239	Scale-Up of Low-Cost Encapsulation Technologies for High Capacity and High Voltage Electrode Powders	David King, PneumatiCoat Technologies
ES240	High Energy Anode Material Development for Li-Ion Batteries	Cary Hayner, Sinode Systems
ES241	Advanced High-Performance Batteries for Electric Vehicle (EV) Applications	Ionel Stefan, Amprius
ES247	High Energy Lithium Batteries for Electric Vehicles	Herman Lopez, Envia Systems
ES249	A 12V Start-Stop Li Polymer Battery Pack	Mohamed Alamgir, LG Chem Power
ES251	Development of Advanced High-Performance Batteries for 12V Start Stop Vehicle Applications	Jeff Kim, Maxwell
ES278	Overcoming Interfacial Impedance in Solid State Batteries	Eric Wachsmann, U. of Maryland
ES288	Construction of High Energy Density Batteries	Christopher Lang, Physical Sciences Inc.
ES289	Advanced Polyolefin Separators for Li-Ion Batteries Used in Vehicle Applications	Weston Wood, Entek
ES290	Hybrid Electrolytes for PHEV Applications	Surya Moganty, NOHMs Technologies
ES291	SAFT-USABC 12V Start-Stop Phase II	Ian O'Connor, Saft
ES292	Development of Advanced High-Performance Electrolytes for Lithium-Ion Used in Vehicle Applications	Kristin Meyers, Soulbrain
ES293	A Closed Loop Process for the End-of-Life Electric Vehicle Li-ion Batteries	Yan Wang, WPI
ES294	Computer Aided Battery Engineering Consortium	Ahmad Pesaran, NREL
ES295	Consortium for Advanced Battery Simulation (CABS)	John Turner, ORNL
ES296	Development and Validation of a Simulation tool to Predict the Combined Structural, Electrical, Electrochemical, and Thermal Responses of Automotive Batteries	James Marcicki, Ford
Vehicle Technologies Office - Vehicle Systems		
VS181	VTO Vehicle to Building Integration Pathway	Richard Pratt, PNNL
VS182	VTO Systems Research Supporting Standards and Interoperability	John Smart, INL
VS183	Modeling & Controls Software Tools to Support V2G Integration	Samveg Saxena, LBNL
VS184	VTO Diagnostic Security Modules for Electric Vehicle to Building Integration	Barney Carlson, INL

WEDNESDAY JUNE 8 oral presentations

	Roosevelt 1	Delaware B	Washington 4
8:00 AM	ACE001: Heavy-Duty Low-Temperature and Diesel Combustion & Heavy-Duty Combustion Modeling <i>Mark Musculus, SNL</i>		
8:30 AM	ACE002: Light-Duty Diesel Combustion <i>Stephen Busch, SNL</i>	EDT073: 88 Kilowatt Automotive Inverter with New 900 Volt Silicon Carbide MOSFET Technology <i>Jeffrey Casady, Cree</i>	ES028: Materials Benchmarking Activities for CAMP Facility <i>Wenquan Lu, ANL</i>
9:00 AM	ACE004: Low-Temperature Gasoline Combustion (LTGC) Engine Research <i>John Dec, SNL</i>	EDT053: Electric Drive Inverter R&D <i>Madhu Chinthavali, ORNL</i>	ES253: Enabling High-Energy, High-Voltage Li-Ion Cells for Transportation Applications: Project Overview <i>Jason Croy, ANL</i>
9:30 AM	ACE005: Spray Combustion Cross-Cut Engine Research <i>Lyle Pickett, SNL</i>	EDT058: Advanced Low-Cost SiC and GaN Wide Bandgap Inverters for Under-the-Hood Electric Vehicle Traction Drives <i>Kraig Olejniczak, Wolfspeed</i>	ES254: Enabling High-Energy, High-Voltage Li-Ion Cells for Transportation Applications: Materials Characterization <i>John Vaughney, ANL</i>
10:00 AM	ACE006: Gasoline Combustion Fundamentals <i>Isaac Ekoto, SNL</i>	EDT068: Gate Driver Optimization for WBG Applications <i>Nance Ericson, ORNL</i>	ES252: Enabling High-Energy, High-Voltage Li-Ion Cells for Transportation Applications: Modeling and Analysis <i>Daniel Abraham, ANL</i>
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	ACE007: Large Eddy Simulation (LES) Applied to Advanced Engine Combustion Research <i>Joe Oefelein, SNL</i>	EDT067: High-Efficiency High-Density GaN-Based 6.6kW Bidirectional On-Board Charger for PEVs <i>Charles Zhu, Delta Products Corporation</i>	ES168: Process Development and Scale-Up of Critical Battery Materials <i>Krzysztof Pupek, ANL</i>
11:30 AM	ACE075: Advancements in Fuel Spray and Combustion Modeling with High Performance Computing Resources <i>Sibendu Som, ANL</i>	EDT069: Power Electronics Thermal Management R&D <i>Kevin Bennion, NREL</i>	ES165: Performance Effects of Electrode Coating Defects and IR Thermography NDE for High-Energy Lithium-Ion Batteries <i>David Wood, ORNL</i>
12:00 PM	ACE010: Fuel Injection and Spray Research Using X-Ray Diagnostics <i>Christopher Powell, ANL</i>	EDT063: Performance and Reliability of Bonded Interfaces for High-Temperature Packaging <i>Sreekanth Narumanchi, NREL</i>	ES166: Post-Test Analysis of Lithium-Ion Battery Materials <i>Ira Bloom, ANL</i>
12:30 PM	Lunch and Poster Session (Exhibit Halls, Lower Level)		
1:45 PM	ACE011: Advances in High-Efficiency Gasoline Compression Ignition <i>Steve Ciatti, ANL</i>	FT033: Integrated Friction Reduction Technology to Improve Fuel Economy without Sacrificing Durability <i>Stephen Hsu, George Washington U.</i>	ES207: Towards Solventless Processing of Thick Electron-Beam (EB) Cured LIB Cathodes <i>David Wood, ORNL</i>
2:15 PM	ACE054: RCM Studies to Enable Gasoline-Relevant Low Temperature Combustion <i>Scott Goldsborough, ANL</i>	FT034: Hybrid Ionic-Nano-Additives for Engine Lubrication to Improve Fuel Efficiency <i>Bin Zhao, U. of Tennessee</i>	ES164: Thick Low-Cost, High-Power Lithium-Ion Electrodes via Aqueous Processing <i>Jianlin Li, ORNL</i>
2:45 PM	ACE084: High Efficiency GDI Engine Research with Emphasis on Ignition Systems <i>Riccardo Scarcelli, ANL</i>	FT014: Ionic Liquids as Engine Lubricant Additives, Impact on Emission Control Catalysts, and Compatibility with Coatings <i>Jun Qu, ORNL</i>	ES261: Next Generation Anodes for Lithium-Ion Batteries: Overview <i>Dennis Dees, ANL</i>
3:15 PM	ACE096: Micro-Jet Enhanced Ignition with a Variable Orifice Fuel Injector for High Efficiency Lean-burn Combustion <i>Chia-Fon Lee, U. of Illinois</i>	FT012: Engine Friction Reduction Technologies <i>George Fenske, ANL</i>	ES262: Next-Generation Anodes for Li-Ion Batteries: Fundamental Studies of Si-C Model Systems <i>Robert Kostecki, LBNL</i>
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	ACE022: Joint Development and Coordination of Emissions Control Data and Models (CLEERS Analysis and Coordination) <i>Josh Pihl, ORNL</i>	FT035: Hyperbranched Alkanes for Lubes <i>Lelia Cosimbescu, PNNL</i>	ES167: Process Development and Scale-Up of Advanced Active Battery Materials <i>Youngho Shin, ANL</i>
4:45 PM	ACE023: CLEERS: Aftertreatment Modeling and Analysis <i>Yong Wang, PNNL</i>	FT036: Lubricant Effects on Combustion, Emissions, and Efficiency <i>Brian West, ORNL</i>	ES244: Low Cost, High Capacity Non-Intercalation Chemistry Automotive Cells <i>Gleb Yushin, Georgia Tech</i>
5:15 PM	ACE078: Thermally Stable Ultra-Low Temperature Oxidation Catalysts <i>Janos Szanyi, PNNL</i>		ES242: A Disruptive Concept for a Whole Family of New Battery Systems <i>Farshid Roumi, Parthian Energy</i>
5:45 PM	ACE026: Enhanced High and Low Temperature Performance of NOx Reduction Materials <i>Feng Gao, PNNL</i>		

WEDNESDAY JUNE 8 oral presentations

	Delaware A	Virginia B/C	Roosevelt 3
8:30 AM	LM099: High Strength, Dissimilar Alloy Aluminum Tailor-Welded Blanks <i>Yuri Hovanski, PNNL</i>	VS103: Wireless Charging of Electric Vehicles <i>Omer Onar, ORNL</i>	SA044: Impact of Fuel Cell and H2 Storage Improvements on FCEVs <i>Aymeric Rousseau, ANL</i>
9:00 AM	LM100: Upset Protrusion Joining Techniques For Joining Dissimilar Metals <i>Steve Logan, Fiat Chrysler Automobiles</i>	VS102: High Efficiency, Low EMI and Positioning Tolerant Wireless Charging of Evs <i>John Robb, Hyundai</i>	SA060: Evaluation of Technology Status Compared to Program Targets <i>Marc Melaina, NREL</i>
9:30 AM	LM086: Collision Welding of Dissimilar Materials by Vaporizing Foil Actuator: A Breakthrough Technology for Dissimilar Materials Joining; <i>Glenn Daehn, Ohio State U.</i>	VS186: Evaluation of Dynamic Wireless Charging Demand <i>James Li, ORNL</i>	SA055: Hydrogen Analysis with the Sandia ParaChoice Model <i>Rebecca Levinson, SNL</i>
10:00 AM	LM104: Solid-State Body-in-White Spot Joining of Al to AHSS at Prototype Scale <i>Zhili Feng, ORNL</i>	VS155: Analyzing Real-World Light Duty Vehicle Efficiency Benefits <i>Jeff Gonder, NREL</i>	SA058: Analysis of Incentives and Policy Impacts on the Market for Alternative Fuels and Vehicles <i>David Greene, U. of Tennessee</i>
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	LM035: Scale-Up of Magnesium Production by Fully Stabilized Zirconia Electrolysis <i>Steve Derezhinski, INFINIUM, Inc.</i>	VS075: Commercial Vehicle Thermal Load Reduction and VTCab -- Rapid HVAC Load Estimation Tool <i>Jason Lustbader, NREL</i>	SA057: Life Cycle Analysis of Emerging Hydrogen Production Technologies <i>Amgad Elgowainy, ANL</i>
11:30 AM	LM080: Integrated Computational Materials Engineering Approach to Development of Lightweight 3GAHSS Vehicle Assembly <i>Lou Hector, USAMP</i>	VS185: Evaluation of Vehicle Technology Benefits on Real World Driving Cycles using Regional Transportation System Model <i>Ram Vijayagopal, ANL</i>	SA039: Life-Cycle Analysis of Water Consumption for Hydrogen Production <i>Jeongwoo Han, ANL</i>
12:00 PM	LM106: Enhanced Sheared Edge Stretchability of AHSS/UHSS <i>Xin Sun, PNNL</i>	VS134: Vehicle Thermal System Modeling in Simulink <i>Jason Lustbader, NREL</i>	SA059: Sustainability Analysis <i>Marc Melaina, NREL</i>
12:30 PM	Lunch and Poster Session (Exhibit Halls, Lower Level)		
1:45 PM	LM107: Optimizing Heat Treatment Parameters for 3rd Generation AHSS Using an Integrated Experimental-Computational Framework <i>Xin Sun, PNNL</i>	VS136: ePATHS - electrical PCM Assisted Thermal Heating System <i>Mingyu Wang, Mahle Behr USA, LLC</i>	SA035: Study of Employment Impacts for Hydrogen and Fuel Cell Technologies <i>Marianne Mintz, ANL</i>
2:15 PM	LM089: High-Strength Electroformed Nanostructured Aluminum for Lightweight Automotive Applications <i>Robert Hilty, Xtallic Corporation</i>	VS135: Advanced Climate Systems for EV Extended Range (ACSforEVER) <i>Nicos Agathocleous, Hanon Systems</i>	VAN999: Overview of VTO Analysis Program <i>Jake Ward, DOE</i>
2:45 PM	LM108: Development of Low Cost, High Strength Automotive Aluminum Sheet <i>Russell Long, ALCOA</i>	VS157: UTEMPRA - Unitary Thermal Energy Management for Propulsion Range Augmentation <i>Sourav Chowdhury, Mahle Behr USA, LLC</i>	VAN016: Transportation Data Program: A Multi-Lab Coordinated Project <i>Stacy Davis, ORNL</i>
3:15 PM	MN001: Fuel Cell MEA Manufacturing R&D <i>Michael Ulsh, NREL</i>	VS165; John Rugh; NREL: Design and Implementation of a Thermal Load Reduction System in a Hyundai PHEV	VAN017: ANL Vehicle Technologies Analysis Modeling Program <i>Michael Wang, ANL</i>
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	MN012: Clean Energy Supply Chain and Manufacturing Competitiveness Analysis for Hydrogen and Fuel Cell Technologies <i>Pat Valente, Ohio Fuel Cell Coalition</i>	VS006: DOE's Effort to Improve Heavy Vehicle Fuel Efficiency through Improved Aerodynamics <i>Kambiz Salari, LLNL</i>	VAN018: VTO Program Benefits Analysis <i>Tom Stephens, ANL</i>
4:45 PM	MN013: Fuel Cell and Hydrogen Opportunity Center <i>Alleyn Harned, Virginia Clean Cities at James Madison U.</i>	VS132: Combined Aero and Underhood Thermal Analysis for Heavy Duty Trucks <i>Tanju Sofu, ANL</i>	VAN023: Assessing Energy and Cost Impact of Advanced Technologies through Model Based Design, <i>Aymeric Rousseau, ANL</i>
5:15 PM	MN014: U.S. Clean Energy Hydrogen and Fuel Cell Technologies: A Competiveness Analysis <i>Patrick Fullenkamp, GLWN - Westside Industrial Retention & Expansion Network</i>	VS173: Energy Impact of Connected and Automated Vehicles <i>Huei Peng, U. of Michigan</i>	
5:45 PM	MN017: Manufacturing Competitiveness Analysis for Hydrogen Refueling Stations <i>Ahmad Mayyas, NREL</i>		

WEDNESDAY JUNE 8 oral presentations

	Washington 2	Lincoln 5	Maryland ABC
8:30 AM	PD130: Improved Hydrogen Liquefaction through Heisenberg Vortex Separation of para and ortho-hydrogen <i>Christopher Ainscough, NREL</i>	ST127: HyMARC: A Consortium for Advancing Solid-State Hydrogen Storage Materials <i>Mark Allendorf, SNL</i>	FC116: Smart Matrix Development for Direct Carbonate Fuel Cell <i>A Hilmi, FuelCell Energy</i>
9:00 AM	PD131: Magnetocaloric Hydrogen Liquefaction <i>Jamie Holladay, PNNL</i>	ST129: HyMARC: Hydrogen Storage Materials Advanced Research Consortium <i>Brandon Wood, LLNL</i>	FC117: Ionomer Dispersion Impact on PEM Fuel Cell and Electrolyzer Durability <i>Hui Xu, Giner, Inc.</i>
9:30 AM	PD102: Analysis of Advanced H2 Production Pathways <i>Brian James, Strategic Analysis, Inc.</i>	ST130: HyMARC: A Consortium for Advancing Solid-State Hydrogen Storage Materials <i>David Prendergast, LBNL</i>	FC146: Advanced Materials for Fully-Integrated MEAs in AEMFCs <i>Yu Seung Kim, LANL</i>
10:00 AM	PD114: Flowing Particle Bed Solarthermal RedOx Process to Split Water <i>Al Weimer, U. of Colorado</i>	ST128: Hydrogen Storage Materials Advanced Research Consortium: Sandia Effort <i>Vitalie Stavila, SNL</i>	FC147: Advanced Ionomers & MEAs for Alkaline Membrane Fuel Cells <i>Bryan Pivovar, NREL</i>
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	PD096: Electrolyzer Component Development for the HyS Thermochemical Cycle <i>William Summers, SRNL</i>	ST131: H2 Storage Characterization and Optimization Research Efforts <i>Thomas Gennett, NREL</i>	FC131: Highly Stable Anion-Exchange Membranes for High-Voltage Redox-Flow Batteries <i>Yushan Yan, U. of Delaware</i>
11:30 AM	PD113: High Efficiency Solar Thermochemical Reactor for Hydrogen Production <i>Tony McDaniel, SNL</i>	ST132: Hydrogen Storage Characterization Research Efforts <i>Tom Autrey, PNNL</i>	FC081: Fuel Cell Technology Status: Degradation <i>Jennifer Kurtz, NREL</i>
12:00 PM	PD115: High-Efficiency Tandem Absorbers for Economical Solar Hydrogen Production <i>Todd Deutsch, NREL</i>	ST133: Hydrogen Storage Characterization and Optimization Research Effort <i>Jeffrey Long, LBNL</i>	FC135: FC-PAD Consortium Overview <i>Rod Borup, LANL</i>
12:30 PM	Lunch and Poster Session (Exhibit Halls, Lower Level)		
1:45 PM	PD116: Wide Bandgap Chalcopyrite Photoelectrodes for Direct Solar Water Splitting <i>Nicolas Gaillard, U. of Hawaii</i>	ST118: Improving the Kinetics and Thermodynamics of Mg(BH4)2 for Hydrogen Storage <i>Brandon Wood, LLNL</i>	FC136: FC-PAD--Electrode Catalysts and Supports <i>Debbie Myers, ANL</i>
2:15 PM	PD125: Tandem Particle-Slurry Batch Reactors for Solar Water Splitting <i>Shane Ardo, U. of California, Irvine</i>	ST119: High-capacity Hydrogen Storage Systems via Mechanochemistry <i>Vitalij Pecharsky, Ames Laboratory</i>	FC137: FC-PAD--Electrode Layer Integration <i>Shyam Kocha, NREL</i>
2:45 PM	PD031: Renewable Electrolysis Integrated System Development and Testing <i>Michael Peters, NREL</i>	ST120: Design and Synthesis of Materials with High Capacities for Hydrogen Physisorption <i>Brent Fultz, California Institute of Technology</i>	FC138: FC-PAD --Ionomer, GDs, Interfaces <i>Adam Weber, LBNL</i>
3:15 PM	PD103: High-Performance, Long-Lifetime Catalysts for Proton Exchange Membrane Electrolysis <i>Hui Xu, Giner Electrochemical Systems</i>	ST121: High-Capacity and Low-Cost Hydrogen-Storage Sorbents for Automotive Applications <i>Hong-Cai (Joe) Zhou, Texas A&M U.</i>	FC139: FC-PAD--Modeling, Evaluation, Characterization <i>Rangachary Mukundann LANL</i>
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	PD123: High Performance Platinum Group Metal Free Membrane Electrode Assemblies Through Control of Interfacial Processes <i>Katherine Ayers, Proton OnSite</i>	ST122: Hydrogen Adsorbents with High Volumetric Density: New Materials and System Projections <i>Don Siegel, U. of Michigan</i>	FC020: New Fuel Cell Materials: Characterization and Method Development <i>Karren More, ORNL</i>
4:45 PM	PD124: Solid Oxide Based Electrolysis and Stack Technology with Ultra-High Electrolysis Current Density (>3A/cm ²) and Efficiency <i>Randy Petri, Versa Power Systems</i>	ST063: Reversible Formation of Alane <i>Ragaiy Zidan, SRNL</i>	FC021: Neutron Imaging Study of the Water Transport in Operating Fuel Cells <i>David Jacobson, NIST</i>
5:15 PM	PD112: Reformer-Electrolyzer-Purifier (REP) for Production of Hydrogen [CO2 Pump] <i>Fred Jahnke, FuelCell Energy</i>	ST116: Low-Cost a-Alane for Hydrogen Storage <i>Steve Crouch-Baker, SRI</i>	FC104: High Performance, Durable, Low Cost Membrane Electrode Assemblies for Transportation Applications <i>Andrew Steinbach, 3M</i>
5:45 PM	PD111: Monolithic Piston-Type Reactor for Hydrogen Production through Rapid Swing of Reforming/Combustion Reactions <i>Wei Liu, PNNL</i>		FC106: Rationally Designed Catalyst Layers for PEMFC Performance Optimization <i>Deborah Myers, ANL</i>

WEDNESDAY JUNE 8 poster presentations 12:30-1:45 PM, Exhibit Halls

Hydrogen and Fuel Cells Program - Manufacturing R&D		
MN015	Continuous Fiber Composite Electrofusion Coupler	Graham Ostrander, Automated Dynamics
MN016	In-line Quality Control of PEM Materials	Paul Yelvington, Mainstream
Hydrogen and Fuel Cells Program - Hydrogen Storage		
ST014	Hydrogen Sorbent Measurement Qualification and Characterization	Phil Parilla, NREL
ST093	Melt Processable PAN Precursor for High Strength, Low-Cost Carbon Fibers	Robert Norris, ORNL
ST110	Optimizing the Cost and Performance of Composite Cylinders for H2 Storage using a Graded Construction	Andrea Haight, Composite Technology Development
ST128a	Hydrogen Storage Materials Advanced Research Consortium: Sandia Effort	Vitalie Stavila, SNL
ST129a	HyMARC: Hydrogen Storage Materials Advanced Research Consortium	Brandon Wood, LLNL
ST130a	HyMARC: A Consortium for Advancing Solid-State Hydrogen Storage Materials	David Prendergast, LBNL
ST131a	H2 Storage Characterization and Optimization Research Efforts	Thomas Gennett, NREL
ST134	Investigation of Metal and Chemical Hydrides for Hydrogen Storage in Novel Fuel Cell Systems	Bruce Hardy, SRNL
ST135	H2 Storage Characterization and Optimization Research Efforts	Thomas Gennett, NREL
Hydrogen and Fuel Cells Program - Electrochemical Society Posters		
ECS001	FC Catalysts	Ted Krause, ANL
ECS002	User Facilities: What they are and how to access them	Karren More, ORNL
ECS003	Small Business Voucher Pilot (and CAP) / SBV	Christopher Ainscough, NREL
ECS004	Performance Evaluation and Testing / Tech Assistance	Bryan Pivovar, NREL
ECS005	FC Durability / FCPAD	Rod Borup, LANL
ECS006	H2 Production	Kev Adjemian, INL
ECS007	Manufacturing	Michael Ulsh, NREL
ECS008	Sensors	Rangachary Mukundan, LANL
ECS009	Hydrogen Storage and Delivery	David Wood, ORNL
Hydrogen and Fuel Cells Program - H2 Refuel		
H2REFUEL	H2 Refuel H-Prize Finalist Team	Darryl Pollica, SimpleFuel
Vehicle Technologies Office - Vehicle Technologies Analysis		
VAN019	ParaChoice Model	Rebecca Levinson, SNL
VAN020	Applied Analysis of Connected and Automated Vehicles	Tom Stephens, ANL
VAN021	Transportation Energy Evolution Modeling (TEEM) Program	Zhenhong Lin, ORNL
VAN022	Connected and Automated Vehicles	Aymeric Rousseau, ANL

WEDNESDAY JUNE 8 poster presentations 6:30-8:30 PM, Exhibit Halls

Hydrogen and Fuel Cells Program - Fuel Cells - Advanced Research Projects Agency-Energy		
ARPAE17	A Novel Intermediate-Temperature Fuel Cell Tailored for Efficient Utilization of Methane	Meilin Liu, Georgia Tech
ARPAE18	Nanocomposite Electrodes for a Solid Acid Fuel Cell Stack Operating on Reformate	Tom Zawodzinski, ORNL/UT-Knoxville
ARPAE19	Low Temperature Solid Oxide Fuel Cells for Transformational Energy Conversion	Bryan Blackburn, Redox Power Systems
ARPAE20	Solid Acid Fuel Cell Stack for Distributed Generation Applications	Calum Chisholm, SAFCel
ARPAE21	Fuel Cells with Dynamic Response Capability Based on Energy Storage Electrodes with Catalytic Function	Yunfeng Lu, U. of California, Los Angeles
ARPAE22	A Novel Intermediate-temperature Bifunctional Ceramic Fuel Cell Energy System	Kevin Huang, U. of South Carolina
ARPAE23	Development of an Intermediate Temperature Metal Supported Proton Conducting Solid Oxide Fuel Cell Stack	Dave Tew, UTRC
ARPAE24	Intermediate Temperature Hybrid Fuel Cell System for the Conversion of Natural to Electricity and Liquid Fuels	Ted Krause, ANL
ARPAE25	Dual Mode Intermediate Temperature Fuel Cell: Liquid Fuels and Electricity	Carl Willman, FuelCell Energy
ARPAE26	Intermediate-Temperature Electrogenerative Cells for Flexible Cogeneration of Power and Liquid Fuel	Greg Tao, MSRI
ARPAE27	Intermediate Temperature Proton Conducting Fuel Cells for Transportation Applications	S. Elangovan, Ceramatec
Hydrogen and Fuel Cells Program - Fuel Cells - Basic Energy Sciences		
BESH2001	Structure and Function in Electrocatalysis of Reactions for Direct Energy Conversion	Radoslav Adzic, BNL
BESH2002	Catalysis and Electrocatalysis for Advanced Fuel Synthesis	Jose Rodriguez, BNL
BESH2003	Control of Reactivity in Nanocatalysts	Jonah Erlebacher, John Hopkins U.
BESH2004	Multifunctional Catalysis to Synthesize and Utilize Energy Carriers	Tom Autrey, PNNL
BESH2005	Modeling Catalyzed Growth of Single-Wall Carbon Nanotubes	Perla Balbuena, Texas A&M U.
BESH2006	Room Temperature Electrochemical Upgrading of Methane to Oxygenate Fuels	Travis Omasta, U. of Connecticut
BESH2007	Nanostructured, Targeted Layered Metal Oxides as Active and Selective Heterogeneous Electrocatalysts for Oxygen Evolution	Anirban Das, Wayne State U.
BESH2008	Controlling Structural, Electronic, and Energy Flow Dynamics of Catalytic Processes through Tailored Nanostructures	Talat Rahman, U. of Central Florida
BESH2009	Analysis of the Mechanisms for Electrochemical Oxygen Reduction and Development of Ag-alloy and Pt-alloy Electro-catalysis for Low Temperature Fuel Cells	Suljo Linic, U. of Michigan
BESH2010	Computational Design of Graphene-Nanoparticle Catalysts	Raymond Gasper, U. of Massachusetts
BESH2012	Atomic-Scale Design of Metal and Alloy Catalysts: A Combined Theoretical and Experimental Approach	Manos Mavrikakis, U. of Wisconsin
BESH2013	Dual Site Requirements for Hydrodeoxygenation of Model Biomass Compounds	Lars Grabow, U. of Houston
BESH2014	Fundamentals of Catalysis and Chemical Transformations	Zili Wu, ORNL
BESH2015	Sub Nanometer Sized Clusters for Heterogeneous Catalysis	Yong Wang, PNNL
BESH2016	Element Specific Atomic Arrangement of Binary and Ternary Alloy Nanosized Catalysts in As Prepared and Active State	Valeri Petkov, Central Michigan U.
BESH2017	Thermodynamic, Kinetic, and Electrochemical Studies on Mixed Proton, Oxygen Ion and Electron (Hole) Conductors	Anil Virkar, U. of Utah
BESH2018	Computer Simulation of Proton Transport in Fuel Cell Membranes	Christopher Arntsen, U. of Chicago
BESH2019	Hydroxide Conductors for Energy Conversion Devices	Bryan Pivovar, NREL
Hydrogen and Fuel Cells Program - Fuel Cells		
FC052	Technical Assistance to Developers	Tommy Rockward, LANL
FC105	Novel Structured Metal Bipolar Plates for Low Cost Manufacturing	C.H. Wang, TreadStone Technologies, Inc.
FC149	Multiscale Modeling of Fuel Cell Membranes	Adam Weber, LBNL
FC150	Dimensionally Stable High Performance Membranes	Cortney Mittelsteadt, Giner Inc.
FC151	Low-Cost Proton Conducting Membranes for PEM Fuel Cells	Hongxing Hu, Amsen Technologies LLC
FC152	Novel Hydrocarbon Ionomers for Durable Proton Exchange Membranes	William Harrison, Nanosonic
FC153	Novel Nanocomposite Polymer Electrolyte Membranes for Fuel Cells	Runqing Ou, NEI Corporation
FC154	Regenerative Fuel Cell System (SBIR Phase II)	Paul Matter, pH Matter, LLC
Hydrogen and Fuel Cells Program - Market Transformation		
MT020	Fuel Cell-Battery Electric Hybrid for Utility or Municipal MD or HD Bucket Trucks. Fuel Cell powered Auxiliary Power Module "APM"	Abas Goodarzi, US Hybrid
Hydrogen and Fuel Cells Program - Hydrogen Production and Delivery		
PD117	High Temperature, High Pressure Electrolysis	Cortney Mittelsteadt, Giner Electrochem Systems, LLC

PD118	New Metal Oxides for Efficient Hydrogen Production via Solar Water Splitting	Baicheng Weng, U. of Toledo
PD119	NSF/DOE Solar Hydrogen Fuel: Engineering Surfaces, Interfaces, and Bulk Materials for Unassisted Solar Photoelectrochemical (PEC) Water Splitting	Tom Jaramillo, Stanford U.
PD120	Accelerated Discovery of Advanced RedOx Materials for STWS to Produce Renewable Hydrogen	Charles Musgrave, U. of Colorado
PD121	Tunable Photoanode-Photocathode-Catalyst Interface Systems for Efficient Solar Water Splitting	G. Charles Dismukes, Rutgers U.
PD128	2014 - 2016 H2 Refuel H-Prize	Jeff Serfass, Hydrogen Education Foundation
Hydrogen and Fuel Cells Program - Systems Analysis		
SA062	Expanded Capabilities for the Hydrogen Financial Analysis Scenario Tool	Marc Melaina, NREL
Hydrogen and Fuel Cells Program - H2 Refuel		
H2REFUEL	H2 Refuel H-Prize Finalist Team	Darryl Pollica, SimpleFuel

THURSDAY JUNE 9 oral presentations

	Roosevelt 1	Delaware B	Washington 4
8:00 AM		FT037: Co-Optimization of Fuels and Engines (Co-Optima) Overview <i>John Farrell, NREL</i>	
8:30 AM	ACE027: Next Generation SCR-Dosing System Investigation <i>Abhijeet Karkamkar, PNNL</i>	FT038: Co-Optimization of Fuels and Engines (Co-Optima) -- Fuel Properties and Chemical Kinetics and Thrust I Engine Projects <i>Jim Szybist, ORNL</i>	ES243: Dramatically Improve the Safety Performance of Li Ion Battery Separators and Reduce the Manufacturing Cost Using UV Curing and High Precision Coating Technologies <i>John Arnold, Miltec UV International</i>
9:00 AM	ACE056: Fuel-Neutral Studies of Particulate Matter Transport Emissions Mark Stewart, PNNL		ES246: Advanced Drying Process for Lower Manufacturing Cost of Electrodes <i>Iftikhar Ahmad, Lambda Technologies</i>
9:30 AM	ACE024: Ash-Durable Catalyzed Filters for Gasoline Direct Injection (GDI) Engines <i>Hee Je Seong, ANL</i>	FT039: Co-Optimization of Fuels and Engines (Co-Optima) -- Thrust II Engine Projects, Sprays, and Emissions Control Research <i>Paul Miles, SNL</i>	ES245: Low Cost, Structurally Advanced Novel Electrode and Cell Manufacturing <i>Billy Woodford, 24M Technologies</i>
10:00 AM	ACE033: Emissions Control for Lean Gasoline Engines <i>Jim Parks, ORNL</i>		ES263: Electrodeposition for Low-Cost, Water-Based Electrode Manufacturing <i>Stuart Hellring, PPG</i>
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	ACE085: Low Temperature Emission Control to Enable Fuel-Efficient Engine Commercialization <i>Todd Toops, ORNL</i>	FT040: Co-Optimization of Fuels and Engines (Co-Optima) --Simulation Toolkit Team <i>Matthew McNeily, LLNL</i>	ES264: Li-Ion Battery Anodes from Electrospun Nanoparticle/Conducting Polymer Nanofibers <i>Peter Pintauro, Vanderbilt</i>
11:30 AM	ACE032: Cummins-ORNL\Emissions CRADA: NOx Control & Measurement Technology for Heavy-Duty Diesel Engines, Self-Diagnosing SmartCatalyst Systems <i>Bill Partridge, ORNL</i>		ES265: UV Curable Binder Technology to Reduce Manufacturing Cost and Improve Performance of LiB Electrodes <i>John Arnold, Miltec UV International</i>
12:00 PM	ACE095: Metal Oxide Nano-Array Catalysts for Low Temperature Diesel Oxidation <i>Pu-Xian Gao, U. of Connecticut</i>		ES266: Co-Extrusion (CoEx) for Cost Reduction of Advanced High-Energy-and-Power Battery Electrode Manufacturing <i>Corie Cobb, PARC</i>
12:30 PM	Lunch and Brainstorming Session (Salons 2 & 3)		
1:45 PM	ACE094: Ultra Efficient Light Duty Powertrain with Gasoline Low Temperature Combustion <i>Keith Confer, Delphi Powertrain</i>	FT999: Overview of Fuels & Lubricants Program <i>Kevin Stork, DOE</i>	ES267: Commercially Scalable Process to Fabricate Porous Silicon <i>Peter Aurora, Navitas Systems</i>
2:15 PM	ACE093: Lean Miller Cycle System Development for Light-Duty Vehicles <i>David Sczomak, General Motors</i>	FT041: Dual-Fuel Technology Development for Heavy-Duty Long Haul Applications in 2014 and Beyond <i>Jim Kerekes, Clean Air Power</i>	ES268: Low Cost Manufacturing of Advanced Silicon-Based Anode Materials <i>Aaron Feaver, Group 14</i>
2:45 PM	ACE092: High Efficiency VCR Engine with Variable Valve Actuation and New Supercharging Technology <i>Charles Mandler, Envera LLC</i>	FT042: Utilizing Alternative Fuel Ignition Properties to Improve Spark-Ignited and Compression-Ignited Engine Efficiency <i>Andre Boehman, U. of Michigan</i>	ES269: An Integrated Flame Spray Process for Low Cost Production of Battery Materials <i>Yangchuan (Chad) Xing, U. of Missouri</i>
3:15 PM	ACE099: Improved Fuel Efficiency through Adaptive Radio Frequency Controls and Diagnostics for Advanced Catalyst Systems <i>Alexander Sappok, Filter Sensing Technologies, Inc.</i>	FT043: E85/Diesel Premixed Compression Ignition <i>Lyle Kocher, Cummins</i>	ES250: A Commercially Scalable Process for Silicon Anode Prelithiation <i>Ionel Stefan, Amprius</i>
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	ACE097: Affordable Rankine Cycle (ARC) Waste Heat Recovery for Heavy Duty Trucks <i>Swami Subramanian, Eaton</i>	FT044: GEFORCE: Gasoline Engine and Fuels Offering Reduced Fuel Consumption and Emissions <i>Scott Sluder, ORNL</i>	

4:45 PM	ACE098: Cummins 55% BTE Project <i>Lyle E. Kocher, Cummins</i>	FT045: Fuel Design for LTC Applications: Quantifying Fuel Performance in GCI Engines <i>Scott Goldsborough, ANL</i>	ES271: New Advanced Stable Electrolytes for High Voltage Electrochemical Energy Storage <i>Peng Du, Silatronix</i>
5:15 PM	ACE060: Volvo SuperTruck - Powertrain Technologies for Efficiency Improvement <i>John Gibble, Volvo</i>	FT046: Efficiency-Optimized Dual Fuel Engine with In-Cylinder Gasoline/CNG Blending <i>Thomas Wallner, ANL</i>	ES108: Overview and Progress of the Advanced Battery Materials Research (BMR) Program <i>Tien Duong, DOE</i>
5:45 PM	ACE059: SuperTruck – Development and Demonstration of a Fuel-Efficient Class 8 Tractor & Trailer, Engine Systems <i>Russ Zukouski, Navistar</i>		

THURSDAY JUNE 9 oral presentations

	Delaware A	Virginia B/C	Roosevelt 3
8:00 AM	PM000: Overview of VTO Material Technologies <i>Jerry Gibbs, DOE</i>		
8:30 AM	PM004: Novel Manufacturing Technologies for High Power Induction and Permanent Magnet Electric Motors <i>Glenn Grant, PNNL</i>	VS175: Methods to Measure, Predict, and Relate Friction, Wear, and Fuel Economy <i>Steve Gravante, Ricardo</i>	T1001: Clean Cities Overview <i>Dennis Smith, DOE</i>
9:00 AM	PM057: Applied Computational Methods for New Propulsion Materials <i>Charles Finney, ORNL</i>	VS161: Multi-Speed Transmission for Commercial Delivery Medium Duty Plug-In Electric Drive Vehicles <i>Bulent Chavdar, Eaton</i>	T1064: Plug-In Hybrid Electric Vehicle Demonstration Program and Social Media Campaign <i>Brendan Prebo, ASG Renaissance</i>
9:30 AM	PM053: High Temperature Materials for High Efficiency Engines <i>G. Muralidharan, ORNL</i>	VS064: SuperTruck - Development and Demonstration of a Fuel-Efficient Class 8 Tractor & Trailer, Vehicle <i>Russ Zukouski, Navistar</i>	T1065: Drive Electric Orlando <i>April Groover Combs; Florida Department of Agriculture and Consumer Services/Office of Energy</i>
10:00 AM	PM061: Computational Design and Development of a New, Lightweight Cast Alloy for Advanced Cylinder Heads in High-Efficiency, Light-Duty Engines <i>Qigui Wang, General Motors</i>	VS081: Volvo SuperTruck <i>Pascal Amar, Volvo Trucks</i>	T1066: Alternative Fuel Vehicle Curriculum Development and Outreach Initiative <i>Judy Moore, West Virginia U. Research Corporation</i>
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	PM060: ICME Guided Development of Advanced Cast Aluminum Alloys for Automotive Engine Applications <i>Mei Li, Ford</i>	VS133: Cummins MD & HD Accessory Hybridization CRADA <i>Dean Deter, ORNL</i>	T1067: Nationwide AFV Emergency Responder, Recovery, Reconstruction & Investigation Safety Training <i>Andrew Klock, National Fire Protection Association</i>
11:30 AM	PM059: Development of Advanced High Strength Cast Alloys for Heavy Duty Engines <i>Richard Huff, Caterpillar</i>	VS162: Integrated Boosting and Hybridization for Extreme Fuel Economy and Downsizing <i>Vasilios Tsourapas, Eaton</i>	T1068: Safe Alternative Fuels Deployment in Mid-America (The SAFD Project) <i>Kelly Gilbert, Metropolitan Energy Center, Inc.</i>
12:00 PM	PM062: High Performance Cast Aluminum Alloys for Next Generation Passenger Vehicle Engines <i>Amit Shyam, ORNL</i>	VS115: Zero Emission Drayage Truck Demonstration (ZECT I) <i>Brian Choe, SCAQMD</i>	T1069: Initiative for Resiliency in Energy through Vehicles (iREV) <i>Cassie Powers, National Association of State Energy Officials</i>
12:30 PM	Lunch and Brainstorming Session (Salons 2 & 3)		
1:45 PM	PM065: Development of High-Performance Cast Crankshafts <i>Richard Huff, Caterpillar</i>	VS158: Zero Emission Cargo Transport II: San Pedro Bay Ports Hybrid & Fuel Cell Electric Vehicle Project <i>Joseph Impullitti, SCAQMD</i>	T1070: EcoCAR 3 <i>Kristen Wahl, ANL</i>
2:15 PM	PM009: Materials Issues Associated with EGR Systems <i>Michael Lance, ORNL</i>	VS116: Hydrogen Fuel-Cell Electric Hybrid Truck & Zero Emission Delivery Vehicle Deployment <i>Andrew DeCandis; Houston-Galveston Area Council</i>	
2:45 PM	PM055: Biofuel Impacts on Aftertreatment Devices <i>Michael Lance, ORNL</i>		
3:15 PM	PM066: Innovative SCR Materials and Systems for Low Temperature Aftertreatment <i>Yong Wang, PNNL</i>		
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	PM067: Next Generation Three-Way Catalysts for Future, Highly Efficient Gasoline Engines <i>Christine Lambert, Ford</i>		
4:45 PM	PM068: Sustained Low Temperature NOx Reduction (SLTNR) <i>Yuhui Zha, Cummins</i>		

THURSDAY JUNE 9 oral presentations

	Washington 2	Lincoln 5	Maryland ABC
8:30 AM	TV026: Development of the Hydrogen Station Equipment Performance (HyStEP) Device <i>Terry Johnson, SNL</i>	ST004: Hydrogen Storage Engineering Center of Excellence <i>Don Anton, SRNL</i>	FC129: Advanced Catalysts and MEAs for Reversible Alkaline Membrane Fuel Cells <i>Hui Xu, Giner, Inc.</i>
9:00 AM	TV037: Hydrogen Meter Benchmark Testing <i>Michael Peters, NREL</i>	ST008: Hydrogen Storage System Modeling: Public Access, Maintenance, and Enhancements <i>David Tamburello, SRNL</i>	FC115: Affordable, High Performance, Intermediate Temperature Solid Oxide Fuel Cells <i>Bryan Blackburn, Redox Power Systems</i>
9:30 AM	PD133: H2FIRST--Consolidation <i>Daniel Terlip, NREL</i>	ST113: Innovative Development, Selection and Testing to Reduce Cost and Weight of Materials for BOP Components <i>Jon Zimmerman, SNL</i>	FC128: Facilitated Direct Liquid Fuel Cells with High Temperature Membrane Electrode Assemblies <i>Emory DeCastro; Advent Technologies, Inc.</i>
10:00 AM	TV017: Hydrogen Station Data Collection and Analysis <i>Sam Sprik, NREL</i>	ST111: Thermomechanical Cycling of Thin Liner High Fiber Fraction Cryogenic Pressure Vessels Rapidly Refueled by LH2 Pump to 700 Bar <i>Guillaume Petitpas, LLNL</i>	FC017: Fuel Cells Systems Analysis <i>Rajesh Ahluwalia, ANL</i>
10:30 AM	BREAK	BREAK	BREAK
11:00 AM	TV027: Station Operational Status System (SOSS) 3.0 Implementation, SOSS 3.1 Upgrade, and Station Map Upgrade Project <i>Ben Xiong, CaFCP</i>	ST101: Enhanced Materials and Design Parameters for Reducing the Cost of Hydrogen Storage Tanks <i>David Gotthold, PNNL</i>	FC018: Fuel Cell Vehicle and Bus Cost Analysis <i>Brian James, Strategic Analysis, Inc.</i>
11:30 AM	TV033: Brentwood Case Study <i>Carl Rivkin, NREL</i>	ST126: Conformable Hydrogen Storage Coil Reservoir <i>Erik Bigelow, Center for Transportation and the Environment</i>	FC097: Stationary and Emerging Market Fuel Cell System Cost Analysis--Primary Power and Combined Heat and Power Applications <i>Vincent Contini, Battelle</i>
12:00 PM	SA052: The Business Case for Hydrogen-powered Passenger Cars: Competition and Solving the Infrastructure Puzzle <i>Robert Rosner, U. of Chicago</i>	ST114: Next Generation Hydrogen Storage Vessels Enabled by Carbon Fiber Infusion with a Low Viscosity, High Toughness Resin System <i>Brian Edgecombe, Materia</i>	FC098: A Total Cost of Ownership Model for Design and Manufacturing Optimization of Fuel Cells in Stationary and Emerging Market Applications <i>Max Wei, LBNL</i>
12:30 PM	Lunch and Brainstorming Session (Salons 2 & 3)		
			Virginia A
1:45 PM	SCS025: Enabling Hydrogen Infrastructure Through Science-based Codes and Standards <i>Chris LaFleur, SNL</i>	ST115: Achieving Hydrogen Storage Goals through High-Strength Fiber Glass <i>Hong Li; PPG</i>	MT011: Ground Support Equipment Demonstration <i>Jim Petrecky, Plug Power</i>
2:15 PM	PD107: Hydrogen Fueling Station Pre-Cooling Analysis <i>Amgad Elgowainy, ANL</i>	ST001: System Level Analysis of Hydrogen Storage Options <i>Rajesh Ahluwalia, ANL</i>	MT013: Maritime Fuel Cell Generator Project <i>Joe Pratt, SNL</i>
2:45 PM	PD134: Cryo-Compressed Pathway Analysis <i>A.J. Simon, LLNL</i>	ST100: Hydrogen Storage Cost Analysis <i>Brian James, Strategic Analysis, Inc.</i>	MT014: Demonstration of Fuel Cell Auxiliary Power Unit (APU) to Power Truck Refrigeration Units (TRUs) in Refrigerated Trucks <i>Kriston Brooks, PNNL</i>
3:15 PM	PD101: Cryogenically Flexible, Low Permeability H2 Delivery Hose <i>Jennifer Lalli, Nanosonic</i>		MT008: Hydrogen Energy Systems as a Grid Management Tool <i>Mitch Ewan, Hawaii Natural Energy Institute</i>
3:45 PM	BREAK	BREAK	BREAK
4:15 PM	PD100: 700 bar Hydrogen Dispenser Hose Reliability Improvement <i>Owen Smith, NREL</i>		MT017: Medium Duty Parcel Delivery Truck <i>Thomas Griffin, FedEx</i>
4:45 PM	SA061: National FCEV and Hydrogen Fueling Station Scenarios <i>Marc Melaina, NREL</i>		MT019: 2016 HEF Hydrogen Student Design Contest Winning Project <i>U. of Waterloo</i>

THURSDAY JUNE 9 poster presentations 6:30-8:30 PM, Exhibit Halls

Vehicle Technologies Office - Basic Energy Sciences		
BESVT001	Fundamental Investigations of Mechanical and Chemical Degradation Mechanisms in Lithium Ion Battery Materials	Pradeep Guduru, Brown U.
BESVT002	In situ Studies of Solid Electrolyte Interphase on Nanostructured Materials	Miaofang Chi, ORNL
BESVT003	Center for Electrochemical Energy Science (CEES): Tailored Interfaces	Tim Fister, ANL
BESVT004	Science of Precision Multifunctional Nanostructures for Electrical Energy Storage	Gary Rubloff, U. of Maryland
BESVT005	Northeastern Chemical Energy Storage Center (NOCESC)	Stanley Whittingham, SUNY Binghamton
BESVT006	Center for Mesoscale Transport Properties (m2M)	Esther Takeuchi, SUNY Stony Brook
BESVT007	Fluid Interface Reactions, Structures and Transport (FIRST) Center	Nina Balke, ORNL
BESVT008	Spatially Resolved Ionic Diffusion and Electrochemical Reactions in Solids: A Biased View at Lithium Ion Batteries	Nina Balke, ORNL
BESVT009	Electrochemically-Driven Phase Transitions in Battery Storage Compounds	Yet-Ming Chiang, MIT
BESVT011	Elucidating the Determinants of Alkali Ionic Conductivity in Oxide and Sulfide Frameworks	Lek-Heng Chu, U. of California, San Diego
BESVT012	Transition Metal Oxides Spinel Nanomaterials for Supercapacitor Reactions	Xiaowei Teng, U. of New Hampshire
BESVT013	Materials and Interfacial Chemistry for Next-Generation Electrical Energy Storage (partner with UT-Austin)	Sheng Dai, ORNL
BESVT015	Transport in Confined Environments of Self-Assembled Stable Radical Polymers	Christopher Ober, Cornell U.
BESVT016	Designing Efficient Nanostructured Polymer Electrolytes Using Tapered Block Polymers - Joint Experiment and Theory Effort in Controlled Interface Design	Melody Morris, U. of Delaware
BESVT017	Using Nanoporous Materials to Understand Kinetic Constraints in Pseudocapacitive Energy Storage	Sarah Tolbert, U. of California, Los Angeles
BESVT018	The Nature of Charge Storage in Nitroxide Radical Polymers	Jodie Lutkenhaus, Texas A&M Research Foundation
BESVT020	Application of In Situ Neutron Diffraction to Understand the Mechanism of Phase Transitions During Electrochemical Cycling of High Capacity Mg/Si	Ravi Chandran, U. of Utah
BESVT023	JCESR	George Crabtree, ANL
BESVT024	Real-time Ptychography of Ion-Insertion Nanomaterials in Liquid	William Chueh, SLAC National Accelerator Laboratory
BESVT026	New In Situ Analytical Electron Microscopy for Understanding Structure Evolution and Composition Change in High Energy Density Electrode Materials in Lithium Ion Batteries	Shirley Meng, U. of California, San Diego
BESVT027	In-Situ TEM Observations of Degradation Mechanisms in Next-Generation High Energy Density Lithium-Ion Battery Systems	Shen Dillon, U. of Illinois at Urbana-Champaign
BESVT028	Molecularly Organized Nanostructured Materials	Jun Liu, PNNL
Vehicle Technologies Office - Electrochemical Storage, Part II		
ES049	Tailoring Spinel Electrodes for High Capacity Li-Ion Cells	Michael Thackeray, ANL
ES052	Design of High Performance, High Energy Cathode Materials	Marca Doeff, LBNL
ES054	First Principles Calculations of Existing and Novel Electrode Materials	Gerbrand Ceder, LBNL
ES056	Development of High-Energy Cathode Materials	Jason Zhang, PNNL
ES059	Advanced In Situ Diagnostic Techniques for Battery Materials	Xiao-Qing Yang, BNL
ES071	Design and Scalable Assembly of High Density Low Tortuosity Electrodes	Yet-Ming Chiang, MIT
ES085	Interfacial Processes in EES Systems Advanced Diagnostics	Robert Kostecki, LBNL
ES091	Predicting and Understanding Novel Electrode Materials From First-Principles	Kristin Persson, LBNL
ES106	Studies on High Capacity Cathodes for Advanced Lithium-Ion	Jagjit Nanda, ORNL
ES144	Development of Silicon-Based High Capacity Anodes	Jason Zhang, PNNL
ES183	In Situ Solvothermal Synthesis of Novel High-Capacity Cathodes	Feng Wang, BNL
ES214	First Principles Modeling of SEI Formation on Bare and Surface/Additive Modified Silicon Anodes	Perla Balbuena, Texas A&M U.
ES215	Analysis of Film Formation Chemistry on Silicon Anodes by Advanced In Situ and Operando Vibrational Spectroscopy	Gabor Somorjai, U. of California, Berkeley
ES216	Optimization of Ion Transport in High-Energy Composite Cathodes	Shirley Meng, U. of California, San Diego
ES220	Predicting Microstructure and Performance for Optimal Cell Fabrication	Dean Wheeler, BYU
ES221	A Combined Experimental and Modeling Approach for the Design of High Coulombic Efficiency Si Electrodes	Xingcheng Xiao, General Motors
ES222	Development of Si-Composite Anode for Large-Format Li-ion Batteries	Karim Zaghib, Hydro Quebec
ES223	Hierarchical Assembly of Inorganic/Organic Hybrid Si Negative Electrodes	Gao Liu, LBNL
ES224	Fundamental Studies of Lithium-Sulfur Cell Chemistry	Nitash Balsara, LBNL
ES225	Design and Synthesis of Advanced High-Energy Cathode Materials	Guoying Chen, LBNL
ES226	Microscopy Investigation on the Fading Mechanism of Electrode Materials	Chongmin Wang, PNNL
ES230	Design of Sulfur Cathodes for High Energy Lithium-Sulfur Batteries	Yi Cui, Stanford U.
ES231	High Energy Density Lithium Battery	Stanley Whittingham, SUNY Binghamton
ES232	High Energy Density Electrodes via Modifications to the Inactive Components and Processing Conditions	Vincent Battaglia, LBNL
ES233	Efficient Rechargeable Li/O ₂ Batteries Utilizing Stable Inorganic Molten Salt Electrolytes	Vincent Giordani, Liox
ES234	Electrode Materials Design and Failure Prediction	Venkat Srinivasan, LBNL
ES235	Characterization Studies of High Capacity Composite Electrode Structures	Jason Croy, ANL

ES272	Pre-Lithiation of Battery Electrodes	Yi Cui, Stanford U.
ES273	Composite Electrolyte to Stabilize Metallic Lithium Anodes	Nancy Dudney, ORNL
ES274	Nanoscale Interfacial Engineering for Stable Lithium Metal Anodes	Yi Cui, Stanford U.
ES275	Lithium Dendrite Prevention for Lithium-Ion Batteries	Wu Xu, PNNL
ES276	Mechanical Properties at Protected Lithium Interface	Nancy Dudney, ORNL
ES277	Solid Electrolytes for Solid-State and Lithium-Sulfur Batteries	Jeff Sakamoto, U. of Michigan
ES279	New Lamination and Doping Concepts for Enhanced Lithium-Sulfur Battery Performance	Prashant Kumta, U. of Pittsburgh
ES280	Novel Chemistry: Lithium Selenium and Selenium Sulfur Couple	Khalil Amine, ANL
ES281	Multi-Functional Cathode Additives for Li-S Battery Technology	Hong Gan, BNL
ES282	Development of High Energy Lithium-Sulfur Batteries	Jun Liu, PNNL
ES283	Addressing Internal "Shuttle" Effect: Electrolyte Design and Cathode Morphology Evolution in Li-S Batteries	Perla Balbuena, Texas A&M U.
ES284	Statically and Dynamically Stable Lithium-Sulfur Batteries	Arumugam Manthiram, U. of Texas at Austin
ES285	Mechanistic Investigation for the Rechargeable Li-Sulfur Batteries	Deyang Qu, U. of Wisconsin - Madison
ES286	Development of Novel Electrolytes and Catalysts for Li-Air Batteries	Khalil Amine, ANL
ES287	Exploratory Studies of Novel Sodium-Ion Battery Systems	Xiao-Qing Yang, BNL