

9th Annual SECA Workshop Pittsburgh, PA Sheraton Station Square

AGENDA



GRAND STATION 2

TUESDAY, AUGUST 5, 2008



- 8:00 - 9:00 a.m. **Registration - GRAND STATION 2 FOYER**
- 9:00 - 9:40 a.m. **Welcome and SECA Overview**
Wayne Surdoval, U.S. Department of Energy
National Energy Technology Laboratory
- 9:40 - 10:10 a.m. **The Government Appropriations Process**
Loretta Beaumont, Former Staffer for the House Interior Appropriations Subcommittee, and
Former DOE Program Manager, Currently Retired
- 10:10 - 10:40 a.m. **BREAK - GRAND STATION 2 FOYER**
- 10:40 - 11:20 a.m. **An Update on Market Mechanisms for CO₂: Issues and Opportunities**
Michael Moore, Stakeholder CO₂ Global Board Member and VP Texas Carbon Capture Storage
Assoc.
- 11:20 - 12:00 p.m. **Impacts of Global Climate Change on Power Production: Selected Insights from the Global
Energy Technology Strategy Program**
James Dooley, Senior Staff Scientist Joint Global Change Research Institute
- 12:00 - 1:30 p.m. **Lunch (on your own)**

INDUSTRY TEAM SUMMARY

Moderator: Travis Shultz - National Energy Technology Laboratory

- 1:30 - 2:30 p.m. **SOFC Power Plant Development at FuelCell Energy Inc.**
Hossein Ghezal-Ayagh, FuelCell Energy Inc.
- 2:30 - 3:00 p.m. **BREAK - GRAND STATION 2 FOYER**



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- 3:00 - 4:00 p.m. **SECA Program at Siemens**
Shailesh Vora, Siemens Power Generation
- 4:00 - 5:00 p.m. **Development Update on Delphi's Solid Oxide Fuel Cell Systems**
Steven Shaffer, Delphi
- 5:00 p.m. **ADJOURN**
- 5:30 p.m. **POSTER SESSION - GRAND STATION 4 & 5**

WEDNESDAY, AUGUST 6, 2008 - GRAND STATION 2

- 7:00 - 8:00 a.m. **Registration - GRAND STATION 2 FOYER**
- Moderator: Wayne Surdoval - National Energy Technology Laboratory
- 8:00 - 8:30 a.m. **System Analysis for Integrated Gasification Fuel Cell Combined Cycle**
Eric Grol, U.S. Department of Energy
National Energy Technology Laboratory

SECA CORE TECHNOLOGY PROGRAM

Moderator: Mani Manivannan – National Energy Technology Laboratory
Prabhakar Singh – Pacific Northwest National Laboratory

CELL INTERCONNECTS - ALLOYS AND COATINGS

- 8:30 - 9:00 a.m. **SOFC Metallic Interconnect Systems**
James Rakowski, ATI Allegheny Ludlum
- 9:00 - 9:30 a.m. **Advanced Interconnect Development at PNNL**
Jeff Stevenson, Pacific Northwest National Laboratory
- 9:30 - 10:00 a.m. **Lifetime Quantification of Coated Metallic ICs**
Moe Khaleel, Pacific Northwest National Laboratory
- 10:00 - 10:30 a.m. **BREAK - GRAND STATION 2 FOYER**

ELECTRODES - PERFORMANCE AND DEGRADATION

Moderator: Briggs White – National Energy Technology Laboratory
Jeff Stevenson – Pacific Northwest National Laboratory

- 10:30 - 11:00 a.m. **Research Progress at GE Global**
Matt Alinger, GE Global Research

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- 11:00 - 11:30 a.m. **Doped LSF and LSM Cathodes**
Michael Krumpelt, Argonne National Laboratory
- 11:30 - 12:00 p.m. **Deconvolution of SOFC Cathode Polarization Mechanisms**
Eric Wachsman, University of Florida
- 12:00 - 1:30 p.m. **Lunch (on your own)**
- 1:30 - 2:00 p.m. **Improved Cathode Performance via Infiltration**
Meilin Liu, Georgia Tech
- 2:00 - 2:30 p.m. **Infiltration Technology for Anode & Cathode Performance Improvement**
Steven Visco, Lawrence Berkeley National Laboratory
- 2:30 - 3:00 p.m. **BREAK - GRAND STATION 2 FOYER**
- 3:00 - 3:30 p.m. **SOFC Cathode Surface Chemistry and Optimization Studies**
Paul Salvador, Carnegie Mellon University
- 3:30 - 4:00 p.m. **Synchrotron X-ray Studies of SOFC Cathode Materials**
Paul Fuoss, Argonne National Laboratory
- 4:00 p.m. **ADJOURN**

THURSDAY, AUGUST 7, 2008 - GRAND STATION 2

- 7:00 - 8:00 a.m. **Registration - GRAND STATION 2 FOYER**

TECHNOLOGY TRANSFER AND MODELING ACTIVITIES

Moderator: Travis Shultz – National Energy Technology Laboratory
Moe Khaleel – Pacific Northwest National Laboratory

- 8:00 - 8:30 a.m. **SECA Stack Test Fixture Development and Implementation**
Jeff Stevenson, Pacific Northwest National Laboratory
- 8:30 - 9:00 a.m. **Cell and Stack Modeling**
Moe Khaleel, Pacific Northwest National Laboratory
- 9:00 - 9:30 a.m. **Cathode-Interconnect Interfacial Properties**
Edgar Lara-Curzio, Oak Ridge National Laboratory
- 9:30 - 10:00 a.m. **ASME Design Basis**
Moe Khaleel, Pacific Northwest National Laboratory
- 10:00 - 10:30 a.m. **BREAK - GRAND STATION 2 FOYER**

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BALANCE OF PLANT

Moderator: Travis Shultz – National Energy Technology Laboratory
Prabhakar Singh – Pacific Northwest National Laboratory

- 10:30 - 11:00 a.m. **Advances in Anode and Cathode Blowers**
Giri Agrawal, R&D Dynamics Corporation
- 11:00 - 11:30 a.m. **Power Conditioning System Technologies for High-Megawatt Fuel Cell Plants**
Allen Hefner, National Institute of Standards and Technology
- 11:30 - 1:00 p.m. **Lunch (on your own)**
- 1:00 - 1:30 p.m. **Ceramic/Metallic Heat Exchanger Development**
Anthony Litka, Acumentrics Incorporated
- 1:30 - 2:00 p.m. **Liquid-Tin Anode SOFCs for Coal-Based Systems**
Jeff Bentley, CellTech Power, LLC
- 2:00 - 2:30 p.m. **Undersea Vehicle Applications for the U.S. Navy**
Alan Burke, Naval Undersea Warfare Center
- 2:30 - 3:00 p.m. **BREAK - GRAND STATION 2 FOYER**

COAL CONTAMINANTS

Moderator: Briggs White – National Energy Technology Laboratory
Randall Gemmen – National Energy Technology Laboratory

- 3:00 - 3:30 p.m. **SOFC Anode Interactions with Coal Gas Contaminants**
Olga Marina, Pacific Northwest National Laboratory
- 3:30 - 4:00 a.m. **Effect of Coal Contaminants on Solid Oxide Fuel System Performance**
Gopala Krishnan, SRI International
- 4:00 - 4:30 a.m. **Coal Syngas Testing of SOFCs at NETL**
*Randall Gemmen, U. S. Department of Energy
National Energy Technology Laboratory*
- 4:30 - 4:35 a.m. **Concluding Remarks**
*Heather Quedenfeld, U. S. Department of Energy
National Energy Technology Laboratory*
- 4:35 p.m. **ADJOURN**