DOE Advanced Manufacturing Office Peer Review May 6-7, 2014

Final Agenda

Day 1 (May 6) Washington Marriott West End Ballroom A/B/C 1221 22nd Street NW, Washington, DC 20037		
8:30 – 9:45 am	Peer Reviewer Briefing Breakfast **Mark Johnson, Isaac Chan, Mark Shuart, and Jay Wrobel, DOE-AMO**	
9:45 – 10:00 am	BREAK	
9:00 – 10:00 am	REGISTRATION FOR ATTENDEES	
10:00 – 10:30 am	Welcome and AMO Overview (Organization, Strategies and Initiatives) **Mark Johnson**, DOE-AMO	
10:30 – 10:50 am	Paired Straight Hearth Furnace	American Iron and Steel Institute
10:50 – 11:10 am	Research, Development, and Field Testing of Thermochemical Recuperation for High Temperature Furnace	American Iron and Steel Institute
11:10 – 11:30 am	A Novel Flash Ironmaking Process	American Iron and Steel Institute
11:30 – 11:50 am	Hot Rolling Scrap Reduction through Edge Cracking and Surface Defects Control	University of Illinois at Urbana-Champaign
11:50 am – 1:00 pm	LUNCH - Speaker to Be Announced	
1:00 – 1:20 pm	A New Method of Low Cost Production of Ti Alloys to Reduce Energy Consumption of Mechanical Systems	The University of Utah
1:20 – 1:40 pm	Development of Integrated Die Casting Process For Large Thin-Wall Magnesium Applications	General Motors LLC
1:40 – 2:00 pm	Rapid Freeform Sheet Metal Forming: Technology Development and System Verification	Ford Motor Company
2:00 – 2:20 pm	BREAK	
2:20 – 2:40 pm	Quenching and Partitioning Process Development to Replace Hot Stamping of High Strength Automotive Steel	Colorado School of Mines

2:40 – 3:00 pm	High Metal Removal Rate Process for Machining Difficult Materials	Delphi Automotive Systems, LLC
3:00 – 3:20 pm	Rapid Conditioning for the Next Generation Melting System	Gas Technology Institute
3:20 – 3:40 pm	BREAK	
3:40 – 4:00 pm	Catalyst Assisted Manufacturing of Olefins	Lyondell Chemical Company
4:00 – 4:20 pm	Ultra-Thin Antifouling Surface Treatments for Industrial Heat Exchangers	Applied Thin Films Inc.
4:20 – 4:40 pm	Conversion of Waste CO_2 and Shale Gas to High Value Chemicals	Novomer
4:40 – 5:30 pm	BREAK	

5:30 – 7:00 pm	POSTER SESSION AND NO-HOST RECEPTION (9 posters)

Project Type	Project Title	Performer
SBIR Phase 2	Hydrogen Generation for Refineries	TDA Research Inc.
SBIR Phase 3	Low Cost Microchannel Heat Exchanger	Altex Technologies Corporation
SBIR Phase 3	Reactive Dehydration Technology for Production of Fuels and Chemicals from Biomass	KSE, Inc.
Distributed Energy	Advanced Reciprocating Engine R&D	Argonne National Laboratory
Distributed Energy	Combined Heat and Power Research and Development	Oak Ridge National Laboratory (ORNL)
ORNL CRADA project	Innovative Manufacturing with Additive Processes	Local Motors
ORNL CRADA project	Enhanced Imaging and Control of Electron Beam Melting	Arcam
ORNL CRADA project	Large Scale Polymer Additive Manufacturing System for Tooling Industry	Cincinnati

Day 2 (May 7) Washington Hilton Columbia 1 & 2 1919 Connecticut Ave NW, Washington, DC 20009				
8:00 – 9:00 am	REGISTRATION FOR ATTENDEES			
TRACK A			**TRACK B**	
Research, Development, and Demonstration Review			**Facilities**	
9:00 – 9:05 am	Welcome **Isaac Chan**, DOE-AMO		9:00 – 9:30 am	Facilities Overview **Mark Johnson,** DOE-AMO
9:05 – 9:25 am	Waste Heat-to-Power Using Scroll Expander for Organic Rankine Bottoming Cycle	TIAX		
9:25 – 9:45 am	330 kWe Packaged Combined Heat and Power (CHP) System with Reduced Emissions	Cummins	9:30 – 10:30 am	Manufacturing Demonstration Facility **Craig Blue**
9:45 – 10:05 am	High Efficiency Microturbine with Integral Heat Recovery	Capstone Turbine Corp.		
10:05 – 10:25 am	BREAK		10:30 – 10:45 am	BREAK
10:25 – 10:45 am	Ultra Efficient Combined Heat, Hydrogen, and Power System	FuelCell Energy	10:45 – 11:45 am	Critical Materials Hub **Alex King**
10:45 – 11:05 am	Advanced Natural Gas Reciprocating Engines (ARES)	Cummins		
11:05 – 11:25 am	Deployment of FlexCHP System	Gas Technology Institute		
11:25 – 11:45 am	Continuous Processing of High Thermal Conductivity Polyethylene Fibers and Sheets	Massachusetts Institute of Technology		
11:45 am – 1:00 pm	LUNCH and Reviewer Discussions		11:45 am – 1:00 pm	LUNCH

Research, Development and Demonstration Review			Technical Assistance	
1:00 – 1:20 pm	Bioelectrochemical Integration of Waste Heat Recovery, Waste-to-Energy Conversion, and Waste-to-Chemical Conversion with Industrial Gas and Chemical Manufacturing Processes	Air Products and Chemicals, Inc.	1:00 – 2:00 pm	Better Plants Session "Energy Efficiency's Impact on Global Competitiveness" **Andre de Fontaine,** DOE-AMO
1:20 – 1:40 pm	Manufacturing of Protected Lithium Electrodes for Advanced Lithium-Air, Lithium-Water & Lithium-Sulfur Batteries	PolyPlus Battery Company		
1:40 – 2:00 pm	Sustainable Manufacturing via Multi-Scale Physics-Based Process Modeling and Manufacturing-Informed Design	Third Wave Systems Inc.	2:00 – 3:00 pm	Better Plants Session "Best Practices in Industrial Data Management" **Paul Scheihing,** DOE-AMO
2:00 – 2:20 pm	BREAK			
2:20 – 2:40 pm	Advanced Conversion of Carbon Fiber	ORNL		
2:40 – 3:00 pm	Industrial Scale Demonstration of Smart Manufacturing Achieving Transformational Energy Productivity Gains	University of Texas at Austin		
3:00 – 3:20 pm	Advanced, Energy-Efficient Hybrid Membrane System for Industrial Water Reuse	RTI International	3:00 – 3:15 pm	BREAK
3:20 – 3:40 pm	BREAK		3:15 – 4:45 pm	"Overview of DOE's Industrial Energy Efficiency Programs and Resources" **Jay Wrobel,** DOE-AMO
3:40 – 4:00 pm	Novel Sorbent to Clean Biogas for Fuel Cell Combined Heat & Power Systems	TDA Research, Inc.		
4:00 – 4:20 pm	Sacrificial Protective Coating Materials that can be Regenerated In-Situ to Enable High Performance and Low Cost Membranes	Teledyne Scientific Company		
5:30 – 7:30 pm	MEETING OF REVIEW PANEL (WITH DINNER) *(including up to 30 minutes with AMO R&D management to address outstanding questions)*			