

AGENDA

Drivers for Low-Cost Development Towards Economical Fusion Power

An ARPA-E workshop

Tuesday, October 29 – Wednesday October 30, 2013

Hotel Shattuck Plaza, 2086 Allston Way, Berkeley, CA 94704

Day 1 - Tuesday, October 29

<u>Time</u>	<u>Event</u>
8:00 - 8:30	Registration & Breakfast
8:30 - 8:45	Welcome and Introduction to ARPA-E <i>Eric Rohlfing (ARPA-E)</i>
8:45 - 9:15	Introduction to Workshop <i>Pat McGrath (ARPA-E)</i>
9:15 - 9:50	Presentation – Overview of Fusion Parameter Space: <i>Speakers, Richard Siemon and Irvin Lindemuth (University of Nevada, Reno)</i>
9:50 – 10:10	Presentation – MagLIF and Prospects for a Breakeven Experiment: <i>Speaker, Dan Sinars (Sandia)</i>
10:10 – 10:30	Break/networking
10:30 - 10:50	Presentation—Liquid Liner Implosions <i>Speaker, Peter Turchi (Santa Fe, NM)</i>
10:50 - 11:10	Presentation – Plasma Liners and Potential for Standoff Fusion Reactor: <i>Speaker, Scott Hsu (LANL)</i>
11:10 - 11:30	Presentation – Formation of Plasma Targets Using Compact Toroids: <i>Speaker, John Slough (University of Washington)</i>
11:30 – 11:50	Presentation – Alternatives to CT Merging for Forming/Magnetizing a Plasma Target: <i>Speaker, Dale Welch (Voss Scientific, Inc.)</i>
11:50 – 12:30	Lunch
12:30 – 14:00	Breakout 1: New Opportunities to Reach Scientific Breakeven
14:00 – 14:30	Break/Networking
14:30 - 15:00	Breakout 1 Report Back
15:00- 17:00	Breakout 2a: Path to Economical Fusion Power Part I: Promising regimes in fusion parameter space, reactor concepts, and development needs
17:00	Wrap-up
17:00 - 19:00	Informal Networking

Day 2 - Wednesday, October 30

<u>Time</u>	<u>Event</u>
8:00 - 8:30	Registration & Breakfast
8:30 – 9:30	Day 1 Review/Report Backs and Day 2 Introduction <i>Pat McGrath, ARPA-E</i>
9:30 - 9:50	Presentation – Pulse Power Drivers: <i>Speaker, Mike Cuneo (Sandia)</i>
9:50 - 10:10	Presentation – Rail Guns as a Fusion Driver – Requirements and Challenges: <i>Speaker, Francis Thio (US Department of Energy)</i>

10:10 – 10:30	Break/Networking
10:30 - 10:50	Presentation – Plasma Gun Driver: <i>Speaker, Doug Witherspoon (HyperV)</i>
10:50 - 11:10	Presentation – MEMS Accelerator: <i>Speaker, Amit Lal (Cornell University)</i>
11:10 - 11:30	Presentation – Laser Acceleration of Ions: <i>Speaker, Wim Leemans (LBNL)</i>
11:30 – 11:50	Presentation – Small Devices for Fusion Research: <i>Speaker, Seth Putterman (UCLA)</i>
11:50 – 12:30	Lunch/Networking
12:30 - 14:30	Breakout 2b: Path to Economical Fusion Power Part II: Driver and target development for new reactor concepts
14:30 – 15:00	Break/Networking
15:00 - 15:30	Breakout 2b Report Back
15:30 - 15:45	Introduction to Final Exercise <i>Pat McGrath, ARPA-E</i>
15:45 - 16:30	Final Exercise (small groups)
16:30 – 17:00	Wrap up