

**NATIONAL SCIENCE BOARD
TASK FORCE ON SUSTAINABLE ENERGY
Roundtable Discussion #2**

*Science, Engineering, and Education Challenges
Related to the Development of Sustainable Energy*

National Renewable Energy Laboratory Visitors Center
15013 Denver West Parkway
Golden, CO 80401
June 19, 2008

AGENDA

- 8:00 a.m. **Welcoming Remarks**
- Dr. Steven Beering, Chairman, National Science Board
- 8:05 a.m. **Summary of the First Task Force Roundtable Discussion on February 8, 2008; Overview, Purpose, and Goals of Today's Roundtable Discussion**
- Dr. Dan Arvizu and Dr. Jon Strauss, Co-Chairmen, Task Force on Sustainable Energy, National Science Board
- 8:20 a.m. **Process and Logistics for Board Roundtable Discussions**
- Dr. Craig Robinson, Acting Executive Officer, National Science Board
- 8:25 a.m. **Introduction of Participants**
- 8:35 a.m. **Presentation: *Sustainable Energy Supplies to Power Higher Education: Challenges and Opportunities***
Speaker: Mr. Dave Newport, Director, Environmental Center, University of Colorado-Boulder
- 9:00 a.m. **Discussion Session 1: Linking Regional and Higher Education Activities to a National Research and Education Initiative in Sustainable Energy**
Co-Moderators: Dr. Dan Arvizu and Dr. Jon Strauss
- 10:00 a.m. **Break**
- 10:15 a.m. **Presentation: *Renewable Energy Technologies***
Speaker: Dr. Douglas Arent, Director, Strategic Energy Analysis and Applications Center, National Renewable Energy Laboratory
- 10:45 a.m. **Discussion Session 2: New Generation Sustainable Energy Technologies**
Co-Moderators: Dr. Dan Arvizu and Dr. Jon Strauss
- 12:15 p.m. **Lunch**
Luncheon Presentation: *The U.S. Department of Energy Solar Decathlon*

Speaker: Mr. Mike Wassmer, Senior Engineer, National Center for Photovoltaics, National Renewable Energy Laboratory

1:30 p.m. **Break**

1:45 p.m. **Presentation: *Nuclear Science and Technology***
Speaker: Dr. David Hill, Deputy Director, Idaho National Laboratory

2:00 p.m. **Discussion Session 3: Sustainable Nuclear Technology Status and Potential**
Co-Moderators: Dr. Dan Arvizu and Dr. Jon Strauss

2:25 p.m. **Presentation: *Moving Forward With Clean Coal Technology***
Speaker: Mr. Carl Bauer, Director, National Energy Technology Laboratory

2:40 p.m. **Discussion Session 4: Advanced Clean Coal Technologies**
Co-Moderators: Dr. Dan Arvizu and Dr. Jon Strauss

3:00 p.m. **Break**

3:15 p.m. **Presentation: *Colorado's Clean Energy Initiatives***
Speaker: Ms. Heidi VanGnderen, Senior Adviser on Climate Change and Energy, Office of the Governor, State of Colorado

3:40 p.m. **Discussion Session 5: Role of Federal, State, and Local Education Initiatives to Respond to Workforce Needs in the Sustainable Energy Sector**
Co-Moderators: Dr. Dan Arvizu and Dr. Jon Strauss

4:45 p.m. **Summary and Next Steps for the Task Force**

- Dr. Dan Arvizu and Dr. Jon Strauss

List of Participants: Roundtable Discussion#2

Name	Affiliation
<i>National Science Board Participants</i>	
Dr. Dan E. Arvizu	Co-Chairman, Task Force on Sustainable Energy, National Science Board
Dr. Jon C. Strauss	Co-Chairman, Task Force on Sustainable Energy, National Science Board

Dr. Mark R. Abbott	Task Force on Sustainable Energy Member, National Science Board
Dr. Steven C. Beering	Chairman, National Science Board
Dr. Camilla P. Benbow	Task Force on Sustainable Energy Member, National Science Board
Dr. John T. Bruer	Task Force on Sustainable Energy Member, National Science Board
Dr. Patricia D. Galloway	Task Force on Sustainable Energy Member, National Science Board
Dr. José-Marie Griffiths	Task Force on Sustainable Energy Member, National Science Board
Dr. Douglas D. Randall	Task Force on Sustainable Energy Member, National Science Board
Mr. Arthur K. Reilly	Task Force on Sustainable Energy Member, National Science Board
Dr. Craig Robinson	Acting Executive Officer, National Science Board
<i>Participants</i>	
Dr. Douglas Arent	Director, Strategic Energy Analysis and Applications Center, National Renewable Energy Laboratory
Mr. Carl Bauer	Director, National Energy Technology Laboratory (NETL)
Dr. Richard Buckius	Assistant Director, Directorate for Engineering, National Science Foundation
Dr. David Hill	Deputy Laboratory Director for Science & Technology, Idaho National Laboratory
Dr. Douglas Hittle	Professor, Department of Mechanical Engineering, Colorado State University
Dr. Zakya Kafafi	Division Director, Division of Materials Research, National Science Foundation
Dr. Carl Koval	Faculty Director, Dept. of Chemistry and Biochemistry, University of Colorado at Boulder
Dr. Mark Lusk	Professor of Physics, Director, Golden Energy Computing Organization, Colorado School of Mines

Dr. Nigel Middleton	Provost and Senior Vice-President for Strategic Enterprises, Colorado School of Mines
Ms. Joan Miller	Senior Vice President, Energy and Chemicals Group, CH2M HILL
Mr. Chris Namovicz	Operations Research Analyst, EIA's Office of Integrated Analysis and Forecasting
Mr. Dave Newport	Director, University of Colorado at Boulder Environmental Center
Dr. Trung Van Nguyen	Director of the Energy for Sustainability Program, National Science Foundation
Dr. Anu Ramaswami	Professor of Environmental Engineering, and Director of the Sustainable Urban Infrastructure program, University of Colorado Denver
Dr. Dmitri Routkevitch	Product Manager, Synkera Technologies, Inc.
Dr. Ann Russell	Program Director, Division of Environmental Biology, National Science Foundation
Mr. James Spaeth	Director, Office of Commercialization & Project Management, U.S. Department of Energy
Dr. Rita Teutonico	Advisor for Integrative Activities, Directorate for Social, Behavioral, and Economic Sciences, National Science Foundation
Ms. Heidi VanGenderen	Senior Adviser on Climate Change and Energy, Office of the Governor, State of Colorado
Mr. Michael Wassmer	Senior Engineer, National Renewable Energy Laboratory; Competition Manager, DOE Solar Decathlon
Dr. Bryan Willson	Director, Clean Energy Supercluster, Colorado State University (CSU); Chief Scientific Officer, Cenergy; Professor, Department of Mechanical Engineering, CSU