Appendix C: Roundtable 1—February 8, 2008

NATIONAL SCIENCE BOARD TASK FORCE ON SUSTAINABLE ENERGY

Roundtable Discussion #1

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

> National Science Foundation 4201 Wilson Blvd., Room 1235 Arlington, VA 22230 February 8, 2008

AGENDA

| 8:00 a.m. | Welcoming RemarksDr. Steven Beering, Chairman, National Science Board | |
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| 8:05 a.m. | Overview, Purpose, and Goals of the Roundtable Discussion Dr. Dan Arvizu and Dr. Jon Strauss, Co-Chairmen, Task Force on Sustainable Energy, National Science Board | |
| 8:15 a.m. | Process and Logistics for Board Roundtable Discussions Dr. Craig Robinson, Acting Executive Officer, National Science Board | |
| 8:20 a.m. | Introduction of Participants | |
| 8:30 a.m. | Presentation: Facing the Hard Truths About Energy: A Comprehensive View To 2030 of Global Oil and Natural Gas Speaker: Mr. Rod Nelson, Vice President, Schlumberger Limited | |
| 8:50 a.m. | Discussion Session 1: Sustainable Energy Research and Development Discussion Co-Moderators: Dr. Arvizu and Dr. Strauss | |
| 10:15 a.m. | Break | |
| 10:30 a.m. | Presentation: IPCC IV Assessment Report: Synthesis Report on Climate Change 2007 Speaker: Dr. Robert Corell, Program Director, Heinz Center | |
| 10:50 a.m. | Presentation: NSF and Energy Research and Education Speaker: Dr. Richard Buckius, Assistant Director, Directorate for Engineering, National Science Foundation | |

11:10 a.m. Working Lunch

Discussion Session 2: NSF's Role in a National Sustainable Energy Initiative

Discussion Co-Moderators: Dr. Arvizu and Dr. Strauss

12:45 p.m. **Break**

1:00 p.m. Presentation: Reducing U.S. Greenhouse Gas Emissions: How Much at What

Cost?

Speaker: Mr. Kenneth Ostrowski, Director of the Americas Electric Power and

Natural Gas Practice, McKinsey & Company

1:30 p.m. Discussion Session 3: Recommendations for a National Research and Education

Initiative in Sustainable Energy

Discussion Co-Moderators: Dr. Arvizu and Dr. Strauss

2:45 p.m. Summary and Next Steps for the Task Force

• Dr. Arvizu and Dr. Strauss

List of Participants: Roundtable Discussion #1

| Name | Affiliation | | | |
|-------------------------------------|---|--|--|--|
| National Science Board Participants | | | | |
| 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. Daniel E. Hastings | 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. Arden Bement, Jr., ex officio | Director, National Science Foundation | | | |
| Participants | | | | |
| Dr. Ghassem Asrar | Deputy Administrator, U.S. Department of Agriculture | | | |
| Dr. Sam Baldwin | Chief Technology Officer and Member, Board of Directors, Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy | | | |
| Dr. Jan Brecht-Clark | Associate Administrator, RD&T Research and Innovative Technology Administration, United States Department of Transportation | | | |
| Dr. Richard Buckius | Assistant Director, Directorate for Engineering, National Science Foundation | | | |
| Dr. Robert (Bob) Corell | Program Director, Heinz Center | | | |
| Dr. Jon Creyts | Principal, McKinsey & Company | | | |
| Dr. Patricia Dehmer | Deputy Director of Science Programs, Office of Science, U.S. Department of Energy | | | |
| Mr. Chris DiPetto | Developmental Test and Evaluation Deputy Director, Defense Systems and Software Engineering, Deputy Under Secretary for Acquisition and Technology, United States Department of Defense | | | |
| Dr. James (Jim) Dooley | Senior Staff Scientist, Joint Global Change Research Institute | | | |
| Dr. Luis Echegoyen | Division Director, Division of Chemistry, National Science Foundation | | | |
| Dr. Carolyn Fischer | Fellow, Resources for the Future | | | |
| Dr. Alan Hecht | Director for Sustainable Development, Office of Research and Development, U.S. Environmental Protection Agency | | | |
| Mr. Joe Loper | Vice President of Policy and Research, Alliance to Save Energy | | | |

| Mr. Richard Mertens | Deputy Associate Director for Energy, Science, and Water, White House/Office of Management and Budget | | | |
|--|---|--|--|--|
| Dr. Nebojsa Nakicenovic | Professor of Energy Economics, Vienna University of Technology | | | |
| Mr. Rod Nelson | Vice President, Schlumberger Limited | | | |
| Dr. Robert O'Connor | Program Director, Decision, Risk and Management Sciences, Division of Social and Economic Sciences, National Science Foundation | | | |
| Mr. Ken Ostrowski | Director of the Americas Electric Power and Natural Gas Practice, McKinsey & Company | | | |
| Ambassador Richard Russell | Associate Director and Deputy Director for Technology, Office of Science and Technology Policy, Executive Office of the President | | | |
| Mr. Jim Presswood | Energy Advocate, Natural Resources Defense Council | | | |
| Dr. Harvey Sachs | Director, Buildings Programs, American Council for an Energy Efficient Economy | | | |
| Mr. Jonathan Spector | Chief Executive Officer, The Conference Board, Inc. | | | |
| In Attendance & Supporting a Confirmed Participant | | | | |
| Dr. Linda Blevins | Technical Advisor, Office of Basic Energy Sciences, U.S. Department of Energy | | | |
| Mr. Brad Hancock | Associate Director for Energy and Utilities, U.S. Department of Defense | | | |
| Dr. Kevin Hurst | Senior Policy Analyst, Technology Division, Office of Science and Technology Policy, Executive Office of the President | | | |
| Dr. Tom Zimmerman | Fellow, Schlumberger Limited | | | |