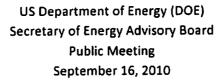
Summary Minutes of the



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Committee Members: William Perry, Chair; Alexis Herman, Co-Chair; John Deutch; Chad Holliday, Jr.;

Michael McQuade; Arthur Rosenfeld; Steven Westly; Daniel Yergin

<u>Date and Time:</u> 8:30 AM- 4:00 PM, September 16, 2010

Location: US Department of Energy, 1000 Independence Avenue, SW, Room 1E-245

Washington, DC

<u>Purpose:</u> Introductory meeting of the Secretary of Energy Advisory Board

SEAB Staff: Amy Bodette, Designated Federal Officer

DOE Staff: Steven Chu, Secretary of Energy; Daniel Poneman, Deputy Secretary; Steve

Koonin, Under Secretary for Science; Tom D'Agostino, NNSA Administrator; Rod O'Connor, Chief of Staff; Cathy Zoi, Assistant Secretary for Energy Efficiency and

Renewable Energy; David Sandalow, Assistant Secretary for Policy and

International Affairs; Arun Majumdar, Senior Advisor and Director of ARPA-E;

Matt Rogers, Senior Advisor for Recovery Act

Meeting Summary

This meeting served as an introductory meeting of the Secretary of Energy Advisory Board (SEAB). SEAB members heard presentations on three topics: Supporting Science: Clean Energy R&D; Clean Energy Deployment; and Energy and Security. The discussion followed the issues and timing as presented in the meeting agenda.

Opening of Public Meeting

Secretary Chu opened the meeting with introductory remarks highlighting a few of the major responsibilities of DOE, including developing technologies to make the U.S. competitive in the future, building up and strengthening the innovation chain, nuclear security, post-Cold War environmental clean-up, modernizing the energy infrastructure and how we use and produce energy. Other issues of importance that DOE must focus on include: energy innovation hubs, ARPA-E, \$1 per watt, CCS, small modular reactors (SMRs), and storage.

The next session, Supporting Science: Clean Energy R&D, began with a short talk by Dr. Steve Koonin, Under Secretary of Science. Koonin began by reviewing the organizational structure of the Department of Energy and identifying areas where there could be increased cooperation and the need to create a "one DOE culture". Members shared ideas on potential reorganization of the department including adding and consolidating positions. No decisions were made and this topic will be explored in more detail.

Arun Majumdar, Senior Advisor and Director of ARPA-E, gave a brief presentation on the history of ARPA-E, the current structure and the progress that has been made in the first year. ARPA-E has taken great care to hire individuals that have a background in science and engineering, technology development and industry and business. Director Majumdar stated that further development of the program will depend on funding. The board was asked to consider the major challenge that ARPA-E faces, "how we can take these technologies and enable them to be scaled in the United States".

Assistant Secretary Cathy Zoi and Senior Advisor for Recovery Act, Matt Rogers, presented for the next session, Clean Energy Deployment. Rogers' presentation detailed how the Recovery Act has positioned the Department of Energy to take a different role in Clean Energy Deployment, but now raises the question of the follow-on role for the Department. The Department of Energy has been trying to establish the link between innovation, manufacturing and deployment in the United States. Zoi made the argument for DOE to be involved in demonstration and deployment. She also stated that DOE needs to focus on leveraging five areas: grants, tax incentives, loans, mandates and convening.

Deputy Secretary Daniel Poneman set the scene for the Energy and Security session. President Obama's speech in Prague outlined three priority areas for his nuclear security agenda: a world free of nuclear weapons, non proliferation mechanisms and civil nuclear cooperation. Secretary Chu and the Department of Energy have supported these efforts with a number of measures including participation at the IAEA general conference and the National Nuclear Security Summit. Administrator D'Agostino detailed the nuclear security responsibilities of the Department and the four mission areas: stockpile stewardship, non-proliferation, naval nuclear propulsion and nuclear counterterrorism. NNSA has budget support and the clarity and direction to meet these responsibilities. Assistant Secretary Sandalow discussed the Department of Energy's wide array of programs to reduce our dependence on oil. Efforts to reduce oil dependence require investment across a range of different technologies and will take decades. There are a number of technological pathways including: batteries, electric vehicles, biofuels, efficiency of internal combustion engines natural gas vehicles and hydrogen. Sandalow also mentioned two international diplomatic efforts in which Secretary Chu and the Department have been involved. A Clean Energy Ministerial, with ministers from twenty two countries, that resulted in an initiative on energy efficient appliances and the first of its kind, a US/China Clean Energy Research Center. DOE has also engaged China on a number of topics of mutual interest including an electric vehicle initiative. Members discussed the strength of the US/China partnership in energy and opportunities for improvement.

In the Next Steps portion of the agenda, Secretary Chu mentioned topics he would like SEAB to focus on.

- -Bang for the buck in the innovation chain
- -Grid (coordination of the electricity distribution transmission system)
- -National labs
- -Help in recruiting talented individuals to serve on a three to four year detail or as federal employees

SEAB will meet three times a year. Subcommittees will be formed, but no decisions were made on topics or membership. Chairman Perry will collect ideas for future meeting topics. Suggestions include ARPA-E in-depth look, briefing by lab directors at a national lab, cooperative programs with China and India, building efficiency, deployment, and organizational structure.

Respectfully Submitted:

Amy Bodette, Designated Federal Officer

I hereby certify these minutes of the 9/16/10 SEAB meeting are true and correct to the best of my knowledge.

Waller J. Levery William J. Perry

Chair