

Summary Minutes of the

U.S. Department of Energy (DOE)
Secretary of Energy Advisory Board
Public Meeting

Committee Members: John Deutch, Chair; Arun Majumdar, Vice Chair; Carol Browner; Rafael Bras; Paula Hammond; Shirley Ann Jackson; Michael McQuade; Richard Mies; Dan Reicher; Ram Shenoy; Linda Stuntz; Harold Varmus (via teleconference)

Date and Time: March 23, 2016, 9:00 AM – 11:30 AM EST

Location: Department of Energy, Forrestal Building, Room 8E-089
1000 Independence Avenue, SW, Washington, DC

Purpose: Quarterly Meeting of the Secretary of Energy Advisory Board (SEAB)

SEAB Staff: Karen Gibson, Designated Federal Officer; Corey Williams-Allen, Deputy Designated Federal Officer; Maria Callejas, Deputy Director

DOE Staff: Secretary Ernest Moniz; Michael Johnson, Chief Information Officer

Meeting Summary

This meeting was the second quarterly meeting for 2016 of the Secretary of Energy Advisory Board (SEAB). SEAB members heard opening remarks by Energy Secretary Ernest Moniz. Following the opening remarks, the first agenda item was a presentation and discussion on DOE's enterprise approach to cyber. The next agenda item consisted of updates from the chairs of the following SEAB task forces: Biomedical Sciences, Future of Nuclear Power, DOE National Laboratories, and Federal Energy Management. The meeting adjourned after an opportunity for public comment.

Opening of Public Meeting

Secretary Ernest Moniz opened the meeting and thanked and acknowledged the good work of SEAB. In his remarks, the Secretary provided an overview of the final Nuclear Security Summit of the Obama Administration, scheduled for April 1, 2016 in Washington, DC. He also highlighted his recent trip to China, where the United States and China celebrated the opening of the China Nuclear Security Center of Excellence (COE), which was initially announced in a joint statement at the April 2010 Nuclear Security Summit. The Secretary described a novel and successful scenario based event held at the ministerial level at Lawrence Livermore National Laboratory called Apex Gold designed to practice their ability to respond effectively to an emerging nuclear security threat. The Secretary then went on to discuss and provide an overview of Mission Innovation, the Breakthrough Energy Coalition, and the 7th annual Clean Energy Ministerial, scheduled for June 2016 in San Francisco, CA. He also highlighted ARPA-E's recent summit and the program's successes, including 200 projects finished, 36 companies formed, and 10 commercially sold products. The Secretary also described an effort the Department has begun to create and institutionalize an annual report to Congress on the national labs. The Secretary thanked the SEAB and the Task Force on Methane Hydrates for their final report, noting that upon initial review of report's recommendations, the Department is in agreement with the findings and recommendations. The Secretary then mentioned that the Department anticipates providing SEAB with its full assessment and response around the June 2016

meeting. The Secretary proceeded to invite those available SEAB members to attend DOE's Lab Day on the Hill on April 20, 2016. The event, the third in a series of four Lab Days, will showcase the role of the National Laboratories in advancing science. The Secretary concluded by thanking SEAB, once again, for its service and dedication to the Department.

DOE Cyber

Michael Johnson, the Department of Energy's Chief Information Officer, discussed DOE's enterprise approach to cyber. Johnson provided an overview of the Department's mission – *to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions* – and its linkage to the mission of the Office of the Chief Information Office – *to enable the Department of Energy's urgent missions in energy, science and nuclear security through the power of information and technology in a manner that balances risk with required outcomes in programs that span from open science to national security*.

Johnson then proceeded to discuss the DOE Cyber Strategy¹, which aims to meet the challenges of today's rapidly evolving cyber landscape. As described by Johnson, it is a comprehensive cyber strategy rooted in enterprise-wide collaboration, accountability, and transparency. The underlying principles and strategic goals that form the Strategy's foundation attest to the Department's commitment to responsible information sharing and safeguarding, together with rigorous privacy and civil liberties protections. Serving as a roadmap to a safe, secure, and resilient cyber environment, the Cyber Strategy, built on DOE's tradition of leadership and innovation, provides a common vision and clearly articulated goals tailored to the Department's unique structure and mission.

Following his presentation, there was an exchange between Johnson and SEAB regarding the Department's ability to protect its critical infrastructure and to identify and report cyber incidents so that it can respond promptly and manage their consequences. The Board thanked Johnson for his presentation and asked him to let him know how SEAB could be helpful in this area.

Updates from SEAB Task Force Chairs

Dan Reicher gave a brief update on the Task Force on Federal Energy Management. The purpose of the Task Force is to look at how to improve the use of energy across Federal buildings and land. An initial draft of the report is underway and Reicher noted that the final report will be delayed, likely until the next SEAB meeting. The Task Force will have more to share regarding its recommendations on federal lands, assets, and measures of success at the time. The report, which was in part in response to the President's Executive Order issued last spring, will be a large report that can be broken down into pieces, and will look at how to implement the Order. The report will serve to inform the next Administration.

Harold Varmus provided a brief update on the Task Force on Biomedical Sciences, which was charged by the Secretary to explore the potential for increased collaboration between DOE and NIH to address challenges in biomedical sciences. The task, roughly stated, is to find the large elements in a matrix of biomedical challenges framed largely (but not exclusively) by NIH and of DOE technical capabilities in computing, informatics, materials, and sensing. Varmus then went on to provide a readout from the first meeting on the Task Force on March 10 and 11th at the NYU Center for Urban Science and Planning in Brooklyn. About 40 DOE, National Laboratory, and NIH personnel participated, as well some invited academic researchers. In forming the agenda, the Task Force solicited input from the labs, DOE HQ staff, and NIH people. The goal of the two-day meeting, through a series of presentations and

¹ <http://energy.gov/cio/downloads/doe-cyber-strategy-0>

discussions, was to learn about historical and current DOE-NIH collaborations and then begin to look for additional opportunities and mechanisms. As the Task Force gears up for the second meeting, which will take place in the Bay Area in mid-July, it plans to expand upon areas that have already been discussed and explore the following topics under consideration: advanced molecular and cellular technologies; infectious disease and radiation; and organizations and mechanisms for DOE-NIH collaborations.

Arun Majumdar provided a brief update on the National Laboratories Task Force, indicating that the work of the group will focus on the review and tracking of studies on the national laboratories and providing the Department with their findings. Majumdar also highlighted the work of a subgroup led by Richard Meserve and Richard Mies to review the Department's implementation of the recommendations in the NNSA-related studies, and asked that Mies provide an update on their efforts.

Richard Mies reported that they have met twice with DOE/NNSA personnel to hear about how the NNSA related recommendations are being addressed. The group will monitor the progress being made in this area and report progress to the National Lab Task Force and full SEAB. They will also coordinate closely with the non-NNSA parts of the enterprise. The group is not looking for new changes to recommend, but is focusing on the Department's action plans.

John Deutch provided a status update on the Task Force on the Future of Nuclear Power. The Task Force is looking at what would be necessary for the US to be able to lead nuclear power in 2030-2050. The Task Force has had 3 meetings. The group has already formed a view of the substantial challenges on nuclear waste, choice of new technologies, the benefits of those new technologies over others, the cost of nuclear power, and how the country might manage such an initiative. The Task Force will report to SEAB by the end of year.

Public Comment Period

No Public Comment.

Meeting adjourned at 11:30AM.

Respectfully Submitted:

Karen Gibson
Designated Federal Officer

I hereby certify that these minutes of the March 23, 2016, SEAB meeting are true and correct to the best of my knowledge.



John Deutch
Chair, Secretary of Energy Advisory Board