

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; Richard A. Meserve; Rafael L. Bras; Deborah Jin; Michael McQuade; Francis Beinecke; Cherry Murray; Ram Shenoy

Date and Time: June 17, 2015, 8:30 AM – 11:30 AM EST

Location: Applied Research Center, Garden Room,
301 Gateway Drive, Aiken, SC

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

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

DOE Staff: Secretary Ernest Moniz; Sharlene Weatherwax, Associate Director, Biological and Environmental Research, Office of Science

Presenter: Aristides Patrinos, Deputy Director for Research, NYU Center for Urban Science and Progress

Meeting Summary

This meeting was the second quarterly meeting for 2015 of the Secretary of Energy Advisory Board (SEAB). SEAB members heard opening remarks by DOE Secretary Ernest Moniz, SEAB Chair John Deutch, and SEAB Vice-Chair Arun Majumdar. Following the opening remarks, the first agenda item consisted of updates from the chairs of the Federal Energy Management Task Force and the Methane Hydrates Task Force, followed by discussion and consideration of work products from the National Labs Task Force. An opportunity for public comment followed the discussion. The meeting adjourned following a briefing on DOE and the Life and Medical Sciences.

Opening of Public Meeting

Secretary Ernest Moniz opened the meeting. The Secretary thanked Savannah River National Lab for hosting SEAB and shared his impressions from his recent tour. The Secretary discussed recent comments from EIA regarding energy security and shared challenges with the workforce as more staff approach retirement. He thanked SEAB for their letter to OMB on graduate education programs, emphasizing their importance for the Department. He thanked SEAB for the work of the Nuclear Nonproliferation Task Force and noted the successful implementation of the Congressional report recommended by the Task Force. The Secretary remarked that he looks forward to reviewing the National Lab Task Force Interim Report and he may require more assistance regarding governance, institutionalization of recent changes, and further discussion on technology transfer. The Secretary also thanked SEAB for their review and comments of the Augustine-Mies Report and noted an upcoming hearing on the nuclear deterrent. The Secretary concluded by discussing the Federal Energy Management charge and the need for creative

financing models; Methane Hydrate Task Force and Mexico's interest in the issue; and potential future work in the Life Sciences regarding low dose radiation and the BRAIN initiative.

SEAB Leadership Time

Chair John Deutch thanked Savannah River Lab Director, Terry Michalske, noted that SEAB members would reach out to OMB to discuss the importance of traineeships, and asked Ram Shenoy to discuss the Task Force on Methane Hydrates.

Updates from SEAB Task Force Chairs

Ram Shenoy gave a brief update on the Task Force on Methane Hydrates. The Task Force plans to meet in July and once more around November. The Task Force will focus on field experimentation in the Arctic region and beyond. The Secretary noted Japanese interest in research on methane hydrates and also called out the issue of permafrost thaw in the Arctic. John Deutch stated that environmental issues are key and recommended including someone with this expertise on the Task Force.

The Federal Energy Management Task Force may be able to look into challenges regarding third-party finance and convene best practices. Third-party finance has been successfully used by the Army and more recently, the Air Force. It was noted that there is a cultural issue reflected in the caution against committing federal resources beyond an appropriation cycle, whereas creative financing approaches include making commitments for a longer period. The labs face this issue when trying to address infrastructure renewal. It was also stressed that it is the obligation of the administration and departments to have clear validated project proposals that show cost benefit of financing agreements that are developed with rigor, methodology and field trial verification. The value of having randomized field trials was emphasized.

SEAB Discussion and Consideration of Work Products from the Task Force on DOE National Laboratories

Michael McQuade delivered the SEAB National Lab Task Force Comments on the National Academy of Science (NAS) Committee Report on the Assessment of the Governance Structure of the NNSA National Security Laboratories. Michael stated that the Task Force fundamentally agreed with the study apart from one recommendation, noting that the NAS principal of clear lines of authority is in conflict with joint ownership of the Mission Executive Council (MEC). He also noted the MEC should be revitalized and used to advise the Secretary, rather than serve as a forum for multi-agency engagement and advice to all the participating agencies. Richard Meserve shared the NAS view of the MEC as a mechanism to improve collaboration and coordination among the national security agencies. The SEAB approved the memorandum, with Richard dissenting on this point. The Secretary indicated that he would discuss the MEC with Secretary of Defense Ash Carter.

Cherry Murray, who serves on both SEAB and the Commission to Review the Effectiveness of the National Energy Laboratories, noted that the Commission is focusing in its second phase on overhead, the cost of the labs, and the effectiveness of the labs and will have a number of constructive recommendations. It was also noted that the various studies on the labs have a central theme and consistently find the National Lab system to be essential to the DOE mission and a vital National resource. For example, decadal investment in the labs enabled the labs to serve as a key technical resource in the Iran nuclear negotiations. The Department has not done a good job of communicating the important role of the labs historically. Additionally, the transition from the Cold War era has led to transactional oversight and a culture that has diverged from its public service origins. The SEAB Task Force Comments on the Interim Report of the Commission to Review the Effectiveness of the National Energy Laboratories were voted on and approved. The Interim Report of the Task Force on the DOE National Laboratories was also voted on and approved.

Public Comment Period

No Public Comment.

Briefing: DOE and the Life and Medical Sciences

Aristides Patrinos, Deputy Director for Research, NYU Center for Urban Science and Progress, presented on the promise and challenges of the Human Genome Program. He discussed the potential for a DOE-NIH collaboration on precision medicine, the BRAIN Initiative, and synthetic biology and would include use of HPC facilities. Dr. Patrinos also noted the difficulties of interagency work and the challenging legislative climate both historic and current that could hamper cooperation.

Sharlene Weatherwax, Associate Director, Biological and Environmental Research, Office of Science, presented on the Department of Energy's activities supporting the life and medical sciences. She characterized areas of mutual interest to DOE and NIH to include accelerator stewardship, medical isotopes, materials and imaging, structural biology, genomics and bioinformatics, and computation analysis and infrastructure. She noted that 4 Nobel prizes were awarded in 10 years using Office of Science Light Sources. Dr. Weatherwax noted the importance of current DOE biological and environmental research, high performance computing, and past successful collaborations between DOE and NIH including the Human Genome Project.

Following the above briefings, SEAB deliberated on the presentations and discussions and agreed that the SEAB chair would draft two letters to the Department: (1) a read-out of the Board's quarterly meeting at SRNL, including recommendations to broaden the M&O contract study and a recommendation to look at DOE sponsorship of the University of Minnesota's Institute for Mathematics and its Applications as an institute to be shared among the National Labs and (2) a response to the Secretary's June 16, 2015 letter requesting the Board's perspective on pursuing research on low-level radiation exposure. The Chair also noted that a portion of the SEAB membership would begin rotating off, beginning with the next meeting.

Meeting adjourned at 11:30 AM.

Respectfully Submitted:

Karen Gibson
Designated Federal Officer

I hereby certify that these minutes of the June 17, 2015, SEAB meeting are true and correct to the best of my knowledge.



John Deutch
Chair