

Summary Minutes of the

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

Advisory Board Members:

Present via phone: Vicki Hollub, Chair; Norman R. Augustine; Pedro Pizzaro; Samantha Ravich; Thomas Rosenbaum; Richard Mies; Kay Coles James; Dan Yergin; Marvin Fertel; Bill Samuel; Scott Campbell

Absent: Michael Whatley, Ankur Jain, David Lockwood, Sean McGarvey

Date and Time: July 28, 2020 10 a.m. to 3 p.m. EDT

Location: U. S. Department of Energy
National Energy Technology Laboratory
Bldg. 922, Conference Center
1538 Wallace Park Rd.
South Park Township, PA 15129

Purpose: Secretary of Energy Advisory Board (SEAB) Meeting

SEAB Staff: Kurt Heckman, Designated Federal Officer and Director of Boards and Councils; Allison Mills, Deputy Director, Office of Boards and Councils, Anushya Ramaswamy, Assistant Director, Office of Boards and Councils

Speakers: Secretary of Energy Dan Brouillette
Under Secretary of Energy Mark Menezes
NETL Director, Dr. Brian Anderson
NNSA Administrator Lisa Gordon-Hagerty
Under Secretary for Science Paul Dabbar

Meeting summary

This is the third Secretary of Energy Advisory Board (SEAB) convened under Secretary Dan Dan Brouillette. Due to COVID-19 pandemic and travel restrictions, the SEAB meeting was conducted at a Department Of Energy facility [Natl. Energy Technology Laboratory (NETL)] with participants attending via webex, or by calling telephone. The call was monitored by many domestic and international press outlets. SEAB members heard from Secretary Brouillette, the Under Secretary of Energy Mark Menezes, the Director of NETL Dr. Brian Anderson, the National Nuclear Security Administration (NNSA) Administrator Lisa Gordon-Hagerty, and the Under Secretary for Science Paul Dabbar. The meeting adjourned after opportunity for public comment.

Public Meeting

Designated Federal Officer Kurt Heckman Mr. Heckman opened the meeting, thanked the SEAB Members and the DOE Staff for attending and thanked NETL for hosting the meeting. He reviewed that this meeting was a FACA meeting, and that members of the public and press were in attendance. He noted that the meeting would cover the breadth of the Department's science, energy, and defense missions with an emphasis on branding.

SEAB Chair Vicki Hollub Chairwoman Hollub opened the meeting by extending her good wishes to all of the conference participants and to those monitoring the teleconference. She stated that she thought the DOE had responded very well to the COVID 19 situation. She also noted that during Secretary Brouillette's eight-month tenure, he probably never envisioned having to deal with a situation like the current COVID scenario, noting that the DOE had not missed a beat and had been helpful in keeping energy markets stabilized. She then yielded back to Mr. Heckman, who introduced Secretary Brouillette.

Secretary Dan Brouillette Secretary Brouillette opened his remarks by thanking the SEAB Chair for her remarks and welcomed all of the SEAB members to the call. He thanked Mr. Heckman and his staff for their role at DOE and in working with the SEAB team. Likewise, he thanked the Chair, Vicki Hollub as well as Admiral Mies for their leadership role with the SEAB. Bill Samuels, Kirstjen Nielsen, and Kay Cole James were also thanked for their contributions over the past several weeks.

The Secretary continued by conveying his appreciation to the SEAB for the advice and counsel they provide him, and for their appreciation of the breadth of the DOE mission. He went on to recount his remarks from the meeting in May relative the COVID outbreak, and that the work in DOE had been instrumental in helping the Administration deal with the outbreak, in efforts to reopen the economy. He mentioned the work of the Administration in stabilizing the global energy markets, and at the President's direction, DOE had opened up the strategic petroleum reserve (SPR) to store excess oil from U. S. producers, and that the SPR had received millions of barrels of crude oil, which helped alleviate a shortage of commercially available storage. DOE signed an SPR lease agreement with Australia, the first of its kind, holding 1.5 M bbl of oil purchased by the Australians from U. S. producers. The short-term energy outlook produced by EIA for July showed that the daily spot prices averaged around \$40/bbl in June, noting that the expectation was for the prices to rise a bit in the coming months, to about \$50/bbl in the later months of 2021. He commented that although his summary was an overview of our world, the intent of the meeting today was to help extend the awareness of DOE's many missions to its stakeholders and the public. The goal is to make DOE, the brand, stronger and more recognizable than ever. He highlighted again the great work that the national laboratories had done in the fight against COVID. He enumerated many of the achievements of the national laboratories in the COVID effort.

The Secretary shifted to briefly speak about the 'New Chapter' in America's energy story, and the key role that DOE will play, noting how important it was to tell that story to the world. For all of the progress to continue, the nation must continue advancing the policies that actually encourage progress, and the government must let consumers and producers, not the government,

make the ultimate choices in the energy market. He spoke of how critical it was to share the DOE story beyond the energy chapter, and explain all of the science that the Department is involved in, using the Quantum internet as an example. He again thanked the SEAB for its advice and counsel.

The SEAB Chair thanked the Secretary for his remarks, and introduced the Under Secretary Mark Menezes

Under Secretary of Energy, Mark Menezes

Joined the Secretary by thanking the SEAB for their continued advice and input. His remarks centered around spotlighting the numerous and astounding, but not widely recognized statistics regarding the Department's accomplishments and its scientists at DOE labs. He noted that the lack of common awareness of these accomplishments was a problem. He solicited SEAB input on branding of the DOE national laboratories and the work occurring at those laboratories. He also commented on the amount of money DOE placed into the private sector in support of new technologies. He spoke of establishing individual foundations at the national laboratories for philanthropic activities in support of the science efforts, and the importance of doing so to the future.

Mr. Heckman queried the Under Secretary with respect to what the general public might not fully grasp vis-à-vis the energy mission in the Under Secretary's organization. The Under Secretary recalled his youth, and how the names of various efforts and labs had gone unnoticed for several decades. He noted that perhaps only those who resided near a national laboratory knew anything about them. To the extent the Department could put in to place a nation-wide campaign to highlight the laboratories, the outcome would be beneficial to the Department. He also discussed the traditional separation of laboratories by weapons, science, and applied laboratories, and how perhaps that might not be the correct way to view what the labs have done over time.

Dr. Ravich seized upon the current COVID scenario with respect to children perhaps not returning to schools in the fall, and how it currently seemed a wonderful time to have the national laboratories develop educational modules for delivery to students via distance learning techniques for middle and high schoolers. The modules could be distributed through state and local governmental bodies for use in school districts across the country. Under Secretary Dabbar interceded with the notion that some of his labs were doing this already, but vowed to aggressively pursue the idea.

Mr. Samuels echoed Dr. Ravich's idea, stating that the people at the agencies were doing all of the good work, but perhaps there needed to be a different way of looking at it. His suggestion centered around understanding what might be of interest to a middle or high schooler, and then tailor the videos to what was of interest to the recipients, with the focus of future and tangible outcomes to the good scientific work being accomplished.

Mr. Heckman asked Under Secretary Menezes which of his organizational efforts did Americans understand the least, or which area did he have to explain the most, even on Capitol

Hill. The Under Secretary answered that it was likely cyber security. He explained how complex the threat was, but how little people understood it. The other area he articulated was that of emissions reduction technology.

Dr. Rosenbaum commented that Cal Tech suffered from some of the same issues as DOE with respect to branding. He suggested that the messages needed to be crafted depending upon the audience one was trying to reach. He spoke of all of the disciplines that DOE has been in the lead of, and what that meant to delivering the message to the intended audience.

Dr. Pizarro thanked the Under Secretary, and pursued the two sets of stakeholders attendant to the current discussion, those being the energy industry and Capitol Hill. He cited the Under Secretary's leadership with respect to Capitol Hill and contrasted that with discussions that he (Dr. Pizarro) had with individual members of his delegations. Dr. Pizarro noted that the only thing they (Congressional delegation) understood was the depth of science support for areas that the Congressional delegations were interested in. The Under Secretary answered by saying that we would be successful only if we had the trust of industry and the policy makers, and that the policy makers were counting on DOE officials to be good stewards of resources given to them.

Dr. Yeargin suggested the question at hand when dealing with the public might be why science was in the Department of Energy as is opposed to a ministry of science. Under Secretary Dabbar responded that in large measure, DOE was recognized as the national lab complex, as that was the history behind DOE.

Mr. Heckman commented on the notion of a roadmap for the average American, so that they might understand all of the undertakings of DOE.

Ms. Nielsen commented on the remarks of Drs. Ravich and Rosenbaum. She noted the question could be framed as "...what can we (DOE) do for you (the many stakeholders), and why should you care."

National Energy Technology Laboratory (NETL) Director, Dr. Brian Anderson

Dr. Anderson thanked everyone for joining, and for allowing NETL to host the SEAB. He noted that NETL was different because it was the only laboratory that was a government-owned, government-operated (GOGO), and that he was the only lab director that was a federal employee. His slide presentation focused on NETL's history and highlighting all of NETL's many missions and accomplishments.

Dr. Yeargin asked about the current unconventional work ongoing at NETL. Dr. Anderson shared that among other topics, NETL was researching increasing the recovery efficiency of production, understanding the fluid flow in the unconventional oil area, the propagation of hydraulic fractures, in addition to seeking a better understanding of waterless fracturing. Likewise, he briefly shared a discussion of the recovery of rare earths in the coal seams.

Dr. Yeargin inquired as to the membrane work being done at NETL relative to carbon capture. He further commented on Dr. Anderson's statement about not being well known in the Pennsylvania and West Virginia areas.

Mr. Heckman noted the use of jargon within DOE, and how that contributed to the lack of understanding by the public with respect to the various missions of the Department.

Dr. Ravich shared her recent visit to a military base with a Congressional delegation, and how the members of the delegation actually got to fire weapons, and really become exposed to the that base's mission.

Ms. Cole James commented on her intrigue with a national lab foundation concept, and mentioned her relationship with PNC Bank in the Pittsburgh area.

Admiral Mies mentioned that he knew of a fair number of government organizations that have partnered with universities to set up 501(c)(3) organizations and foundations.

The meeting adjourned for lunch at 12:00 p.m. EDT and resumed at 1 p.m.

National Nuclear Security Administration (NNSA) Administrator, Lisa Gordon-Hagerty

Administrator Gordon-Hagerty began by introducing herself to the teleconference, thanking Chairwoman Hollub and Mr. Heckman for their efforts in orchestrating the virtual SEAB meeting. She introduced her topic as explanation to the group of the NNSA brand as it related to the Department of Energy. She reiterated how important it was to continue to review the topic of branding as it related to the respective organizations within the Department. Her topic addressed a series of questions surrounding the NNSA brand. She articulated her desire for the stakeholders and the public to understand how vital the mission of nuclear deterrence was to the nation, and how the NNSA was currently dealing with five major modifications, all happening amidst the COVID pandemic. She noted that NNSA had been met all milestones with respect to deliverables during the past few years. She spoke about the nuclear counter terrorism program within NNSA and how her administration had successfully eliminated excess special nuclear materials. With respect the NNSA stakeholders, Administrator Gordon-Hagerty articulated the long and rich history of how NNSA came to its current configuration. She discussed the 'One NNSA' construct, highlighting the various labs, plants, and sites that make up NNSA. Throughout her remarks, she reiterated the quality of the NNSA workforce, the recruiting efforts undertaken to ensure proper succession planning, and underscored that only NNSA can do what NNSA does.

Ms. Cole James thanked the Administrator for her efforts with respect to the NNSA recruiting program.

Mr. Augustine inquired as to what changes the Administrator had made to put all things on time and on budget. The Administrator shared that the NNSA had adopted a thoughtful approach, a corporate view, making decisions with inputs from all the labs, plants, and sites, but that the decisions were made in the best interest of the enterprise.

Mr. Samuels asked for a description of the size of NNSA's communications departments. The Administrator explained the current construct within the NNSA headquarters and how important that it was for NNSA to speak with one voice.

Mr. Heckman noted that technology transfer within DOE, and how if at all, NNSA might do technology transfer relative to science. The Administrator noted that a good amount of intellectual property was shared, when appropriate, with the DOE Office of Science and the Office of Energy.

Dr. Rosenbaum commented that there must be many resources within NNSA that are unique to NNSA but could be applied throughout the complex.

Admiral Mies inquiry dealt with the length of the security clearance process. Administrator Gordon-Hagerty stated that the turnaround time for her new employees' clearances was four months.

Under Secretary for Science, Paul Dabbar

Under Secretary Dabbar opened his discussion on Science branding by sharing that he and Mr. Heckman had actually begun to talk this topic quite a while back, with the observation that his organization and DOE had great content, but did not know how to share the story with the American public. He described in detail how very large and diverse his portfolio of work was, and the challenge as he saw it (the breadth of the enterprise.) His description of DOE as a very large R&D undertaking served as a backdrop for the remainder of his discussion. The Under Secretary noted that the U.S. government was the biggest spender on next generation energy storage. He further described traditional physics from what he referred to as physics 2.0, and the study of quantum mechanics, elaborating on where that science was leading society. Noting that he looked enviously at the NASA brand, Under Secretary Dabbar stated that the Department had many opportunities for branding, stating that the Department was content rich, but needed to better articulate its' segments. He ended his remarks by rhetorically asking how the Department would take all of its content and properly segment it for branding.

Admiral Mies made the observation on the labs and their silos of excellence, but noted to a degree he felt that a multi-lab proposal would be much more powerful. His query was around the extent to which the headquarters was trying to promote more collaboration among the labs. Under Secretary Dabbar responded by introducing and defining the term used by the laboratories of 'co-opetition', and that the headquarters spent a lot of time thinking about the Admiral's point.

Mr. Augustine commented on two observations he recalled from his past. The first was that he had become very concerned not enough investment was being made in the research universities, and told of his quest to make Congress aware. Importantly from a branding perspective, how the science should keep the topics from becoming too technical and esoteric, and talk more about the importance of science. Second, when visiting members of Congress, a senior laboratory official and a CEO of a large science-based company should make the visit together. The point made that an affiliation of outsiders speaking on behalf of DOE is very powerful.

Dr. Pizarro commented from the perspective of the Innovation Working Group as well as the Branding, noting number of stake holders ranged from Congress to new talent, and the keenness of the competition for the new talent. He inquired as to the Under Secretary's thoughts relative to the perception of DOE and science with the 5-year post-doc. The Under Secretary noted that DOE cared very much about bringing the right people, across the board.

Mr. Heckman noted that the large majority of people wonder why the science matters to them as individuals. The Under Secretary noted that Mr. Heckman's thought could provide an interesting perspective, and perhaps DOE should place disciplines into branding buckets.

Dr. Rosenbaum commented on how the Department could link past successes to future prospects.

Mr. Samuels thanked the Under Secretary and noted the discussion had been very helpful to him.

Public Comment Period

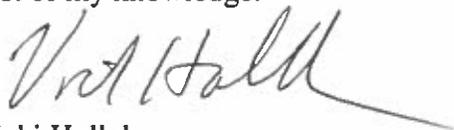
There were no requests for public comment.

Meeting Adjourned

Meeting adjourned at 3:47 p. m., EDT.

Respectfully Submitted:
Kurt Heckman
Designated Federal Officer

I hereby certify that these minutes of the July 28, 2020 SEAB meeting are true and correct to the best of my knowledge.



Vicki Hollub
Chair, Secretary of Energy Advisory Board