

**Minutes of the
U.S. Department of Energy (DOE)
Secretary of Energy Advisory Board (SEAB)
Public Meeting**

July 30, 2024
12:30 p.m. – 2:45 p.m. EDT
Virtual Meeting via Webex

Attendance:

Advisory Board Members: Arun Majumdar (Chair); Trenton Allen, Norman Bay, Kerry Duggan, Bryan Garcia, Paula Gold-Williams, Denise Gray, Kate Gordon, Phil Giudice, Shirley Ann Jackson, Maria Pope, Adrianna Quintero, Suzanne Singer, and Christopher Smith

DOE attendees:

Christopher Davis, *DOE Chief of Staff*

Bridget Bartol, *DOE Deputy Chief of Staff*

Carla Frisch, *Acting Executive Director and Principal Deputy Director, Office of Policy*

Leslie Biddle, *Deputy Under Secretary for Commercialization and Finance, Office of Infrastructure*

David Borak, *SEAB Designated Federal Officer*

Alyssa Petit, *Office of Secretarial Boards and Councils*

Oriana Tannenbaum, *Office of the Secretary of Energy*

Other attendees:

Arshad Mansoor, *Chief Executive Officer, Electric Power Research Institute*

Tom Wilson, *Electric Power Research Institute*

Meeting summary

This is the 12th Secretary of Energy Advisory Board (SEAB) convened under Secretary of Energy Jennifer M. Granholm. The meeting was conducted virtually via Webex. The meeting was called to order at approximately 12:30 p.m. EDT. It was attended by DOE staff, 16 SEAB members, members of the public and the press. Presentations were made on the topics of Powering Artificial Intelligence (AI) and Data Center Infrastructure, and the Role of AI at DOE. The presentations were followed by SEAB discussion and public comments.

Public Meeting

Designated Federal Officer (DFO) David Borak opened the meeting by addressing logistical items for the meeting. Mr. Borak then took roll call to ascertain a quorum of attendees for the record (14 of 17 responded). Upon completion of roll call and noting a quorum, he thanked Chair Majumdar, the SEAB members, and the public listening to the meeting. Mr. Borak then introduced Dr. Arun Majumdar, the SEAB Chair, for meeting direction.

Chair Majumdar thanked David Borak for his efforts in coordinating the SEAB and welcomed everyone. The Chair summarized the meeting agenda highlighting the efforts of the three working groups and indicating two of the reports will be voted on at this meeting. The group then heard brief comments by Christopher Davis, DOE Chief of Staff.

Christopher Davis thanked Chair Majumdar for his leadership and the SEAB members for their time and talent to improve DOE's mission. He then began his remarks noting his excitement to hear about the final recommendations related to AI's role to make the U.S. safer and more competitive. He then highlighted DOE's recently released *Frontiers in Artificial Intelligence* for

Science, Security, and Technology (FASST) initiative to help harness AI for the public good. Specifically, the road map builds on DOE's unique position to develop key capabilities for the nation, drive the next generation of energy efficient supercomputing, develop models that are deeply informed by physics, math, chemistry, and then apply them to solve the nation's hardest science, energy, and national security challenges. Additionally, he noted one of the prime challenges being confronted is the rapid growth in energy demand from AI and data centers. The Chief of Staff closed with emphasis on continuing to work together within the department to create a whole-of-DOE strategy around AI and its challenges.

Chair Dr. Arun Majumdar thanked Christopher Davis then presented the SEAB's recommendation concerning Powering AI and Data Center Infrastructure. He thanked the members (co-chair Maria Pope, John Dabiri, Shirley Ann Jackson) and noted they worked closely with Arshad Mansoor, President and CEO of Energy Power Research Institute (EPRI), and Tom Wilson, also from EPRI. Chair Majumdar then invited Maria Pope to start the discussion. Ms. Pope thanked all the working group members who participated, and noted there were about five one-on-one meetings with experts across multiple aspects of industry touching different parts of the topic of AI. She recognized Tom Wilson who attended the one-on-one meetings and helped with much of the report drafting. Additional comments and discussion were made by SEAB members as it relates to the three tracks identified by the working group: 1) Energy efficiency and power dynamics in Large Language Models, 2) Operational flexibility framework to address current bottlenecks, and 3) Generation and storage technologies available today and in the future. Chair Majumdar concluded the discussion by stating it is critical to emphasize community engagement in the report. He emphasized this is an opportunity to de-risk new technologies which will be needed for the country not only for powering AI, but for decarbonizing the grid and achieving the low carbon or net zero economy the country has embarked upon. Chair Majumdar open it up to other SEAB members for additional comments or discussion then noted there will be a vote after public comments.

Chair Dr. Arun Majumdar then presented on the recommendation concerning the Role of DOE in AI. The working group was chaired by Dr. Majumdar and comprised of John Dabiri, Maria Pope, Kate Gordon, Adriana Quintero, and Madelyn Creedon. The working group addressed the unique strengths of DOE with respect to AI, using AI to create a secure future, and guardrails for AI. Chair Majumdar stated that through Executive Order 14110, DOE was asked to describe the potential for AI to improve planning, permitting, and investing in the operations of the electric grid, and to enable the provision of clean, affordable, and resilient electric power for all Americans. He then identified some unique strengths of DOE in this area, including being the largest federal funding source for scientific research, and providing the largest set of publicly accessible computing facilities dedicated to science and security. There was further discussion by SEAB members followed by Chair Majumdar's acknowledgement of the importance of the recommendations.

Chair Majumdar reviewed the main ideas included in the reports and moderated a lively discussion with the SEAB members. David Borak introduced the Public Q&A session as the final part of the SEAB agenda before voting. There were three members of the public that addressed the SEAB.

Public Comment

Tom Mapes: Mr. Mapes leads a digital energy nonprofit advocacy association. His comments focused on high performance computer AI digital asset mining and support for energy security and resilience through the adoption of modern grid solution.

Aimee Tooker: Ms. Tooker is a community leader of Montrose County along the urban mineral belt with uranium, vanadium, and other critical minerals. She discussed concerns about halting mining the urban mineral belt and creating a 400,000-acre national monument.

David Moran: Mr. Moran is a private citizen from Delta, CO voicing concerns over vulnerabilities of the centralized grid system and weakening magnetic fields that protect the earth from natural disaster and climate change.

David Borak noted that there were no other public comments registered.

Chair Majumdar indicated there will now be a vote on two of the three reports, and provided procedures (i.e., yes, or no, recuse). **Results:** *Powering Artificial Intelligence (AI) and Datacenter Infrastructure – passed unanimously; Role of DOE in AI – passed unanimously.* Chair Majumdar will forward both reports to the DOE. He provided some post-meeting summary remarks.

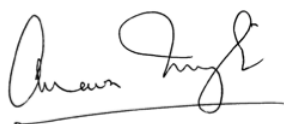
Chair Majumdar noted the next SEAB will be held virtually this fall, followed by a meeting in Washington, D.C. in December. Absent any further comments, he then adjourned the meeting at 2:05 pm, EDT.

Meeting Adjourned at approximately 2:05 pm EDT.

Respectfully Submitted:

David Borak
Designated Federal Officer

I hereby certify that these meeting minutes of the July 30, 2024, SEAB meeting are true and correct to the best of my knowledge.



Dr. Arun Majumdar
Chair, Secretary of Energy Advisory Board