

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

Advisory Board Members:

In attendance: Arun Majumdar, Chair; Madelyn Creedon, Vice Chair; Trenton Allen; Norman Bay; Kerry Duggan; Bryan Garcia; Phil Giudice; Paula Gold-Williams; Kate Gordon; Denise Gray; Shirley Ann Jackson; Maria Pope; Suzanne Singer; Christopher Smith
External attendees: Tom Wilson (Electric Power Research Institute)

Date and Time: December 10, 2024, 11:45 a.m. – 1:00 p.m. EST
Location: Virtual Meeting – Webinar via Webex
Purpose: Secretary of Energy Advisory Board (SEAB) Meeting
SEAB Staff: David Borak, Designated Federal Officer and Deputy Director of the Office of Secretarial Boards and Councils; Alyssa Petit, Office of Secretarial Boards and Councils

Meeting summary

This is the 14th 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 11:45 a.m. EST. It was attended by SEAB members, as well as a few members of the public. A presentation was made on the final report on Harnessing Artificial Intelligence (AI) for Clean Energy Deployment. The subcommittee’s presentation was followed by SEAB discussion, public comment, and a SEAB vote on whether to approve the report for presentation to the Secretary and DOE.

Public Meeting

Designated Federal Officer (DFO) Mr. David Borak opened the meeting by addressing logistical items for the meeting. Mr. Borak announced that a quorum of attendees was present. Mr. Borak then thanked the SEAB members and the public in attendance and introduced Dr. Arun Majumdar, the SEAB Chair, to open the meeting.

Chair Majumdar thanked Mr. Borak for his efforts in coordinating the SEAB and welcomed everyone in attendance. The Chair then presented an overview and review of the accomplishments of the DOE across its multiple missions under the leadership of Secretary Granholm. He recognized Secretary Granholm’s leadership on clean energy deployment and foundational DOE missions, including research and development that pushes the frontiers of science and enhances national security.

Continuing, Chair Majumdar noted that he was concluding his term and thanked the SEAB members and the Secretary for their engagement and time working on DOE’s toughest challenges. He thanked each member of the SEAB supporting staff at DOE. He also thanked

the members of the public who have attended SEAB meetings and provided relevant feedback. Chair Majumdar then introduced the meeting's primary purpose: to discuss the findings of the SEAB working group focused on AI for streamlining clean energy deployment. He introduced Mr. Norman Bay to begin the presentation.

Mr. Norman Bay first expressed appreciation to Chair Majumdar for his own leadership and hard work; then introduced the working group members, Arun Majumdar, John Dabiri, Maria Pope, Shirley Ann Jackson, and Bryan Garcia, along with external working group members Arshad Mansoor and Tom Wilson from the Electric Power Research Institute (EPRI). He then turned to Bryan Garcia to begin the presentation.

Mr. Bryan Garcia began by reiterating the Secretary's tasking to determine how artificial intelligence can streamline and expedite permitting and other regulatory processes for clean energy deployment. Modernization and expansion of the grid involves lengthy permitting processes, backlogged interconnection queues, and disputes over transmission planning costs that have delayed or prevented projects.

The challenges faced in achieving the goal of a carbon free grid include:

- Wind, solar, nuclear, new hydro-geothermal storage, etc. (carbon free)
- Backlogged interconnection queues
- Difficulties building regional and interregional high voltage backbone transmission
- Increasing load demands from various types of electrification initiatives

The working group's methodology included a broad range of inputs from stakeholders: Government, Technology company, Consultant group, Renewables Developers, Independent System operator, Research organization (EPRI).

Ms. Maria Pope recognized DOE's extensive existing AI expertise and presented an outline of the working group's findings:

- Use of AI in energy industry is in early stage
- Highest value use cases need to be identified, then AI tools developed, tested, and deployed
- AI tools development must be careful – build trust and avoid creating new risks
- AI Tools only amplify and augment – not replace subject matter expert's exercise of technical judgment
- Grid management is becoming more complicated
- AI's potential benefit for clean energy deployment is far reaching

She proceeded to outline potential use cases for AI as follows:

- Streamline permitting
- Accelerate interconnection studies
- Enhance transmission planning
- Support public participation and community engagement for general understanding
- Improve reliability

She also described 4 challenges to the use and acceptance of AI to assist in successfully implementing the streamlined regulatory approval process:

- Data access and security
- Trust and acceptance
- Applicability
- Appropriate levels of AI deployment incentives for change management

Chair Majumdar presented seven recommendations:

1. Foster increased data transparency and standardized data platforms to ensure cross-regional compatibility
2. Engage/leverage the National Labs' enormous computing power to identify high-value use cases and engage academia with DOE as the convener
3. Encourage DOE to support funding opportunities through programs for companies developing AI tools
4. Develop AI pilot projects applying AI tools in real applications and build stakeholder trust
5. Promote public-private collaborative R&D initiatives regarding AI tools uniquely for energy industry
6. Launch public engagement campaign to build public trust regarding the accessibility of AI to address public concerns
7. Also, engage stakeholders to build trust that the AI tools are augmenting human capabilities, not replacing them.

Chair Majumdar asked if any members of the public wished to comment. One member of the public had identified himself as wishing to address the SEAB.

Public Comment

Mr. David A. Moran expressed disappointment in a stated lack of public engagement or progress having been made on electromagnetic pulse or geomagnetic disturbance hardening.

Ms. Alyssa Petit confirmed that there were no other members of the public desiring to comment.

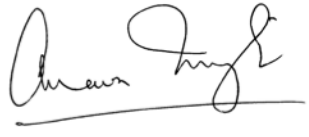
Chair Majumdar held a vote on the working group's final report (i.e., yes, no, or abstain). The SEAB voted unanimously to approve and submit the report to the Secretary of Energy. Chair Majumdar stated he would send forward the report to the Department of Energy and adjourned the meeting.

Meeting Adjourned at approximately 12:12 pm EST.

Respectfully Submitted:

David Borak
Designated Federal Officer

I hereby certify that these meeting minutes of the December 10, 2024, SEAB meeting are true and correct to the best of my knowledge.

A handwritten signature in black ink, appearing to read 'Arun Majumdar', is written over a horizontal line. A vertical line is positioned to the right of the signature.

Dr. Arun Majumdar
Chair, Secretary of Energy Advisory Board