

U.S. Environmental Protection Agency (EPA) Board of Scientific Counselors (BOSC)

Air and Energy Subcommittee

Meeting Summary

November 13–14, 2018

Dates and Times: November 13, 2018, 8:30 a.m. to 4:45 p.m.; November 14, 2018, 8:30 a.m. to 2:30 p.m. Eastern Time

Location: EPA Research Triangle Park Research Facility, 109 TW Alexander Drive, Durham, North Carolina

Executive Summary

On November 13–14, 2018, EPA’s BOSC Air and Energy (A-E) Subcommittee convened in Research Triangle Park, North Carolina. The goals of the two-day meeting were to review the [A-E Research Program’s draft Strategic Research Action Plan \(StRAP\)](#) and proposed research strategies therein, and provide overall direction to the A-E Research Program by responding to several charge questions. A-E Research Program staff were available during the meeting to address StRAP content and specific areas of input from the BOSC. The meeting format allowed for presentations, open dialogue, program feedback, questions, and EPA responses to questions.

Day 1 consisted of a presentation outlining the development of the draft StRAP and review and discussion of the five Agency-provided charge questions. The subcommittee then formed 2–3 person BOSC workgroups to develop strengths, suggestions, and recommendations for each charge question. Day 2 consisted of continued discussion between the subcommittee and A-E Research Program staff, followed by each workgroup’s report-out on each charge question.

Dr. Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science, Office of Research and Development (ORD), explained via webcast that the national research programs are drafting the third iterations of their respective StRAPs and emphasized ORD’s desire for a solutions-oriented impact to support the consolidated EPA programs and regions, state and tribal research needs. Mr. David Dunlap, Deputy Assistant Administrator of ORD, was in attendance. Mr. Tom Tracy served as the Designated Federal Official from ORD.

A-E Research Program StRAP Development Overview and Group Discussion

Dr. Alan Vette, Deputy National Program Director, A-E Research Program, provided an overview on the A-E Research Program’s approach to the draft StRAP revision to more clearly align it with the goals and objectives of the EPA 2018–2022 Strategic Plan. He emphasized the StRAP’s focus on expanded engagement with stakeholders, interaction with partners across the Agency, and emphasis on extramural research.

Dr. Vette described the A-E Research Program design and explained the logic of reducing the structure from five research topic areas to three, with an integrated focus on wildland fires. Within the three topic areas, there are nine research areas.

He stated the goals of the A-E Research Program are to understand key problems and intended users, maintain strong relationships with Agency partners, and analyze current scientific

uncertainties in the policy context. Other goals are to integrate intramural and extramural research portfolios and leverage the work of other agencies to best address the issues.

Subcommittee members and EPA staff engaged in discussion on various topics, including how to determine and address emerging risk opportunities beyond per- and polyfluoroalkyl substances, air quality characterization, and state and tribal input. Other topics of discussion included measurement and metrics.

Dr. Vette explained that each BOSC subcommittee will meet and draft a review of the research programs, specific to their focus. The BOSC Executive Committee (EC) will then convene in June 2019 to consider the subcommittees' recommendations and finalize the overall BOSC report, which will include reviews of each research program. The StRAPs will not be considered final until summer 2019, at which time implementation planning will be underway. The BOSC review at the strategic planning phase will be followed by regular BOSC reviews of research activities over the course of the StRAP implementation.

Subcommittee Discussion of Charge Questions and EPA Response to Questions

The subcommittee discussed each of the five charge questions including how to focus the recommendations to the A-E Research Program. Dr. Vette suggested that the subcommittee provide input on the presentation of the StRAP itself and any research the A-E Research Program might be underemphasizing. He also suggested the subcommittee recommend how to approach and emphasize interactions with state, local, and tribal communities.

The subcommittee formed 2–3 person workgroups to address each charge question, with the goal to produce a 1–3 page draft response by the end of Day 2. The subcommittee's compiled report will be reviewed at the BOSC Executive Committee (EC) meeting, chaired by Dr. Paul Gilman, who was in attendance.

Subcommittee Report-Out and Summary of Preliminary Recommendations

Each workgroup identified strengths, suggestions and preliminary recommendations pertaining to the draft A-E StRAP and their specific charge question. The subcommittee discussed the recommendations of each workgroup and presented an initial summary for the A-E Research Program to address in the draft A-E StRAP. These recommendations and supporting suggestions will be reviewed and refined by the subcommittee over the next few months and finalized in a draft report to be reviewed at the BOSC EC meeting.

Charge Question 1a – Does the research outlined for the 2019-2022 timeframe support the relevant Agency priorities as described in the EPA and ORD Strategic Plans?

- Identify and clarify a process to allow for an element of exploratory research in the A-E Research Program.
- Add discussion to the StRAP concerning EPA StRAP Objective 3.5 “Improve Efficiency and Effectiveness” and ORD Goal 3: Enhancing the Workforce and Workplace.

Charge Question 1b – Each ORD research program undertook a rigorous engagement process to provide additional detail on specific EPA program and region, state, and tribal needs, the results of which are summarized in the StRAP objectives and explanations of research topics and areas. How well does the proposed research program respond to these partner-identified needs?

- Continue to strategize and build relationships with the states and tribes to allow for further engagement with states and education outreach designed to explain EPA’s capabilities.
- Continue discussions with multi-jurisdictional organizations and solicit separate discussions with tribal organizations.
- Include more information on how the A-E Research Program connected with outside stakeholders and highlight outreach efforts in the draft StRAP.

Charge Question 1c – Does the StRAP, including the topics, research areas, and proposed outputs, clearly describe the strategic vision of the program? Given the environmental problems and research objectives articulated, please comment on the extent to which the StRAP provides a coherent structure toward making progress on these objectives in the 2019-2022 time frame.

- Include a short summary of general approaches for addressing air pollutants.
- Highlight the A-E Research Program’s role in EPA’s strategic vision since the A-E program shows a substantial commitment to both enhanced shared accountability and increases in transparency and participation from a broad range of partners.
- Continue engagement with the states, but allow science questions to drive discussions in other areas.
- Include more detail on how various research topics, such as the air pollution and energy resource components, could be brought together to integrate science question in broad themes of A-E research.

Charge Question 1d – Recognizing ORD’s focus on addressing identified partner research needs, in the presence of reduced scientific staff and resources, are there any other critical emerging environmental needs or fields of expertise and/or new research methods where this program should consider investing resources?

For this charge question, key recommendations were not explicitly reported, but rather strengths and weakness were identified for improvements to the draft A-E StRAP.

- Outline potential issues related specifically to energy in more detail.
- Describe the extramural research program (i.e., on-going Science to Achieve Results and Air, Climate and Energy Center grants and Health Effects Institute support) which is complementary to ORD’s intramural efforts and provides a complete picture of the full research conducted by program.
- Continue to leverage on-going relationship with the Environmental Council of States to include specific questions about emerging needs from the states on the Environmental Research Institute of the States’ Research Needs Survey.

- Include environmental justice topics that are important to regional, state, local, and tribal agencies as well as the public at large.
- Increase attention to hazardous air pollutants within the A-E Research Program.

Charge Question 1e – What are some specific ideas for innovation (including prizes/challenges) and market-based approaches that the program could use to advance solutions to existing and emerging environmental problems?

- Continue promoting innovations to address next-generation environmental programs despite the reduction in staff and financial resources (i.e., reinvigorate the EPA Science and Technology Awards and EPA/Small Business Innovation Research Programs.)
- Reinvigorate the Science to Achieve Results grant program to issue challenges to scientists and engineers to identify an emerging environmental problems and submit a concept proposal for addressing that concern.
- Establish an Interagency Task Force to focus on future needs and to make available or share resources.

Conclusion

The combined responses from each workgroup's recommendation will be compiled into the draft A-E StRAP review report. The subcommittee will convene via teleconference to discuss the final revisions, as a group, before the BOSC EC meeting, which will convene in June 2019.

Meeting Agenda and Charge Questions

The [agenda](#) and the [draft charge](#) can be accessed at <https://www.epa.gov/bosc/air-and-energy-subcommittee-november-13-14-2018-rtp-nc>.

Meeting Participants

BOSC Air and Energy Subcommittee Members:

Charlette Geffen, *Chair*
Sandra Smith, *Vice Chair*
Viney Aneja^
Jeffrey Arnold
Bart Croes
Jennifer Hains
Cara Keslar
Michael Kleinman
Myron Mitchell
Louie Rivers III
Annette Rohr
Constance Senior
Art Werner

^did not attend

EPA Designated Federal Officer (DFO): Tom Tracy, *Office of Research and Development*

EPA Presenters:

Alan Vette, *Deputy National Program Director, Air and Energy Research Program*

Other EPA Attendees:

Tim Benner	David Kryak	Chris Weaver
Ann Brown	Tom Long	
Beth Hassett-Sipple	Andy Miller	
Fred Hauchman	Kelly Van Bronkhorst	
Nicole Kim	Tim Watkins	

Other Participants:

Paul Gilman, *Chair, BOSC Executive Committee (EC)*

Contractor Support (ICF):

Canden Byrd
Ali Goldstone
Catherine Smith