## Evaluating Connections: BOEM's Environmental Studies and Assessments

BOEM's mission is to manage the development of U.S. Outer Continental Shelf (OCS) energy and mineral resources in an environmentally and economically responsible way. BOEM develops environmental assessments, including NEPA analyses, consultation documents, and other analyses that use the best available information to comply with relevant statutes and policies. Environmental studies sponsored by BOEM's Environmental Studies Program (ESP) provide scientific information to inform BOEM's environmental assessments. BOEM describes the "feedback loop" as the process by which environmental studies inform environmental assessments and environmental assessments in turn inform environmental studies. The goal of the feedback loop is that BOEM science informs BOEM decisions through assessments (i.e., science-to-policy), and vice versa.

BOEM's Office of Environmental Programs recently funded an independent contractor, Industrial Economics, Incorporated, to conduct an internal evaluation of the linkages between the scientific research BOEM is funding and the information needs within its assessments. The project's overarching objective was to evaluate the effectiveness of this feedback loop process and to make recommendations for improvements in the science-to-policy process. The project covered the time period between 1999 and 2019. Table ES-1 presents a high-level overview of the strengths of the BOEM Feedback Loop, recommendations for next steps, and the next steps or actions BOEM intends to take to address IEc's recommendations for improvement.

**Table ES-1. High-level overview of key findings from the 2021 *Evaluating connections: BOEM's environmental studies and assessments, findings and recommendations* final report and BOEM's Next Steps.**

| Strengths of BOEM Feedback Loop Performance | Recommendations for Next Steps | Next Steps/Actions to Take |
|---|---|---|
| **Q1. How well do BOEM environmental studies inform BOEM environmental assessments?** | | |
| ✓ Most BOEM assessments reference BOEM studies and the proportion of assessments referencing studies has increased over time (averaging 85% over the past decade). This indicates the relevance of the studies to BOEM's assessments and increased focus on assessment information needs over time.<br>✓ BOEM assessments frequently reference many and varied BOEM studies, demonstrating that the assessments rely on BOEM studies extensively and across diverse topic areas.<br>✓ BOEM staff broadly agree that they rely on BOEM studies to support their assessment work and provide examples of studies fulfilling critical information needs. | • Commit to communication of study results through formal channels, including presentations and consistent use of ESPIS.<br>• Increase transparency regarding the process for prioritizing studies to ensure study ideas and profiles target key information needs. | • Develop coordinated ESP science communication vision and strategy with all offices and regions.<br>▪ Hire science communication liaison to regularly communicate study results.<br>▪ Secure contract (IDIQ) to support ESP science communication.<br>▪ Share consumable and timely ESP study results to assessment staff.<br>• Share internal regional and program study prioritization processes with staff.<br>▪ Ensure each process includes communication of prioritization decisions (what and why).<br>▪ Link these decisions into the systematic information needs tracking discussed in Q2 below.<br>▪ Consider options for integrating prioritization across regions and programs. |

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|---|---|---|
| **Q2. How well do BOEM assessments inform studies?** | | |
| ✓ Interviewees overwhelmingly report that BOEM invests in studies that target assessment information needs, describing that assessments are the primary source for information needs.<br>✓ BOEM staff derive study ideas based on their experience working on assessments and in anticipation of forthcoming assessment information needs.<br>✓ BOEM's investments in studies (in terms of funding levels) target the information needs most frequently identified in assessments. | • Develop a systematic process and accompanying data systems for tracking assessment information needs as they arise so this information can be referenced when developing strategic science questions and by staff in proposing study ideas. | • Develop a cross-region and program working group to consider establishing a tracking system for information needs identified through the assessment process and how they inform the Studies Development Plan |
| **Q3. How does the feedback loop function?** | | |
| ✓ BOEM interviewees provide multiple examples of studies influencing key policy decisions, including mitigation measures.<br>✓ BOEM's ESPIS database provides a searchable central repository of studies, tagged with important characteristics (e.g., topics and geography).<br>✓ BOEM disseminates information through a variety of formal and informal channels, including presentations, brown bag lunches, and information transfer meetings.<br>✓ BOEM staff maintain strong intra-agency networks, both within and outside of their own regions and offices to communicate assessment information needs and studies ideas.<br>✓ BOEM is committed to understanding and strengthening the influence of the Bureau's science on policy, as evidenced by the Office of Environmental Program initiating this feedback loop evaluation project. | To enable BOEM to assess feedback loop functioning in the future:<br>• Leverage the ESPIS database to incorporate additional information that will facilitate identifying the assessment information needs targeted by studies.<br>• Create a central location for storing and accessing BOEM assessments.<br>• Strengthen ability to track citations of environmental studies, both in peer-reviewed publications and in BOEM assessments.<br>• Use consistent "topic" categories to define information needs and study topics to facilitate tracing. | • Enhance functionality in ESPIS database through existing contract.<br>• Consider using SOCS to collect (or point to) existing BOEM assessment documents. Then connect SOCS and ESPIS in a way that allows us to find information across both.<br>• Proposed ESPIS theme pages could provide opportunity to track these relationships and link to SOCS.<br>• Consider use of existing applications to track peer-reviewed publication such as https://www.wizdom.ai/institution/bureau_of_ocean_energy_management/grid.484006.e<br>• Develop consistent keywords to facilitate tracking across regions and programs. |