



Peer Review Plan

Date: October 31, 2023

BSEE Funding Source or Author's Division: Office of Offshore Regulatory Programs
Emerging Technologies Branch
45600 Woodland Road
Sterling, VA 20166

Title: EVALUATION OF TECHNOLOGY COLLABORATION PROGRAM (TCP) 5007 - ANALYSIS OF POTENTIAL OPPORTUNITIES TO REDUCE VENTING AND FLARING ON THE OUTER CONTINENTAL SHELF (OCS)

Subject and Purpose: The subject of this study is to peer review the report "ANALYSIS OF POTENTIAL OPPORTUNITIES TO REDUCE VENTING AND FLARING ON THE OUTER CONTINENTAL SHELF (OCS)." This peer review aims to verify the scientific and technical merit of the assumptions, inputs, methodologies, and results of this research. This study applies to the evaluation and analysis of the data for potential opportunities to reduce venting and flaring on the OCS.

In October 2010, the United States Government Accountability Office (GAO) issued a report entitled "Opportunities Exist to Capture Vented and Flared Natural Gas, Which Would Increase Royalty Payments and Reduce Greenhouse Gases." This 2010 GAO report contained the following recommendations for the Bureau of Ocean Energy Management (BOEMRE) to improve data and reduce emissions from oil and gas production facilities on the OCS1:

- Recommendation 1—BOEMRE should reconcile differences in reported offshore venting and flaring volumes between the Oil and Gas Operations Report (OGOR) and the Gulf-wide Offshore Activities Data System (GOADS) data systems. BOEMRE should make adjustments to ensure the accuracy of these systems.
- Recommendation 2—BOEMRE should consider extending its requirement that gas be captured where economical to "lease-use" sources of gas.
- Recommendation 3—BOEMRE should assess the potential uses of venting and flaring reduction technologies for minimizing the waste of natural gas, in advance of production where applicable and not solely for purposes of air quality.
- Recommendation 4—BOEMRE should consider expanding its use of infrared cameras, where economical, to improve the reporting of emission sources and to identify opportunities to minimize lost gas.
- Recommendation 5—BOEMRE should consider collecting information on the extent to which larger operators use venting and flaring reduction technology. BOEMRE should periodically review this information to identify opportunities for oil and gas operators to reduce

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their emissions and should use existing information in the GOADS data system for this same purpose.

On October 1, 2011, BOEMRE reorganized into two new bureaus, the Bureau of Safety and Environmental Enforcement (BSEE) and the Bureau of Ocean Energy Management (BOEM). At this time, recommendations 2–5 were assigned to BSEE and recommendation 1 to BOEM. All five recommendations have since been implemented.

In addressing the recommendations assigned by the GAO, BSEE solicited the assistance of BOEM’s Economics Division. This division helped evaluate opportunities for reducing methane emissions resulting from oil and gas (O&G) production in the Gulf of Mexico (GOM). Reported findings from the study’s preliminary cost-benefit analyses suggest that flaring currently vented methane and replacing high-bleed pneumatic controllers with zero- or low-bleed pneumatic controllers would likely provide the greatest opportunities for meaningful and cost-effective emission reductions. Given the current data limitations described in the report, no new regulatory emission reduction actions were proposed by BSEE or BOEM. Nevertheless, this remains an ongoing area of interest for the two bureaus.”. This peer review will evaluate and assess the TCP 5007 project results.

Impact of Dissemination: BSEE considers the “ANALYSIS OF POTENTIAL OPPORTUNITIES TO REDUCE VENTING AND FLARING ON THE OCS,” report comprises influential technical data and analyses information. The study finding may suggest the need to adopt new methods for further enhancing safety and environmental protection on the OCS. It is necessary for the Bureau to explore opportunities that may exist for the increased capture of gas that would be vented or flared in federal offshore waters.

Upon conclusion of the peer review, BSEE will post all possible contracted deliverables, tasks, data, analyses, and information, including the peer-review reporting, reports, and comments on BSEE's research records website: <https://www.bsee.gov/research-record>.

Timing of Review: October 2022 – January 2024 (Total peer review process of not more than 16 months is desired for this project.)

Manner of Review, Selection of Reviewers, and Nomination Process:

This peer review shall be conducted through the contract BSEE BPA Process. This process will provide for a panel of qualified subject matter experts (SMEs) selected by the agency in order to achieve an optimum level of expertise across the spectrum of issues. The SMEs will be required to maintain both balance and independence while minimizing any potential conflicts of interest. The public will not be consulted in the nomination of potential peer reviewers.

Primary criteria for peer reviewers include the following:

- Offshore oil and gas operations
- Venting and Flaring history on OCS

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- Gulf of Mexico leasing planning areas and producing plays/basins on OCS
- Areas you deem your company has energy-related expertise
- Risk identification, assessment communication, and mitigation
- Evaluation of best practices, industry standards, and applications

The secondary tier of criteria should include the following:

- No more than two persons from the oil and gas industry
- At least one from outside of the oil and gas industry

Reviewers may be selected from academia, industry, and federal government. The group of reviewers shall not include multiple reviewers from the same affiliation and shall strive to include various perspectives on the issue considered.

Expected Number of Reviewers:

Three reviewers, plus contractor oversight, and writing personnel.

Requisite Expertise:

- Subject Matter Experts with five years of experience in a relevant field and should also have some other strong credentials, e.g., a Ph.D. with a substantial publication or patent record specific to the evaluated technology, a young investigator award, or a strong pedigree (e.g., a Ph.D. from a high caliber institution or under a recognized leader in the field).
- Publications and Patents. Qualified experts often have many peer-reviewed journals and/or patents on the evaluated technology.
- Other evidence is that the person is a recognized expert in the field. Qualified experts have often managed a public policy program that has had a national impact, has a record of bringing innovations to the market or holds vital patents.
- In a relevant field, an advanced degree - Ph.D., Sc.D., D.Eng., MS, or MBA. Experts with only a bachelor's degree should have other experience and or a record of significant accomplishments indicating their expertise.
- Relevant awards. Qualified experts may have received a prestigious award such as the National Medal of Science, American Chemical Society National Award, Young Investigator Award, R&D 100 Award, or other awards specific to technology (e.g., Fuel Cell Seminar Award).
- Key Society Membership. Qualified experts may be members of a society like the National Academy of Sciences (NAS), the National Academy of Engineering (NAE), the American Physics Society, a National Laboratory Fellow, etc.

Opportunity for Public Comment:

At the time of this peer review plan's posting, the research report will be available on BSEE's Peer Review Public Posting website located here: <https://www.bsee.gov/what-we-do/research/peer-review>. BSEE welcomes public comment, especially from those with experience with tension leg platforms. BSEE invites the public to comment within the 30-day window indicated on the website through the process described below, which is consistent with the guidance on the website:

- For comments pertaining to this peer review plan, send emails to:
bsee_peerreviewplancomments@bsee.gov

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- For comments pertaining to the research, send emails to:
bsee_researchpubliccomment@bsee.gov

In the subject line list of a public comment email, please state: “TCP 5007 - ANALYSIS OF POTENTIAL OPPORTUNITIES TO REDUCE VENTING AND FLARING ON THE OUTER CONTINENTAL SHELF (OCS)” + the words "peer review plan" or "research" + the words “public comment.”

- List out any comments, questions, feedback by number (ex. 1, 2, 3, etc.)
- If referencing any sources of published information, please list the complete source information in a recognized reference format (such as APA)
- Please include your name, contact information, and affiliation

The agency will provide public comments deemed significant and relevant to the peer reviewers to address during their review.

Agency Contact: Marvin Montgomery

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