

March 29, 2019

Evan Zimmerman
Offshore Operators Committee
2000 W Sam Houston Parkway, Suite 200
Houston, Texas 77042

Dear Mr. Zimmerman:

Thank you for agreeing to organize, on behalf of the Department of Energy, four listening sessions and roundtable discussions on oil spill prevention topics that address technical challenges and barriers related to increasing ultimate recovery of oil and gas resources in offshore reservoirs. We especially appreciate the large number of Subject Matter Experts (SMEs) you plan to assemble to share their individual opinions related to offshore oil and gas exploration and production operations. No consensus is sought, and DOE very much values the opportunity for open-ended conversation that focuses on early stage research gaps and the technology needed to increase ultimate recovery and operational efficiency of the Outer Continental Shelf (OCS). This is of keen interest to the DOE as we continue supporting the President's goal of energy dominance.

The Energy Information Administration projects that through the year 2050 overall domestic supply of crude is projected to remain relatively flat with an out year decline in onshore and Alaska production that can be offset by slight increases in offshore production. EIA's recent *Short-Term Energy Outlook* forecasts near-term Gulf of Mexico crude production to increase. Consistent with the President's goal for energy dominance, it would be DOE's objective, for example, to surpass the EIA forecast through the development of new technology. One strategy for meeting this objective would be to identify and invest in early stage research that-- for whatever reason-- the industry will not pursue. New technology will be especially important in light of the Department of the Interior's proposed leasing of the rest of the OCS. DOE envisions that new technologies could be needed in support of cost-effective development of any additional leasing areas.

The evolution of DOE's investment in offshore research began with the *DOE Offshore Technology Roadmap* published November 2000. What began as a means to identify the Department's role in offshore research materialized in the *Energy Policy Act of 2005* as the basis for DOE's investment of funds. In 2015, the *DOE Offshore Technology Assessment* that underpinned the *DOE Quadrennial Technology Review* assessed the current state of the art and identified a robust set of research opportunities in four key areas: 1) geologic characterization, 2) drilling and completion, 3) subsea reliability and automation, and 4) surface systems and umbilicals. It is important to emphasize that DOE's primary role offshore is to reduce the risk of oil spills while increasing ultimate recovery and operational efficiency.

The accomplishments of the DOE offshore portfolio are presented in the attached documents describing the research results in the four key areas named above. Many of these accomplishments are early stage research in two key areas: subsea systems automation and reliability, and surface systems and umbilicals. The DOE-funded projects listed were cost-shared with industry, and included academia, service companies, National Laboratories, and not-for-profit partners. Most recently on October 22, 2018, DOE issued a Notice of Intent for funding opportunity to improve deepwater offshore enhance oil

recovery (EOR) titled “*Advanced Operations and Sensing technologies to Improve Efficiency and Capability for EOR in Deepwater Offshore Wells*”.

As preparation for our series of half-day sessions, I offer the attached items such as the *Offshore Technology Assessment* (2015), the original *Offshore Technology Roadmap* (2000), and the four research portfolio reports.

Thank you again for setting up these conversations with SMEs. We look forward to talking with them to better understand the current state of the art in many areas, and to dialogue about early stage research that industry is pursuing and is not pursuing.

Again we look forward to working with you.

Sincerely,

A handwritten signature in cursive script that reads "Elena Melchert".

Elena Melchert
Director
Upstream Research Division
Office of Oil and Natural Gas

Attachments:

DOE Offshore Technology Roadmap (2000)

DOE Quadrennial Technology Review, Offshore Technology Assessment (2015)

DOE/NETL Research Portfolio Report: Ultra-Deepwater: Geologic Uncertainty

DOE/NETL Research Portfolio Report: Ultra-Deepwater: Drilling and Completion Operations

DOE/NETL Research Portfolio Report: Ultra-Deepwater: Subsea System Reliability/Automated Safety Systems

DOE/NETL Research Portfolio Report: Ultra-Deepwater: Surface Systems and Umbilicals (Wellbore Stability)