Update on Initiatives

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Today’s Topics

National
Draft Proposed Program
DOI Reorganization

Atlantic
Seismic Permits

Gulf Of Mexico Region
Archaeology Surveys
ePlans
Deepwater Report
Production Forecast
“(T)he outer Continental Shelf is a vital national resource reserve held by the Federal Government for the public, which should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs”
As directed by Executive Order 13795 and Secretarial Order 3350, BOEM is initiating the process to develop a new five year program.

The Draft Proposed Program (DPP) was released on January 4, 2018. It includes:

- 47 sales in 25 of the 26 planning areas
  - North Aleutian Basin Planning Area is not included as it was withdrawn December 16, 2014.
    - Alaska – 19 sales
    - Pacific – 7 sales
    - GOMR – 12 sales
    - Atlantic – 9 sales
The publication of the DPP initiates a 60-day public comment period, which ends March 9, 2018.


The 2017-2022 Program will continue being implemented during the process of developing the new National Program.

Once the new National Program development process is complete, the new National Program would replace the 2017-2022 Program.
## Assessment of Undiscovered Technically Recoverable Oil and Gas Resources
### of the Nation’s Outer Continental Shelf, 2016

<table>
<thead>
<tr>
<th>Region</th>
<th>Oil (Bbl)</th>
<th>Gas (Tcf)</th>
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</thead>
<tbody>
<tr>
<td>Alaska OCS</td>
<td>26.56</td>
<td>131.38</td>
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<tr>
<td>Atlantic OCS</td>
<td>4.59</td>
<td>3.43</td>
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<tr>
<td>Gulf of Mexico OCS</td>
<td>48.46</td>
<td>141.76</td>
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<tr>
<td>Pacific OCS</td>
<td>10.20</td>
<td>16.10</td>
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<tr>
<td>Total U.S. OCS</td>
<td>89.32</td>
<td>333.32</td>
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</tbody>
</table>

### Note:
- Oil in Billions of Barrels (Bbl)
- Natural Gas in Trillions of Cubic Feet (Tcf)

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### Barrels of Oil Equivalent

<table>
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<tr>
<th>Category</th>
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<tr>
<td>1 - 10</td>
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<td>Orange</td>
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<tr>
<td>20 - 30</td>
<td>Red</td>
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<tr>
<td>30 - 40</td>
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<tr>
<td>40 - 50</td>
<td>Dark gray</td>
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<tr>
<td>50 - 60</td>
<td>Green</td>
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</table>

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*Estimates are approximate and subject to change.*
• Notice of Intent to prepare a Draft Programmatic Environmental Impact Statement (EIS)

• Public Meetings are being held in coastal states to receive comments on the DPP and scoping comments on the draft EIS

• BOEM will begin implementing the streamlining process for the DPP EIS
<table>
<thead>
<tr>
<th>Date</th>
<th>City</th>
<th>State</th>
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<tr>
<td>January 16</td>
<td>Annapolis, MD</td>
<td>MD</td>
</tr>
<tr>
<td>January 16</td>
<td>Jackson, MS</td>
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<tr>
<td>POSTPONED</td>
<td>Richmond, VA</td>
<td>VA</td>
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<tr>
<td>January 18</td>
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<td>DE</td>
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<td>February  6</td>
<td>Austin, TX</td>
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</tr>
<tr>
<td>February  6</td>
<td>Salem, OR</td>
<td>OR</td>
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<tr>
<td>February  8</td>
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<td>February 13</td>
<td>Columbia, SC</td>
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<td>NC</td>
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<tr>
<td>February 28</td>
<td>Atlanta, GA</td>
<td>GA</td>
</tr>
</tbody>
</table>
Support from States
Factors that the Secretary Must Consider

Per the OCS Lands Act (Section 18)

- Geographical, Geological and Ecological Characteristics
- Equitable Sharing of Development Benefits and Environmental risks
- Location with respect to Regional and national energy Markets and Needs
- Other Uses of the Sea and Seabed
- Laws, Goals and Policies of Affected States identified by Governors
- Interest of potential Oil and Gas producers
- Environmental Sensitivity and marine Productivity
- Environmental and Predictive information

Goal – Final Program approved by the end of 2019

• In response to the SO 3355, GOMR has taken a hard look at our NEPA policies and practices to identify deficiencies and opportunities to increase efficiency.

• GOMR has identified several options to comply with SO 3355, and currently is preparing to present them to the BOEM Director.
Secretary Zinke has announced plans to reorganize the Department of the Interior into 13 regions based on watersheds and geographical basins.

Centralized Leadership is proposed for all regions.

Secretary Zinke recently held meetings with senior DOI leadership to answer questions and solicit input on the planning process.
Background

• BOEM's regulations (30 CFR 556.901(d)) allow the Regional Director to require additional financial security when necessary to ensure compliance with lease obligations. The overall implementation remains paused.

Status

• Framework and path forward have been presented to Deputy Secretary Bernhardt for a decision.

• During the interim, the region continues its efforts to cover “sole” liability especially for Tier III companies
30 CFR 556.901(d) requires that the determination of the need for additional financial assurance be based on evaluation of a company’s ability to carry out present and future financial obligations, as demonstrated by the factors listed on the right.

- Reserve Valuation to Decommissioning Liability, or Credit Rating
- Net worth to Decommissioning ratio or Credit Rating
- 5 years continuous operations
- BSEE PIP, suspension, debarment
- Credit Rating and Proxy Credit Rating

Factors:
- Projected Strength
- Financial Capacity
- Business Stability
- Record Of Compliance
- Reliability
Financial Evaluation of Companies

Tier I
Three ways to qualify

• Tangible net worth greater than $10B AND tangible net worth to decommissioning liability ratio of 10:1 OR
• Investment Grade OR
• Investment Grade Proxy Credit Rating AND tangible net worth to decommissioning liability ratio of 10:1 AND Trade References

Tier II
Two ways to qualify

• S&P BB+,BB,BB- or equivalent Moody’s rating OR
• Equivalent proxy credit rating

Tier III

• All other entities
Re-examination of "Offshore Air Quality Control, Reporting, and Compliance" Proposed Rule

Background

• BOEM has air quality jurisdiction under 43 U.S.C. 1334(a)(8)

Status

• Acting ASLM has given approval to move forward with a final rule focused on cross-referencing various air quality standards and benchmarks

• Approval for a proposed rule that will address emission exemption thresholds
Cross Reference EPA Standards

- National Ambient Air Quality Standards (NAAQS)
- Significant Impact Levels (SILs)
  - If SILs are exceeded, operator will need to do Best Available Control Technology (BACT)
- Ambient Air Increments (AAIs)
  - ASLM will decided if AAIs will be included.
  - Used for Class I areas, such as Breton
Seismic Survey Permitting Oversight

- **Background**
  
  - G&G activities remain a concern for NMFS and DOD

- **Status**
  
  - NMFS and DOI, through the U.S. Fish and Wildlife Service, met and agreed to convene an interagency working group to carry out these tasks.
  
  - DoD and BOEM have established an interagency working group to minimize conflicts between permitted G&G and DoD training, testing and operational activities.
  
  - NOAA Fisheries delivered the draft Biological Opinion on Atlantic permits/NMFS IHAs on January 25th

**Goal – complete reviews in March 2018 based on anticipated issuance of final IHAs in February 2018**
• GOMR is currently working on a new website that will allow companies to find out information on existing survey data (i.e. year acquired, owner, company who performed the work, etc.)

• The new website will be an interactive map so companies can see the areas in real space.

• This tool will allow companies to utilize existing data, and not have to re-shoot areas with existing surveys.

• 2014-16 data has been competed, 2017 is in processing, and GOMR is planning to continue into the future; Pipelines have been completed.
<table>
<thead>
<tr>
<th>Lease Sale</th>
<th>Date of Sale</th>
<th>No. of Tracts Offered</th>
<th>No. of Tracts Bid On</th>
<th>No. Of Bids Received</th>
<th>Total Bonus High Bid ($)</th>
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<td>249 Gulfwide</td>
<td>8/16/2017</td>
<td>14220</td>
<td>90</td>
<td>99</td>
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<td>247 CGOM</td>
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<td>24</td>
<td>24</td>
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<td>3/23/2016</td>
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<tr>
<td>241 CGOM</td>
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<td>8349</td>
<td>128</td>
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<tr>
<td>246 WGOM</td>
<td>8/19/2015</td>
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<td>33</td>
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<td>231 CGOM</td>
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<td>7299</td>
<td>320</td>
<td>407</td>
<td>1.2 B</td>
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</table>
10,141 ft
35,935 ft TVDSS
Platform and Pipeline Infrastructure

Active Leases and Infrastructure
July 17, 2017
Gulf of Mexico
Outer Continental Shelf

Oil and Gas Infrastructure
- OCS Oil and Gas Structure
- Active Oil Pipeline 20" and Greater
- Active Oil Pipeline Less Than 20"
- Active Gas Pipeline 20" and Greater
- Active Gas Pipeline Less Than 20"

COS Related Coastal Navigation Channels
- Gulf Access Route
- Gulf Intracoastal Waterway (GIWW)

Offshore Infrastructure
- Pipe Coating/Intervention Facility
- Supply Base
- Platform Fabrication Yard
- Crude Oil Terminal
- Helicopter Pad
- Oil Refinery
- Shipbuilding and Repair Yard
Shallow Water vs. Deepwater

- Shallow Water: 14.684 Billion Barrels of Oil Equivalent (BBOE)
  - UTRR: 49.700
  - Grown Reserves: 29.682

- Deepwater: 59.005 BBOE
  - UTRR: 29.682
  - Grown Reserves: 29.323
• Very Deep Water
• Remote location from infrastructure
• Thick overlying salt of complex shapes
• Deep subsea drilling
• High well costs
• Low porosity and permeability
• Low gas-to-oil ratio
The Lower Tertiary and Jurassic Norphlet trends in deepwater continue to be excellent exploration targets.

The deepwater Lower Tertiary trend has spurred the acquisition of numerous, nonexclusive wide-azimuth (WAZ) and full-azimuth (FAZ) seismic surveys.

For the entire Gulf of Mexico, the deepwater portion is assessed to contain 80 percent of the remaining undiscovered resources.

The Gulf of Mexico is one of the world's prolific hydrocarbon basins, with a production history of more than 100 years.

The United States Depends on the Gulf of Mexico

It is the primary offshore source of hydrocarbons for the United States, generating approximately 97 percent of all offshore oil and natural gas production.

Of this Gulf production, wells in deepwater produced 82 percent of the oil and 54 percent of the natural gas.
Deepwater Daily Oil Rate

Historical Production  2017 Extrapolated Production  Reserves  Contingent Resources  Undiscovered Resources

0  200,000  400,000  600,000  800,000  1,000,000  1,200,000  1,400,000  1,600,000  1,800,000

Monthly Oil Production Gulf of Mexico

Monthly oil production from U.S. Federal Gulf of Mexico
million barrels per day

Source: U.S. Energy Information Administration, Short-Term Energy Outlook April 2017
Production Forecast

Monthly U.S. crude oil production by region
Jan 2016 - Dec 2018
million barrels per day

<table>
<thead>
<tr>
<th></th>
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<td>Permian</td>
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<td>11.5</td>
<td>9.8</td>
<td>10.2</td>
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<td>Federal Gulf of Mexico</td>
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<td>12.0</td>
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</tr>
</tbody>
</table>

Source: U.S. Energy Information Administration, Short-Term Energy Outlook, July 2017
The Gulf of Mexico is a proven petroleum basin that still offers significant opportunities for exploration and development.

BOEM estimates that over 50% of the total endowment of oil and gas in the GOM remains to be discovered!
Questions/Comments?

Visit BOEM Website @ www.boem.gov

BOEM manages the responsible exploration and development of offshore energy and marine mineral resources on the OCS. The bureau promotes energy independence, environmental protection and economic development through responsible management of these offshore resources based on the best available science.