

BUDGET The United States Department of the Interior **JUSTIFICATIONS**

and Performance Information
Fiscal Year 2024

BUREAU OF OCEAN ENERGY MANAGEMENT

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BUREAU OF OCEAN ENERGY MANAGEMENT

FY 2024 BUDGET JUSTIFICATION

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Director's Preface

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Director's Preface

“BOEM is taking a leading role in transitioning the U.S. to a clean energy future – one that will advance renewable energy, create good-paying jobs and ensure economic opportunities are accessible to all communities. BOEM is working with Tribes, underserved communities, ocean users, and other stakeholders to ensure that any future offshore energy development is done safely and responsibly and relies on the best available science and knowledge. Together, we can move forward with offshore energy development in a way that helps create a cleaner, more sustainable energy future for our nation.”

– *Bureau of Ocean Energy Management Director Elizabeth Klein*

BOEM's Fiscal Year (FY) 2024 budget reflects its commitment to ongoing efforts and initiatives vital to BOEM's mission and critical to supporting the Administration's priorities as the Nation transitions to a clean energy future, advancing energy security, supporting economic prosperity, and ensuring the reliability and affordability of domestic clean energy. Proposed funding supports an emphasis on activities identified in legislation and several key Presidential directives and Executive Orders (EO), including, for example, the Infrastructure Investment and Jobs Act (IIJA; also known as the Bipartisan Infrastructure Law); the Inflation Reduction Act (IRA); and EO 14017, *America's Supply Chains*. In support of these EOs and legislation, BOEM's FY 2024 budget will continue advancing the Nation's clean energy future, fostering climate change resilience and adaptation, supporting critical mineral science and environmental stewardship, and utilizing environmental studies and analysis in support of offshore conservation efforts, and fostering diversity and inclusion in the workplace. With this request, BOEM proposes to focus resources in the following areas:

- **Renewable Energy.** BOEM is rapidly accelerating domestic offshore renewable energy production in support of the Administration's commitment to transitioning and diversifying the Nation's energy portfolio. Renewable energy is playing an increasing role in securing a reliable energy future for the Nation, spurring economic growth, creating good-paying jobs for the American people, and combating climate change. Building upon its work in FY 2023, BOEM continues to make considerable progress toward accomplishing the Administration's goals of achieving 30 gigawatts (GW) of offshore wind production by 2030 and 15 GW of floating offshore wind by 2035. In FY 2024, BOEM will maintain an all-of-government approach by collaborating across federal agencies, with States, and consulting with Tribal Nations to expand offshore wind production. BOEM aims to administer efficient, transparent, and inclusive processes to identify future lease sale areas; avoid, reduce, and mitigate conflicts; and advance projects. In carrying this work out, BOEM plans to issue three environmental reviews for leasing in FY 2024 and hold up to two offshore wind lease sales each in FY 2023 and FY 2024, pursuant to the Secretary's Offshore Wind Leasing Path Forward leasing

strategy, which calls for seven lease sales by 2025. Also by 2025, BOEM plans to complete the review of at least 16 construction and operation plans that could provide up to nearly 27 GW of new clean energy. BOEM will work with the governors of U.S. Territories to determine the feasibility of and interest in moving towards offshore wind lease sales in their waters, as authorized by the IRA. While leading efforts to advance the Nation's clean energy future in FY 2024, BOEM maintains the highest level of scientific and environmental integrity in the execution of its programs through substantial investments in scientific and technological research, outreach and community engagement, and the incorporation of Indigenous knowledge to ensure that the development of offshore wind on the Outer Continental Shelf (OCS) occurs in an environmentally and socially conscientious manner.

- **Marine Minerals.** BOEM's marine minerals activities help ensure the responsible management of the Nation's OCS mineral resources by considering environmental impacts and using the best available science to improve coastal resilience, enhance natural disaster preparedness, assess the availability of critical minerals, and protect shorelines essential to promote national security, the economy, and the environment. Per the Outer Continental Shelf Lands Act (OCSLA), BOEM may convey, on a non-competitive basis, the rights to OCS sediment resources to Federal agencies and State and local governments for the purposes of coastal restoration projects, shore protection, and use in construction projects authorized or funded by the Federal Government. In this capacity, BOEM continues to have robust engagement with stakeholders and State and local governments to facilitate the procurement of sand and sediment resources for coastal restoration and beach nourishment upon request and when necessary to preserve infrastructure, defense facilities, and the Nation's coasts. BOEM's FY 2024 budget underscores the importance of increasing current understanding of marine minerals to inform the management of OCS mineral resources, address environmental harms due to climate change, and avoid potential multiple-use conflicts and impacts by advancing the development of the National Offshore Sand Inventory, Marine Minerals Information System, and National Offshore Critical Mineral Inventory.
- **Conventional Energy.** BOEM manages the development of OCS oil and gas resources in an environmentally and economically responsible manner. BOEM continues to meet its statutory obligations required by OCSLA, which include administering existing leases, permitting geological and geophysical surveys, reviewing exploration and development plans, evaluating resources, and developing the next National OCS Oil and Leasing Program. In meeting these obligations, BOEM conducts its Conventional Energy program in a manner that delivers a fair return for the American taxpayer, mitigates and addresses adverse impacts, and ensures leaseholders maintain adequate financial assurance. In the coming fiscal year, BOEM will further its Conventional Energy work to finalize and implement the next National OCS Oil and Gas Leasing Program.
- **Environmental Programs.** Responsible environmental stewardship is a central focus in every activity BOEM takes in managing the Nation's OCS resources. BOEM's Environmental Programs provide a foundation of support to the Bureau by ensuring that programmatic decision-making is guided by the best available science and Indigenous knowledge. Among its chief responsibilities, BOEM's Environmental Programs contribute transparent environmental research and data to inform the public, stakeholders, diverse ocean users, and external decision-makers about the potential impacts of OCS energy and mineral activities. This work enables BOEM to identify risks and mitigation strategies to assist with conservation and protection of environmental and cultural

resources and places. Fostering effective government-to-government relationships and improving Tribal Nations' consultation capacities with BOEM on the impacts of potential projects and decisions are critical components of the Environmental Programs' responsibilities. During FY 2024, BOEM will continue to prioritize working with Tribal, Alaska Native, and Native Hawaiian communities and institutions to ensure scientific and Indigenous knowledge inform BOEM's decision-making. BOEM will also work to promote equity in access to and participation in BOEM's decision-making process through ongoing engagement with underserved and environmental justice communities to incorporate their feedback in both addressing impacts and delivering benefits.

- **Carbon Sequestration.** Section 40307 of the IIJA amends OCSLA to authorize the Secretary of the Interior to grant a lease, easement, or right-of-way on the OCS for activities that “provide for, support, or are directly related to the injection of a carbon dioxide stream into sub-seabed geologic formations for the purpose of long-term carbon sequestration.” During FY 2024, BOEM, in collaboration with the Bureau of Safety and Environmental Enforcement (BSEE), will apply its significant technical expertise to finalize a comprehensive and implementable carbon sequestration regulatory program on the OCS.
- **Executive Direction.** The offices performing BOEM's executive functions provide strategic leadership, management, budget, and administrative support to the entire Bureau. These offices oversee critical Bureau functions to ensure the effective internal and external communication and presentation of BOEM's mission in compliance with the Administration's and Department's national and international initiatives. The offices also oversee the safety and health of BOEM's workforce, continuity of operations, emergency management, information technology, and internal control programs. Over the next fiscal year, BOEM will continue to advance key regulations in areas of renewable energy, financial assurances, marine archaeology, and carbon sequestration to mitigate environmental harms and financial risk to the American taxpayer. In FY 2024, BOEM will continue to support Administration and Department-wide initiatives to promote Diversity, Equity, Inclusion, and Accessibility and will implement the Justice, Equality, Diversity, and Inclusion Charter to foster a stronger and more inclusive culture throughout the Bureau.

The FY 2024 budget reflects a careful analysis of the resources needed to advance the Administration's priorities and develop BOEM's capacity to execute its functions responsibly and efficiently in service of the Nation.

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General Statement

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

General Statement

Bureau of Ocean Energy Management Mission

The mission of the Bureau of Ocean Energy Management is to manage development of the Nation's offshore energy and mineral resources in an environmentally and economically responsible way.

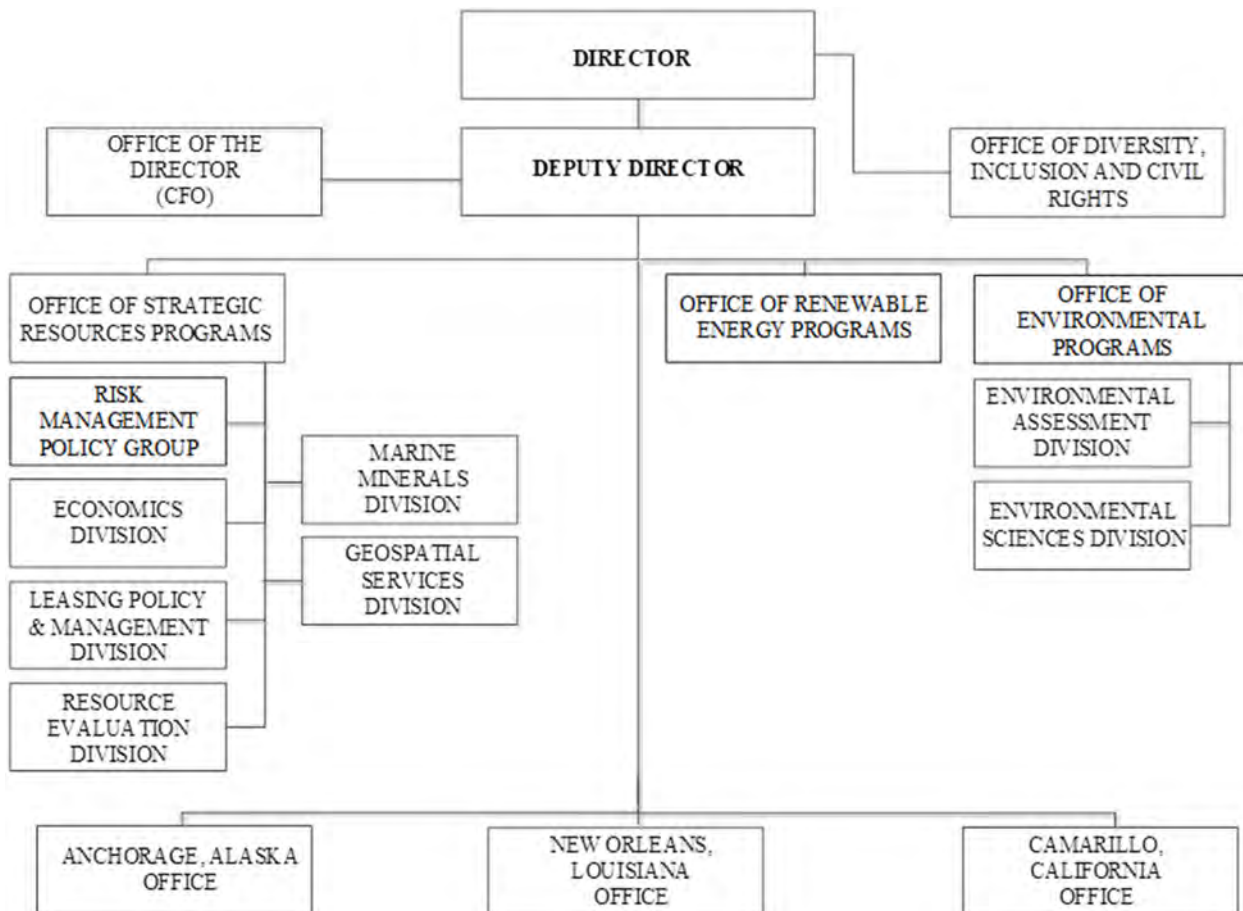
BOEM's core statutory mandate is provided by OCSLA, 43 U.S.C. § 1331 et seq. OCSLA, in conjunction with the Submerged Lands Act, 43 U.S.C. § 1301 et seq., defines the OCS as "all submerged lands lying seaward and outside" of the seaward boundaries of a State and "subject to the jurisdiction and control of the United States." In practice, this means that the OCS extends from three nautical miles offshore a State (nine nautical miles in the case of Texas and Florida's Gulf of Mexico coast) to at least the outer limits of the U.S. Exclusive Economic Zone. OCSLA gives the Secretary of the Interior responsibility and policy guidance for the protection and administration of mineral exploration and development of the OCS. The Energy Policy Act of 2005 (P.L. 109-58) amended OCSLA to authorize the Department to manage the development of renewable energy on the OCS. To carry out this mission, BOEM manages OCS energy and mineral resources, including: renewable energy leasing and development; OCS oil and gas planning, leasing and oversight, including inventories of oil and gas reserves, resource and economic evaluation, review and administration of oil and gas exploration and development plans, geological and geophysical (G&G) permitting, and financial assurance and risk management; conveyance of sand and gravel resources; and National Environmental Policy Act (NEPA) analyses and environmental studies. BOEM's work supports Administration efforts to create good paying jobs as the Nation transitions to a clean energy future.

BUDGET AND ORGANIZATIONAL STRUCTURE

Budget activities for BOEM are funded through the Ocean Energy Management account and support resource evaluation, planning, and leasing of the Nation's OCS energy and mineral resources in a balanced way that supports economic development, energy security, and environmental protection. The Ocean Energy Management account comprises Renewable Energy, Conventional Energy, Environmental Programs, Marine Minerals, and Executive Direction budget activities.

Functions and funds within these activities are divided among program offices located at headquarters and regional offices, as shown in figure 1 below. Policy and administrative functions for each mission area (renewable energy, conventional energy, marine minerals, and environmental programs) are managed through three offices headquartered in the greater Washington, D.C., area and focus on national offshore leasing strategy and the development of comprehensive environmental analyses and science. BOEM’s regional offices in Anchorage, Alaska; New Orleans, Louisiana; and Camarillo, California, implement Bureau policy, manage regional leasing activity, conduct region-specific analyses, and coordinate stakeholder outreach and engagement.

Figure 1: BOEM Organizational Chart



Headquarters and regional offices work together to implement BOEM’s various activities. In addition, strong partnerships with other Federal agencies, Tribal governments, State and local governments, environmental and other interest groups, the general public, and the oil and gas and renewable energy industries enable BOEM to coordinate activities to fulfill its resource management responsibilities.

FISCAL YEAR (FY) 2024 BUDGET REQUEST

The Administration understands the urgency and magnitude of the climate challenge. The 2024 BOEM budget request reflects the appropriation needs for BOEM to accomplish the priorities of the President and the Department. This includes implementation of multiple EOs to restore balance on public lands and waters, create jobs, and provide a path to align the management of America’s public lands and waters with our Nation’s climate, conservation, and clean energy goals while using the best available science and practices in the decision-making process and strengthening the government-to-government relationship with sovereign Tribal Nations. Funding supports EO 14017, *America’s Supply Chains*, by simultaneously supporting critical mineral science and environmental stewardship.

Funding for BOEM is requested through the Ocean Energy Management account, which consists of net discretionary appropriations and offsetting collections (comprising a portion of OCS rental receipts and cost recovery fees). In FY 2024, BOEM requests \$268.2 million in total budget authority. BOEM’s request includes \$211.2 million in net current appropriations and \$57.0 million in offsetting collections, as shown in table 1.

**Table 1: Summary of BOEM Budget Request
2024 President's Budget (\$000)**

Ocean Energy Management	2022 Actual	2023 Enacted	2024 Request	Change from 2023 Enacted
Net Current Appropriation	164,451	175,318	211,242	35,924
Offsetting Collections	42,297	44,642	56,968	14,671
Total Current	206,748	219,960	268,210	50,595
Offsetting Collections				
<i>Rental Receipts</i>	<i>40,372</i>	<i>42,758</i>	<i>54,302</i>	<i>11,544</i>
<i>Cost Recovery Fees</i>	<i>1,925</i>	<i>1,884</i>	<i>2,666</i>	<i>782</i>
Ocean Energy Management				
<i>Renewable Energy</i>	<i>36,818</i>	<i>42,818</i>	<i>64,467</i>	<i>21,649</i>
<i>Conventional Energy</i>	<i>60,487</i>	<i>61,487</i>	<i>72,302</i>	<i>10,815</i>
<i>Marine Minerals</i>	<i>11,781</i>	<i>14,383</i>	<i>16,371</i>	<i>1,988</i>
<i>Environmental Programs</i>	<i>79,763</i>	<i>82,373</i>	<i>92,755</i>	<i>10,382</i>
<i>Executive Direction</i>	<i>17,899</i>	<i>18,899</i>	<i>22,315</i>	<i>3,416</i>
Total Current	206,748	219,960	268,210	48,250
<i>FTEs</i>	<i>648</i>	<i>666</i>	<i>728</i>	<i>62</i>

FY 2024 BUDGET HIGHLIGHTS

The FY 2024 budget reflects funding needed for BOEM to carry out its mission and to support Administration priorities. Changes relative to the FY 2023 Enacted Budget are shown in table 2.

Table 2: List of Budgetary Changes in FY 2024

Summary of 2024 Program Changes for Bureau of Ocean Energy Management		
Program Changes:	(\$000)	FTE
Renewable: Integrated Renewable Energy Information Management System	+2,520	+1
Renewable: Inflation Reduction Act - Offshore Wind	+6,000	+8
Renewable: Renewable Energy Permitting	+12,000	+23
Conventional: Geographic Information System	+963	+0
Conventional: Offshore Carbon Sequestration	+6,550	+10
Marine Minerals: National Offshore Sand Inventory	+1,716	+0
Environmental: Tribal Co-Stewardship	+500	+1
Environmental: Renewable Energy Environmental Reviews	+1,257	+3
Environmental: Offshore Carbon Sequestration	+2,340	+6
Environmental: Environmental Studies Program	+4,667	+1
Executive Direction: Cost Recovery Fee Evaluation	+500	+0
Executive Direction: Office of Diversity, Inclusion and Civil Rights	+660	+3
Executive Direction: Program Support Capacity	+1,344	+6
TOTAL Program Changes	+41,017	+62

* Changes listed in order of budget activity, not priority.

FY 2024 Fixed Costs (+\$7,233,000). Fixed cost increases are fully funded in BOEM’s FY 2024 budget. These costs include increases to support Federal employee pay raises, changes in Federal health and retirement benefits and workers’ compensation, rent to the General Services Administration, and payments to the Department through its Working Capital Fund.

Technical Internal Transfers (-\$12,326,000/+12,326,000; 0 full time equivalents (FTE)). Technical adjustments in FY 2024 reflect a decrease in net current appropriations paired with a commensurate increase in offsetting collections. These changes are spread proportionally across budget activities. There are no programmatic changes associated with this shift.

Integrated Renewable Energy Information Management System (+\$2,520,000; +1 FTE). These funds would enable BOEM to develop and implement an Integrated Renewable Energy Information Management System (IREIMS) to automate key portions of the offshore renewable energy planning, leasing, and plan review processes. BOEM currently utilizes multiple software applications to manage and track information related to its Renewable Energy Program. The IREIMS would provide an integrated system capable of managing information and data related to the renewable energy leasing process through its entire life cycle.

Inflation Reduction Act- Offshore Wind Leasing (+\$6,000,000; +8 FTE). These funds support implementation of the Department of Interior’s new authority under the IRA to advance wind leasing for areas of the OCS offshore U.S. Territories. Resources would support essential personnel to initiate renewable energy activities within the U.S. Territories, while funding would support the collection of baseline data needed for these areas. Funds would also support activities such as environmental studies

and assessments, technology research, offshore wind lease sale auctions, and development of protraction diagrams and supplemental official block diagrams.

Renewable Energy Permitting (+\$12,000,000; +23 FTE). Proposed resources provide an increase in funding and workforce capacity to address environmental review and assessment needs, through the establishment of a new NEPA Team that would assist the existing workforce on projects as needed, procurement of post-lease programmatic environmental impact statements, expanded technical assessment and research capabilities, and utilization of project management support. Sufficient, experienced, and trained staff are essential in providing comprehensive environmental analysis at each phase of the renewable energy process. Funds and FTE would also enable BOEM to expand its technical assessment and research capabilities to support additional leasing efforts and plan reviews.

Geographic Information System (+\$963,000; 0 FTE). BOEM proposes funds to support the Bureau's migration to the National Geodetic Survey's new National Spatial Reference System (NSRS) 2022 horizontal datum. The requested funds will be used to plan and implement BOEM's geospatial data conversion and associated workloads by working with each program and region to implement the new datum. This project will focus on BOEM geospatial data but will need to be closely coordinated with the other bureaus who are reliant on the same geospatial data and systems that use it.

Offshore Carbon Sequestration (+\$8,890,000; +16 FTE). BOEM requests resources within the Conventional Energy (\$6.550 million; +10 FTE) and Environmental Programs (\$2.340 million; +6 FTE) budget activities to establish a dedicated Offshore Carbon Sequestration Program that will help ensure that offshore geological storage of carbon dioxide is done in a safe and effective manner. This funding request supports the BIL, which directs the Department of the Interior to promulgate regulations for carbon sequestration in the OCS. Proposed funding would enable BOEM to effectively oversee this new activity in partnership with BSEE by building a dedicated team, training existing staff, and onboarding additional specialized experts. Funds would also enable environmental studies, scientific research, data collection, and other activities critical to the establishment and implementation of the new program. Additionally, funding would enable BOEM to acquire and maintain Geological Interpretive Tools and acquire requisite geological and geophysical data, which will be critical to the development of a model and methodology to provide for a comprehensive, national-level assessment of CO₂ storage capacity across the OCS, as well as regional subsurface knowledge to develop region-specific assessment units.

National Offshore Sand Inventory (+\$1,716,000; 0 FTE). This funding supports further development of BOEM's National Offshore Sand Inventory, which facilitates the restoration and protection of shoreline infrastructure vital to the Nation's security, economy, and ecosystems, as well as beach and coastal wetlands restoration projects. Further development of the National Offshore Sand Inventory increases capacity and allows additional G&G data acquisition and evaluation and interpretation of OCS sediments, which are critical to more effectively carry-out restoration and protection of shoreline infrastructure.

Tribal Co-Stewardship (+\$500,000; +1 FTE). The Budget increases support for engagement and informal consultation with Federal recognized Indian Tribes and the Native Hawaiian Community, conducted through BOEM's Environmental Programs. This funding supports one dedicated FTE to serve

as a tribal liaison. BOEM supports Tribal co-stewardship and of Federal lands and waters that contain cultural and natural resources of significance and value to Indian Tribes and their members, including sacred religious sites, burial sites, wildlife, and sources of indigenous foods and medicines. The requested increase reflects increased offshore leasing interest in new areas.

Renewable Energy Environmental Reviews (+\$1,257,000; +3 FTE). BOEM requests FTE and resources to create an environmental team that would address renewable energy NEPA activities and assist the Office of Renewable Energy Programs and BOEM regional offices as needed. The team would provide dynamic support within the regions as the environmental review workload associated with renewable energy fluctuates.

Environmental Studies Program (+\$4,667,000; +1 FTE). This funding reflects resources to further support BOEM's Environmental Studies Program. The Environmental Studies Program supports the science that is the foundation for ensuring safe and sound operations, fostering conservation of resources, and minimizing impacts on the environment. All regulatory activities and oversight require associated science to conduct the highly detailed analyses necessary to support Bureau decisions and ensure environmentally responsible activities on the OCS. With these funds, BOEM will be better equipped to conduct the environmental studies that support clean energy development and inform BOEM's understanding and policy decisions in support of conservation and climate goals. The Environmental Studies Program supports the Administration's desire for environmentally and economically responsible development of energy and mineral resources while also considering climate science, conservation, and environmental justice.

Cost Recovery Fee Evaluation Study (+\$500,000; 0 FTE). BOEM proposes funds to evaluate its existing cost recovery fees, adjust those fees if appropriate, and determine if additional fees should be developed for other service areas. Evaluation of cost recovery fees is consistent with the statutory mandate that every service provided by the government should be reimbursed so that the associated programs or activities are self-sustaining without the need for appropriations.

Office of Diversity, Inclusion and Civil Rights (+\$660,000; +3 FTE). In support of the Administration's priorities, BOEM proposes three FTE to advance the work of its Justice, Equality, Diversity, and Inclusion (JEDI) Committee and establish an equal employment opportunity program to ensure there is leadership capacity to holistically advance all aspects of equal opportunity, diversity, inclusion, and accessibility. Combining the Bureau's JEDI Committee with a new equal employment opportunity program, BOEM will also satisfy requirements associated with the *Elijah E. Cummings Federal Employee Antidiscrimination Act of 2020*.

Program Support Capacity (+\$1,344,000; +6 FTE). In FY 2024, BOEM requests a funding and FTE increase to support the information technology and administrative needs associated with its expanding role and contributions toward the Administration's clean energy, climate change resilience and restoration, and conservation efforts. As programmatic responsibilities evolve and grow, a corresponding funding increase is necessary for critical support roles. Requested FTE add the needed capacity to support a range of technological and administrative needs, such as information technology project management, transactional budget duties, communications, and regulatory support. These specialists are intended to

work closely with the program offices and ensure the Bureau's necessary administrative and legal requirements are met as BOEM advances the Administration's priorities.

FY 2024 LEGISLATIVE PROPOSAL

Decommissioning Account

BOEM requires OCS oil and gas and renewable energy lessees to provide financial assurance to cover lease obligations, primarily for decommissioning of facilities when they are no longer supporting production. Through regulations implementing OCSLA, BOEM is authorized to call for the forfeiture of that financial assurance and collect bond proceeds or other security forfeitures from an OCS permittee, lessee, or right-of-way holder that does not fulfill the requirements of its permit, lease, or right-of-way, or does not comply with the regulations or orders of the Secretary. *See* 30 CFR § 556.907. Such forfeitures cover the cost to the United States of any improvement, protection, or rehabilitation work rendered necessary by the action or inaction that led to the forfeiture. The determination to call for the forfeiture of a bond or security is made by the Regional Director for the BOEM regional office where the lease, permit, or right-of-way is managed. Because the statute identifies the Royalty and Offshore Minerals Management account (which is now BOEM's operating account, hereinafter referred to as the Ocean Energy Management (OEM) account) as the one in which funds will be collected, forfeited moneys are credited to the OEM account to remain available until expended, and any funds in excess of the amount expended in performing the necessary work are returned to the permittee, lessee, or right-of-way holder. *See* 43 U.S.C. 1338a.

Under OCSLA and Secretarial delegations, BOEM has the authority to collect bankruptcy settlements or disbursements on behalf of BSEE. BSEE may receive distributions in bankruptcy proceedings to reimburse it for actual, necessary costs and expenses incurred in performing decommissioning during the pendency of the bankruptcy that had been the responsibility of a debtor, or in correcting other regulatory violations. Additionally, BSEE may receive a pro rata distribution from the bankruptcy estate based on the proof of claim for the expected future costs of decommissioning. In both instances, the funds are received to remedy a specific problem and not for general governmental purposes. Similar to forfeited bonds or other securities, the bankruptcy settlements and distributions may be credited to BOEM's OEM account until expended.

During the reorganization of the Minerals Management Service into three separate entities, the specific authorities regarding bond forfeitures were not clearly assigned or updated. As a result, BOEM has the authority to call bonds and collect the associated funds, but BSEE receives bankruptcy settlements and distributions. However, although BSEE is responsible for ensuring the necessary decommissioning work is done, it has no clear authority to retain funds received in bankruptcy and therefore such funds are placed into BOEM's OEM account, to which BSEE has no access. While BOEM can utilize a reimbursable service agreement to effectively transfer funds – resulting from a bond forfeiture or a bankruptcy distribution – from the OEM account to BSEE, this is neither a practical nor efficient long-term solution.

BOEM proposes to separate collections of forfeitures (of bonds or other securities) and bankruptcy distributions or settlements (associated with failure to perform or noncompliance) from the appropriations in its OEM account and administer them through a new Treasury account. To accomplish this, BOEM requests authority to transfer such funds to this new account and to direct all future such funds to the new account as well. BOEM will work with the Department, the Office of Management and Budget, and the Department of the Treasury to establish the Treasury account in which decommissioning funds can be managed, but in order to utilize this new account for the collection and administration of funds specific to decommissioning activities, the underlying statute will need to be amended. The Budget proposes this be accomplished via a general provision in the FY 2024 Interior Appropriations act.

Reception and Representation

The 2024 budget proposes appropriations language to enable the Bureau of Ocean Energy Management to use up to \$5,000 of appropriated amounts for courtesy and social responsibilities associated with official duties, including outreach and engagement with Tribal partners to honor traditions. This request would provide the Bureau similar authority provided to other agencies to extend hospitality to official visitors without bureau employees bearing expenses from their own personal funds.

FY 2024 AREAS OF FOCUS

BOEM's FY 2024 budget reflects BOEM's accomplishments as a steward of America's resources on the OCS, its role as one of the top revenue generators for the United States, and its commitment to ongoing efforts and initiatives that are vital to BOEM's mission and critical to supporting the Administration's priorities, including creating good paying jobs as the Nation transitions to a clean energy future, advancing energy security, supporting economic prosperity, and ensuring the reliability and affordability of domestic clean energy.

ACCELERATING CLEAN ENERGY DEVELOPMENT

With the issuance of EO 14008 in January 2021, the President made clear that tackling the climate crisis and responsibly accelerating offshore renewable energy production are top priorities of his Administration. In March 2021, the Departments of the Interior, Energy, and Commerce established a goal to deploy 30 GW of offshore wind energy capacity by 2030, and in September 2022, the Department of the Interior announced a goal to deploy 15 GW of floating offshore wind capacity by 2035. Many States have similarly established renewable energy procurement goals. BOEM is central to implementing the President's commitment and meeting the 30 GW and 15 GW targets. In recognition of the role renewable energy plays in securing the Nation's energy future, fighting climate change, and supporting economic growth, BOEM continues to advance offshore wind energy by creating greater clarity for Tribal, State, and local governments, industry, ocean users, and other stakeholders. This includes an efficient and effective process for reviewing plans to develop existing leases and an inclusive and expeditious process for identifying areas for potential future lease sales. As the prospects for offshore wind energy expand, robust stakeholder and ocean user outreach and scientific integrity will continue to be important components of our Nation's offshore renewable energy program.

BOEM's FY 2024 budget reflects the emphasis on bringing renewable energy projects to fruition through an expeditious and responsible approach. To meet the increase in demand and reach its offshore wind

goals, BOEM must build a robust renewable energy program with adequate capacity to review projects, advance new lease areas, engage ocean users, and invest in developing science as the foundation for decision-making. The FY 2024 base budget advances BOEM's efforts in moving the Nation's clean energy future forward in an informed and environmentally and socially conscientious manner. In FY 2024, BOEM requests funding to automate key portions of the offshore renewable energy planning, leasing, and plan review processes through the development of IREIMS. This solution will provide an integrated system capable of managing information and data related to the renewable energy leasing process through its entire life cycle, from facilitating intergovernmental task force administration to automating the workflow of survey and project plan reviews, and ultimately to compliance monitoring. BOEM also seeks resources in FY 2024 to support the Department's new jurisdiction, authorized under Section 50251 of the IRA, to conduct offshore wind lease sales for areas of the OCS offshore U.S. Territories. Finally, BOEM seeks resources to further enable an expeditious and efficient renewable energy permitting process.

STAKEHOLDER OUTREACH AND ENGAGEMENT

Stakeholder outreach and engagement on all BOEM activities are statutorily mandated, critically important to BOEM's activities, and provide an opportunity for BOEM to strive for inclusion and environmental justice throughout its activities. Through outreach efforts, BOEM strives to ensure all stakeholder concerns are addressed throughout its work and that local communities have an opportunity to learn and engage in discussions about ongoing and proposed activities that may impact them, which helps ensure natural resource decisions reflect the input of potentially affected citizens. Under OCSLA, BOEM must coordinate and consult with Federal, Tribal, State, and local agencies throughout the offshore renewable energy development process. OCSLA also calls for public involvement and comment at multiple points throughout the process of developing the 5-year National OCS Program. BOEM's Marine Minerals Program also coordinates with governmental partners and stakeholders as it facilitates access to and manages the Nation's OCS non-energy marine minerals. Effective stakeholder engagement throughout all activities enables BOEM to obtain additional perspectives and insights into the interaction between OCS energy and mineral development and other offshore activities and resources.

ENVIRONMENTAL STEWARDSHIP

Environmental assessments and studies are critical to the successful management of offshore energy and mineral resources. BOEM seeks to be a model for how OCS development goes together with responsible stewardship of the environment. In pursuit of this aim, science is foundational to BOEM's mission and programs because science enables BOEM to manage offshore energy and mineral resources in an environmentally and economically responsible manner. BOEM's Environmental Programs budget activity supports scientific research needed to inform decisions regarding energy and mineral development on the OCS. Integrating applied science within BOEM's environmental analyses supports programmatic decisions and helps ensure environmental protection. BOEM conducts its environmental analyses in a transparent, coordinated, and efficient fashion to ensure that its decisions are informed by the best available science, address risks, and incorporate mitigations to reduce risk. BOEM's Environmental Studies Program provides the environmental science used as the foundation for sound policy decisions. Importantly, BOEM's environmental programs are also responsible for understanding impacts to the human environment and have assumed a leading role in addressing impacts on Federally recognized Tribes and environmental justice communities. Specific areas of focus within the FY 2024 budget include

environmental studies and assessments in support of renewable energy, including the establishment of a new NEPA team. BOEM leverages its resources through partnerships, allowing collection of valuable data useful not only to BOEM, but also to other Federal agencies, Tribal, State and local governments, and non-governmental stakeholders.

CLIMATE SCIENCE

BOEM provides baseline data required to measure progress toward meeting U.S. greenhouse gas reduction goals through assessments of greenhouse gas emissions data, including a greenhouse gas emissions inventory conducted every three years. This information, as well as analyses of new offshore activity, helps BOEM plan mitigation strategies to reduce greenhouse gas emissions. In FY 2024, BOEM's environmental programs will continue to provide robust scientific research, assessment, regulatory measures, products, and services for understanding, avoiding, and mitigating harm to ecosystems from OCS energy and mineral development. BOEM will continue to assess environmental impacts from climate change and undertake steps to redress associated adverse effects. Finally, BOEM will continue all of the previously mentioned efforts in support of the Administration's goals for a carbon-pollution-free electric sector by 2035 and net-zero emissions economy-wide by 2050.

CLIMATE CHANGE RESILIENCE AND RESTORATION

BOEM fosters climate change resilience and ecosystem restoration in support of efforts to conserve and protect natural and human environments. BOEM adopts a comprehensive approach to climate resilience and conservation activities across its programs, incorporating perspectives from stakeholders, scientific studies and assessments, and trends in acute and gradual impacts resulting from climate change. BOEM recognizes the impact of OCS energy and mineral activities on the human environment and actively conducts outreach and engagement with stakeholders to improve data collection, advance mapping and resource stewardship planning, and reduce harm to ecological and human communities. Ensuring that BOEM applies the best available science and meets legal requirements provides BOEM with a guide and standard to effectively maintain its progress in enhancing environmental adaptation and resilience.

BOEM also contributes towards the Administration's goal to reach net-zero carbon emissions by 2050 through its role in Departmental carbon sequestration efforts. The IIJA gave DOI new authority for offshore carbon sequestration by authorizing leases, easements, and rights-of-way on the OCS to support carbon sequestration activities. The IIJA also directs the development of a regulation to carry-out these new authorities, which BOEM and BSEE are collaboratively developing. In FY 2024, BOEM requests resources to establish a dedicated offshore carbon sequestration program to support this mandate, which requires significant staff and resources to fully implement.

In addition to BOEM's environmental and carbon sequestration activities, BOEM's marine mineral activities also foster climate change resilience and restoration. OCSLA authorizes BOEM to convey, on a noncompetitive basis, the rights to OCS sediment resources to Federal, State, and local government agencies for shore protection, beach or coastal wetlands restoration projects, or construction projects funded or authorized by the Federal Government. Facilitating restoration of coastal habitats and reducing risk to infrastructure along the coasts, such as roads and defense facilities, are vital to the Nation's security, economy, and ecological well-being. BOEM's marine minerals activities directly contribute to the Administration's goal of climate change resilience, as stated in EO 14008. During FY 2024, BOEM

will continue development of its National Offshore Sand Inventory, which identifies sources of sand and other sediment to construct projects vital to the Nation's economy, coastal environment, and infrastructure. The National Offshore Sand Inventory enables BOEM to proactively plan for the increasing demands for OCS sediment resources, especially in emergencies. Additionally, BOEM continues building its nascent National Offshore Critical Mineral Inventory. BOEM is working to evaluate potential impacts from critical mineral mining and to define the tenets of responsible stewardship of seabed critical mineral resources. Through this work, BOEM will be better positioned to evaluate future requests to prospect for, lease, and potentially develop offshore critical minerals.

RESPONSIBLE MANAGEMENT OF THE NATION'S ENERGY RESOURCES

BOEM manages OCS oil and gas development in line with its obligations under the OCSLA and other statutes. In November 2021, the Department conducted a review of its oil and gas programs and published a report of its findings. The report identified key reforms necessary to ensure that the programs provide a fair return to taxpayers, discourage speculation, reduce environmental impacts, hold operators responsible for remediation, and create a more inclusive and just approach to managing public lands and waters. The Department's report made a number of specific recommendations to restore balance to these programs, including adjusting royalty rates, pursuing adequate financial assurance for decommissioning liabilities, and prioritizing leasing in areas with known resource potential while avoiding conflicts with other uses. The Department is in the process of implementing administrative changes consistent with the report's findings and recommendations and the IRA, including, where necessary, updating regulations and agency policy guidance documents that apply to existing leases as well as any new leases that may be issued. The Department is also implementing the IRA's direction with regard to lease sales in FY 2023 and FY 2024. The Administration is committed to the responsible and sustainable development of Federal energy resources as the Nation transitions to a low-carbon economy, and such reforms are a critical component of this effort.

As of February 1, 2023, BOEM manages 2,156 active oil and gas leases on approximately 11.5 million OCS acres. All of these leases were awarded following completion of the post-sale bid evaluation process that seeks to ensure fair market value is received for each lease. Offshore Federal oil and gas production in FY 2022 reached approximately 624.1 million barrels of oil and 775.5 million cubic feet of gas, almost all of which was produced in the Gulf of Mexico. This accounted for about 15 percent of all domestic oil production and 2 percent of domestic natural gas production. Annually, this production generates billions of dollars in revenue for U.S. taxpayers and State and local governments, while supporting hundreds of thousands of jobs. In FY 2022, conventional energy generated \$78.5 million in rent and \$6.3 billion in royalties from production.

BOEM also seeks to ensure a fair return for U.S. taxpayers from its renewable energy activities. As required by section 8(p) of OCSLA, BOEM has established payment terms to ensure a fair return to the U.S. Treasury for the rights conveyed by OCS renewable energy leases and grants. In FY 2022, \$6.8 million in rent and \$4.6 billion in bonuses were collected on OCS renewable energy leases. Revenue data is compiled by the Office of Natural Resources Revenue and can be found at <https://revenuedata.doi.gov/explore/>.

DIVERSITY, EQUITY, AND INCLUSION

BOEM activities support diversity, equity, inclusion, and accessibility efforts in alignment with the Administration policy. To support BOEM’s activities in these critical areas, BOEM utilizes a Reimbursable Service Agreement with BSEE, and has created a JEDI Committee to “advise the Bureau’s Senior Leadership Team, develop and periodically update a work plan with specific objectives and timelines, and otherwise advance justice, equality, diversity, and inclusion in BOEM and in the effects of BOEM’s programs on all people.” The JEDI Committee created a work plan with a focus on BOEM’s workplace. During FY 2023, BOEM intends to hire a Diversity and Inclusion Officer who will oversee BOEM’s JEDI functions. In FY 2023 BOEM initiated the creation of an Office of Diversity, Inclusion and Civil Rights that will be responsible for designing, developing, and recommending bureau-wide equity, diversity, and inclusion strategies, policies, and programs that align with and contribute directly to the DOI’s mission and strategic goals and ensure compliance with all Federal laws, regulations, and orders. The Office will provide advisory recommendations including BOEM-wide goals and objectives, and action plans designed to eliminate the underlying causes of problems or barriers to equal employment. The Office will work collaboratively with internal and external stakeholders and the Department to ensure equal employment opportunity and advance equity, diversity, and inclusion. In FY 2024, BOEM will continue championing diversity, equity, and inclusion activities through the build-out of this office.

TRIBAL CO-STEWARDSHIP

As part of BOEM’s commitment to transparency and inclusion, the budget includes additional support for engagement with Tribal Nations and the Native Hawaiian Community in the OCS leasing process through a dedicated Tribal liaison. BOEM’s support is part of a Department-wide effort to incorporate Tribal co-stewardship of Federal lands and waters that contain cultural and natural resources of significance and value to Indian Tribes and their members, including sacred religious sites, burial sites, wildlife, and sources of indigenous foods and medicines. This proposal helps to implement the multi-agency commitment to Tribal co-stewardship and DOI Secretarial Order, *Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters*.

GOOD ACCOUNTING OBLIGATION IN GOVERNMENT ACT REPORT

Good Accounting Obligation in Government Act Report

The Good Accounting Obligation in Government Act (GAO-IG Act, P.L. 115-414), enacted January 3, 2019, requires that Agencies report the status of each open audit recommendation issued more than one year prior to the submission of the Agency's annual budget justification to Congress. The Act requires Agencies to include the current target completion date, implementation status, and any discrepancies on closure determinations.

The Department of the Interior takes audit follow-up very seriously and considers our external auditors, to include the Government Accountability Office (GAO) and Office of the Inspector General, valued partners in not only improving the Department's management and compliance obligations but also enhancing its programmatic and administrative operations. As stewards of taxpayer resources, the Department applies cost-benefit analysis and enterprise risk management principles in implementing recommendation decisions.

The Department's GAO-IG Act Report will be available at the following link: <https://www.doi.gov/cj>

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Bureau Budget Tables

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Bureau Budget Tables

Table 3: Budget at a Glance

Bureau of Ocean Energy Management Budget at a Glance

Appropriation: Ocean Energy Management	2022 Actual	2023 Enacted	Fixed Costs (+/-)	Internal Transfers (+/-)	Program Changes (+/-)	2024 Request
Ocean Energy Management	206,748	219,960	+7,233	+0	+41,017	268,210
Renewable Energy	36,818	42,818	+1,129	+0	+20,520	64,467
<i>Updated Offsetting Collections Estimates</i>				[-2,703]		[-2,703]
<i>Updated Rental Receipts Estimates</i>				[+1,803]		[1,803]
<i>Updated Cost Recovery Estimates</i>				[+900]		[900]
<i>Integrated Renewable Energy Information Management System</i>					[+2,520]	[2,520]
<i>Inflation Reduction Act - Offshore Wind</i>					[+6,000]	[6,000]
<i>Renewable Energy Permitting</i>					[+12,000]	[12,000]
Conventional Energy	60,487	61,487	+3,302	+0	+7,513	72,302
<i>Updated Offsetting Collections Estimates</i>				[-5,151]		[-5,151]
<i>Updated Rental Receipts Estimates</i>				[+5,269]		[5,269]
<i>Updated Cost Recovery Estimates</i>				[-118]		[-118]
<i>Geographic Information System</i>					[+963]	[963]
<i>Offshore Carbon Sequestration</i>					[+6,550]	[6,550]
Marine Minerals	11,781	14,383	+272	+0	+1,716	16,371
<i>Updated Offsetting Collections Estimates</i>				[-433]		[-433]
<i>Updated Rental Receipts Estimates</i>				[+433]		[433]
<i>National Offshore Sand Inventory</i>					[+1,716]	[1,716]
Environmental Programs	79,763	82,373	+1,618	+0	+8,764	92,755
<i>Updated Offsetting Collections Estimates</i>				[-2,583]		[-2,583]
<i>Updated Rental Receipts Estimates</i>				[+2,583]		[2,583]
<i>Tribal Co-Stewardship</i>					[+500]	[500]
<i>Renewable Energy Environmental Reviews</i>					[+1,257]	[1,257]
<i>Offshore Carbon Sequestration</i>					[+2,340]	[2,340]
<i>Environmental Studies Program</i>					[+4,667]	[4,667]

Bureau Budget Tables

Executive Direction	17,899	18,899	+912	+0	+2,504	22,315
<i>Updated Offsetting Collections Estimates</i>				<i>[-1,456]</i>		<i>[-1,456]</i>
<i>Updated Rental Receipts Estimates</i>				<i>[+1,456]</i>		<i>[1,456]</i>
<i>Cost Recovery Fee Evaluation</i>					<i>[+500]</i>	<i>[500]</i>
<i>Office of Diversity, Inclusion and Civil Rights</i>					<i>[+660]</i>	<i>[660]</i>
<i>Program Support Capacity</i>					<i>[+1,344]</i>	<i>[1,344]</i>
TOTAL, Ocean Energy Management	206,748	219,960	+7,233	+0	+41,017	268,210

The order of program changes reflects a numerical order rather than priority.

Table 4: Summary of Requirements

Summary of Requirements
Bureau of Ocean Energy Management
Ocean Energy Management

(Dollars in Thousands)

	2022 Actual	2022 <i>Enacted Total FTE</i>	2023 Enacted	2023 <i>Enacted FTE</i>	2024 Request Fixed costs (+/-)	2024 Request Internal Transfers (+/-)	2024 Request Program Changes (+/-)	2024 <i>Request Program Changes (+/-) FTE</i>	2024 Request	2024 <i>Request FTE</i>	2024 Request TOTAL Change from 2023 (+/-)
Ocean Energy Management											
Ocean Energy Management											
Renewable Energy											
Direct Appropriation	33,349	88	37,990	104	+1,129	-2,253	+20,520	32	57,386	136	18,946
Rental Receipts	3,321		4,378	-		+1,803			6,181	-	1,803
Cost Recoveries	148		450	-		+450			900	-	900
Total, Renewable Energy	36,818	88	42,818	104	+1,129	-	+20,520	32	64,467	136	+21,649
Conventional Energy											
Direct Appropriation	54,419	267	55,746	304	+3,302	-5,601	+7,513	10	60,960	314	5,664
Rental Receipts	4,291		4,307	-		+5,269			9,576	-	5,269
Cost Recoveries	1,777		1,434	-		+332			1,766	-	-118
Total, Conventional Energy	60,487	267	61,487	304	+3,302	-	+7,513	10	72,302	314	+10,815
Marine Minerals											
Direct Appropriation	10,541	21	13,219	25	+272	-433	+1,716	-	14,774	25	1,555
Rental Receipts	1,240		1,164	-		+433			1,597	-	433
Total, Marine Minerals	11,781	21	14,383	25	+272	-	+1,716	-	16,371	25	+1,988

Summary of Requirements
Bureau of Ocean Energy Management
Ocean Energy Management

(Dollars in Thousands)

Ocean Energy Management	2022 Actual	2022 Enacted Total FTE	2023 Enacted	2023 Enacted FTE	2024 Request Fixed costs (+/-)	2024 Request Internal Transfers (+/-)	2024 Request Program Changes (+/-)	2024 Request Program Changes (+/-) FTE	2024 Request	2024 Request FTE	2024 Request TOTAL Change from 2023 (+/-)
Environmental Programs											
Direct Appropriation	51,092	149	53,367	149	+1,618	-2,583	+8,764	11	61,166	160	7,799
Rental Receipts	28,671		29,006	-		+2,583			31,589	-	2,583
Total, Environmental Programs	79,763	149	82,373	149	+1,618	-	+8,764	11	92,755	160	+10,382
Executive Direction											
Direct Appropriation	15,050	66	15,644	84	+912	-1,456	+2,504	9	17,604	93	1,960
Rental Receipts	2,849		3,255	-		+1,456			4,711	-	1,456
Total, Executive Direction	17,899	66	18,899	84	+912	-	+2,504	9	22,315	93	+3,416
TOTAL, OCEAN ENERGY MANAGEMENT	206,748	591	219,960	666	+7,233	-	+41,017	62	268,210	728	+48,250

Table 5: Fixed Costs

Bureau of Ocean Energy Management
Ocean Energy Management
Justification of Fixed Costs Changes

(Dollars In Thousands)

Fixed Cost Element	2023 Change	2023 to 2024 Request Change	Description
Change in Number of Paid Days	-424	+473	This column reflects changes in pay associated with the change in the number of paid days between 2023 and 2024. 2024 has one day more than 2023.
Pay Raise	+4,411	+5,959	The President's Budget for 2024 includes one quarter of the 4.6% pay raise for 2023 and three quarters of a planned 5.2% pay raise for 2024.
Employer Share of Federal Employee Retirement System (FERS)	0	0	This column reflects no budgeted increase to the employer contribution to the Federal Employee Retirement System and a 0.6% increase to the employer contribution for the Law Enforcement Federal Employees Retirement System.
Departmental Working Capital Fund (WCF)	+5	+116	The change reflects the final 2024 Central Bill approved by the Working Capital Fund Consortium.
Workers' Compensation Payments	-9	+5	The amounts reflect final chargeback costs of compensating injured employees and dependents of employees who suffer accidental deaths while on duty. Costs for 2024 will reimburse the Department of Labor, Federal Employees Compensation Fund, pursuant to 5 U.S.C. 8147(b) as amended by Public Law 94-273.
Unemployment Compensation Payments	0	+4	The amounts reflect projected changes in the costs of unemployment compensation claims to be paid to the Department of Labor, Federal Employees Compensation Account, in the Unemployment Trust Fund, pursuant to Public Law 96-499.
Rental Payments	+37	+676	The amounts reflect changes in the costs payable to General Services Administration (GSA) and others for office and non-office space as estimated by GSA, as well as the rental costs of other currently occupied space. These costs include building security. Costs of mandatory office relocations, i.e., relocations in cases where due to external events there is no alternative but to vacate the currently occupied space, are also included.
Baseline Adjustments for O&M Increases	0	0	In accordance with space maximization efforts across the Federal Government, this adjustment captures the associated increase to baseline operations and maintenance requirements resulting from movement out of GSA or direct-leased (commercial) space and into Bureau-owned space. While the GSA portion of fixed costs will go down as a result of these moves, Bureaus often encounter an increase to baseline O&M costs not otherwise captured in fixed costs. This category of funding properly adjusts the baseline fixed cost amount to maintain steady-state funding for these requirements.
Account Total Fixed Cost	+4,020	+7,233	

Table 6: Internal Realignments

**Bureau of Ocean Energy Management
Ocean Energy Management
Justification of Internal Realignments**

(Dollars In Thousands)

Internal Realignments and Non-Policy/Program Changes (Net-Zero)	2024 (+/-)	Description
Renewable Energy - direct appropriations/offsetting collections	-2,253/+2,253	This is a technical adjustment to reflect a change in the composition of BOEM's budget, due mostly to a shift in the portion of the budget funded through direct appropriations versus offsetting collections.
Conventional Energy - direct appropriations/offsetting collections	-5,601/+5,601	This is a technical adjustment to reflect a change in the composition of BOEM's budget, due mostly to a shift in the portion of the budget funded through direct appropriations versus offsetting collections.
Marine Minerals - direct appropriations/offsetting collections	-433/+433	This is a technical adjustment to reflect a change in the composition of BOEM's budget, due mostly to a shift in the portion of the budget funded through direct appropriations versus offsetting collections.
Environmental Programs - direct appropriations/offsetting collections	-2,583/+2,583	This is a technical adjustment to reflect a change in the composition of BOEM's budget, due mostly to a shift in the portion of the budget funded through direct appropriations versus offsetting collections.
Executive Direction - direct appropriations/offsetting collections	-1,456/+1,456	This is a technical adjustment to reflect a change in the composition of BOEM's budget, due mostly to a shift in the portion of the budget funded through direct appropriations versus offsetting collections.
Net Account Total, Internal Transfers	0	

Renewable Energy

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Renewable Energy

Table 7: Renewable Energy Budget Summary

Activity: Renewable Energy

Dollars in Thousands (\$000)

Renewable Energy	2022 Actual	2023 Enacted	2024 Fixed Costs (+/-)	2024 Internal Transfers (+/-)	2024 Program Changes (+/-)	2024 Request	Change from 2023 Enacted (+/-)
Renewable Energy \$	36,818	42,818	+1,129	0	+20,520	64,467	+21,649
<i>FTE</i>	88	104	0	0	+32	136	+32

Advancing renewable energy and creating good paying jobs is a centerpiece of the Biden-Harris Administration’s agenda. Offshore wind has the potential to play a critical role in transitioning the Nation to clean renewable energy and building a new domestic industry from the ground floor. The Departments of the Interior, Energy, and Commerce have established a goal to deploy 30 GW of offshore wind production capacity by 2030, which could support nearly 80,000 jobs. As the lead agency for offshore wind planning and leasing, BOEM is central to achieving that target. To support the Administration’s goal, BOEM plans to advance new lease sales and complete the review of at least 16 construction and operations plans (COPs) by 2025. These 16 plans propose up to nearly 27 GW of new clean energy for the Nation. Further, in the beginning of FY 2022, the Secretary of the Interior released an offshore wind leasing strategy, which includes holding up to seven lease sales by 2025, to help create transparency and greater certainty to spur domestic investments in offshore wind. In September 2022, the Department also established a goal of 15 GW of floating offshore wind by 2035.

Renewable energy development activities include the siting and construction of offshore wind facilities on the OCS, as well as the development of other forms of offshore renewable energy resources such as wave and current energy. BOEM facilitates the responsible development of renewable energy resources on the OCS through conscientious planning; meaningful engagement with government entities, Tribes, stakeholders, and ocean users; comprehensive environmental analysis; and sound technical review.

In FY 2024, BOEM will continue to advance its renewable energy program through identifying new Wind Energy Areas (WEAs), pursuing informed leasing efforts, and improving its permitting and environmental review processes. This includes an efficient and effective process for reviewing plans to develop existing leases, and an inclusive and efficient process for identifying areas for potential future

lease sales. BOEM will continue focusing on reviewing proposals for potential renewable energy projects spurred by the renewable energy goals of the Administration and coastal States.

As explained below, project proposals are anticipated to surpass the Administration's goals and involve the Atlantic, Pacific, and Gulf of Mexico. Therefore, BOEM is requesting additional funding and staff to meet industry demand. Also noted below, BOEM workload will increase as it fulfills the Department's new responsibilities under Section 50251 of the IRA, which expands Departmental jurisdiction under OCSLA to include renewable energy offshore the U.S. Territories and mandates that BOEM work with the Territorial governments to consider the interest in and feasibility of offshore wind.

The FY 2024 budget will support:

- **Advancing Renewable Energy:** As the lead agency for offshore wind planning and leasing, BOEM's work is fundamental to the Administration's efforts to advance the responsible development of renewable energy on the OCS. By contributing to building the Nation's clean energy future, BOEM's activities align with the Administration's priority to create good paying jobs.
- **Competitive Lease Auctions/Sales:** In FY 2022, the Secretary of the Interior announced an Offshore Wind Leasing Path Forward for sales through 2025, which will help achieve and surpass the Administration's goal to deploy 30 GW of offshore wind energy by 2030. The Path Forward includes up to 7 lease sales by 2025 and is intended to help create transparency and greater certainty. BOEM has conducted eleven lease sales since 2013, including FY 2022 sales in the New York Bight that generated over \$4.37 billion in bonus bids for the Treasury — an all-time high for any offshore energy lease sale — and offshore the Carolinas that generated \$315 million in high bids. On December 6, 2022, BOEM held a lease sale offshore California that generated over \$757 million in high bids. BOEM is also planning sales for FY 2023 and 2024 for areas located in the Gulf of Mexico, offshore the U.S. Central Atlantic and Oregon, and in the Gulf of Maine. In FY 2022, BOEM received the authority to conduct offshore wind leasing offshore the U.S. Territories and in FY 2023 will begin moving forward with its lease planning process in Puerto Rico.
- **Advancing Project Reviews:** Commercial lease holders have up to approximately five years after lease issuance to conduct site assessment activities and submit a COP that describes the lessee's proposal to construct and operate one or more wind energy projects on its leasehold. BOEM must conduct environmental and technical reviews of any plan and decide whether to approve, approve with modification, or disapprove the plan. As of February 2023, BOEM has approved two COPs, and those projects, Vineyard Wind 1 and South Fork Wind, are under construction. BOEM is actively processing 16 additional plans (of which ten have environmental impact statements (EISs) underway) and expects to receive one additional plan in 2023. In FY 2022, BOEM issued a Record of Decision (ROD) for the South Fork project, initiated EISs for two projects, published draft EISs for two projects, and began the programmatic EIS process for construction and operation of offshore wind projects in the New York Bight. During FY 2023, BOEM plans to issue one ROD for offshore wind projects and initiate EISs for approximately three projects. In FY 2023, BOEM plans to initiate a programmatic EIS for construction and operation of wind projects offshore northern and central California, and in FY 2024, BOEM plans to prepare a programmatic EIS for proposed projects in the

Gulf of Mexico to streamline environmental reviews and consultations. In FY 2024, BOEM expects to issue another eight RODs for projects along the Atlantic coast. As early as FY 2024, BOEM anticipates receiving additional COPs for leases in the New York Bight. Subsequent fiscal years will see the submittal of COPs for other areas of the Atlantic as well as the Pacific and Gulf of Mexico.

- **Community and Stakeholder Engagement:** BOEM will continue to address environmental justice by implementing best practices in both NEPA analyses and engagement activities. BOEM will also continue to work with its Federal partners to identify areas of collaboration in supporting an all-of-government approach to environmental justice through offshore wind planning and environmental assessment. BOEM created an environmental justice workplan with objectives on (1) sound methodologies and best practices for environmental justice analysis in NEPA, (2) outreach and engagement with environmental justice communities, (3) advance studies and contributions to environmental justice research, and (4) education and training on environmental justice for BOEM staff. There are several engagement efforts within the workplan that directly relate to offshore wind in the Atlantic. The Underserved Community Dialogues on Offshore Wind in the Atlantic were held in March 2022, which in turn informed an Environmental Justice Roundtable Convening Series on the New York Bight and led to the development of quarterly New York and New Jersey Environmental Justice Forums to inform the New York Bight Programmatic EIS. BOEM also plans to launch an environmental justice website in FY 2023 to support outreach and information sharing. Additionally, BOEM included a new stipulation in the two most recent offshore wind lease sales that requires lessees to submit a semi-annual progress report on engagement activities with parties, including underserved communities potentially affected by proposed offshore wind activities, and describe how, if at all, a project has been informed or altered to address those impacts. BOEM conducts environmental justice analyses on lease sales and COPs during environmental reviews in accordance with NEPA and specific requirements. BOEM will also conduct environmental justice analysis through Programmatic EISs, and use targeted workshops, community engagement, and studies to continually inform our analyses. In doing so, BOEM considers a broad spectrum of potential impacts to environmental justice communities informed through public scoping and meaningful engagement.
- **Ocean User, Tribal Nation, and Stakeholder Engagement:** By meeting with and engaging ocean users, Tribal Nations, and stakeholders, BOEM is made aware of potential issues and is able to resolve these issues in a timely manner. Through this outreach, the areas most suitable for renewable energy development can be identified while potential impacts and multiple-use conflicts within a specific area can be mitigated. BOEM is focused on further engaging and consulting with Tribal Nations and is developing strategies to better engage all ocean users moving forward. In FY 2022, BOEM held additional meetings throughout the leasing process, re-designed a webpage for the fishing industry, and drafted a more holistic Fisheries Mitigation Strategy to address fishing industry concerns. BOEM will continue these important efforts during FY 2023. BOEM has started including stipulations in new leases requiring lessees to develop and make available Native American Tribes Communication Plans, Fisheries Communication Plans, and Agency Communication Plans, and include information about how communications described in those plans are progressing in semiannual reporting to BOEM.

- **Intergovernmental Coordination and Collaboration:** To help inform BOEM’s planning and leasing process, BOEM has established intergovernmental renewable energy task forces along the Atlantic, Pacific, and Gulf coasts that consist of Federal agencies and Tribal, State, and local governments. BOEM established the Gulf of Mexico Regional Task Force in FY 2021; three Task Force meetings have been held as of February 2023. In FY 2022, BOEM established the Central Atlantic Regional Task Force, which held its first meeting in February 2022. BOEM also hosted virtual meetings throughout FY 2022 with the California, Oregon, and Gulf of Maine Intergovernmental Renewable Energy Task Forces.

BOEM also co-chairs an interagency permitting workgroup to ensure a coordinated Federal approach to reviewing project plans. BOEM utilizes memoranda of agreement or understanding (MOAs or MOUs) with multiple Federal and State agencies to further the shared goal of advancing offshore renewable energy. In January 2022, BOEM finalized an MOU with the National Oceanic and Atmospheric Administration (NOAA) to responsibly advance offshore wind, focusing on areas of potential collaboration between both agencies. BOEM has been collaborating with NOAA, the Department of Energy (DOE), and the Department of Transportation, along with several other Federal partners, to develop and implement an all-of-government work plan for offshore wind. This plan will focus on ensuring robust interagency coordination and cooperation to increase efficiencies and advance offshore wind development in the United States.

- **Science and Technology Research:** The Renewable Energy Program is supported by a substantial investment in research. The Program is helping fund and assisting with developing design standards for offshore renewable energy facilities appropriate for the OCS, a regional port assessment for California, and an infrastructure assessment for the Port of Coos Bay. Recently completed research projects studied axial cyclic loading of jacket piles, suction bucket foundation feasibility, corrosion and fatigue life, Pacific region geologic hazards, a desktop study of geological and geotechnical conditions on the Atlantic and Gulf of Mexico OCS, hydrogen production from offshore wind, and wind density and wake effects. Current studies nearing completion in 2023 include corrosion inside monopiles, cable burial risks and methodologies, and California geologic hazards.

SUMMARY OF 2024 PROGRAM CHANGES

Summary of 2024 Program Changes for Renewable Energy

Program Changes:	(\$000)	FTE
Integrated Renewable Energy Information Management System	+2,520	+1
Inflation Reduction Act - Offshore Wind	+6,000	+8
Renewable Energy Permitting	+12,000	+23
TOTAL Program Changes	+20,520	+32

* Changes listed in order of budget activity, not priority.

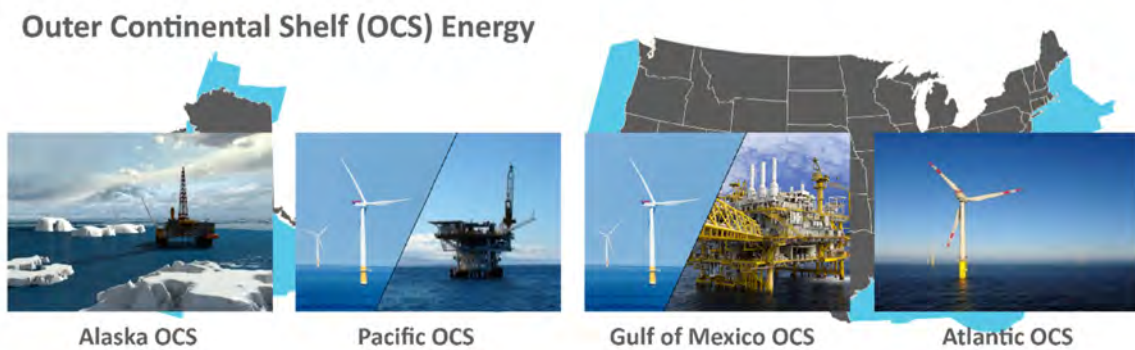
Integrated Renewable Energy Information Management System (+\$2,520,000; +1 FTE). BOEM requests resources for the development and implementation of IREIMS to automate key portions of the offshore renewable energy planning, leasing, and plan review processes. BOEM currently uses disparate software applications to manage and track information related to its Renewable Energy Program. These tools are not sufficient to handle the complex processing and data needs of executing the program and lack system controls, which would be remedied with an integrated information management system focused on renewable energy processes. This implementation effort follows a multi-year planning effort to document business processes, capture system requirements, and investigate possible technology solutions.

Inflation Reduction Act – Offshore Wind Leasing (+\$6,000,000; +8 FTE). These funds support implementation of the Department of Interior’s new authority under the IRA to advance wind leasing for areas of the OCS offshore U.S. Territories. Requested resources would enable BOEM to implement this new authority by supporting essential personnel to initiate renewable energy activities within the U.S. Territories and collect baseline data needed for these new areas. Funds would also support activities such as environmental studies and assessments, technology research, offshore wind lease sale auctions, and development of protraction diagrams and supplemental official block diagrams. BOEM intends to use emerging, innovative, and less costly technologies such as satellite information, drones, uncrewed vehicles, and cutting-edge sensors for eDNA, acoustic, and optical data collection and storage to assess the almost 400 million acres of OCS surrounding the five permanently inhabited Territories (Puerto Rico, U.S. Virgin Islands, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands). The IRA requires that an initial call for information and nominations be issued no later than September 30, 2025.

Renewable Energy Permitting (+\$12,000,000; +23 FTE). Resources would support the advancement of the Administration’s clean energy goals by supporting an expeditious and efficient permitting process. Funds would be utilized to improve BOEM’s service and accountability to stakeholders and the regulated community through enhanced environmental analysis, assessment, and technical research in support of decisions at all phases of the renewable energy life cycle, while also strengthening the NEPA process bureau-wide. The requested FTE and resources will enable BOEM to address NEPA activities associated with the Renewable Energy Program and ensure sufficient support for developing programmatic, bureau-wide solutions aimed at expediting project reviews across all regions and ensure the best and most up-to-date scientific information is available prior to, and throughout, the BOEM Renewable Energy leasing

process. Requested resources and FTE will also enable BOEM to expedite technical plan reviews for renewable energy by expanding its technical assessment and research capabilities, particularly in areas where BOEM does not have sufficient expertise such as: subsea cables, transmission, aviation, electrical engineering, and facility modeling. These FTEs would also review site characterization survey (geological, geophysical, hazard, and geotechnical surveys) design and coordination (pre-survey) and the results necessary for the approval of Site Assessment Plans (SAPs), General Activity Plans, and COPs.

PROGRAM OVERVIEW



The OCS has significant potential as a source of new domestic energy generation from renewable energy resources. Section 388 of the Energy Policy Act of 2005 amended OCSLA (section 8(p)) to give the Secretary of the Interior the authority to issue leases, easements, and rights-of-way on the OCS for activities that produce or support production, transportation, or transmission of energy from sources other than oil and gas.

Section 8(p) also authorized the Secretary to permit OCS activities that repurpose facilities currently or previously used for activities authorized under OCSLA. Renewable energy and alternate use projects may include wind, wave, and ocean current energy projects, as well as projects that make alternative use of existing oil and gas or other platforms on the OCS.

In 2009, BOEM published its renewable energy regulations, implementing section 8(p) of OCSLA. These regulations established a framework for orderly, safe, and environmentally responsible OCS renewable energy development and providing for a fair return for use of OCS lands. Also in 2009, DOI and the Federal Energy Regulatory Commission (FERC) signed an MOU that provided for joint regulation of potential OCS wave and ocean current projects.

Since these regulations were established, BOEM has worked diligently to facilitate renewable energy development spurred in part by renewable energy goals of coastal States. As of February 2023, BOEM has conducted eleven competitive wind energy lease sales for areas offshore the Atlantic and Pacific coasts, representing over 2.5 million acres of commercial wind energy lease areas offshore of Delaware, Maryland, Massachusetts, New Jersey, New York, North Carolina, Rhode Island, South Carolina, Virginia, and California.

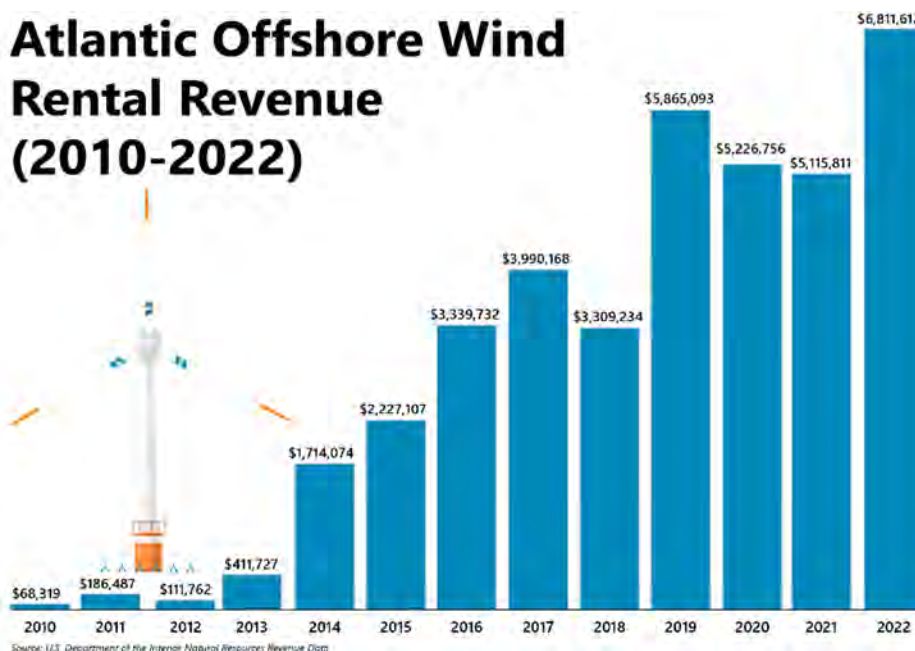


Block Island Wind Farm Project

Additionally, BOEM conducted a lease sale in California on December 6, 2022, and is preparing for a potential lease sale in the Gulf of Mexico for August 2023. BOEM is in the planning stages to identify additional areas in the Gulf of Maine, and offshore the Central Atlantic, Hawaii, and Oregon. BOEM also received unsolicited lease requests for areas offshore Washington and will continue to assess interest in these areas.

BOEM also manages transmission and research projects related to wind energy development on the OCS. In 2014, BOEM executed its first transmission right-of-way grant offshore Rhode Island for the Block Island Wind Farm, which became the first operational wind facility offshore the U.S. in late 2016. In 2015, BOEM executed its first wind energy research lease on the OCS with the Commonwealth of Virginia’s Department of Mines, Minerals and Energy. Final action on the research lease was completed by BOEM in 2019, and the two-turbine research project became fully operational in 2020. The research project is the first installed on the OCS and will inform the development of an existing commercial lease offshore Virginia.

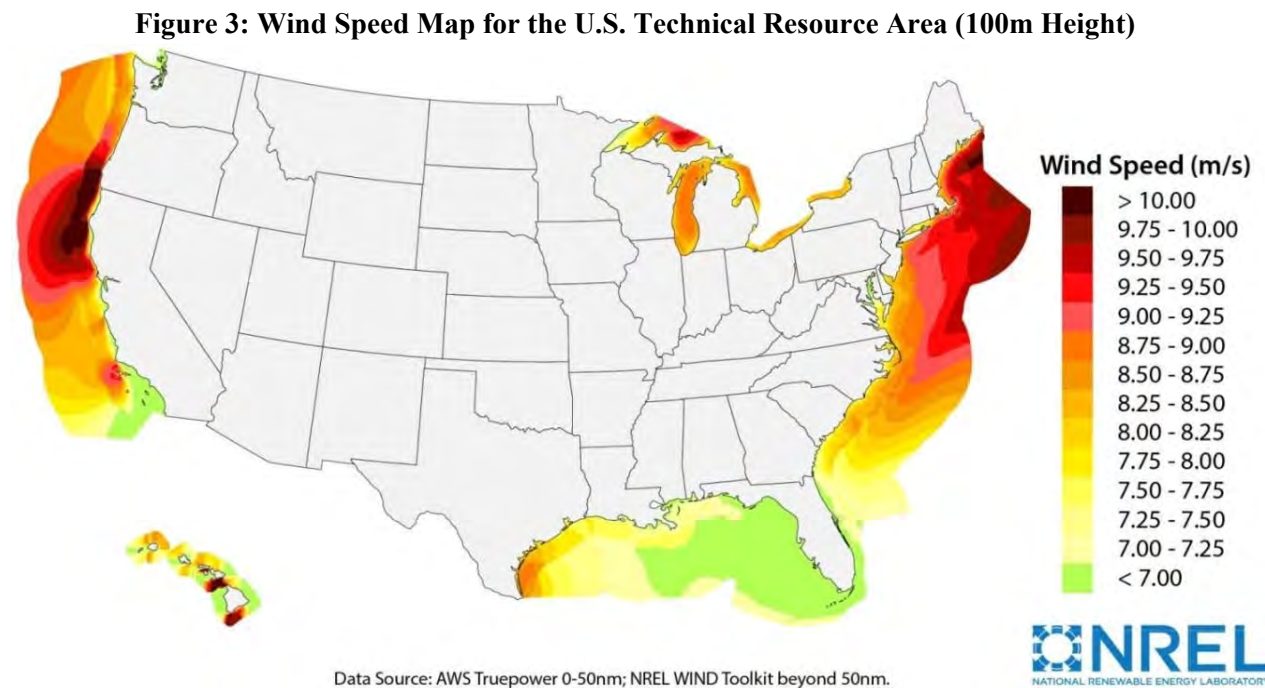
Figure 2: Revenue Data Compiled by the DOI Office of Natural Resources Revenue



BOEM seeks to ensure the American taxpayer receives fair return for the use of OCS resources. As required by section 8(p) of OCSLA, BOEM has established payment terms to ensure a fair return to the U.S. Treasury for the rights conveyed by OCS renewable energy leases and grants. In FY 2022, \$6.8 million in rent was collected on OCS renewable energy leases. In FY 2022, BOEM also generated over \$4.6 billion in bonus bids from renewable energy lease sales conducted through the competitive leasing process. This figure includes the New York Bight offshore wind sale BOEM held on February 23, 2022. The sale resulted in winning bids from six companies totaling approximately \$4.37 billion, the Nation's highest-grossing competitive offshore energy lease sale in history, including oil and gas lease sales. Revenue data is compiled by the Office of Natural Resources Revenue and can be found at <https://revenuedata.doi.gov/>.

➤ **Offshore Energy Sources**

Wind is the predominant source of offshore renewable energy being developed in the United States. Offshore winds tend to flow at higher sustained speeds than onshore winds, making offshore turbines more efficient than their onshore counterparts. Figure 3 shows areas along the coasts of the Atlantic, Pacific, and Gulf of Mexico that have the greatest technical potential for offshore wind energy production based on wind speeds.



According to DOE’s *Offshore Wind Market Report: 2022 Edition*, recent growth in the offshore wind energy project development and operational pipeline has increased the potential generating capacity of offshore wind to 40.1 MW for the United States. This represents a 13.5 percent, or nearly 5 MW, increase in project pipeline capacity from 2020 to 2021.



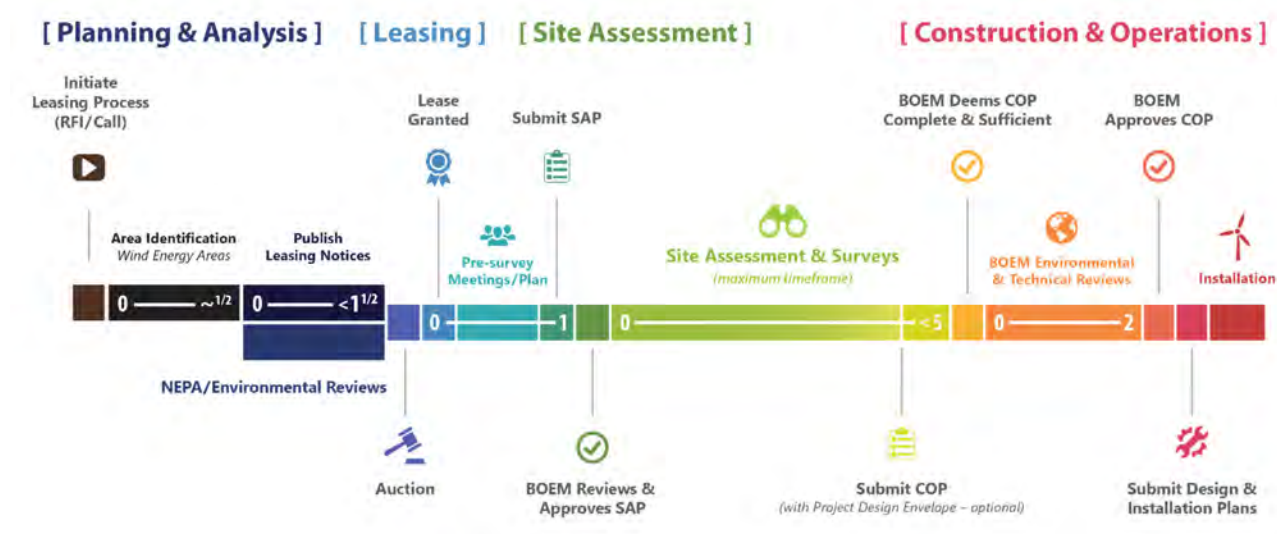
In the future, BOEM anticipates development of renewable energy on the OCS could also come from ocean waves and ocean currents. In February 2021, BOEM issued a lease to support the testing of wave energy equipment on the OCS offshore Oregon, which could help advance the development of marine hydrokinetic technologies.

RENEWABLE ENERGY AUTHORIZATION PROCESS

The identification of WEAs, the issuance of leases, and the subsequent review of energy development activities on the OCS is a staged decision-making process comprised of four distinct phases: (1) planning and analysis; (2) issuance of a lease or grant; (3) site assessment; and (4) construction and operations. BOEM involves other Federal agencies (e.g., BSEE, the U.S. Fish and Wildlife Service (FWS), NOAA), and State, local, and Tribal governments throughout all phases of renewable energy development. Figure 4 outlines BOEM’s process for authorizing wind energy leases.

Figure 4: Phases of BOEM’s Offshore Wind Energy Authorization Process

(numbers in timeline represent years)





The **Planning and Analysis phase** seeks to identify suitable areas for wind energy leasing consideration through collaborative, consultative, and analytical processes that engage ocean users, stakeholders, Tribal governments, and State and Federal agencies. In this phase, BOEM coordinates with stakeholders and ocean users to deconflict potential renewable energy lease areas with existing uses on the OCS. After identifying WEAs, BOEM conducts environmental reviews and consultations with Tribes, States, and natural resource agencies to consider reasonably foreseeable impacts associated with leasing (e.g., site characterization surveys and site assessment activities). Once the environmental review and consultations are completed for a WEA, BOEM may proceed to the leasing phase.



The **Leasing phase** results in the issuance of a commercial wind energy lease or right-of-way grant for energy transmission projects. Leases and grants may be issued either through a competitive or noncompetitive process. BOEM will publish a notice in the *Federal Register* to announce potential future leasing and solicit interest in leasing a specific area of the OCS. If more than one qualified entity is interested in leasing the area identified in the notice, BOEM will move forward with its competitive leasing process, otherwise BOEM may proceed non-competitively. A commercial lease gives the lessee the exclusive right to seek BOEM approval for the development of the leasehold. The lease does not provide the lessee the right to construct particular facilities; rather, the lease provides the right to use the leased area to conduct surveys and develop its site assessment and construction and operations plans, which must be approved by BOEM before the lessee can move on to the next stage of the process. Leases include stipulations related to rental and operating fees, noncompliance, indemnification, financial assurance requirements, environmental protection operating conditions for conducting surveys, national security and military operations, and other issues. Right-of-way grants authorize the holder to install cables, pipelines, and associated facilities that involve the transportation or transmission of electricity or other energy products from renewable energy projects.



The **Site Assessment phase** includes the submission of a SAP, which contains the lessee's detailed proposal for the construction and operation of a meteorological tower and/or the installation of meteorological buoys on the leasehold to conduct site assessment studies. The lessee's SAP must be approved by BOEM before the lessee conducts these activities. During this phase the lessee conducts site characterization surveys to support the development of its COP.



The **Construction and Operations phase** includes the submission of a COP detailing the lessee's proposal to construct and operate a wind energy project on the lease. BOEM requires a general activities plan, similar to a COP, for facilities constructed under a research lease or right of way. BOEM conducts environmental and technical reviews of these plans and decides whether to approve, approve with modification, or disapprove the plan. At the end of the lease or grant term, the developer must decommission facilities in compliance with BOEM and BSEE regulations.

PLANNING AND ANALYSIS

Under OCSLA, BOEM is statutorily required to coordinate and consult with Federal, Tribal, State, and local agencies throughout the renewable energy development process. BOEM establishes renewable energy task forces as a critical component of its planning and outreach activities. The task forces facilitate intergovernmental communications regarding OCS renewable energy activities to ensure that information needs, multiple-use concerns, and associated solutions are identified early in the leasing process.



Gulf of Maine Task Force Meeting

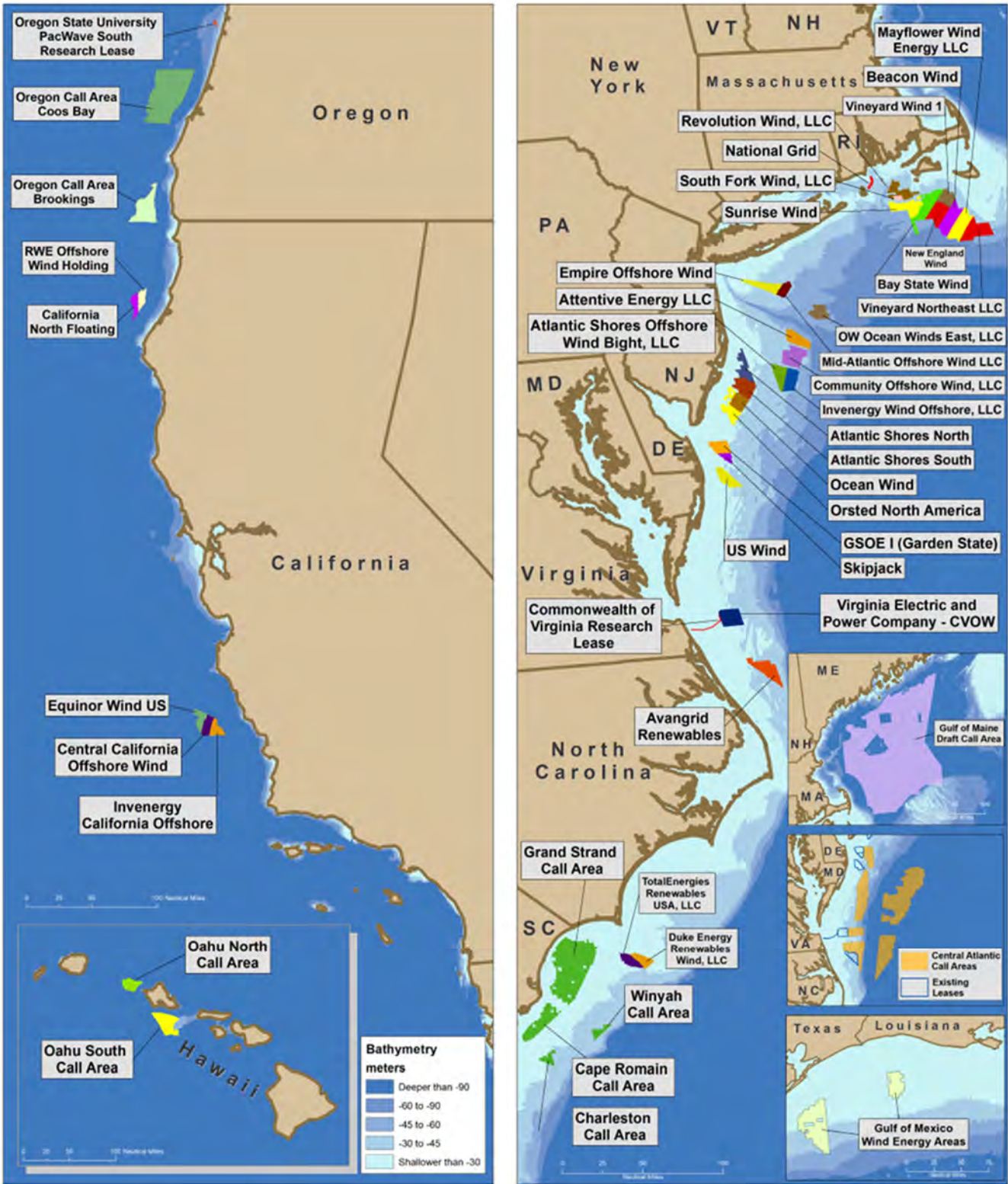
Task forces continue to be a useful tool in helping to inform decision-making as BOEM considers areas of the OCS for renewable energy leasing and development and as BOEM evaluates project plans on existing leases. Such task forces are established in States or regions where the Governor(s) contacted BOEM to express interest in development of offshore renewable energy, or at BOEM's suggestion after receipt of an unsolicited proposal offshore that State. To date, BOEM has established intergovernmental task forces in Maine, Massachusetts, Rhode Island, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Florida, Oregon, Hawaii, and California, and regional task forces for the New York Bight, Carolina Long Bay, the Gulf of Maine, the Gulf of Mexico, and the Central Atlantic. These task forces have helped identify areas of significant promise and interest for offshore development, in addition to providing early identification and steps toward resolution of potential conflicts. Where appropriate, BOEM is combining many of the State task forces into regional task forces to better facilitate coordination on regional issues. With the submission of two unsolicited lease requests offshore Washington, BOEM anticipates the formation of an intergovernmental task force in Washington in either FY 2023 or FY 2024.

During FY 2020, BOEM responded to the COVID-19 global pandemic by increasing the use of webinars while in-person meetings were not feasible. In addition, BOEM created virtual meeting rooms with targeted information stations focused on key issues so that those who could not attend a virtual public hearing session could still access the meeting materials. BOEM has continued this practice, holding virtual public hearings to ensure the health and safety of BOEM staff and the public and to reduce cost and time demands that frequent in-person meetings place upon the government and the stakeholder community. In FY 2022, BOEM held 16 virtual meetings to solicit public input on environmental reviews for proposed leasing and development on the Atlantic OCS. In the Pacific Region, continued engagement meetings were held both virtually and in person with stakeholders and Tribes in California, Oregon, Hawaii, and Washington. In addition, BOEM held eight Central Atlantic virtual stakeholder engagement meetings and a number of virtual Intergovernmental Task Force meetings with the Central Atlantic, Gulf of Maine, Oregon, California, and Gulf of Mexico in FY 2022. In FY 2023, BOEM plans to hold over 30 virtual and in person public engagement meetings throughout the year.

➤ **Identification of WEAs**

A key element of the Planning and Analysis phase is the identification and refinement of WEAs, which are areas on the OCS that appear to be most suitable for renewable energy development due to fewer potential multiple-use and environmental conflicts, such as commercial vessel traffic, fishing or other uses, feeding or calving areas for endangered species, and high concentrations of birds. Through consultation with BOEM's intergovernmental task forces, existing ocean users, and other stakeholders, BOEM identifies WEAs through its Area Identification (Area ID) process. The WEAs serve as the basis for further environmental review of where lease areas may be identified for sale. In FY 2021, BOEM initiated a review of its Area ID process to ensure lessons learned from prior planning and leasing efforts are appropriately integrated into the process. In FY 2022, BOEM modified the Area ID process to include additional public input opportunities and spatial modeling to ensure greater transparency and the use of the best available science; a Notice to Stakeholders with more detail is available at <https://www.boem.gov/newsroom/notes-stakeholders/boem-enhances-its-processes-identify-future-offshore-wind-energy-areas>. The existing leases, WEAs, and Call for Information and Nominations Areas along the Atlantic and Pacific coasts and in the Gulf of Mexico are shown in Figure 5.

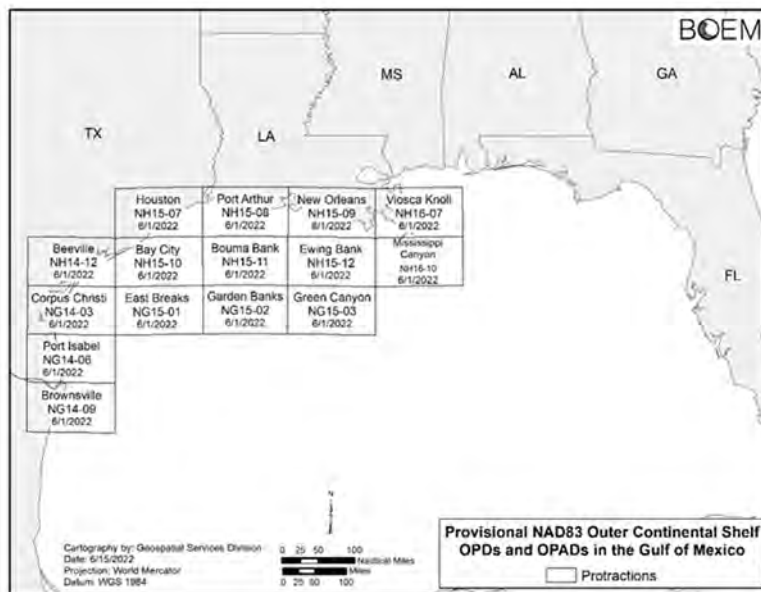
Figure 5: Renewable Energy Leases and Wind Energy Areas



➤ **BOEM’s New Orleans, Louisiana Office**

BOEM’s New Orleans, Louisiana Office is moving ahead for future offshore renewable energy leasing and development in the Gulf of Mexico in FY 2023. In October 2020, the State of Louisiana requested BOEM to establish a State task force. The Gulf of Mexico Regional Task Force was established in response, and the first meeting was held on June 15, 2021. This meeting included representation from the States of Louisiana, Texas, Mississippi, and Alabama. Two additional Task Force meetings were held in FY 2022. BOEM published the Request for Interest in Commercial Leasing for Wind Power Development on the Gulf of Mexico OCS in June 2021, and a Call for Information and Nominations on November 1, 2021. Based on the expressions of interest received in response to the Request for Interest and the Call, BOEM determined that competitive interest exists in the area identified. On October 31, 2022, BOEM announced the Final WEAs in the Gulf of Mexico; BOEM anticipates holding a lease sale in FY 2023. In July 2022, BOEM published a draft environmental assessment for public input and comment and will complete the environmental assessment process prior to the release of a Final Sale Notice. Additionally, in FY 2022, BOEM received an unsolicited lease request for wind projects offshore Louisiana. The requestor is currently undergoing the BOEM qualification process.

Figure 6: Provisional NAD83 Outer Continental Shelf Provisional Official Protraction Diagrams and Provisional Official Protraction Aliquot Diagrams in the Gulf of Mexico



BOEM is responsible for the creation of official diagrams with delineated boundaries to administer its OCS leasing programs. Renewable energy leasing activities in the Gulf of Mexico will be conducted using the North American Datum of 1983 (NAD83). This is a major change for Gulf stakeholders, as North American Datum of 1927 (NAD27) has been used for oil and gas leasing since the 1940s. Having common mapping standards is critical for managing different uses of the OCS, and this change is an effort to modernize Gulf of Mexico offshore mapping to the current NAD83 standard used in all other OCS regions. BOEM’s first Gulf of Mexico commercial wind energy lease sale is planned for FY 2023, requiring that BOEM expeditiously build the new NAD83 offshore marine cadastral grid and associated

official diagrams for prospective leasing purposes. NAD83-based OCS Provisional Official Protraction Diagrams and Provisional Official Protraction Aliquot Diagrams depicting geographic areas located in the Gulf of Mexico and covering the extent of the Gulf of Mexico Renewable Energy Call Area were published in the *Federal Register* on August 19, 2022. There are total of 30 diagrams and 1 index map that are part of that notice.

BOEM continues to work with industry on alternative uses of existing oil and gas infrastructure. Section 388 of the Energy Policy Act of 2005 provides the Secretary of the Interior with authority to allow an offshore oil and gas structure, previously permitted under OCSLA, to remain in place after oil and gas activities have ceased so that the structure can be used for other energy and marine-related activities such as research, renewable energy production, and aquaculture.



Offshore oil rig off the coast of Louisiana

As of February 2023, the Gulf of Mexico OCS contained over 1,554 offshore oil and gas facilities, making this a possible option for the use of this existing infrastructure. BOEM continues to meet with industry on various alternative use ideas and is currently reviewing three right-of-use requests for alternative use of existing platforms. Industry is also working towards providing power to oil and gas production facilities using offshore wind resources.

The Gulf of Mexico has many offshore oil and gas support services companies (boat yards, fabrication yards, etc.) that are utilized or could be utilized to support the U.S. offshore renewable energy industry. The New Orleans Office continues to work with industry to better understand workforce development needs, potential port facility upgrades, and challenges with the supply chain.

➤ **BOEM's Anchorage, Alaska Office**

In Alaska, BOEM initiated a new partnership with DOE's National Renewable Energy Laboratory in FY 2022 for a *Feasibility Study for Renewable Energy Technologies in Alaska Offshore Waters*. The goal is to provide an understanding of the potential for offshore wind and marine hydrokinetic renewable energy sources on the Alaska OCS and in State waters. The partnership will also consider practical methods for delivering energy from these sources to end users, including the potential for green hydrogen fuel production, distribution, and end use adoption opportunities. Progress to date includes completion of a demographic analysis, an ongoing stakeholder engagement and conflict strategy, and completion of the assessment of renewable resources. The remaining steps for 2023 include a techno-economic analysis, continuation of the stakeholder engagement process, and beginning to draft the final report. The study is on track and scheduled to be complete by September 2024.

LEASE AND GRANT ISSUANCE

➤ Activity on the Atlantic OCS



Coastal Virginia Offshore Wind (CVOW) Project

Although BOEM has jurisdiction over various types of offshore renewable energy, the major interest offshore the Atlantic coast lies in the development of offshore wind energy. As of February 2023, BOEM is managing 27 commercial wind leases along the Atlantic coast, covering over 2.1 million acres on the OCS. Many of these leases have proposed projects under review for all or a portion of the lease area. The two approved projects combined with the proposed projects under review and the remaining existing lease areas could support approximately 39 GW of power if fully developed and approved.

On February 23, 2022, BOEM held the New York Bight offshore wind sale, offering six lease areas totaling over 488,000 acres. The sale resulted in winning bids from six companies totaling approximately \$4.37 billion, the Nation's highest-grossing offshore energy lease sale in history, including oil and gas lease sales.

In FY 2022, BOEM also held a lease sale within the Carolina Long Bay area. The lease sale drew competitive winning bids from two companies totaling approximately \$315 million. BOEM continued the WEA planning process for the Central Atlantic in FY 2022 and anticipates a potential lease sale in FY 2024. Planning will also continue in the Gulf of Maine and will include consideration of commercial lease areas as well as consideration of an unsolicited research lease application filed by the State of Maine on October 1, 2021, proposing a floating wind research facility. A lease sale in the Gulf of Maine is targeted for calendar year 2024.

BOEM has the authority within its existing regulations to issue limited leases to other Federal agencies and to States for the purpose of conducting research that supports the future production, transportation, or transmission of renewable energy. Research leases require no fees and have a negotiated lease term. BOEM has an active research lease offshore the Virginia coast. BOEM's review of the facility design report and installation report for this project was completed in FY 2019, with construction and operations of two wind turbines completed in FY 2020. Completion of this two-turbine project is significant, as they are the first offshore wind turbines installed on the OCS. BOEM will continue to evaluate the State of Maine's research lease proposal through the Gulf of Maine planning process.

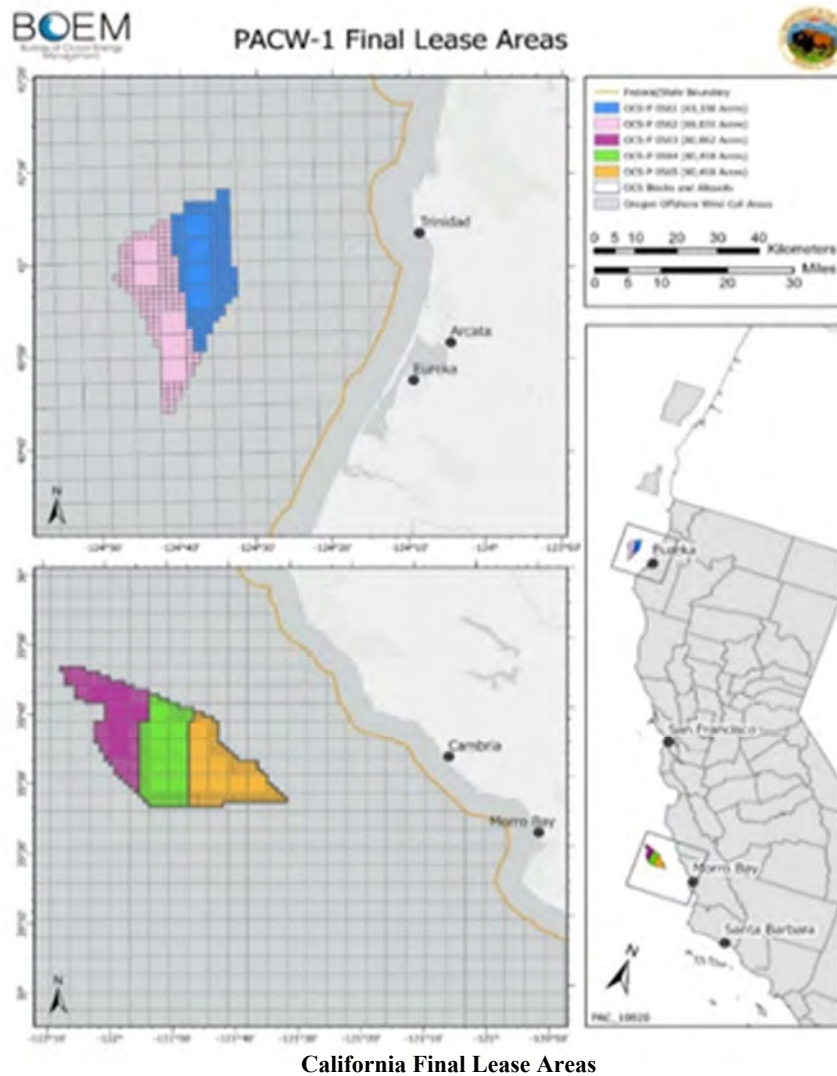
➤ Leasing for Offshore Transmission

BOEM is authorized to issue right-of-way grants that allow developers to build electricity transmission lines that connect renewable energy installations to the onshore electrical grid. The first producing

offshore wind project in the U.S. is in Rhode Island state waters and includes transmission lines that cross the Federal OCS. BOEM believes a coordinated approach to transmission is needed in the Atlantic, and in FY 2022 worked with Federal and State partners, industry, and stakeholder groups to obtain additional input on the best way to move forward with transmission for offshore wind development. BOEM will use this planning effort to help inform how it processes existing and future unsolicited right-of-way grant requests proposing the transmission of renewable energy on the Atlantic OCS, as well as transmission solutions proposed for individual facilities by offshore wind lessees.

➤ **BOEM's Camarillo, California Office**

BOEM's Camarillo Office processes offshore wind requests for California, Oregon, Washington, and Hawaii. With several unsolicited lease requests received in Hawaii, BOEM published a Call for Information and Nominations in 2016 to initiate the planning and competitive leasing process. In FY 2023, BOEM will continue to work with the State of Hawaii and the Department of Defense to identify potential wind lease areas offshore Oahu that are compatible with military uses and may be suitable for possible future offshore wind development. BOEM also funded work by the National Renewable Energy Laboratory to provide offshore wind energy generation potential and costs to inform Hawaii Electric Company's current grid planning process.



California Final Lease Areas

On December 6, 2022, BOEM held a sale for five lease areas offshore California — two on the north coast and three on the central coast — which received high bids of over \$757 million.

In Oregon, BOEM cooperated with FERC to review a research lease request for a grid-connected wave energy test site on the OCS offshore Newport. Since the project is a wave energy test facility requiring a FERC license, BOEM was a cooperating agency on the environmental review of the proposal. The environmental review included BOEM's action of issuing a research lease and easement for five subsea transmission cables. Lease issuance by BOEM is a prerequisite for a FERC license. BOEM determined there was no competitive interest in the requested area and issued a research lease noncompetitively in February 2021. FERC issued the license order in March 2021. BOEM is also in the initial stages of planning for potential future leasing for offshore wind energy development. BOEM and the State of Oregon have developed and implemented a Stakeholder and Data Gathering Plan in FY 2021 and collected data and solicited information to inform designation of one or more Call Areas offshore Oregon. In April 2022, BOEM published a Call for Information and Nomination. The next step in the leasing process is to identify WEAs. In FY 2022, BOEM received two unsolicited lease requests offshore Washington. BOEM is reviewing the requests and will determine next steps in collaboration with the State of Washington and interested Tribes in the area.

SITE ASSESSMENT

Commercial lease holders have up to approximately five years after lease issuance to conduct site assessment activities and submit a COP. When a SAP is submitted, BOEM determines whether the previous environmental assessment conducted to inform BOEM's leasing decision also adequately considered the environmental consequences of the activities proposed in the lessee's SAP. If BOEM determines that the analysis in the environmental assessment adequately considers these consequences, then no further NEPA analysis would be required before the SAP is approved. If BOEM determines that the analysis in the environmental assessment is inadequate for that purpose, BOEM would prepare an additional NEPA analysis before issuing a decision on the SAP. In some cases, additional consultation may be necessary, such as consultation under Section 106 of the National Historic Preservation Act for some areas of the OCS.

As of February 2023, BOEM has approved 15 SAPs for areas offshore Massachusetts, Rhode Island, Maryland, Virginia, New Jersey, New York, Delaware, and North Carolina.

CONSTRUCTION AND OPERATIONS PLANS

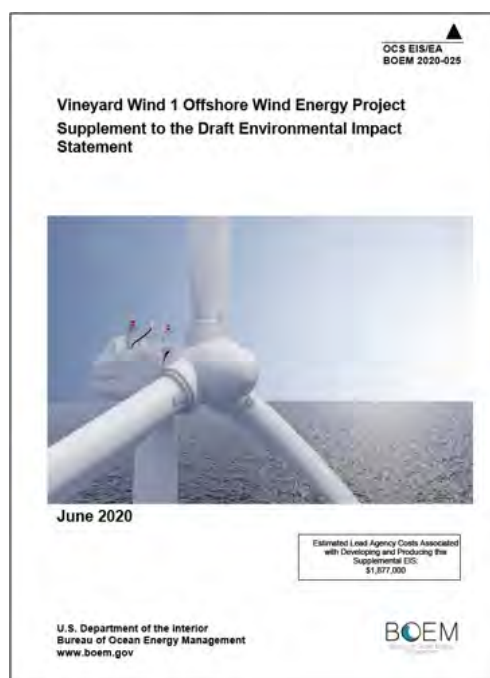
Before any wind energy facility can be built on an OCS lease, the lessee must submit a detailed plan for the construction and operation of the project, along with supporting data. BOEM will then conduct environmental and technical reviews of the COP and mandated consultations, before deciding whether to approve, approve with modification, or disapprove the plan. In order to facilitate the review process, in October 2022, BOEM published two sets of proposed guidelines for public comment (*Guidance on Information Needed for Issuance of a Notice of Intent (NOI) under the National Environmental Policy Act (NEPA) for a Construction and Operations Plan (COP)* ("NOI Checklist"); and *BOEM Nationwide Recommendations for Impact Pile Driving Sound Exposure Modeling and Sound Field Measurement for Offshore Wind Construction and Operations Plans* ("Marine Acoustic Modeling and Measurement

Guidelines”). The proposed guidelines clarify the requirements that lessees must include in every COP before the agency will begin its formal environmental and technical reviews. The final guidance is expected to be posted on BOEM’s website in FY 2023.

At any given time, multiple projects exist in each phase, with the greatest workload occurring at the construction and operations phase. As of February 1, 2023, there are 27 active commercial wind energy leases offshore the Atlantic coast. Many of these leases are rapidly moving toward the development phase, requiring labor-intensive plan reviews, as well as extensive outreach and stakeholder engagement at each step. Each COP review requires as many as 20 to 30 specialists to conduct in-depth environmental and technical assessments and takes approximately two years to complete. As of February 2023, BOEM has approved two COPs, has initiated the environmental review of 10 plans, has 6 plans in other stages of review, and expects to receive 1 new plan over the next 12 months.

The environmental review of these plans takes the form of an EIS, which provides additional opportunities for public involvement. BOEM initiated EISs for the SouthCoast (previously Mayflower) and U.S. Wind projects in FY 2022. In FY 2022, BOEM also initiated the preparation of a programmatic EIS considering development in the New York Bight. Looking toward FY 2023, BOEM expects to initiate EISs for an additional three projects.

BOEM released draft EISs for public comment for Ocean Wind 1 and Revolution Wind projects in FY 2022, for Empire Wind in November 2023, and for Coastal Virginia Offshore Wind, Sunrise Wind, and New England Wind in December 2023. In FY 2023 BOEM issued draft EISs for: Empire Wind, Sunrise Wind, Commercial-CVOW, New England Wind, and SouthCoast Wind and anticipates releasing draft EISs for Atlantic Shores South and US Wind. The EISs consider the reasonably foreseeable impacts on physical, biological, and socioeconomic resources from the construction, operation, maintenance, and decommissioning of these projects.



Supplement to the Draft Environmental Impact Statement

INTERGOVERNMENTAL COORDINATION AND COLLABORATION

The Administration has an ambitious vision for offshore wind as part of our future energy portfolio. It is therefore critical that Federal Government agencies work together, along with Tribal Nations, States, and other key stakeholders, to ensure the responsible development of this technology. In addition to the establishment of BOEM intergovernmental task forces, the Department and BOEM are taking additional steps to ensure efficient and effective coordination. For instance, BOEM has MOAs or MOUs with the

Department of Defense, the U.S. Army Corps of Engineers, the U.S. Coast Guard, DOE, FERC, NOAA, BSEE, and FWS, and the State of California. Additionally, BOEM is developing an MOU with the Federal Aviation Administration.

Each MOU provides an opportunity for enhanced coordination to achieve the common goal of advancing offshore renewable energy. BOEM and FERC responsibilities intersect for marine hydrokinetic projects, with BOEM issuing marine hydrokinetic leases and FERC issuing licenses for construction and operation of these projects. Meanwhile, as part of the current efforts under Section 207 of EO 14008, BOEM is working with support from the Department of Transportation's Volpe Center and in coordination with cooperating agencies to standardize EIS processes and content, which will allow for more efficient environmental review of up to 17 COPs expected to be under review in FY 2023. In FY 2022, BOEM worked with Volpe and cooperating agencies to develop process summaries broken down by major touchpoints in the NEPA process and reusable content to facilitate consistent analysis of resource impacts across COP EISs. BOEM expects to continue working these efforts in FY 2023. BOEM has developed an MOU with NOAA that will facilitate the formulation of subsequent agreements to coordinate resources, input, and associated responsibilities for advancing offshore wind energy. BOEM is also developing an MOU with NOAA's National Marine Fisheries Service (NMFS) to coordinate the environmental review of COPs and associated preparation of EISs for North and Mid-Atlantic offshore wind energy projects. BOEM and NMFS plan to finalize this MOU in FY 2023. BOEM has also hosted dozens of project-specific interagency meetings at various stages of the COP and environmental review process to coordinate on project schedules, purpose and need statements, and development of alternatives.

In FY 2022, DOI and BOEM led development of an All of Government Workplan for offshore wind in collaboration with the Departments of Commerce, Energy, and Transportation. The purpose of the workplan is to work collaboratively to achieve 30 GW of offshore wind by 2030 and set the stage for a more ambitious 2050 target, while protecting biodiversity and marine habitats and promoting ocean co-use. The workplan also seeks to incorporate energy equity and environmental justice; drive the economic benefits of offshore wind to disadvantaged/underserved communities; develop a robust union workforce within the U.S. for offshore wind; expand Tribal, State, and local partnerships; and work as a united and coordinated Federal interagency team to provide maximum support and market certainty to developers, suppliers, and other key stakeholders and ocean users. BOEM also established a mechanism to track milestones identified by the various agency participants and in FY 2022 convened staff-level meetings to further facilitate progress on the workplan.

In FY 2021, BOEM and BSEE signed an MOA that provides a framework for coordinating OCS renewable energy activities and clarifies the Bureaus' respective roles and responsibilities, such as BSEE's safety and environmental compliance functions and BOEM's planning and development responsibilities. Since that time, BOEM and BSEE continue to coordinate offshore renewable energy activities. On January 31, 2023, the Department of the Interior published a final rule that transfers the regulations for certain renewable energy activities on the OCS from BOEM to BSEE. Additionally, BOEM and BSEE continue to coordinate on the selection and review of renewable energy technology research projects, the results of which will be critical in creating design standards for offshore renewable energy facilities based on the unique atmospheric and oceanographic conditions of U.S. offshore areas.

BOEM also leads the Offshore Wind Permitting Subgroup, which was established in 2016 to identify opportunities to improve interagency coordination regarding permitting of offshore wind projects. The Subgroup is focused on more effective and efficient collaboration around the Federal review and approval of COPs. Information shared in the group allowed BOEM to develop a detailed regulatory roadmap for the development of offshore wind and streamline the review and approval process.

To ensure the Bureau’s activities are informed by the latest international developments in the sector, BOEM also coordinates extensively with foreign governments, international organizations, and other U.S. government agencies with jurisdiction over international matters, in a manner consistent with broader U.S. foreign policy interests. BOEM aligns its international engagement activities with domestic mission needs and carries out



Intergovernmental Coordination and Collaboration Event

objective-driven activities throughout the year, by hosting or participating in meetings, knowledge exchanges, and other bilateral and multilateral collaborative initiatives focused on priority topics in the offshore renewable energy sector. In FY 2022, this coordination involved dialogue with several countries on priority topics such as seabed site allocation (e.g., lease sales, tenders), supply chain, and offshore wind transmission planning. BOEM has participated in bilateral exchanges organized or led by the Departments of the Interior, State, Energy, and Commerce and in intergovernmental organizations such as the International Energy Agency (IEA) and the International Renewable Energy Agency. The IEA involved BOEM as a co-organizer with DOE and the Government of Ireland for a multiple-day virtual Topical Experts Meeting under the IEA Wind Technology Collaboration Program, Task 11, focused on global best practices in offshore wind project consenting (i.e., authorization and permitting). FY 2023 and FY 2024 will build on and strengthen these relationships to further inform BOEM’s domestic mission. In addition, BOEM will serve as the U.S. Government subject-matter lead in the newly established Global Offshore Wind Alliance in coordination with State, DOE, and DOI, and further manage the Global Offshore Wind Regulators Forum, for which BOEM will be serving as Secretariat in FY 2023 and meeting host in FY 2024.

RESEARCH, DATA COLLECTION, AND STAKEHOLDER ENGAGEMENT

BOEM’s Renewable Energy Program is supported by investments in research, data collection, and stakeholder engagement. BOEM works closely with a broad spectrum of agencies, universities, and stakeholders to identify critical information needs and funds studies independently, or through partnerships, to increase our knowledge about the marine environment in and around potential and existing renewable energy development locations. BOEM has actively studied the first turbines installed and will continue to assess impacts as the first commercial projects begin construction in FY 2023. To benefit from lessons learned in more mature markets, BOEM has established and maintained strong relationships with several European countries to learn from their years of experience managing offshore wind planning and to stay abreast of the continuing evolution of their own policies and regulatory

schemes based on this experience. In addition to the work described in the section *Intergovernmental Coordination and Collaboration*, BOEM has personnel who are appointed members on renewable energy-focused Expert Working Groups in the International Council for Exploration of the Sea, and coordinate with DOE in representing the U.S. in multiple IEA research tasks pertaining to offshore wind and other forms of marine renewable energy.

➤ **Fisheries Engagement**

BOEM has continued to engage commercial and recreational fisheries regularly in recent years on a number of matters including policy and guidance development and will continue these efforts in FY 2024. Recent guidance documents include the *Draft Fisheries Mitigation Guidance*, which BOEM anticipates finalizing in FY 2023, and the final *Federal Survey Mitigation Strategy*, which was a joint effort with NOAA, published in December 2022.

In FY 2021, BOEM held a series of meetings with fisheries groups about leasing in the New York Bight, began fisheries meetings in FY 2022 regarding Call Area development in the Central Atlantic, and continued to hold fisheries meetings with the Pacific Fishery Management Council regarding the Call Areas offshore Oregon. During FY 2022, BOEM also held or participated in a series of meetings targeting fisheries, hosted a fishery summit to discuss the development of WEAs in the Gulf of Mexico, and kicked off a national-level effort to develop guidance for lessees around fisheries mitigation. Engagement around offshore wind development planning and guidance development continues in FY 2023. In FY 2023 BOEM began, in collaboration with New England States, engagement with fishing communities regarding the Call Area and draft WEA development in the Gulf of Maine. In FY 2023, BOEM contracted with the National Academies of Sciences, Engineering, and Medicine to establish the Standing Committee on Offshore Wind Energy and Fisheries, which will be a forum to discuss the state of science and pressing concerns related to the development of offshore wind and its potential impacts to fisheries at the national scale. Additionally, BOEM has entered into a service contract in FY 2023 with a commercial smartphone application developer to be able to deliver information and alerts directly to fishing subscribers. The application is being piloted in the Northeast U.S.

➤ **Tribal Consultation**

BOEM also consults with 130 federally recognized Tribal Nations across the regions, as well as with numerous non-recognized Tribes in California. In FY 2022, the BOEM Director began holding regional quarterly meetings with Tribal representatives and leaders. The meetings cover a variety of agency topics, including renewable energy. These meetings will continue through FY 2023 and FY 2024.

BOEM's outreach also includes Tribal consultations under Section 106 of the National Historic Preservation Act. BOEM consults with Tribes, local governments, States, and other individuals and organizations with a demonstrated interest to identify the potential effects to historic and traditional cultural properties, and develop means to avoid, minimize, and mitigate adverse effects to those properties. Tribes are invited to be cooperating agencies for the development of EISs under NEPA due to their unique knowledge of the natural and historical environment that may be affected by offshore wind

development. BOEM invited 11 Tribes to be cooperating agencies for the new programmatic EIS for the six New York Bight leases.

The BOEM Pacific Region regularly engages with up to 80 federally recognized Tribes in California, Oregon, and Washington, as well as with numerous non-recognized Tribes in California. Consultation efforts in FY 2022 centered on the following:

- California offshore wind energy activities, including consultation under NEPA and Section 106 of the National Historic Preservation Act for the Humboldt and Morro Bay WEAs and the Proposed Sale Notice for a wind energy lease auction for five areas offshore California, two in the Humboldt WEA and three in the Morro Bay WEA.
- Oregon Call Area development, including consultation on development of a Programmatic Agreement for Section 106 activities related to wind energy development offshore Oregon.
- Unsolicited lease requests for wind energy development offshore Washington.

In FY 2022, the New Orleans Office held quarterly Tribal meetings with three federally recognized Tribes on Gulf of Mexico offshore activities including wind energy.

For Atlantic OCS renewable energy activities, BOEM invited 29 Tribal Nations to participate in formal government-to-government consultation, as well as informal coordination on offshore wind activities in FY 2022. BOEM has ten EISs under development along the Atlantic Coast during FY 2023, and BOEM will continue to hold government-to-government meetings at major project milestones or at the request of Tribes. BOEM invited North Atlantic Tribes to the Gulf of Maine Intergovernmental Task Force Meetings to discuss the commercial planning process for wind energy leasing in the Gulf of Maine. BOEM will continue additional Tribal outreach for the Gulf of Maine by meeting interested Tribes at Tribal headquarters to receive feedback on Maine activities. In FY 2022, BOEM continued its development of the Central Atlantic Renewable Energy Activities off the coasts of Delaware, Maryland, Virginia, and North Carolina. BOEM held a Tribal information meeting and invited ten federally recognized Tribes to participate in the Central Atlantic Intergovernmental Renewable Energy Task Force Meeting in FY 2022. BOEM will hold additional Tribal information meetings for the Central Atlantic in FY 2023. BOEM is actively working with industry on capacity building efforts in response to Tribal concerns.

➤ **Environmental and Scientific Research**

The continued need to pursue information to facilitate access to the OCS for renewable energy development and ensure that such development is environmentally appropriate is a high priority for BOEM. Environmental and scientific research supporting BOEM's renewable energy efforts are funded through both BOEM's Renewable Energy and Environmental Programs budget activities. Renewable energy environmental research – funded through the Renewable Energy activity – supplements the studies funded through BOEM's Environmental Studies Program. This research augments what had been done previously for offshore oil and gas and marine minerals, but with specific focus on renewable energy applications.



Deploying Instruments for Acoustic Measurements

BOEM has spent approximately \$95 million since FY 2008 on environmental studies that address renewable energy issues, either solely or in addition to other OCS resource activities. BOEM continues to study impacts of offshore wind at the Block Island Wind Farm, which will be used to inform future environmental reviews of COPs. With the addition of two turbines off the coast of Virginia, BOEM is monitoring local environmental changes from the presence of these structures in the marine environment. Through FY 2023, BOEM

continues to address key topics concerning impacts to fishing, marine mammals, and baseline information about the Gulf of Maine. BOEM is collaborating with NOAA's National Centers for Coastal Ocean Science to employ a spatial model to identify the most optimal locations for WEAs in the Gulf of Mexico, Central Atlantic and Gulf of Maine, and offshore Oregon. The Gulf of Mexico WEAs published in early FY 2023 were informed by this model using data on natural resources, existing ocean industries, wind energy potential, and areas important for national security and conservation. BOEM funded the deployment of LiDAR buoys off the coast of Eureka, California, within BOEM's Humboldt Call Area and off Morro Bay, California, within the Morro Bay Call Area. While deployed, the buoys send a subset of data to shore via satellite. The data is available to the public at [A2e: Atmosphere to Electrons \(energy.gov\)](https://a2e.energy.gov). BOEM is also partnering with NMFS on the development of a North Atlantic right whale and offshore wind science and management strategy. The draft strategy was released for public comment in October 2022 and a final strategy is anticipated to be published in FY 2023. BOEM is currently working on two activities to inform this effort, including a summary of all existing management, research, and monitoring actions related to North Atlantic right whales, and a technical document that describes the pathway toward understanding the cumulative effects of offshore wind on North Atlantic right whales.

➤ Data Collection through Cooperative and Interagency Agreements

In accordance with OCSLA, BOEM is working cooperatively with States by leveraging funds to collect important information about the offshore environment that meets both the needs of BOEM and the States. In FY 2022, BOEM continued cooperative agreements with State partners through matching funds and interagency agreements to inform future planning and decision-making. For instance, BOEM and the Commonwealth of Massachusetts are continuing to monitor marine mammals and other marine life off the coast of Massachusetts to establish a pre-construction baseline in anticipation of construction beginning in FY 2023. Additionally, BOEM is continuing to work with NOAA and FWS to collect necessary baseline information about wildlife to inform the consultation process for endangered species.

To help address concerns raised by Tribes in the BOEM Pacific Region, BOEM entered into an interagency agreement with the Udall Foundation's National Center on Environmental Conflict Resolution to work with interested West Coast Tribes in developing cultural landscape assessments of areas of Tribal concern that could be impacted by offshore wind energy development. The cultural landscape approach recognizes that places and resources can have different or multiple meanings and levels of significance

based on how people from different cultures, times, or backgrounds have interacted with the respective landscapes. BOEM is implementing this holistic approach to enhance future consultations and decision-making processes that take into consideration the importance of these areas to Tribes.

BOEM also entered into a cooperative agreement with Oregon State University to further refine the model for understanding and identifying submerged pre-contact landforms offshore the west coast, areas that may have once been inhabited but now lie buried offshore due to sea-level inundation over the last twenty thousand years. The goal of this effort is to fill existing data gaps in the Region's model of submerged paleolandforms off the U.S. West Coast by integrating industry-standard geophysical survey data with traditional Tribal knowledge through consultation with coastal Washington Tribes.

Additionally, BOEM is a member of and regularly participates in the West Coast Ocean Alliance's West Coast Tribal Caucus. The West Coast Ocean Alliance brings together State, Tribal, and Federal Government partners in a collaborative non-regulatory forum to pursue consensus-driven activities carried out by members in support of the group's regional vision on the West Coast of the U.S. It brings together its members through regular remote meetings and annual in-person meetings, while also supporting sub-regional working groups focused on specific coastal areas of the West Coast. The West Coast Tribal Caucus meets monthly and regularly invites BOEM to provide updates at its meetings.

➤ **Renewable Energy Workshops and Conferences**

Stakeholder engagement is integral to BOEM's renewable energy planning and leasing efforts. When input from stakeholders and experts is needed on a specific topic, BOEM hosts a workshop to bring together representatives from industry and from academic and government sectors. The following are some highlights of recent events.

- BOEM hosted a workshop in March 2022 to discuss data standards and management for passive acoustic monitoring. The workshop builds on previous work to establish a network of acoustic monitoring devices along the Atlantic to capture movements of marine mammals before, during, and after offshore wind development.
- BOEM, in collaboration with the U.S. Coast Guard, held the first Offshore Wind and Commercial Vessel Traffic Industry Knowledge Exchange in March 2018, which assembled Federal and State agencies, vessel operators, harbor and port administrators, industry associations, and offshore wind energy developers to develop a common understanding of operational challenges facing both industries and the potential for beneficial coexistence. The workshop materials and summary report are both available on BOEM's website (<https://www.boem.gov/Offshore-Wind-and-Maritime-Industry-Knowledge-Exchange/>). BOEM held three virtual Knowledge Exchanges in 2021 to build on lessons learned from the first workshop as well as the subsequent experience gained through reviews of submitted Navigational Safety Risk Assessments. The 2021 Knowledge Exchanges materials are also available on BOEM's website (<https://www.boem.gov/renewable-energy/stakeholder-engagement/boem-offshore-wind-and-maritime-industry-knowledge-exchange>).

In addition to these events, BOEM partners with State governments to keep them engaged and apprised of potential and upcoming activities off their coasts. Partnerships ensure the inclusion of all appropriate stakeholder groups when moving through various stages of development.

➤ **Guidelines for Developers and Applicants**

BOEM issues guidelines to clarify and provide a general understanding of the information required to adequately address the impacts of offshore renewable energy projects to the environment. The guidelines for survey information on avian resources, spatial data, benthic habitats, fish, marine mammals, and sea turtles on the Atlantic OCS were developed with input from FWS, NOAA, and the Marine Mammal Commission. BOEM published updates to the benthic habitat, fisheries, marine mammal, and sea turtle guidelines in June 2019. BOEM has also published guidance to lessees on providing information on fisheries and social and economic conditions for renewable energy development on the Atlantic OCS (last revised May 2020). In FY 2022, BOEM published draft guidance to lessees on measures to mitigate impacts to commercial and recreational fisheries with final guidance expected to be published in FY 2023.

BOEM is revising the draft Project Design Envelope Guidance to incorporate lessons learned since the guidance was first made available to lessees in January 2018. Further clarification on topic areas in the updated guidance including pre-submittal stakeholder coordination; the size, scope, and reasonableness of the Project Design Envelope; and changes to the Project Design Envelope. The updated guidance will help improve the quality of the information provided by lessees in their COP, which will ultimately result in faster sufficiency reviews, less comments on the COP, and a more efficient environmental review process.

In the past, BOEM started the review of COPs in draft form to expedite what can be a lengthy and detailed review process. However, BOEM has found it unproductive to move forward with a review before verifying the presence of certain components. Accordingly, in October 2022, BOEM published draft guidance to identify for lessees which COP components are needed before BOEM will begin the review process. BOEM is currently reviewing comments received on the draft guidance.

➤ **Technology Assessment and Research Studies**

BOEM partners with BSEE to select and fund appropriate research in operational safety and pollution prevention related to offshore renewable energy development through the Technology Assessment Program. Recent projects continue to build on the lessons learned from developers of commercial wind projects offshore Europe, while focusing on the unique operating environment of the U.S. OCS. International structural design standards have been reviewed and research gaps have been identified that include the anticipated effects of hurricanes and open-ocean breaking waves, as well as the structural integrity of floating wind turbines under reasonably foreseeable ocean conditions. Data on meteorological and oceanographic (“metocean”) conditions need to be obtained across U.S. regions to ensure that these new structures are designed to the appropriate parameters.

Technology Assessment Program projects conducted between 2018 and 2021 involved wind turbine foundation studies of axial cyclic capacity of jacket piles, feasibility of suction bucket foundation in undrained sands, corrosion and fatigue life, geologic hazards of the Pacific Region, and wind density and wake effects of wind farm design. Projects selected in 2021 include a desktop geologic study for proposed WEAs on the Atlantic and Gulf of Mexico OCS, assessment of cable burial methodology issues, and corrosion inside monopiles. Additional topics are now being developed together with subject matter experts from BSEE and possible input from industry through upcoming workshops. Potential topics for future research may include methods to collect and share geologic, geotechnical, and metocean data collected on lease areas; structural behavior of turbine towers and foundations to assess fatigue and longevity; improving structural design models; and assessment of potential conflicts between floating turbine mooring and cable systems and fishing and navigation activities.



A full-scale prototype of the WindFloat device

Results of BOEM’s technology assessment and research projects provide guidance to BOEM subject matter experts and industry regarding data collection activities in support of project development and assist the industry in refining engineering designs for offshore structure foundations for the varying geologic and oceanographic conditions that exist offshore the U.S. and ensure greater long-term stability and survivability of wind farm facilities. These projects also provide information and guidance for BOEM and program stakeholders on wind resource measurement, marking and lighting for offshore structures to aid air and vessel navigation, and mitigation of potential impacts on coastal, military, and vessel radar instrumentation.

Metocean data measurement studies are necessary to develop a U.S. based standard for wind farm facility design. BOEM’s work with the National Renewable Energy Laboratory is updating existing recommended practices (American Wind Energy Association Offshore Compliance Recommended Practices 2012) and establishing new recommended practices for metocean data measurement, geotechnical and geophysical data collection, and floating technologies. This multi-year effort, initiated in October 2017, assembles over 100 experts across the spectrum of the offshore wind industry for collaboration throughout the year.

BOEM is also collaborating on a comprehensive set of roadmaps under American National Standards Institute (ANSI) rules that incorporate existing offshore wind energy facility design standards and guidelines. These roadmaps will facilitate the safe design and deployment of offshore wind energy, account for the unique conditions of the U.S. OCS and State waterways, and provide DOI with ANSI recommended best practices.

This effort consists of five modules that will be submitted to ANSI through the American Clean Power Association, an ANSI-approved standard setting organization. BOEM projects this effort will culminate in FY 2024.

Alaska represents an important proving ground for developing cost effective wave and tidal renewable energy technologies. In FY 2022, the “*Alaska Wave Energy Converter Impact Assessment*” study was completed. BOEM partnered with the University of Alaska, Fairbanks to assist the State of Alaska in its effort to assess the feasibility and potential environmental effects of a wave energy converter project in the Gulf of Alaska. In addition to providing baseline environmental information for the focus area, the study evaluated potential impact-causing factors related to wave energy converters, such as sounds produced and sedimentation effects.

Conventional Energy

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Conventional Energy

Table 8: Conventional Energy Budget Summary

Activity: Conventional Energy

Dollars in Thousands (\$000)

Conventional Energy	2022 Actual	2023 Enacted	2024 Fixed Costs (+/-)	2024 Internal Transfers (+/-)	2024 Program Changes (+/-)	2024 Request	Change from 2023 Enacted (+/-)
Conventional Energy \$	60,487	61,487	+3,302	0	+7,513	72,302	+10,815
FTE	267	304	0	0	+10	314	+10

Management of the oil and gas resources of the OCS is governed by OCS Lands Act (OCSLA) (43 U.S.C. § 1331 *et seq.*), which sets forth procedures for OCS conventional energy (oil and gas) leasing, exploration, development, and production. As of February 1, 2023, BOEM manages 2,156 active oil and gas leases on approximately 11.5 million acres of the OCS, of which approximately 77 percent are not yet in production. BOEM seeks to manage the development of offshore energy resources in an environmentally and economically responsible manner. BOEM’s work supports energy security, environmental protection, and economic development through responsible management of these offshore resources informed by the best available science.

Foundational to the conventional energy program is the preparation of the National OCS Oil and Gas Leasing Program (National OCS Program). BOEM’s work includes assessments of the oil and gas resource potential on the OCS, inventories of oil and gas reserves, and economic evaluations of OCS submerged lands to ensure the receipt of fair market value for U.S. taxpayers for any leasing and development activities.

The Administration is committed to addressing the climate challenge while continuing to support the permitting necessary to ensure the orderly development of OCS oil and gas resources. The FY 2024 BOEM budget request reflects the needs for BOEM to accomplish the President and Department’s priorities. This includes efforts to restore balance on public lands and waters, create jobs, and provide a path to align the management of America’s public lands and waters with our Nation’s climate, conservation and clean energy goals while using the best available science and practices in the decision-making process and strengthening the government-to-government relationship with Tribal Nations. The

budget request also supports implementation of the IRA.

The FY 2024 budget will support:

- **Carbon Sequestration:** Section 40307 of the IIJA amends OCSLA to authorize the Secretary of the Interior to grant a lease, easement, or right-of-way on the OCS for activities that “provide for, support, or are directly related to the injection of a carbon dioxide stream into sub-seabed geologic formations for the purpose of long-term carbon sequestration.” Additionally, the law directs the Secretary of the Interior to promulgate regulations to carry out this new authority. Implementation of these provisions supports the Administration’s broader climate change efforts. BOEM is poised to use its significant technical expertise in offshore oil and gas, geology, the environment, and economics to partner with BSEE on offshore carbon sequestration as directed by the IIJA. In FY 2022, BOEM and BSEE began developing joint proposed regulations to allow for carbon sequestration projects on the OCS. BOEM and BSEE are continuing this work with a goal of publishing draft regulations for public comment in FY 2023 with final regulations in FY 2024. While the rule is under development, BOEM will also be developing its Carbon Sequestration Program to ready itself for program implementation after final rule publication. BOEM will also begin preparation of programmatic environmental analysis to streamline reviews and consultations for future lease sales and project approvals.
- **Marine Cadastre:** The Energy Policy Act of 2005 (P.L. 109-58), section 388(b), directs the Department to cooperate with other Federal departments and agencies to establish an interagency comprehensive digital mapping initiative for the OCS to assist in decision-making relating to the siting of offshore renewable energy. To accomplish this, BOEM and NOAA jointly manage the MarineCadastre.gov portal, which provides authoritative and regularly updated ocean information to users, including offshore boundaries, infrastructure, human use, energy potential, and other data. This system is widely used by the public, environmental groups, Federal regulatory agencies, State and regional marine planners, intergovernmental task forces, and other government organizations involved in ocean planning issues.
- **Mapping:** Accurate OCS boundary lines are a foundational requirement for BOEM’s OCS planning and leasing activities. Pursuant to the Geospatial Data Act of 2018 and OMB Circular A-16 (*Coordination of Geographic Information and Related Spatial Data Activities*), which provides direction for Federal agencies that produce, maintain, or use geospatial data either directly or indirectly in the fulfillment of their missions, BOEM is responsible for producing and maintaining the official offshore cadastre for the OCS of the United States as well as contributing electronic records supporting water, ocean, coast, and geology topics.
- **Implementing Recommendations from the November 2021 DOI Report on the Federal Oil and Gas Leasing Program:** In response to direction in Executive Order 14008 and in light of the Secretary of the Interior’s broad stewardship responsibilities, the Department conducted a review of its onshore and offshore oil and gas programs and published a report of its findings in November 2021. The report identifies key reforms necessary to ensure that the programs provide a fair return to

taxpayers, discourage speculation, reduce environmental impacts, hold operators responsible for remediation, and create a more inclusive and just approach to managing public lands and waters. The Department's report makes specific recommendations to restore balance to these programs, including adjusting royalty rates, pursuing adequate financial assurance for decommissioning liabilities, and prioritizing leasing in areas with known resource potential while avoiding conflicts with other uses. BOEM is in the process of implementing administrative changes consistent with the report's findings and recommendations, including, where necessary, updating regulations and agency policy guidance documents that apply to existing leases as well as any new leases that may be issued.

- **National OCS Oil and Gas Leasing Program:** As required by section 18 of OCSLA, BOEM prepares the National OCS Program, which sets forth a schedule for proposed offshore oil and gas lease sales over a 5-year period. The National OCS Program is designed in a manner to best meet the Nation's energy needs while carefully considering factors to balance the potential for accessing oil and gas resources with the potential for adverse impacts from such activity. On July 1, 2022, the Department announced the availability of the Proposed Program and the Draft Programmatic EIS for the 2023-2028 National OCS Oil and Gas Leasing Program. The Proposed Program includes up to ten potential lease sales in the Gulf of Mexico and one potential lease sale in the northern portion of the Cook Inlet OCS Planning Area of Alaska. The associated 90-day comment period ended on October 6, 2022, and BOEM is considering the public comments it has received as it conducts the Proposed Final Program (PFP) analysis, which analyzes the Proposed Program. The Secretary will use the PFP analysis in the PFP document and Final Programmatic EIS to arrive at her final decision on the size, timing, and location of lease sales for the next National OCS Program.
- **Lease Administration:** As of February 1, 2023, BOEM is responsible for administering approximately 11.5 million acres of active leases on the OCS. Currently, producing leases on the OCS account for about 15 percent of all domestic oil production and 2 percent of domestic natural gas production.
- **Plan Review:** When a lessee submits an Exploration Plan (EP), Development Operations Coordination Document (DOCD), or Development and Production Plan (DPP), BOEM conducts a thorough review of the plan. EPs describe all exploration activities planned by an operator as well as the timing of these activities. DOCDs¹ and DPPs both describe the lessee's proposed activities, the location of each proposed well or structure, a proposed schedule of activities, and an analysis of any offshore and onshore impacts that may occur.
- **Geological and Geophysical (G&G) Surveys:** Conventional energy G&G surveys are conducted to obtain data for oil and gas exploration and production and aid in siting offshore structures. The data are also used in bid evaluation as BOEM seeks to ensure the receipt of fair market value for the leasing of the OCS, and to identify and characterize potential carbon sequestration storage sites. G&G surveys will play a critical role in monitoring the migration of any injected carbon dioxide.

¹ Development Operations Coordination Documents are used in the Central and Western Gulf of Mexico in lieu of Development and Production Plans, as allowed by the 1978 amendments to the OCSLA (43 U.S.C. § 1351 (a) and (l)).

- **Resource Evaluation:** The resource evaluation program supports BOEM’s conventional energy program through technical and economic analysis. The primary program objectives are to provide an assessment of discovered and undiscovered oil and gas resources on the OCS, and to assure receipt of fair market value for OCS resources as mandated by OCSLA.
- **Comprehensive Inventory of OCS Resources:** Section 357 of the Energy Policy Act of 2005 directs the Secretary of the Interior to update the *Report to Congress for the Comprehensive Inventory of OCS Resources* at least once every 5 years. BOEM maintains these up-to-date resource assessments and reserves estimates across the OCS and is responsible for generating this periodic report to Congress, the next of which is anticipated to be published in 2023.
- **Ensuring Fair Market Value:** As mandated by OCSLA, BOEM seeks to ensure receipt of fair market value for oil and gas leases. Once a lease sale is completed and the high bidders for each tract are publicly announced, BOEM follows specific bid adequacy procedures as it seeks to ensure the Government receives fair market value. A determination of bid adequacy is made within 90 days after the lease sale is held.

SUMMARY OF 2024 PROGRAM CHANGES

Summary of 2024 Program Changes for Conventional Energy		
Program Changes:	(\$000)	FTE
Geographic Information System	+963	+0
Offshore Carbon Sequestration	+6,550	+10
TOTAL Program Changes	+7,513	+10

* Changes listed in order of budget activity, not priority.

Geographic Information System (+\$963,000; 0 FTE). BOEM proposes funds to support the Bureau’s migration to the National Geodetic Survey’s new National Spatial Reference System (NSRS) 2022 horizontal datum. The requested funds will be used to plan and implement BOEM’s geospatial data conversion and associated workloads by working with each program and region to implement the new datum. This project will focus on BOEM geospatial data but will need to be closely coordinated with the other bureaus who are reliant on the same geospatial data and systems that use it.

Offshore Carbon Sequestration (+\$6,550,000; +10 FTE). BOEM requests resources within the Conventional Energy (\$6.550 million; +10 FTE) and Environmental Programs (\$2.340 million; +6 FTE) budget activities to establish a dedicated Offshore Carbon Sequestration program that will help ensure that the offshore geological storage of carbon dioxide is done in a safe and effective manner. BOEM is proposing additional resources to hire specialized staff, train existing and new staff, and conduct outreach and engagement. Data and technology will also be critical to providing employees with the tools they need to ensure that offshore carbon sequestration is done safely and can be adequately monitored over the long term. BOEM proposes funding to acquire and maintain Geological Interpretive Tools and procure requisite G&G data. This will be critical to both the development of a model and methodology to provide

for a comprehensive, national-level assessment of CO₂ storage capacity across the OCS, as well as regional subsurface knowledge to develop region-specific assessment units. Resources will also support the development of an information technology database architecture for future CO₂ operations and activities. Finally, funding will support geological research in areas of immediate need: sealing/risk analysis; CO₂ plume migration/reservoir pressurization; seismogenic risk; and geomechanical, geochemical, and injectivity studies.

PROGRAM OVERVIEW

As the Nation's OCS energy resource manager, BOEM administers a comprehensive national oil and gas leasing program that requires a progressive cycle of resource, economic, and environmental analyses, providing the Secretary of the Interior with the information needed to make informed decisions. This work includes: developing the National OCS Oil and Gas Leasing Program; identifying and delineating appropriate boundaries and legal descriptions; inventorying and assessing the Nation's OCS energy endowment; developing a proposed schedule for oil and gas lease sale offerings; establishing financial terms that seek to ensure the receipt of fair market value; reviewing industry plans to explore, develop, and produce oil and gas resources; ensuring lease holders have sufficient financial resources to fulfill lease obligations, such as decommissioning facilities at the end of their productive life; and ensuring that oil and gas activities are conducted in compliance with environmental laws and regulations. These activities support U.S. domestic oil and gas supplies and create a more accessible, efficient, and predictable oil and gas leasing process for government, industry, and other stakeholders.



The Na Kika platform in deepwater Gulf of Mexico.

As of February 1, 2023, BOEM manages 2,156 active oil and gas leases on approximately 11.5 million OCS acres. Offshore Federal production in FY 2022 reached approximately 624.1 million barrels of oil and 775.5 billion cubic feet of gas, almost all of which was produced in the Gulf of Mexico. Revenues generated from OCS conventional energy leasing and production activities are a significant source of revenue for the Federal Government.

LEASING

BOEM's leasing activities include the development of the National OCS Program; the planning, preparation, and holding of individual lease sales; and the administration of oil and gas leases.

➤ **National OCS Oil and Gas Leasing Program**

Under OCSLA, the Secretary of the Interior has the responsibility to prepare, periodically revise, and maintain an oil and gas leasing program to “best meet national energy needs” while balancing other important factors. The Department must prepare a national program that indicates “as precisely as possible, the size, timing, and location” of Federal offshore oil and gas leasing activity to be considered for the 5-year period it covers. The National OCS Program identifies program areas, which are delineated areas of leasing interest where leases potentially may be offered, and establishes a proposed schedule of lease sales over a 5-year period.

Per section 18(a)(3) of OCSLA, the National OCS Program is designed to achieve a balance of “the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone.” During development of the National OCS Program, BOEM requests comments from intergovernmental partners and stakeholders (including governors, Federal and State agencies, local communities, federally recognized Tribes, energy and non-energy private industry, public interest groups, and the public) to help BOEM determine which areas of the OCS have the most potential for oil and gas development and the measures that should be implemented to ensure that development is accomplished in an environmentally responsible manner. This effort ensures that management of the OCS is “conducted in a manner which considers economic, social, and environmental values of the renewable and nonrenewable resources contained in the OCS, and the potential impact of oil and gas exploration on other resource values of the OCS and the marine, coastal, and human environments” (43 U.S.C. § 1344(a)(1)).

BOEM published the 2019-2024 National OCS Oil and Gas Leasing Draft Proposed Program (2019-2024 Draft Proposed Program) on January 4, 2018. The Draft Proposed Program is the first in a series of three analytical documents issued by the Department before the Secretary takes final action to approve a National OCS Program. BOEM considered public comments received on the 2019-2024 Draft Proposed Program as part of the development of the second analytical stage of the National OCS Program: the Proposed Program and the associated Draft Programmatic EIS. BOEM made these documents available for public comment on July 1, 2022. BOEM received over 750,000 comments during the 90-day comment period following this announcement; these comments will be considered in the development of the Proposed Final Program and Final Programmatic EIS. At least 60 days following publication of the Proposed Final Program and its submission to Congress and the President, the Secretary may approve the National OCS Program, at which point BOEM may begin to implement it.

➤ **Oil and Gas Lease Sales**

Lease Sale 257. BOEM held one oil and gas lease sale in FY 2022: Gulf of Mexico Region-wide Lease Sale 257 (November 17, 2021). However, on January 27, 2022, in *Friends of the Earth v. Haaland*, 583 F.Supp.3d 113 (D.D.C. 2022), a U.S. district court vacated Lease Sale 257. Subsequently, pursuant to section 50264(b) of the IRA, Congress directed BOEM to award leases to the highest bidders in Lease Sale 257. Subsequently, Lease Sale 257 resulted in 307 new leases covering over 1.7 million acres, with over \$189 million in bonus payments.

Lease Sale 258. On October 29, 2021, BOEM published a notice of availability of the Alaska Cook Inlet Lease Sale 258 Draft EIS. On September 23, 2022, BOEM published a notice of availability of the Proposed Notice of Sale (NOS) for Cook Inlet Lease Sale 258. On October 28, 2022, BOEM published a notice of availability of the Final EIS. BOEM published the Final NOS and the Record of Decision on November 29, 2022 and held the sale on December 30, 2022. BOEM received one bid and is currently conducting the required bid adequacy review to ensure receipt of fair market value prior to the issuance of any lease. These actions are consistent with the IRA, which directed BOEM to hold the sale by December 31, 2022.

Lease Sale 259. BOEM announced the availabilities of the Proposed NOS and Final Supplemental EIS for Gulf of Mexico Region-wide Lease Sale 259 in October 2022 and January 2023, respectively. The Final NOS and ROD were published in the Federal Register on February 27, 2023, in preparation for holding Lease Sale 259 prior to March 31, 2023, as directed by the IRA.

The following table includes information on lease sales held under the 2017-2022 National OCS Oil and Gas Leasing Program. Information on sales in previous Programs can be found on BOEM’s website at <https://www.boem.gov/Past-Five-Year-Programs/>.

Table 9: Lease Sales Completed to Date Under the 2017-2022 National OCS Program

Sale #	Date of Sale	Area	Number of Leases Issued	Number of Acres Leased	Total Bonus for Leased Tracts
249	8/16/2017	Gulf of Mexico	81	456,256	\$110,878,165
250	3/21/2018	Gulf of Mexico	139	764,924	\$115,329,139
251	8/15/2018	Gulf of Mexico	141	784,009	\$175,489,464
252	3/20/2019	Gulf of Mexico	211	1,171,260	\$231,790,063
253	8/21/2019	Gulf of Mexico	147	811,967	\$154,994,527
254	3/18/2020	Gulf of Mexico	63	351,206	\$86,240,453
256	11/18/2020	Gulf of Mexico	86	477,413	\$111,559,312
257	11/17/2021	Gulf of Mexico	307	1,717,061	\$189,888,271
258*	12/30/2022	Cook Inlet, Alaska	TBD	TBD	TBD
259*	3/29/2023	Gulf of Mexico	TBD	TBD	TBD
261*	9/27/2023	Gulf of Mexico	TBD	TBD	TBD

*Cook Inlet Lease Sale 258, Lease Sale 259, and Lease Sale 261 are required to be held pursuant to the Inflation Reduction Act.

➤ **Lease Sale Planning Process**

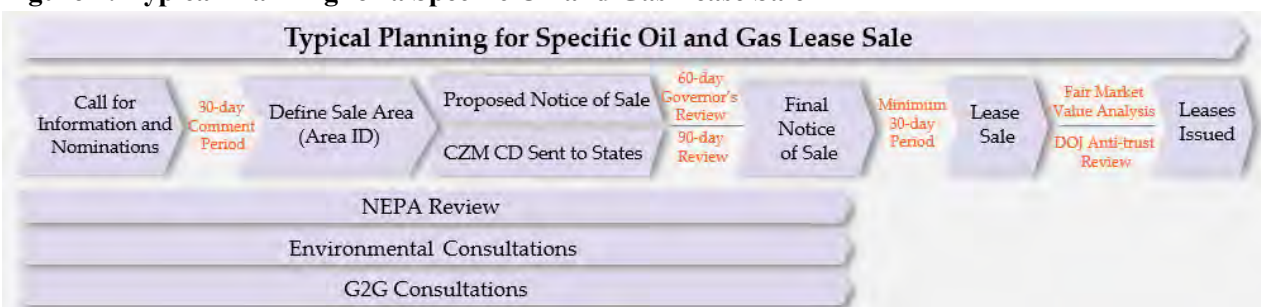
Each lease sale in an approved OCS Oil and Gas Leasing Program is subject to an established pre-lease evaluation and decision-making process during which interested and affected parties have opportunities to comment and provide input. Each approved lease sale is considered on a case-by-case basis over the course of required *Federal Register* publications, sale notices, comment periods, environmental reviews,

and consultations. Through this extensive planning process, a proposed sale undergoes evaluations that consider reasonable alternatives, modifications, and/or restrictions to the area under leasing consideration. The Final NOS, which BOEM publishes at least 30 days prior to holding the sale, documents the Department’s final decision on a sale’s size, timing, and location, as well as decisions on environmental mitigation measures and lease sale fiscal terms.

The pre-leasing process takes approximately a year and a half to two years to complete, depending on the nature of the lease sale and the complexities encountered during the planning process.

The following figure and narrative provide an overview of the major steps and decision points in planning for a typical oil and gas lease sale.

Figure 7: Typical Planning for a Specific Oil and Gas Lease Sale



1. **Call for Information and Nominations:** BOEM requests comments from the public on the area being considered for leasing and solicits information on environmental issues that should be analyzed. In addition, potential bidders are invited to nominate areas of interest within those areas identified for leasing consideration.
2. **Area Identification:** Based on information received in response to the Call for Information and Nominations, BOEM identifies an area for further leasing consideration and environmental analysis. BOEM is required to announce its Area Identification decision publicly in the *Federal Register*.
3. **Notice of Intent:** If applicable, BOEM issues a Notice of Intent to alert the public that it will prepare an EIS pursuant to NEPA. The notice provides a description of the Proposed Action and possible alternatives, as well as a description of the scoping process and any scheduled meetings for the scoping of the NEPA document. A Notice of Intent may not be issued if BOEM determines that another form of NEPA review is sufficient (i.e., supplemental EIS, environmental assessment, or Determination of NEPA Adequacy/Memorandum for the Record).
4. **NEPA Review:** BOEM may prepare a Determination of NEPA Adequacy based on existing NEPA documents or prepares a new NEPA document, either an EIS or environmental assessment, to evaluate the potential environmental impacts of the Proposed Action, alternatives, and the potential effectiveness of mitigation measures.

5. **Public Comment on Draft NEPA Document:** For lease sale environmental assessments, BOEM typically solicits public comments for 30 days. For an EIS, the draft document is available for public comment for 45 days.
6. **Government-to-Government Consultations:** BOEM consults with federally recognized Tribes and, in Alaska, with Alaska Native Claims Settlement Act Corporations. These consultations are conducted throughout the stages of the OCS oil and gas leasing process or anytime upon request.
7. **Environmental Consultations:** BOEM conducts required consultations with Federal agencies, such as the U.S. Fish and Wildlife Service and National Marine Fisheries Service, to comply with environmental laws such as the Endangered Species Act, the Marine Mammal Protection Act, the Magnuson-Stevens Fishery Conservation and Management Act, and others. BOEM also consults with State and Tribal historic preservation officers under the National Historic Preservation Act.
8. **Final NEPA Document:** BOEM addresses substantive Tribal and public comments and, if necessary, updates its analysis prior to issuing a final NEPA document.
9. **Proposed NOS:** BOEM publishes a Notice of Availability of the Proposed NOS in the *Federal Register*. This notice includes information on the sale's proposed size, timing, and location, as well as a description of proposed blocks being offered, environmental mitigations being considered, and proposed fiscal terms and conditions of the sale.
10. **Letters to the Governors:** BOEM sends copies of the Proposed NOS to governors of affected States for their review. Pursuant to section 19 of OCSLA, BOEM requests their comment on the proposed sale's size, timing, and location.
11. **Consistency Determination:** As required by the Coastal Zone Management Act, BOEM will provide affected States that have a federally approved State Coastal Zone Management Plan with a determination on whether the proposed lease sale is consistent, to the maximum extent practicable, with the enforceable policies of their respective Coastal Zone Management Act Plans.
12. **ROD (for an environmental impact statement) or Finding of No Significant Impact (for an environmental assessment):** This is the final step in the NEPA process regarding BOEM's decision to hold a lease sale. The ROD, or the Finding of No Significant Impact, is signed in conjunction with the Final NOS and published in the *Federal Register* at least 30 days prior to the lease sale date.
13. **Final Notice of Sale:** BOEM publishes a Final NOS in the *Federal Register* at least 30 days before the sale is held. This notice includes information on the sale's size, timing, and location, bid opening, a description of the blocks being offered, applicable environmental mitigations, and fiscal terms and conditions of the sale. Pursuant to section 19 of OCSLA, BOEM also sends letters to governors of affected States providing written reasons for accepting or rejecting each governor's recommendations and/or implementing any alternative means to provide for a reasonable balance between the National interest and the well-being of the citizens of the State.

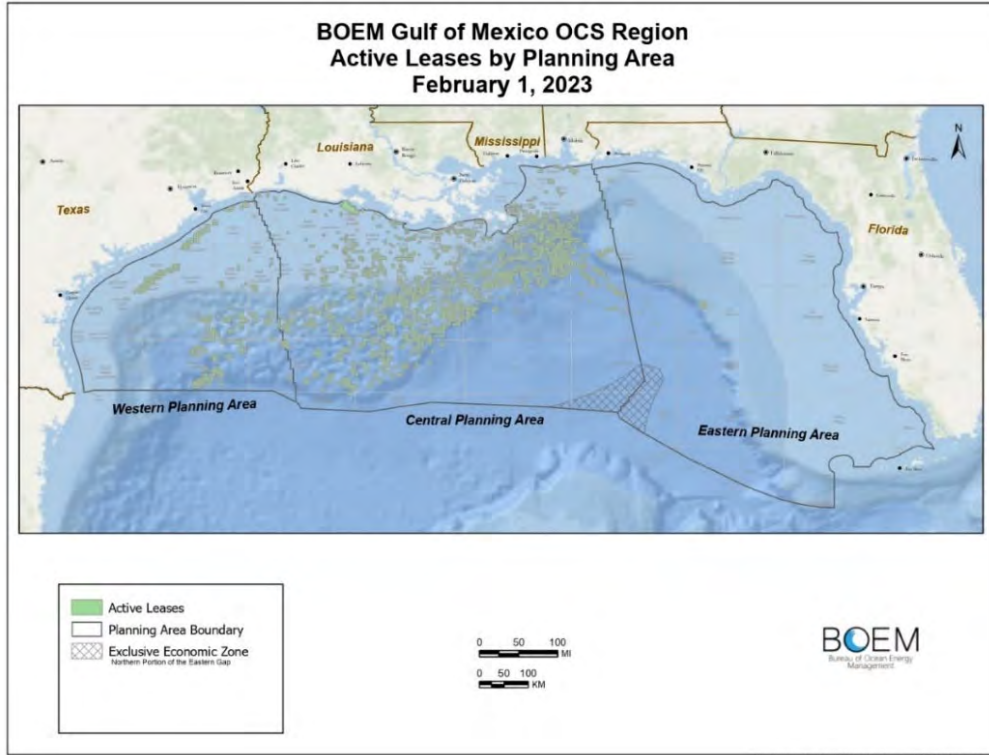
14. **Lease Sale:** BOEM opens and publicly reads sealed bids submitted by qualified bidders on the day of the sale. The bids are read aloud and broadcast on the internet via live-stream.
15. **Fair Market Value Analysis:** Ensuring the receipt of fair market value for OCS resources is mandated by OCSLA and is one of BOEM's core responsibilities. Under its bid adequacy procedures for oil and gas leases, BOEM reviews all high bids received as it seeks to ensure a bid on a specific OCS block meets fair market value criteria prior to lease issuance.
16. **Lease Issuance:** BOEM issues a lease to the highest qualified bidder if the high bid meets BOEM's fair market value criteria following required antitrust review by the Department of Justice and the Federal Trade Commission.

➤ **Lease Administration**

The lease administration process encompasses a set of discrete business processes, which manage a lease from issuance to relinquishment, termination, cancellation, or expiration. Prior to lease issuance, the Department of Justice and Federal Trade Commission confirm that the awarding of the tracts would neither create nor maintain a situation inconsistent with the antitrust laws. Once the lease has been awarded, lease administration covers the legal modification of the lease contract, its supporting analysis, and services provided by BOEM under the lease contract. Upon receipt of the awarded leases, the companies have eleven business days to execute the lease and pay the balance of the bonus and first year rental. Failure to comply with these requirements will result in the forfeiture of the 1/5th bonus deposit and rights to acquire the lease. Also included within these processes are the qualification of corporate entities and individuals before they can acquire properties or do business on the OCS; the review and acceptance of corporate mergers, corporate changes-of-name, and business conversions; and the assignment of lease interests among qualified entities.

BOEM’s New Orleans, Louisiana Office (New Orleans Office): BOEM oversees 29,186 blocks in the Gulf of Mexico. As of February 1, 2023, there are 2,106 active leases, including 307 in the Western Planning Area, 1,786 in the Central Planning Area, and 13 in the Eastern Planning Area. The following figure provides a snapshot of the blocks and active leases within the Gulf of Mexico.

Figure 8: Gulf of Mexico Blocks and Active Leases by Planning Area



BOEM’s Anchorage, Alaska Office (Anchorage Office): As of February 1, 2023, the Alaska OCS has 20 active oil and gas leases encompassing approximately 97,874 acres, including 6 leases in the Beaufort Sea and 14 in the Cook Inlet.

Figure 9: Cook Inlet Sea Active Leases

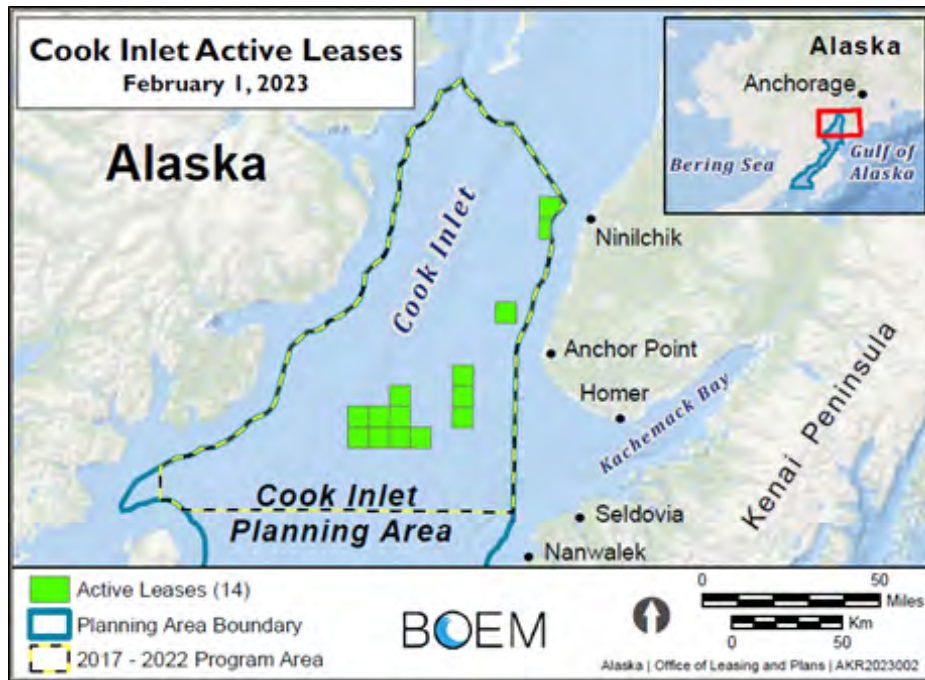
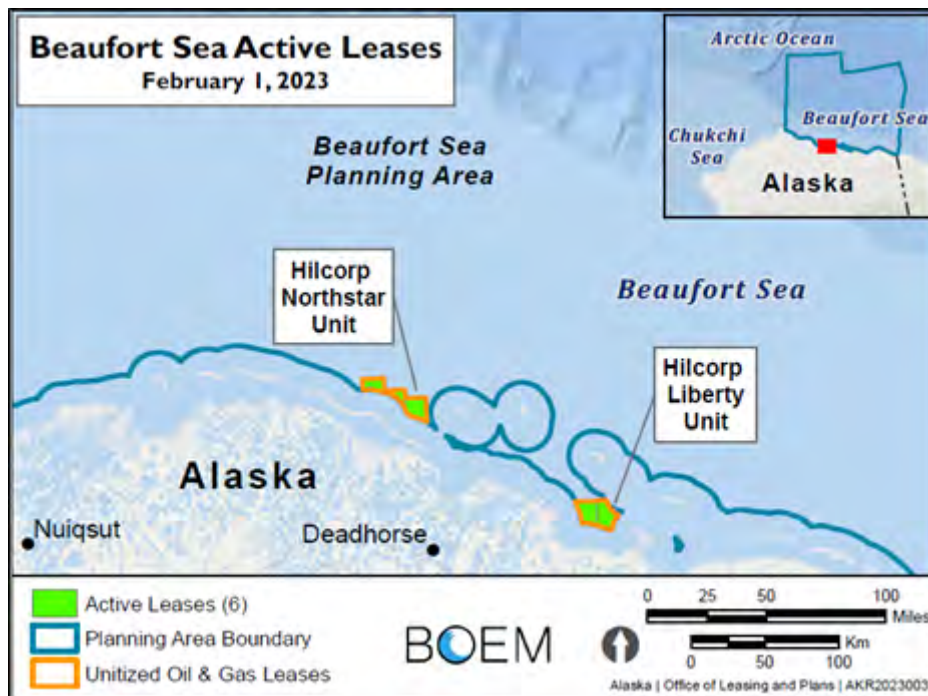


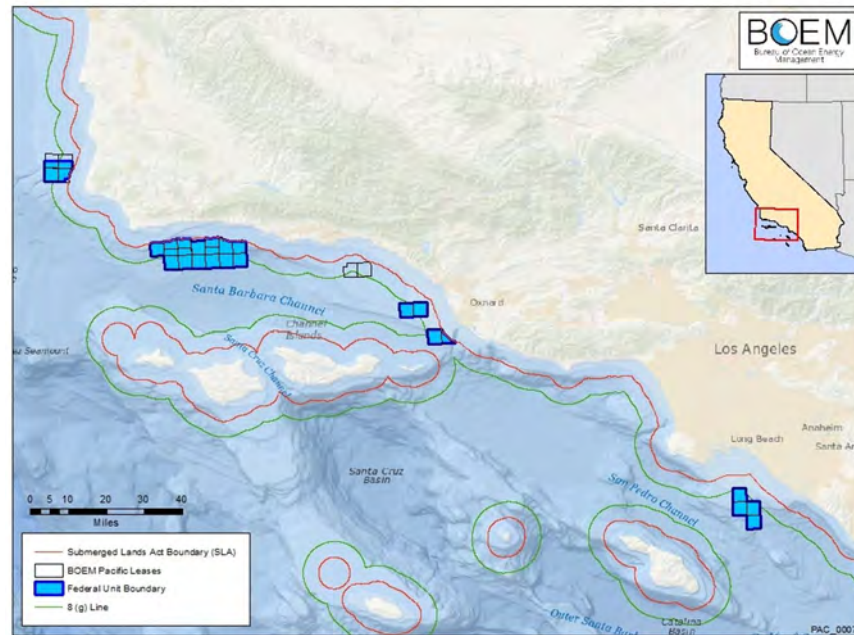
Figure 10: Beaufort Sea Active Leases



The Beaufort Sea leases include three leases in the Liberty Unit and three leases in the Northstar Unit (a joint State/Federal unit that is currently in production). There are challenges with offshore oil and gas development activities in Alaska, such as unique and sensitive environmental conditions, remote location, and limited access to infrastructure.

BOEM's Camarillo, California Office (Camarillo Office): As of February 1, 2023, BOEM manages activity on 30 active leases covering 152,578 acres offshore California. The following map shows the location of the leases off the coast of Southern California.

Figure 11: Camarillo Office Active Leases



➤ Official Boundaries

The development and maintenance of accurate OCS boundary lines are a foundational requirement for all BOEM OCS leasing activities. Various court decisions, treaties, laws, policies, and procedures guide the boundary making process on the OCS. The submerged lands of the OCS are subdivided into parcels referred to as OCS blocks. No submerged lands may be offered for lease that are not under the jurisdiction of the Federal Government, and no such submerged Federal lands may be offered for lease or sale by either a foreign country or a U.S. State. Through its mapping and boundary functions, both in headquarters and in the regional offices, BOEM is responsible for producing and maintaining the official offshore cadastre for the OCS of the United States.

BOEM's mapping activities are subject to the Foundations for Evidence-Based Policymaking Act of 2018, which requires information-driven decisions with transparency back to the underlying data; the OPEN Government Data Act of 2018, which makes open data a key part of every agency's Information Resources Management Plan; and the Geospatial Data Act of 2018, which ensures that geospatial data from multiple sources is available and easily integrated to enhance the understanding of the physical and cultural world.

Using Geographic Information System (GIS) software tools, block and boundary data previously stored in BOEM's Technical Information Management System has been transferred to multiple geodatabases,

where it can be updated more efficiently (e.g., when new boundaries are established) and maintained in the Boundary Delineation System Database. Using GIS for these processes has reduced the required time and effort dramatically compared to using legacy mapping tools. The Boundary Delineation System Database is used to perform mathematical offshore boundary computations in preparation of OCS leasing maps, official protraction diagrams, and supplemental official OCS block diagrams depicting OCS block information, the Submerged Lands Act boundary, limits of the “8(g) and 8(p) Zones,” and corresponding area measurements. The current focus of this work is enhancing existing tools to support renewable energy plans in the Gulf of Mexico Region and to develop new tools to support future datum conversion projects. BOEM has created a Gulf of Mexico NAD83 cadastre to be used for the Gulf of Mexico Region renewable energy lease sale. BOEM used the new Frontier Tool to generate the NAD83 Protractions, Blocks, and Aliquots within the Call Area for the Gulf of Mexico Region. This information was published in the *Federal Register* on August 19, 2022, and can also be viewed on BOEM’s [webpage at https://www.boem.gov/gom83-cadastral-data](https://www.boem.gov/gom83-cadastral-data).

➤ Geospatial Services Coordination

To engage in effective planning, leasing, and permitting activities that result in sound ocean management decisions, BOEM programs need geospatial data that describe the uses and resources that collectively make up the ocean space. U.S. coastal zones and offshore areas provide the backdrop for a wide spectrum of marine activities including mining sand for beach nourishment, facilitating aquaculture projects, military training, protection of important species, vessel transit, commercial fishing and fisheries management, and energy development. Ocean users and activities have the potential to affect each other, and these interactions need to be understood and considered. Coordination of mission-critical geospatial data that informs decision making brings clarity to the crowded marine space and supports America’s most pressing ocean economic, security, and environmental interests. Ocean-based geospatial data has thus emerged as a federal priority in recent years, while at the same time BOEM is experiencing rapid changes in technology and a growing demand for data of all types.

On April 23, 2022, BOEM completed Phase 2 of a comprehensive information technology business planning effort, meeting a critical milestone for the Department to assess and potentially develop a consolidated Federal geographic mapping service that facilitates public access to climate-related information to assist Federal, State, local, and Tribal governments in climate planning and resilience activities. The Bureau rebranded the project as BOEM’s Geospatial Shared Enterprise Architecture & Services (GeoSEAS), and is part of BOEM’s support for EO 14008 section 211, “Climate Action Plans and Data and Information Products to Improve Adaptation and Increase Resilience.” This project further positions BOEM to leverage data from all BOEM mission areas to fuel increasingly sophisticated analytical tools to support the Administration in solving new ocean management and conservation problems. GeoSEAS is intended to meet the requirements of robust program adoption, including expanded processing capabilities, storage needs, custom application support, staffing, and improved support to Federal partners such as NOAA for consuming BOEM data shared on the MarineCadastre.gov portal.

Modern enterprise geospatial information technology will function as the backbone of how BOEM supports mission operations, serves the public in the digital age, and partners with other agencies such as

NOAA in the deployment of MarineCadastre.gov. Data, accountability, and transparency are improved with the modern tools to deliver visibly better results to the public, increasing accountability to taxpayers for sound fiscal stewardship and mission results. Further, this ensures the adequacy of supporting technologies and infrastructures, developing and implementing appropriate mapping/data/metadata standards, and ensuring compliance with applicable Federal directives and requirements, including provisions of the OPEN Government Data Act, the Foundations for Evidence-Based Policymaking Act, the Information Quality Act, and the Geospatial Data Act. Implementing the terms of the OPEN Government Data Act and Federal Data Strategy, the BOEM geospatial program treats data as an asset, requiring and prioritizing new data for public disclosure, machine readability, open licensing, and discoverability through data.gov and MarineCadastre.gov. Similarly, as prescribed by the Geospatial Data Act, BOEM promotes greater access and use of government data, establishing enforceable standards for geospatial data, and working to better coordinate among Federal, State, local, and Tribal governments, the private sector, and institutions of higher learning.

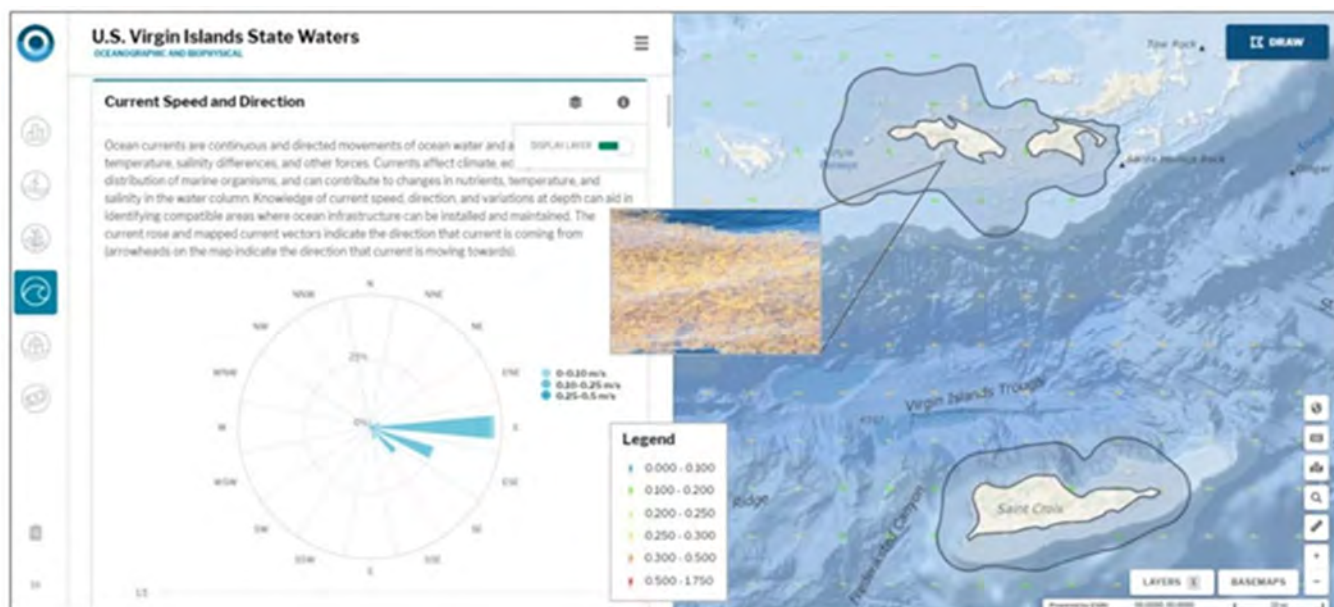
➤ MarineCadastre.gov

The MarineCadastre.gov project, a joint initiative between BOEM and NOAA, is a web-based, integrated marine information system that provides an authoritative source of ocean information, including offshore boundaries, infrastructure, ocean uses, habitat distribution data, energy potential, and other data sets important to both large regional ocean planning efforts and project-specific planning. While originally created to comply with section 388 of the Energy Policy Act of 2005, which mandated a comprehensive digital mapping initiative for decision-making on the OCS, MarineCadastre.gov now provides the geospatial framework needed for broader ocean planning. BOEM’s MarineCadastre.gov program has been recognized repeatedly for its collaborative stewardship efforts and is evolving and expanding to include relevant issue-driven data and tools. Most notably, BOEM worked with the Resource Management Subcommittee of the White House Ocean Policy Committee to develop the “Implementation Plan to Increase Public Access to Marine Data and Information.” The plan informs the Ocean Policy Committee’s efforts to guide agency data providers in implementing its recommendations for making the most-needed geospatial data available to the public so that these data can be searched via MarineCadastre.gov or other regional data providers. Furthermore, the MarineCadastre.gov OceanReports tool is a major component of the agencies’ “Implementation Plan for the Recommendations for Increasing the Efficiency of Permitting for Ocean Exploration, Mapping, and Research Activities.” Under this task, OceanReports was evaluated for its potential utility in helping to modernize ocean permitting and NEPA review for any Federal offshore and coastal permitting actions. The report was delivered to the White House Ocean Policy Committee/Ocean Resource Management Subcommittee in August 2021. Since then, the Ocean Resource Management Subcommittee issued its FY 2022 Workplan and is utilizing MarineCadastre.gov and OceanReports to further the goal: “*Maximize the benefits of sustainable co-use of the ocean*”.



The MarineCadastre.gov website provides comprehensive geospatial data and information to facilitate ocean planning efforts.

For example, one company is using OceanReports in [a pioneering effort](#) to harness fuel from algal biomasses in the Gulf of Mexico and the Caribbean Sea. The company used remote sensing data, oceanographic and biophysical data, and current and wind condition information found within OceanReports to track algal biomasses. Not only could this effort provide a clean, renewable source of fuel, but the process also removes harmful excess nutrients from the ocean and could provide economic benefits to surrounding areas. This represents just one example of the myriad ways OceanReports can be used to support co-use and save time and resources in the process. A [new video](#) (<https://marinecadastre.gov/news/load.php?url=posts/oceanreports-uses.html>) provides additional information.



OceanReports was used to track macroalgae as a source of biofuel.

Since the launch of [OceanReports](#) four years ago, this tool has become a go-to information source, providing instant access to more than 100 ocean and coastal datasets. Ocean professionals, as well the conservation community and others, can use this information to find the best location for an aquaculture site, identify suitable areas for offshore wind development, support port expansion efforts, and much more. By providing ocean intelligence to achieve both renewable energy and conservation goals, OceanReports provides a path forward to support administration climate priorities.

Renewable energy initiatives are growing along the U.S. coasts. Renewable energy siting was the foundation for which [MarineCadastre.gov](#) was established and is a focus of OceanReports. Data provided include offshore wind resource potential, offshore wind planning areas, and offshore wind energy leases. Comprehensive data resources also show the proximity of electric power facilities, which helps to determine if a facility can handle the influx of power generated by offshore energy. Other available data include seafloor depth, elevation, and information about potential conflicts such as endangered species and protected areas, as well as other ocean uses, such as shipping and fishing, which are important to the ocean economy.


MarineCadastre.gov information is provided as immediately viewable map data, downloadable GIS formatted data, and as map services. The three primary focus areas include: web map viewers and ocean planning tools, spatial data registry, and technical support and regional capacity building. In addition to the data provided by other authoritative providers – such as NOAA, FWS, the U.S. Geological Survey (USGS), and the U.S. Coast Guard – MarineCadastre.gov includes a variety of BOEM and BSEE data sets. Users inside and outside of BOEM have access to the most up-to-date versions of lease maps, protraction diagrams, leased blocks, OCS blocks, boundaries, pipelines, wells, and other BOEM/BSEE generated GIS data important to stakeholders for marine and energy development planning purposes. Several regional ocean portal projects use the data and services provided through the MarineCadastre.gov project, fulfilling BOEM’s vision for the project to be the first place to find authoritative coastal and marine data.

MarineCadastre.gov collects Automatic Identification System (AIS) data quarterly for all areas monitored by the U.S. Coast Guard and U.S. Army Corps of Engineers, and provides historical AIS data from 2009-2022. A suite of free user tools accompanies the data for users to build density and trackline map products. A new innovative AIS tool was launched in FY 2022, [AccessAIS](#), which provides a quick glimpse of vessel traffic densities and patterns and allows users to select and quickly download data for their areas of interest and time periods. This tool provides vessel traffic data for 2016 to June 2022, with the intent to add subsequent quarters as the data become available. This advancement provides the ocean planning community a faster and more efficient way to access data for their custom areas of interest. The tool also allows users to download up to 2GB of data.

In FY 2022, the focus of the project was on creating and delivering the most up-to-date data and removing data sets that are outdated, superseded, or hosted by local or regional portals. The project is seeking partnerships to deliver high value datasets that have been requested by stakeholders. The following graphic displays a listing of new data layers and those planned for FY 2023.


New data

- Artificial Reefs
- Atlantic Block Areas with Sand Resources
- Coastal Zone Management Act
- Formerly Used Defense Sites
- Military Operating Area Boundaries
- National Marine Sanctuaries
- Offshore Wind Energy Leases
- Offshore Wind Planning Areas
- Pipeline Areas
- Regulated Navigation Areas
- Vessel Routing Measures
- Wastewater Outfalls (national coverage) includes Outfall Pipes and Wastewater Facilities



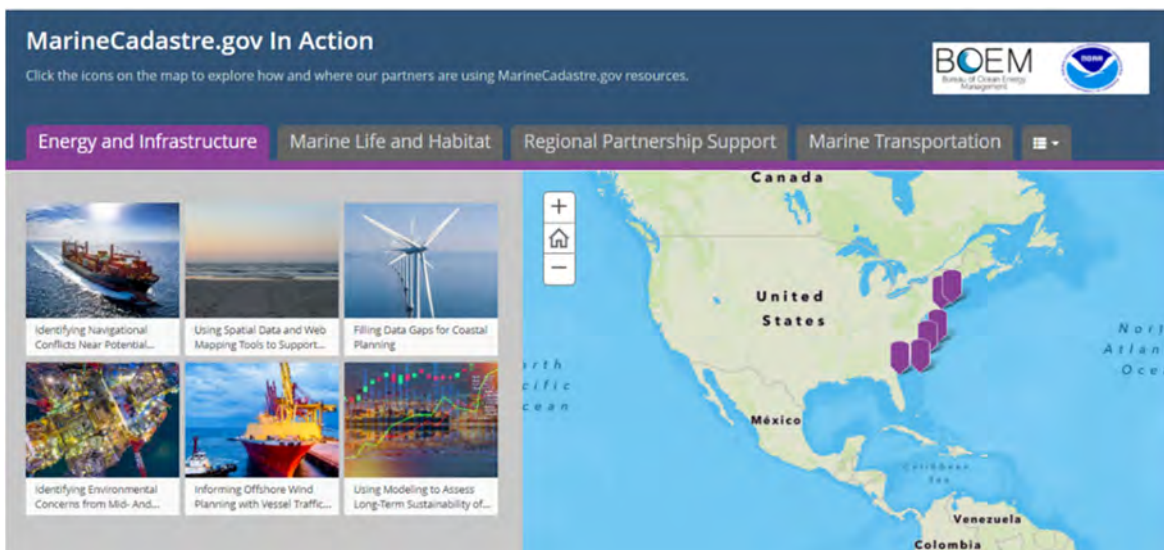
On the horizon

- BOEM Modeled Sand
- Danger Zones and Restricted Areas
- Offshore Oil and Gas Wells
- Offshore Oil and Gas Platforms
- Offshore Oil and Gas Leases
- Sand Resources
- Wave Climate



New data layers planned during FY 2023 for MarineCadastr.gov.

Story maps and special purpose maps are live online maps with surrounding narratives to help explain the details and uses of the maps for their intended audiences. Currently, the Marine Cadastre program maintains a National Viewer and six story maps at: <https://marinecadastre.gov/viewers/>.



The screenshot shows the 'MarineCadastr.gov In Action' story map interface. At the top, it features the BOEM logo and a navigation bar with categories: 'Energy and Infrastructure', 'Marine Life and Habitat', 'Regional Partnership Support', and 'Marine Transportation'. Below the navigation bar is a grid of six story map thumbnails, each with a title and a small image. The thumbnails are: 1. 'Identifying Navigational Conflicts Near Potential...' (ship), 2. 'Using Spatial Data and Web Mapping Tools to Support...' (coastline), 3. 'Filling Data Gaps for Coastal Planning' (wind turbine), 4. 'Identifying Environmental Concerns from Mid-And...' (satellite map), 5. 'Informing Offshore Wind Planning with Vessel Traffic...' (offshore platform), and 6. 'Using Modeling to Assess Long-Term Sustainability of...' (data visualization). To the right of the thumbnails is a map of the United States and surrounding regions, with several purple icons placed along the East Coast. The map includes labels for 'Canada', 'United States', 'Mexico', 'Venezuela', 'Colombia', 'North Atlantic Ocean', and 'Caribbean Sea'. A vertical navigation panel on the left of the map contains zoom in (+), home, and zoom out (-) icons.

Example of a MarineCadastr.gov story map

PLANS

Each of BOEM's regional offices manages the review and approval process for all EPs, DPPs, or DOCs within their respective OCS waters. In conducting plan reviews, BOEM examines the proposed exploration, development, and production activities to ensure they conform to regulatory performance standards, comply with Federal laws, are safe, adhere to sound conservation practices, protect the rights of the U.S. Government, do not unreasonably interfere with other OCS uses, and do not cause undue harm to the human, marine, or coastal environments. This oversight ensures that industry follows all applicable laws, regulations, and lease terms when exploring for and developing oil and gas resources on the OCS.

For existing leases, BOEM conducts in-depth reviews of plans within required timeframes to ensure that planned activities are approved and conducted in a timely manner, in accordance with applicable laws, regulations, and lease terms. BOEM works to ensure the review process is rigorous, efficient, and predictable. BOEM designates specific plan coordinators to ensure consistency throughout the review process. During plan review, BOEM evaluates the potential environmental impacts of the proposed activities pursuant to OCSLA and NEPA. Analyses include reviews of shallow hazards and seafloor features, resource conservation, financial assurance, worst-case discharge, air quality, water quality, archaeological concerns, environmental resource concerns, subsistence use concerns, and military and security issues. The analyses provide information to support plan decisions and development of approval conditions to help protect the environment and facilitate multiple uses of the OCS.

The following figures illustrate typical plan review and approval processes for exploration and development of OCS oil and gas resources.

Figure 12: Processes for Oil and Gas Exploration Activities

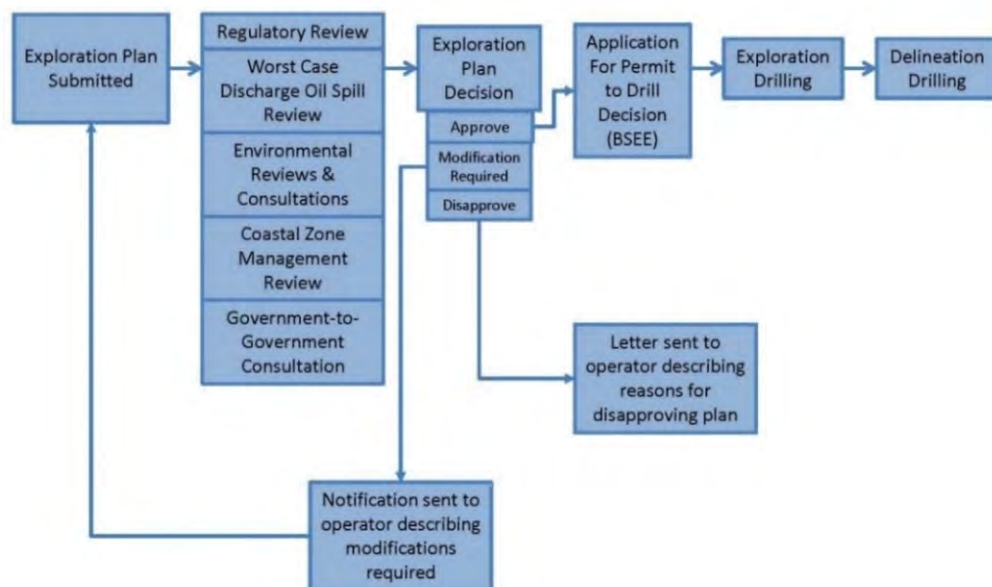


Figure 13: Processes for Oil and Gas Development Activities



Note: This figure reflects the process for DOCDs in the New Orleans Office. The Anchorage Office and the Camarillo Office follow a similar process, but receive DPPs rather than DOCDs.

New Orleans Office: The number of total plans reviewed in calendar year 2022 was slightly higher than in 2021, with a considerable increase in EPs (27%) and a modest decrease in DOCDs (-10%). Table 10 shows all plan submittals – initial, supplemental, revised, modifications, amendments, and post-approval – received from 2013 through 2022, as well as BOEM’s estimates for the number of plan submittals in 2023 and 2024.

Table 10: Recent and Projected Plan Review Activities in the Gulf of Mexico

Calendar Year	# EPs	# DOCDs
2013	504	616
2014	509	601
2015	542	473
2016	336	248
2017	305	423
2018	293	448
2019	336	401
2020	325	407
2021	237	343
2022	300	310
2023*	325	400
2024*	325	400

* The number of plans noted in 2023 and 2024 are estimated.

BOEM also reviews and processes applications for rights-of-use and easement. Rights-of-use and easement are granted to operators to construct or maintain platforms and other installations at OCS sites on which the operator does not have an OCS lease, if the proposed activities would facilitate the development of leased resources. Prior to granting a right-of-use and easement request, BOEM must review and approve a plan outlining the proposed activities to ensure these activities conform to sound conservation practices and are carried out in a safe and environmentally sound manner to prevent harm or damage to any natural resource or the human, marine, or coastal environments. In FY 2022, BOEM received 23 right-of-use and easement requests and completed 12 reviews. BOEM anticipates receiving approximately 20 such requests in both FY 2023 and FY 2024.

Anchorage Office: In FY 2020, BOEM received an EP for Lower Cook Inlet and initiated a plan completeness review. After review, BOEM determined additional information was needed to deem the EP submitted. The review of the EP will proceed once the requested information is provided to BOEM. In FY 2021, BOEM approved the operator’s application to conduct geohazard and cultural surveys on and near proposed drill sites.

In October 2018, BOEM approved the DPP for the Liberty Prospect, located in the Beaufort Sea in the OCS waters northeast of Prudhoe Bay. Activities described in the approved development and production plan, if executed, will result in the first solely Federal OCS oil and gas development in the U.S. Arctic. Responsible and safe development of the Liberty Prospect will require continued engagement by BOEM, BSEE, and other Federal agencies. The Ninth Circuit’s ruling in *Center for Biological Diversity v. Bernhardt*, 982 F.3d 723 (2020), vacated the DPP approval and remanded the action to BOEM. In FY 2022, Hilcorp—the current owner of the Liberty Prospect—informed BOEM that it would provide an amendment to its DPP after it updates its oil spill response plan.

Northstar is a joint Federal/State of Alaska unit located in the Beaufort Sea about 12 miles northwest of Prudhoe Bay that has been producing since 2001. BP was the original lessee and operator of Northstar.

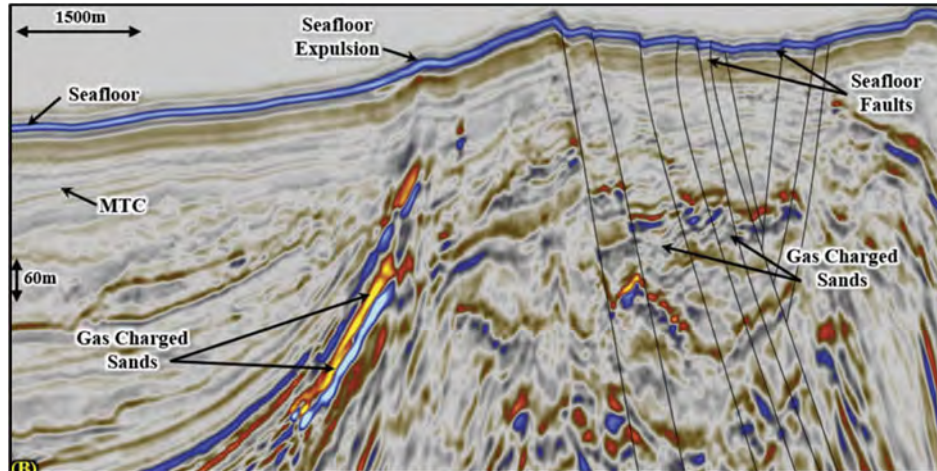
Hilcorp has operated the field since 2014, which produces about 4,600 barrels of oil per day and 3,100 barrels of natural gas liquids per day. BOEM will continue to review and monitor Federal production activities at Northstar and may need to conduct additional NEPA analysis if operations expand.

The BOEM Anchorage office initiates and engages in government-to-government consultations with federally recognized Tribes and government-to-Alaska Native Claims Settlement Act corporations in planning activities that may have a substantial direct effect on those entities.

Camarillo Office: Proposed activities on active leases periodically require updates or revisions to approved DPPs. BOEM did not have any plan activity offshore California in FY 2022. In FY 2023, BOEM expects to receive one revised or supplemental DPP. BOEM assists BSEE in the preparation of environmental analyses and supports compliance reviews associated with conventional energy leases, and has worked with BSEE in the development of a draft programmatic EIS on decommissioning activities on the Pacific OCS, which was published on October 11, 2022. BOEM and BSEE are currently reviewing public comments on the draft.

➤ **Geological & Geophysical Reviews**

BOEM is responsible for reviewing all oil and gas exploration and development plans for potential hazards that may be encountered during drilling activities. BOEM geoscientists identify and evaluate the potential risks of surface and subsurface geologic hazards (e.g., shallow faults, shallow gas pockets, shallow water flows, abnormal pressure zones, etc.) and man-made obstructions (e.g., pipelines, cables, shipwrecks, etc.). Geophysical reviews are performed to evaluate shallow hazards (seafloor and near seafloor) associated with operators' applications for pipeline rights-of-way and associated permits. To analyze these applications and requests, BOEM uses G&G data (e.g., 2D and 3D seismic data, and high-resolution side scan sonar data) to understand the geologic and geophysical environment in the area. BOEM evaluates and verifies operators' submissions and interpretations, such as their identification and assessment of potential geohazards and archaeological resources that may be affected by drilling, installation of structures, laying pipelines, and other ancillary activities. In addition, geoscientists evaluate the potential risk of encountering hydrogen sulfide. The G&G reviews provide a detailed evaluation of operators' geohazards analyses, shallow hazards assessment, and archaeological resources, and are used to determine mitigations to be applied to plan and permit approvals.



Seismic Data Showing Shallow Geohazards

Source: <https://ncs-subsea.com/seismic/applications/>

BOEM provides BSEE, upon request, with subsurface expertise and assistance with regulatory review of applications for drilling permits. For example, BOEM geoscientists conduct G&G evaluations that include broaching analyses that support BSEE's review and approval of operators' applications for permits to drill. The integrity of the well design is evaluated by BSEE, and if a determination is made that the well may fail at a certain casing point, geoscientists conduct a broaching analysis. A typical broaching analysis takes one to two weeks, depending on the complexity of the geology, and involves the evaluation of subsurface stratigraphic and structural conditions. The purpose of the analysis is to determine if escaping hydrocarbons from a failed casing shoe (a short steel sleeve attached to the bottom of a string of casing to help guide and protect the casing) will be trapped in the formations, or potentially reach the seafloor.

New Orleans Office: In FY 2022, BOEM conducted 89 geological and 90 geophysical reviews in support of EP and DOCD reviews; 4 high-resolution survey reviews; 80 reviews of applications for permits to drill; and 28 pipeline reviews for BSEE. In the future, increasingly complex analyses will need to be conducted to identify potential geohazards because of the higher resolution data that is being collected for complex projects, especially those occurring in deep water. BOEM anticipates the number of reviews to remain the same in FY 2023 and increase by 10 to 20 percent in FY 2024. In FY 2022, BOEM completed broaching analyses on 3 proposed wells to help support BSEE's reviews. BOEM anticipates approximately five broaching analyses each in FY 2023 and FY 2024.

Anchorage Office: In FY 2021, BOEM conducted one geophysical survey regulatory review and reviewed two volumes of reprocessed priority legacy survey data in preparation for Cook Inlet OCS Lease Sale 258.

➤ Worst-Case Discharge

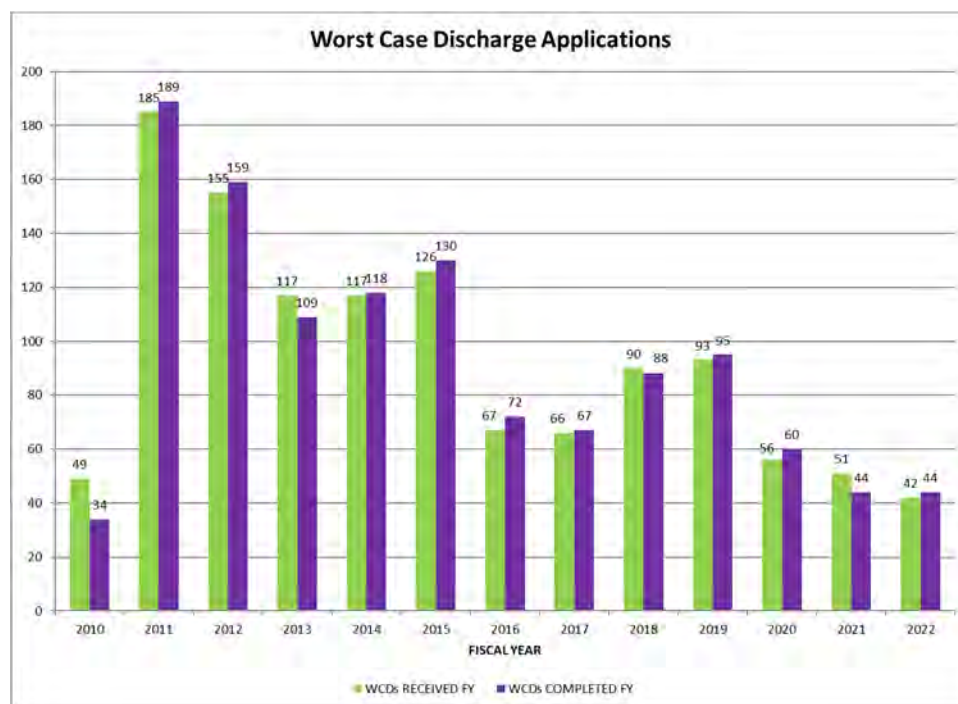
Operators and lessees are required to submit worst-case discharge calculated volumes and associated data as part of every EP, DPP, and DOCD. BOEM defines a worst-case discharge for exploratory and development drilling operations as the daily rate of an uncontrolled flow of oil and gas from all

producable reservoirs that are simultaneously exposed to an open wellbore. The package of reservoirs exposed to an open borehole with the greatest discharge potential is considered the worst-case discharge scenario.

Each regional office is responsible for worst-case discharge verifications and decision documentation associated with plans in their respective regional areas. BOEM geoscientists and engineers independently verify the validity of the volume calculations, assumptions, and analogs used by the operator for the worst-case discharge. BOEM’s worst-case discharge model outputs are used by BSEE in reviewing oil spill response plans and making decisions on applications for permits to drill.

New Orleans Office: BOEM made determinations on 44 worst-case discharge verifications in FY 2022. During FY 2023 and FY 2024, BOEM anticipates the number of worst-case discharge analyses to increase to 55 and 60 respectively, although the workload will depend on the level of drilling activity in the Gulf of Mexico. With drilling on the continental shelf reaching a plateau, the activity level is expected to be driven primarily by deepwater drilling. The following figure depicts the number of worst-case discharge determination requests received and reviewed for completeness, and the number of analyses completed in each year since the program’s inception in 2010.

Figure 14: Worst-Case Discharge Analyses Completed in the New Orleans Office



BOEM continues to develop trend parameters for deepwater exploration and development drilling for critical reservoir and fluid properties for the worst-case discharge analysis to enhance the efficiency of the process while maintaining the regulatory oversight needed to ensure an adequate response to an uncontrolled blowout.

Anchorage Office: BOEM regularly works with operators to clarify the various input parameters and assumptions in reservoir flow simulation models used to produce their worst-case discharge estimates. In FY 2023, BOEM anticipates completing at least one worst-case discharge analysis for proposed exploratory drilling of leases issued under Cook Inlet Lease Sale 244 in 2017.

Camarillo Office: With no new recent leasing in the Pacific region, the worst-case discharge analyses are conducted over mature fields only. BOEM expects to complete a detailed analysis in FY 2023 and will use it to update the recently adopted standard operating document. BOEM anticipates a similar level of activity in FY 2024.

➤ **Oil Spill Financial Responsibility Program**

The financial responsibilities associated with the development of OCS resources are enormous. Just as BOEM must protect the U.S. taxpayer from entities that fail to meet their lease, grant, or permit obligations, BOEM must also ensure that these same entities have the financial resources to pay for cleanup and damages that could be caused by oil discharges from their OCS facilities.

Under the Oil Pollution Act, BOEM is authorized to adjust for inflation the limit of liability for OCS facilities, including pipelines, which BOEM plans to do in FY 2023. Currently, the limit of liability for damages from OCS facility spills under the Oil Pollution Act is capped at \$137.66 million for each incident plus the total of all removal costs. BOEM performs a thorough review of industry oil spill financial responsibility filings, which are required before any drilling activities are approved. BOEM uses the information to (1) ensure Oil Pollution Act compliance by lessees and owners and operators of covered facilities, (2) establish eligibility of designated applicants for oil spill financial responsibility certification, and (3) establish reference and contact information for potentially responsible parties and their designated agents and guarantors. The program currently oversees approximately 93 companies covering 3,451 facilities with financial coverage in excess of \$6.5 billion.

RISK MANAGEMENT PROGRAM

BOEM continues to work to strengthen its financial risk management capabilities to address changing market conditions by tracking the financial profiles of companies in distress and obtaining financial assurance on specific leases as necessary. BOEM conducted a full review of the existing financial assurance framework and engaged with BSEE and industry to discuss relevant issues and concerns to develop a draft financial assurance rule. BOEM will further enhance its comprehensive risk management and financial assurance regulatory framework with the goal of ensuring U.S. taxpayers will not have to pay for liabilities related to noncompliance by lessees and grant holders, including the decommissioning of OCS facilities.

Characteristics of the companies operating on the OCS have changed over the years, with large companies frequently transferring older properties to small companies. Since 2009, there have been 35 bankruptcies of corporations that conducted OCS activities. Accordingly, one potential risk is that a company becomes financially insolvent, and the U.S. Government and taxpayers are forced to pay for

decommissioning a facility.

The cost of decommissioning a facility is based on the type and number of various components (e.g., pipelines, structures, wells), water depth, location, the condition of the facility, market conditions (e.g., rig availability and cost), and other factors. Contingent liabilities associated with the decommissioning of all facilities on the OCS are currently estimated to be approximately \$35.1 billion to \$50.4 billion. In frontier territories, such as the Arctic, the cost of decommissioning a single platform may be twice that of a Gulf of Mexico facility in comparable water depth due to climate, sea ice, and remoteness. These are some examples of the conditions that spurred the need for the U.S. Government to take a more proactive approach to the development and management of a national risk policy and financial assurance program. As a steward of OCS resources, BOEM manages a variety of financial and physical risks associated with OCS activities. Some risks intrinsically relate to financial assurance and loss prevention to the U.S. Government and taxpayers. BOEM performs robust, continuous risk monitoring to help mitigate impacts of financial uncertainty, credit risk, project failures, legal liability, accidents, and natural disasters.

RESOURCE EVALUATION

BOEM conducts analyses to identify areas of the OCS that are the most likely to support conventional energy development based on technical and economic factors. To accomplish this, BOEM:

- Acquires G&G data and information through the regulation of off-lease permitted exploration of the OCS;
- Delineates and develops estimates of the quantities of undiscovered technically and economically recoverable resources that may exist and the volume of reserves discovered and likely to be produced;
- Tracks the volume of discovered reserves, produced reserves, and the remaining reserves by field;
- Forecasts future industry activity levels and develops scenarios for the leasing program; and,
- Determines the adequacy of high bids received for individual tracts offered for lease as it seeks to ensure the Nation receives fair market value for the tracts.

BOEM's evaluation of geological, engineering, and geophysical data and information provides the inputs to economic and statistical analyses that inform leasing policies and program decisions, such as the design of financial terms for lease sales. Program analyses assist in exploration and development plan decisions and help reduce the risk of safety and environmental concerns in OCS development decision-making.

Resource Evaluation is engaged in BOEM's implementation of an offshore carbon sequestration program by evaluating carbon storage potential on the Gulf of Mexico and Atlantic OCS. Efforts are being conducted in key areas such as CO₂ storage regional assessment, site characterization, and plume modeling. The office is also participating in numerous outreach opportunities to collaborate, share, and develop BOEM expertise in carbon sequestration.

➤ Resource Assessment

BOEM identifies resources associated with geologic plays and areas on the OCS that offer the highest potential for oil and gas development and production. Following the identification of hydrocarbon plays, BOEM assesses each play's hydrocarbon potential and its economic viability with complex computer modeling and methodologies. The assessment process incorporates specific geologic, petroleum engineering, and economic data and information. In addition to helping BOEM estimate undiscovered hydrocarbon resources, these studies help BOEM identify environmental and operational constraints, assisting in lease sale decision-making. BOEM also estimates the amounts of oil and gas likely to be discovered and produced and generates potential scenarios of future exploration, development, and production activities. BOEM tracks the resources and acres offered annually, compared to what was planned for the year, and analyzes the results to inform the National OCS Program and individual lease sale decisions. Resource estimates support analyses of potential impacts of policy decisions, legislative proposals, and industry activities, as well as informing NEPA analyses.

The scale of the assessment activities ranges from large (i.e., regional or OCS-wide) to small (i.e., lease sale specific, such as individual prospects and lease tracts). In the early stages of this process, the focus is on regional areas. As more data and information are acquired, the focus shifts to lease sales and prospect-specific areas to be offered for lease, or that are related to a specific issue (e.g., moratoria). Once a lease sale area has been identified, BOEM's geologists and geophysicists perform detailed subsurface mapping and analyses to estimate the resource potential of individual prospects within that area. These prospect-specific data, maps, and analyses are also used to determine parameters for post-sale bid analyses in support of fair market value evaluations.

BOEM provides a comprehensive national assessment of undiscovered oil and gas resources in five-year intervals. BOEM's most recent National Assessment, the *2021 National Assessment of Undiscovered Oil and Gas Resources of the U.S. Outer Continental Shelf* (2021 National Assessment), represents a thorough appraisal that considers relevant data and the best available information and builds upon previous assessment efforts on the OCS. In its 2021 Assessment, BOEM estimates that the United States OCS contains a mean of 68.79 billion barrels of undiscovered technically recoverable oil and a mean of 229.03 trillion cubic feet of undiscovered technically recoverable natural gas. The resource information and analysis included in the 2021 National Assessment are critical to informing BOEM's leasing efforts, specifically the development of the next National OCS Oil and Gas Leasing Program. Additional information is available online at: <https://www.boem.gov/oil-gas-energy/resource-evaluation/undiscovered-resources>. In FY 2023, BOEM will finalize a workplan and begin parameter development for the 2026 National Assessment.

The 2021 National Assessment was developed by compiling pricing and economic information, updating cost databases and taxation assumptions, finalizing geologic play-level estimates, and aggregating resource estimates to the National level. Analysis of geologic history, regional stratigraphy, major geologic trends, major structural features, source rocks, reservoir rocks, seals and trapping mechanisms, and petroleum exploration history was conducted. In addition, the application of risk and probability theory and statistical analysis was used to develop resource estimates for the 2021 assessment. The 2021

National Assessment also included the development of an improved corporate approach to geologic risk assessment. In FY 2022, BOEM published both national and regional reports supporting the 2021 National Assessment.

New Orleans Office: To support the development of the 2026 National Assessment, the Gulf of Mexico Region will begin the reassessment of resources located in the Atlantic OCS and Gulf of Mexico OCS. BOEM will form teams of geoscientists and engineers for both basins. BOEM will create work plan and project management documents and develop and adopt a standardized methodology for assessing plays across all regions.

Anchorage Office: Staff has begun re-evaluating the geologic interpretations of Alaska’s OCS areas from the ground up using the newest interpretive tools complemented by freshly reprocessed legacy data and newly acquired geophysical data to lay the groundwork for the 2026 National Assessment. In FY 2022, BOEM began to digitally assess key components of geologic plays and prospects across certain OCS areas, integrating new data using highly evolved interpretive techniques developed in recent years to perform a comprehensive update to the regional assessment. This update will be the first major, regionally extensive geologically focused update since the last comprehensive assessment of Alaska OCS resources in 1995. In FY 2023, BOEM will also prioritize a series of data management initiatives to create, populate, and maintain an authoritative database of key geologic parameters vital to resource assessment activities to ensure assessors have efficient access to these valuable datasets.

Camarillo Office: For FY 2023 and FY 2024, the Pacific Region will begin the implementation of probabilistic approaches to capture the geologic uncertainties for the 2026 National Assessment. In FY 2023, the Pacific Region plans to use its G&G database to re-evaluate play risk and geologic uncertainties supporting resource evaluation.

➤ **Reserves Inventory Program**

The OCSLA requires the Department to “conduct a continuing investigation... for the purpose of determining the availability of all oil and gas produced or located on the Outer Continental Shelf.” To meet this requirement, BOEM develops independent estimates of economically recoverable amounts of oil and gas contained within discovered fields by conducting field reserve studies. The reserve estimates undergo continuous revisions to reflect new information obtained from development and production activities. BOEM is responsible for continually updating volumetric estimates on over 1,300 fields in the Gulf of Mexico. During FY 2022, approximately 2,400 reservoirs were interpreted, revised, or added to the inventory. Due to the reservoir data conversion from deterministic to probabilistic, and the challenges that follow launching a new program, BOEM anticipates fewer reserves inventory updates in FY 2023 and FY 2024.

Reserve studies are critical inputs to determining the Nation’s OCS oil and gas endowment, conducting resource assessments, carbon sequestration capacity assessments, generating analog information for bid adequacy determinations, and informing the review of industry plans and requests. The geologic and engineering information supports other program activities within the Department, including development and preparation of the National OCS Program and cooperative efforts with DOE and the Energy

Information Administration. For example, BOEM's reserves inventory and resource assessment information support the Energy Information Administration's National Energy Modeling System, which is used to prepare forecasts within its Annual Energy Outlook.

New Orleans Office: Reserves inventory personnel review conservation information document submissions, which BOEM requires to ensure operators exploit all economic reservoir accumulations discovered rather than producing only the most prolific zones and bypassing marginally economic zones. The review and analysis of conservation information documents allows for the maximum ultimate recovery and full development of economic reserves and resources, while ensuring fair monetary compensation for the Federal Government. In FY 2022, BOEM evaluated 21 initial and supplemental conservation information documents and 8 revised conservation information documents resulting in a commitment to develop an additional 110.42 billion cubic feet of gas and 6.77 million barrels of oil in recoverable hydrocarbons, amounting to approximately \$135.3 million dollars in royalties. During FY 2023 and FY 2024, BOEM anticipates evaluating approximately 15 initial and supplemental conservation information documents and 10 revised conservation information documents annually.

Anchorage Office: BOEM continues to support BSEE in the oversight of production allocation issues for the Northstar field production unit, which produces oil from both State of Alaska and Federal OCS leases. In FY 2022, BOEM completed and provided the Alaska OCS Region 10-year Oil and Gas Production Forecast that contributes to BOEM's 10-year estimate of Federal OCS royalty receipts. This estimate includes future production forecasts from developments that are thought likely to occur within the next 10 years. During FY 2022, BOEM engineers and geoscientists began an inventory of Alaska OCS contingent resources. This inventory will provide decision makers and the public with an assessment of oil and gas resources previously discovered but no longer leased. This effort will take two to three years to complete, but the Alaska region anticipates having new estimates to publish in the 2023 Report to Congress of the Comprehensive Inventory of OCS Resources.

Camarillo Office: BOEM's annual Field Reservoir and Reserve Estimates report, which breaks down the area's reserves and known resources by field and productive zones, provides a brief update on reserves and production between releases of the more comprehensive Estimated Oil and Gas Reserves report. BOEM Pacific completed the calendar year 2021 Field Reservoir and Reserve Estimates report in FY 2022, and expects the calendar year 2022 reserves report will be completed and published in FY 2023. The Camarillo Office also provides the Pacific OCS Region 10-year Oil and Gas Production forecast, which is used to estimate 10-year Federal OCS royalty receipts for budget submissions.

➤ **Permitting of Prelease/Off-Lease Exploration**

BOEM works to ensure that OCS energy-related prelease exploration, prospecting, and scientific research operations do not interfere with other ocean users, lease operations, or other permitted uses of the area. Permits to acquire pre-lease G&G data identify specific parameters for each activity, including the area of interest, the timing of acquisition, the use of approved equipment and methods, and required environmental compliance measures. For each approved application, the operator receives a signed copy of the permit that outlines requirements regarding reporting, submission, inspection and selection of data, reimbursement, disclosure of information, possible sharing of data with affected States, contact

information for coordinating activities with affected stakeholders, and policies regarding permit modifications. Adherence to BOEM's processes and regulations ensures exploration and research activities are conducted in a safe and environmentally sound manner.

New Orleans Office: BOEM continues to process permits for oil and gas exploration activities. During FY 2022, BOEM evaluated and issued 34 permits. Over the course of FY 2023, BOEM anticipates evaluating and issuing approximately 40 permits and various permit modifications, with most of the permits issued for high-resolution and deep penetration seismic surveys. BOEM estimates it will evaluate and issue approximately 42 permits during FY 2024.

Anchorage Office: BOEM will continue to process permits for oil and gas exploration activities. In FY 2021, BOEM approved a geohazard permit for data collection in the Cook Inlet OCS. The permittee collected seismic data over four leased blocks and the surrounding area and finished in October 2021. Future permit activity is expected at up to two permits per year, primarily for seismic surveys for off-lease exploration. BOEM ensures that all permittees adhere to statutory requirements (including the Marine Mammal Protection Act and the Endangered Species Act), and BOEM performs outreach and conducts government-to-government consultations with Tribal and Alaska Native Claims Settlement Act Corporations when requested. BOEM will inspect and select any new data as a result of future seismic surveys for BOEM geoscientists to use for resource assessment and fair market value evaluation. In FY 2023, BOEM is prioritizing the creation, population, and implementation of an Esri Portal-enabled geologic and geophysical lifecycle tracking toolkit and back-end database that will manage the issuance of permits, enable automation assisted operations tracking, and document all permit administration activities through the tool environment. This toolkit will also allow for automated identification of data eligible for release under regulations, capture use restrictions of individual BOEM-managed data, and provide metadata and document links capturing important information about BOEM-managed data.

Camarillo Office: There was no permitting activity in FY 2022, and none is anticipated for FY 2023 and FY 2024.

➤ **G&G Data Acquisition and Analysis**

The acquisition and analysis of G&G data are critical to identifying potential resources on the OCS. This enables BOEM to identify areas favorable for the accumulation of hydrocarbons and develop estimates of resource volumes and economic values of these accumulations. These estimates are used to focus OCS leasing on areas of high potential, as well as to help BOEM as it seeks to ensure fair market value in lease sale bid evaluations. The majority of BOEM business processes where oil and gas resources are assessed – such as the reserve inventory program, fair market value analysis, and resource assessment – are based on the analysis of large volumes of G&G data. The primary source of the G&G data BOEM uses is acquired by the oil and gas industry. As a condition of the permit that BOEM issues for each industry activity (such as seismic data acquisition), companies are required to provide a copy of the G&G data and

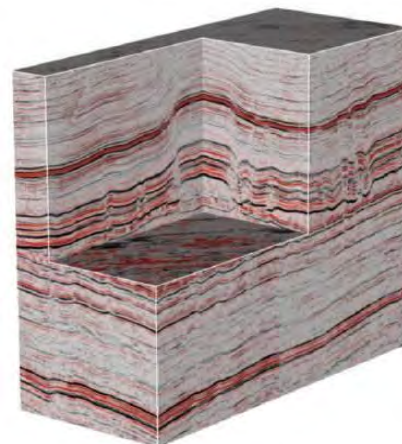
information to BOEM upon request after completion of data acquisition. BOEM uses the data internally, while maintaining it in a proprietary term that generally ranges from 2 to 25 years. The extensive amount of acquired data and information are used by BOEM and BSEE geologists, geophysicists, and petroleum engineers to perform a variety of analyses leading to resource estimates, reserve inventories, and determining leased tract fair market value.

Atlantic OCS: BOEM supports both the acquisition of modern, robust scientific information about the scope and location of potential oil and gas resources in the Atlantic and the resolution of significant potential conflicts between OCS uses in this area.

In recent years, three Atlantic G&G permits for airborne gravity/magnetic surveys have been issued. They were issued in FY 2015, FY 2016, and FY 2020. All permits expired with no data collection. NOAA issued Incidental Harassment Authorizations on November 30, 2018, for five deep penetration seismic surveys proposed off the Atlantic coast. The Incidental Harassment Authorizations expired on November 30, 2020, and the associated G&G permits were not issued. Permittees will have to reapply if they wish to pursue data acquisition on the Atlantic OCS. One G&G permit application for oil and gas exploration on the Atlantic OCS is currently pending — all others were cancelled by the permittees.

New Orleans Office: Both BOEM and industry are expanding their use of 3D technology to study and evaluate the complex geologic picture of the Gulf of Mexico. The data provided by this technology is used to inform decisions regarding offshore resource development. Because it oversees many active leases, BOEM acquires, analyzes, and manages a vast collection of G&G data. The New Orleans Office currently manages data from approximately 2,873 three-dimensional surveys, 601 two-dimensional surveys, and other critical data sources encompassing a total volume of 256 terabytes of 32-bit SEG-Y data. The volume of seismic data managed by BOEM increased by 6.1 terabytes during FY 2022. To manage all of this data effectively, BOEM invests in data management solutions (servers, disk space, hierarchical storage management, database development) needed to store, archive, manage, and deliver geophysical data to BOEM and BSEE users, as well as other stakeholders (e.g., other Federal agencies and the public).

Anchorage Office: BOEM continues to acquire and manage G&G data to support mission functions, such as the review of EPs and DPPs, the development of the National Assessment, lease sale EIS scenarios, National OCS Program scenarios, lease sale fair market value determinations, and worst-case discharge determinations. As of November 2022, BOEM's Anchorage office manages data from approximately 24 3D seismic surveys, 236 2D seismic surveys, and other critical G&G data sources, with a total volume of 1.3 TB of SEG-Y data plus TIFF images of historical 2D seismic data. Data collection operations for Cook Inlet OCS G&G Survey No. 21-01 concluded in FY 2022. BOEM selected and acquired shallow hazards data from permit No. 21-01 for analysis in anticipation of an EP submission in FY 2023. Further reprocessing efforts will proceed as necessary appropriations and budget prioritization are enacted.



Processed 3D seismic data showing oil and gas reservoirs below salt formations in the Gulf of Mexico

Camarillo Office: For FY 2022, BOEM continued expanding its existing database of geologic and engineering data. For FY 2023 and FY 2024, BOEM plans to continue incorporating these data in studies covering the entire Pacific OCS Region.

➤ **Fair Market Value and Bid Adequacy**

Ensuring the receipt of fair market value for OCS resources is mandated by OCSLA and is one of BOEM’s critical responsibilities for oil and gas leasing. Under its bid adequacy procedures, BOEM reviews all oil and gas lease sale bids and evaluates all blocks using either tract-specific bidding factors or detailed tract-specific analytic factors as it seeks to ensure that fair market value is received for each OCS lease issued. The bid adequacy process relies on evidence of market competition and in-house estimates of tract value. The bid review process incorporates G&G data along with reserve, resource, engineering, and economic information into a sophisticated discounted cash flow computer model that estimates economic value of the corresponding tract. The goal of that model is to achieve independent estimates of fair market value on tracts receiving bids. If a bid is rejected and a company appeals the rejection, BOEM’s experts review the appeal and make a recommendation to the Director.

In response to an October 2019 report from the Government Accountability Office titled, “Offshore Oil and Gas: Opportunities Exist to Better Ensure a Fair Return on Federal Resources,” in January 2023 BOEM published in the *Federal Register* a request for comment on a proposed change in BOEM’s bid adequacy procedures, which would include:

- Eliminating the use of the delayed valuation methodology and adopting a statistical Lower Bound Confidence Interval (LBCI) at a 90% confidence level as a measure of bid adequacy for OCS oil and gas lease sales. The LBCI relies on established statistical concepts and is widely accepted as a standard approach. It also increases clarity and transparency in the bid adequacy process.
- Discontinuing the use of tract classification, which has had minimal impact on the procedural analysis of fair market value.
- Making other, minor revisions to clarify and streamline processes.

Once finalized, the revised bid adequacy procedures would be implemented in the next National OCS Oil and Gas Leasing Program.

Since 1983, bid adequacy reviews and fair market value determinations have resulted in an average bid rejection rate of 4.3 percent. Bid adequacy procedures have consistently resulted in higher returns in subsequent sales for tracts bid on and rejected in previous sales. From 1983 through 2022, BOEM rejected approximately \$740 million in total high bids. Subsequently, the same blocks were re-offered and drew high bids of \$1.96 billion, a total net dollar gain of \$1.29 billion and a return on rejected high bid amounts of 174 percent. The fair market value determinations from bids received in BOEM’s Gulf of Mexico Sale 257, held in November 2021, resulted in rejecting \$1.8 million dollars in high bids.

New Orleans Office: In FY 2022, BOEM conducted Gulf of Mexico region-wide Lease Sale 257, held in the first quarter of FY 2022. Shortly thereafter, the United States District Court for the District of Columbia vacated and remanded the Record of Decision for Lease Sale 257. Subsequent to the Court decision and pursuant to section 50264(b) of the Inflation Reduction Act of 2022 (Pub. L. No. 117-169), Congress directed BOEM to award leases to the highest bidders in Lease Sale 257. This Lease Sale resulted in 307 new leases covering over 1.7 million acres and generated over \$189 million in bonus payments.

Anchorage Office: The approved 2017-2022 National OCS Program scheduled one lease sale in Alaska, in the Cook Inlet Planning Area (Lease Sale 258 in 2022). In FY 2022, BOEM staff conducted a practice post-lease bid adequacy exercise to ensure that workflows were documented, and modeling software ensured all lease blocks receive fair market value for Lease Sale 258. Lease Sale 258 was held on December 30, 2022, and BOEM received a bid on one block. As of February 2023, BOEM was conducting the fair market value review of this bid. To ensure consistency of future lease sales BOEM staff also updated an internal standard operating procedures manual for conducting fair market value analysis. In FY 2023, BOEM will create, populate, and begin to integrate a spatially referenced, Esri Portal-enabled prospect database capturing the results of historic prospect-based fair market value analysis. This database will be used to inform future sales and as a resource for the National Resource Assessment.

➤ Carbon Sequestration Efforts

BOEM has initiated the analyses required to identify and characterize CO₂ sites for potential carbon sequestration lease sales in the Gulf of Mexico. The initial geologic and engineering effort is being conducted in preparation for the evaluation of carbon sequestration projects and plan submittals. To support these reviews, BOEM will conduct several carbon sequestration related evaluations including storage assessment, site characterization, geologic and geomechanical modeling, and plume modeling and monitoring. In FY 2023, BOEM will investigate the relevant economics associated to better understand the factors influencing a successful carbon sequestration project offshore. The economics assessment will include full discounted cash flow analysis utilizing modern geologic, cost, and revenue inputs.

BOEM has commenced a National Carbon Storage Assessment that will include an evaluation of the Gulf of Mexico, Pacific, Alaska, and Atlantic storage capacity. While several external groups provided assessments of CO₂ storage capacity across various parts of the OCS using a variety of modeling approaches, a comprehensive aggregated assessment of CO₂ storage capacity for the entire OCS does not exist. BOEM is utilizing expertise across all regions to develop a national-level assessment of OCS CO₂ storage capacity, including the development of a modeling methodology and model structure in FY 2022. In FY 2023, the project will develop regional storage assessment units and quantify the input parameters for each unit.

The national carbon storage assessment is a multi-year project and will provide stakeholders, industry, and policymakers an understanding of the quantity and location of storage resource and will inform BOEM and BSEE efforts to regulate commercial storage of CO₂ on the OCS.

ECONOMIC EVALUATION

As mentioned above, a critical component of BOEM's mission is seeking to ensure the receipt of fair market value for OCS natural resources. To accomplish this, BOEM employs an interdisciplinary team that provides economic analyses for the Department of the Interior, other Federal agencies, and Congress. To aid in receipt of fair market value, BOEM designs fiscal and lease terms for OCS lease sales; develops various resource and economic evaluation approaches; prepares bid adequacy guidelines, procedures, and economic inputs; and coordinates reviews of appeals of bid rejection decisions. BOEM's economic analysis expertise is often called upon to analyze and implement regulatory and legislative actions affecting OCS leasing, exploration, development, and production activities that generate significant supplies of domestic oil and gas, resulting in the receipt of billions of dollars each year to the U.S. Treasury. BOEM also undertakes studies, as needed, to analyze and address specific policies and compilations of data affecting overall OCS program responsibilities and initiatives.

➤ Economic Analysis and Revenue Estimates

BOEM conducts economic analyses to support the development of regulations, evaluation of policies for lease terms, and conditions and bidding systems for oil and gas and renewable energy lease sales. BOEM's work supports internal and Department-wide projects, such as the development of the National OCS Program, and other Federal agency projects, such as the U.S. Department of Transportation's assessment of fair market rental value for construction of offshore liquefied natural gas ports. BOEM's economic experts review and design policies and methods for forecasting receipts from offshore energy programs, including the estimation of the manner and rate at which reserves and resources of oil and gas are discovered and produced. BOEM generates the receipt estimates used to project revenue and offsetting collections amounts identified in the President's annual budget process and mid-year review process. BOEM's economists also annually assess the present value of the future Federal royalty stream of OCS proven reserves for use in the Nation's accounting statements.

➤ Economic Modeling for Policy and Decision-Making

BOEM's efforts contribute significantly to the development of national energy strategies. BOEM develops and maintains economic and statistical models and databases that are the basis for lease sale design, National OCS Program formulation, resource evaluation, post-sale and operational activities, rulemaking, revenue sharing, and royalty relief programs. The economic assumptions and scenarios that BOEM generates are used in post-sale tract evaluations, national resource assessment studies, and in BSEE's discretionary royalty relief evaluations. BOEM also provides economic analyses and fiscal forecasts for energy leasing policies, regulatory and legislative alternatives, and national energy strategies. Finally, BOEM's economic models inform BOEM's resource needs by projecting rental receipt estimates, which contribute toward BOEM's offsetting collections total.

Marine Minerals

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Marine Minerals

Table 11: Marine Minerals Budget Summary

Activity: Marine Minerals

Dollars in Thousands (\$000)

Marine Minerals	2022 Actual	2023 Enacted	2024 Fixed Costs (+/-)	2024 Internal Transfers (+/-)	2024 Program Changes (+/-)	2024 Request	Change from 2023 Enacted (+/-)
Marine Minerals \$	11,781	14,383	+272	0	+1,716	16,371	+1,988
<i>FTE</i>	21	25	0	0	0	25	0

The OCSLA designates BOEM as the Federal authority for overseeing the use of marine minerals across billions of acres of the OCS. BOEM's Marine Minerals Program facilitates access to and manages these crucial OCS resources to support resilient coasts, natural disaster preparedness, climate change adaptation, and critical infrastructure development and protection. BOEM's marine minerals mission involves environmentally responsible stewardship, mineral resource exploration and leasing activities, coordination with governmental partners, engagement of stakeholders, and scientific research to improve decision making and manage risk.

The Bureau may convey, on a noncompetitive basis, the rights to sand and other sediment to Federal, State, and local government agencies for use in shore protection, beach and wetlands restoration projects, or other construction projects funded or authorized by the Federal Government. BOEM also oversees marine mineral geological and geophysical exploration. BOEM continues to assess which of the currently identified 50 critical minerals, such as cobalt, manganese, and rare-earth elements, may be located on the OCS.

The FY 2024 budget will support:

- Shoreline Infrastructure Protection:** BOEM continues to advance its marine minerals activities that facilitate the restoration and protection of shoreline infrastructure vital to the Nation's security, economy, and ecosystems, as well as beach and coastal wetlands restoration projects. These activities contribute toward the Administration's goal of increasing climate change resilience. BOEM supports and applies state-of-the-art science to make informed decisions, applies nature-based solutions and other adaptation strategies, and builds strong partnerships to

ensure our Nation's coasts are well managed, protected, and preserved for current and future generations.

- **Use of Sand and Sediment Resources:** As of February 27, 2023, BOEM has conveyed the rights to nearly 188 million cubic yards of OCS sediment and executed 66 negotiated agreements for projects in eight States that have restored nearly 449 miles of coastline. BOEM expects to facilitate additional mineral exploration and leasing through FY 2024 on the Gulf of Mexico and Atlantic OCS, including the potential for the first negotiated agreement in the State of Texas.



Key Program Statistics as of February 27, 2023

- **National Offshore Sand Inventory:** BOEM continues to develop the National Offshore Sand Inventory, focusing in priority areas along the Gulf of Mexico and south and mid-Atlantic coasts. The National Offshore Sand Inventory helps BOEM and its partners identify the location, quantity, and character of sand reserves that may be appropriate for use in beach nourishment, coastal restoration, and infrastructure protection efforts. The National Offshore Sand Inventory enables BOEM's partners to act quickly and responsibly in emergency or post-storm situations and supports scenario and resilience planning to forestall climate change effects. BOEM also uses the National Offshore Sand Inventory to identify and manage multiple use conflicts, such as when there is an overlap in sand resources with a potential area for renewable energy wind development, and to avoid or minimize environmental impacts from dredging activities.

- **Marine Minerals Information System:** BOEM manages and uses the Marine Minerals Information System (MMIS) to organize marine minerals data. BOEM populates the MMIS with data from National Offshore Sand Inventory activities, as well as project-specific leasing and monitoring activities. The MMIS is publicly available and provides stakeholders with reliable information on sand and gravel resources on the OCS. In FY 2024, BOEM will continue to populate, maintain, and host the MMIS, including updating data and metadata for geologic data, OCS sand resource areas, OCS dredge areas, and shoreline placement reaches.
- **National Offshore Critical Mineral Inventory:** BOEM is building the National Offshore Critical Mineral Inventory to centralize information about potential OCS critical mineral resources and environmental conditions associated with critical mineral-bearing deposits (e.g., polymetallic nodules and hydrothermal vents). In FY 2023 and 2024, BOEM will conduct baseline assessment and environmental characterization work in the Alaska, Pacific, and Gulf of Mexico regions.

SUMMARY OF 2024 PROGRAM CHANGES

Summary of 2024 Program Changes for Marine Minerals

Program Changes:	(\$000)	FTE
National Offshore Sand Inventory	+1,716	+0
TOTAL Program Changes	+1,716	+0

* Changes listed in order of budget activity, not priority.

National Offshore Sand Inventory (+\$1,716,000; 0 FTE). The proposed increase in resources will enable the further development of the National Offshore Sand Inventory. This work facilitates the restoration and protection of shoreline infrastructure vital to the Nation’s security, economy, and ecosystems, as well as beach and coastal wetlands restoration projects. Requested funding will allow for additional geophysical and geological data acquisition, evaluation, and interpretation. The National Offshore Sand Inventory enables the Federal Government to proactively plan for OCS needs and infrastructure protection efforts on a national scale, protecting taxpayers, localities, and the Federal Government from expenses resulting from hurricanes and other storm damage. Requested funds will significantly improve efforts to protect critical infrastructure and economic activity along the coasts of the U.S. by quantifying and identifying compatible and proximate sand resources that will reduce Federal disaster recovery and coastal project dredging costs, while also shortening project timelines. These funds will support coastal infrastructure and property protection, including national security infrastructure and assets.

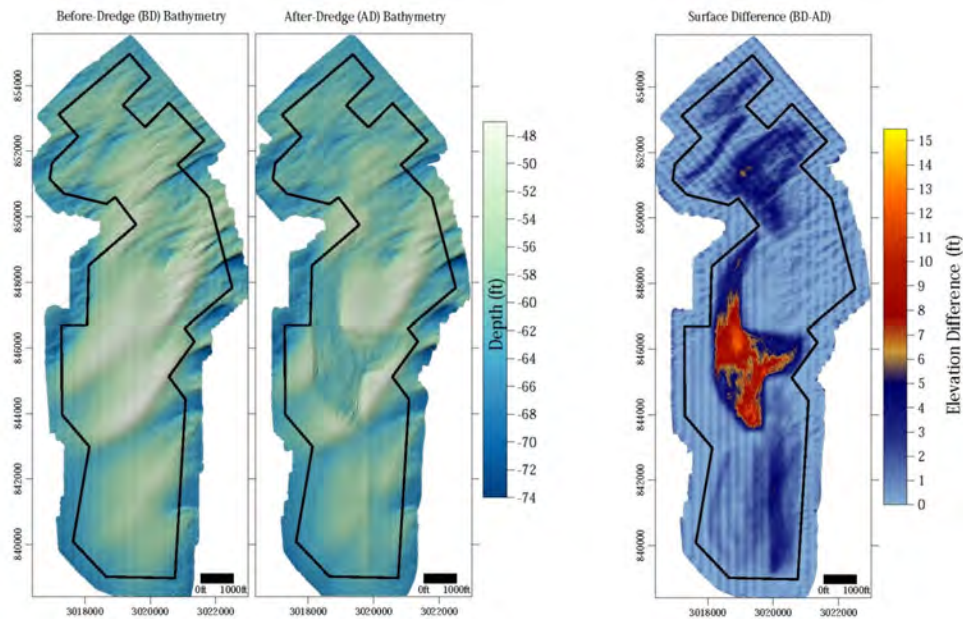
PROGRAM OVERVIEW

During FY 2024, BOEM will continue to:

- Manage the exploration and development of OCS sand and gravel resources supporting the Interior’s coastal resilience mission;
- Identify sand and restoration-quality sediment resources for future use and advance the National Offshore Sand Inventory in high-demand areas or in proximity to resilience hubs;
- Populate, maintain, and deliver information in the MMIS;
- Engage stakeholders and coordinate with key partners on potential projects;
- Conduct environmental research, reviews, and consultations;
- Design dredge plans and associated stipulations to ensure potential environmental impacts are avoided or minimized;
- Develop leasing agreements that incorporate dredge plans;
- Oversee operational research and monitoring related to dredging activities and resource stewardship; and

- Explore the potential for critical minerals on the OCS and continue development of the National Offshore Critical Mineral Inventory.

Figure 15: Seafloor Change Data for Borrow Area in Dare County Beach Nourishment Project (NC)



Elevation changes in borrow area showing OCS sand removed. (Left) Seafloor condition before dredging (Spring 2017) and after dredging (Fall 2017). Dredge tracklines are visible if the after-dredge (AD) map, most clearly in the central region of the borrow area. (Right)

In FY 2024, BOEM anticipates processing additional requests for marine minerals exploration authorizations and noncompetitive leasing agreements. Related stewardship responsibilities include monitoring of dredging operations, borrow area change, and potential environmental impacts. BOEM works with project partners to ensure performance of resilience projects and prudent use of limited OCS resources in those projects. BOEM plans to sponsor new strategic research focused on the identification and responsible use of OCS sand resources. Separately, BOEM will continue to leverage Environmental Studies Program funds to support research on priority environmental issues, such as evaluating the effectiveness of emerging technologies to improve mitigation practice, assessing the impact of dredging in borrow areas home to endangered species, and evaluating unique, slow-growing biological communities associated with critical mineral deposits.

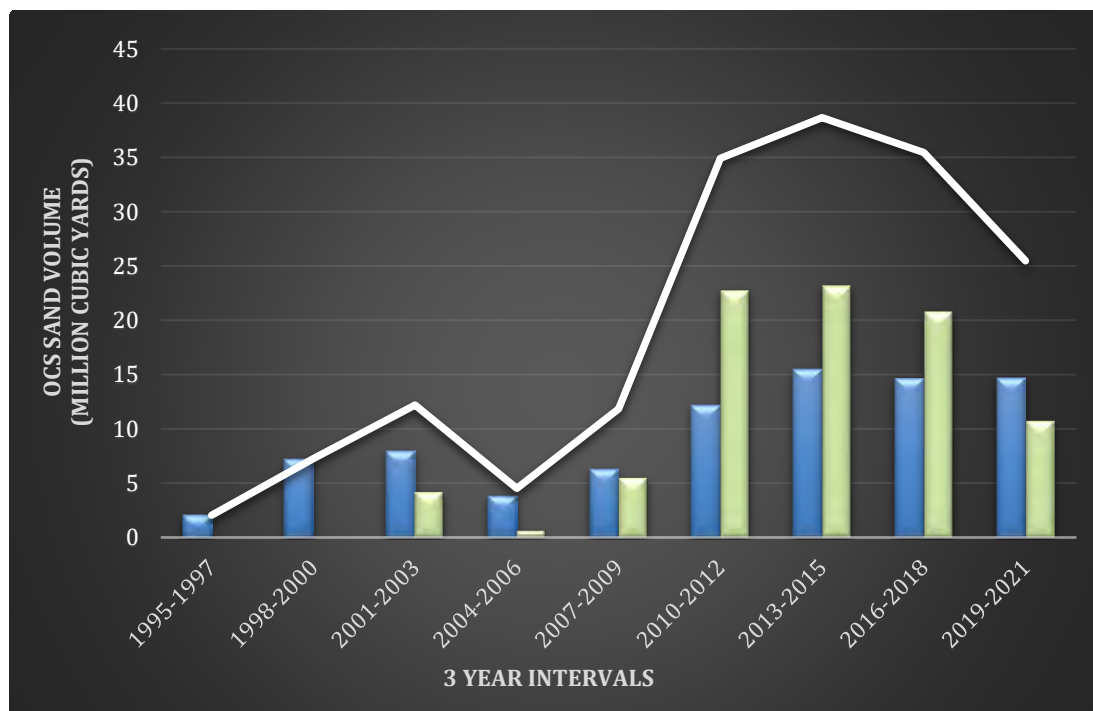
GROWING DEMAND FOR MARINE MINERALS

OCS sand and sediment resources are critical to the long-term success and cost-effectiveness of many shore protection, beach nourishment, and wetlands restoration projects along the Gulf of Mexico and Atlantic coasts. Over the past three decades, BOEM has authorized use of an increasingly large volume of OCS material in coastal resilience projects, amounting to approximately 15-20% of all source material

used in these types of projects in the U.S. These trends are driven by diminishing resources in State waters and frequent tropical and winter storms along the Gulf of Mexico and Atlantic coasts. Over the next ten years, BOEM expects project partners to request the use of several hundreds of million cubic yards more across 13 coastal States. Final project requirements depend on ongoing planning, findings of BOEM-sponsored resource evaluation, and future erosion and storm damage. BOEM anticipates potential growth into New York, Texas, and one or more New England states by the end of the decade. A greater number of projects in Florida, North Carolina, and New Jersey are also expected. Timely access to OCS resources is critical to restoration and recovery efforts in the aftermath of natural disasters.

With early identification of sand resources, BOEM facilitates the protection of shoreline infrastructure vital to the Nation’s security, economy, and ecosystems, through beach and coastal wetlands restoration projects. The availability of proven, technically recoverable sand is limited in comparison to future demand in some locations. As resources in State waters are depleted, there is increased focus on resources from the OCS. Further, coastal planners recognize the benefit of adding to the near-shore coastal sediment budget by bringing in OCS resources, instead of simply moving sediment around within the active sediment transport system. Knowing where resources are and how much material is available up-front reduces project construction timelines and costs, as sources do not have to be discovered, characterized, or identified as part of a project’s schedule or budget. Advanced region-scale planning also enables project planners to consider economies of scale when designing and constructing projects. BOEM continues to work proactively with partners, such as the U.S. Army Corps of Engineers (USACE), and State and local governments to identify and provide sand for projects so that communities can recover quickly from storms and be better prepared for future events.

Figure 16: Demand for OCS Sand Resources



Use of OCS sand resources has increased drastically over the last three decades.

In FY 2022, BOEM administered the use of OCS sand for beach nourishment projects under negotiated agreements in Louisiana, Maryland, Florida, and North Carolina. BOEM contributed to environmental documents and borrow area planning in Texas, Florida, South Carolina, North Carolina, Virginia, and New Jersey. BOEM anticipates receiving another 8 to 12 requests for new agreements and amendments in FY 2023 and FY 2024 for projects in Texas, Louisiana, Florida, South Carolina, North Carolina, Virginia, Maryland, and New Jersey. BOEM also expects continued applications for non-commercial geophysical and geological exploration for sand resources in these areas, especially Louisiana, Florida, and North Carolina. There are no near-term projects expected along the Pacific or Alaska coastlines.

As a responsible environmental steward, BOEM strives to ensure that any potential environmental impacts associated with OCS marine minerals activities are avoided or mitigated whenever possible. The Bureau complies with the requirements of NEPA and consults with NMFS and FWS on endangered species and essential fish habitat prior to leasing OCS resources. BOEM ensures coastal consistency and undertakes archaeological resources reviews to protect cultural artifacts. BOEM also sponsors targeted environmental studies (primarily through the Environmental Programs budget activity) to evaluate the effects of proposed dredging operations and to design mitigation measures to minimize their impacts.

➤ **National Offshore Sand Inventory**

As the steward of OCS mineral resources, one of BOEM’s top priorities is to advance the National Offshore Sand Inventory — the comprehensive, data-driven catalog of the location, character, quantity, and accessibility of identified OCS sand resources and reserves. The process of inventorying sand and sediment useable in coastal restoration projects is a multifaceted requirement subject to continual learning and refinement.

Figure 17: Facets of the National Offshore Sand Inventory

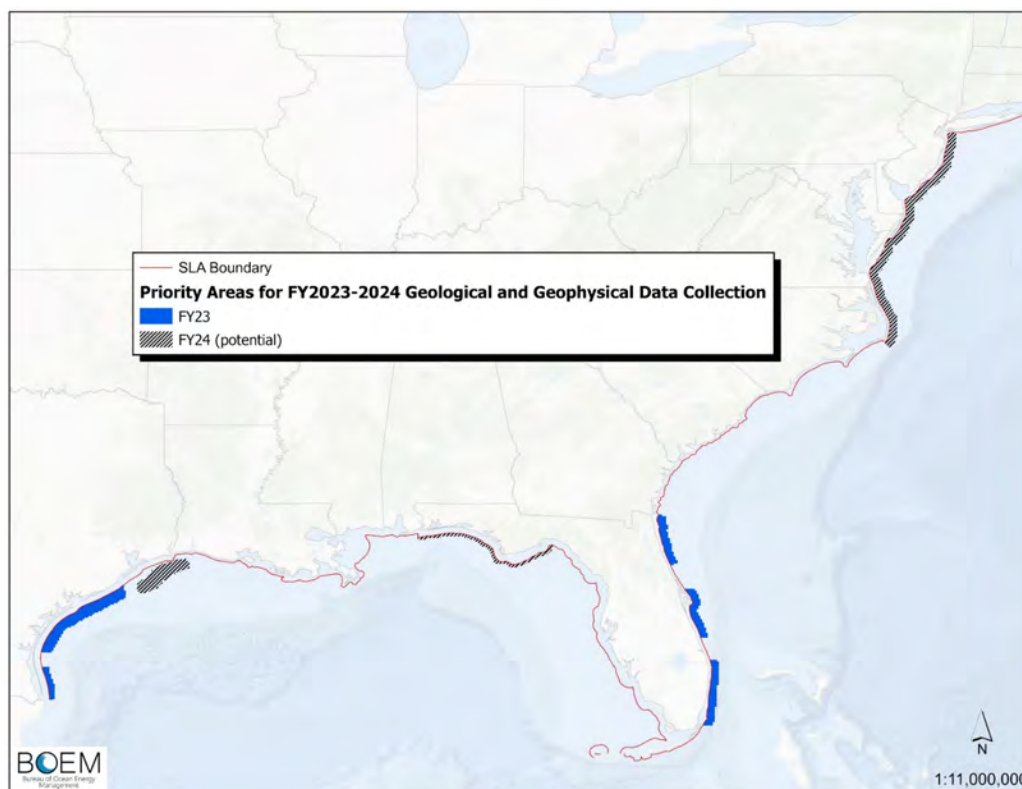


As the National Offshore Sand Inventory expands, BOEM’s information base and degree of confidence in resource estimations increase. The estimation of resources and reserves depends on constantly changing data and continually improving interpretations derived from the expanding data. The National Offshore Sand Inventory reflects the Administration’s goal to build resilience “against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories.”

BOEM uses supply and demand assessments, as well as modeling results and gap analyses prepared by other Federal agencies, State partners, and researchers, to identify priority areas where more or better information is needed about nearby sand

resources. For example, in collaboration with the USACE and through participation in the *National Shoreline Management Study* and *South Atlantic Coastal Study* and *Sand Availability and Needs Determination* initiatives, BOEM identified multiple high priority areas for future resource identification from Texas to North Carolina. The rapid expansion of wind energy areas in the Atlantic and Gulf of Mexico also presents new space use challenges since radial or mesh transmission cables must traverse the shallow inner shelf to coastal interconnection points.

Figure 18: Priority Areas for New FY 2023 - FY 2024 Geological and Geophysical Data Collection



BOEM advances the National Offshore Sand Inventory by collecting and processing new G&G data. Those data are used by BOEM and key partners to identify additional sediment resources in priority areas to support coastal resilience projects. BOEM scientists also use these data, as well as new and legacy data available from oil and gas or renewable energy sectors or even other Federal and State agencies, to conduct regional or basin-scale assessments of resource potential or reserve volumes. In FY 2023 and FY 2024, BOEM plans to use a specialized contract and to collaborate with USACE and USGS, as well as State cooperative agreement partners and academic institutions, to acquire new G&G data in priority areas. This will ensure BOEM identifies more supply and avoids or manages long-term siting of cables and pipelines in sand rich areas. New data are integrated with existing information to improve the Bureau's understanding of how much resource is available and refine plans for how the resource can be used responsibly over the life of a project. All new investment in the National Offshore Sand Inventory is harmonized with the team leading the *National Strategy for Mapping, Exploring, and Characterizing the United States Exclusive Economic Zone*.

Project Profile: Gulf of Mexico OCS Sediment Resources Assessment

BOEM has initiated a large-scale assessment to classify and describe near-surface sediments in the Gulf of Mexico. The assessment applies a regional geological framework approach and integrates other BOEM data and investments to identify the quantity, quality, and location of sand and mixed sediment resources found beneath the Gulf of Mexico shelf. The assessment integrates legacy geophysical and geological data, standardized workflows, user interfaces, operational databases, and new interpretive results into a common classification, analytical, and geospatial scheme.

To support this assessment, recent 3D exploration seismic data, originally collected to evaluate oil and gas resources, was reinterpreted to discriminate sandy and muddy deposits up to 350 ft below the mudline. Using this data, near-surface shelf deposits consisting of buried channel deposits and sand-prone geobodies were identified and mapped. The assessment estimates overburden to near-surface resources which will help BOEM and project partners assess viability for technical or economic recovery and for potential use in future coastal resilience projects. The assessment can also help BOEM improve region-scale stratigraphic interpretations, refine site-specific evaluation of sand resources, and strategically identify where investments in new G&G data should be made.

BOEM anticipates that this multifaceted assessment will support oil and gas, renewable energy, marine minerals, and carbon sequestration program needs. Information about the seafloor and the shallow subsurface is critical to evaluate siting conditions and geologic hazards and mitigate space-use conflicts.

Key BOEM Marine Mineral Partnerships

Federal Agencies

United States Army Corps of Engineers; National Aeronautics and Space Administration; National Oceanic and Atmospheric Administration; United States Fish and Wildlife Service; National Park Service; United States Geological Survey; United States Navy; Federal Emergency Management Agency.

State Agencies and Geological Surveys

Alabama; California; Delaware; Florida; Georgia; Louisiana; Maine; Maryland; Massachusetts; Mississippi; New Hampshire; New Jersey; New York; North Carolina; Rhode Island; South Carolina; Texas; Virginia.

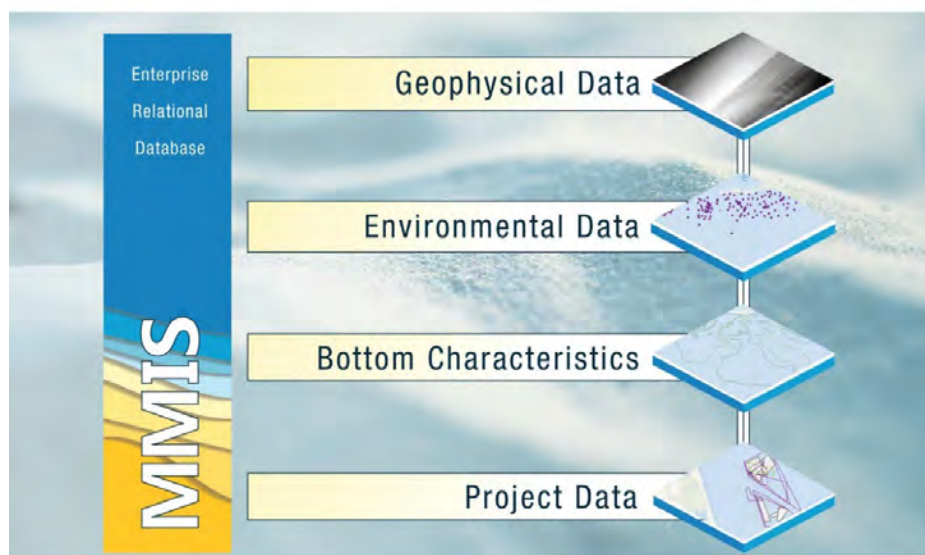
Universities

Boston University; Columbia University; East Carolina University; Louisiana State University; Rutgers University; Stony Brook University; University of Alabama; University of Delaware; University of Florida; University of Georgia; University of Louisiana at Lafayette; University of Maine; University of Massachusetts; University of New Hampshire; University of New Orleans; University of North Carolina at Wilmington; University of Rhode Island; University of South Florida; University of Southern Mississippi; University of Texas; Virginia Institute of Marine Science; University of Washington.

BOEM uses the MMIS to organize, analyze, update, and disseminate marine minerals data, including the National Offshore Sand Inventory. The MMIS provides a comprehensive understanding of existing

marine minerals information, such as geophysical data, environmental data, bottom characteristics, and project data. The MMIS helps BOEM address marine use conflicts, such as the potential for submarine cables, oil and gas pipelines, and transmission lines from offshore wind facilities to cross important sand resource areas. Ultimately, the MMIS supports Bureau and stakeholder decisions regarding the use and sustainability of offshore sand resources by identifying potential sources proactively and helps to shorten recovery efforts after hurricanes and other natural disasters.

Figure 19: Marine Mineral Information Management System



➤ Responding to Natural Disasters

BOEM continues to be a key player in restoration and recovery following natural disasters. BOEM's immediate response efforts include communication and coordination with stakeholders in areas of need, site analysis and resource availability, resource compatibility analysis, and identification of site-specific environmental concerns. In the aftermath of a hurricane, the scale and volume of requested sand projects often increases by 25 to 30 percent. This is because post-disaster projects generally encompass larger project areas and require a larger volume of resources to mitigate significant storm-related losses and support additional protection measures (i.e., dunes) to reduce future potential damages. Consequently, the scope of information needed to process project requests increases substantially after major storms.

Project Profile: Atlantic Coast of Maryland Shore Protection Project

The State of Maryland and the USACE Baltimore District maintain the Ocean City, Maryland beach from Ocean City Inlet north along Fenwick Island. Congress first authorized this project in 1986. USACE estimates that the Atlantic Coast of Maryland Shore Protection Project has provided nearly a billion dollars in storm damage reduction benefits since inception. Project sponsors have nourished



the beach on a 4-year cycle using State water sand resources.

The most recent construction cycle for the Atlantic Coast of Maryland Project was completed on January 1, 2022, using a new OCS borrow area. BOEM authorized the use of 1,300,000 cubic yards of sediment from the Weaver Shoal on the OCS. Material was excavated via trailing suction hopper dredge with direct

placement via pump-out onto the shoreline. The Project included operational components to mitigate impacts on habitat quality and shoal integrity, such as avoiding dredging within 500 feet of the shoal crest, preferential dredging of accreting regions of the shoal, and restricting excavation thickness to ten feet, all of which aim to maintain overall shoal relief and size, which contribute to habitat value.

➤ **Protecting Federal Infrastructure and National Defense**

Building on more than 35 years of research experience, BOEM continues to partner with coastal communities, States, and other Federal agencies to facilitate critical coastal infrastructure projects, including some that are key to our Nation’s defense and economy. BOEM’s support demonstrates its commitment to help coastal States and communities and acknowledges the importance of climate considerations with regard to national security.



national security facilities



critical coastal infrastructure and economies



NASA and Air Force operated launch facilities



key energy and port facilities



roads and transportation infrastructure



DOI and State parks and lands

Examples include –

- Caminada Headlands (Grand Isle, Louisiana): This project protects the petroleum storage, transport, and support facilities associated with Port Fourchon, which services over 90 percent of Gulf of Mexico deepwater oil production. The project performed to design conditions during Hurricane Ida in 2021.
- Mississippi Coastal Improvements Program (Gulf Islands National Seashore, MS): BOEM, the National Park Service (NPS), the USACE Mobile District, and the State of Mississippi completed a multi-phase project restoring Ship Island, which was severely eroded during Hurricane Camille in the late 1960s.
- Patrick Space Force Base (Canaveral, Florida): This project protects fighter, tactical, and transport aircraft and SPACE Coast launch facilities.
- Dare County Shore Protection Project (Outer Banks, North Carolina): This multi-township project protects public streets, utilities, commercial properties, and maintains the public beach.
- Navy Dam Neck Facility (Virginia Beach, Virginia): This project protects approximately \$135 million of assets, including training facilities, housing, and support facilities.
- National Aeronautics and Space Administration (NASA) Wallops Island Flight Facility (Wallops Island, Virginia): This project protects approximately \$1 billion in launch pads and associated infrastructure, as well as test and training facilities.



NASA Wallops Island, VA (before)

NASA Wallops Island, VA (after)

➤ Interagency Coordination

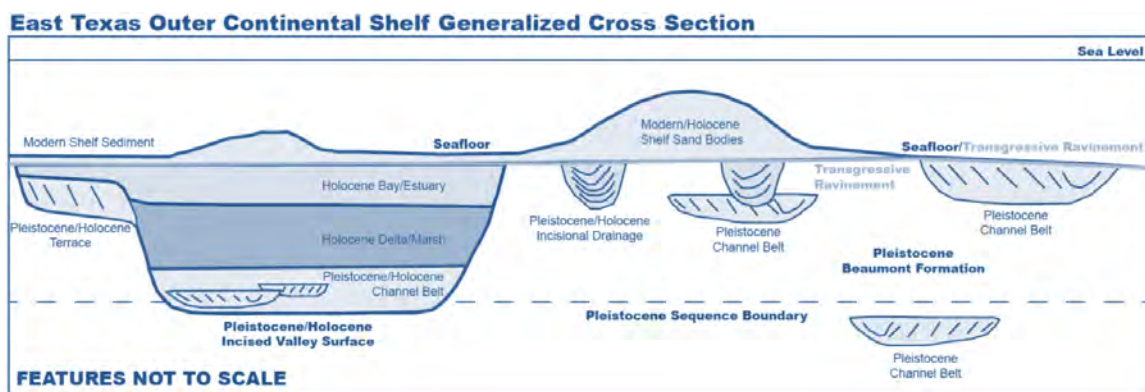
In the *National Shoreline Management Study*, *North Atlantic Coast Comprehensive Study*, *South Atlantic Coastal Study*, and *Coastal Texas Protection and Restoration Feasibility Study*, USACE identified priority locations where beach nourishment projects should be implemented to address erosion risk and other vulnerabilities from Texas through New England. These same studies included forward-looking recommendations to tackle the long-term challenge of responsible sediment management and finite source material for an increasing number of resilience projects needed due to climate change. In FY 2022 and FY 2023, BOEM sponsored collection of new geophysical and geotechnical data offshore the Gulf and Atlantic coasts of Florida, central and lower Texas, and priority areas in the mid-Atlantic. In FY 2024,

additional work will focus in areas rapidly being developed for offshore wind farms where transmission export cables pose long-term access risk to sand resources.

Project Profile: Geophysical and Geological Surveys Offshore Coastal Texas

Coastal Texas exhibits some of the highest erosion rates in the U.S.: 64 percent of the Texas coast is eroding at an average rate of 5.9 feet per year, and some segments experience retreat greater than 30 feet per year. BOEM partnered with the USACE and the Texas General Land Office (GLO) to prepare the Coastal Texas Protection and Restoration Feasibility Study and the Texas Coastal Resiliency Master Plan that propose constructing basin-wide coastal storm risk management projects and nature-based features along the coast to bolster coastal resilience.

BOEM partnered with the Texas GLO to conduct broadscale geophysical surveys across the entire offshore system of Texas, totaling over 3,500 geophysical line miles collected on the OCS at the conclusion of the study. The first phase of the effort focused on the eastern Texas Shelf near Sabine and Heald Banks. Prospective sand deposits were identified from modern sand bodies and shelf sediment, to preserved near-surface channel belt deposits, including some overlain by modest overburden. Subsequent phases of resource evaluation include geophysical data collection along the Texas shelf, as well as geological data collection that will help validate the quantity and character of the billions of cubic yards of OCS sediments tentatively identified as technically recoverable beach quality sand and mixed sediment.



BOEM has forged key partnerships with State partners, including the Delaware Geological Survey and New Jersey Geological and Water Survey, Gulf of Mexico Alliance, the Louisiana Coastal Protection and Restoration Authority, and the Texas GLO to coordinate sediment resource identification data. For example, the mid-Atlantic States are working with BOEM to make long-term projections about the project-specific use of OCS sediment to adapt to climate change, including potential changes in volume requirements and frequency of use.

BOEM also works closely with other DOI Bureaus to assist in beach nourishment, coastal and wetlands restoration, and infrastructure protection efforts. The USGS, NPS, and FWS are important partners and collaborators on offshore sand resource evaluation and coastal vulnerability assessment, as well as projects restoring or protecting federally managed lands including national parks and wildlife refuges.

CRITICAL MINERALS

BOEM invests in state-of-the-art science to be well positioned to consider any potential future critical mineral mining proposals on the OCS. This includes continued engagement with the State Department and the International Seabed Authority as international regulators consider initial proposals for deep seabed critical mineral development. While most seabed critical mineral deposits appear beyond U.S. waters, OCS mineral deposits such as polymetallic nodules, ferromanganese crusts, and seafloor massive sulfides contain at least half of the 50 critical minerals designated by the USGS (86 FR 71083, February 24, 2022). Minerals found in the marine environment are used in a wide range of applications from electronics to renewable energy to military materials. BOEM, USGS, and NOAA continue to work together to determine which areas of the OCS have potentially significant critical mineral resources, with a focus on cobalt, manganese, and rare earth elements.

BOEM leads the development of the National Offshore Critical Mineral Inventory to identify potential areas of offshore critical minerals under U.S. jurisdiction. BOEM also plays a leading role in the National Science and Technology Council's Critical Minerals Subcommittee. Critical minerals are an important component of EO 14017, *America's Supply Chains*, and the Bureau participated in development of the 100-Day Supply Chain report in response to the EO. In addition, BOEM also contributes to implementation of the 2019 *Memorandum on Ocean Mapping of the United States Exclusive Economic Zone and the Shoreline and Nearshore of Alaska*.

Critical mineral deposits may exist in Pacific territorial areas (e.g., Northern Mariana Islands, Guam, American Samoa) and in the Atlantic north of Puerto Rico. The Pacific territorial areas may contain ferromanganese crust deposits on their seamount flanks and polymetallic nodules on the surrounding abyssal plains. The Federal EEZ north of Puerto Rico, which includes part of the Atlantic abyssal plain, may contain polymetallic nodule deposits. Exploration of Pacific territories is currently supported through collaboration with USGS researchers, who participate on relevant research cruises on an opportunistic basis.

In FY 2021, multiple Federal agencies worked together to launch BOEM's National Offshore Critical Mineral Inventory. This included a collaborative effort with USGS and NOAA to fund the first U.S.-based offshore critical mineral expedition since the early 1980's; this multiyear effort is exploring the massive sulfide mineralization and associated ecosystems of the Escanaba Trough offshore northern California. The Escanaba Trough is a deep water, sediment-covered seafloor spreading center with large, massive sulfide deposits. In FY 2021, BOEM also initiated a multi-year collaboration with NOAA and USGS to investigate the Aleutian Island Arc in the Pacific for potential hydrothermal systems and mineral potential. This multi-phase project leverages recent laboratory testing and includes field deployment of a state-of-the-art uncrewed survey vessel to map the seafloor and another innovative remote-sensing technology, developed and tested in collaboration with NASA, that will investigate specific locations with potential offshore critical mineral deposits.

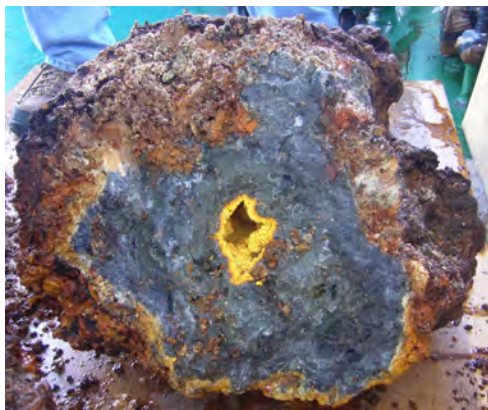
In FY 2022, BOEM, in collaboration with USGS and NOAA, investigated a polymetallic nodule area on the Blake Plateau approximately 150 miles offshore Georgia. The Blake Plateau was used in 1970 to test nodule extraction equipment and could provide unique insight into the rates and types of ecological

recovery that occur in exploited areas. In FY 2024, BOEM is planning to continue the work with USGS and NOAA on a study to gather additional physical samples and establish a long-term monitoring program at this unique site. BOEM, in partnership with USGS, has initiated a project within the OCS adjacent to Hawaii to investigate the polymetallic nodule potential and to document the associated baseline environment, with fieldwork planned for the summer of 2024. In the Gulf of Mexico, BOEM plans to examine the critical mineral potential of submerged salt brine pools, with field work tentatively planned for mid-2023.

Although there is increased interest from industry, the military, and the international community regarding critical mineral development, the quantity and characteristics of the critical resources on the OCS, as well as the potential environmental impact of attempting to develop those resources, remain uncertain. There is a need to identify areas that have high economic potential but low ecological value, making them suitable for further study of the environmental impacts of seabed mining on the OCS.

Project Profile: Remote Sensing for Critical Minerals offshore the Aleutian Islands

In FY 2021, BOEM, USGS, and NOAA began planning for a multi-phase research program exploring ecosystems and critical mineral resources offshore the western Aleutian Island chain, which contains dozens of volcanoes. Submarine volcanoes and associated vents are largely unexplored. The complex environments of submarine vent systems contain manganese, titanium, and cobalt ore deposits. This research program explores how underwater volcanic vents relate to critical minerals and the



surrounding deep-sea environment. The project combines cutting-edge technology, scientific expertise, and traditional knowledge to find seamounts with volcanic hydrothermal environments.

In Phase 1 completed in October 2022, BOEM funding supported autonomous Sairdrone mapping of nearly 75,000 km² of the Aleutians over three months. Phase 2, planned for the summer of 2024, will identify and investigate specific locations likely to have hydrothermal vents. An interdisciplinary team of specialists from BOEM, USGS, NOAA, and academia will visit these sites on a state-of-the-art research vessel and explore the seabed using a deep-sea submersible. BOEM is considering a third phase to focus on a single location, evaluating the baseline ecology, describing the relationships between critical mineral deposits and the ecosystem, and determining the potential values of the biologic and geologic resources.

Environmental Programs

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Environmental Programs

Table 12: Environmental Programs Budget Summary

Activity: Environmental Programs

Dollars in Thousands (\$000)

Environmental Programs	2022 Actual	2023 Enacted	2024 Fixed Costs (+/-)	2024 Internal Transfers (+/-)	2024 Program Changes (+/-)	2024 Request	Change from 2023 Enacted (+/-)
Environmental Programs \$	79,763	82,373	+1,618	0	+8,764	92,755	+10,382
<i>FTE</i>	<i>149</i>	<i>149</i>	<i>0</i>	<i>0</i>	<i>+11</i>	<i>160</i>	<i>+11</i>

BOEM’s Environmental Programs budget activity is cross cutting and foundational to the Bureau’s work. This activity advances Administration priorities by ensuring that science and environmental protection are foremost and indispensable considerations in BOEM decision-making, fostering conservation of natural and cultural resources, adapting to climate change, and restoring trust in government. Further, this budget activity supports BOEM’s role in advancing engagement with communities for which environmental considerations are often central: federally recognized Tribes, Alaska Native communities, Native Hawaiian organizations, environmental justice communities, and underserved communities.

BOEM’s Environmental Programs budget activity plays a critical role in advancing clean energy. The Administration has established a goal to deploy 30 GW of offshore wind production capacity by 2030, which could support nearly 80,000 jobs, and 15 GW of floating offshore wind capacity by 2035. BOEM will be central to achieving that target. To advance the Administration’s goal and ensure adequate environmental safeguards, BOEM must better understand how offshore wind construction and operations and carbon sequestration activities affect the environment. The Office of Environmental Programs is essential to advance project reviews, consistent with NEPA, the Coastal Zone Management Act, the Marine Mammal Protection Act (MMPA), the Endangered Species Act (ESA), the Magnuson-Stevens Fishery Conservation and Management Act, and the National Historic Preservation Act.

The budget activity also funds efforts that inform decision-makers and the public about the potential impacts of OCS energy and mineral activities on the marine, coastal, and human environments and measures to avoid or reduce impacts. The scientific research supported by this budget activity produces

the necessary information, data, and evidence to make sound policy decisions regarding energy and mineral development on the OCS.

The FY 2024 budget will support:

- **Advancing Offshore Wind Development with Environmental Research, Review, and Safeguards:** Science and research are fundamental to a durable and informed decision-making process. As expansion of offshore wind development gathers pace, BOEM will continue to assess the reasonably foreseeable impacts of offshore wind facilities and cumulative impacts to OCS resources and users. In FY 2024, BOEM will advance studies that are needed to continue to look holistically at offshore wind, including cumulative potential long-term effects on both living marine resources and on communities that depend on those resources, particularly the recreational and commercial fishing industries. These assessments will engage Tribes, local communities, and stakeholder groups to obtain a better sense of the potential impacts and help identify potential mitigation solutions. These studies will also consider environmental, socioeconomic, and cultural impacts as they relate to a changing climate. BOEM will also undertake baseline environmental studies around the U.S. Territories to prepare for the potential of wind energy development in those areas.
- **Advancing Environmental Justice:** BOEM is committed to environmental justice through its policies, programs, activities, and decision-making processes, which help to address disproportionate adverse impacts and achieve sustainable and equitable environmental outcomes for all people. Partnering with Federal, State, Tribal, and local governments, the NGO community, and community leaders to coordinate efforts in job creation, education, risk analysis and mitigation, and workforce development, particularly in underserved communities, will be important facets of all BOEM work.
- **Advancing Understanding of Climate Change:** Increasing BOEM's ability to understand and address the risks and effects of climate change as they relate to BOEM-authorized activities. BOEM-authorized offshore energy and marine mineral activities have the potential to significantly impact the course of climate change, both positively and negatively. At the same time, climate change is a significant yet difficult-to-quantify stressor as BOEM strives to quantify the cumulative effects of its activities to inform decision-making. In FY 2024, BOEM will advance environmental studies that will expand its ability to understand, quantify, and address the risks and effects of climate change as they relate to BOEM-authorized offshore activities.
- **Advancing Carbon Sequestration Through Research and Environmental Review:** BOEM will continue to assess the cumulative or reasonably foreseeable impacts of offshore carbon sequestration activities. Science and research are fundamental to a durable and informed decision-making process. In FY 2024, BOEM will advance studies that are needed to continue to look holistically at offshore carbon sequestration, including cumulative potential long-term effects on both living marine resources and on communities that depend on those resources. These assessments will engage stakeholder groups to obtain a better sense of the potential impact to

communities. These studies will also consider environmental, socioeconomic, and cultural impacts as they relate to a changing climate.

- Addressing Ocean Noise Impacts Through the Center for Marine Acoustics (CMA):** Understanding and assessing impacts to marine life from industrial noise is crucial for all offshore energy and minerals development activities. In FY 2021, BOEM created the CMA to be a trusted voice on marine acoustic issues, drive scientific understanding, develop more effective modeling tools, improve mitigation approaches, and conduct outreach with the many interested stakeholders. In FY 2024 and into FY 2025, the CMA will seek certification of its acoustic model buildout; implement a regional passive acoustic monitoring network in the Atlantic capable of detecting changes in whale distribution and density as a result of offshore wind construction and operation; expand its partnerships internationally for more global solutions, including developing and leading an international forum of government representatives focused on offshore renewables and noise impact issues; and develop a fee-for-service business model so it can assist other Federal agencies with marine noise impact assessment needs.
- Expanding Information Availability and Tools to Assess Trade-Offs:** BOEM expects to expand the available tools by developing the “Status of the OCS” – a one-stop shop for environmental information on the OCS – and implement an ecosystem-based management approach to visualize and evaluate the trade-offs of management decisions on the OCS, particularly for offshore wind decisions.

SUMMARY OF 2024 PROGRAM CHANGES

Summary of 2024 Program Changes for Environmental Programs

Program Changes:	(\$000)	FTE
Tribal Co-Stewardship	+500	+1
Renewable Energy Environmental Reviews	+1,257	+3
Offshore Carbon Sequestration	+2,340	+6
Environmental Studies Program	+4,667	+1
TOTAL Program Changes	+8,764	+11

* Changes listed in order of budget activity, not priority.

Tribal Co-Stewardship (+\$500,000; +1 FTE). The budget increases support for engagement and informal consultation with Federal recognized Indian Tribes and the Native Hawaiian Community, conducted through BOEM’s Environmental Programs. This funding supports one dedicated FTE to serve as a tribal liaison. BOEM supports Tribal co-stewardship and of Federal lands and waters that contain cultural and natural resources of significance and value to Indian Tribes and their members, including sacred religious sites, burial sites, wildlife, and sources of indigenous foods and medicines. The requested increase reflects increased offshore leasing interest in new areas.

Renewable Energy Environmental Reviews (+\$1,257,000; +3 FTE). BOEM requests FTE and resources to enable it to adequately address NEPA and other review activities associated with the renewable energy program. A sufficient number of experienced and trained staff are essential in providing comprehensive environmental analysis at each phase of the renewable energy process and the emerging carbon sequestration environmental assessment needs. BOEM proposes a focused environmental team that would assist the existing workforce on projects as needed. This new Team would provide capacity and allow for the necessary flexibility as the environmental review workload fluctuates within regions. Using this approach, information and best management practices will flow more efficiently through each project, regardless of geographic location, to allow for more consistency throughout the renewable energy program. Further, this Team would streamline BOEM's environmental reviews and consultations for renewable energy leasing and development and ensure a consistent approach to NEPA documents and consultations.

Offshore Carbon Sequestration (+\$2,340,000; +6 FTE). BOEM requests resources within the Environmental Programs (\$2.340 million; +6 FTE) and Conventional Energy (\$6.550 million; +10 FTE) budget activities to establish a dedicated Offshore Carbon Sequestration program that will help ensure offshore geological storage of carbon dioxide is done in a safe and effective manner. BOEM proposes resources to support environmental studies and reviews related to carbon sequestration as well as personnel development in support of this emerging area. BOEM proposes resources to hire and train specialized FTE for NEPA compliance, environmental regulatory work, and oversight of environmental studies critical to implementation of an offshore carbon sequestration program. Funding would also support environmental studies to better understand the environmental effect of offshore carbon sequestration and related activities.

Environmental Studies Program (+\$4,667,000; +1 FTE). This funding will better equip BOEM to conduct the environmental studies that support clean energy development as well as climate science and conservation, and that inform BOEM understanding and policy decisions. Section 20 of OCSLA requires BOEM to consider the impacts from OCS development on the marine, coastal, and human environments. The FY 2024 budget supports environmental studies to enable research and leveraging of funds through partnerships and collaborative efforts to advance scientific progress on renewable energy, conventional energy, and marine minerals, and provide information for mission critical decision-making. BOEM also utilizes the information collected to inform environmental reviews and consultations with Tribes, States, and natural resource agencies. Information from studies also aid the Administration as it works to achieve its goal of conserving at least 30 percent of our lands and waters by 2030. This program is a priority area for BOEM and supports the Administration's desire for advancing our Nation's clean energy future, as well as responsible development of our Nation's energy and mineral resources.

PROGRAM OVERVIEW

BOEM's Environmental Programs budget activity includes the environmental assessment function and the environmental studies function, organized administratively into headquarters functions placed in the Office of Environmental Programs (OEP) in the Washington, DC, area (comprising the Environmental

Assessment Division, Environmental Sciences Division, and Center for Marine Acoustics), and regional and program functions within the Office of Renewable Energy Programs, Office of Strategic Resources (including marine minerals), and BOEM regional offices (Gulf of Mexico Region, New Orleans, Louisiana; Alaska Region, Anchorage, Alaska; and Pacific Region, Camarillo, California). Because of its responsibility to assess impacts to the human environment, OEP provides central leadership for the Tribal Program. BOEM's multi-disciplinary Environmental Studies Program is managed as a single account through the Program's budget activity.

The environmental staff works in teams, with leadership provided by those whose backgrounds and capabilities best address the issues at hand. BOEM is committed to continuous staff improvement, and recruitment and retention of the best available talent. BOEM employs staff in diverse fields: marine and coastal biology; chemical, biological, and physical oceanography; avian and marine mammal biology; acoustic science; geology; meteorology; atmospheric science; risk modeling; sociology; marine archaeology; anthropology; economics; and environmental policy.

➤ **Tribal Engagement**

OEP takes a leadership role in numerous Tribal consultations on specific projects as well as relationship-building with Tribal Nations. BOEM will continue government-to-government consultations in FY 2024 as the Bureau implements its Tribal Consultation Guidance. BOEM may broaden these consultations to address BOEM's overall approach for Tribal engagement.

BOEM expects to conduct training for Tribal consultation and engagement for BOEM staff in FY 2024. Training exercises will be tailored to BOEM's process and organization, including cultural competency and regional elements, and Tribal trainers will lead content development and delivery.

In April 2022, BOEM held the first of an ongoing series of Regional Quarterly Updates, aimed to improve communication and dialogue between senior leadership and Tribal Nations. This was part of the Best Practices from the 2021 Tribal Ocean Summit, which enabled a mutual exchange of information and learning to improve working relationships and build meaningful consultation practices. BOEM will continue to hold staff trainings that include Federal Indian law and Tribal histories and hold workshops on the updated DOI Tribal consultation policies.

➤ **Environmental Justice**

BOEM prioritizes equity in its policies, programs, and decision-making processes by consistently applying sound science to understand environmental justice communities and advancing meaningful engagement. In FY 2023, BOEM is developing methodologies and best practices that will provide a consistent and scientifically robust approach to environmental justice analyses. By conducting the appropriate environmental justice analyses and meaningful engagement, BOEM further supports underserved communities and works toward a just transition with the development of offshore renewable energy.

In FY 2022, BOEM continued to foster trusting relationships with community members and organizations through interagency coordination and targeted engagement. In FY 2023 and FY 2024, BOEM will continue to improve engagement with environmental justice communities across all program areas, initially focusing on offshore wind projects and the development of a carbon sequestration program.

➤ **Climate Change**

BOEM supports assessments of greenhouse gas emissions data, including a greenhouse gas emissions inventory conducted every three years. In FY 2021, BOEM collected data from oil and gas operators and analyzed the data in FY 2022 and FY 2023. This information and the analyses of any new offshore activity are included in BOEM's assessments, which range from environmental analyses of proposed activities to new approaches to BOEM's contribution to achieving the Administration's goals. This information and these analyses help BOEM plan mitigation strategies to reduce greenhouse gas emissions. BOEM will start another round of data collection and analysis in FY 2023.

BOEM also developed a leading model in the Federal government for estimating lifecycle emissions related to energy development and consumption and will conduct an annual update to data inputs in FY 2023. BOEM has invested in ecosystem-based approaches to researching and understanding whole-system effects of energy development and will work through FY 2024 and beyond to establish a framework for dynamic modeling of multiple wind project buildouts in the context of climate change.

In addition to the emission work which views BOEM-authorized activities as potential stressors, in FY 2024, OEP will begin to seek understanding for climate change as a stressor for BOEM-authorized activity areas. This is needed as the environment and ecosystems in which BOEM-authorized activities take place are rapidly changing due to ocean acidification, warming, and shifts in physical, chemical, and biological oceanographic regimes, and our assessment, review, protection, mitigation, and conservation efforts must be able to take such change into consideration.

➤ **Center for Marine Acoustics**

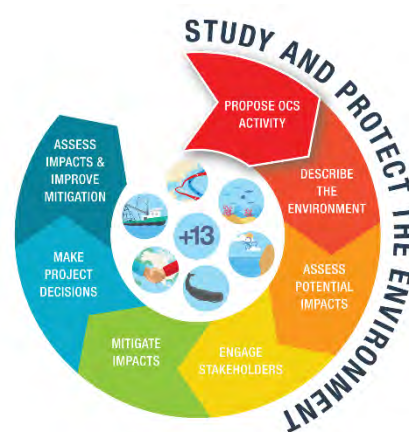
Protecting marine life from industrial noise is an important component of all offshore energy and minerals development activities. In FY 2021, BOEM established the CMA — its first center of expertise — to become a trusted voice on this highly sensitive and technical issue (<https://www.boem.gov/center-marine-acoustics>). Through expertise, collaboration, innovation, and leadership, the CMA works with key partners such as Federal agencies, academia, and industries, to improve risk assessment tools and models, answer key science questions, develop better policy solutions, and educate stakeholders.

During FY 2023, the CMA continues to build its state-of-the-art acoustic impact model to better predict impacts; implement its Acoustic Science Strategy in concert with government and non-government partners; operationalize a quieting performance metric for impact pile driving that protects whale hearing and work with DOE and industry to identify associated abatement technology needs that meet this metric; develop methodologies to better assess acoustic impacts from multiple wind facilities on marine species, including the highly endangered North Atlantic right whale; and implement modeling and sound source

field verification guidelines that assist wind operators in understanding better how to meet mitigation requirements. In FY 2024 and into FY 2025, the CMA will seek certification of its acoustic model buildout, implement a regional passive acoustic monitoring network in the Atlantic capable of detecting changes in whale distribution and density as a result of offshore wind construction and operation, expand its partnerships internationally for more global solutions, including developing and leading an international forum of government representatives focused on offshore renewables and noise impact issues, and develop a fee-for-service business model so it can assist other Federal agencies with marine noise impact assessment needs.

ENVIRONMENTAL ASSESSMENTS

BOEM's environmental reviews provide essential information and recommended mitigation measures for decisions related to energy and mineral activities. These include programmatic and project-specific consideration of the potential impacts of proposed offshore wind activities; authorization of G&G exploration; planning for the National OCS Oil and Gas Leasing Program; conducting lease sales and site assessments; evaluating oil and gas exploration and development plans and offshore wind COPs; as well as supporting more specific authorizations and permits, including decommissioning. BOEM's environmental analyses not only evaluate potential environmental impacts and alternatives to proposed actions but also identify impact mitigating measures that may be incorporated into requirements through regulatory vehicles such as permit conditions, lease stipulations, and terms and conditions of plan approval. The environmental assessment and mitigations developed address the requirements of many statutes, including NEPA, ESA, MMPA, National Historic Preservation Act, Magnuson-Stevens Fisheries Conservation and Management Act, Coastal Zone Management Act, Clean Air Act, and Clean Water Act.



➤ Programmatic Solutions

During FY 2023, BOEM continues to develop and update clear guidance and reusable content for the development of offshore wind COP EISs. This initiative will facilitate the efficient development and review of these documents and support consistent analyses in current and future renewable energy projects. This work will continue into FY 2024, dovetailing with the ongoing development of a programmatic EIS for future development of renewable energy leases in the New York Bight. The programmatic EIS will evaluate the environmental effects of possible wind energy construction facilities and operations in that area. Further NEPA analysis for each COP would tier from the programmatic EIS. BOEM will work with NMFS throughout FY 2023 and FY 2024 to develop and implement a framework for ESA and Essential Fish Habitat compliance for offshore wind. As offshore wind continues to expand in OCS waters, BOEM will establish programmatic approaches to impact assessment, application of mitigation measures, and adaptive monitoring.

One example of this holistic approach to mitigating potential impacts is the North Atlantic right whale strategy. BOEM initiated and co-leads with NOAA a multi-stakeholder “living” strategy aimed at better understanding and avoiding potential impacts to North Atlantic right whales from offshore wind. BOEM engages with key partners (such as state agencies, the offshore wind industry, environmental non-governmental organizations, and academia) to collaboratively implement and adapt the strategy through research, improved risk assessment methods, mitigation (with a focus on avoidance), and monitoring for effects during construction and operation.

BOEM’s programmatic environmental analyses and comprehensive planning are a centerpiece for continuing needs around conventional energy and addressing the challenges of climate change. BOEM published a draft EIS for a new National OCS Oil and Gas leasing program in FY 2022. Through FY 2023 and into FY 2024, BOEM will prepare a final EIS as well as regional EISs to support potential oil and gas lease sales. BOEM’s environmental programs are also supporting the establishment of a carbon sequestration program. Throughout FY 2023 and beyond, BOEM will continue to develop environmental analyses pursuant to NEPA. These include documents such as EISs that analyze “significant” impacts and environmental assessments that analyze “non-significant” impacts of a project, plan, policy, or program associated with a proposed project. These documents provide a focused analysis of potential environmental issues and impacts, highlighting areas that may be sensitive to impacts and may warrant consideration of mitigation or protection. BOEM uses a phased approach to environmental review, wherein national or programmatic-level analyses are prepared first, followed by increasingly site-specific analyses at subsequent stages of approval for decisions on activities, such as geophysical survey and geological sampling permit applications, operators’ plans for exploration and development, and other related industry activities.

BOEM will reexamine the way the Bureau considers the impacts of offshore oil and gas leasing, and its ability to regulate, mitigate, and otherwise meet the Administration’s goals of a carbon pollution-free electric sector by 2035 and net-zero emissions economy-wide by 2050. Other analyses will be needed to understand BOEM’s contribution and possible paths towards achieving these goals and to better understand the options for addressing not just the offshore contribution of OCS production to greenhouse gas emissions, but also the contributions from onshore processing and consumption of OCS oil and gas resources. BOEM expects to continue assessments like the lifecycle greenhouse gas analysis of the 2017–2022 National OCS Program in support of future programs.

In FY 2023 and FY 2024, BOEM will continue to develop and update the Status of the OCS and associated analytic tools, such as an ecosystem-based management trade-off model. The Status of the OCS, launched in FY 2023, is an internal OCS information portal for environmental users. It is intended to facilitate consistency and efficiency in preparation of environmental documents and to provide tools to facilitate comprehensive and meaningful environmental analysis under all BOEM programs. These uses include information for the planning and execution of proposed lease sales outlined in the National OCS Program and information for the rapidly growing offshore wind portfolio. Through FY 2023, BOEM will finalize content related to emissions and climate change, environmental justice, and renewable energy.

BOEM's review of both renewable and conventional energy lease sales, site-specific projects, and other proposals requires advanced coordination with other expert agencies, such as NMFS, FWS, EPA, BSEE, and the National Park Service. Consultation with resource agencies helps BOEM identify effective mitigation practices designed to avoid or minimize harm to protected or managed species and habitat. BOEM must consider, and in some cases incorporate, the results of these consultations within its decisions and authorizations. Additionally, certain permits and approvals issued by BOEM require operators to obtain incidental take authorizations for marine mammals from NMFS. BOEM and NMFS held a joint kick-off meeting in July 2019 to develop a detailed ESA and MMPA streamlining plan. In FY 2023, BOEM will upload the final streamlining documents to its internal environmental guidance site. These data and tools will provide a consistent approach to expediting MMPA incidental take authorization requests and ESA consultations for G&G permits across all three of BOEM's programs. Throughout FY 2023 and into FY 2024, BOEM will also continue to work with NMFS and FWS to establish a framework consultation for use in offshore wind energy, focused initially on the New York Bight area.

➤ **Assessments: Atlantic OCS**

BOEM conducts environmental analyses in the Atlantic OCS for core program-related activities, including renewable energy and marine minerals. Most of BOEM's renewable energy effort has centered on potential wind energy in the Atlantic. BOEM's Office of Renewable Energy Programs (OREP) oversees offshore wind in the Atlantic. BOEM's Environmental Programs play a central role in supporting this work. BOEM's OEP is preparing a programmatic EIS for the offshore wind leases issued in the New York Bight in FY 2022. Through FY 2023 and FY 2024, OEP will work in collaboration with OREP as well as Federal and Tribal partners, state and local agencies, and underserved communities to identify and assess mitigation measures that may reduce impacts associated with wind development in the New York Bight. In FY 2022, the environmental programs supported critical minerals field research in the Atlantic with data analysis continuing in FY 2023. Additional work in the Atlantic is being planned for FY 2024.



**Coastal Virginia Offshore
Wind, VA**

➤ **Assessments: Gulf of Mexico Region**

BOEM's Gulf of Mexico Region conducts NEPA analyses, consultations, and reviews for renewable energy, conventional energy, and marine minerals in the Gulf of Mexico OCS, as well as conventional energy in the Atlantic OCS. Due to the high volume of oil and gas activity in the Gulf of Mexico, BOEM prepares hundreds of NEPA documents and completes thousands of resource-specific reviews every year. The Gulf of Mexico Region has been working towards renewable energy development and carbon sequestration in the Gulf of Mexico OCS while supporting both development and on-lease renewable energy activities in the Atlantic. The need for OCS sand and gravel for coastal restoration and beach

nourishment projects in the Gulf of Mexico has also increased in recent years, leading to an increase in the development of NEPA documents in support of these activities.



Killer whale observed in the Gulf Stream

In FY 2022, BOEM continued environmental reviews to support the proposed wind energy auctions in the Gulf of Mexico (FY 2023) and the Central Atlantic (FY 2024). This included the publication of a draft environmental assessment and consultation preparation for the Gulf of Mexico Wind energy auction. In FY 2023, BOEM will complete the final environmental assessment, consistency determinations, and consultations for the Gulf of Mexico auction, and a draft environmental assessment, consistency determinations, and consultations for the Central Atlantic auction. BOEM published a draft EIS for Revolution Wind in FY 2022 and is expected to complete environmental reviews for this project in FY 2023.

In FY 2022, BOEM conducted site-specific NEPA environmental reviews for each of 614 submittals of plans and ancillary activity notifications, G&G permit applications, pipeline permit applications, and structure removal permit applications. The site-specific environmental review process includes reviews and consideration for extraordinary circumstances. The determination is then made whether to conduct further environmental review by completing a site-specific environmental assessment or to apply a categorical exclusion. Site-specific environmental assessments were completed for 39 plans, 40 G&G permit applications, 10 ancillary activity notifications, 1 pipeline application, and 128 structure removals applications. Categorical exclusions were applied to 113 plans, 8 ancillary activity notifications, 267 pipeline applications, and 8 G&G applications.

Beginning in FY 2022, the Gulf of Mexico Region environmental program has become central to the development of a carbon sequestration program on the OCS. This role will continue going forward as BOEM and BSEE establish regulations and build out their programs.

The Gulf of Mexico Region anticipates the number of environmental reviews to increase in FY 2023 and FY 2024.

➤ **Assessments: Alaska Region**

BOEM’s Alaska Region typically conducts environmental analyses for conventional energy activities. The Office also actively supports both Headquarters and the Pacific Region with high-priority renewable energy analyses and will continue that support in FY 2024. In addition, the Alaska Region has received requests for assistance from the Gulf of Mexico Region and will likely provide support in FY 2024. BOEM anticipates an EP submittal for Cook Inlet in FY 2023.



Bearded Seal resting on sea ice

Additionally, BOEM completed an EIS in October 2022 for a lease sale conducted in the Cook Inlet Planning Area in December 2022, as required by the IRA. BOEM continues to identify information needs to support NEPA analyses associated with possible future activities in the Arctic, Cook Inlet, and other planning areas that have potential for conventional and renewable energy development. In FY 2024, BOEM will continue to provide NEPA and consultation support to BSEE for oil spill drill exercises.

➤ **Assessments: Pacific Region**

BOEM’s Pacific Region conducts environmental analyses for conventional and renewable energy activities on the Pacific OCS. There are currently 30 active oil and gas leases offshore California. BOEM’s conventional energy assessments continue to focus on development and production from active leases, as well as anticipated upcoming decommissioning proposals for 8 of the 23 existing platforms. These activities will support both BOEM and BSEE and include the development of NEPA documents, the development of and compliance with mitigation measures, and review of the mitigation measures’ effectiveness. BOEM is collaborating with BSEE on the programmatic EIS for decommissioning of oil and gas platforms in the Pacific OCS and published a Draft Programmatic EIS in FY 2023. BOEM and BSEE expect to publish the Final Programmatic EIS in FY 2024.

BOEM will continue working with agencies and other stakeholders to advance research to support decisions regarding commercial renewable energy projects on the California, Oregon, Washington, and Hawaii OCS. In FY 2022, BOEM identified two Wind Energy Call Areas offshore Oregon in FY 2022.

Additionally, BOEM identified the Humboldt and Morro Bay proposed lease areas offshore northern and central California. BOEM completed the environmental assessment of the Humboldt WEA in May 2022 and completed the Environmental Assessment of the Morro Bay WEA in October 2022. A lease sale — the first for wind energy off the West Coast—was conducted on December 6, 2022.

ENVIRONMENTAL STUDIES PROGRAM

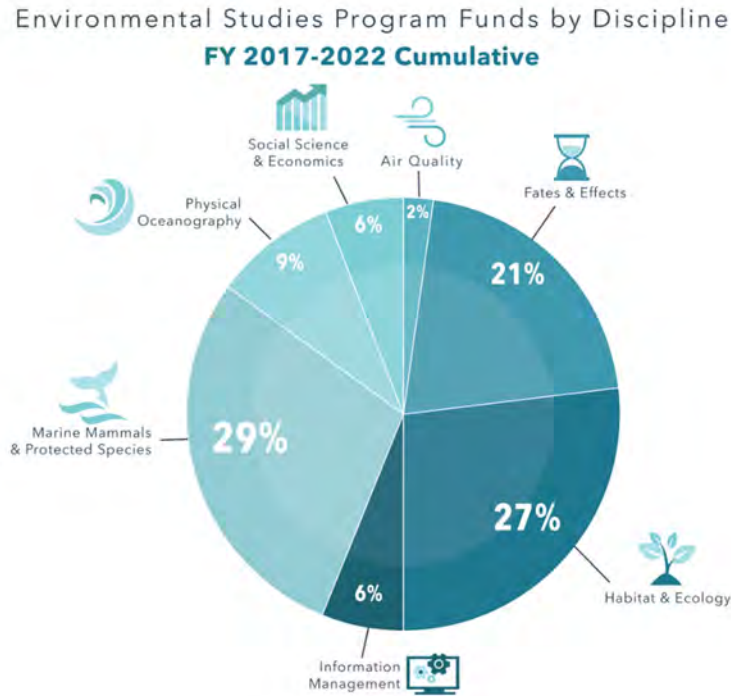
The OCSLA 1978 amendments mandated that the Department have a comprehensive environmental studies program to provide sound scientific analysis of the potential impacts of offshore development and an Oil and Gas Information Program to provide offshore operators and Federal and State governments with data and information from OCS activities. BOEM collects data and monitors human, marine, and coastal environments to identify potential ecological, economic, and social impacts resulting from potential OCS activity.

BOEM follows a strategic framework that asks three key questions: what does BOEM need to know, what strategic questions should be posed, and what criteria should be used to prioritize studies for addressing these questions? To ensure that studies address these questions, BOEM carefully evaluates potential studies and works with the National Academies of Sciences, Engineering, and Medicine's Committee on Offshore Science and Assessment to create annual studies development plans. To generate the best possible information, the scope of BOEM's environmental studies extends across multiple disciplines (see figure below). In addition, BOEM considers studies that are underway independently to design and implement effective research for decision-making. Major continuing emphases are on the impacts of renewable and conventional energy and mineral development, as well as on monitoring efforts, analyses to improve baseline characterizations, and trend analyses. Research to understand the release, transport, fate, and effects of oil and other materials that may be discharged or spilled in the marine environments is also a priority. The BOEM Environmental Studies Program *Strategic Framework*, which provides the details of the studies development process, can be found at <https://www.boem.gov/Strategic-Framework-2017/>.

BOEM is at the forefront of collaborating with Tribal communities and traditional practitioners on Indigenous Knowledge. Over the last few years, the Bureau sponsored approximately a dozen projects that have included Tribal communities to collect data on marine mammal observations, social networks, and harvest patterns through a Tribal lens. The Bureau's plans for even more robust engagement with Tribal Nations through collaborative and co-productive research efforts, and improved science communications about BOEM's Environmental Program, which likely will require a greater investment of resources. Understanding how Bureau activities may affect traditional ways, subsistence, and Indigenous cultural resources is a key element to the Bureau's decision-making processes.

BOEM disseminates environmental data sets, reports, and other study products to the public on its website, the Environmental Studies Program Information System (<https://marinecadastre.gov/espis/>). BOEM has a long-standing commitment to ensure that publications and samples are archived to meet future information needs.

In FY 2022, BOEM provided \$18.8 million to ongoing studies and \$13.1 million to new studies. In FY 2023, BOEM anticipates providing \$23.7 million to ongoing studies and \$13.7 million to new studies. In addition, as OCS renewable energy and minerals activities continue to increase, more studies related to their impacts will be needed.

Figure 20: Environmental Studies Program Funds by Discipline, FY 2017-2022 Cumulative

Environmental Studies Program Funds by Discipline, FY 2017–2022 Cumulative. This chart includes obligations for all studies supporting environmental information needs for all energy types and marine minerals.

➤ Research Partnerships

The valuable data collected through BOEM are also used by stakeholders, other Federal agencies, and State and local governments. Leveraging partnerships to satisfy common scientific needs is a central component of BOEM’s approach to gathering robust scientific information for its decisions and consultation processes. BOEM does not possess certain assets (such as ships, autonomous underwater vehicles, etc.), and partnerships are necessary to achieve BOEM’s applied science mission. By contributing personnel, equipment, facilities, and funds, BOEM and its partners can expand the scope of research to obtain maximum results. Partnerships with Federal agencies (such as the National Science Foundation, NOAA, USGS, DOE, and FWS) are typically established through interagency agreements and through the National Oceanographic Partnership Program, a collaborative community of Federal agencies working to improve knowledge of the ocean environment. From FY 2017 to FY 2022, BOEM provided almost \$73 million to Federal partners to conduct BOEM-designed scientific environmental work. In FY 2022 BOEM finalized 26 studies, 10 of which were conducted with or by BOEM’s Federal and State partners.

Examples of effective BOEM Environmental Studies Program partnerships include the following:

- **Offshore Analysis of Seafloor Instability and Sediments (OASIS Partnership) with Applications to Offshore Safety and Marine Archaeology.** In FY 2022, BOEM began a multi-disciplinary

investigation of selected known and potential shipwreck sites within the Mississippi River Delta Front (MRDF) as markers to identify previous and predict future impacts from gravity flows (also called density flows or gravity currents), and to examine the localized environmental factors influencing the magnitude and frequency of these events. The study will look to identify high, intermediate, and low-risk areas for future occurrence of gravity flows; identify key locations to deploy monitoring equipment able to detect intermediate to large high-energy sediment transport events; obtain a better understanding of environmental factors and processes that initiate these events in the MRDF; and test new and/or existing technologies to detect and monitor gravity flow events. BOEM is currently leading an interagency working group (OASIS Partnership) of Federal agencies with scientific research and/or resource management interests related to gravity flows in the MRDF. The OASIS Partnership currently includes BOEM, BSEE, USGS, NOAA, Naval Research Laboratory, Naval Oceanographic Office, and National Geospatial-Intelligence Agency. BOEM anticipates that there will be multiple partnership opportunities to collaboratively achieve the objectives of this study.

- **Deep Sea Exploration to Advance Research on Coral/Canyon/Cold Seep Habitats (DEEP SEARCH).** From FY 2019 through FY 2022, BOEM supported this multi-year, multi-agency study conducted to characterize the deep-sea ecosystems of the U.S. Mid- and South Atlantic. In 2019, while exploring methane cold seeps 36 miles offshore South Carolina, scientists discovered 85 linear miles of *Lophelia* coral offshore and chemosynthetic vestimentiferan tubeworms, marking the first time ever that tubeworms have been observed in this part of the Atlantic. The DEEP SEARCH team has spent 65 days at sea on 5 different research vessels, completing 3 autonomous underwater vehicle dives, 11 human operated vehicle dives, and 11 remotely operated vehicle dives for a total of over 259 hours of bottom time. They have collected over 2,800 biological and geological samples and mapped over 14,966 square kilometers of seafloor. The team is currently preparing a final report and scientific manuscripts to describe the findings.
- **Expanding Pacific Research and Exploration of Submerged Systems (EXPRESS).** Limited Federal coordination of deepwater mapping and exploration off the West Coast prior to 2018 has hindered resource and hazard management. The development of a partnership with NOAA, BOEM, USGS, and the Monterey Bay Aquarium Research Institute resources known as EXPRESS is addressing this limitation. The EXPRESS campaign has included 24 research expeditions and amassed 386 days at sea on 9 vessels, logging over 200 remotely operated and autonomous underwater vehicle dives. BOEM's financial contribution has been 20% of total costs to date and resulted in 3 surveys in FY 2022 to provide substantial mapping and samples of the seafloor in the California and Oregon offshore wind planning areas.
- **Arctic Integrated Ecosystem Survey.** This key Arctic interdisciplinary effort, a partnership of Federal, State, Tribal, industry, academic, and non-governmental organizations, which is operating through 2023, is advancing the understanding of ecosystem structure and function on the Chukchi and Beaufort shelves. The data will also support climate change studies conducted through a collaboration with the Alaska Ocean Acidification Center.
- **Next Generation of Animal Telemetry.** As a basic element of OCS management, BOEM needs to know where marine animals travel. One tool BOEM depends on is animal telemetry—using satellites

to track animals to learn about their movement and behavior. However, while satellite technology has advanced tremendously over the past two decades, that has not trickled down to animal movement studies. As a result, just six satellites are used to obtain animal telemetry data globally. In partnership with NASA's Advanced Exploration Division, BOEM is working to develop the next generation of animal telemetry by leveraging inexpensive, coffee-cup size, open-source satellites that are being launched regularly. By developing a common standard, BOEM and NASA are ushering in a new generation of science. The team is developing receivers able to localize animal positions much more accurately for a free flying experiment in FY 2024.

- **Impacts of Offshore Wind Development on the Environment.** Offshore wind energy is poised for rapid growth in the U.S., which will help the country reduce its carbon emissions while supporting job growth. BOEM and DOE are jointly funding three research projects, for a total of \$13.5 million, to support the growth of offshore wind. The three awards began in FY 2022 and have a duration of five years: one will lead a team to assess the risk that offshore wind development poses to birds, bats, and marine mammals along the East coast; another will survey changes in commercial fish and marine invertebrate populations and seafloor habitats at an offshore wind development site on the East Coast; and the third will conduct visual surveys and acoustic monitoring of marine mammals and seabirds to develop predictive density maps of species present in potential wind energy development areas off of northern California and Oregon. The awardees will work cooperatively with DOE scientists and BOEM scientists at OREP, the Camarillo Office, and headquarters.
- **DNA Sequencing.** BOEM continues its long-term partnership with the Smithsonian's National Museum of Natural History (NMNH) to preserve biological specimens, including invertebrates and sequenceable DNA acquired from federally funded research, and to maintain and provide quality assurance for the databases associated with the specimens. Many of these invertebrates have not had DNA sequencing and thus must be identified and archived appropriately for scientific posterity. Expanded acquisitions of OCS specimens from these and other sources will augment BOEM's baseline of biological materials and enable innovation in OCS research and monitoring approaches. NMNH will champion a NMNH-BOEM OCS Genomic Sample Strategy to specifically target key OCS invertebrate taxa that are either invasive species or species critical to seafloor impact assessment.
- **Academic Partnerships.** BOEM supports collaborations with the academic community through the Coastal Marine Institutes located at the University of Alaska Fairbanks and Louisiana State University. BOEM plans to spend approximately \$500,000 in FY 2023 for new and continuing cooperative agreements with Coastal Marine Institute partners. Through the Cooperative Ecosystem Studies Unit Network, BOEM gains access to a collaborative network of Federal and academic researchers and technical experts. Many projects include opportunities to train students and contribute to the next generation of environmental science leaders. BOEM provided \$1.96 million in FY 2021, \$1.64 million in FY 2022 and plans to provide more than \$2 million in FY 2023 for cooperative agreements with Network institutions.
- **Utilizing Traditional Knowledge Panels.** BOEM supports collaborations with Indigenous knowledge holders on the North Slope of Alaska. Traditional Knowledge panels are designed to collaborate with the Iñupiaq community to determine research needs and will help to integrate

traditional knowledge in scientific research. Knowledge panels will generate meaningful engagement with traditional knowledge holders and include multiple opportunities for feedback. BOEM plans to spend approximately \$650,000 in FY 2023 for new and continuing cooperative agreements to improve Tribal engagement and to improve understanding of concerns from communities around food security and reductions in conflicts around subsistence hunting.

➤ **National Studies**

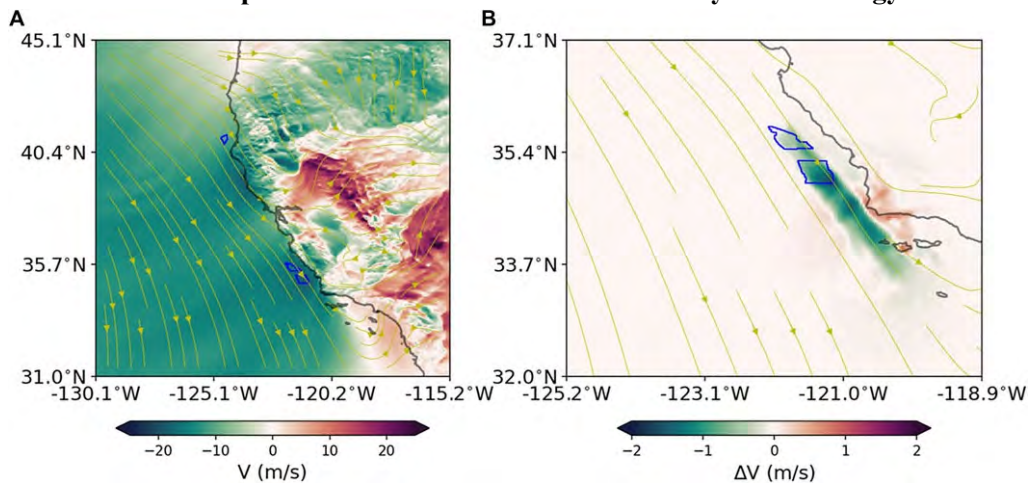


Squat lobster in coral

BOEM conducts research relevant to decision-making at all levels of government, and many studies are of global interest. National studies are managed centrally by BOEM’s OEP, though BOEM staff from regional and program offices participate and may lead projects. The fundamental distinction of national studies is their intention to address issues of broad interest rather than specific interest to a region or program.

In FY 2023, BOEM funded several studies in a cost-effective and timely manner. New starts at the national level include a study to address key information gaps in acoustic ecology of North Atlantic right whales, an update to BOEM’s environmental sensitivity methods and models, the development of an approach to better characterize environmental justice communities potentially impacted by BOEM-authorized activities, and an effort to better understand the potential impacts on Pacific upwelling, nutrients, and productivity from offshore wind projects.

Figure 21: Modeled Wind Speed Reduction Behind the Morro Bay Wind Energy Area of Interest



Modeled wind speed reduction behind the Morro Bay wind energy area of interest (panel B), which would potentially reduce upwelling. From Raghukumar et al. (2022).¹

¹ Raghukumar K, Chartrand C, Chang G, Cheung L, Roberts J. 2022. Effect of floating offshore wind turbines on atmospheric circulation in California. *Front Energy Res.* 10.

BOEM's priority in FY 2024 will continue to be the development of offshore wind. Study ideas focusing on long-term monitoring and cumulative effects of offshore wind are of particular interest. Where study ideas align with Indigenous cultural interests and effects on underserved communities, BOEM will strongly encourage incorporation of these issues. BOEM remains committed to championing the use of new technology and innovation in marine science.

Pursuant to EO 14008, BOEM will continue to collect data on greenhouse gas emissions from offshore oil and gas activities. In addition, BOEM will strengthen oversight of OCS energy facilities to reduce emissions in support of the Administration's goals for a carbon pollution-free electric sector by 2035 and net-zero emissions economy-wide by 2050. BOEM will continue to investigate and incorporate in its studies and assessments the effects of climate change on fisheries, marine mammals, and other resources.

➤ **Atlantic OCS Studies**

During FY 2023, BOEM will continue to collect baseline information about the marine environment, which is critical for assessing offshore wind energy development. Studies will also address key questions to identify mitigations for post-construction offshore wind infrastructure. Notably, studies will use the latest techniques to model impacts to the endangered North Atlantic right whale. Interactions between commercial fishing and existing offshore wind leases will be evaluated. BOEM will also continue to work jointly with DOE on regional research studying fisheries and marine life impacts.

BOEM studies will include research on the impacts of sound on fish and sea turtles, monitoring construction activities at wind facilities, and improving our knowledge base about seabirds. The final report for the *Atlantic Deepwater Ecosystems Observatory Network* will be published in FY 2023, providing much-needed baseline data and delivering the capability for monitoring long-term environmental changes and testing BOEM mitigations. This project serves the advancement of the Renewable Energy Program by generating needed environmental and socioeconomic information to inform future decision-making.

BOEM continues to plan and conduct studies in the Mid- and South Atlantic Planning Areas. Baseline studies are of special importance in this region and need to span the relevant geographic area of interest (out to ultra-deep waters) and include the variety of scientific disciplines relevant to BOEM's environmental analyses. Partnerships play an important role in baseline studies, including the *Atlantic Marine Assessment Program for Protected Species*, now in its third phase, and the *Mid-Atlantic Deepwater Canyons and Shipwrecks* study, involving NOAA, FWS, the U.S. Navy, and USGS. BOEM plans to implement long-term environmental monitoring capabilities in Atlantic deep waters to assess the present state of the environment and possible trends over time related to natural and human-induced variability. An interdisciplinary monitoring approach will be adopted to understand biological species densities and distributions, the physiochemical mechanisms driving change, and human uses of the environment. These measurements will test the efficacy of mitigations, such as for minimizing noise impacts on marine mammals, and will contribute to oil spill risk analysis, air quality, and predictive-fisheries modeling.

Driven by climate change, the increasing frequency and intensity of storms has increased demand on sand resources from the OCS to address serious beach erosion. As a result, BOEM's Marine Minerals Program continues to carry out studies to investigate the impacts associated with sand extraction for shore restoration. For example, the *Productivity and Ecology of Sand Shoals* study identifies strategies to mitigate risks in various climate scenarios by developing a dynamic ecosystem model to visualize potential ecological changes associated with those strategies. The final report for this study will be published in FY 2023.

In FY 2023, BOEM will focus on gathering baseline data to analyze and compare potential dredging impacts to Frying Pan Shoals, North Carolina. This study will address potential impacts to benthic and fish habitats through the collection of baseline information, evaluation of dredging scenarios, and quantitative consideration of ecosystem trade-offs. In the study *Accounting for Scale Bias in Marine Minerals Studies*, BOEM will analyze existing data from prior studies and dredge-related monitoring at various scales to understand how the scale of research and activities matches (or mismatches) the scale of habitats and species distributions. Understanding how scale affects study and monitoring methods will improve the accuracy of previous study interpretation, while informing the design of future marine minerals program studies resulting in data sets that may more appropriately inform environmental analyses and leasing decisions.

Other studies continuing in FY 2023 cover a range of topics, including understanding shoal use by highly migratory species to help identify habitat preferences, assessing the behavioral and spatial ecology of ESA-listed species to inform risk associated with BOEM activities, testing the viability of deploying commercially available autonomous underwater vehicles for shallow-water geophysical mapping, and assessing the environmental impacts of mining critical minerals in the deep sea, and assessing temporal and spatial dimensions of sturgeon occurrence and behavior to determine impacts to the species from dredging and associated activities. BOEM is also collaborating with NOAA and USGS on a study on the Blake Plateau off the southeast Atlantic coast that is acquiring high-resolution mapping data to examine the potential long-term environmental recovery after test mining of polymetallic nodules conducted several decades ago. In a continuing study proposed for FY 2024, hypotheses regarding environmental impacts from deep sea mining will be tested via collection of in-situ geological and water column data in the Blake Plateau (in both control and areas disturbed by deep-sea mining) and will represent an important first step in understanding the environmental impacts of deep-sea mining.

➤ **Gulf of Mexico OCS Studies**

BOEM's Gulf of Mexico OCS studies support all three programs—conventional energy, renewable energy, and marine minerals—and cover the entire Gulf of Mexico. In the Gulf of Mexico, long-term environmental monitoring is combined with experimental research to give OCS decisions a firm scientific base. Studies analyze and explore the ocean ecology from coastal marsh to ocean abyss, recognizing that oil and gas activities affect all habitats, and that new technologies are facilitating activities in deeper waters. BOEM's scientific contributions are especially significant with respect to development of environmental and socioeconomic information needed to support all three programs and anticipated information needs of new frontiers, such as future carbon sequestration on the OCS.

In support of renewable energy development, including the planned offshore wind auction in the Gulf of Mexico in FY 2023, BOEM has targeted specific information gaps related to assessing the potential impacts of offshore wind in the Gulf of Mexico Region. In FY 2023, BOEM will further the understanding of potential interactions between offshore wind development in the Gulf of Mexico and bird habitat by assessing avian collision risk using remote sensing. This study will augment the FY 2022 study that will forecast avian migration in relation to potential offshore wind development in the Gulf. In FY 2023, BOEM is launching a study focused on coastal infrastructure needs to support offshore renewable energy projects and potential effects to Gulf Coast communities.



Ten-ray Star Coral colony

To advance environmental justice and Tribal engagement in the Gulf of Mexico Region, BOEM is also working with coastal communities and Tribes to identify archaeological sites and traditional cultural properties at risk from sea level rise and climate change to make informed decisions about how to manage, document, and/or mitigate these resources with input from affected communities. Another new study in FY 2023 that will advance Tribal engagement and inform Tribal consultations will reevaluate BOEM's survey guidelines and identify and test best practices for identifying submerged pre-contact archaeological sites on the Gulf of Mexico OCS. These now-submerged landscapes that were previously inhabited by Tribal communities could potentially be impacted by activities associated with all three of BOEM's programs.

BOEM continues the long-term coral reef monitoring efforts at the Flower Gardens Banks National Marine Sanctuary with NOAA. This long-standing monitoring work demonstrates that energy production can co-exist with a healthy, productive marine coral ecosystem, ensuring the long-term health of the sanctuary. In FY 2023, BOEM will initiate two studies that will contribute to BOEM's adaptive environmental management and compliance in all three program areas. One study, *Benthic Community Characterization at BOEM "No Activities Zones"*, will expand our understanding of sensitive benthic communities associated with the topographic features on the Gulf of Mexico OCS. The second study will create a publishable, working geodatabase of benthic community habitat features to support more effective and efficient environmental reviews and communicate with BOEM's stakeholders.

Studies begun in FY 2022 and continuing into FY 2023 are assessing the impacts of abandoned oil and gas wells and better understanding subsea mudslides in areas off the Mississippi River Delta. The first study assesses impacts to air and water quality from abandoned oil and gas wells. Offshore abandoned oil and gas wells are not usually inspected. Onshore abandoned wells have been known to leak methane, harming the climate and potentially impacting local air quality. This study will determine if offshore abandoned wells leak and, if so, measure those leak characteristics to determine potential impacts on air and water quality and if those impacts could extend to coastal areas.

The *Offshore Analysis of Seafloor Instability and Sediments* is an interdisciplinary, multi-year study that will provide a better understanding of seafloor instability and mudflow events along the Mississippi River Delta Front and their risks to offshore conventional energy infrastructure and archaeological resources. This study leverages partnerships between BOEM and eight other Federal agencies from the Departments of the Interior, Defense, Energy, and Commerce. Additional collaboration with academic and non-profit institutions and the private sector, with potential future participation from the energy industry, further demonstrates the value of developing partnerships to address similar information needs. The *Gulf of Mexico Environmental Technical Workshops* will use a series of technical workshops with internal and external subject matter experts to refine the Gulf of Mexico Region's environmental justice analyses by building off national efforts as well as anticipating upcoming oil and gas, wind, and carbon sequestration developments in the region. Workshops will also identify region-specific information needs/data gaps to better inform future studies efforts.

In support of marine minerals, a continuing study investigating the long-term recovery of benthic and fish communities following dredging sand resources within Ship Shoal in the Gulf of Mexico will conclude in FY 2023. Two new FY 2023 studies will focus on (1) development of a regional modeling tool to predict seabed state across the Gulf of Mexico OCS to identify regions of high, moderate, and low sediment mobility to inform optimal buffer distances around critical assets, such as infrastructure and cultural resources; and (2) evaluation of the efficacy of use and cost of thermal detection technologies for nighttime protected species observers monitoring procedures during marine mineral related activities, such as G&G surveys, dredging, trawling animal capture, and relocation operations. There has been no formal integration and assessment of thermal detection technology into current mitigation practices, and there is potential for these tools to enhance existing observer protocols while reducing survey and mitigation costs.

➤ **Alaska OCS Studies**



Humpback whales in the Beaufort Sea, Alaska

BOEM's Alaska Region conducts studies focused on foundational research in the Cook Inlet, Beaufort Sea, and Chukchi Sea Planning Areas. Strengthening collaborative research opportunities is a priority, including the incorporation of Indigenous Knowledge in decision-making. Other priorities include data synthesis, updating and improving oil spill risk analysis models, synthesizing the impacts to biological organisms from energy development activities, improving ice forecast modeling, and generating a revised baseline for subsistence activities in coastal communities. The Alaska Region received

approximately 70 suggested study ideas for FY 2023 from public and private academic institutions, the general public, consultants, Tribal governments, and Federal agencies such as NOAA and USGS.

To identify the effects of development in Cook Inlet and the Arctic, BOEM continues to conduct a wide range of studies, taking an integrated approach and using new technologies that facilitate cost-effective research in the challenging Alaska environment to understand the effects on critical resources and the people dependent upon them. New studies in FY 2023 will assess the tidal flow characteristics and associated biological use of Cook Inlet to improve understanding of the tidal energy potential and its impacts, compile baseline information regarding the relative importance of ocean-dependent and ocean-enhanced recreation and tourism for residents and visitors of the Cook Inlet area, and evaluate frequency and impacts of accidental pipeline gas releases on the OCS.

To address BOEM's evolving priorities in the Alaska OCS, studies for FY 2024 will be developed after thorough analysis of data and information needs and include robust stakeholder and partner engagement. BOEM will seek innovative ways to continue monitoring on several recently completed projects. Specific areas of focus include the application of emerging technologies and approaches to collect information about evaluating effects of anthropogenic noise on marine biota, assessing and understanding ecosystem changes due to climate change, and updating baseline information to facilitate analyses of potential impacts from development of renewable energy and marine mineral resources on the OCS off Alaska.

In FY 2023, BOEM will examine the locations and distribution of seamounts and associated hydrothermal activity in priority regions of the Aleutian Arc. These seafloor features have the potential to contain critical minerals. The baseline studies initiated in FY 2022 explored benthic communities, including deep sea corals and sponges, and whether any are endemic to critical mineral habitats.

In FY 2022, the Alaska Region initiated a partnership with DOE's National Renewable Energy Laboratory for a *Feasibility Study for Renewable Energy Technologies in Alaska Offshore Waters*. In the first year, the study produced a summary of the technical power potential for marine energy resources (offshore wind, wave, tidal) in Alaska OCS Planning Areas. The partnership will subsequently consider practical methods for delivering energy from these sources to end users, including the potential for green hydrogen fuel production, distribution, and end use adoption opportunities.

➤ **Pacific OCS Studies**

Within the Pacific OCS Region, which includes the OCS offshore California, Oregon, Washington, and Hawaii, BOEM studies continue to evolve in response to the changes in: (1) the geographic areas of activity; (2) the emphasis on the disciplines highlighted for research; (3) the information needs for the mature oil- and gas-producing area offshore California; (4) the potential for renewable energy development offshore California, Oregon, Washington, and Hawaii; and (5) the prospective interest in marine minerals. The Camarillo Office's responsibility encompasses ongoing oil and gas operations, potential renewable energy development from wind and marine hydrokinetic energy, and marine minerals.

In FY 2022, three Pacific OCS environmental studies were completed, including (1) *Characteristics and Contributions of Noise Generated by Mechanical Cutting During Conductor Removal Operations*, a study jointly funded by the ESP, Pacific Region, and Gulf of Mexico Region, while will inform oil and gas

decommissioning in both the Pacific and Gulf of Mexico Regions; (2) *California Deepwater Investigations and Groundtruthing (Cal DIG) I*, a study conducted through a partnership between BOEM, USGS, NOAA, and Monterey Bay Aquarium Research Institute that will inform decisions about potential wind turbine siting and future site-specific geohazard and biological analyses offshore central California; and (3) *Assessing and Advancing Individual Matching Accuracy of Photographed Gray Whales Using Artificial Intelligence*, a two-phase Pacific Region-funded study that used artificial intelligence to better understand the distribution, status, and sensitivities of gray whales, and will inform both decommissioning and renewable energy offshore California.

In FY 2023, BOEM plans to start ten new Pacific OCS environmental studies to inform planning or expected decisions regarding renewable energy, oil and gas decommissioning, and marine minerals. New studies to acquire or refine information about environmental conditions and biological communities in areas of potential renewable energy development include: (1) *Habitat Use of Whales of the U.S. West Coast and Hawai'i*; (2) *Pacific Marine Assessment Partnership for Protected Species (PacMAPPS) II*; (3) *Characterization of the Distribution, Movements, and Foraging Habitat of Endangered Leatherback Turtles in Designated Critical Habitat off the U.S. West Coast*; and (4) *Offshore Wind Farm Impacts on Pacific Upwelling, Nutrients, and Productivity*. New studies about cultural or socioeconomic aspects of planning for renewable energy include: (5) *O'ahu's Traditional Cultural Landscapes*; (6) *Maritime Heritage of the U.S. Pacific Islands*; (7) *Facilitating Resilience and Adaptation in Commercial Fisheries in Response to Offshore Renewable Energy Development and Climate Change*; and (8) *Evaluating Hawaiian Fisheries and Potential Impacts of Offshore Wind Energy Development*. Other new studies include (9) *Multi-Agency Rocky Intertidal Network* (to continue monitoring of environmental conditions adjacent to oil and gas activities offshore California); and (10) *Minerals and Ecosystems of the Remote Pacific* (a pioneer effort to collect environmental information in conjunction with a marine minerals resource study).



The Jason ROV sampling a hydrothermal vent situated inside a cluster of tubeworms at a depth of approximately 3200 meters.



BOEM and USGS researchers recover a gravity core full of pelagic mud from a depth of approximately 3200 meters.

Planning for FY 2024 new Pacific OCS environmental studies is at a very early stage. In November 2022, the Camarillo Office invited stakeholders to suggest FY 2024 Pacific study ideas to support the Region’s highest-priority mission areas: addressing data gaps relating to potential environmental effects of (1) wind energy offshore California, Oregon, Washington, and Hawaii, and (2) decommissioning oil and gas facilities offshore California.

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Executive Direction

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Executive Direction

Table 13: Executive Direction Budget Summary

Activity: Executive Direction

Dollars in Thousands (\$000)

Executive Direction	2022 Actual	2023 Enacted	2024 Fixed Costs (+/-)	2024 Internal Transfers (+/-)	2024 Program Changes (+/-)	2024 Request	Change from 2023 Enacted (+/-)
Executive Direction \$	17,899	18,899	+912	0	+2,504	22,315	+3,416
<i>FTE</i>	66	84	0	0	+9	93	+9

This activity funds BOEM leadership, management, coordination, communications strategies, outreach, and regulatory development. It includes functions such as: managing the budget planning and execution processes, Freedom of Information Act activities, overseeing official documents, policy analysis, international affairs, managing administrative services, bureau-wide information technology management and governance, congressional and public affairs, and regulations.

The FY 2024 budget will support:

- **Strategic Leadership:** Provide BOEM policy guidance and leadership, including the implementation of Administration priorities and policies.
- **Diversity, Equity, Inclusion, and Accessibility:** Foster diversity, equity, inclusion, and accessibility throughout BOEM and all of its activities. The BOEM budget includes funding to support the Department-wide Diversity, Equity, Inclusion, and Accessibility Program, which addresses high-priority equal employment needs. As part of this initiative, the Department, bureaus, and offices jointly conduct reviews of the Diversity, Equity, Inclusion, and Accessibility Program across the Department to identify gaps and challenges and implement best practices. BOEM strives to implement justice, equality, diversity, and inclusion within the Bureau workplace and in its program effects. On July 31, 2020, BOEM's Acting Director signed the Charter establishing the Justice, Equality, Diversity, and Inclusion (JEDI) Committee, and in 2021 the Bureau Director and Senior Leadership Team approved its work plan. This Committee functions as an internal working group within BOEM. The Committee advises the BOEM Senior Leadership Team, develops and periodically updates a work plan with specific objectives and

timelines, and otherwise advances justice, equality, diversity, and inclusion in BOEM and in the impacts of BOEM's programs on all people.

- **Budget:** Manage the budget formulation and execution processes, from the development of the annual budget justification through the expenditure of appropriated funds, in conformance with all necessary policies, regulations, and statutes.
- **Planning and Performance:** Implement BOEM's planning and performance activities mandated by the Government Performance and Results Act (GPRA) Modernization Act as well as activities required by the Office of Management and Budget. Examples of activities include: ensuring BOEM's performance goals track progress for strategic objective GPRA requirements within the Department's Annual Performance Report; integrating budget and performance information within budget, performance, and planning documents and data call responses; contributing toward the Department's Evidence Act Program; and, tracking the two-year Agency Priority Goal milestones, which are published quarterly on www.performance.gov.
- **Freedom of Information Act:** Ensure timely resolution of Freedom of Information Act requests, as well as implement any legislative actions that pertain to Freedom of Information Act policy.
- **Communications:** Coordinate internal and external communications, including outreach to the public, the media, Congress, State and local governments, and other stakeholders.
- **Policy:** Support BOEM mission areas and help achieve Departmental and Administration priorities on national-level policy issues, external coordination, information sharing, and project management to support the resolution of complex energy, mineral, and environmental issues.
- **International Affairs:** Support U.S. government international initiatives related to energy, minerals, and the environment, and collaborate with other countries' regulators on issues of mutual interest.
- **Administration and Compliance:** Oversee and coordinate Bureau-level programs and management initiatives with BOEM offices and regions, including strategic human capital programs and plans, continuity of operations and emergency management program, directives and delegations, external audit liaison activities, and internal control programs.
- **Information Technology:** Provide Bureau-wide information technology management and governance, ensuring that technology aligns with mission delivery requirements. In addition to technology, data management, privacy, and records management are also addressed.
- **Regulations and Guidelines:** Manage BOEM's rulemaking activities and coordinate the review and publication of Federal Register Notices and guidance documents.

SUMMARY OF 2024 PROGRAM CHANGES

Summary of 2024 Program Changes for Executive Direction

Program Changes:	(\$000)	FTE
Cost Recovery Fee Evaluation	+500	+0
Office of Diversity, Inclusion and Civil Rights	+660	+3
Program Support Capacity	+1,344	+6
TOTAL Program Changes	+2,504	+9

* Changes listed in order of budget activity, not priority.

Cost Recovery Fee Evaluation (+\$500,000; +0 FTE). BOEM proposes to comprehensively re-evaluate BOEM’s current cost recovery fees to determine if the full cost of providing a requested service is captured through the relevant fee, and to recommend fee adjustments as necessary. The Bureau would also seek to determine new fees BOEM should establish to reimburse the agency for processes and/or services currently provided by the Bureau without charge. The study would determine whether the existing fees are administered consistently with proper controls within the Bureau, whether proper processes and internal controls are in place for recovering the fees from industry, as well as challenges with the current process and recommendations to correct them. Evaluating the cost recovery fees to ensure the Bureau is appropriately capturing revenue commensurate to the level of services being provided is statutorily mandated and a good business practice.

Office of Diversity, Inclusion and Civil Rights (+\$660,000; +3 FTE). In FY 2024, in support of the Administration’s priorities outlined by EOs 13985 and 13988, BOEM proposes three FTE to advance the efforts of the Office of Diversity, Inclusion and Civil Rights. Requested funding would enable BOEM to combine its JEDI Committee efforts with a new, more traditional equal employment opportunity (EEO) program to create a holistic office to advance all aspects of equal opportunity, diversity, and inclusion. Proposed FTE will enable this office to design, develop, and recommend bureau-wide equity, diversity, and inclusion strategies, policies, and programs that align with and contribute directly to the DOI’s mission and strategic goals and ensure compliance with title VII of the Civil Rights Act of 1964, as amended; the Equal Pay Act of 1963; the Age Discrimination in Employment Act of 1967, as amended; sections 501 and 505 of the Rehabilitation Act of 1973, as amended; title II of the Genetic Information Nondiscrimination Act of 2008; Departmental directives; and other related statutes and orders. The Office will also provide advisory recommendations including BOEM-wide goals and objectives, and action plans designed to eliminate the underlying causes of problems or barriers to equal employment. The Office will work collaboratively with internal and external stakeholders and the Department to address systemic EEO problems and advance equity, diversity, and inclusion as core values of the Department and its strategic human capital objectives. BOEM’s goal is to ensure workforce activities are inclusive and that they promote the full utilization and exchange of skills and talents.

Program Support Capacity (+\$1,344,000; +6 FTE). In FY 2024, BOEM proposes a funding and FTE increase within the Office of the Director to support the administrative and information technology needs associated with its expanding role and contributions toward the Administration’s clean energy, climate change resilience and restoration, and conservation efforts. BOEM’s overall budget request increases

programmatic activity funding and FTE to reflect BOEM’s role in addressing activities identified in EO 14008, including advancing the Nation’s clean energy future, fostering climate change resilience and restoration, championing environmental justice, and utilizing environmental studies and analysis in support of conservation efforts. Increasing program support capacity reflects the associated increase in administrative and technical work associated with those programmatic activities. The Director’s office is pivotal to supporting the program and regional offices in the execution of Bureau and Administration responsibilities. In addition to providing Bureau-wide leadership and direction, the Director’s office is responsible for coordination and communication strategies internal and external to BOEM, as well as outreach activities. The Director’s office also manages and executes the budget planning and execution processes, Bureau-wide information technology, congressional and public affairs, as well as policy and regulations. As the scope of BOEM’s responsibilities and organization expands, associated administrative and technical work needs also increase. To meet these needs during FY 2024, BOEM requests additional funding and FTE to execute its increased functions responsibly and efficiently.

PROGRAM OVERVIEW

➤ **Office of the Director**

The Office of the Director includes the BOEM Director and Deputy Director and their immediate staff, as well as the offices of the Regional Directors and their immediate staff. These components of the BOEM staff are responsible for providing policy guidance and overall leadership within BOEM.

➤ **Chief of Staff**

The BOEM Office of the Chief of Staff manages the day-to-day operations of the Bureau, provides general administrative direction, and conducts a variety of other management functions for the Bureau to ensure effective and efficient completion of mission-related activities. The office includes administrative support staff for the Director and Deputy Director, the Office of Document Management, and is responsible for coordinating communication between the bureau and the Assistant Secretary for Land and Minerals Management.

➤ **Freedom of Information Act Office**

The Freedom of Information Act (FOIA) office is responsible for planning, developing, analyzing, evaluating, and administering the BOEM FOIA program, including policy and training development in accordance with Departmental FOIA Office parameters and instruction, oversight of FOIA program functions, providing guidance on FOIA-related matters, and implementing and assessing FOIA activities.

➤ **Office of Communications**

The Office of Communications conducts BOEM’s internal and external communications including traditional and social media relations, internal and external websites, communication strategy development, and associated outreach. Communications staff implement an effective and inclusive

outreach program to the public in general as well as numerous target audiences, including State and local governments, the energy industry, related trade associations, the environmental community, Tribes, and energy consumer groups. BOEM's Congressional affairs staff, within the Office of Communications, is the primary point of contact with Congress and is responsible for the coordination of all communication and outreach with Congressional offices. The Congressional affairs staff also serves as the liaison on all Congressional and legislative matters that relate to BOEM's programs, including managing coordination with the Department of the Interior and other Federal executive agencies.

➤ **Office of Regulations**

The Office of Regulations leads and oversees BOEM's national regulatory policy and evaluation programs and provides the Director with independent review and analysis of regulatory issues. The Office of Regulations directs cross-program Bureau initiatives to ensure consistent BOEM-wide implementation of regulations, and the publication of associated guidance documents, that directly support Congressional, Presidential, Departmental, and Bureau directives, laws, orders, proposals, and mandates. The Office of Regulations provides BOEM oversight in several critical areas including regulatory planning, development, promulgation, and related policy initiatives.

➤ **Office of Strategic Policy and International Affairs**

The Office of Strategic Policy and International Affairs provides high quality policy and strategic analysis, internal and external coordination, and project management services to support the resolution of complex national and international energy, mineral, and environmental issues. In this role, the Office of Strategic Policy and International Affairs ensures adequate support to Bureau decision-making in advancing Departmental and U.S. Government priorities through effective collaboration across the Bureau's offices and subject matter experts, other Federal agencies, international governments and organizations, and external parties. In addition to these responsibilities, the Office of Strategic Policy and International Affairs functions as the lead for strategic planning, analysis, and coordination on emerging issues that may impact multiple program or regional offices.

➤ **Office of Budget and Administration**

The Office of Budget and Administration is responsible for managing the budget formulation and execution processes, performance and planning activities, activity-based costing, cost recovery fees, and administrative services. The organization assesses current budgetary resources, provides recommendations for program and budget initiatives to senior BOEM executives, manages the personnel allocation system, and formulates and assists in the defense of BOEM's budget submissions to the Department, Office of Management and Budget, and Congress. Additionally, the Office of Budget and Administration is tasked with developing, refining, and verifying activity-based costing data and conducting planning and performance management activities to identify, establish, monitor, and report on BOEM's strategic objectives and associated performance measures. The organization is responsible for overseeing coordination with administrative service providers in the management of BOEM administrative activities and serves as the point of contact for any service-related questions. In addition, the office conducts emergency management and continuity of operations, strategic human capital

management, talent management, directives and delegation management, external audit liaison functions, enterprise risk management, and internal controls. The Office of Budget and Administration organizes Bureau-wide information technology management and governance ensuring that technology aligns with mission delivery requirements. Responsibilities in this area include the oversight of new and ongoing information technology initiatives, improved service delivery through application development, technology refresh, data governance, privacy, and records management.

Appendices

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Appropriations Language

Below is the Appropriations language for the Ocean Energy Management account within BOEM. BOEM also proposes a new General Provision.

OCEAN ENERGY MANAGEMENT

For expenses necessary for granting and administering leases, easements, rights-of-way, and agreements for use for oil and gas, other minerals, energy, and marine-related purposes on the Outer Continental Shelf and approving operations related thereto, as authorized by law; for environmental studies, as authorized by law; for implementing other laws and to the extent provided by Presidential or Secretarial delegation; and for matching grants or cooperative agreements, [\$219,960,000] \$268,210,000, of which [\$182,960,000] \$211,242,000 is to remain available until September 30, [2024] 2025, and of which [\$37,000,000] \$56,968,000 is to remain available until expended: *Provided*, That this total appropriation shall be reduced by amounts collected by the Secretary of the Interior and credited to this appropriation from additions to receipts resulting from increases to lease rental rates in effect on August 5, 1993, and from cost recovery fees from activities conducted by the Bureau of Ocean Energy Management pursuant to the Outer Continental Shelf Lands Act, including studies, assessments, analysis, and miscellaneous administrative activities: *Provided further*, That the sum herein appropriated shall be reduced as such collections are received during the fiscal year, so as to result in a final fiscal year [2023] 2024 appropriation estimated at not more than [\$182,960,000] \$211,242,000: *Provided further*, That not to exceed \$3,000 shall be available for reasonable expenses related to promoting volunteer beach and marine cleanup activities: *Provided further*, That not to exceed \$5,000 shall be available for official reception and representation expenses. (*Department of the Interior, Environment, and Related Agencies Appropriations Act, 2023.*)

Explanation of Appropriations Language

The following provides a provision-by-provision explanation and citation of authority for each component of the appropriations language.

1. *For expenses necessary for granting and administering leases, easements, rights-of-way and agreements for use for oil and gas, other minerals, energy, and marine-related purposes on the Outer Continental Shelf and approving operations related thereto, as authorized by law;*

This provision authorizes BOEM to expend funds for specific, mission-related purposes pursuant to BOEM's primary authorization, the OCS Lands Act, as amended, as well as myriad additional statutes that guide its activities, such as the National Environmental Policy Act of 1969 (NEPA), the Submerged Lands Act of 1953, the Energy Policy Act of 2005, and others.

2. ...for environmental studies, as authorized by law;

This provision authorizes BOEM to expend funds for environmental studies, pursuant to law. Specifically, BOEM's Environmental Studies Program function was established in 1973 by the OCS Lands Act, which directed the Secretary of the Interior, now through BOEM, to –

“... conduct a study of any area or region included in any oil and gas lease sale or other lease in order to establish information needed for assessment and management of environmental impacts on the human, marine, and coastal environments of the Outer Continental Shelf and the coastal areas which may be affected by oil and gas or other mineral development in such area or region.”

43 U.S.C. §1346(a)(1).

“... to predict impacts on the marine biota which may result from chronic low level pollution or large spills associated with Outer Continental Shelf production, from the introduction of drill cuttings and drilling muds in the area, and from the laying of pipe to serve the offshore production area, and the impacts of development offshore on the affected and coastal areas.”

43 U.S.C. §1346(a)(3).

“Subsequent to the leasing and developing of any area or region, [to conduct] such additional studies as he deems necessary and shall monitor the human, marine, and coastal environments of such area or region in a manner designed to provide time-series and data trend information which can be used for comparison with any previously collected data for the purpose of identifying any significant changes in the quality and productivity of such environments, for establishing trends in the areas studied and monitored, and for designing experiments to identify the causes of such changes.” 43 U.S.C. §1346(b).

3. ...For implementing other laws and to the extent provided by Presidential or Secretarial delegation;

This provision authorizes BOEM to expend funds on activities related to its mission that are delegated to the BOEM by either the President of the United States or the Secretary of the Interior. For instance, section 388 of the Energy Policy Act of 2005 gives the Secretary of the Interior the authority to issue leases, easements, and rights-of-way on the OCS for activities that produce or support production, transportation, or transmission of energy from sources other than oil and gas. The Secretary has delegated this responsibility to BOEM, and this provision allows BOEM to fund renewable energy activities on the OCS on behalf of the Secretary.

4. ...and for matching grants or cooperative agreements,

This language provides authority for BOEM to utilize matching grants or cooperative agreements to carry out mission-related functions. BOEM uses cooperative agreements with Federal and non-Federal partners to conduct environmental studies and to implement renewable energy and OCS sand projects.

5. ...\$268,210,000, of which \$211,242,000 is to remain available until September 30, 2025 and of which \$56,968,000 is to remain available until expended:

This provision identifies the amount of BOEM’s total budget authority for FY 2024 (\$268,210,000). Of this total budget authority, \$211,242,000 is designated as two-year money, to be available from FY 2024 through the end of FY 2025. Meanwhile, \$56,968,000 of BOEM’s budget authority – the amount associated with offsetting collections – is designated as no-year money with no expiration date. This enables BOEM to use no-year money to fund long-term projects like environmental studies.

6. ... *Provided, That this total appropriation shall be reduced by amounts collected by the Secretary of the Interior and credited to this appropriation from additions to receipts resulting from increases lease rental rates in effect on August 5, 1993, and from cost recovery fees from activities conducted by the Bureau of Ocean Energy Management pursuant to the Outer Continental Shelf Lands Act, including studies, assessments, analysis, and miscellaneous administrative activities:*

Since 1995, annual appropriations language has provided BOEM (and its predecessor agencies) authority to keep rental revenues above the \$3.00/acre rate in effect on August 5, 1993, up to an annual cap, to fund current operations. This provision allows BOEM to use these rental receipts – as well as cost recovery fees for specific activities authorized by the OCS Lands Act, as authorized by the Independent Offices Appropriations Act – to partially fund mission-related activities. A listing of the specific cost recovery services and associated fees can be found on BOEM’s website in the “Fees for Services” section (<http://www.boem.gov/Fees-for-Services/>).

7. ...*Provided further, That the sum herein appropriated shall be reduced as such collections are received during the fiscal year, so as to result in a final fiscal year 2024 appropriation estimated at not more than \$211,242,000:*

This provision pertains to the availability of offsetting collections. The timing difference between the collection of rents and cost recovery fees and the availability of the funding for use as offsetting collections created significant operational challenges for BOEM, so the language was amended to include this “safety clause” in FY 2014. The language allows BOEM to derive initial funding from the general fund of the Treasury, with amounts returned to the general fund at the end of the year once all collections have been received.

8. ...*Provided further, That not to exceed \$3,000 shall be available for reasonable expenses related to promoting volunteer beach and marine cleanup activities.*

This provision has been included annually since 1998 (P.L. 105-83) and authorizes BOEM to expend up to a certain amount for the promotion of volunteer beach and marine clean-up activities.

9. ...*Provided further, That not to exceed \$5,000 shall be available for official reception and representation expenses.*

The 2024 budget proposes appropriations language to enable the Bureau of Ocean Energy Management to use up to \$5,000 of appropriated amounts for courtesy and social responsibilities associated with official duties, including outreach and engagement with Tribal partners to honor traditions. This request would provide the Bureau similar authority provided to other agencies to extend hospitality to official visitors without bureau employees bearing expenses from their own personal funds.

GENERAL PROVISIONS

The language provided below reflects the General Provision directly applicable to BOEM. For a complete, detailed discussion of the Department’s proposed General Provisions, please refer to the General Provision section of the Office of the Secretary FY 2024 budget justification.

➤ DECOMMISSIONING ACCOUNT

BOEM requires OCS oil and gas and renewable energy lessees to provide financial assurance to cover lease obligations, primarily for decommissioning of facilities when they are no longer supporting production. Through regulations implementing the OCS Lands Act (43 U.S.C. 1331 et seq.), BOEM is authorized to call for the forfeiture of that financial assurance and collect bond proceeds or other security forfeitures from an OCS permittee, lessee, or right-of-way holder that does not fulfill the requirements of its permit, lease, or right-of-way or does not comply with the regulations or orders of the Secretary. See 30 CFR § 556.907. Such forfeitures cover the cost to the United States of any improvement, protection, or rehabilitation work rendered necessary by the action or inaction that led to the forfeiture. The determination to call for the forfeiture of a bond or security is made by the Regional Director for the BOEM regional office where the lease, permit, or right-of-way is managed. Because the statute identifies the Royalty and Offshore Minerals Management account (which is now BOEM’s operating account, hereinafter referred to as the “OEM” account) as the one in which funds will be collected, forfeited moneys are credited to the OEM account to remain available until expended, and any funds in excess of the amount expended in performing the necessary work are returned to the permittee, lessee, or right-of-way holder. See 43 U.S.C. 1338a.

Under the OCS Lands Act and Secretarial delegations, BOEM has the authority to collect bankruptcy settlements or disbursements on behalf of BSEE. BSEE may receive distributions in bankruptcy proceedings to reimburse it for actual, necessary costs and expenses incurred in performing decommissioning during the pendency of the bankruptcy that had been the responsibility of a debtor or in correcting other regulatory violations. Additionally, BSEE may receive a pro rata distribution from the bankruptcy estate based on the proof of claim for the expected future costs of decommissioning. In both instances, the funds are received to remedy a specific problem and not for general governmental purposes. Similar to forfeited bonds or other securities, the bankruptcy settlements and distributions may be credited to BOEM’s OEM account until expended.

During the reorganization of the Minerals Management Service into three separate entities, the specific authorities regarding bond forfeitures were not clearly assigned or updated. As a result, BOEM has the authority to call bonds and collect the associated funds, but BSEE receives bankruptcy settlements and distributions. However, although BSEE is responsible for ensuring the necessary decommissioning work is done, it has no clear authority to retain funds received in bankruptcy and therefore, such funds are placed into BOEM’s OEM account, to which BSEE has no access. While BOEM can utilize a reimbursable service agreement to effectively transfer funds – resulting from a bond forfeiture or a bankruptcy distribution - from the OEM account to BSEE, this is neither a practical nor efficient long-term solution.

Proposal: BOEM proposes to separate collections of forfeitures (of bonds or other securities) and bankruptcy distributions or settlements (associated with failure to perform or noncompliance) from the appropriations in its OEM account and administer them through a new Treasury account. To accomplish this, BOEM requests authority to transfer such funds to this new account and to direct all future such funds to the new account as well. BOEM will work with the Department, OMB, and Treasury to establish the Treasury account in which decommissioning funds can be managed, but in order to utilize this new account for the collection and Administration of funds specific to decommissioning activities, the underlying statute will need to be amended. Therefore, BOEM requests the following language be included either as an administrative or general provision:

SEC. 114. The fifth and sixth provisos under the amended heading "Royalty and Offshore Minerals Management" for the Minerals Management Service in Public Law 101–512 (104 Stat. 1926, as amended) (43 U.S.C. 1338a) are further amended by striking and replacing them with— "Provided further, That notwithstanding section 3302 of title 31, any moneys hereafter received as a result of the forfeiture of a bond or other security by an Outer Continental Shelf permittee, lessee, or right-of-way holder that does not fulfill the requirements of its permit, lease, or right-of-way or does not comply with the regulations of the Secretary, or as a bankruptcy distribution or settlement associated with such failure or noncompliance, shall be credited to a separate account established in the Treasury for decommissioning activities and shall be available to the Bureau of Ocean Energy Management without further appropriation or fiscal year limitation to cover the cost to the United States of any improvement, protection, rehabilitation, or decommissioning work rendered necessary by the action or inaction that led to the forfeiture or bankruptcy distribution or settlement, to remain available until expended: Provided further, That amounts deposited into the decommissioning account may be allocated to the Bureau of Safety and Environmental Enforcement for such costs: Provided further, That any moneys received for such costs currently held in the Ocean Energy Management account shall be transferred to the decommissioning account: Provided further, That any portion of the moneys so credited shall be returned to the bankruptcy estate, permittee, lessee, or right-of-way holder to the extent that the money is in excess of the amount expended in performing the work necessitated by the action or inaction which led to their receipt or, if the bond or security was forfeited for failure to pay the civil penalty, in excess of the civil penalty imposed."

Explanation of Proposed Change: The requested language would do the following:

1. Establish a new parent-child account to hold funds from forfeitures of bonds and other securities and from bankruptcy settlements and distributions.
2. Clarify the treatment of funds from bankruptcy settlements and distributions in addition to bond forfeitures.
3. Amend this provision in the OCS Lands Act (43 USC 1338a) to add the word “decommissioning” to the list of purposes for which the funds in this account can be collected and used. This is because “decommissioning” is the term used in the BSEE and BOEM regulations and by the

offshore energy industry, and adding it to the statute clarifies the purposes for which the funds in this new account shall be used.

4. Allow BOEM to transfer existing funds from the OEM (current account) to a new parent-child account and allow BSEE access to the funds contained in the child account arising from the forfeitures (of bonds or other securities) and bankruptcy distributions or settlements.

This proposal seeks to simplify how these funds are accounted for in the U.S. Treasury, and it would have no impact to Federal revenues or budgetary scoring.

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

Disclosure of Program Assessments

This appendix is provided in compliance with section 403 Division G of Public Law 117-328, the Consolidated Appropriations Act, 2023, which states:

DISCLOSURE OF ADMINISTRATIVE EXPENSES

Sec. 403. The amount and basis of estimated overhead charges, deductions, reserves or holdbacks, including working capital fund and cost pool charges, from programs, projects, activities and subactivities to support government-wide, departmental, agency, or bureau administrative functions or headquarters, regional, or central operations shall be presented in annual budget justifications and subject to approval by the Committees on Appropriations of the House of Representatives and the Senate. Changes to such estimates shall be presented to the Committees on Appropriations for approval

The majority of BOEM’s external assessments are associated with the costs of the shared services approach that allows it to meet its administrative and information technology needs. BOEM implements this approach through reimbursable services agreements with the Bureau of Safety and Environmental Enforcement (BSEE), which are identified in the table below. Under this arrangement, BSEE provides a full suite of administrative services including acquisition management, equal employment opportunity, finance, human resources, information technology management, management support, personnel security, and support services. Maintaining these critical administrative functions within the Department provides the following benefits:

- Minimizing duplication of administrative entities across multiple organizations and optimizing efficiency.
- Providing a centralized administrative function that can, over time, allow the Department to pursue additional efficiencies.

The Department has strongly supported the expansion of business cross-servicing to strategically expand high-quality, high-value shared services to improve performance and efficiency throughout the Department.

Through this effort, BOEM and BSEE support the Department’s and the Administration’s efforts to increase the efficiency of core operations, reduce duplication and waste, enable investments in innovation, use shared services and common infrastructure, facilitate agency collaboration and co-funding, and implement innovative approaches to budgeting and resource management. Specifically, this arrangement has the added benefit of implementing standardized practices that further increase the productivity for highly skilled resources in both Bureaus. By utilizing the shared services model, BOEM and BSEE continue to improve their best practices and optimize the use of administrative funds.

BOEM and BSEE regularly evaluate these support arrangements in joint, quarterly meetings, and final costs are determined at the end of the year based on FTE levels and hours billed. BSEE's costs to provide these services are also carefully managed and jointly approved. Because these costs are regularly reevaluated, estimated out-year costs are based on prior year actuals and the stated billing methodology. Amounts shown in the table below are estimates and may not reflect final agreements or end of year obligations. Additionally, because BOEM has no dedicated budget line to pay for its administrative overhead, all external assessments are paid through internal assessments to the Ocean Energy Management account.

Table 14: Disclosure of Program Assessments

Bureau of Ocean Energy Management	
Disclosure of Program Assessments	
<i>(dollars in thousands)</i>	
Cost Description	2024
External Administrative Costs	
Administrative RSA with BSEE	18,056
IT Labor RSA with BSEE	4,013
IT Technology RSA with BSEE	17,400
Solicitor Support	2,323
Working Capital Fund Centralized Billing	2,296
Working Capital Fund Direct Billing	849
NARA	100
Total, External Administrative Costs	\$ 45,037
Internal Bureau Assessments	
Ocean Energy Management	45,037
Total, Internal Bureau Assessments	\$ 45,037
* External administrative costs are charged to the Ocean Energy Management account for a total cost to the Bureau of \$45,037 thousand.	

Multiple IT support contracts provide operations, maintenance, management, and enhancement services to the enterprise and the TIMS investment. In addition to the administrative contracts with BSEE, BOEM also contracts with the Office of the Solicitor for legal support. Other external assessments include the Department's Working Capital Fund, which supports Department-wide systems, such as the Financial Business Management System, which bureaus use for accounting and finance. BOEM is also externally assessed for information archiving through the National Archives and Records Administration.

FISCAL YEAR 2024 BUDGET
Bureau of Ocean Energy Management
Employee Count by Grade
 (Total Employment)

Table 15: Employee Count by Grade

Employee Count by Grade	2022 Actuals	2023 Estimate	2024 Estimate
Executive Level V	0	0	0
SES	8	8	8
Subtotal	8	8	8
SL - 00	2	2	2
ST - 00	0	0	0
Subtotal	2	2	2
GS/GM -15	53	57	58
GS/GM -14	174	181	182
GS/GM -13	208	216	218
GS -12	79	87	97
GS -11	36	47	50
GS -10	2	3	3
GS - 9	15	17	19
GS - 8	5	5	5
GS - 7	7	7	7
GS - 6	9	9	9
GS - 5	0	0	0
GS - 4	0	0	0
GS - 3	0	0	0
GS - 2	0	0	0
GS - 1	0	0	0
Subtotal	588	629	648
Other Pay Schedule Systems	0	0	0
Total employment (actuals & estimates)	598	639	658

Notes on this table:

- All grades presented in this table include career, career-conditional, temporary, and political employees.

- GS refers to employees covered by the General Schedule classification and pay system established under the Classification Act of 1949, as amended. (5 U.S.C. chapter 53, subchapter III, and 5 CFR part 531).
- GM refers to employees covered by the General Schedule classification and pay system who are covered by the Performance Management and Recognition System termination provisions of Public Law 103-89 (former Performance Management and Recognition System employees).

FISCAL YEAR 2024 BUDGET

Bureau of Ocean Energy Management

List of Acronyms

AIS	Automated Identification System
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CEQ	Council on Environmental Quality
CMA	Center for Marine Acoustics
COP	Construction and Operation Plan
DOCD	Development Operations Coordination Document
DOD	Department of Defense
DOE	Department of Energy
DOI	Department of the Interior
DPP	Development and Production Plan
EIS	Environmental Impact Statement
EO	Executive Order
EP	Exploration Plan
ESA	Endangered Species Act
ESP	Environmental Studies Program
FERC	Federal Energy Regulatory Commission
FOIA	Freedom of Information Act
FTE	Full Time Equivalent
FWS	U.S. Fish and Wildlife Service
FY	Fiscal Year
GIS	Geographic Information System
G&G	Geological and Geophysical
GW	Gigawatts
IEA	International Energy Agency
IIJA	Infrastructure Investment and Jobs Act
IRA	Inflation Reduction Act
IT	Information Technology
MOA	Memoranda of Agreement
MOU	Memoranda of Understanding
MMIS	Marine Minerals Information System
MMPA	Marine Mammals Protection Act
MW	Megawatts
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NMNH	National Museum of Natural History
NOAA	National Oceanic and Atmospheric Administration

NOPP	National Oceanographic Partnership Program
NOS	Notice of Sale
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
OEP	Office of Environmental Programs
PFP	Proposed Final Program
P.L.	Public Law
ROD	Record of Decision
SAP	Site Assessment Plan
USACE	U.S. Army Corps of Engineers
U.S.C.	United States Code
USCG	U.S. Coast Guard
USGS	U.S. Geological Survey
WEA	Wind Energy Areas