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**On Behalf of the EnerGeo Alliance**

Written Testimony

Before the

U.S. House of Representatives Natural Resources Committee

**Subcommittee on Energy and Mineral Resources**

***“Assessing Solutions to Secure America's Offshore Energy Future.”***

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Chairman Stauber, Ranking Member Ocasio-Cortez, and Members of the Subcommittee:

For the record, my name is Nikki Martin, and I am the President & CEO of EnerGeo Alliance. I lead a Board of Directors composed of the CEOs from the world’s leading geoscience companies. Our membership base includes 60 companies spanning 50 countries. EnerGeo’s mission is to advance the energy geoscience and exploration industry through global governmental, regulatory, and legal advocacy, communications, environmental and scientific research, and standard development. We aim to drive excellence in health, safety, environmental performance, and sustainability.

I joined EnerGeo (then IAGC) in 2013 and have extensive experience and background in environmental regulation and legal and government affairs. I am an attorney and studied political science. Before becoming the President & CEO of EnerGeo Alliance, I served as EnerGeo’s Vice President for Government and Legal Affairs. I am the former Regulatory and Legal Affairs Manager at the Alaska Oil & Gas Association and previously practiced law in Anchorage, Alaska. Earlier in my career, I also served as staff to U.S. Senate President Pro Tempore Ted Stevens and as a legislative aide to the Alaska State Senate President and Alaska State House Majority Leader.

I present this testimony as President & CEO of EnerGeo Alliance. Founded in 1971, EnerGeo is the non-profit global trade alliance for the energy geoscience and exploration industry. EnerGeo Alliance member companies include onshore and offshore geoscience survey operators and acquisition companies, energy data and processing providers, energy exploration and development companies, equipment and software manufacturers, industry suppliers, service providers, and consultancies. EnerGeo advocates for connecting more people and communities with access to energy around the world - by communicating factually, securing science-based policies, and promoting the geoscience companies, innovators and energy developers that use earth science to discover, develop and deliver energy, sustainably, to our world. Together, we are Making Energy Possible.

Many EnerGeo member companies operate in the U.S., both onshore and offshore across the Outer Continental Shelf (OCS) and extensively within the Gulf of Mexico (GOM). These companies play an integral role in the successful exploration and development of offshore hydrocarbon, wind and low-carbon solutions such as carbon capture and storage (CCS) resources through the acquisition and processing of geophysical and geological data.

Through reliable science- and data-based regulatory advocacy, credible resources and expertise, and future-focused leadership, EnerGeo Alliance continuously works to develop and promote informed government policies that advance responsible energy exploration, production, and operations. As the U.S. and global energy demand evolves, we believe that all policymakers and energy companies pursuing mainstay, alternative, and low-carbon solutions, should have access to reliable data and analysis to support their forward-moving efforts.

At EnerGeo Alliance, we are proud of our unique collaborations between industry, scientists, and governments to support sustainable energy access. In the U.S., this includes EnerGeo's Gulf of Mexico Proactive Regulatory Observational Program (GOM-PROP) to provide a self-sustaining structure for the continued successful implementation of, and compliance with, both present and future Incidental Take Regulations (ITR), governing the operation of geoscience surveys in the Gulf of Mexico (GOM) and providing comprehensive marine mammal monitoring data.

**Energy Demand:** The global economy and oil demand are set to achieve consecutive record highs in 2024 and 2025, alongside record lows in oil intensity and consecutive global oil supply records, per U.S. Energy Information Administration (EIA) projections.

Natural gas experienced record-breaking global demand, production, and consumption levels in 2023 – and these records are expected to be broken again this year and in 2025 per the International Energy Agency (IEA).

Global natural gas demand is also predicted to reach record highs in 2024 and 2025 with natural gas remaining an integral and competitive source for global electricity generation, heating, cooking, and industrial demands, as well as environmental progress<sup>1</sup>.

Exploration will continue to play a critical role in ensuring global access to energy in the future and now in the midst of the energy evolution. By 2050, the world population is estimated to increase to almost 9.8 billion<sup>2</sup>. Total energy use is expected to increase 34%, with an expected steady growth in mainstay sources of energy (petroleum and natural gas constituting 50%) and faster growth anticipated in all other sources<sup>3</sup>. In this scenario, exploration will be critical for the energy evolution. While about 5 billion barrels of oil were discovered in 2023, by 2050 we will need to discover 17.56 billion barrels per year to match the global energy demand<sup>4</sup>.

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<sup>1</sup> TXOGA Quarterly Energy Economics Outlook

<sup>2</sup> Source: *2023 Population Data Sheet* - <https://www.prb.org/wp-content/uploads/2023/12/2023-World-Population-Data-Sheet-Booklet.pdf>

<sup>3</sup> Source: *EIA International Energy Outlook – October 2023* <https://www.eia.gov/outlooks/ieo/>

<sup>4</sup> Source: *RystadEnergy UCube; Rystad Energy U.CubeExploration; Rystad Energy research and analysis*

The U.S has been blessed with energy abundance, while roughly 10% of the world does not have any access to electricity. According to the Rockefeller Foundation, more than 840 million people lack access to electricity and over 3 billion people currently live in countries with per capita energy consumption below the Modern Energy Minimum – 1,000kwh per year. Together, it is estimated over 3.5 billion people do not have reasonably reliable access to electricity, meaning that they spend more than 56 days per year without power.<sup>5</sup>

Currently, 30% of the world does not have access to clean fuels for cooking. Cooking with kerosene, coal or biomass is directly linked to over 3 million premature deaths per year with women and children disproportionately impacted.<sup>6</sup> Removing access to unfavored energy sources has disproportionate impacts on marginalized populations.

Populations around the world will need greater access to reliable and affordable energy to not only thrive, but for the movement of goods and people and for climate resilience, providing the necessary feedstock for fertilization, refrigeration for foods and medicine, irrigation, heating and cooling, and more. As a top priority of UN Sustainable Development Goals, we need all sources of energy at the table, to meet skyrocketing demand for energy security and energy accessibility.

While we are at the start of what is being called an “international upcycle”. where the industry invests now will be influenced by where it has access to insight through geoscience data, infrastructure, and supportive regulatory and policy structures. Unfortunately, the United States is falling behind due to unnecessary bureaucratic delays and shortsighted policies that elevate certain forms of energy over others.

**Our Surveys:** Meeting growing demand for energy that is more accessible, affordable, reliable, and cleaner will require greater collaboration and geoscience-driven energy policies. The reality is, no matter the preferred or prioritized energy source, virtually all sources of energy needed to support the world’s energy evolution require “eyes” on something going in, out, or through the ground. That sight is only made possible through the innovation and insight of the energy geoscience industry.

Mainstay energy sources such as petroleum and natural gas, and the lower carbon energy solutions such as offshore and onshore wind, as well as carbon capture and sequestration, depend on geoscience. Energy literally starts with the geoscience industry.

By providing invaluable information about the resources beneath us, energy companies and policymakers can identify and prioritize high-density, lower-carbon-intensive energy sources, locate where offshore wind facilities are best suited for harnessing the energy from

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<sup>5</sup> John Ayaburi, Morgan Bazilian, Jacob Kincer, Todd Moss, Measuring “Reasonably Reliable” access to electricity services, *The Electricity Journal*, Volume 33, Issue 7, 2020, 106828, ISSN 1040-6190, <https://doi.org/10.1016/j.tej.2020.106828>.

<sup>6</sup> World Health Organization, “Household air pollution”, <https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health#:~:text=Each%20year%2C%203.2%20million%20people,air%20pollution%20data%20for%20details>)

wind, prolong the life of existing natural gas and petroleum assets, make it possible to store carbon beneath the surface, and more.

As nations develop and implement their energy evolution goals to make reliable, affordable energy available to their citizens and meet Net Zero Emissions (NZE) policy ambitions, it is essential to understand that those goals cannot and will not be realized without the critical data and technology the geoscience industry provides.

Even though, by current market cap, geosciences are a small part of the energy supply chain, when it comes to whether energy can be accessed in any given region, we are the first and most pivotal part.

### **Resource Evaluation in the United States**

The only viable process for the U.S. government to understand the country's resource potential is through geoscience surveys conducted by advanced technology companies like those that comprise EnerGeo's membership. According to BOEM's website, regarding resource evaluation, "Every five years BOEM provides a comprehensive assessment of undiscovered oil and gas resources on the OCS. The results are presented as both Undiscovered Technically Recoverable Resources (UTRR) and Undiscovered Economically Recoverable Resources (UERR). The assessment utilizes a geologic play-based approach that incorporates a complete analysis of geologic and petroleum system elements for the UTRR, and an assessment of engineering and economic considerations for the calculation of the UERR. DOI has released an Assessment of Undiscovered Oil and Gas Resources on the US OCS regularly since 1975."

This information is not possible and would not be available to policymakers and U.S. citizens without the geoscience industry conducting surveys. By conducting surveys that image the subsurface below the ocean floor, geoscience surveys provide the information governments and policymakers need to make informed decisions in the best interest of their citizens regarding accessing and developing energy sources of all types, as well as developing low-carbon strategies.

Based on information compiled by the subcommittee, BOEM last updated its reserves report in December 2019, with their 2023 Comprehensive Inventory still relying on this outdated data for Gulf of Mexico. Notably, there is a lack of reserves information for Alaska and the Atlantic on their website.

Seismic and geoscience surveying is a well-understood and safe industry practice, and informed policy decisions regarding offshore energy development *of any type* can only be made with the evaluation provided by modern seismic survey technology. In the more than 60 years of geoscience surveys in the Gulf of Mexico, there has not been a single reported incidence of sound from survey operations injuring marine life. Tens of thousands of offshore geoscience surveys have occurred throughout the world over the last 60 years using conventional compressed-air arrays. In all that time, and across millions of kilometres, there is no credible scientific evidence that sound from geoscience surveys has had any significant impacts on marine life populations, or the marine environment.

Unfortunately, the permitting of this activity, critical to identifying the nation's energy supplies, is too often stalled within regulatory agencies without accountable deadlines or timelines for review, or impeded by extreme environmental advocacy organizations exploiting existing regulatory and litigation processes.

## **Policy Challenges**

Because the energy geoscience industry provides access to develop energy through its imaging, it is very often the first presence of energy development or exploration in a geographic area. Because of this, our members often encounter obstacles and opposition to their operations that are aimed at preventing the development of a certain energy source—whether that's petroleum, natural gas, or even wind.

In some regions, extreme environmental advocacy groups prioritize preventing any energy geoscience surveys from occurring and even label geoscience research as “the gateway drug to oil and gas”. As a result, policymakers and energy companies are unable to access important data needed to make informed decisions about future energy development.

This has led to increased regulatory scrutiny and misinformation about what geoscience research is and its impacts in frontier areas and even in mature basins. Recent eNGO advocacy focuses on geoscience as the linchpin to not only exploration but also increasing production in mature basins includes the Gulf of Mexico<sup>7</sup>.

In order to stimulate new geoscience activity, policymakers must prioritize geoscience-driven energy policies and regulatory frameworks that remove uncertainty and delay, promote timely permitting decisions, and support a quick pace of return on investment. Regulations should provide predictability, promote competition, and provide fiscal certainty, through risk-and science-based processes.

## **BOEM Permitting & NMFS Authorization Delays**

In the Outer Continental Shelf Lands Act (OCSLA), Congress expressly mandated the “expeditious and orderly development” of the Outer Continental Shelf (OCS) “subject to environmental safeguards.” 43 U.S.C. § 1332(3). Courts have since confirmed that “the expeditious development of OCS resources” is OCSLA's primary purpose. *California v. Watt*, 668 F.2d 1290, 1316 (D.C. Cir. 1981). Congress enacted OCSLA to “achieve national economic and energy policy goals, assure national security, reduce dependence on foreign sources, and maintain a favorable balance of payments in world trade.” 43 U.S.C. § 1802(1). Congress expressly intended to “make [OCS] resources available to meet the Nation's energy needs as rapidly as possible.” *Id.* § 1802(2)(A).

Geoscience surveying has been and continues to be essential to achieving OCSLA's requirements because it is the only feasible technology available to accurately image the subsurface of the OCS before a single well is drilled or a single energy source is developed.

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<sup>7</sup> <https://www.nrdc.org/stories/offshore-drilling-101#environmental>

Offshore geoscience surveys require authorizations from BOEM, pursuant to OCSLA. *See id.* § 1340. There is no requirement for an applicant for an offshore survey permit under OCSLA to obtain an incidental take authorization under the MMPA. However, unlawful “takes” of marine mammals incidental to lawful activities (such as a permitted offshore seismic survey) may nevertheless be subject to MMPA-based penalties. *See* 16 U.S.C. § 1375. Accordingly, many applicants for offshore survey permits from BOEM also request incidental (*i.e.*, unintentional) take authorization under the MMPA from the National Marine Fisheries Service (NMFS) and/or the U.S. Fish and Wildlife Service (FWS).<sup>8</sup>

In this context, it is important to recognize that the permit issued by BOEM authorizes the *seismic survey* and the MMPA authorization narrowly addresses the *incidental take* associated with the seismic survey. NMFS and FWS do not have jurisdiction over the survey; their authority under the MMPA extends only to the authorization of incidental take. Notwithstanding the limited role of FWS and NMFS, MMPA authorizations are often the primary cause of administrative delay in the offshore geoscience survey permitting process.

In the past decade, these problems have manifested in routinely delayed permitting processes, inconsistent and misguided analyses of potential impacts, and opportunistic advocacy litigation intended to block or impede offshore development.

For example, in the Gulf of Mexico, BOEM requires an MMPA authorization from NMFS prior to the issuance of a geoscience permit under the current ITR. During the promulgation process, industry pointed out mathematical errors in the finalized ITR from January 2021. Proposed revisions have been pending since January 2023, further delaying the process and sowing uncertainty and delay into the agency’s current authorizations of on-lease and off-lease geoscience activities. At the same time, the number of geoscience surveys mapping the Gulf of Mexico has been steadily decreasing since 2014.

In Alaska, unnecessary and unexplained delays in processing Marine Mammal Protection Act (MMPA) authorizations prevent planned geoscience surveys from providing the timely insight that would update resource estimates. Currently, at least one petition for MMPA authorization has stalled for more than two years preventing updated insight into the resource potential on Alaska’s North Slope.

In the Atlantic, approximately 30 years have passed since the potential hydrocarbon resource base has been assessed with seismic surveys. In the meantime, seismic surveys for “scientific research” have been conducted fairly regularly in the Atlantic OCS, in addition to other geophysical surveys used to characterize the seabed and subsurface for suitability of offshore wind energy facilities. Six companies applied to BOEM for permits to conduct seismic surveying in the Atlantic OCS—a process that started in 2011 when the first permit application was filed, and ultimately ended in 2018 after nearly six years of working to obtain MMPA authorizations from NMFS.

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<sup>8</sup> FWS has jurisdiction over polar bears, walrus, sea otters, dugongs, and manatees. NMFS has jurisdiction over all other marine mammals.

Although well-intended at the time it was enacted many years ago, the MMPA’s ambiguous, outdated, and unclear language has proven unworkable for issuing incidental take authorizations for offshore activities. Changes to the statute will significantly improve the regulatory process for both federal regulators and the regulated community.

In addition, overly broad and unsupported designations of critical habitat add ambiguity and uncertainty to the regulatory process. On July 24, 2023, NMFS proposed to designate over 28,000 square miles of the GOM continental shelf and slope as critical habitat and asserts all are “occupied” by Rice’s whales.<sup>9</sup> The most recent Stock Assessment Report (SAR) published by NMFS places the Rice’s whale population in the GOM at 51 individuals.<sup>10</sup> The proposed designation cuts across the heart of GOM and expands known Rice’s whale habitat to cover the entirety of the 100-400m isobath throughout the central and western GOM. This equates to an area of about 550 square miles – about eight times the size of Washington, D.C. – for each *individual animal*, assuming the animals are uniformly distributed. However, historical detections, both visual and acoustic, are largely concentrated in the De Soto Canyon area in the northeastern GOM, leaving an even broader swath of the designated habitat likely devoid of animals.

NMFS’s determination that the entire GOM is “occupied” is not supported by the best available science or the record before the agency. Just a few years prior, in its 2019 listing determination, NMFS noted that Rice’s whales are “restricted primarily to a small region along the continental shelf break in the De Soto Canyon area.”<sup>11</sup> Just weeks after releasing the Proposed Rule, NMFS *again* reiterated in its stock assessment report that, “Sighting records and acoustic detections of Rice’s whales in the northern Gulf of Mexico (i.e., U.S. Gulf of Mexico) occur primarily in the northeastern Gulf in the De Soto Canyon area, along the continental shelf break between 100 m and 400 m depth.”<sup>12</sup> NMFS cannot rationally determine that the entire GOM is occupied, while also explicitly stating that the De Soto Canyon hosts the majority of the species and that the species has not been documented outside of a narrow depth range.

## **Recommendations to Stimulate Geoscience Activity**

Specific to BOEM geoscience permitting, EnerGeo members have experienced certain ambiguities and identified areas that may make the permitting process run more efficiently in the following suggestions:

1. Industry finds the timeliness of the permit process for geoscience activities to be open-ended and uncertain. EnerGeo has recommended that BOEM establish a certain timeline

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<sup>9</sup> 88 Fed. Reg. at 47,455; *id.* at 47,460.

<sup>10</sup> Hayes, S.A., *et al.* 2023. U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2022. NOAA Tech. Mem. NMFS-NE-304.

<sup>11</sup> *Endangered and Threatened Wildlife and Plants; Endangered Status of the Gulf of Mexico Bryde’s Whale*, 84 Fed. Reg. 15,446, 15,460 (Apr. 15, 2019). NMFS revised the common name of the species from Bryde’s whale to Rice’s whale in 2021. *Endangered and Threatened Wildlife and Plants; Technical Corrections for the Bryde’s Whale (Gulf of Mexico Subspecies)*, 86 Fed. Reg. 47,022 (Aug. 23, 2021).

<sup>12</sup> Stock Assessment Report at 114; *see Final 2022 Marine Mammal Stock Assessment Reports*, 88 Fed. Reg. 54,592 (Aug. 11, 2023) (announcing release of Stock Assessment Report).

for permit review and approval. The timing requirements for drilling permit review and approval is a good example that BOEM should strive to achieve for geoscience permits.

2. Industry has encouraged BOEM to explore the creation of an electronic permit application process. Efficiencies for permit processing and man-hours may be realized through electronic permit applications. Many countries around the world utilize electronic permit application processes. This allows the applicant to monitor the status of the permit process and timely provide any information requests from BOEM. This has been seen to drastically decrease the permit process timeline.
3. Geoscience operations consistently utilize the same vessels throughout the offshore U.S. BOEM should take steps to create a catalogue of vessel information and certificates to reduce permitting costs and burden hours.
4. Industry encouraged BOEM to develop a catalogue of equipment used in offshore geoscience activities, including Ocean Bottom Nodes, Ocean Bottom Cables, Streamers, etc. This would reduce the time needed to collect pictures and physical samples of all parts and equipment deployed in the water column. Permit applications could then reference these materials to reduce the time spent.
5. Regarding areas of the OCS that are not included in the 5-year Oil & Gas Leasing Program, consider streamlined permitting processes for geoscience activities.
6. BOEM to consider incentivizing the acquisition of new data and products through direct funding or favorable tax regimes.
7. BOEM to work more efficiently with peer agencies such as the Fish and Wildlife Service and NMFS to ensure unnecessary roadblocks and ambiguity in regulations are removed.

EnerGeo encourages congressional direction regarding alignment among the agencies.

Specific to NMFS MMPA authorization processes, EnerGeo members have experienced extensive delay. They have identified problematic areas and encourage regulatory and legislative solutions, including:

1. IHAs involving offshore oil and gas-related activities are rarely, if ever, issued within the timing requirements of the MMPA. NMFS even states on its website that the IHA permitting process takes at least six to nine months to complete. The process often takes much longer. The MMPA provides no consequences for such delay, nor does it provide any incentives to NMFS and FWS to avoid delay.
2. Because the MMPA contains no timing requirements applicable to ITRs, the regulatory process for issuing ITRs often takes years and, in the industry's view, is de-prioritized by the agencies because other agency obligations are subject to timing requirements and consequences.
3. The ESA Section 7 consultation process is cumbersome and time-consuming. The Section 7 process is also subject to statutorily mandated deadlines, but those deadlines are routinely ignored by NMFS and FWS without consequence. The Section 7 consultation process is often a significant cause of the delay in the issuance of an authorization under Section 101(a)(5) of the MMPA, even though the substantive standard governing the Section 7 process is *less stringent* than the MMPA's "negligible impact" standard.
4. Another significant source of delay in the issuance of MMPA incidental take authorizations involves the estimation of the number of "takes" that are expected to occur. Because the MMPA's definition of "take" is extraordinarily broad and ambiguous

(more so than the ESA’s definition of “take”), FWS and NMFS struggle to determine what activities actually cause “take” and, as a result, they apply extremely conservative assumptions to ensure that their “take” estimation modeling encapsulates all conceivable “take” (and more). This process results in estimates that are inaccurate and vastly exaggerate the number of “takes” that will actually occur.

5. The “take” estimation modeling exercises are considerably more complicated and play an unduly important role in the permitting process because the agencies are required to demonstrate that the incidental take authorization will not only have a “negligible impact” on the potentially affected marine mammal stocks but also affect “small numbers” of marine mammals. The term “small numbers” has no biological significance whatsoever to the marine mammal population and is a legal term of art that has notoriously confused courts and regulators alike.
6. All of these regulatory problems and inefficiencies create fertile ground for legal challenges by advocacy groups that will readily file any and all available lawsuits for the sole purpose of impeding and preventing the energy development of the OCS.

When it was enacted in the early 1970s (and subsequently amended), the congressional intent behind the MMPA was cutting-edge and forward-thinking. However, as described above, decades of regulation and litigation have exposed some significant flaws in the MMPA. The primary flaws in the MMPA stem from (i) poorly written statutory language that creates ambiguity and uncertainty in the application of the MMPA’s legal standards, and (ii) procedural duplication and inefficiency. These flaws result in agency delays, overly conservative and inaccurate impact analyses, confusion by agencies and courts, and exploitation by environmental advocacy groups. Fixing some of the obvious flaws in the MMPA could result in tangible regulatory improvements that increase efficiency, decrease uncertainty and risk, and ultimately benefit all stakeholders, citizens, and the implementing agencies.

## **BOEM Carbon Capture & Storage Permitting**

Geoscience also ensures that CCS projects are sited, designed, and managed to ensure and demonstrate the long-term technical and environmental integrity of the storage or sequestration.

In March 2021, the Biden administration set an ambitious goal of deploying 30 gigawatts of offshore wind electricity generation by 2030<sup>13</sup> and has since highlighted new steps the United States was taking to meet its ambitious 1.5°C-aligned goal of reducing emissions 50-52 percent in 2030, noting it would “require responsible deployment of carbon capture, utilization, and storage (CCUS) and carbon dioxide removal (CDR) technologies...CCUS has a critical role to play in decarbonizing the global economy, particularly the industrial sector, where process emissions are more difficult to address<sup>14</sup>.” These goals are simply not possible without the

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<sup>13</sup> FACT SHEET: Biden Administration Jumpstarts Offshore Wind Energy Projects to Create Jobs <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>

<sup>14</sup> FACT SHEET: President Biden to Catalyze Global Climate Action through the Major Economies Forum on Energy and Climate <https://www.whitehouse.gov/briefing-room/statements-releases/2023/04/20/fact-sheet-president-biden-to-catalyze-global-climate-action-through-the-major-economies-forum-on-energy-and-climate/>

geoscience industry, and the current regulatory delays will disallow implementing the vast offshore CCS needed.

Following this ambitious goal, the Administration mandated the Department of Interior to publish CCS regulations by November 2022, a deadline that was missed and is still outstanding with no end date in sight. Policymakers should prioritize now the infrastructure required, including ensuring the efficient permitting of geoscience surveys needed for the identification and monitoring of the storage areas.

EnerGeo continues to call on BOEM and the current administration to propose long-overdue regulations for offshore CCS. Particularly, expanded permitting and permitting capacity with unambiguous, clear, concise regulations and timely permitting decisions. Further, regulations should prioritize timely, accessible geoscience data throughout the life of the asset.

The energy geoscience industry has recommended the following to BOEM on the development of offshore CCS regulations and encourages Congress to support the following:

- Defined timelines for approving or denying requested permits.
- The process should not differ in a significant way from existing geoscience permitting processes for hydrocarbons.
- The geoscience industry has a long history of obtaining permits with the expectation that science-based mitigation measures will match the potential impacts from activities.
- The geoscience industry supports a research and evaluation phase, pre-leasing.

#### Lease Rounds

- Regularly held, predictable and well-defined lease rounds should be held for CCS, if existing hydrocarbon leases will not be available for CCS. Clarity from the agencies is required on how leasing will be conducted for CCS.
- Recognition by BOEM and Federal Agencies of the critical role of existing geoscience data available for licensing and bidding on CCS – and avoid disclosure of confidential industry intellectual property.
- Lease lengths should be consistent with hydrocarbon leases.

#### On-Lease

- Once leases have been awarded, or CCS work programs are being developed, requirements for geoscience data to confirm geological stability and for carbon injection should be included.
- Monitoring requirements throughout the lease term will require geoscience activity to confirm the safe injection and stability of depleted reservoirs and/or aquifers.

#### Post-Lease

- Following the expiration of a lease term, continued monitoring of the injection site will be required.
- Liability should be borne by the Federal Government, ie: Plume Leaks. At no time should liability surrounding the sequestration site be placed on geoscience companies providing data to the leaseholders or the government.

## **Conclusion**

The energy geoscience industry is in the business of minimizing the footprint of energy activity, by pinpointing where the resource is and importantly where it is not, allowing companies and policymakers to identify and prioritize high-density, low-carbon-intensive energy sources closer to existing infrastructure and the end user, locating where offshore wind facilities are best suited for harnessing the energy from wind, prolonging the life of existing natural gas and petroleum assets, and making it possible to store carbon beneath the surface. Geoscience surveys provide the information governments and policymakers need to make informed decisions in the best interest of their citizens regarding accessing mainstay energy and alternative sources, as well as developing low-carbon strategies. Currently, those data acquired by our members make it possible for BOEM to publish resource assessments. Nations cannot develop and provide opportunities for energizing their economies without the geoscience industry, let alone implement their energy evolution goals to make reliable, affordable energy available to their citizens and meet Net Zero Emissions (NZE) policy ambitions.

We urge Congress to review OCSLA, the MMPA, the ESA, and other relevant statutes and pass meaningful modernizing provisions, that will rectify the existing delays for geoscience survey authorizations and urge the administration to implement regulations to provide for efficient carbon capture and storage projects on the OCS. The energy geoscience and exploration industry stands ready to partner in the discovery and development of low carbon solutions and of energy dense, low emissions sources of energy to power the world. Streamlining the permitting process along with reducing the ability for outside special interest groups to obstruct energy geoscience exploration is a necessary step to ensure our continued development of energy resources and low-carbon solutions for future generations in the U.S.

Thank you for the opportunity to testify today.