April 25, 2023

Elizabeth A. Klein,

Director, Bureau of Ocean Energy Management.

[FR Doc. 2023-03842 Filed 2-23-23; 8:45 am]

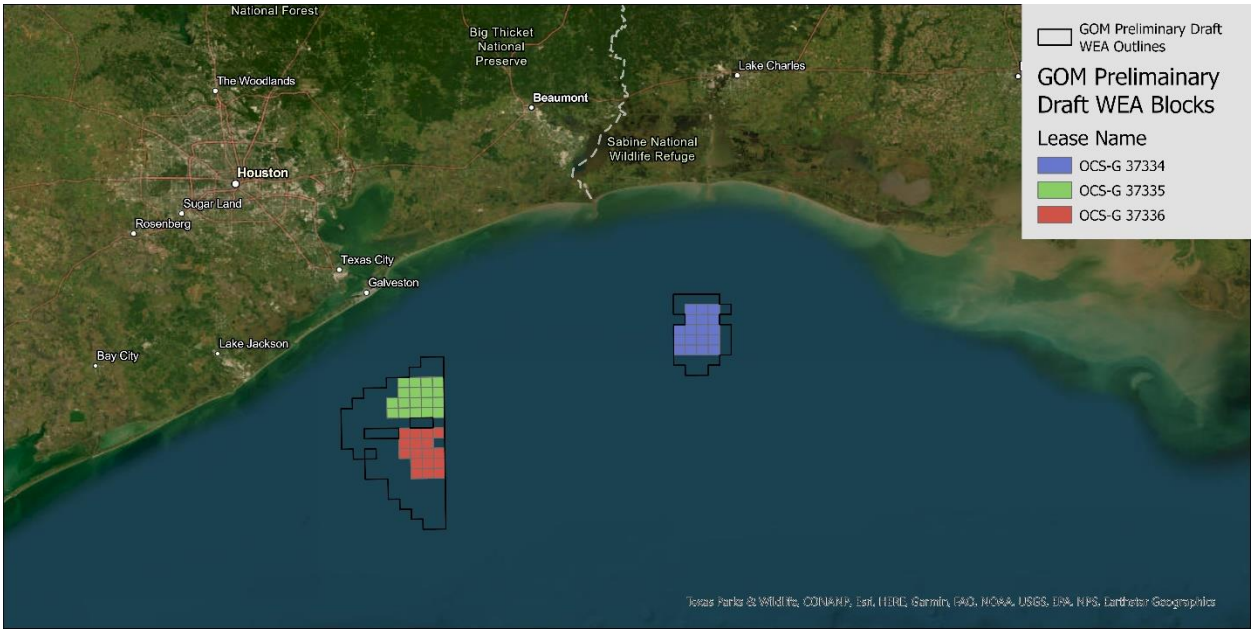
BILLING CODE 4340-98-P

Re: Docket No. BOEM-2023-0021; Request for Information and Comments on the Preparation of the 2023 Gulf of Mexico Offshore Wind Lease Sale Environmental Assessment

Dear Director Klein,

As an industry-leading wind energy market intelligence and economic modeling solution, TurbineHub appreciates the opportunity to provide comments on the proposed 2023 Gulf of Mexico Offshore Wind Lease Sale. Based on our extensive experience and analysis of the offshore wind sector, we would like to offer the following recommendations:

Figure 1. Gulf Of Mexico Preliminary Draft WEAs

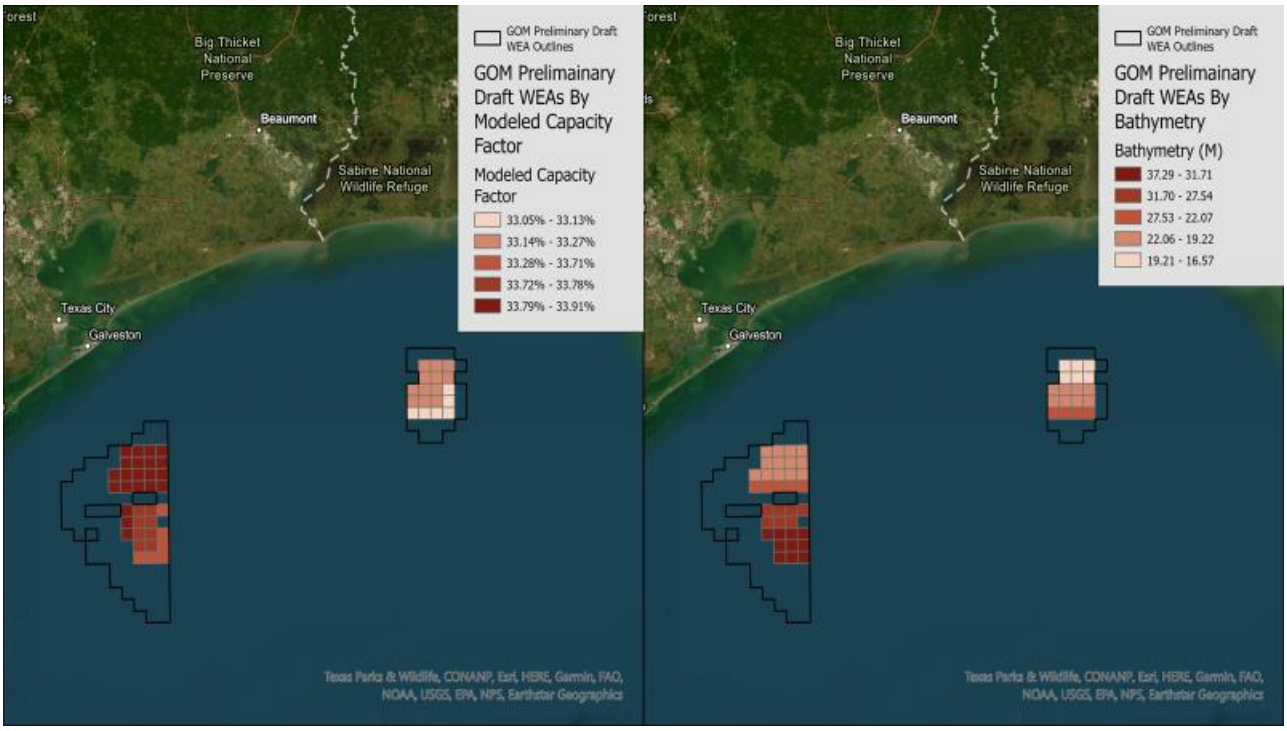


BOEM & TurbineHub; Screen Shot Captured: April 25, 2023

a. Number, size, orientation, and location of the proposed Lease Areas: We recommend the full leasing of OCS-G-37334 and OCS-G-37335, as they offer the most favorable wind resources and development potential. Our analysis has shown that OCS-G-37335 has the highest modeled capacity factor, making it particularly attractive for offshore wind development. Additionally, the relatively shallow water depths in this area will allow for more cost-effective installation and maintenance of offshore wind infrastructure.

For OCS-G-37336, we suggest leasing only the 10 most southern blocks. Leasing the northern edge of OCS-G-37336 may result in wake interference for the southern edge of OCS-G-37335, as the prevailing wind direction is primarily from the S-SE. Offering a diversified mix of lease areas will encourage healthy competition and accommodate different project scales, promoting efficient use of available resources and allowing for a more resilient offshore wind industry.

Figure 2. Gulf Of Mexico Preliminary Draft WEAs by Modeled Capacity Factor and Water Depth



BOEM, NREL & TurbineHub; Screen Shot Captured: April 25, 2023

Figure 3. Gulf Of Mexico Preliminary Draft WEAs with TurbineHub Wind Resource Location Points

BOEM & TurbineHub; Screen Shot Captured: April 25, 2023

Figure 4. TurbineHub OCS-G 37334 Wind Resource Analysis 2007-2014

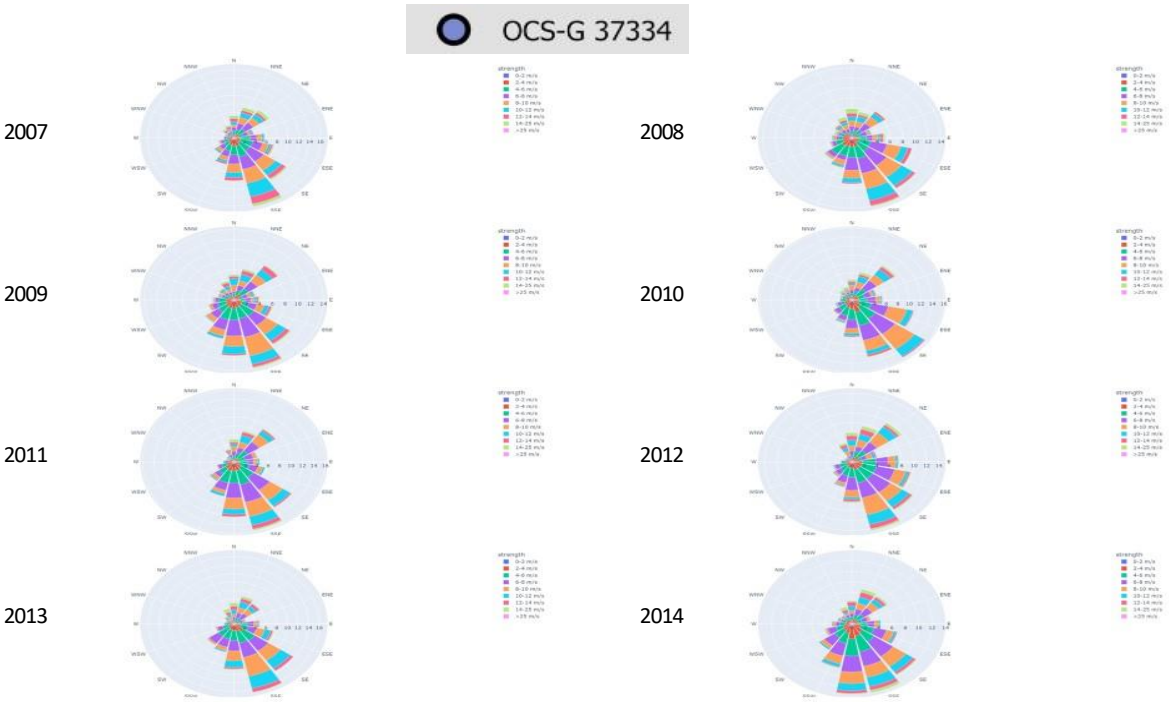


Figure 5. TurbineHub OCS-G 37335 Wind Resource Analysis 2007-2014

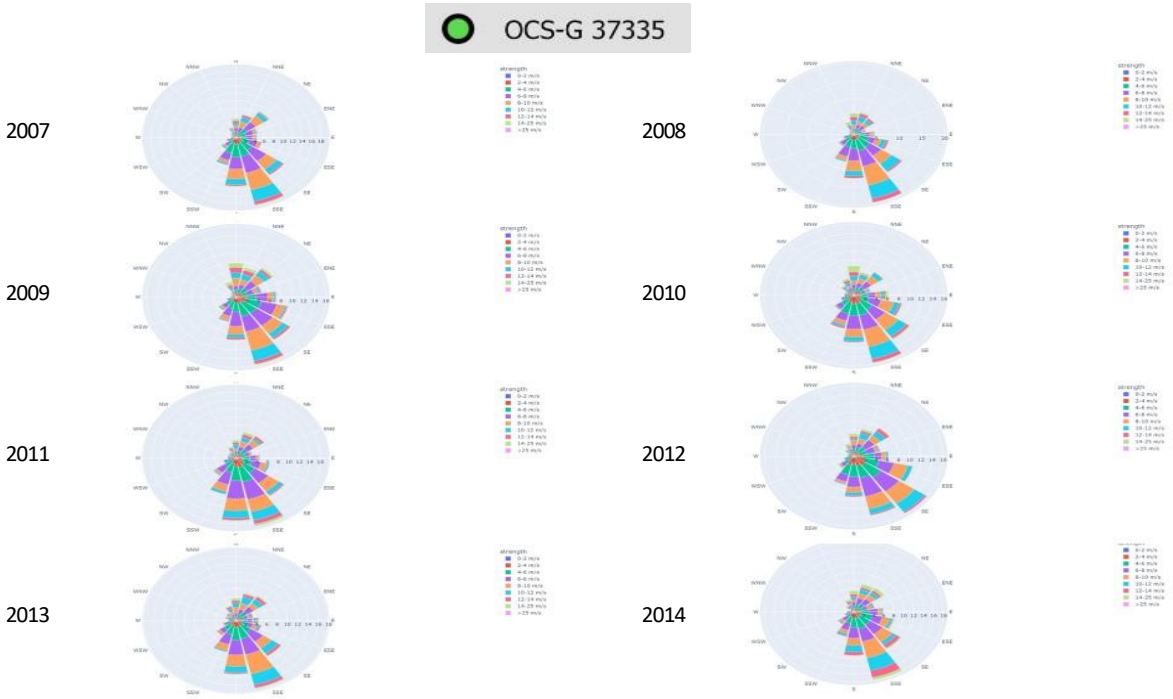
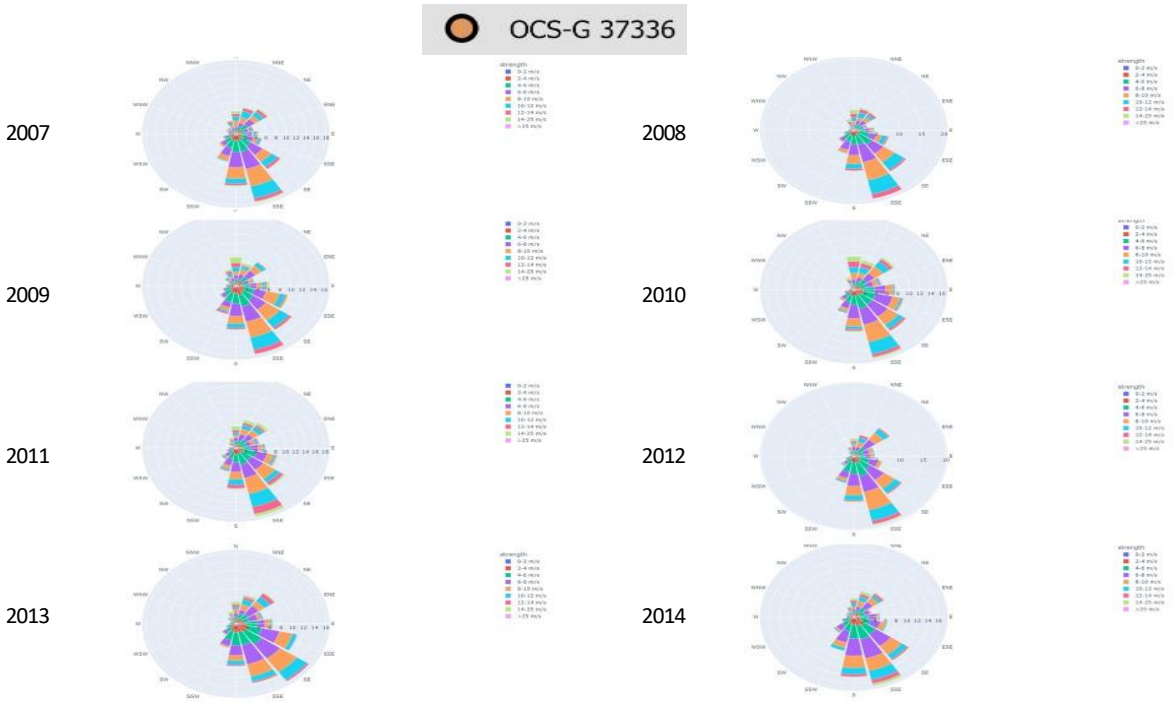


Figure 6. TurbineHub OCS-G 37336 Wind Resource Analysis 2007-2014



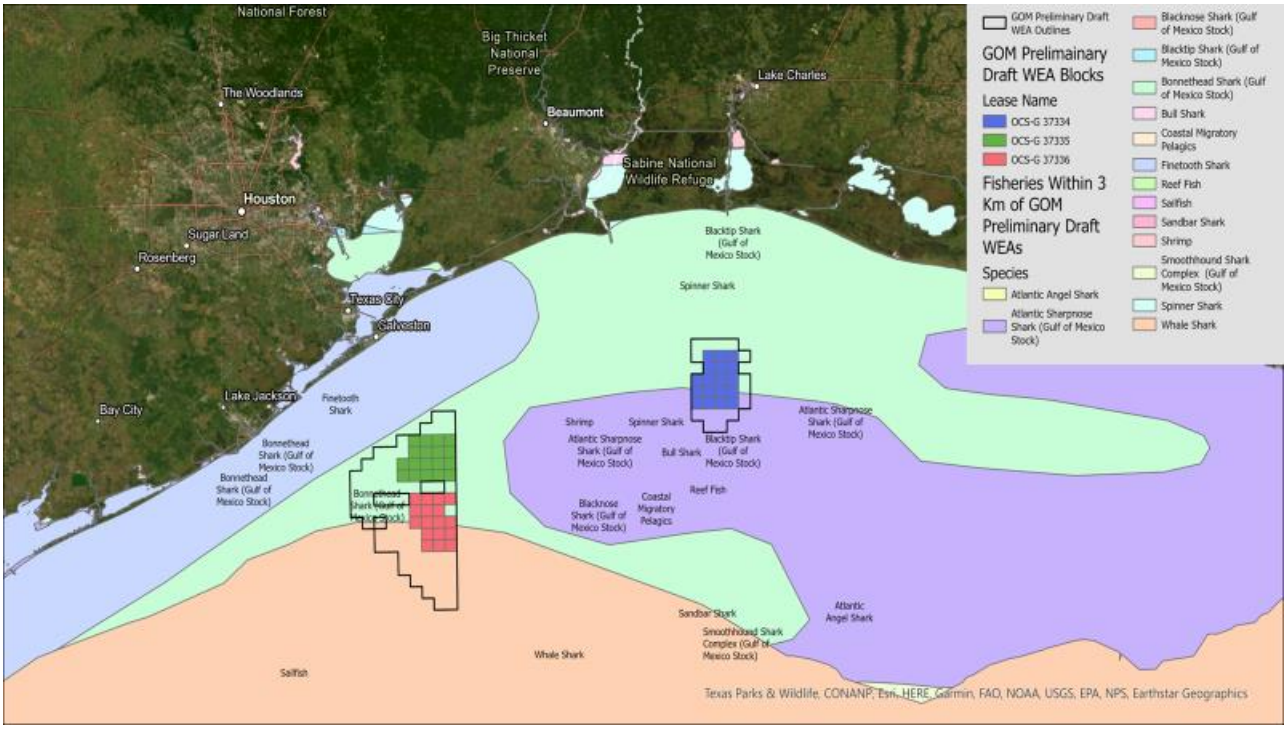
TurbineHub; Figures Captured: April 25, 2023

b. Considerations for the delineation of a Lease Area: Factors such as wind resource availability, seabed conditions, distance to shore, and grid interconnection points should be prioritized when delineating lease areas. OCS-G-37335 stands out due to its proximity to the demand center of Houston, which offers significant opportunities for cost savings and more efficient energy transmission. This strategic location will enable developers to capitalize on existing infrastructure and minimize the need for extensive grid expansion.

Incorporating feedback from stakeholders, including local communities, environmental organizations, and other industries operating in the area, is crucial for establishing lease areas that balance development opportunities with potential concerns. Engaging these stakeholders in the decision-making process will facilitate open dialogue and the exchange of information, resulting in more informed decisions and a better understanding of the potential impacts of offshore wind development on the surrounding environment and communities.

To ensure the sustainable development of offshore wind resources, it is essential to conduct thorough environmental assessments and consider potential impacts on marine ecosystems. Such considerations include fish populations, migratory bird patterns, and marine mammals. By integrating ecological considerations into the lease delineation process, BOEM can minimize the environmental footprint of offshore wind projects and contribute to the long-term preservation of marine habitats.

Figure 7. Gulf Of Mexico Preliminary Draft WEAs with National Fisheries Within 3 Km of WEAs



BOEM, NOAA & TurbineHub; Screen Shot Captured: April 25, 2023Underlying base map provided by ESRI and Earthstar Geographics. Provided "as is", without any warranty. This map is not to be reproduced or disseminated and is not to be used or cited as evidence in connection with any territorial claim. 2023 TurbineHub. All rights reserved.

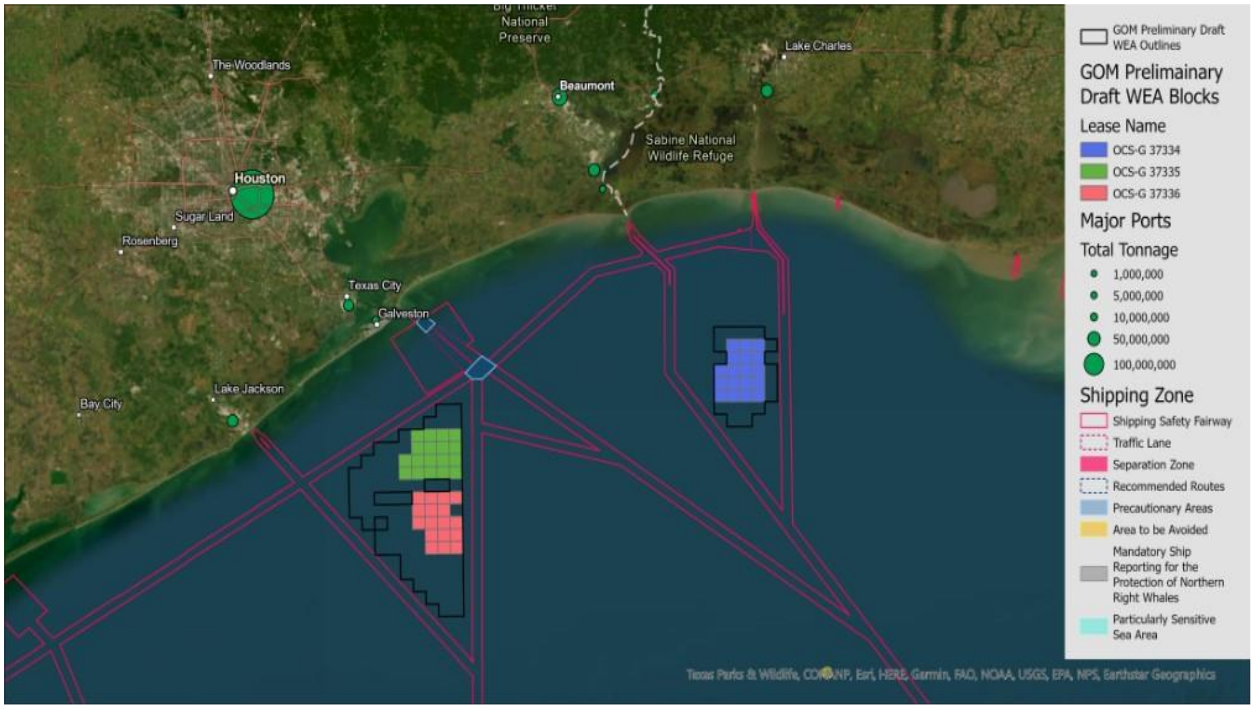
It is worth noting that our analysis indicates OCS-G-37335 has fewer species boundary, which simplifies environmental considerations and mitigation efforts compared to other areas. This characteristic makes OCS-G-37335 a more environmentally friendly option for offshore wind development, further supporting the recommendation to fully lease this area.

On the other hand, the southern portion of OCS-G-37334 presents a more complex scenario, as it encompasses a larger range of different species habitats. Developers in this area will need to implement comprehensive mitigation strategies to address potential impacts on local marine ecosystems. The identification and management of these environmental factors will be crucial in ensuring that offshore wind projects in OCS-G-37334 proceed responsibly and contribute to the broader goal of preserving marine habitats in the Gulf of Mexico.

Moreover, it is important to consider the potential socioeconomic impacts of offshore wind development on local communities, particularly those dependent on fishing and tourism industries. Engaging with these communities from the early stages of lease delineation will allow BOEM to identify potential conflicts and develop appropriate mitigation measures, ensuring that the benefits of offshore wind development are shared equitably.

c. Transit corridors: We encourage BOEM to work closely with the shipping industry and other stakeholders to identify potential transit corridors within and around the proposed Lease Areas. These corridors should ensure minimal disruption to existing maritime traffic, while taking into account future offshore wind infrastructure.

Figure 8. Gulf Of Mexico Preliminary Draft WEAs with ports and shipping zones



BOEM, NOAA & TurbineHub; Screen Shot Captured: April 25, 2023

d. Existing uses that may be affected by the development of the proposed Lease Areas: It is essential to identify and address potential conflicts between offshore wind development and existing uses such as commercial fishing, military operations, and shipping routes. We recommend engaging with stakeholders from these industries and conducting thorough environmental and socioeconomic impact assessments to minimize negative impacts and develop appropriate mitigation measures.

f. Bidding credits: TurbineHub supports the proposed bidding credits to encourage workforce training, domestic supply chain development, and fisheries compensatory mitigation. However, we recommend continuous evaluation and improvement of these mechanisms to ensure their effectiveness in achieving desired outcomes. Furthermore, we suggest exploring additional bidding credits or incentives that promote the adoption of innovative technologies, environmental stewardship, and community engagement.

In conclusion, the delineation of lease areas for the 2023 Gulf of Mexico Offshore Wind Lease Sale should be guided by a comprehensive understanding of wind resource potential, environmental considerations, and stakeholder input. We recommend leasing the full acreage of OCS-G-37334 and OCS-G-37335 and only the 10 southernmost blocks in OCS-G-37336, based on the following factors:

1. Wind resource potential: OCS-G-37335 offers the highest modeled capacity factor, making it an attractive area for offshore wind development. The wind resources in OCS-G-37334 and the southern portion of OCS-G-37336 are also favorable, further supporting our recommendations.

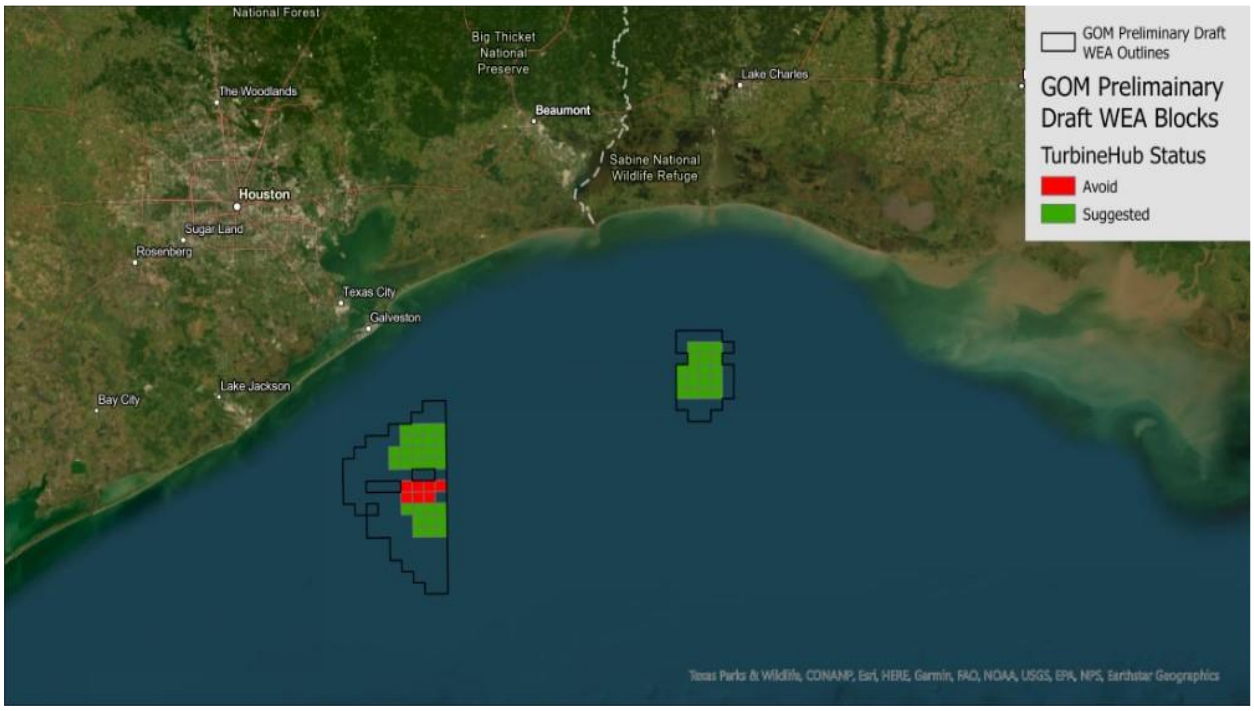
2. Environmental considerations: OCS-G-37335 has fewer species boundaries, simplifying environmental mitigation efforts. Leasing only the southern blocks of OCS-G-37336 helps to avoid wake interference with OCS-G-37335, ensuring efficient energy generation and minimal environmental impact.

3. Proximity to demand centers: OCS-G-37335 is closest to the Houston metropolitan area, a major energy demand center. Developing wind resources in areas close to demand centers helps to minimize transmission costs and infrastructure requirements.

4. Stakeholder input: Engaging with local communities, environmental organizations, and other industries operating in the area is essential for balancing development opportunities with potential concerns. By offering a diversified mix of lease areas, BOEM can encourage healthy competition and accommodate different project scales, ensuring a more inclusive and sustainable development process.

By focusing on areas such as OCS-G-37335, which boasts high modeled capacity factors, shallow water depths, and proximity to demand centers like Houston. BOEM can promote the efficient and sustainable development of offshore wind resources in the Gulf of Mexico.

Figure 9. Gulf Of Mexico Preliminary Draft WEAs with TurbineHub Suggested Blocks and Blocks to Avoid



BOEM & TurbineHub; Screen Shot Captured: April 25, 2023

We appreciate BOEM's efforts to involve stakeholders in the development process and look forward to contributing to the growth of the offshore wind industry in the United States.

Sincerely,

Dylan Gust

Daniel Bettinger

Dylan Gust

CEO, Co-Founder

Daniel Bettinger

CTO, Co-Founder