



January 25, 2022

Vice Admiral Michael F. McAllister
Commander
U.S. Coast Guard Pacific Area
Coast Guard Island
Alameda, CA 94501

Re: [USCG-2021-0345](#), Port Access Route Study: The Pacific Coast From Washington to California; [Notification of study](#)

Dear Vice Admiral McAllister,

In response to the *Federal Register* notice of study¹ published by the U.S. Coast Guard (USCG) on July 29, 2021, the American Clean Power Association² (ACP) appreciates this opportunity to provide comments regarding the Pacific Coast Port Access Route Study (PACPARS).

Navigation safety is a priority of the U.S. offshore wind industry. ACP and our members strongly believe that offshore wind in the U.S. can be constructed and operated in ways that are compatible with mariner safety and safe vessel navigation. The ability to balance these interests, without sacrificing either, has been demonstrated globally. We urge USCG to keep this in mind as it continues to develop the PACPARS and look forward to working with USCG and other stakeholders through this process.

Comments

A. Benefits of U.S. offshore wind and state procurement goals need to be considered when addressing vessel navigation needs

ACP expresses appreciation to the Coast Guard for the thorough analysis that underlies the recommendations in the PACPARS. As described in more detail in the following comments,

¹ 86 Fed. Reg 40,791 (July 29, 2021), available at <https://www.federalregister.gov/documents/2021/07/29/2021-15923/port-access-route-study-the-pacific-coast-from-washington-to-california>

² ACP is the national trade association representing the renewable energy industry in the United States, bringing together over 1,000 member companies and a national workforce located across all 50 states with a common interest in encouraging the deployment and expansion of renewable energy resources in the United States. By uniting the power of wind (both land-based and offshore), solar, storage, and transmission companies and their allied industries, we are enabling the transformation of the U.S. power grid to a low-cost, reliable, and renewable power system. The American Wind Energy Association (AWEA) merged into ACP on January 1, 2021. Additional information is available at <http://www.cleanpower.org>.



ACP supports several of the recommendations, which are backed by the evidence in the record, as appropriately providing for mariner safety and safe navigation while balancing the interests of other ocean users, including offshore wind development. As the PACPARS report notes, the “primary purpose” of the coordination leading to a PARS is, “to the extent practicable, to reconcile the need for safe access routes with other reasonable waterway uses such as construction and operation of renewable energy facilities and other uses of the waters within the study area.” ACP believes the PACPARS largely achieves this reconciliation.

On March 29, 2021, President Biden set a goal of deploying 30 gigawatts (30,000 megawatts) of offshore wind by 2030. As the White House announcement noted, “Meeting this target will trigger more than \$12 billion per year in capital investment in projects on both U.S. coasts, create tens of thousands of good-paying, union jobs, with more than 44,000 workers employed in offshore wind by 2030 and nearly 33,000 additional jobs in communities supported by offshore wind activity. It will also generate enough power to meet the demand of more than 10 million American homes for a year and avoid 78 million metric tons of CO₂ emissions.”

Offshore wind deployment off the coast of California is essential to help meet President Biden’s offshore wind target³ to deploy 30 gigawatts by 2030 and his broader agenda to address the climate crisis.⁴ Since he took office, President Biden has made climate change mitigation a central priority of his administration. In the climate executive order (EO), signed on January 27, 2021, President Biden called deployment of clean energy technologies, such as offshore wind, “critical for climate protection” and established that “[i]t is the policy of my Administration to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a Government-wide approach that reduces climate pollution in every sector of the economy... especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure.” The EO further called on the Administration to “accelerate the deployment of clean energy and transmission projects in an environmentally stable manner.”⁵ President Biden has announced an intent to achieve a 100% clean electric system by 2035 and issued an executive order directing federal departments and agencies to prioritize offshore wind, reflecting the industry’s critical importance in hitting this 100% clean energy goal. As a zero-emission energy generation source, offshore wind energy will play an important role in combatting climate change and is central to achieving the President’s climate goals.

Offshore wind is also critical to assisting the State of California in meeting its aggressive carbon emissions reduction targets. California is acutely aware of the effects of climate change and has been at the forefront of climate change policy for decades, implementing some of the most aggressive clean energy goals in the nation. California

³ <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/29/fact-sheet-biden-administration-jumpstarts-offshore-wind-energy-projects-to-create-jobs/>

⁴ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>

⁵ Executive Order 14008, available at <https://www.federalregister.gov/documents/2021/02/01/2021-02177/tackling-the-climate-crisis-at-home-and-abroad>.



enacted Senate Bill (SB) 100 established a policy for the state of California that renewable energy and zero-carbon resources must supply 100 percent of electric retail sales to end-use customers by 2045. Most recently, earlier this year, Governor Newsom signed into law AB 525, which directs state agencies to establish specific goals for offshore wind production in 2030 and 2045. The bill also directs the state to create a strategic plan for deploying this new industry, from identifying necessary sea space and developing a local offshore wind workforce to improving port facilities and transmission infrastructure needed to bring this major new source of clean energy online.

A California Joint Agency Study published by the California Energy Commission, California Public Utilities Commission, and California Air Resources Board in March of 2021 concluded that California needs to develop an estimated 145 GW of renewables and energy storage by 2045 to achieve 100% clean energy.⁶ The study also concluded that California needs to design and develop a diverse renewable portfolio that includes not only solar and battery storage, but also regional wind, long-duration storage, and offshore wind. The study selected all 10 GW of offshore wind made available to the study model as part of the ideal portfolio in a “SB 100 Core Scenario.” The report also confirmed the value of resource diversity and offshore wind specifically, finding that a portfolio that achieved SB 100 but excluded 10 GW of offshore wind would increase total annual resource costs by \$1 Billion annually. A 2019 study from E3 arrived at a similar conclusion: a resource portfolio that includes between 7 and 9 GW of offshore wind could save California customers between \$1 billion and \$2 billion (net present value) between now and 2040 when compared to a less diverse energy portfolio.⁷ The right portfolio of resources, including large-scale offshore wind, will enable and ensure reliability at the least cost to all consumers. Indeed, costs and system reliability are imperative to all ratepayers alike.

Offshore wind is an essential addition to California’s clean power mix because of its generation profile: it typically generates during the late afternoon and evening and in the summer, when our solar-dominant renewable system is the most stretched.⁸ By 2035, California will need to dispatch more than 18 GW *per hour* to meet its maximum 3-hour net load ramp as a result of solar production declining in the afternoon.⁹ To be able to replace dispatchable resources facilities with variable renewables, the system needs resources with complimentary generation profiles to provide clean generation at all hours of the day.¹⁰ California will also experience substantial economic benefits due to offshore wind development along its coastline, as it would create jobs and revenue in areas of the state (e.g., the Central Coast and Humboldt County) that need these economic opportunities. A

⁶ SB 100 Joint Agency Report: Charting a path to a 100% Clean Energy Future <https://www.energy.ca.gov/publications/2021/2021-sb-100-joint-agency-report-achieving-100-percent-clean-electricity>

⁷ E3, http://castlewind.com/wp-content/uploads/2019/08/2019-08-08_E3-CastleWind-OffshoreWindValueReport_compressed.pdf

⁸ California Polytechnic Institute, <https://doi.org/10.1088/2515-7620/ab4ee1> & E3, The Economic Value of Offshore Wind Power in California, http://castlewind.com/wp-content/uploads/2019/08/2019-08-08_E3-CastleWind-OffshoreWindValueReport_compressed.pdf

⁹ Energy Strategies for Western Interstate Energy Bureau, <https://westernenergyboard.org/wp-content/uploads/2019/12/12-10-19-ES-WIEB-Western-Flexibility-Assessment-Final-Report.pdf>

¹⁰ Brightline Defense Project, <https://www.brightlinedefense.org/news/caoffshorewind>



recent study from the University of Southern California and the Schwarzenegger Institute found California could see a gross domestic product increase of \$24 billion between 2020 and 2040 and job gains of up to 195,000 job-years in construction and 4,500 annual operation/maintenance for 40 years through development of 10 GW of offshore wind.¹¹ Generation of these opportunities for these regions of California would therefore also further the Biden Administration's focus on addressing socioeconomic disparities through development of high paying jobs in this quickly growing industry.

In addition, there is plenty of potential for offshore wind in Oregon. In 2021, Oregon enacted legislation (HB 3375) that requires the Oregon Department of Energy to identify the benefits of challenges of integrating up to 3 GW of offshore wind by 2030. Furthermore, Oregon HB 2021 (2021) requires the state's investor investor-owned utilities and electricity service suppliers to supply 100% greenhouse gas free electricity by 2040. According to the National Renewable Energy Laboratory, more than 84,600 megawatts of technically available offshore wind energy resource exist in federal waters offshore Oregon.¹²

The Bureau of Ocean Energy Management (BOEM) is also planning for offshore wind leasing off the coast of Oregon. Just earlier this month, BOEM published a Data Gathering and Engagement for Summary Report for Oregon Offshore Wind Energy Planning, which confirmed that BOEM and the State of Oregon are currently engaging in a process to gather data and conduct outreach to understand the opportunities and challenges of offshore wind to inform future leasing, including a Call for Information and Nominations by 2023. The report also noted that, like coastal California, floating offshore wind would be the most ideal technology for use in Oregon's deep ocean waters.¹³

B. Need to Balance Reasonable Uses of the Waterway

As the Coast Guard notes in the PACPARS Federal Register notice, a "primary purpose" of PARS is "to the extent practicable, to reconcile the need for safe access routes with other reasonable water uses such as construction and operation of renewable energy facilities and other uses of the Pacific Ocean in the study area,"¹⁴ which is also a requirement of the Ports and Waterways Safety Act (PWSA).¹⁵ Additionally, doing so is consistent with congressional direction to balance ocean uses. Congress determined in the Energy Policy Act of 2005¹⁶ (EPA05) that leases for offshore wind, as well as other uses, could be granted. In Section 388 of EPA05, Congress authorized the Secretary of Interior

¹¹ USC Schwarzenegger Institute, "California's Offshore Wind Electricity Opportunity," 2021 http://schwarzeneggerinstitute.com/images/files/OSW_Report.pdf;

¹² https://www.boem.gov/sites/default/files/documents/regions/pacific-ocs-region/renewable-energy/BOEM-Oregon-Joint-Effort-Fact-Sheet_0.pdf

¹³ Report at 2, <https://www.boem.gov/sites/default/files/documents//Data%20Gathering%20and%20Engagement%20Report%20OR%20OSW%20Energy%20Planning%20January%202022.pdf>

¹⁴ 86 Fed. Reg 40,791.

¹⁵ 46 USC 70003(c)(3), "to the extent practicable, reconcile the need for safe access routes with the needs of all other reasonable uses of the area involved." Available at: [https://uscode.house.gov/view.xhtml?req=\(title:46%20section:70003%20edition:prelim\)%20OR%20\(granuleid:USC-prelim-title46-section70003\)&f=treesort&edition=prelim&num=0&jumpTo=true](https://uscode.house.gov/view.xhtml?req=(title:46%20section:70003%20edition:prelim)%20OR%20(granuleid:USC-prelim-title46-section70003)&f=treesort&edition=prelim&num=0&jumpTo=true)

¹⁶ 46 USC Ch. 700



to grant leases, easements or rights-of-way for the purpose of supporting “production, transportation, or transmission of energy from sources other than oil and gas.”¹⁷

To represent a reasonable balance, the recommendations in the PACPARS for vessel routing measures should preserve the existing Humboldt and Morro Bay WEAs for future leasing and avoid unnecessarily restricting the use of such areas. Additionally, while not surface infrastructure, USCG should consider the need to route export cables between lease areas and the shore in their marine spatial planning. Additional lease area designations off the California coast by BOEM will be necessary to meet the State’s clean energy/greenhouse gas reduction requirements and build a supply chain, and Coast Guard planning should accommodate additional leasing off the central and northern coasts, including review of required vessel minimum distances between shipping routes and floating structures.

In addition, the offshore wind energy area in the central coast is adjacent to existing and proposed marine sanctuaries, including the proposed Chumash national sanctuary. Full development of the central coast offshore wind areas will require careful planning and design of the proposed sanctuary and PACPARS together in a manner that facilitates offshore wind shipping and infrastructure. In preparing the PACPARS, the USCG will need to respond to necessary boundary changes or management plans for the Chumash sanctuary to accommodate offshore wind that may also ultimately affect shipping routes.

C. Vessel navigation concerns are already being considered in the establishment of Humboldt and Morro Bay WEAs in the PACPARS study area and should be taken into account in the PACPARS

In considering whether additional routing measures are needed via the PACPARS, ACP suggests that the Coast Guard consider how the BOEM has taken prior Coast Guard input into account when designating wind energy areas (WEAs) and lease areas. Pursuant to the 2011 memorandum of understanding¹⁸ between the Coast Guard and BOEM, the Coast Guard’s expertise on maritime safety, security, mobility, national defense, and protection of the marine environment is utilized by BOEM in establishing WEAs and lease areas therein.¹⁹ Specifically, the MOU requires BOEM to consult on how navigation safety issues are to be deliberated.²⁰ Deliberation is by, among other things, issuing a “call for

¹⁷ Id.

¹⁸ Available at: <https://www.boem.gov/MOA-USCG-BOEMRE/>

¹⁹ Provision 2(a): “BOEMRE will utilize the USCG’s expertise during the NEPA process and invite the USCG to be a cooperating agency during the preparation of NEPA documentation. The USCG will participate in the NEPA process as a subject matter expert for maritime safety, maritime security, maritime mobility (management of maritime traffic, commerce, and navigation), national defense, and protection of the marine environment. During BOEMRE’s preparation of NEPA documentation, the USCG should participate at the earliest possible time, particularly during the scoping process (see 40 CFR 1501.7).”

²⁰ Section 2(c): “The USCG and BOEMRE recognize the important role that risk management strategies play in ensuring the safe, secure, and environmentally responsible construction and operation of a renewable energy facility. Vessel, facility, and waterway navigational safety and security assessments are a key component of the risk management process. Accordingly, the USCG and BOEMRE have agreed to collaborate in assessing the



information” and consideration of comments from public and private stakeholders, including the Coast Guard, regarding the siting of wind energy lease areas. The Coast Guard is encouraged to, and indeed has, participated at the earliest possible time, including during the NEPA scoping process, and “during the development of any Request for Interest (RFI), Call for Information and Nominations (Call), other planning notices,” which are prepared by BOEM, or through BOEM’s review of any unsolicited lease or grant requests, and require comment on “*multiple uses of the proposed leasing area (including navigation, recreation, and fisheries).*”²¹ In other words, BOEM ensured that it has considered issues relative to multiple uses in the lease area *before* those lease sales, so that it could designate leasing areas based on what it learns in the preliminary planning process (calls, WEA designations), and identify any proposed stipulations to the lease to mitigate adverse impacts from the proposed activities.²²

The Coast Guard’s expertise, and those of other maritime stakeholders, has already been influential in BOEM’s establishment of the lease areas within the PACPARS study area. For example, in both of the Area ID Memos in the Morro Bay²³ and Humboldt²⁴ WEAs, BOEM noted that it had shared its findings with the USCG, area operators, and harbor safety committees.²⁵ In particular, in the Morro Bay WEA, BOEM analyzed AIS trackline and density data within the Call Areas that USCG provided to determine vessel traffic patterns and identify how they may conflict with potential offshore wind energy development.²⁶

While there is still work to be done in some cases in identifying vessel traffic concerns, ACP urges USCG to avoid imposing measures or making recommendations that negatively impact existing WEAs. ACP believes that the more appropriate place to resolve most remaining concerns regarding vessel navigation with existing WEAs is through individual project Navigation Safety Risk Assessments (NSRAs), COP reviews, and conditions on approval. This view is generally consistent with the positions articulated previously by BOEM and the final NY Bight PARS. For instance, BOEM noted in response to the ACPARS report that “applying setbacks too early in the planning and leasing phase of the program may unnecessarily eliminate areas that eventually are determined to be productive and a low risk to mariners. Allowing for flexibility on setback distances and evaluating detailed developer proposals on a case-by-case basis will ensure the federal government makes informed decisions.... Additionally, awareness and incorporation of emerging technologies, mitigation measures, and evolving best practices...at the time BOEM

navigational risks that may be posed by renewable energy development. This includes collaboration on the use of navigational safety risk assessments for evaluating renewable energy development activities on the OCS. Such assessments may provide useful information for assessing navigation and maritime concerns associated with renewable energy development on the OCS.”

²¹ 30 C.F.R. § 585.211(a)(3)

²² 30 C.F.R. § 585.211(b).

²³ <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Area-ID-CA-Morro-Bay.pdf>.

²⁴ [3799_CA Area ID Humboldt County Memo Final.pdf \(boem.gov\)](#)

²⁵ Humboldt ID memo at 16, Morro Bay ID Memo at 19

²⁶ Morro Bay ID Memo at 19.



is evaluating a specific wind farm, will lead to better decisions that more appropriately balance the many uses of the Outer Continental Shelf.”²⁷

As ACP noted above, there will likely be additional offshore wind demand off the Pacific that will require additional WEAs to be designated by BOEM in the future. Therefore, when considering whether additional navigation safety measures are necessary, the Coast Guard and BOEM should work together to ensure adequate sea space remains in areas to facilitate needed additional offshore wind leasing while still providing for safe navigation.

D. Prior experience should inform the USCG PACPARS analysis & recommendations for safe distances between projects and shipping lanes, or any extensions to existing lanes

As an initial matter, ACP appreciates the efforts of the USCG in identifying ways to provide for navigation safety while allowing offshore wind to move forward. As USCG noted in the final NY Bight PARS, offshore renewable energy installations present new challenges to safe navigation, but proper voyage planning and access to relevant safety information should ensure that safety is not compromised. We urge USCG to take into account its experience with the Atlantic Coast Port Access Route Study; the various regional PARS (MARIPARS, NNYBPARS, NJ-DE Bay PARS, and Chesapeake Bay PARS) should also inform the USCG PACPARS analysis and recommendations. For instance, in the Chesapeake Bay PARS, the USCG did not prescribe additional setback distances from TSSs that impact the Dominion Energy lease area. In the draft New Jersey PARS, the USCG has proposed to revise two fairway routes that avoid overlap with the existing lease areas in that area.

As in the past, ACP opposes a uniform recommendation for 2 nm buffers between turbines and TSSs lanes and instead, supports the evaluation of navigation risks at the project level on a case-by-case basis to allow for safe transit. In fact, USCG correctly states in the Final New York Bight PARS, “There is no international standard that specifies minimum distances between shipping routes and fixed structures. However, it is widely accepted that fixed structures in the offshore environment should not interfere with navigation. The MPGs [Marine Planning Guidelines] provide general guidelines for siting of multiple structures near shipping routes and established ships routing measures. Each project will be assessed during the BOEM NEPA process on a case-by-case basis using the MPGs.”²⁸ “ACP also urges USCG to take into account European experience, presented in more detail below. In Europe, navigation regulations and guidance applied to offshore wind farms adopt internationally recognized laws such as the Safety of Life at Sea²⁹ (SOLAS), the International Maritime Organization (IMO) Convention, and the IMO Convention on the International Regulations for Preventing Collisions at Sea (COLREG).³⁰ This approach has

²⁷ BOEM letter to USCG, June 16, 2016. Available at: <https://downloads.regulations.gov/USCG-2011-0351-0162/content.pdf>

²⁸ https://www.navcen.uscg.gov/pdf/PARS/FINAL_REPORT_Northern_NY_Bight_PARS_12_27_2021_PART1.pdf

²⁹ Summary available at: [http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-\(SOLAS\)-1974.aspx](http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-(SOLAS)-1974.aspx).

³⁰ Summary available at: <http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/COLREG.aspx>

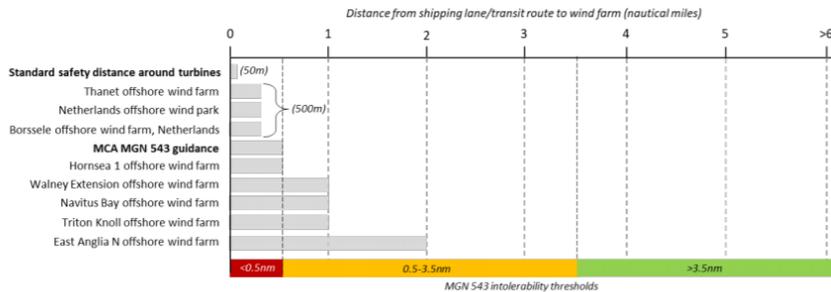
kept maritime users safe, while allowing flexibility in the development of offshore wind farms based on a project-level NSRA and mitigation.

Guidance is provided in these laws on appropriate safety distances between projects and distances from designated shipping lanes or routes that reflect dominant transit patterns. The designation of specific transit lanes through a wind farm is not a requirement of any of these laws and regulations and buffers to traffic lanes can vary based on project specific analysis. European practice has adopted effective mitigation methods to minimize the potential impacts on navigation safety. The same approach can work here.

As Renewables Consulting Group (RCG) noted in its shipping and navigation study³¹ for the New York State Energy and Research Development Agency (NYSERDA), “it is difficult to apply a standardized minimum distance between wind farms and navigation routes, as risks will vary depending on the location, proximity of turbines to a route boundary, prevailing metocean conditions, and existing and future vessel traffic profiles.”³² RCG notes that distances from 0.5 nm to 3.5 nm can be found to be safe under the UK Maritime and Coast Guard Agency Marine Guidance Notice 543 (MCA MGN 543)³³ if the risk is reduced to a level “as low as reasonably practical” or ALARP. According to the NYSERDA report, “the most common distance between a wind farm and shipping lane is approximately 1 nm.” Figure 30 from the NYSERDA report is reproduced below:

Figure 30. Minimum Distances Between Example European Offshore Wind Farms and Shipping Routes Compared with Intolerability Thresholds

Source: MCA, 2016



RCG concludes in the NYSERDA report, “This study suggests that 1 nm is an appropriate setback for initial planning purposes and informing the preliminary identification of area [sic] for potential locating of WEAs, and actual setbacks between shipping and navigation lanes and WEAs (and sites) should be determined at a later stage in

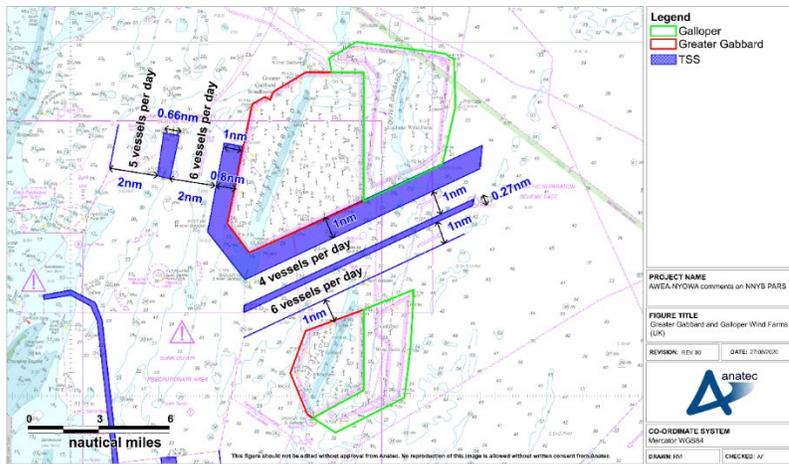
³¹ Available at: <https://www.nyserdera.ny.gov/-/media/Files/Publications/Research/Biomass-Solar-Wind/Master-Plan/17-25q-Shipping-and-Navigation.pdf> (NYSERDA report)

³² NYSERDA report, at 53.

³³ Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/502021/MGN_543.pdf

the siting process following completion of a full NSRA.”³⁴ This will remain appropriate for floating offshore wind technology that will be used in Pacific locations.

There are numerous examples of operational offshore wind farms located in proximity to busy routing measures within European waters. For example, the operational Greater Gabbard and Galloper wind farms, which are located within the outer Thames Estuary in the UK, are both sited 0.8 - 1nm from the neighboring Sunk Routing Measure,³⁵ which comprises three TSSs converging upon a central precautionary area, similar to what is being considered in the Chesapeake Bay PARS, supplemented by the Atlantic Coast PARS.



Greater Gabbard was fully commissioned in 2012, with Galloper following in 2018. To date there have been no reported incidents associated with the use of the bordering TSS lanes for vessel transit. This is considered a busy area in terms of traffic, and it is located in proximity to the Thames Estuary, which houses key ports including the Port of London and the Medway Ports of Sheerness, Chatham and Thamesport. This indicates that with effective traffic management in place, vessels can adapt to the presence of offshore wind farms without issue, even when entering and exiting busy ports.

In prior comments to the Coast Guard, the American Wind Energy Association (AWEA), which merged into ACP on January 1, 2021, separately calculated the proximity of several United Kingdom offshore wind farms to deep water routes.³⁶ Based on those calculations, as shown in Figure 2 below, seven offshore wind lease areas in the UK have

³⁴ *Id.* page 57.

³⁵ The Sunk Routing Measure (which includes the TSS and a precautionary area as above) was implemented as part of overarching traffic management plans in the area, and the design included consideration for proposed wind farm developments.

³⁶ The data used to create this map and calculations came from the following public sources: Admiralty Maritime Data Solutions: <https://datahub.admiralty.co.uk/portal/apps/sites/#/marine-data-portal>, and The Crown Estate GIS data portal: <https://opendata-the-crownestate.opendata.arcgis.com/datasets/the-crownestate::offshore-wind-site-agreements-england-wales-ni-the-crown-estate-1>



boundaries that are one nautical mile from a deep water route (Norfolk Boreas, East Anglia One North, Norfolk Vanguard East, Norfolk Vanguard West, East Anglia Three, East Anglia One). Five of those wind farms are approved and two are still pending. Further, the Humber Gateway offshore wind farm is just over 0.5 nautical miles from a traffic separation scheme. These wind farms have not created navigation hazards. Further, it is ACP's understanding that the largest active container vessel in the world, the HMM Algeciras, a 400 m container ship, has utilized the routing measures adjacent to the operational Greater Gabbard and Galloper wind farms. This speaks to the compatibility of even the very largest vessels navigating safely in the vicinity of offshore wind farms.

In another recent example, the UK government consented to the Norfolk Vanguard Offshore Wind Farm. As noted in the analysis of the project, "the DR1 Lightbuoy Deep Water Route (DWR) runs between Norfolk Vanguard East and West approximately 1nm from both of these sites, and the West Friesland DWR passes approximately 2nm to the east of Norfolk Vanguard East."³⁷ The experience in Europe demonstrates that vessel navigation around and through a wind farm can be done safely via project-specific reviews and mitigation, and with measures that are not overly restrictive.

E. Safety Recommendations that impact already awarded lease areas are more appropriately addressed in project-specific navigation safety risk assessments (NRSAs).

ACP urges USCG to consider in the PACPARS analysis and recommendations the timelines of the BOEM lease auctions and the potential to address more navigation safety concerns at a site-specific level, as recommended by USCG within recent Atlantic region PARS. Given the timeline of the PACPARS, ACP expects there will be multiple leases auctioned by BOEM prior to finalization of the PARS. For instance, BOEM plans to auction offshore wind leases in Morro Bay and Humboldt around September 2022 and leases off of Oregon in Q3 2023. By contrast, according to USCG, a draft PACPARS is not scheduled for publication until September 2025, with a final report scheduled for November 2025. ACP would support discussions with industry and BOEM to outline notional potential WEAs for PACPARS planning purposes to maximize and preserve the diverse use of the Pacific Coast ocean space.

As the Coast Guard noted in the final New York Bight PARS, "it is widely accepted that fixed structures in the offshore environment should not interfere with navigation. The MPGs provide general guidelines for siting of multiple structures near shipping routes and

³⁷ The UK government analysis of this project is available here: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-004268-Norfolk%20Vanguard%20Final%20Report%20to%20SoS%2010092019%20FINAL.pdf>. It is ACP's understanding that once a project area receives consent in the UK, the developer has flexibility to site the turbines anywhere within that polygon up to the border.



established ships routing measures. ***Each project will be assessed during the BOEM NEPA process on a case-by-case basis using the MPGs.***³⁸ (emphasis added)

This is consistent with European practice. In Europe, a site-specific NSRA is undertaken to fully evaluate the potential navigational risks posed by a specific offshore wind farm. Based on the findings of the NSRA, risks, if any, to navigation from a specific proposed wind farm can be evaluated and addressed, and potential mitigation measures implemented.

In the U.S., a NSRA is also required during the project-specific COP development and review process managed by BOEM and in which the Coast Guard is a cooperating agency.³⁹ These site-specific risk assessments allow developers to work with local stakeholders to ensure mitigation measures are appropriate. This process includes consideration of navigational risks to all types of vessels in the area. It allows safety measures and mitigation to be tailored to the needs of the Coast Guard, vessel operators in the area, and developers.

Offshore wind farm development is extremely complex. As lease areas are studied by lease holders during implementation of their site assessment plan, they are collecting data and analyzing various factors – wind speeds, other atmospheric and ocean data, wildlife (avian, marine mammals etc.) issues, vessel navigation (via NSRAs), Department of Defense activities, seabed characterization, commercial fisheries, etc. – that inform and may change multiple times how they are thinking about the lease area and the proposed project. Among the types of measures that can facilitate safe navigation and may be considered during project specific NSRAs and individual developer and stakeholder discussions with Coast Guard and tailored to specific projects and areas are:

- Turbine spacing
- Turbine layout (pattern, orientation)
- Buffers from navigation lanes
- Communications plans – frequent notices to mariners, utilization of fisheries liaisons and local fisheries representatives based in regional ports to facilitate communication etc.
- Utilization by developers of marine coordination and operations centers to manage project vessel traffic and to provide situational awareness for non-project vessels
- Presence of offshore wind project vessels, including service operation vessels and crew transfer vessel's ability to inform nearby mariners of current project activities in or near the wind farm
- Transit speeds
- Deployment of automatic identification technologies (AIS) technologies

³⁸ Final Northern New York Bight PARS, at 70, available at https://www.navcen.uscg.gov/pdf/PARS/FINAL_REPORT_Northern_NY_Bight_PARS_12_27_2021_PART1.pdf.

³⁹ See "Information Guidelines for a Renewable Energy Construction and Operations Plan," BOEM, Version 4.0, May 27, 2020. Available at: <https://www.boem.gov/sites/default/files/documents/about-boem/COP%20Guidelines.pdf>



- Deployment of offshore surveillance radars and imagery tracking solutions (i.e., FLIR)
- Marine navigation lighting and marking
- Establishment of safety zones during construction
- Adherence to COLREGs and general safe navigation operational practices
- Cable burial depth and shielding
- Proper marking of turbines and cable routes on NOAA nautical charts
- Remote monitoring and control of project operations

Tailoring navigation safety measures during project-specific reviews is also generally consistent with the positions articulated previously by BOEM. For example, as BOEM has explained, “In some instances, the potential for conflict cannot be fully resolved during BOEM’s planning process. In such cases, BOEM has been and will continue to be especially vigilant when specific plans for development are submitted. BOEM’s goal is to ensure that the installation of commercial wind facilities is compatible with navigational safety.”⁴⁰

This complexity of development is recognized by BOEM in its draft project design envelope (PDE) guidance.⁴¹ In the guidance, BOEM acknowledges that not all final design parameters may be decided when a developer is ready to submit their COP for NEPA review. The PDE approach as practiced in other countries and as implemented by BOEM, allows a developer to propose a reasonable range of potential project design parameters for certain key components of a development, including type and number of turbines; layout; foundation type; location of the export cable route; location of an onshore substation; location of the grid connection point; and construction methods and timing, for purposes of the environmental review of the project. BOEM will then analyze the projects using the most impactful of the project design ranges proposed by the developer. According to BOEM, the PDE approach provides “appropriate flexibility to accommodate final design decisions in later stages of the process (e.g., micro-siting to optimize generation efficiency and address site constraints).”

While expressing a preference for BOEM adoption of marine planning guidelines during the planning phase,⁴² the Coast Guard has also noted the importance of project-specific reviews, including through NSRAs. Additionally, USCG has repeatedly noted that the marine planning guidelines are indeed guidelines and are not prescriptive or regulatory. ACP encourages the Coast Guard to support the flexibility needed by BOEM and project developers with respect to existing leases and with respect to future leasing.

⁴⁰ Response to Comments and Explanation of Changes from the New Jersey Proposed Sale Notice to the Final Sale Notice, BOEM, September 2015, Page 4. Available at: <https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/NJ/Response-to-Comments-and-Explanation-of-NJ-FSN-Changes.pdf>

⁴¹ Available at: <https://www.boem.gov/Draft-Design-Envelope-Guidance/>

⁴² Atlantic Coast Port Access Route Study Final Report, Coast Guard, Page 13. Available at: https://www.navcen.uscg.gov/pdf/PARS/ACPARS_Final_Report_08Jul2015_Combined_Appendix_Enclosures_Final_After_LMI_Review.pdf



F. Offshore wind survey, construction, and operations vessels will utilize California and potentially Oregon ports

To meet offshore wind development goals, it is critical to have available port areas in California and in Oregon that can support offshore wind project survey, construction, and operations needs. While there is plenty of port infrastructure on the west coast, the port requirements for offshore wind are different from those of cargo and general use. Critical port elements needed for offshore wind buildout include lack of an air draft restriction, a deep water wharf to conduct waterfront operations, large upland area to store components, and sufficient navigation access.⁴³ ACP urges USCG to consider these needs in its analysis.

Below is a list of ports that could potentially serve offshore wind on the west coast, with necessary upgrades:

- Port Hueneme (Central CA)
- Port of Humboldt Bay (Northern CA)
- Port of Morro Bay (although it would require significant buildout) (Central CA)
- Port of Los Angeles (Southern CA)
- Port of Coos Bay (Oregon)
- Port of Long Beach (Southern CA)
- Port of San Diego (Southern CA) (although Coronado Bridge has an air draft restriction)

ACP also urges USCG to conduct an assessment of potential traffic resulting from development of multiple offshore wind farms. Among these are:

- Survey vessel trips
- Construction vessel trips, including spread tows of floating offshore wind turbines from port to offshore
- O&M vessel trips, including spread tows of floating offshore wind turbines from offshore to port.

Conclusion

Thank you for your consideration of the issues raised in this letter. Please let ACP know if we can provide any additional information or clarifications on the points above.

Sincerely,

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Tom Vinson, VP, Policy & Regulatory Affairs

American Clean Power Association

⁴³ California Offshore Wind Ports, Port Availability Synthesis, Mott MacDonald (12.6.21).

