PUBLIC INFORMATION MEETING

Vineyard Wind SEIS Public Meeting

Virtual Public Meeting Day 4

July 7, 2020

1:00 p.m.

P-R-O-C-E-E-D-I-N-G-S

CHRISTINE DAVIS: Hello, everyone. I want to thank you for joining us today.

As mentioned, I'm Christine Davis, and I'm with ERM, the third-party contractor working with the BOEM staff on the Environmental Review on the Vineyard Wind 1 Project. I'm here today to help facilitate and guide you through this meeting. We appreciate you taking time to share your thoughts with us.

So the purpose of today's meeting is to gather your input on Vineyard Wind's proposed Offshore Wind 1 Project and, more specifically, on the supplement to the draft Environmental Impact Statement. Your input will be used to refine and finalize the final Environmental Impact Statement on this project.

As such, we are recording; we have court reporters documenting the meeting for the public record.

We've learned that some might want to ask questions right away, so please note, for those of you on Zoom, we'll use the Q & A function to address questions and the chat function to address

technical issues. We'll talk more about Zoom in just a few minutes, but again, Q & A for questions, chat function for technical issue.

Before we go any further, I'd like to welcome Jim Bennett. Jim is the Program Manager of the Office of Renewable Energy Program at the Bureau of Ocean Energy Management, or BOEM, as we'll refer to it throughout the meeting. Jim will formally welcome everyone to today's meeting.

Jim?

JIM BENNETT: Thank you, Christine.

Good afternoon, everyone. On behalf of the Department here, thank you for joining us for today's public meeting. Again, my name is Jim Bennett, and I am the Program Manager for the Bureau of Ocean Energy Management's, or BOEM's, offshore renewable energy program.

It is unfortunate that we can't be together in person today, as public meetings are one of the best mechanisms for us to gather information. But I hope you and your families and friends are all safe and healthy given our current situation.

On the other hand, we are fortunate to have technology that allows us to create effective

alternatives to the in-person public meetings. Our team has put together a system that will enable us to continue this dialogue in this new virtual format to help inform our decisions.

So who are we? First off, BOEM is the federal bureau within the Department of the Interior that oversees the expeditious and orderly development of the energy resources on the Outer Continental Shelf. That's almost 2.5 billion acres of land on the Outer Continental Shelf, or OCS. It's very significant, because it's slightly more area than the total landmass of the United States including Alaska.

It is a big job. And BOEM has a strong history of meeting our nation's growing energy needs. Our responsibilities include the development of renewable energy as well, essentially offshore wind.

Our authority was established in 2005 through the OCS Lands Act, the Energy Policy Act of 2005. And in 2009, we put a regulatory regime together to pursue offshore wind. Over the past 10 years, we have been working with the states with stakeholders, industry, and the public to identify

the best areas of offshore wind development. To date, we have 16 active leases on the Atlantic, from Cape Cod to Cape Hatteras. Every state has at least one federal OCS lease. The potential is for 22 gigawatts of electricity to contribute to the state goals of almost 30 gigawatts in their region.

For these leases, we've approved 10 site assessment plans, and we're currently reviewing seven Construction and Operations Plans. These are called SAPs and COPs and they are both formal steps in our regulatory process to go from offshore leasing to the generation of electricity.

In addition, we anticipate receiving another eight COPs over the past 12 -- next 12 months. We've hired new staff and we're using third-party contractors to help manage this growing workload. So there's a lot going on.

In addition, our first deal in the water for the OCS has just occurred in the past few weeks with -- with the Coastal Virginia Offshore Wind Project or CVOW, and we anticipate a dozen or more commercial-scale wind farms during the coming decade. We also anticipate additional leasing of

the Atlantic with interest in the Gulf of Maine, the New York site and the Carolinas.

Most importantly, we want to make sure we -- we do these projects, right. Our objective is to ensure that offshore wind, commercial fishing, maritime navigation and other uses of the -- of the ocean can all be pursued successfully. This does not mean that there won't be any impacts. There will be impacts. But our goal is that all users can successfully coexist.

Our task is to obtain the best available information, conduct sound scientific and environmental analysis, estimate impacts, and identify appropriate mitigation. This will allow us to establish a strong foundation for all projects going forward. These public meetings are an opportunity for you to help meet this goal, and we want to hear from you to that end, particularly with regard to the Vineyard Wind Project.

Vineyard Wind is the first commercial offshore wind project analyzed under the One Federal Decision process. We have worked through this process for the first time, we've adapted our initial approach, which we believe will allow the

permitting of future projects to run more smoothly. BOEM has received over 300 comments from stakeholders and cooperating agencies on the draft Environmental Impact Statement or draft EIS. Some of these requested a more robust analysis of cumulative impacts.

As a result, on Friday, June 12, we formally released a supplement to the draft -- the draft Environmental Impact Statement for the proposed Vineyard Wind Offshore Energy Project. The supplement to the draft EIS expands the reasonably foreseeable future offshore wind development scenario and analyzes the effects of that scenario. The supplements of the draft also analyzes previously unavailable fishing data, a transit lane alternative proposed by the fishing community, and changes to the Construction and Operations Plans that have occurred since the draft Supplemental Impact Statement was published.

These updates were a direct result of comments we received from numerous stakeholders including state and local governments, federal agencies, industry and the public. This enhanced analysis will serve as a model to review future

projects. That's why it's vitally important for decision-making that you all carefully review the supplement to the draft EIS and provide us your comments.

We are making every effort to hear from you. This is one of five public -- virtual public meetings that we will be holding throughout the open comment period. Your input will help the Department of the Interior and BOEM meet our goal of getting this right.

This (indiscernible) permitting process minimizes user conflicts and establishes a strong foundation for wind projects moving forward.

Thank you and stay well.

I'd like to welcome now a representative from the State of Massachusetts. So let me turn this over to Lisa Engler, the Director of the Massachusetts Office of Coastal Zone Management. Thank you.

LISA ENGLER: Thank you, Jim.

Good afternoon everyone. Again, my name is Lisa Engler, and I'm the Director for the Massachusetts Office of Coastal Zone Management. And on behalf of Energy and Environmental Affairs

Secretary Kathleen Theoharides, we are pleased to welcome the Bureau of Ocean Energy Management for today's public meeting on the supplement to the draft Environmental Impact Statement for the Vineyard Wind 1 Project.

Joining me from fellow Massachusetts agencies are Nils Bolgen from the Massachusetts Clean Energy Center, and John Logan from the Massachusetts Division of Marine Fisheries. We are looking forward to the presentations and the opportunity to hear your comments and input to the federal review process for the Vineyard Wind Project.

Global climate change presents a serious threat to the Commonwealth environment -- the environment, its residents, communities and economy. Governor Baker has expressed the need for action, stating the magnitude of the impact from climate change requires all of us to put politics aside and act together quickly -- quickly and decisively. We still have the opportunity to check the severity of future impacts by aggressively reducing greenhouse gas emissions and adapting to the changes that are ongoing.

With the 2008 Global Warming Solutions Act, Massachusetts became one of the first states in the nation to require carbon emission reductions of at least 80% below 1990 levels by 2050, with interim targets every decade. We are on track to meet our 2020 goal of 25% reduction from 1990.

In addition, in December of last year, Governor Baker committed the Commonwealth to net zero emissions by 2050. Meeting these targets will include efforts and commitments by the public and the private sector, and will require changes to business as usual. Responsibly cited, developed and operated offshore wind will be key to meeting these carbon emission reduction targets.

For more than a decade, we have worked closely with our federal, state, local and tribal partners through BOEM's intergovernmental task force on offshore energy in the planning, siting, leasing and review of potential offshore wind projects on the Outer Continental Shelf. We have also worked closely with stakeholders through state-formed fisheries and habitat working groups on offshore wind, and in community-based meetings

and discussions.

The fishing industry is a critical partner in the development of offshore wind, and we value the opportunity to use these venues for important dialogue and feedback in the responsible development of offshore wind.

Under Governor Baker's leadership, the Energy Diversity Act was passed in 2016 to allow for the solicitation of 1600 megawatts of offshore wind. This led to the successful procurement of the Vineyard Wind 1 Project in 2018, which will result in significant greenhouse gas production at a highly competitive price.

Massachusetts has continued to lead the development of the offshore wind market in the U.S., and in 2018, passed additional legislation that doubled the amount of offshore wind energy solicitation to 3200 megawatts. The development of the offshore wind market will lead to substantial economic development in the Commonwealth and in the region, bringing necessary clean energy that will provide significant greenhouse gas emission reduction.

The Federal National Environmental Policy Act

review process led by BOEM is a critically important component in our collective responsibility to avoid, minimize and mitigate potential adverse effects. And in the case of the Vineyard Wind 1 Project, the SEIS has provided a broader substantive basis for reviewing the project within the context of other offshore wind development. The cumulative analysis included as SEIS ensures that potential impacts beyond this individual project are included and evaluated.

In parallel to the BOEM review, the Vineyard Wind 1 Project was also reviewed by state agencies including the Massachusetts Department of Environmental Protection, the Energy Facility Siting Board, the Massachusetts Environmental Policy Act Office, the Department of Public Utilities and the Massachusetts Office of Coastal Zone Management. This Massachusetts State review has been completed.

Thank you all for virtually joining us today. Your participation is so important as we continue to work with agencies, stakeholders and local communities in the review of the BOEM commercial leasing construction and operations process.

And with that, I'll turn it back over to Christine.

CHRISTINE DAVIS: Thank you, Lisa.

Looking at the agenda, now BOEM will provide a project overview and discuss the environmental review process and the next steps. We'll open the meeting for public testimony probably in about a half hour or so, and then we'll close by answering questions.

As a reminder, the focus of today's meeting is to receive public comments, so we'll spend the bulk of our time together on that agenda item. Everyone who would like to provide comments today will need to press Star 1 and speak with the live operator to get in the queue. Even if you've preregistered, you'll need to press Star 1.

Please note that it might take the operator a little bit to get to you so please be patient. Again, the steps for everyone who wants to speak, those who have preregistered, those who are on the phone, on Zoom, please press Star 1 and ask -- and wait to speak to the live operator. If you've not already done so, you can do so now or at any time prior to the public comment.

So that we can provide as many interested parties as possible the opportunity to provide public comments, we ask that you keep your comments to about five minutes. You're not going to be on camera today, but your voice will come through on the phone. So only the BOEM, ERM presenters and I will be on video today. So please note that all oral comments and comments that are in the Q & A and other places will be provided on the record, and the entire meeting is being recorded.

So let's go to the next slide, please, and let's talk a little bit about Zoom for those of you that are on Zoom.

So as you've heard me refer to the Q & A and chat functions. We're going to be using Q & A for questions and chat for technical issues. Those of you that are online should be able to see those icons at the bottom of your screen. If you click on the Q & A icon, you'll see a box pop up for you to type in a question. We'll answer the bulk of the questions at the end of the public testimony meeting to make sure that we have enough time for public comments.

Some of the questions that have short answers we might address right away, but for most others, we'll have subject matter experts who are listening in and looking at that Q & A box ready to respond in person later in the meeting. Don't be alarmed if you don't see your question right away. The questions will show up as they answer them verbally during that Q & A session towards the end of our time together.

And as briefly noted, please only use the Zoom chat to notify us of a technical issue. Later on, we'll use the Zoom chat in order to handle the public comment period. I'll address that when we get closer to that time.

And attendees will only use the raise-hand function if we call on you.

So if at any time you have technical challenges using Zoom, please know that you can continue to participate by phone at 1-888-606-7043 using the participant code 6516733#.

So if you want to give public testimony and have not already done so please press Star 1 and speak to our live operator to get in the queue. Regardless of whether or not you signed up to

speak, or you're preregistered, or you're just deciding right now, please press Star 1 and give the operator a little bit of time to get to you and get you in the queue.

So does anyone have any questions specifically about Zoom or the phone that you'd like to address at this time? We can go to the Q & A box or press Star 1 to speak to the operator.

Pause for just a moment to see if we have anything? Isis, I think we're good. Yes?

ISIS FARMER: Yep, looks like we're good.

CHRISTINE DAVIS: Okay. So at this point, I'm going to turn it over to Jenn Bucatari from the Bureau of Ocean Energy Management. Jenn will explain the environmental review process -- process and provide an overview of the Supplement to the draft EIS. Her presentation will begin the public testimony. And as a reminder, to sign up for public comments later in this meeting, please press Star 1 and wait for that operator to get to you and be patient. I know we've got quite a few people that are interested in speaking today.

So with that, I'm going to turn it over to

Jenn.

JENNIFER BUCATARI: Thanks, Christine.

Hello everyone, and welcome to the Vineyard Wind Supplement to the draft Environmental Impact Statement, also known as the SEIS virtual public meeting.

As Jim mentioned, BOEM is the Federal Bureau within the Department of Interior that oversees development of our energy and mineral resources, subject to environmental safeguards. We cover the nearly 2.5 billion acres in the nation's Outer Continental Shelf, or OCS, as you'll hear us refer to it, including the development of marine minerals, oil and gas, and renewable energy resources.

We appreciate your participation in this meeting and look forward to hearing your comments following the summary presentation.

As Christine mentioned, my name is Jennifer Bucatari, and I'm one of the environmental coordinators on this project.

To the greatest extent possible, we are working to maintain services to the American people and our stakeholders consistent with

evolving guidance provided by CDC, state and local health authorities. As such, we're moving forward with our public meetings in a virtual environment in order to provide this information to our public in the safest and most efficient way possible, and to still receive the feedback from our stakeholders.

These public meetings, while virtual, are an opportunity for public involvement and an opportunity to provide comments on the Supplemental EIS.

BOEM has developed a virtual meeting room web page. The address is seen here at the top of the slide. You have likely visited this page to register; but either way, we encourage you to explore this page more and any additional content that we have there.

This content includes posters and presentations to mimic what would be the stations that we normally have at an in-person meeting. The posters seen here on this slide relay a brief summary of important topics to our stakeholders. On this slide, you see the presentations that we have on the virtual meeting room web page.

These are summaries of impacts, several key topics, or resources. The presentations were developed and recorded by the BOEM subject matter expert, or SME, who also developed the Supplemental EIS impact analysis for this resource.

The National Environmental Policy Act, or NEPA, is a law requiring federal agencies to assess the environmental effects of their proposed action and reasonable alternatives. The NEPA process collects relevant information for the decision-makers to either approve, approve with conditions, or disapprove the plan.

Through the NEPA process, an EIS must be prepared if an agency is proposing a major federal action that may significantly affect the quality of the human environment. The purpose of the analysis is to outline the impact of a proposed project on its surrounding environment. The process also includes public scoping, public comment period, an analysis of reasonable alternatives and of cumulative effects.

BOEM's renewable energy, leasing and development process occurs in four phases. The

Vineyard Wind 1 Project is in the fourth phase, which includes conducting an environmental review of the lessee's Construction and Operations Plan, or COP.

The draft EIS was published for public review in December of 2018, and a supplement to that draft EIS, the Supplemental EIS that we're talking about here, was published on June 12, 2020.

The Vineyard Wind 1 proposed project location is seen here, and it's 12 nautical miles at its nearest point to land. The project is situated southeast of Martha's Vineyard. The proposed cable landfalls are in two locations on Cape Cod, Lewis Bay, or New Hampshire Avenue.

A brief background on the project is presented here. The development of the Supplemental EIS began following public hearings that were held in February of 2019. Comments from the public and stakeholders requested an expanded cumulative analysis and an analysis of fishing data previously unavailable to BOEM. In addition, updates were made to the Construction and Operations Plan by Vineyard Wind on January 31st, 2020, and on March 9th, 2020. BOEM developed the

Supplemental EIS to address comments from the public and stakeholders to expand the cumulative analysis, to analyze previously unavailable efficient data on new alternatives and project changes.

As mentioned, in January and March of 2020 Vineyard Wind submitted updates to the Construction and Operations Plan, which included changes to the project envelope and onshore substation. The updates included an expansion of the turbine capacity to include up to 14 megawatt turbines. The total project capacity remains at 800 megawatts. And the change to the turbine capacity does not result in a change to the footprint or to the minimum turbine capacity, which is 8 megawatts.

The proposed project includes up to 106 wind turbine locations with up to 100 wind turbines. Up to 12 jacket foundations maybe used, 10 for the turbine foundations and up to two for the electrical service platform. Any remaining foundations would be monopile.

Vineyard Wind also submitted changes to the onshore substation. For the expanded onshore

substation, the total approximate area of ground disturbance would be 7.7 acres, which is 1.8 acres greater than the area analyzed in the draft EIS.

The notice of availability for the Supplemental EIS was published on June 12, 2020, in the Federal Register. We are holding a series of five virtual public meetings, as seen here. The comment period will close after 45 days, on July 27, 2020.

For any additional project related info, please see the project website, seen here at the bottom.

To be most helpful, comments should be as specific as possible. A substantive comment discusses the accuracy of the information in the document; suggests alternate methodologies and the reasons why they should be used; provides new information relevant to the analysis; identifies a different source of credible research, which if used in the analysis, could result in different effects; or provides clarification, when needed.

The table on this slide outlines some notable sections of the Supplemental EIS including where you can find more information about the

environmental analysis, the cumulative impact scenario, the project design -- design envelope and the status of environmental consultation. While the Supplemental EIS includes analysis of the direct and indirect impacts of the proposed project, the focus of the supplement is on the expanded cumulative impact scenario, the new alternatives and information that has been changed or become available since the issuance of the draft EIS in 2018.

This inverted triangle represents the different levels of reasonably foreseeable development we considered in the cumulative scenario.

A bar usually encompasses the bar below it, but the lower bars will often be duplicative rather than additive. For example, Vineyard Wind 1 is already included within that 5.4 gigawatts of Construction and Operations Plan submitted or approved, which is the second from the bottom.

The previous standards for the scope of reasonably foreseeable offshore wind development was based on projects permitted. Then we added to this projects entering the construction permitting

process. This time, we began by examining the greatest number of possible projects and then a limited -- and eliminated offshore development that would be unreasonable to consider based on lack of state demand or technical inability.

The top bar is the total Atlantic offshore wind technical resource potential. This bar represents how much wind energy is available on the Atlantic Outer Continental Shelf with present technology. Such a build-out is not only materially and physically impossible, but also the amount of energy exceeds the demand of the entire Eastern United States; thus, this level was not determined to be reasonably foreseeable.

The second bar down is the technical resource potential of the Atlantic Call Wind Energy and lease areas. Call areas are areas that have not been leased and are still being evaluated for whether they are suitable to be offered for lease. There is no guarantee that such areas will make it to the leasing stage; therefore, evaluating construction on them is premature, and this level of development was not considered reasonably foreseeable at this time.

The third bar down is state capacity commitment. While the tier system in the draft EIS looked at development from a regulatory and projects perspective, in this scenario, we examine future projects from a state demand perspective. This number has grown over the last several months, and it's currently at about 29 gigawatt -- gigawatts with recent additional commitments from New Jersey. This exceeds the technical resource potential of existing Atlantic leases with existing technology and includes New York commitments that have been made in anticipation of future leasing occurring; therefore, this level of development was deemed not reasonably foreseeable at this time.

The fourth bar from the top is the technical resource potential of existing Atlantic leases. State capacity commitments are not evenly distributed along the coast and, perhaps surprisingly, are not tied to the existing available lease capacity within transmission range. For example, the state capacity of commitments of New York and New Jersey exceed the technical resource potential of leases within the

transmission range for those two states. Also, there are going to be conflicts within the lease areas, such as cultural -- cultural sites, historical sites, essential fish habitat and navigation that will make developing the entire technical lease potential/resource potential of existing Atlantic leases impossible; therefore, this level of development is not considered reasonably foreseeable.

The fifth bar from the top and all those that follow below make up our reasonably foreseeable cumulative scenario. This includes any projects with awarded offtake, any projects that have entered or announced their intention to enter the permitting process, and of course, any approved projects. Basically, if a project has a name, then it is included.

After considering all projects with awards, Construction and Operation Plans, or that have been announced, there's still some state capacity left over that has not been awarded. This potential for additional future development beyond named projects is also accounted for in analyzing this scenario.

If you would like additional information on the cumulative scope, or to hear this presented again, please visit the virtual meeting room web page to listen to a presentation on this subject.

Alternative A, the proposed action alternative, is the construction, operation, maintenance and eventual decommissioning of an up to 800 megawatt wind energy facility on the Outer Continental Shelf. Offshore Massachusetts, within the proposed project area and associated export cables, would occur within the range of design parameters outlined in the Vineyard Wind Construction and Operations Plan, subject to applicable allocation measures.

Here we have the other action alternatives and the no-action alternative. Alternative C, the Covell's Beach cable landfall alternative, excludes the New Hampshire Avenue landfall location and could potentially reduce impacts on environmental and socioeconomic resources.

On June 26th, 2020, Vineyard Wind informed BOEM that they are no longer pursuing the New Hampshire Avenue landing site. While the New Hampshire Avenue site was included in the

Construction and Operations Plan, Vineyard Wind has obtained all of the state and local permits necessary to bring the cable onshore at the Covell's Beach landing site.

Alternative C excludes surface occupancy in the northernmost portion of the proposed project area to potentially reduce impacts from the proposed project and to reduce potential conflicts with existing ocean use, such as marine navigation and commercial fishing.

Alternative B-1 would require a minimum of one-nautical-mile-by-one-nautical-mile spacing between wind turbine generators and the lanes between them. This alternative would potentially reduce conflicts with existing ocean users, such as commercial fishing and marine navigation.

Alternative B-2 would require a layout and east-west orientation. And all of the turbines in the east-west direction would have a minimum spacing of one nautical mile between them to allow for vessels to travel between turbines and to reduce conflicts with existing ocean users, such as commercial fishing.

Alternative E reduces the project size no

more than 84 turbines. This alternative would potentially reduce impact on existing ocean users and on environmental resources due to fewer foundations.

Alternative F is our new -- new alternative. This would include a vessel transit lane through the wind development area in which no surface occupancy would occur. Any turbines presently planned for this area would be moved further south in the wind development area. This alternative could potentially facilitate transit of vessels through the project area from Southern New England Port to fishing areas on Georges Bank.

Alternative G is the no-action alternative. In this alternative, the proposed project would not be approved and any potential environmental and socioeconomic costs and benefits associated with the proposed project would not occur. However, impacts from reasonably foreseeable future offshore wind and nonwind related activities could still occur. This alternative is required to be analyzed under NEPA.

Since the draft EIS was published, a new alternative has been added and analyzed in the

Supplemental EIS. Alternative F, the vessel transit lane alternative, includes a new vessel transit lane in response to the January 3rd, 2020, Responsible Offshore Development Alliance, known as RODA, layout proposal.

The RODA proposal includes six total designated transit lanes, each at least four nautical miles wide, as seen in the -- as seen in this figure here. Although the proposal includes six total transit lanes, only one intersects with the Vineyard Wind Project area, as shown in this figure. As mentioned, the purpose of the proposed northwest-southeast transit corridor would be mainly to facilitate vessel transits from Southern New England Port, primarily New Bedford, to fishing areas on Georges Bank.

The transit lane would have no occupancy, and therefore, the turbines that would have occurred in these areas would not be eliminated, but instead, the displaced turbines would be shifted south within the Vineyard Wind's lease area.

The layout shown in this figure, which is also in Appendix A, as in apple, .7-17, is for illustrative purposes only and does not guarantee

that the positions identified by the black dots are buildable.

The layout is based on all developer agreements for east-west orientation in one-nautical-mile-by-one-nautical-mile spacing. The positions -- the positions shown do not necessarily represent future turbine location. The intent of this figure is to show the potential displacement of turbines if all six transit lanes were to occur.

The turbine locations within the pale yellow lanes may not be utilized.

Under the current cumulative scenario, displacement of all of these turbine locations was not feasible; and therefore, the additional six transit lanes would lead to the elimination of some of the turbines that could have occurred within these lanes.

Our impact analysis includes biological, physical and socioeconomic resources, as seen here. The subject matter experts that analyze impacts to these resources are also on this webinar and will answer your questions later on in the meeting.

These same resources are also seen in the summary table found in the executive summary of the Supplemental EIS. This table summarizes the overall direct and indirect and the overall cumulative impact level for each resource.

The following five slides has the summaries for additional resources not seen here on this slide.

I will discuss the impact levels for specific resources in more detail in a few slides but wanted to orient you to the table and some key elements in the analyses here.

More detailed analyses and impact levels for future offshore wind activities may be found for each resource in Chapter 3, and in the tables and Appendices A, as an apple, and B, as in boy.

The color coding and the table indicates if the highest impact level is minor, moderate or major, with green being minor, yellow moderate, and orange major. You can find the definitions of the impact levels in Table 1.2-3 in Appendix B, as in boy, of the Supplemental EIS.

In addition, there is a poster on the project virtual meeting room web page which details the

impact level definition.

For resources with an indirect and direct impact level of negligible or minor, the impact analysis has been moved to Appendix A, as in apple. This was done to meet the page limit goals outlined in the Department of Interior Secretary Secretarial Order 3355.

To understand the cumulative impact for each resource, BOEM analyzed the effects of the no-action alternative, which includes baseline conditions, ongoing activities of all types, and future offshore activities other than wind. We then followed this with an analysis of future offshore wind activities and the potential cumulative effects of the proposed action and action alternatives.

Resource impact levels seen here includes terrestrial and coastal fauna, coastal habitat, benthic resources, finfish, invertebrates, and essential fish habitats.

Additional resource impact levels seen here include marine mammals, sea turtles, demographics, employment and economics, and environmental justice.

We've talked about notable differences between alternatives and future slides.

Resource impact levels seen here include cultural, historical, and archaeological resources, recreation and tourism, and commercial fisheries and for-hire recreational fishing.

Resource impact level same here include land use and coastal infrastructure, and navigation and vessel traffic.

Resources seen here include -- is our other uses category, which includes research and surveys, military and national security, aviation and air traffic, cable and pipeline and radar system.

Resources seen here include air quality, water quality, birds and bats. All of these resources are included in Appendix A, as in apple.

Now we will discuss the direct and indirect impacts of the proposed actions.

As summarized in the executive summary table, and assessed in detail in Chapter 3 of the Supplemental EIS, BOEM determined that for most resources, direct and indirect impacts were negligible to moderate with some major short- and

long-term impacts.

The proposed action or certain action alternatives could have major direct or indirect impact on environmental justice communities and on other uses. The following major impacts to these resources were anticipated:

Major direct impacts on environmental justice communities could occur from the proposed action and alternatives other than B, the Covell's Beach landfall alternative; F, the vessel transit lane alternative; and then no-action alternative, which is G.

The placement of cable and maintenance within Lewis Bay associated with the New Hampshire Avenue landfill site would lead to potential effects on vessel traffic and to environmental justice populations that rely on subsistence fishing or employment and income from Marine businesses. This impact would lessen to moderate under Alternative B, the Covell Beach landfall alternatives, which would exclude the use of the New Hampshire landfall location.

As mentioned on the alternative slide, Slide 18, Vineyard Wind is no longer pursuing the use of

the New Hampshire Avenue landfall location.

Alternative F, the vessel transit lane alternative, leads to lower direct and indirect impacts for environment -- environmental justice due to reduced impacts related to allisions and collisions from the presence of a transit lane. The reduced risk of collisions or allisions would lessen the impacts on marine businesses and also on the low-income workers employed in these industries. By reducing impacts on these business -- businesses, Alternative F would have a smaller incremental impact on environmental justice population although these impacts would remain negligible to moderate.

The direct and indirect impacts for other uses was determined to be major for scientific research and surveys for the proposed action and all action alternatives. The placement of structures within the wind development area posed a navigational hazard to survey aircraft and vessels and restricts access to survey locations. This would impact the statistical -- statistical design of surveys and cause a loss of information leading to major impacts.

An analysis of other resources -- resource areas -- areas listed here found that direct and indirect impacts had minor to moderate beneficial impacts from the proposed action and action alternatives.

Here we will discuss the cumulative impacts of the proposed action, in addition to ongoing activities, future offshore nonwind activities, and future offshore wind activities. For most resources, cumulative impacts were minor to moderate with some major short- and long-term impact.

Major cumulative effects could occur to commercial fisheries and for-hire recreational fishing for the proposed action and all action alternatives. Here, the impact rating is driven mostly by changes due to fish distribution and availability associated with climate change; reduced stock levels through the fishing mortality; and permanent impacts due to the presence of structures, such as cable protection measures and foundations from offshore wind activities.

Major cumulative impacts on navigation could

result, as -- it could occur as a result of the presence of structures which increase the risk of collisions and allisions under the proposed action and all the alternatives with the exception of D-2, the east-west and one-nautical-mile-turbine-layout alternative; F, the vessel transit lane alternative, with D-2; and the no-action, which is G.

The impact level becomes moderate under D-2, with a one-by-one-nautical-mile uniform grid layout; and under Alternative F, the vessel transit lane alternative when paired with D-2, due to the large spacing between structures and the regular layout.

Major cumulative impacts on scientific research and surveys, as mentioned on the previous slide under other uses, would -- could occur as a result of the proposed action and all action alternatives due to the presence of structures which could hinder our surveys within the project area. This is similar to the direct and indirect impacts from the previous slides but greater in magnitude due to the cumulative scenario.

In addition, there would be major cumulative

impacts on military and national security uses as a result of the proposed action and action alternatives other than D-2, the east-west and one-nautical-mile-turbine layout; and alternative F, the vessel transit land alternatives when paired with D-2 due to navigational complexity from structure presence, which would increase the difficulty to conduct the search-and-rescue operations.

The major impact goes down to moderate for search-and-rescue operations under Alternative D-2; or Alternative F, when paired with D-2, due to the uniform grid in D-2; or the vessel transit lane with uniform grid, which would be Alternative F with Alternative D-2.

There are also some minor and beneficial cumulative impacts primarily to coastal, to recreation and tourism, land use and coastal infrastructure, and demographics, employment and economics.

This is the proposed schedule that is on the permitting dashboard. However, that schedule could change based on comments received. For example, if someone identifies a significant issue

that we did not consider in the draft EIS or Supplemental EIS, it requires new analysis.

There are also ongoing consultations including the Endangered Species Act, the Marine Mammal Protection Act, the National Historic Preservation Act and the Manguson Fishery Conservation and Management Act consultation. These need to be completed prior to the signing of the record of decision.

BOEM is working with agencies to incorporate the new project changes into existing consultation. Additional details with ongoing and completed consultations may be found in Appendix C.

BOEM's Vineyard Wind's web page includes a variety of informative documents including Vineyard Winds Construction and Operations Plan, copies of the draft EIS and the Supplemental EIS, and a large-print copy, a large-font copy of the Supplemental EIS, and a link to the virtual meeting room web page.

As mentioned within the virtual meeting room web page, you'll find the aforementioned posters and presentations, along with additional posters

and presentations, like how to comment.

Thank you for your attendance and participation today. We look forward to your comments And your questions. And with that, I'll hand it back to Christine.

CHRISTINE DAVIS: All right. Thank you, Jenn.

As noted on this slide, you can provide comments on the SEIS by using regulations.gov; providing oral testimony during any of our meetings today and later this week; and by mailing comments to the Office of Renewable Energy Programs at the address provided on this slide; and also at the Vineyard Wind virtual meeting page.

If you haven't done so already, and would like to provide comments, please press Star 1 now and speak to our operator. After you press Star 1, please be patient so that we can get everybody in the queue. We have a number of people that are already signed up, and thank you for that. And we're really appreciative of the patience that you can give our operators as they try to get to you as soon as possible.

If you prefer to submit your comments electronically, visit http://www.regulations.gov and search for the Docket Numbers BOEM, B-O-E-M, -2020-0005 and next click on "comment now."

Comments may also be submitted by mail with the envelopes labeled "Vineyard Wind Supplement to the draft EIS," and addressed to the Program Manager at the Office of Renewable Energy, Bureau of Ocean Energy Management. The address is 45600 Woodlands Road, VAM-OREP, or V, as in Victor, A, as in apple, M, as in Mary, dash O-R-E, as in echo, P, as in Paul, Sterling, Virginia, at 20166.

All comments must be postmarked no later than July 27th, 2020. I can't believe it's July already but here we are. July 27th, 2020, is when this comment period closes. BOEM does not consider any anonymous comments. Please include your name and address as part of your submittal. All of your comments will be made part of the public record and may be publicly posted without change.

You may also submit your comments online at regulations.gov.

So please take a few minutes to just put your questions -- we are going to be having questions

at the end of the presentation. But just like we're asking you to queue up to speak in advance, if you have some questions, you can use that Q & A box at any time. We will respond to them at the end of the public comment period.

So, again, those of you on Zoom, please use that Q & A function to enter your questions in. And, if you haven't done so already and would like to speak, please press Star 1.

And that will provide a few comments about how we are going to do the public comment period. So if we can go to the next slide with some of the instructions.

If you're providing comments, your remarks will be recorded, transcribed and entered into the administrative record. Even though you may see your name in the chat box, and we'll have that going in just a minute or two on your screen, if you're online, please state your name slowly and spell your first and last name for us. This will help the court reporter and anyone who's joined by phone only. Also, if you'd like, you can indicate the organization you're affiliated with, if that's applicable.

All comments today will be taken into consideration by BOEM to update the final EIS. The comments you make today will be recorded and also publicly posted.

Please be mindful of time so everyone has the opportunity to speak. I'll ask you to wrap things up at the five-minute mark. If you need more time, we'll put your name at the end of the queue. This will allow everyone an opportunity to speak at least once. And if time allows, it will give you another chance to finish your thoughts.

Please note that if your comments are lengthy, you can also submit them in writing as both written and oral comments are being considered equally.

We will take repeat speakers but only after everyone who is interested has provided their comments at least once.

After identifying the first speaker, it will note who is next to speak. In addition to putting the names in the chat box on screen for those of you on Zoom, I will list the names of those who are up next so that both of you on the phone know who is -- who is in the queue to speak.

Typically, when we're in person, I like to greet you when you arrive, I can hear how you pronounce your name. But since I don't have that luxury today, I sincerely apologize for mispronunciations that I make. I realize that everyone likes to hear our names properly pronounced. I ask for your patience and understanding.

We're going to commit to gathering up questions and comments from today and other meetings and respond to them as appropriate in the final EIS. So, again use the Q & A box for questions that you'd like to have answered after the public comment period.

But now we're going to focus our attention on the public comments. So with that, if you look at -- can we get the names -- there we are there. In the chat box, we've got a State Senator with us, Senators here, then Mariah D. and Captain M. Ted R. and Darlie E.

So with that, I will turn it over to the State Senator from Massachusetts, Senator Cyr?

SENATOR JULIAN CYR: Thank you. I speak to you as a State Senator. My name is Julian Cyr, and

I'm a State Senator for Cape Cod, Martha's Vineyard and Nantucket. And this district that I represent is in the epicenter of the offshore wind discussion on the East Coast for nearly two decades.

Some folks may recall Cape Wind, which began a contentious debate that lasted many years. No matter where you were in that project, it's fair to say that we're in a different place now. That is, in large part, due to years of hard work by stakeholders, regulators, and public officials to responsibly site and permit offshore wind. It is also the result of broad bipartisan efforts, first in Massachusetts and later in other states, to promote offshore wind supply -- wind to supply our energy and jobs and take a leap as a region to combat the climate emergency that is already impacting our communities, our environment, and our economy.

In the Cape and Islands State Senate district, the environment is our economy. Our livelihoods rely on tourism, marine trades and environmental research. Our beaches, our waters, our ponds are our lifelines; it's a product we sell on the global marketplace.

The climate emergency is chipping away at our identity. It's impacting -- it's adversely impacting our biodiversity, our fisheries and our coastline. Homes across Cape Cod, Nantucket and Martha's Vineyard are literally falling into the sea. Warming waters are disrupting our coastal habitats, adversely affecting our fisheries and aquaculture, and even raising our insurance rates.

In the Northeast, offshore wind is our renewable source with the potential to supply a third of our energy needs in the coming decades. The policies alone don't cut it. We need to permit and build offshore wind now.

The knowledge gained from over 20 years of European-based offshore development and thousands of offshore turbines has been put -- has put us in a good position to harness some of the most fierce winds off our shores to be among the most productive in the world. And it can be done affordably as well.

Vineyard 1 -- Vineyard Wind 1 alone is estimated to save ratepayers well over a billion dollars, and we expect comparable benefits for all future projects, all of which rely on local

well-paid workers to construct these projects.

Offshore wind is safe. Over a decade of planning and research has minimized potential impacts to our precious resources; design changes facilitate shared use; locations many miles from shore reduce use and impacts, etc.

Vineyard Wind has worked with the landfall community to address their concerns. Barnstable, which is the town I represent, was largely opposed to offshore Wind during the Cape Wind debate.

But the tides have turned. In 2018, with the support of the residents, the Barnstable Town Council unanimously supported a host-community agreement protecting the town's interests and safeguarding the local environment.

Vineyard Wind has also engaged -- has also engaged local nonprofit Vineyard Power, entering into the nation's first offshore wind community benefits agreement that grew the community voice in offshore wind.

Vineyard Wind entered into a landmark agreement with major national environmental advocacy organizations CLS, National Wildlife Federation, and NRDC on standard setting

protections for the critically endangered North Atlantic Right Whale.

The company has pledged over $38 million in financial support to fisheries.

In their development they have collaborated with institutions of higher education, plus investments for workforce development, and supported wide ranging research efforts on fisheries, migratory species, and habitat.

Offshore wind developers collectively entered into a one-nautical-mile uniform layout agreement supported by the Coast Guard that will facilitate predictable transit to police areas. It was a major concession, which developers forfeited nearly a third of development potential in the leased area in order to address navigation concerns.

Policymakers, stakeholders, and offshore wind companies are building the model for reasonable development.

It was distressing last summer to find the Federal Government would delay approval of Vineyard Wind setting offshore wind in this country back by more than a year. But I was

pleased with the reasoned findings of the report which clearly show that the impacts are moderate and manageable. Importantly, the report acknowledged that whether it's marine mammals, birds, fish, or even cultural resources, the climate of urgency is a real threat and offshore wind can provide solutions.

I urge BOEM to continue the course to properly approve Vineyard Wind and to efficiently permit the projects that will come after it.

I also ask that you accept the uniform layout as agreed to by developers and reject the proposal for additional transit lanes. The Coast Guard has said they are unnecessary, and your report has asserted that they may cause delays, threaten projects, and create more environmental impact.

But most importantly, expanded transit lanes will leave Massachusetts and other states unable to meet our clean energy mandates. Let me repeat it: If the lease areas are further reduced by unnecessary transit lanes, we will not be able to generate the clean energy we need to power our region. This will inhibit not only developers but policymakers as we seek to promote renewable --

renewables to power our communities.

Many of our region's old, dirty and dangerous power plants are coming offline. Vineyard Wind and related projects offer a welcomed opportunity but also a challenge to redefine our energy grids in an affordable, equitable and environmentally responsible way. Make no mistake, as a region, we can develop renewables to power our economy by building offshore wind many miles off our shores, or we can continue -- continue to build dirty expensive power plants in the most disadvantaged communities in our region. The choice has never been clearer.

Thank you for the opportunity to testify in support of Vineyard Wind 1. Thank you.

CHRISTINE DAVIS: Thank you, Senator.

For the courtesy of our operators and our court reporters, would you mind spelling your name please, so we've got it --

SENATOR JULIAN CYR: Yep. It's J-u-l-i-a-n; my last name is C-y-r. And I'm the State Senator for the Cape and Islands district.

CHRISTINE DAVIS: Thank you so much.

And the other folks that are on Zoom, I just

wanted to note that on the screen, you'll see Jim Bennett you heard from him earlier today, and Jenn, but also Michelle. They are very closely listening to your comments today. And if we were in person, they'd be sitting next to me, but we'll have to do a photo for today. So they will be participating actively in the Q & A session as appropriate later on too. I just wanted to note that.

The other bit of instruction that I want to provide is that we are using the chat function to list five speakers at a time. We aren't putting everybody's name in there. So if you have spoken to the operator already, we will have you in the queue and we will continue to cycle through these names, and we'll add more names as we go.

So next we've got Mariah D., then Captain M. Monti, and then Ted R. And Maria M.

So with that, Mariah D., you are next to provide comments.

MARIAH DIGNAN: Hello, can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you, Mariah.

MARIAH DIGNAN: Great, thanks.

My name is Mariah Dignan, M-a-r-i-a-h D-i-g-n-a-n, and I'm the Long Island organizer for Climate Jobs New York. We are a growing statewide coalition of labor unions representing 2.6 million members advocating for a clean energy economy as scaled climate science demands, and for creating good union jobs and more resilient communities in the process.

As a 25-year-old acutely aware of the impacts climate change has and continues to have globally and on the island, I enthusiastically support Vineyard Wind 1, which clearly demonstrates responsible offshore wind development.

I'd like to take a moment to thank BOEM for completing the SEIS during the COVID-19 pandemic. As we fight to address this public health crisis, BOEM is doing the necessary work to move offshore wind forward.

We are undeniably addressing intersectional crises. Public health, the economy, environmental justice, and climate change are interwoven with offshore wind development. At a moment when we must make large-scale investments to restart our economy, we should take action on clean energy at

the level we know we need to take on climate change. We have a once-in-a-generation opportunity to put ourselves in the path to a low carbon future, while creating new quality careers that provide family sustaining wages and benefits for communities across the nation.

Vineyard Wind 1 is slated to be the United States first commercial scale offshore wind project in federal waters. Vineyard Wind will propel the United States offshore wind industry and deliver clean, renewable and cost effective power to Massachusetts. In addition, this project will provide thousands of good union jobs and attract global supply chain manufacturers to the northeast.

Vineyard Wind 1 is expected to create 3,600 local jobs that provide good wages and benefits. This project will set the stage for offshore wind developers to work in conjunction with organized labor. Labor unions offer world-class training programs through apprenticeship. By coordinating with industry, we will continue to lead in training offshore wind workforce for the very near future.

The developers have listened, engaged and altered construction plans based on community feedback. This is something we need to replicate in other projects. We support the one-by-one nautical mile layout compromise that responds to commercial fisheries' concerns. Not only does the Coast Guard approve of this mitigation effort, but adding additional mileage to the layout would only take away from the efficiency and carbon reduction potential the project is meant to address. The one-by-one nautical mile compromise is important to the overall success and viability of the project.

To maximize the economic development and job opportunities in offshore wind, the industry and its potential workforce needs confidence that demand in the US offshore wind market is real. This means we need to move forward promptly in the permitting process, set the stage for this nascent industry. This starts with Vineyard Wind 1. By launching this industry now, the potential for additional jobs multiplies exponentially with the potential for hundreds of thousands of good paying jobs across the United States.

I urge BOEM to follow the current permitting schedule for this project and to move forward expeditiously on this and other offshore wind projects.

Focusing on my home state of New York, the national leader in offshore wind energy standards, the only way to achieve 9 gigawatts of offshore wind energy by 2035, the state's goal, enshrined last year in legislation, is to advance permitting in a timely manner and develop safe and fair conditions with community stakeholders, as was done in Vineyard Wind 1.

We can provide long term sustainability, economic development, and create a skilled green economy workforce for a consequential new industry.

In this time of bold transformation, smart investments in a clean energy future can simultaneously put people back to work, build infrastructure to address climate change, and spurn -- spur economic development in our communities.

Thank you for your time and consideration.

CHRISTINE DAVIS: Thank you.

All right. Next we have Captain Monti then Ted R., Maria M., Laura M., and John O'Keeffe.

So with that, I'll turn it over to Captain Monti.

CAPTAIN DAVID MONTI: Wonderful.

My name is Captain Dave Monti, M-o-n-t-i. I am a for-hire charter captain and recreational fishermen from Rhode Island; I am Vice President of the Rhode Island Saltwater Anglers Association, which has 7,500 members in Massachusetts, Rhode Island and Connecticut; I am Vice Chair of Rhode Island's Marine Fisheries Council; and a board member of the American Saltwater Guides Association; I also am a fisheries recreational consultant; and I'm a fishing writer for the Providence Journal, the major daily newspaper in Rhode Island, as well as 13 other blogs and recreational fishing publications.

Many recreational anglers are supportive of offshore wind, including the Vineyard Wind Project and other projects in the lease areas adjacent. They are supportive because it's renewable energy in the structure, which the pylons actually create for recreational fishing.

But this support comes as long as wind farms are developed responsibly with research before, during and after construction to measure any negative or positive impacts on fishing habitat. And, yes, I say positive impacts because I, as other anglers, believe that offshore wind farms will have a major positive impact on habitat and fish, just as the Block Island Wind Farm research has shown in angler experiences there, as well as a recent peer reviewed study that indicated that fish abundance inside European offshore wind farms is much greater than the abundance of fish outside of the wind farm and control areas.

The study was published in the March issue of Fishery Science and Agriculture Magazine, and it was titled "Mega analysis of Fish Abundance of Offshore Wind Farms." And it concluded, quote, "That the overall effect was positively indicating a great abundance of fish -- a great abundance of fish inside the wind farms for both soft bottom and complex bottom fish species."

And as you know, we have both in the cumulative impact area of these wind farms.

Hundreds of studies in Europe were looked at

but only those that were peer reviewed were accepted to this meta analysis.

Another example of fish abundance in wind farm areas is the Block Island Wind Farm. Recreational fishing at the Block Island Wind Farm has been good and perhaps a bit better -- better, and I know that from personal experience and the experience of my charter captain and private recreational angler colleagues. This is -- even though fish pressure in that area has increased well over 200% by recreational anglers, and it is now a destination, just as all wind farms will be a destination for recreational anglers in the future.

At the Block Island Wind Farm, there are gillnets, commercial gillnets set right up to the turbines and close by. There are commercial fishermen culling alongside the wind farm. And the wind farm -- excuse me, in the wind farm, and recreational anglers fish right up to the pylon. So all this activity occurs just how fishing should be in wind farm areas.

The cumulative impact and benefit to recreational fishing of offshore wind farms will

be a major not a minor benefit as outlined in the FDIC. As defined in the FDIC, recreational fishing will have, quote, regional and population level impacts as the research to date has shown. This suggested change from minor benefit to a major benefit is not only reflective in available research but will also be the primary reason why fish and fishermen will be attracted to wind farms both in areas that have no fish now, and in those areas where fishing will be enhanced.

It is clear offshore wind will have a positive cumulative impact on recreational fishing, as there will be more fish, which will impact commercial fishing in a positive way as well. To this end, as some of my colleagues have suggested, additional scow protection and structure should be placed at the base of pylons to create habitat and fish for recreational anglers. Both recreational fishing and commercial fishing are important to the people of the United States of America.

In many states, like my home state of Rhode Island, according to NOAA's Fisheries Economics of the United States, recreational fishing has a

greater annual sales, economic impact in commercial fishery -- commercial fishing land than the state does.

So as we plan and develop offshore wind, we need to be mindful of recreational fishing's impact and the major positive impacts offshore wind farms will have on fishing.

And I would like to thank, if I haven't already, BOEM for it's wonderful virtual meeting room, for Vineyard Wind for all the work that it has done here, and lastly for the National Environmental Policy Act, which has afforded me the opportunity to speak today and the opportunity of my other fishing sisters and brothers as well.

Thank you.

CHRISTINE DAVIS: All right, thank you.

Next we have Ted R., then, Maria -- Maria, and Laura and then John.

And just a reminder, thank you -- yeah, there we go on the screen now. Limit your comments to five minutes. The operator will unmute you, if you can state and spell your name.

And I believe that a number of you already press Star 1 to get in the queue. It does take a

little bit, so please be patient. We do have quite a few speakers; I think we're getting close to about 30. So do know that we will do our best to get to absolutely everyone and get your comments.

And so if we can keep it to about five, that way, we'll be able to get through everybody. And if you have more than five, consider the written format, or potentially, you know, do your comments, and if we get through everybody once in the queue, potentially we may have the opportunity to come back to you.

So with that, I am going to turn it over to Ted. If you can state your name. Thank you.

TED ROOSEVELT: Okay. My name is Ted Roosevelt, R-o-o-s-e-v-e-l-t. And, I guess for full disclosure, you should probably put a Roman IV after my name.

My family and I've been coming to the Vineyard and the -- the islands for half a century. We love the recreational benefits that are here, but we also share the same concern that Lisa Engler talked about.

Climate change represents a horrible threat to the Vineyard, and we must move as fast as we

possibly can to address it. And I think that that should be self-evident to -- to most people on this -- on this call.

Secondly, I want to address the economic advantages that the Vineyard Wind Project offers us. The pandemic, the COVID-19 pandemic will continue to adversely affect the U.S. economy. Economic growth depends on three inputs: Investment, an increased demand in labor and an increase in productivity.

Clearly, the Vineyard Wind is a major investment. It will increase the demand for labor, as other speakers have already mentioned, and it will result in increased productivity. And it will be an important step in helping to offset the unfortunate economic damage that the continuing COVID pandemic is likely to have.

And finally, I want to address -- and I was delighted to hear Captain Monti talk about the value and importance to recreational fishing of Vineyard Wind.

I was concerned enough about this, and in my capacity being Chairman of the Center for Climate and Energy Solutions, when I was in Europe last

year, I took the opportunity to talk to representatives from the Danish government who were involved in offshore wind. Denmark, by way of background, was the first country to really develop offshore wind. And they've now embarked on an -- because it was so successful, they've embarked on a major program to increase total offshore wind reduction to 10 gigawatts by 2030.

So I had had the opportunity to talk to the Minister for Environment, Lisa Vermillion, to really interrogate her as to what did Denmark learn from the adverse impact of offshore wind? There was absolutely no adverse development of offshore wind, nothing the cables were causing.

And she repeated many of the points that Captain Monti had made, which I already tended to believe, but I wanted to hear from an authority in a country which had been engaged in offshore wind since the early 1990s, which I think is a good -- it's comforting, and I think we can rely on that as a basis for making this decision.

So simply, in conclusion, I want to thank BOEM for allowing us, and me, the opportunity to talk and give my comment. But I would hope that

we would advance and start constructing this project as soon as -- as soon as possible, because anything we can do to increase our use of renewable energy to address climate change is the only way that our grandchildren who are under 10 will live to see the same things that we see. Otherwise, we're going to lose the recreational benefits and -- that these islands afford us.

So thank you very much for the opportunity to speak to you.

Thank you for your comments.

Next, we have Maria, then Laura M., John, Richard E., then Gail.

So Maria?

MARIA MARASCO: Good afternoon. My name is Maria Marasco, M-a-r-a-s-c-o. I'm the Deputy Director at the Cape and Vineyard Electric Cooperative here in South Yarmouth, Massachusetts, on Cape Cod.

I'd like to -- first like to thank the administration and BOEM for all its efforts to support renewable energy. I'd like to thank you all, James, Michelle, Jennifer and Christine, for conducting this session today.

The Cape and Vineyard Electric Cooperative, known as CVEC, is a nonprofit quasi governmental organization in Massachusetts that provides 32 member municipalities and related governmental organizations a way to work together to integrate clean renewable energy. Our members consist of municipalities, counties and schools. We are unique and offer our organization as a model that could possibly be replicated in other parts of our region.

CVEC can develop and own renewable electric generation facilities and procure and sell long-term electric supply or other energy related goods at competitive prices to help stabilize electric rates for CVEC members.

For the past 13 years, CVEC has been initiative -- initiating and managing renewable energy projects. To date, we have 77 projects in development, with 32 projects delivering renewable energy. When all projects are completed, the total portfolio will yield approximately 57 megawatts of renewable energy for Cape Cod, Martha's Vineyard, Nantucket and other locations in Southeastern Massachusetts.

CVEC bundles its project developments and advertises the opportunities. Our first three photovoltaic rounds yielded over $14 million in savings to our participants, and rounds four and five are underway, which will yield another two and a half million dollars annually in savings, as well as realize significant reductions in greenhouse gas emissions.

While CVEC accomplishments on behalf of the municipalities, counties and schools we serve are significant and unparalleled in Massachusetts, we recognize the need to do more to meet the larger national demand for renewable energy amidst climate change.

As the first mover in renewable energy development in our region for the past 13 years, the Cape and Vineyard Electric Cooperative is here today to support the Commonwealth and Federal Government's efforts to responsibly site and develop the proposed Vineyard Wind 1 Offshore Wind renewable energy project. CVEC stands ready to partner with Vineyard Wind to even better serve our local municipalities, counties and schools. And we applaud Vineyard Wind for their efforts to

build and begin operations as the first large-scale commercial offshore wind development.

We recognize that offshore wind is a sustainable and clean source of energy in one of several -- several renewable energy options that has significant potential to advance the diversification of energy sources and meet Governor Baker's goals for greenhouse gas reductions here in the Commonwealth.

We know that it is the policy of the United States to promote the clean and safe development of domestic energy resources to ensure the nation's geopolitical security, and provide electricity that is affordable, reliable, safe and secure and clean. It is the mission of CVEC to provide the same kind of renewable energy to its member communities and community organizations.

We believe that offshore wind power is a viable alternative and necessary addition to existing clean and reliable renewable energy sources.

For our region, we believe that offshore wind will have a positive impact on meeting the seasonal changes. We are hopeful and do believe

that Vineyard Wind, along with the offshore wind industry, will take sufficient action to mitigate the impacts on the environment, marine life, the fishing industry, and navigation and vessel traffic.

Thank you, and we hope that BOEM will approve the Vineyard Wind 1 Project within the lease areas to meet the New England's demand for renewable energy as soon as possible.

Thank you, Christine.

CHRISTINE DAVIS: Thank you for your comments.

Up next, we have Laura, then John, then Richard and Gail.

So with that, I will turn it over to Laura, Laura M.

LAURA MORTON: Hi, this is Laura. Can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you, Laura.

LAURA MORTON: Great.

My name is Laura Morton, L-a-u-r-a M-o-r-t-o-n, and I am the Senior Director for Offshore Wind Policy and Regulatory Affairs at the

American Wind Energy Association. AWEA is the national trade association for the American wind industry representing more than 1,000 member companies with a common interest in encouraging the expansion and facilitation of wind energy resources in the United States, including offshore wind.

The wind industry appreciates that the U.S. Bureau of Ocean Energy Management, BOEM, released its draft Supplemental Environmental Impact Statement for the Vineyard Wind offshore wind project, which will be the first utility-scale offshore wind project in U.S. waters. The industry further appreciates BOEM's robust analysis of the future build-out of offshore wind along the Atlantic Coast over the next several years.

The U.S. is on the cusp of a rare generational opportunity. We have the chance to build an entirely new domestic industry in the form of offshore wind. Doing so will contribute to tens of thousands of new jobs, revitalized ports, and expanded manufacturing, among other benefits.

A March 2020 study published by AWEA and

cited by BOEM in the draft SEIS finds that deploying up to 14,000 megawatts of offshore wind over the next five years will result in up to 45,000 jobs and up to 14.2 billion of economic input/output, with nearly double those numbers by 2030.

AWEA will be submitting detailed written comments on the SEIS later this month.

In my comments today, I would like to highlight a few key aspects of the BOEM analysis. First, BOEM appropriately acknowledges the many beneficial aspects of offshore wind, including economic and environmental benefits.

Second, AWEA concurs with BOEM finding little cause for concern for most of the areas it analyzed. BOEM comprehensively reviewed nearly two dozen potential areas of impact, including various species, tourism, sediment, lighting and air traffic. For all but a few, BOEM found the impacts, both from Vineyard Wind and the cumulative offshore wind built, to be negligible, minor, or in a few cases, moderate.

BOEM's analysis in these areas was well reasoned and cited key scientific literature and

other evidence.

As the DSEIS largely confirms, AWEA believes that advancing Vineyard Wind's and other pending offshore wind projects is a good news story for our country.

With respect to the potential impacts to commercial fishing, the offshore wind industry recognizes and embraces the importance of creating an ocean environment where we can coexist with other ocean users, including commercial fishermen. Developers have held thousands of meetings with fishermen and organizations who represent them up and down the coast, as well as participating in joint working groups and task forces with commercial fishing representatives, including the Responsible Offshore Development Alliance's joint industry task force, and the Responsible Offshore Science Alliance. Developers have made changes to their projects, including changes that come at significant economic costs, to address concerns raised by the fishing community and have strived to continue productive partnerships. The industry is firmly committed to continuing and expanding our partnerships with the fishing community as we

work together to drive our country's economy forward.

Contrary to some of the messaging around the DSEIS, it is important to recognize that BOEM only found major impacts on commercial fishing in the cumulative analysis, not with respect to Vineyard Wind. I would add that major does not mean unmanageable.

Further, two of the most significant drivers for the major finding are actually beyond the control of offshore wind projects. One, changes in distribution and availability of fish due to climate change; and two, reduce stock levels due to fishing related mortality. As a carbon-free energy source, offshore wind is, in fact, part of the solution to the first of these drivers.

Finally, BOEM correctly acknowledges that there are ways to lessen the impacts from offshore wind on this industry. With respect to safe navigation, for example, AWEA agrees with a BOEM finding when analyzing alternative D-2, which heavily rely on evidence and analysis from the U.S. Coast Guard -- that one-by-one nautical spacing with a uniform east-west grid layout for

turbines in the adjacent Massachusetts Rhode Island lease area reduces the potential impacts to commercial fishing, provides sufficient transit pathways through the wind farm, protects search-and-rescue capabilities and protects safe vessel navigation.

By contrast, BOEM and the Coast Guard have identified significant concerns with a two-nautical-mile or a four-nautical-mile transit lanes that are reflected in Alternatives F. For example, the DSEIS raises concerns about the transit lanes impacting navigation safety through increased funneling of traffic, creating choke points, increasing vessel density, and increasing space-use conflicts.

Because Alternative F is worse for vessel navigation, and because it would significantly harm the economic prospects of the projects in this area, AWEA urges BOEM to reject Alternative F and adopt Alternative D-2.

Thank you for the opportunity to speak. AWEA looks forward to providing extensive written comments on the DSEIS later this month.

CHRISTINE DAVIS: Thank you.

Okay, next we have John, then Richard E., Gail, and Adrienne, David B., and Paul F.

So with that, I'll turn it over to John.

JOHN O'KEEFFE: Good afternoon, can you hear me?

CHRISTINE DAVIS: I can hear you just fine.

Thank you, John. Go ahead and state your name for us. Thank you.

JOHN O'KEEFFE: Great, thank you.

My name is John O'Keeffe. John O, apostrophe K-e-e-f-f-e. I am the head of marine affairs for Orsted North America, which holds several leases in the Mass Rhode Island wind energy area.

Thank you for allowing me to offer this brief statement on the Vineyard Wind Supplemental Environmental Impact Statement. Orsted sincerely appreciates BOEM's time, effort and dedication to selecting an alternative that best ensures productive coexistence among leaseholders and other ocean users in the unique wind -- wind energy area south of Martha's Vineyard.

I'm before you today to discuss navigation safety, a topic in which I have been deeply involved over the past several years in numerous

meetings and conversations with Vineyard Wind, other lease holders, BOEM, the U.S. Coast Guard, state regulators, the commercial and recreational fishing industry, and many other key stakeholders.

The vast majority of those conversations were focused on two key issues: One, turbine spacing and layout; and two, vessel transit lanes.

Orsted would suggest that the recent U.S. Coast Guard Port Access Route Study of the Massachusetts Rhode Island wind energy area, commonly referred to as the MARIPARS report, completely and satisfactorily addresses both issues.

Indeed, any balanced examination of the U.S. Coast -- Coast Guard's MARIPARS report, when compared to the alternatives proffered in the Supplemental EIS would lead one to conclude that Alternative D-2 provides the best balance of interest between various waterway uses while maintaining and even improving navigation safety and also preserving the Coast Guard's ability to conduct effective search-and-rescue

In its final MARIPARS report, the Coast Guard made three specific recommendations regarding

spacing and layout: One, lanes oriented in a northwest to southeast direction .6 to 8 nautical miles wide; two, lanes oriented in an east-west direction one nautical mile wide; three, lanes oriented in a north-to-south and east-to-west direction one nautical mile wide to facilitate helicopters search-and-rescue.

Alternative D-2 is the only alternative in the SEIS that meets all three of the Coast Guard's criteria for navigation safety.

Notably, the Coast Guard has clearly stated that not only would transit lanes as proposed in Alternative F fail to preserve navigation safety, such lanes would actually increase risk and make navigation more dangerous.

Indeed, in its Federal Register notice announcing the availability of its final MARIPARS report, the Coast Guard stated and I quote, "Although these larger navigation corridors may appear to provide more area for navigation, they actually provide far less area than the numerous corridors that result from the recommended array and spacing."

That recommended array and spacing being

Alternative D-2 and SEIS.

Additionally, the Coast Guard goes on to say that transit corridors, as proposed in Alternative F, would make navigation more challenging, as most traffic would then be funneled into the corridors thereby increasing traffic density and risk for vessel interaction.

The Coast Guard further concluded that the spacing and layout, as recommended in the MARIPARS report, and as proposed in Alternative D-2, would provide sufficient space for certain vessels that fish in the wind energy area to continue fishing after the wind farms are constructed.

Moreover, the Coast Guard found that wider transit lands, as proposed in Alternative F, would largely preclude fishing in the wind energy area.

Lastly, the Coast Guard concluded that an array layout, as recommended in the MARIPARS report, and as proposed an Alternative D-2 would result in the functional equivalent of 231 navigation corridors that can safely accommodate both transits through and fishing within the wind energy area.

For these reasons, among many others, Orsted

strongly endorses and supports Alternative D-2 over all others. And though I speak only for Orsted this evening -- or this afternoon, excuse me, I would respectfully remind BOEM that Orsted, Vineyard Wind, and all other lease holders in the Mass Rhode Island wind energy area have unanimously committed to a uniform grid layout in a north-south orientation with a minimum one-nautical-mile spacing between towers per our joint letter to the U.S. Coast Guard of November 1st, 2019, provided there is no additional requirement to accommodate transit lands as proposed an Alternative F.

Thank you for the opportunity to provide comments on this issue of national and even global significance. We remain confident that our offshore wind farms can coexist with all ocean users, including the Northeast commercial fishing industry. And we will continue to work towards that goal with all stakeholders.

CHRISTINE DAVIS: Thank you for your comments.

Up next we have Richard, then Gail, then Adrienne, David and Paul. So I'll turn it over

now to Richard E.

RICHARD ENGLAND: Hey, can you hear me?

CHRISTINE DAVIS: We can hear you just fine. Thank you, Richard.

RICHARD ENGLAND: Great. So it's Richard England, R-i-c-h-a-r-d E-n-g-l-a-n-d.

Thank you to BOEM for hosting us today, and we certainly appreciate the flexibility of allowing us all to come together virtually.

As I said, my name is Rich England. I'm the Vice President of Government Affairs for the National Ocean Industries Association, or NOIA. An almost 50-year-old organization, we represent all segments of the offshore energy industry. This includes traditional fossil fuel as well -- such as oil and gas primarily in the Gulf of Mexico, and also important new sources of energy like offshore wind.

Further, our members include not just energy developers but also the businesses, large and small, who do the work of building, supplying and maintaining these projects.

We've seen in the Gulf of Mexico just how important the service and supply industry can be

to a local economy. And we know that offshore wind provides an enormous opportunity to provide that growth along the East Coast, and it is an enormous opportunity.

According to 2019 estimates, we have a roughly $70 billion market for America's coasts for offshore wind in the next 10 years. That's clean, reliable energy in places like New England and New York, where building infrastructure onshore is difficult.

Building offshore wind will also hopefully offset some of the rushy gas that is occasionally shifting to Boston Harbor for wind energy.

Offshore wind is an incredible opportunity not just for the people in communities like where I grew up in Bristol County, Massachusetts, but also for national security, and a national supply chain hungry for the business.

All these opportunities will only come to pass, however, if we get the regulatory process right when we complete this Supplemental EIS. We at NOIA applaud the Bureau for taking the next step by releasing the supplemental report, and we also applaud BOEM for recognizing that the

environmental impacts of this project are manageable. In almost every area, the expected impacts are negligible to moderate; and in many areas, moderate benefits can be expected.

For a new and significant infrastructure project that will bring electricity to communities across the region, we think this is an incredibly light touch in terms of local impacts. We are virtually certainly building new energy capacity with other forms of energy, like coal, in the communities of Coastal New England, would bring far more significant negative impacts.

Of course, though, there are some efficient communities who have significant concerns. We at NOIA respect that fact and agree that fishing is and will remain vital to the New Bedford, Point Judith, and beyond.

I would, though, like to express caution regarding one point in particular some of the previous speakers have hit upon, which is Alternative F.

As you know, this Alternative F would establish up to four-nautical-mile-wide transit lanes to the closed wind energy areas. BOEM's

analysis clearly says that this change would increase the impact producing factors, or IPFs, of offshore wind and expand the area we're looking at to produce energy significantly.

NOIA firmly agrees with the concept of a uniform layout. We defer to the experts of the Coast Guard, and we've reviewed the uniform well placement layout for offshore wind projects.

Just this year in the Port Access Route studies, we were told that wider lanes through these development areas similar to Alternative F, quote, "May appear to provide more area for navigation. They actually provide far less areas in the numerous corridors that result from the recommended during spacing," end quote.

The Coast Guard continues with this Alternative F approach -- type approach would also block fishing in an area of almost 1400 square miles. We also know that several of our member companies work -- WF Baird & Associates, who reviewed the matter, and found that a one-by-one nautical mile approach would be best to accommodate the existing efficient operations in the region.

NOIA believes that offshore wind and commercial fishing can coexist in a way to provide a living and electricity to people across the region. We encourage BOEM to recognize this, recognize the manageable impacts of offshore wind, the net benefits offshore wind will bring, and help these projects move forward by completing this EIS in a timely manner.

Thank you very much, and I look forward to the rest of the testimony.

CHRISTINE DAVIS: Thank you.

All right, up next -- did you state and spell your name by chance? I can't remember if you did, sorry. Oh, already gone. Okay. We'll go with that then.

Up next, we have Gail. Gail, would you please join us and state and spell your name please. And then after that, Adrienne, David and Paul.

GAIL PAGE: Good afternoon. My name is Gail Page, that's G-a-i-l P-a-g-e. I chair the Green Sanctuary, a climate justice group, at the Unitarian Universalist Church of Reading. My concerns for our climate future is what brings me

here today.

I am grateful for this opportunity to share with the Federal Bureau of Ocean Energy Management the reasons I request your immediate approval of Vineyard Winds 1. Your approval cannot come a moment too soon.

The EPA website says that worldwide, the burning of coal, natural gas and oil for electricity and heat is the largest single source of global greenhouse gas emissions. Vineyard Wind and subsequent Atlantic corridor offshore wind projects will allow for the closure of many fossil fuel plants currently used on the East Coast.

There is near consensus among scientists and policymakers educated on the issue that time is running out to reduce emissions before global heating becomes unstoppable. Your approval is critical not tomorrow, not next year, but right now, although December 2020 will do.

You and other organizations began a public stakeholder process 20 years ago. Extensive reviews has been done by federal, state and local experts and regulators.

According to an article published by CNBC on

February 6, 2020, Europe is way ahead of us already providing 22 gigawatts of clean renewable energy to its residents. And they install increasingly more wind farms every year, so it must be working pretty well for them.

We cannot afford to delay any longer. Vineyard Winds is ready to go. The technology is well known and reliable. The time to approve the project is now.

In addition to reducing global heating, your approval will greatly reduce pollution wherever fossil fuel plants are closed, thanks to the project, freeing the air of the pollutants that impact human health and wellbeing.

In addition to the well-known health impacts of these pollutants, it may also be related to autism spectrum disorder and Alzheimer's disease. These polluting plants are often located in poor communities and communities of color. Your approval upholds way overdue environmental justice for these community.

Your approval will allow for the creation of over 3,600 local full-time jobs over the life of that project starting with instant construction in

2021. These jobs will be of a great variety from manufacturing and construction to design and engineering and more. Your approval is an easier financial decision than ever.

A new U.S. Department of Energy study shows that the cost of generating more power to land-based wind turbines is now cheaper than buying fuel at an expected price from an equivalent natural gas plant. And offshore -- offshore's winds costs have fallen sharply in recent years.

Your approval is also easier today as a result of the effort Vineyard Wind has put into meeting the needs of various stakeholders, including fisher folk, indigenous -- indigenous populations, conservationists and others.

For example as part of an agreement with the commercial fishing community, Vineyard Wind designed a one-by-one-nautical-mile grid already referred to today. This grid assures over 200 transit lanes for commercial fishing and recreational boating. The Coast Guard supports this design, as some very knowledgeable people before me described as well.

However, like some of them, also, I understand that the Bureau is considering requiring additional transit lanes. These additional lanes will decrease the amount of renewable energy even more than the 30% decrease already created by the current one-by-one grid design. We cannot afford to lose any more renewable energy from this project. We are faced with enormous problems from global heating if we don't act now to reduce greenhouse gas emissions.

Large sections of the world are on track to be uninhabitable by 2070 leading to a climate migration problem that will dwarf our current migration challenges. Millions to billions of people will die from food and water scarcity as arable land to reverts to desert. Ecosystems will be harmed, species extinction will increase, hundreds of thousands of deaths will occur from super storms and severe weather. The cost of responding to these events on an ongoing basis will exponentially surpass the cost of responding to climate change now by reducing greenhouse gas emissions and doing other climate mitigation steps like carbon sequestration.

So much rides on your decision. Please approve Vineyard 1 and the on-deck offshore wind projects ready to follow as soon as possible.

I would like to thank you also for pivoting so skillfully to virtual hearings and displays and making this opportunity for stakeholder comments possible.

Thank you.

CHRISTINE DAVIS: Thank you for your comments.

Up next we have Adrienne, then David B., as in boy, Paul F., Nathanael, David Z., and then Winston.

So with that, I'll turn it over to David B.

OPERATOR: Oh, no, you forgot Adrienne.

CHRISTINE DAVIS: Oh, I'm sorry, sorry, sorry, sorry. Adrienne, you're up. Sorry. Thank you for catching me. I got ahead of myself here. Thank you.

Adrienne, you're up next. If you can state and spell your name. Thank you.

ADRIENNE ESPOSITO: Thank you so much.

My name is Adrienne Esposito. I'm the Executive Director of Citizens Campaign for the

Environment. We are a bistate, in New York and Connecticut, environmental and public health protection organization with 125,000 members.

First and foremost, I know you can't get tired of hearing it, thank you for releasing the Supplemental EIS, and also for plowing ahead during very challenging times with the COVID crisis. We also want to extend a thank-you to Vineyard Winds for voluntarily agreeing to the one-by-one nautical mile spacing design, and also for setting a very high precedent and a high bar by entering into the agreement to protect Endangered Right Whales and also other marine mammals with the agreement with the National Wildlife Society, NRDC, and the conservation law foundation.

Primarily, I want to say we are asking you to outwardly reject Alternatives E, F, and G.

E is obviously the alternative that would limit the amount of turbines, which we believe is a nonsensical alternative. Why would we limit the solutions to the problem we're working to solve, which is climate change? And transitioning from fossil fuels to renewable energy?

One of the things that seems to perhaps be missing in the draft EIS is that we have to have a long-term view. And with Alternative E, it only addresses a short-term impact without overlaying the long-term benefits. So all large scale energy infrastructure has some impact on our environment. All of them do. But the question is, which one has the least impact and cause us to be sustainable over the long haul? And the answer to that is renewables and offshore wind.

The other alternative, which is F, require -- or asked for a four-by -- four-nautical-miles-by-four-nautical-miles spacing, which also causes projects to really be not ones that can come to fruition because of economics. So again, we're leaving them out of the equation.

These solutions were crafted to address our commercial fishing and our recreational fishing industries, which I totally agree we need to be in partnership with. As someone who grew up with a fishing pole in one hand and a crab trap in the other, you know, our fishing industries are critical to our economy but also to our culture

and American way of life.

But we can't be shortsighted. The greatest challenge to this viability and the sustainability and the longevity to our fishing industry is climate change.

You may be aware of a recent study that just came out saying 60% of all fish species could be unable to survive in their current areas in the next 80 years. That's not a very long time. The study cites warming waters, depleted oxygen levels, which means the depletion of the rate of survival for fish eggs and juvenile fish, and the inability of fish to be able to have enough energy in warmer waters to do the amount of -- of foraging they would need for food sources.

So we don't want to, on the short term, think we're helping commercial and recreational fishing industries, when in the long term, we're actually hindering them by not transitioning full speed ahead from fossil fuels to renewable energy.

So we feel very strongly that when we change our energy sources, and we transition away from fossil fuels towards renewables, we literally change the future of our planet and of our nation,

and we change it for the better.

So I'm asking you to please stick to the schedule of the December of this year.

Thank you for your work, that this particular Vineyard Wind farm project sets a precedent for not only the East Coast, but for the rest of America. And it will make the transition from fossil fuels to renewables real. It is the first step on a long journey, but it is the first step.

And you've done your due diligence. We appreciate the multitude of hard work that has gone into this. And we look forward to a better future.

Thank you for the opportunity to comment.

CHRISTINE DAVIS: Adrienne by chance, can you state and spell your name for us, please? I think in my little bobble there, I didn't ask you to do that. So if you could, that would be great. Thank you.

ADRIENNE ESPOSITO: Yes, A-d-r-i-e-n-n-e; Esposito is E-s-p-o-s-i-t-o. Thank you.

CHRISTINE DAVIS: Great, thank you. And as the screen reflects, I'm going to take just a little bit of a break here and do note that David,

Paul, Nathanael, David Z., and then Winston are up.

After that, we'll take just a short break to give everyone a chance to refresh their beverages, stretch a little bit.

But, again, if you haven't had a chance to press Star 1 to get in the queue, please do so. The last folks have been doing a great job sticking to the five minutes. That's much appreciated. That allows us to get through this list of folks that we have.

So with that -- hey, I'm gonna turn -- oh, one other thing I'd like to mention. A number of you have been using the Q & A box at the bottom. If you do have questions, please use that throughout. And, again, we will address those questions after we complete public testimony.

So with that, I'll turn it over to David B. David? Hello? Yes, I think we got you for a second.

DAVID BORRUS: Okay. Can you hear me?

CHRISTINE DAVIS: I can hear you just fine now. Thank you.

DAVID BORRUS: Okay. Great. Okay.

My name is David Borrus. I'm the business manager of Pile Drivers and Diverse Local 56. I'll spell my name, it's David, D-a-v-i-d, and B-o-r-r-u-s.

Today I'm speaking on behalf of the North Atlantic State Carpenters and the Eastern Millwright Council. And they're Joseph Byrne, Executive Secretary-Treasurer of the North Atlantic States Carpenters, and Robert Loubier Executive Secretary-Treasurer of the Eastern Millwright Council has submitted written testimony. I'm going to read it now.

First, I would like to thank BOEM for giving me this opportunity to speak on behalf of the Supplemental Environmental Impact Statement that has been submitted. And we appreciate all you've done to make this opportunity for so many of us to speak.

The pile drivers, divers and millrights are proud members of the United Brotherhood of Carpenters, and we are longtime supporters of the Vineyard Wind 800 megawatt offshore wind energy project at the BOEM Outer Continental Shelf 0501 lease site. Additionally, we believe that the

Supplemental Environmental Impact Statement submitted in December 2019 fully addresses the concerns which were raised by other stakeholders when reviewing the first environmental impact statement.

We strongly urge BOEM to approve this Supplemental Impact Statement, and allow this project which is critical to the entire U.S. offshore wind industry to move forward.

Specifically, we want to point out that Vineyard Wind has revised the overall grid layout for the placement of turbine towers go out for one nautical mile between each tower in response to commercial fishing industry concerns for vessels transiting the lease site. We recognize they're legitimate worries for how the project will impact fishermen. It is clear that Vineyard Wind has taken their issues seriously, redesigned the layout, which has the support of the United States Coast Guard, will come at considerable expense to the developer. The longer transmission cables will incur costs, as well as the operational costs of 84 new borings at the new locations. And the company has committed a further $17 million to a

fund to mitigate any impacts to fishing that may occur.

However, we believe the current demand by -- by commercial fishing interests for a four-nautical-mile-wide transit corridor is unnecessary and will make the project financially unfeasible. More to the point, it will jeopardize the a future of offshore wind industry in New England with major impacts immediately for both jobs and the regional economy.

Like to point that our position that the coastal waters of New England are a shared resource, and our members have a right to make a living and support their families from these waters as well. We collectively represent more than 1000 skilled marine construction workers, pile drivers, divers, millrights, turbine mechanics, welders and riggers, and provided the majority of the offshore workforce for the nation's first offshore wind installation, Block Island Wind.

Our New England membership is committed to advancing the offshore wind industry, and we are more than ready to step up and speak out in favor

of Vineyard Wind. We see this very clearly as a win-win-win opportunity, and we are glad to tell you why.

Number one, energy independence. Vineyard Wind will help Massachusetts produce its own clean renewable energy. For generations as citizens of the Commonwealth and dependent on imported fossil fuels to power our homes and economy and always sending a sizable portion of our earnings to out-of-state power generators. Wind energy will reverse that outward cash flow and reduce carbon emissions as well.

Number two, careers in a changing economy. Then Vineyard Wind Project offers lifelong careers with excellent wages and benefits as our national job market is undergoing fundamental changes. As a trade union, we know that offshore wind is not about, quote, a job, unquote; it's a career in a growing industry.

Today apprenticeships and technical certificate programs are the entry points, and Vineyard Wind has already demonstrated meaningful commitment to workforce development with its Windward Force Fund. The company has contributed

more than $200,000 to Mass Clean Energy Center Workforce Grant Program.

Pile Drivers Local 56 was awarded $100,000 in May of 2018 by the Clean Energy Center to train members in the Global Wind Organization, GWO, basic offshore safety program. We have so far graduated 24 men and women, journeymen and apprentices from the training facility at Mass Maritime Academy, with plans to train at least 36 more.

Vineyard Wind both talks the talk and walks the walk in its commitment to growing the workforce in New England.

Number three, real time meaningful response to climate change. Climate change is having an immediate impact on our families and our communities, especially coastal communities. There are many ways to respond, but inaction is not a choice. Wind Energy substantially reduces the amount of heat-trapping gases we put into the atmosphere. The project allows us the opportunity to make a difference in our own lives, but more importantly, in the lives of our children and grandchildren.

The men and women who are the pile drivers, divers, and millrights of New England believe in the offshore wind industry and wholly support the acceptance of the Vineyard Wind SEIS in issuance of permits to move forward.

Sincerely, this is signed by Joe Byrne, North Atlantic States Carpenters Executive Secretary-Treasurer; Robert Loubier, Eastern Millrights Council; Joseph O'Brien, North Atlantic States Carpenters; Dennis Lassige, North Atlantic States Carpenters; myself, David Borrus, Pile Drivers and Divers Local 56; Rodney Richard Millright Local 1121; Derek Adamiec, North Atlantic States Carpenters; Gary Rogers, Eastern Millrights Council; and Andy Benedetto, Eastern Millrights Council.

Thank you very much for the opportunity. Thanks. Thanks very much.

CHRISTINE DAVIS: David, and you are submitting that letter to the written record, correct?

DAVID BORRUS: That is. It has already been submitted.

CHRISTINE DAVIS: Okay. Great, because I

didn't want to have to make you spell all those names. So thank you for that.

DAVID BORRUS: They're all there.

CHRISTINE DAVIS: Okay. Great. Thank you so much.

All right. Next, we'll have Paul, then Nathanael, then David C., and Winston.

So Paul, you're available to provide your comments now.

PAUL FORSBERG: Yes.

CHRISTINE DAVIS: Thank you. Go ahead.

PAUL FORSBERG: Okay. Hello, my name is Paul Forsberg, that's P-a-u-l F-o-r-s-b-e-r-g. My family owns and operates the Viking Fishing Fleet in Montauk, New York. We have a dozen boats. We've been in business since 1938, and we fish in New York, Connecticut, and Massachusetts, and we had a couple of boats in Florida.

Real quick, we're a fourth-generation family business. We have -- we have 15 family members directly involved in the business right now between my brother and I. We have 15 grandkids coming up. We hope that to give them the opportunity of being mariners. Why I say that, is

because we are stakeholders in the area. We really have a vested interest in making sure that the windmills will be a positive to the fishing community and not a negative.

I -- a brief history, I got out of the fishing business. I got in the oil business in the Gulf of Mexico, so I got to see how all of the oil rigs in the Gulf of Mexico produce fish. I've assisted by 100 of them or more. I can see what's coming. Our family believes that when the windmills are built, the turbine basins are going to provide fabulous habitat for fishing, and we think that the fishing is going to be unbelievable. It's gonna be beyond anything we've ever seen before.

So my entire family is 100% behind offshore wind.

I -- while I was in the Gulf of Mexico, I got a call, I came up, and last year I ran a boat doing survey work for Vineyard Wind. We did the south of Martha's Vineyard. We went down in North Carolina as well. So I got to see how all that survey stuff works.

There's a lot of negativity about the

windmills that the survey boat gave out there, electrical -- electronic pulses and things like that at fault. I spent a tremendous amount of time in the -- in the surveys shacks with the survey folks and all? I mean, to be honest? Every single fishing boat out here has just as powerful of equipment as the survey boat, it's just like it a little bit.

So a lot of things that I heard through the grapevine were about how bad this offshore wind was going to be from the not-in-my-backyard people was false. I saw it with my own eyes. I can shoot holes in just -- in quite a bit of it because I can speak both languages. I'm pretty fortunate having grown up in this area, fished for a very long time in the area, passenger fishing, longline dragging, one scallop trip. I know the area. I know the area like the back of my hand. I know a lot of the guys around here.

Long story short, my family is 100% behind offshore wind, we think it's a magnificent opportunity for the struggling fishing communities such as Montauk, where I come from, to be able to capitalize on the offshore wind business and

provide jobs for our folks.

Like I said, I got two grandkids myself. My brother and I have 15 grandkids coming up. We would like the opportunity for them to become mariners. Working on the water is a way of life, and it's an identity.

And we will not be able to do it in the fishing business. The fishing business is collapsing. There is -- with the permits and with the climate change, and with the vessel consolidation, and more and more fiberglass boats, because all the boats are recreational people, the fish don't really have a chance. And we'll be out of business within probably five to 10 years, I would assume, if that something doesn't happen.

The entire recreational and for-hire fishing business is suffering to that -- I mean, there's not one that's not -- the big guys are gone.

So we're all for it. We think this is a magnificent opportunity to the future.

Seeing the opportunity, when I was running the survey both back and forth, and talking to different fishermen guys I know, I decided to start a business called Offshore Wind Farm

Support. And the whole focus of that business is to help struggling fishermen that want out of the fishing business to get involved in offshore wind.

I have not advertised it. I've just -- interest in simply word of mouth. I have 50 fisherman that want to go to work offshore wind. None of the boat owners, the commercial boat owners, but the captains and crew members -- as commercial fishermen, you're only as good as your last trip anyway.

But the rest of the guys that are working on deck and on the boats all want to get involved in offshore wind, and this is a magnificent opportunity to provide a really nice lifestyle for men on the water in the northeast.

And with that, I'm going to thank you very much for my time.

CHRISTINE DAVIS: Thank you.

Next we have Nathanael, then David Z., and then Winston, and we'll take a short break after that.

So go ahead Nathaniel. State and spell your name, please.

NATHANAEL GREENE: Yes. Can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you.

NATHANAEL GREENE: My name is Nathanael Greene; that's N-a-t-h-a-n-a-e-l, and then Greene, G-r-e-e-n-e. I'm the Senior Renewable Energy Advocate for the Natural Resources and Defense Council. We're a national environmental nonprofit with over 2 million members and online activists.

I want to thank you for the opportunity to provide this statement in this online forum.

We need offshore wind and we need to do it right. The reason Vineyard Wind' Supplemental Draft Environmental Impact Statement, which expands the prior cumulative activity scenarios for offshore wind development, reveals that offshore wind can be done in an environmentally responsible way and provide the clean energy that the East Coast states are demanding. The study should help Vineyard Wind and other offshore wind projects advanced quickly now.

The analysis notes, that as offshore wind advances, we will likely see reduced emissions from polluting fossil fuel plants and improved air quality. And every investment in renewable energy

helps in the fight against climate change.

When it comes to the climate crisis, we cannot afford a no-action alternative. While we fight climate change, we can and must also avoid, minimize and mitigate potential threats to ocean life by taking precautions while citing, constructing, and operating turbines, and committing research and project monitoring to understand the project's impacts in our oceans and wildlife.

We worked with Vineyard to sign the landmark agreement that would protect highly endangered North Atlantic Right Whale during Construction and Operation for what we anticipate will be the first U.S. commercial-scale wind project. And while the Supplemental Environmental Impact Statement does not assume that all developers will adopt these smart measures, it does acknowledge that doing so would better protect marine wildlife. This is why states and the Federal Government should be requiring these types of best practices from all developers.

Fact is, like any type of energy, offshore wind poses some risks to the environment it

operates in, and some wildlife populations may be hard pressed to acclimate to additional stressors. The supplemental document factors in the state's true thirst for clean offshore as a wind energy source.

The expanded analysis predicts that offshore wind farms will generate approximately 22 gigawatts and enough to power nearly 8 million homes along the U.S. Atlantic Coast within the next decade.

Looking at the full scale of offshore wind development reinforces how it is more important than ever to ensure that when projects adequately protect the ocean resources we rely on for food, jobs and recreation. To do this, the federal and state governments need to adopt measures that avoid, minimize, and mitigate underwater noise, ship strikes and turbine collisions.

Vineyard Wind's project has committed to advance wind construction and operations in an environmentally responsible way, and this needs to be the rule.

Federal and State permitting agencies should also require ongoing collaborative research and

ensure that we're learning how to build offshore wind with less and less impact as we go. These include the impacts on science and research -- with these included, the impacts on science and research could really be beneficial.

NRDC will be submitting detailed comments on the supplemental review document to strengthen the cumulative impacts findings further, but the broad thrust is clear. We must move ahead with offshore wind projects and do so in a way that protects the environment.

Thank you again for this opportunity.

CHRISTINE DAVIS: Thank you so much.

Okay. Next we have David V. and then Winston. And we are going to take a short break after that.

And so I'll turn it over to David at this point.

DAVID ZEEK: Yes, this is David Zeek. Can you hear me?

CHRISTINE DAVIS: Yes, I can. Thank you.

DAVID ZEEK: Thank you. David Zeek, D-a-v-i-d Z-e-e-k, and I represent the Massachusetts Chapter of the Sierra Club.

I want to thank you for the opportunity to speak today in favor of the Vineyard Wind 1 Project. This is an exciting venture into a new clean energy source for Massachusetts or New England and for the nation, a new venture that will lay the groundwork for much more to come.

Development of offshore wind cannot wait. Offshore wind energy is critical for meeting clean energy goals in New England and the emission reductions necessary to stop the most catastrophic effects of climate change. Offshore wind represents over 50% of the potential clean energy resources in the region.

Vineyard Wind will create 3600 new jobs for local residents, the first of more than 80,000 jobs in this industry over the next 10 years.

Vineyard Winds project is precedent setting for responsible development. Vineyard Wind signed a landmark agreement with the National Wildlife Federation, National Resources Defense Council, and Conservation Law Foundation to protect the highly endangered North Atlantic Right Whale during project construction and operation. This agreement should be a model for future

developments.

Vineyard Wind has also pledged to sign the nation's first offshore wind project labor agreement to ensure fair compensation and the highest construction standards for the project. Vineyard Wind's contributions have helped to jump-start workforce training for offshore wind jobs on Martha's Vineyard and its six educational and workforce training institutions in the Commonwealth.

Also, I want to compliment that the examination of this cumulative impact to the Supplemental EIS has been productive. The uniform adoption of the one-by-one-nautical-mile grid neatly addresses access and transit questions from multiple wind farms and multiple developers. So many people have complimented this particular option; I won't. I won't say more about that.

Cumulative impact is also the smart perspective for assessing the effects of offshore wind development and operations on marine and avian populations. Going forward, monitoring and managing wildlife populations can only be done well from this macro view.

The Supplemental EIS states that in the absence of offshore wind development, additional more polluting fossil fuel energy facilities would come or be kept online to meet future power demand fired by natural gas, oil or coal. So time is of the essence.

Vineyard Wind was selected as Massachusetts first offshore wind project in May 2018, more than two years ago. There is a price for delay. There's a price for uncertainty. So disapproval of the Vineyard Wind project at this point would create doubt and uncertainty about the regulatory and political environment for the development of offshore wind power in New England.

Let us lay out a clear path for further development of offshore wind power by approving this project. The climate crisis and ensuing health crisis, demand that we stand up these projects as fast as the responsible development will allow. It's time to move forward.

Thank you, Christine.

CHRISTINE DAVIS: Thank you, David.

All right. Up next, we have Winston, and then we will take a break after Winston's done.

I'll provide just a little bit of guidance as to how the break is going to work and when we'll be back.

So with that, I'll turn to Winston.

WINSTON VAUGHAN: Testing, one, two.

CHRISTINE DAVIS: Gotcha. Thank you.

WINSTON VAUGHAN: Excellent. Thank you all for the invitation to participate in today's discussion.

My name is Winston Vaughan. I'm the Boston Director of Climate Solutions at Healthcare Without Harm. We're a global nonprofit that works to transform healthcare worldwide by proactively reducing the sector's carbon footprint, becoming a community anchor for sustainability, and becoming a leader in the global movement for environmental health and justice. We've worked with over 36,000 hospitals and help centers in 60 countries worldwide, including leading healthcare institutions in New England.

I'm here today to speak in support of the Vineyard Wind project Because we believe that clean renewable energy is essential to preserving public health and protecting both our facilities

and the communities we serve from the impacts of climate change. Offshore wind also has the potential to reduce New England's notoriously high energy costs and help energy intensive businesses, like healthcare, recover from the financial impacts since the COVID crisis.

The healthcare sector is our Commonwealth's largest employer employing nearly a half a million people. It's The only sector of our economy that has healing as our mission. Our healthcare industry is working hard to reduce our own impact, as well as addressing vulnerability and resiliency to the impacts of climate change.

By the end of the year, Boston Medical Center will be running on 100% renewable energy on the electricity side, and they're working on cleaning up their thermal load next.

The Mass General Brigham system will be carbon positive by 2025, but we still have much to do and offshore wind is absolutely central to that work.

Burning fossil fuels to generate electricity is a major driver of air pollution in our communities and is a major source of our region's

climate change contribution. Over the last few months, we have seen all too clearly the disproportionate impact that COVID has had on the lives and health of low income communities and communities of color who were disproportionately burdened by air pollution from the burning of fossil fuels making them more vulnerable to the impacts of respiratory disease.

In order to effectively combat climate change and protect the health of all the communities our hospitals serve, we must not only transition to renewable energy but do so in a way that brings new renewable energy sources here to our region to replace the power plants that are burning fossil fuels and harming our health. Vineyard Wind 1 will provide enough clean energy to power over 400,000 homes and businesses, reduce carbon emissions by 1.7 million tons per year, nitric -- nitric oxide solutions by 1,000 tons per year, and sulfur pollution by over 860 tons per year.

It's also important to note that COVID has not just ravaged the health of our community, it has also taken a massive -- massive financial toll on our economy and our healthcare system in

particular. According to the Boston Globe, Mass General Brigham, the largest health care provider in the Commonwealth, expects to lose over $400 million per month just as a result of the disruptions caused by the pandemic.

Power from offshore wind is not just cleaner, It would also reduce the cost of energy, which would help energy-intensive businesses, like healthcare, recover more quickly from the financial impacts of COVID.

Vineyard Wind alone is expected to save ratepayers more than $1.4 billion in energy-related costs over the lifetime of the project, money that is essential to our region's economic recovery and our future economic prosperity. These benefits are, of course, in addition to the 36,300 -- 360 -- sorry, 3,600 jobs that have been unionized that this project will create which will also contribute to our region's economic recovery.

I also want to briefly touch on the topic of the proposed transit lanes in addition to Alternative F. The size of the lease areas has already been substantially reduced as the public

comment period and profits have continued over the decades, and the spacing between turbines has already been substantially increased to particularly accommodate fishing and other ocean uses. The addition of the proposed transit lanes on top of those accommodations would mean 4,000 fewer megawatts of wind power coming online, which according to the Healthcare Without Harms energy climate calculator would translate to an estimated additional 52 and a half premature deaths from air pollution and an additional 25.3 ER visits for asthma attacks every year. Over the course of that life of the project, that would be 1,325 premature deaths from air pollution, and 625 ER visits over that 25-year-life of the project.

As we know the health impacts of our existing fossil fuel powered electric generation falls disproportionately on low income communities and communities of color. By failing to consider these impacts, impacts that could be mitigated by generating more clean renewable offshore power, I'm concerned that this analysis of the transit line fails to account for the negative impacts on environmental justice communities that Alternative

f would have. This is, of course, on top of the lost jobs and businesses for our region due to the smaller project as a result.

New England is best for some of the best offshore wind resources on the planet, which projects such as this can turn into an abundant source of clean, inexpensive energy that can power resilient, healthy and economically thriving future for all communities in that region. We urge you to allow this critical project to move forward without further diminishment or delay.

Thank you.

CHRISTINE DAVIS: All right. Thank you, Winston.

So with that, we're going to take a break in just a few minutes, but a couple of things to think about. We're going to take about a 10-minute break and rejoin. I'm going to -- just shy of 10 minutes, I think, if that's okay at 3:20.

In the meantime, for those of you that are on screen, I encourage you to give your eyes a break and look away. However, you might want to also check out the virtual meeting room that BOEM has

with all kinds of information on the project.

Those of you on the phone, grab a phone charger, and we will be back at approximately 3:20.

And our next speakers will be Representative Fernandes, then Jennifer M., Jamie J., David C., and Joel M.

And reminder, during this break if you would like to use the Q & A function to enter questions, we will take those at the end of the public comment period. We have folks that are subject matter experts that are online that will be available to address those questions.

And if you are interested still in getting into the queue, that is also an option, please press Star 1, wait to speak to an operator. And please be patient. They might get a number of phone calls at the same time, and just hang on the line until you're able to be put into the queue.

So with that, I'm going to put this on break, and we will be back at 3:20.

(Short recess taken.)

CHRISTINE DAVIS: Okay. We'll get started in just a little bit here as folks are joining back.

Hopefully you've had a chance to just refresh, regroup. And we'll get going in just a minute.

We've got a number of speakers lined up. Representative Fernandes, Jennifer M., Jamie J., David C., Angela M.

And a couple of things, so some housekeeping things. We have had a number of questions that have been entered into the Q & A box. You still have the opportunity to do that. Also, if you have any technical issues, please use the chat function and that is on the screen.

Everybody's been doing a great job with the five minutes. I know that I tend to speak quickly sometimes. So please do, for the sake of the court reporters, and those that are recording this meeting for the public record, take your time. And if you need more time at the end, we can definitely add you to the back of the queue. We want to make sure that everybody has an opportunity to speak once. But if you need more than five minutes, we can put you in the back of the queue, or you can submit your comments via writing.

So I guess the other thing was mention the Q

& As, the chat. We will, upon the conclusion of the public comment period, get to answering questions. And there are a number of ways that you can provide comment. Today, obviously, we have a meeting today, press Star 1 and be patient with the operators; you get into the queue.

But you can also provide written and electronic comments. We'll have that screen up later on. And then, also, we do have one more meeting on Thursday evening.

So with that, just want to see if the Representative is available to join us.

DYLAN FERNANDES: Can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Go ahead. If you can state and spell your name, please, and we'll move forward with the rest of the public comment period. Thank you.

DYLAN FERNANDES: Thank you.

Yeah, name is Dylan Fernandes, D-y-l-a-n, Fernandes, F-e-r-n-a-n-d-e-s, and I'm the State Representative for Martha's Vineyard, Nantucket, and -- and Falmouth, along with the island chain of Gosnold. These are the communities closest to the proposed project.

And I'm speaking to you today in support of the Vineyard 1 -- the Vineyard Wind 1 proposal and the need for broader implementation of offshore wind in Massachusetts and in the United States.

The environmental impact of Vineyard Wind will go far beyond just the clean electricity provided to 40 -- 400,000 Massachusetts homes and businesses. This proposal will serve as a blueprint for other commercial scale offshore wind projects and encourage more investment in renewable energy.

This project is a really vital step forward on the path to protecting our environment and public health by transitioning to clean energy, while also creating really important year-round jobs that help boost our economy on the Cape and islands and across Massachusetts.

Offshore wind projects throughout the world have already created and continued to create tens and hundreds of thousands of jobs that paved the way for a clean energy future. Vineyard Wind will sustain year-round economy for the Cape and islands, as well as work to safeguard our communities against the increasingly severe

impacts that we are facing of climate change.

And so locally, it's estimated that this project will create around 3600 new jobs, both locally and in Massachusetts. And as a project, and with world class academic and training institutions, a skilled and highly motivated workforce and modern infrastructure, all in close proximity to the project area, Massachusetts, and in particular, our district here on the Cape and islands, is ideally situated to host this emergent clean energy industry in the United States.

And I'm encouraged by Vineyard Wind's commitment to organized labor, which will ensure both quality construction and fair compensation. This could set the standard for labor agreements for our country's offshore wind projects securing fair wages and consistent work for local trades people across our region.

And most importantly, Vineyard Winds and offshore wind projects are essential to Massachusetts and the United States reaching our climate goals. We need to transition to clean energy for -- to a clean energy future if we want to have a future. And as the representative of

more coastline than any other rep in Massachusetts, maybe -- maybe the nation, my district will be forever changed with rising sea levels.

And lack of clean air from the burning of fossil fuels already causes tens of thousands of early deaths of Americans each year, and that has been especially glaring. This fossil fuel pollution during this pandemic, where communities with poor air quality caused by fossil fuels, which tend to be disproportionately communities of color are suffering the most from this pandemic.

As a state, we've led the nation in advancing clean energy, and we're very proud to be the first to call for a utility scale offshore energy, first with 1600 megawatt procurement, added on an additional 3200 more. And we want to continue to lead with this Vineyard Wind project, and we hope that it gets moved along thoughtfully but also expeditiously, because we do not have a lot of time to wait when it comes to combating climate change.

And there is no issue, no greater issue facing my generation and my children's generation

than global warming and the effects that come with it.

Vineyard Wind has been thoughtful and diligent in their planning. They have carefully weighed the potential environmental impact. And they've done a really strong job at listening to the community for feedback.

I strongly support the Vineyard Wind proposal, and I hope BOEM will look favorably on the project and issue the necessary permits. I want to -- I want to thank BOEM, I want to thank you guys for your time, for holding these sessions for allowing the community to weigh in.

And with that, just want to extend my appreciation for your work. Thank you.

CHRISTINE DAVIS: Thank you for your comments, Representative.

And up next, we have Jennifer M., then Jamie, then David, and then Joel.

So Jennifer?

JENNIFER MENARD: Hello, this is Jennifer Menard, J-e-n-n-i-f-e-r, Menard, M-e-n-a-r-d. I'm the Vice President of Economic and Business Development at Bristol Community College, and I

oversee the National Offshore Wind Institute, or the NOWI, at Bristol Community College.

The NOWI will provide a comprehensive HS&E and GWO, or Global Wind Organization, required and needed training, as well as customized training in addition to Bristol's academic certificate and associate's degree program in offshore wind.

Bristol is investing in this effort to support the -- support the capture of the full potential of the U.S. offshore wind workforce for developers and suppliers as well. Bristol continues to make these investments to support the Vineyard Wind 1 Project with an expected 3600 jobs that will be created over the next few years while making a significant contribution to the efforts to tackle climate change by avoiding the emission of almost 1.7 million tons of carbon dioxide per year, the equivalent of removing 325,000 cars off the road.

It is imperative through organizations like Bristol Community College to have a clear planned out timeline to support these and additional investments in the offshore wind workforce infrastructure. Certainly -- certainty that these

projects will be permitted and constructed on a predictable and reasonable timeline will make these investments sound.

Importantly, to maximize economic development opportunities, the business sector needs confidence that demand in the U.S. offshore wind market is real with consistent and reliable projects. And during construction, to allow workers to gain experience and qualifications needed to advance within the workforce and replace the European workforce over time. This means that projects in the permitting and development timeline must be permitted in a timely -- timely, reasonable manner.

Bristol and its National Offshore Wind Institute will provide the needed training and educational pathways that asks for a clear and transparent timeline, starting with Vineyard Wind 1 with no further delays.

Bristol Community College strongly supports Vineyard Wind 1 and the issuance of the Supplemental Environmental Impact Statement.

We very much thank BOEM for this opportunity to speak today, and we're excited for the -- for

this to start. So thank you.

CHRISTINE DAVIS: Thank you.

Jamie J., you're up next. And then David C., and Joel M.

So Jamie, are you with us? Jamie?

If we have not gotten Jamie at this time, I think we'll move forward with David, and if Jamie rejoins us, we'll make sure to add Jamie to the end or get back in the queue.

So, David, are you available?

DAVID COLE: I am. Can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you, David.

DAVID COLE: Good. Well, I -- Jamie is a neighbor, a neighbor and a friend, so I -- I hope you find him. He's speaking on behalf of UMass Dartmouth.

But my name is David Cole; David, D-a-v-i-d, C-o-l-e. I'm a member of Mass Audubon's Climate Change Committee, and I was a cofounder of a local organization named the South Coast Climate Change Coalition.

Others appearing today are providing you with more short-to-medium term, professional

information on the environmental impact of the offshore wind projects. I would like to present you a personal perspective on the longer term environmental impact of delaying actions or reducing the scope of the proposed projects.

I live at Westport Point on the South Coast of Massachusetts in our house built in 1776, an auspicious year. Our house, on the bank of the Westport River Estuary has survived hurricanes and floods for 244 years, but it now faces the threat of being underwater in the coming decades due to the rising sea levels, or being destroyed by more powerful hurricanes and storm surge.

I am 92 years old; I was born in the year when Herbert Hoover was elected president, unhappily; I lived through the Great Depression and World War II; I worked to -- in a destitute and impoverished China Immediately after that war; served in a war-ravaged South Korea with the U.S. Army in the early 1950s; worked in Vietnam between the wars in the mid '50s; and was in Washington in the State Department in 1963 when I attended Martin Luther King's I Have A Dream speech; and I suffered the agony of President Kennedy's

assassination; my professional career as an economist was devoted to assisting major Asian countries, such as South Korea and Indonesia, to achieve rapid economic development.

So I have a sense of living history sometimes tragic, sometimes hopeful. But the awareness that climate change could radically alter life on this earth within only -- within only one half of my lifetime terrifies me. That feeling is further compounded by the thought that my nine grandchildren will be struggling to survive the existential threat of the climate crisis in their lifetimes if we fail right now to prevent that threat.

State-of-the-art wind turbines along the Atlantic Coast will be among the most if not the most efficient means of generating electricity available to this country. That means we can have the direct benefits of low-cost power, more jobs, more revenue for governments and adequate profits for the investors. But of much greater significance will be the indirect benefits or externalities of less harm to public health and less poverty -- property damage from forest fires,

floods and strong winds.

The current COVID crisis provides a painful example of the kinds of threats that will be faced in the future if we fail to cut carbon emissions.

This past winter and spring, we had many very windy days and nights along the New England coast. As we were buffeted by these winds, I kept thinking, if only those wind turbines were in place, just imagine how much power they could be generating and how much carbon emission they could be avoiding.

A number of highly qualified companies are ready to begin construction on these projects and are just awaiting your approval. I urge you to complete this already too-lengthy review process as quickly as possible and let this most hopeful activity begin. Please act now to preserve as livable a world as possible for my grandchildren and your children.

And I would just finally note, we've had presentations from now 19 -- 18, 19 people; they all are in favor and positively supporting these projects. So I just urge that you hear that message and finish up this process and get us

going on the actual installation of these projects.

Thank you very much.

CHRISTINE DAVIS: All right, thank you.

Next up, we'll have Joel M. then Paul A. then, Don K., Fred Z, Francis P. and -- I was not able to see the last name of Blake.

Um, just a couple of reminders before I turn it over to Joel. If you would like to speak and haven't seen your name in the queue, we do have a few names after that, please press Star 1 and speak to the operator to make sure that you're in the queue. Also, if you have any questions, you can use that chat function. And we do ask that you state and spell your name. And we've been doing a great job of that, but just wanted to put that reminder out there again.

So with that, I'm going to turn it over to Joel. Joel, go ahead.

JOEL MERRIMAN: Hi, can you hear me?

CHRISTINE DAVIS: Yes, I can hear you just fine. Thank you.

JOEL MERRIMAN: Great. My name is Joel Merriman. J-o-e-l M-e-r-r-i-m-a-n. I'm the Bird

Smart Wind Energy Campaign Director at American Bird Conservancy.

ABC as a 501(c)(3) nonprofit dedicated to conserving wild birds and their habitats throughout the Americas. As part of our threat abatement program, we have been working with stakeholders to promote bird-smart wind energy development practices for over 10 years. We appreciate the opportunity to provide these comments. We limit our scope to Appendix A Section 8.3 focused on bird impacts. We will follow with more detailed written comments.

Like many, we were grateful that BOEM decided to undertake an updated cumulative impacts assessment that had high hopes for this supplement. This analysis is critical and setting the stage for a major new industry, and had the potential to lock in good science and a solid foundation for this development.

Unfortunately, we find ourselves disappointed in the analysis of cumulative impacts to birds. At points in this section, the authors draw debatable conclusions without providing substantive supporting information or methodology.

Some critically important issues are neglected altogether. This consistently minimizes the impacts of offshore wind on birds, and we are concerned that this has resulted in a substantial underestimate of the likely adverse effects.

Among our key concerns, Table A-9 is intended to predict the number of birds that will be killed by currently anticipated offshore wind facilities on the Atlantic each year. The report acknowledges that the list of species is incomplete. Species that we know traverse wind energy areas are not considered, including species of conservation concern.

The data is heavily skewed. For example, it is estimated that between zero and 1,346 Red-throated Loons will be killed each year, but the media is six birds. Perhaps this is based on sound data and analysis, but it is difficult to assess as the description of the methods is limited to a couple of sentences in footnotes. This does not provide the clear, transparent, robust analysis that we need to adequately assess the risk of bird collisions with offshore wind turbines.

The SEIS does not evaluate the impacts of offshore wind energy development on land birds. Large numbers of such birds make nocturnal migratory flights in fall from the Northeastern U.S. to wintering grounds in the Caribbean and South America.

For example, a 2015 study found that the Blackpoll Warbler, a songbird weighing less than half an ounce, makes a nonstop fall migratory flight from New England and Southeast Canada as far as Northern South America.

As was similarly found in the Great Lakes, these birds may fly within the rotor-swept zone of offshore wind turbines creating risk of collision. What's more, these birds migrate in flocks so any such instance may result in relatively large numbers of birds being killed in a single event.

Most surprisingly, the SEIS does not substantively address likely impacts to the species listed under the Endangered Species Act. This includes the endangered Roseate Tern and threatened Piping Plover, both of which are known to traverse wind energy areas.

Consider that the environmental assessment

for the demonstration project for Dominion Wind in Virginia consisting of two turbines and far from the U.S. breeding areas for Roseate Terns, acknowledges that there is a minimal risk of collisions for this species. How is it that when the full complement of projects off the Atlantic Coast is considered, that it doesn't warrant discussion let alone a conclusion that significant impacts may occur?

Given these concerns and others, we urge substantial revision and improvement to this portion of the analysis.

First, we recommend a full review and revision of the section focused on birds, with more robust analysis and subsequently reassessed impact statements.

Second, we recommend evaluation of impacts to nocturnal migrant land birds and ESA-listed species.

Third, we recommend a revised estimation of the average number of birds that will be killed each year by offshore wind turbines. This estimate must provide clearly articulated methods and reference to supporting data and include all

species potentially at risk.

Lastly, we recommend that a blueprint be developed for compensating impacts to birds by initiating conservation work that will benefit or replace lost birds. Compensatory mitigation takes time from concept to success, so it is critical that we start this process now.

We are excited by the promise of offshore wind energy, but this development must come with a full understanding of the likely impacts to wildlife and a plan to mitigate these impacts.

Again, thank you for undertaking this important analysis and for this opportunity to provide input.

CHRISTINE DAVIS: All right, thank you.

Next we have Polly (sic), then Don, then Fred, and Francis, and then N. Blake. It looks like Gabriel after about that. So with that, I'll send it to Polly (sic). Please state and spell your name.

HOLLY BELLEBUONO: Yes. Can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you.

HOLLY BELLEBUONO: Okay. My name is Holly

Bellebuono; it's H-o-l-l-y, last name is B-e-l-l-e-b-u-o-n-o.

I am here to express my full support for the offshore wind projects south of Martha's Vineyard and generally along the Eastern Seaboard.

As Executive Director of ACEMV, Adult and Continuing Education of Martha's Vineyard, I am excited to have welcomed our first cohort of students this January who entered into an among-the-first-of-its-kind certificate program in partnership with Bristol Community College to earn a credential as an offshore wind technician.

We enrolled 18 Martha's Vineyard residents to study in a two-to-three year program that will directly prepare them as technicians working on offshore wind turbines.

We expect to welcome our second cohort of students next January. And to continue this educational program into the future will meet the needs of renewable energy in Southeast Massachusetts.

The response to this program has been very positive and will provide our local year-round residents with stable jobs, rewarding education,

and promising opportunities.

Secondly, as a former program director for an environmental advocacy nonprofit in North Carolina, I worked with task forces in West Virginia and Kentucky to end the destructive practice of mountaintop removal. I witnessed firsthand the horrific devastation of hundreds of thousands of acres of mature forest in a grab for coal that completely destroyed ecosystems and habitats for thousands of square miles of Appalachian woodland.

There is no need for alternatives or mitigation measures because there's nothing to mitigate. The entire ecosystem is completely gone. And mountaintop removal continues today at an alarming pace.

My introduction to offshore wind has been the opposite. As an educator and director, I've been working with groups in the industry who are committed to extremely low environmental impact. There's no comparison between offshore wind and mountaintop removal. The erection of turbines in the ocean and the maintenance of them will have a significantly lower environmental impact and is a

much more welcomed process than pursuing coal or other fuels.

This may be one of the first large-scale projects in which strong employment and environmental protection coincide, and I urge BOEM to fully support this project.

Thank you.

CHRISTINE DAVIS: Thank you, Holly. And again, an example of the importance of stating and spelling your name for us. So thank you so much.

All right. And with that, we'll turn to Don, Fred, Francis and Blake and Gabriel. So, Don?

DON KEERAN: Thank you, Christine. My name Don Keeran, D-o-n K-e-e-r-a-n. I'm Assistant Director with the Association to preserve Cape Cod, or APCC. Established in 1968, APCC is the Cape Cod region including nonprofit, environmental advocacy and education organization.

APCC has reviewed the Vineyard Wind SEIS and has concluded that it is thorough and well thought out analysis. And this analysis includes a detailed study of the potential impacts of a reasonably foreseeable scenario for offshore wind development along the East Coast in the next

decade or so based on the assumption of future offshore wind energy generation of more than 25 times the size of the Vineyard Wind Project. We believe the report provides sufficient information in support of the development of the offshore wind industry, including the Vineyard Wind Project, and the much needed clean, renewable energy it will provide.

We also believe the report findings support implementation of the east-west one-by-one-nautical-mile layout without the transit lines as the alternative for the Vineyard Wind Project having the least impact and the most benefit. And this, of course, is Alternative D-2.

After a very long empirical analysis by BOEM, the U.S. Coast Guard and others, the one-by-one layout without the transit lines stands out as the most reasonable compromise that allows for coexistence between the new offshore wind industry and existing revenue uses, such as commercial fishing industry, while protecting the marine environment and setting the path forward for clean energy production.

APCC therefore urges BOEM to move forward

with no further delay in the Vineyard Wind EIS process with Alternative D-2 and the Covell Beach landing as the selected alternative. And APCC plans to submit work extensive written comments before the end of the public comment period.

And with that, I will end by thanking BOEM for the opportunity to comment in these hearings. Thank you very much.

CHRISTINE DAVIS: Thank you. And thank you for that reminder. The comment period is open until July 27th.

So with that, I'll turn it over to Fred, and then we have Francis and Blake and Gabriel.

So Fred, are you available?

FRED ZALCMAN: Yes, I am.

This is Fred Zalcman, F-r-e-d Z-a-l-c-m-a-n.

Good afternoon. Again, Fred Zalcman; I'm the Head of Government Affairs for Orsted North America, the world's leading developer of offshore wind.

Now, you previously heard from our President and Chief Operating Officer, David Hardy, who voiced Orsted's enthusiastic support for the release by BOEM of the Supplemental EIS as an

important milestone on the path to permitting the U.S.'s first offshore wind farms, and who also touched on some overarching concerns with the SEIS as drafted.

The purpose of my testimony this afternoon is to embellish a bit on one of those issues: The SEIS's treatment of the cumulative economic impacts of the development of the offshore wind industry here in the U.S.

Now, individually and collectively, state policymakers are making significant and long-term commitments to the development of a U.S.-based offshore wind market. Taken together, the U.S. now represents nearly 30 gigawatts of market potential through 2035 based strictly on the procurement commitments that are already enshrined in state law.

As a result of these state targets, offshore wind offers the chance to create a brand new, U.S. based heavy industry. These state commitments are already starting to pay dividends. Orsted alone will be investing over $10 billion over the next five years in the development of our contracted U.S. offshore wind portfolio. This number will

only grow as additional power purchase agreements are secured and we build out our lease areas.

Over the past several months, there's been a steady drumbeat of significant public and private sector announcements regarding investments in the basic building blocks of an offshore wind industrial ecosystem, ports and harbors, manufacturing, shipbuilding and high-quality, high-paying U.S. jobs.

I just wanted to highlight some of these foundational investments.

First, as part of our U.S. build-out, Orsted has already pledged nearly $500 million for port -- port facilities up and down the Eastern Seaboard. These ports will serve the diverse needs of the industry for component manufacturing, staging and O&M. Recent commitments by the State of New Jersey for the establishment of a dedicated offshore wind port adjacent to the Hope Creek nuclear facility in New York's imminent $200 million RFP for ports and harbors infrastructure demonstrates the scale and seriousness of this investment. Investments like this will create thousands of jobs, stimulate coastal economies,

and revitalize U.S. port infrastructure.

Second, offshore wind procurements, including local content requirements, are spurring significant investments in a domestic U.S. supply chain. A prominent example of this is Orsted's recently announced partnership with EEW, one of the world's least -- leading producers of steel monopiles, to establish the first U.S. based offshore wind related manufacturing facility.

As U.S. based and foreign suppliers become convinced the durability and scalability of the U.S. offshore wind market, they will make the necessary investment in local factories, people, and inventory to support a robust homegrown supply chain rather than incur the high shipping costs, logistical issues and trade risks associated with sourcing goods overseas.

Third, the efficient build-out of offshore wind farms will require fit-for-purpose installation vessels that are U.S. constructed, flagged and crewed. Dominion Energy has recently confirmed that it's leading a consortium of investors who will commission the first U.S. dedicated installation vessel at a cost of

approximately half a billion dollars.

Other specialized vessels will be required such as the purpose-built crew transfer vessels commissioned by Orsted in 2019 to ferry workers from shore to the wind energy area for construction and long term operation and maintenance.

In short, the building of a homegrown U.S. offshore wind industry will require capital and human investment of tremendous breadth and depth. These investments are already underway.

While the SEIS recognizes this trend, it nonetheless concludes that the overall economic impact will be marked -- minor. It's hard to reconcile this qualitative assessment with the body of the report and, indeed, with the public record.

We respectfully request that BOEM reconsider this finding and assign an impact rating commensurate with the major domestic investments made and contemplated by the industry, including but not limited to those identified in the body of the SEIS.

Thank you for your consideration of this

testimony. And again, appreciation for all the hard work in putting the SEIS together.

CHRISTINE DAVIS: Okay. Thank you for your comments.

Next we have Francis, and then M. Blake, and then Gabriel.

Francis, are you available?

FRANCIS PULLARO: This is Francis. Am I loud and clear?

CHRISTINE DAVIS: Loud and clear. Thank you.

FRANCIS PULLARO: My name is Francis Pullaro, F-r-a-n-c-i-s, last name, P-u-l-l-a-r-o. And I'm the Executive Director of RENEW Northeast or RENEW.

RENEW is a nonprofit association uniting environmental advocates in the renewable energy industry. Our mission involves coordinating the ideas and resources of the members with the goal of increasing environmentally sustainable energy generation here in the northeast from our own regions' abundant and indigenous renewable resources.

RENEW seeks to promote policies, like Massachusetts, with offshore wind development requirements that will increase power system

reliability and achieve the Commonwealth's environmental goals, including those found in its renewable portfolio standard and its Global Warming Solutions Act.

The 800-megawatt Vineyard Wind Project and the several other projects and adjacent lease areas that now have power purchase agreements will also help spur development of local industry and economic development.

On behalf of RENEW, I offer my appreciation to BOEM for its work in completing the analysis of the accumulated impacts of offshore wind development through this Supplemental Environmental Impact Study.

One of the pivotal outstanding issues being reviewed by BOEM is that of navigational channels. RENEW supports the Alternative D-2 with its uniform one-by-one-nautical-mile layout, which the Coast Guard determined, after a robust public input process, would, quote, unquote, maximize safe navigation.

The one-by-one layout, which was agreed to by all the New England offshore wind leaseholders, will provide ample and uniform navigation channels

and is significantly larger than the routes provided in the more mature European offshore wind industry.

The Coast Guard's MARIPARS report concluded that the one-by-one nautical mile pattern, orientation and spacing will safely accommodate vessel transits, traditional fishing operations, and search -- and search-and-rescue operations as well.

The recommendations on navigational safety the Coast Guard's report provide examples of how offshore wind development is totally compatible with existing commercial and recreational activity in the wind -- wind energy area. For these reasons, RENEW opposes the new Alternative F proposal that would include the insertion of unnecessary wider transit lanes.

RENEW respectfully requests BOEM expeditiously approve the project consistent with the Alternative D-2 one-by-one-nautical-mile turbine layout to enable this region to meet their schedules for renewable energy deployment and carbon reduction.

Thank you for the opportunity to provide this

testimony.

CHRISTINE DAVIS: Thank you.

Next we'll have M. Blake, then Gabriel, Heidi -- G. and R. are the initials, and I'm looking forward to hearing pronunciation there. And then Charles M. and Nancy S.

And right now those are the names that we have. If you have not had a chance to get your name in the queue, if I have not read those, please press Star 1 now, ask to speak to the operator. Or the operator will then come online. Be patient with that, because they're transferring calls into the queue, too. They've got a couple of different responsibilities.

So if you haven't had a chance to get your name in the queue now, please do so.

And then also as a reminder, we've got the Q & A function for questions at the end of the speaker comments.

So with that, I will turn it over. Can you state and spell your name please?

NICOLA BLAKE: Hi, can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you so much.

NICOLA BLAKE: Great. Thank you.

Yeah, my name is Nicola Blake. That's N-i-c-o-l-a B-l-a-k-e. And, yeah, I'm a Ph.D. atmospheric chemist, and I'm a member of my local energy committee for the hometown -- my hometown of West Tisbury, which is on Martha's Vineyard.

And as a Ph.D. scientist, I'm of course extremely concerned about the accelerating pace of climate change caused by pollution of our atmosphere and oceans by the burning of fossil fuel carbon. And at the university, I'm a NASA-funded researcher, I have observed firsthand just how fast the atmosphere is changing and how vulnerable we are to these irreversible, potentially -- actually, I think they are irreversible -- global scale upheavals that are being caused by our use of the atmosphere and oceans as the free trash can.

This use of our atmosphere environment, like I said, it's a free trash can for carbon, is no longer acceptable and certainly it's not sustainable.

So like I said, as a scientist and also a year-round resident of Martha's Vineyard, I'm an

enthusiastic -- enthusiastic supporter of offshore wind. And specifically, I support the current Vineyard Wind Project.

I followed the progress of the Vineyard Wind development over the past many years, and I'm very impressed with -- and I've been very much reassured by the lengths that Vineyard Wind have already gone to -- to address our local and regional environmental concerns.

But by the same token, thanks to BOEM and Vineyard Wind for being so thorough with the review process. But I just wish to testify that we can no longer afford to wait to make this much needed transition to nonfossil fuel energy sources.

So, as a Massachusetts resident, I'm very much aware that we need to use all our green options, but also our most bountiful and best options for no or low carbon energy is for Massachusetts to transition to offshore wind, and specifically, to Vineyard Wind with no further delay.

So I just wanted to bring it down to basics for you guys.

And, also, thanks so much to Julian Cyr. I'm so lucky to have you as my State Senator, and I support your call, more specifically to not grant extra transit lanes.

And also endorsed the testament today that I heard from my State Rep, Dylan Fernandes. So thanks, everyone. I really appreciate everything.

Thanks. Bye.

CHRISTINE DAVIS: Thank you for your comments.

Next we'll have Gabriel, Heidi, Initial G.R., Charles M., and then Nancy S.

So with that, Gabriel? Gabriel, are you still with us. If we don't get Gabriel on the line, we'll add Gabriel to the end.

So with that, I think I'm gonna switch over to Heidi. Heidi, are you with us?

HEIDI RICCI: Hello? Yes, I'm here. Thank you.

Can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Go ahead, Heidi. Thank you.

HEIDI RICCI: Great. Thanks so much for this opportunity.

So my name is Heidi Ricci; I'm Acting Director of Advocacy at Mass Audubon. Mass Audubon's mission is to protect the nature of Massachusetts for both people and wildlife.

Since our founding in 1896, Mass Audubon has advocated for sound environmental protection laws and regulations at all levels of government. Today, climate change is the greatest threat to the environment. We have to drastically reduce our greenhouse gas emissions in the next decade to avoid the most dangerous impacts of climate change. Therefore, Mass Audubon supports a rapid transition away from fossil fuels and to clean, sustainable and renewable energy sources consistent with the State's decarbonization roadmap to reach net zero carbon emissions by 2050.

Offshore wind plays a key role in this transition as it is among the most cost effective, competitive and reliable clean technologies available.

Mass Audubon supports the responsible development of offshore wind including Vineyard Wind. We recognize that any energy resource has

environmental impacts, and the impacts of this and other offshore wind projects need to be carefully evaluated in order to avoid, minimize and mitigate the impacts as much as possible. We appreciate the efforts of BOEM to evaluate the project and of Vineyard Wind to develop plans for it in a responsible manner.

We also recognize that there are many unknowns for new industry of this scale; therefore, Vineyard Wind and other offshore wind projects need to incorporate robust measures to monitor the effects, including impacts on birds and other wildlife. And we need to use an adaptive management approach to respond appropriately over time.

Specifically, in regards to birds, we offer the following comments: The greatest threat to birds today is climate change. Of Massachusetts' 143 breeding bird species, 43% are highly vulnerable to the effects of climate change. These impacts include warmer temperatures, altering the lengths of the seasons, and interrupting traditional migration patterns, as well as causing desynchronization with essential

food sources and many other impacts.

Climate change is impacting species across all habitats, both coastal and inland. It's causing accelerated sea-level rise and stronger ocean storms that wreak havoc on coastal bird habitats in particular, drowning out nesting and forging areas for species, including the federally protected Roseate Tern and Piping Plover.

The mitigation program for offshore wind should include funding for both monitoring birds and for habitat improvement projects, because we're not going to be able to detect all of the impacts. And we know that the birds need this help with their habitat, particularly coastal breeding birds and their colonies.

So Vineyard Wind is precedent setting for responsible development, and also because it's the first commercial scale offshore wind energy project.

We urge them to proceed expeditiously in completing environmental review and permitting processes for this project so that it can move swiftly forward to construction.

Thank you.

CHRISTINE DAVIS: Thank you.

Next we'll go to the individual with initials G.R. And then after that, Charles M., and we'll get back caught up with the queue after that. So go ahead.

GORDIAN RAACKE: Yes, hi. Can you hear me?

CHRISTINE DAVIS: I can hear you just fine.

GORDIAN RAACKE: Yeah, my name is Gordian Raacke, G-o-r-d-i-a-n R-a-a-c-k-e; and I am the Executive Director of Renewable Energy Long Island, a regional not-for-profit organization.

First of all, thank you for the opportunity to provide comments and for conducting such a comprehensive analysis as part of the Vineyard Wind SEIS.

There -- the Vineyard Wind 1 is, I think, of great significance because it will be the first large offshore wind project in the U.S. -- in U.S. federal waters, and will play, I believe, a pivotal role in starting a vibrant offshore wind industry in our country.

While this industry is just emerging here, the industry is fully developed in Europe where thousands of offshore wind turbines are in

operation today. And we clearly have some catching up to do, as the European wind industry is about 20 years ahead of us.

Tapping into our large offshore wind resources will deliver important benefits including environmental, climate and health benefits, as well as important economic benefits, such as the creation of tens of thousands of well-paying jobs and establishing a new industry and related supply chain activities here. And, of course, it will provide benefits for utility customers.

Now in order to obtain these benefits, we need to not only catch up with the European industry but demonstrate that responsibly developed offshore wind projects will be able to obtain the required permits with reasonable regulatory restrictions as appropriate and within reasonable timeframes.

The proposed one-by-one-nautical-mile layout, according to the Coast Guard, will maximize safe navigation in the wind energy areas. And while this will reduce possible energy generation in these areas by 30% or so, it addresses important

concerns which were raised by competing users of these areas.

However, increase or widening transit -- transit lanes, as in Alternative F, appears likely to cause significant cost increases to utility customers and further delays and greater environmental impacts. Alternative F would likely reduce the benefits from offshore wind projects, such as reducing emissions, and economic and job creation benefits; and we, therefore, urge you to reject this alternative.

To sum up, we are grateful for your work and urge you to move forward as expeditiously as possible to ensure that our region and our country will be able to harness our great offshore wind resource and the environmental and economic benefits that come with it.

Thank you.

CHRISTINE DAVIS: Thank you.

Next, we'll have Charles M., then Nancy F. Wayne G. (sic), Joel R. and then we've Gabriel back in the queue.

And if anyone else is interested in joining the queue, please do press Star 1, speak to the

live operators. Please be patient and we'll get you in. We want to make sure anyone who has a desire to speak today is given that opportunity.

So with that, I'll turn it over to Charles.

CHARLES MAYO: Yes, are you hearing me?

CHRISTINE DAVIS: Hearing you loud and clear. Thank you very much.

CHARLES MAYO: Great. Thank you.

My name is Charles, C-h-a-r-l-e-s, Mayo, M-a-y-o; I'm Senior Scientist at the Center for Coastal Studies, I chair the Ecology Department, and I am Director of the North Atlantic Right Whale Ecology Program at the Center.

I am speaking for myself, though I think a number of others from our laboratory have also spoken.

The animal that I work on is the North Atlantic Right Whale. It is, as is recognized in the SEIS, one of the rarest mammals on earth and is occasionally found in the waters south of Cape Cod. The present status, by all accounts, is critical. The pop -- all population indicators are negative. The population, therefore, is rightly the center of a great deal of concern.

And I have looked at that in detail over my now 35 years of studies of that animal, and some of our research does go on South of Cape Cod. So we're well aware at our laboratory and into my project of the distribution issues and issues that relate to behavior of the species.

I would like to go to this animal and say that, indeed, it is a critical -- an animal of critical concern, and it has justifiably had the attention of BOEM, of environmental groups across a wide spectrum of NGOs. And that is much appreciated by those of us who deal with the animals on a daily -- daily basis.

But I would like to raise the question or the -- the vision that brings me to this -- this meeting today, and that is a clear and slowly moving disaster that is engulfing particularly the Gulf of Maine, the area on the margins of the -- of the region that's being considered. And that, of course, is climate change.

Our data, which I'm sure some of the BOEM scientists are aware of, our data in one of the most densely aggregating areas for this species is clearly showing that the population is responding

to profound change within the Gulf of Maine that likely will have an overall and long-term effect on the species.

That said, I simply wanted to recognize the critical circumstances that are messier by this meeting, and that is that climate change is with us. There is virtually no disagreement on that. A wide variety of resources, certainly the fisheries' resources all the way from -- from the lobsters all the way up to the finfish that are so important to our ecosystem, and also to -- to Right Whales, are in a state of change. And certain fisheries can now attest to that.

The same is happening to Right Whales. And so the concern for this nearly extinct species particularly is met in the issue of climate change. And the proposal for Vineyard Wind is, as I see it, worth your attention and concern, but it's critically important to the future of this species.

We are in a state of change, and our information clearly shows that the future for the Right Whale is under the cloud of climate change. And the hope will be that Vineyard Wind will be

the first of a number of clean energy sources to change the course which seems so difficult.

Critical to the whole story, in closing, is the agreement that was come to by CLF, NRDC and National Fish and Wildlife -- I'm sorry, the National Wildlife Foundation. That agreement protects the Right Whales about as well as we can imagine, an adaptive management plan, one that particularly looks at development.

So I thank BOEM for -- for this opportunity to make that statement. I think it's critical.

And I would lastly say, I hope that BOEM will make sure that that agreement, which is so important, is applied to all future -- future developments in -- in these waters.

Thank you.

CHRISTINE DAVIS: Thank you.

Nancy, you're next. Then Wayne (sic), then Joel, then Gabriel and David.

So go ahead, Nancy.

NANCY SOPKO: Yes. Hi, can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you.

NANCY SOPKO: Great. Thanks.

My name is Nancy Sopko, that's N-a-n-c-y S-o-p-k-o. And I am the Executive Director of the Special Initiative on Offshore Wind or SIOW, which is an independent project at the University of Delaware's College of Earth, Ocean and Environment that supports the advancement of offshore wind power as part of a comprehensive solution to the most pressing energy problems facing the United States.

SIOW provides expertise, analysis, information sharing, and strategic partnership with the offshore wind industry advocacy groups and government stakeholders to build understanding and drive the deployment of this technology.

First, please allow me to start off by thanking the staff at the Bureau of Ocean Energy Management for completing the Vineyard Wind Supplemental EIS in such a timely way during a global pandemic. The completion of this comprehensive document is nothing short of critical to the continued progress of the U.S. offshore wind industry. And we very much appreciate your attention to it in these unprecedented times.

I plan to submit written comments on behalf of SIOW by the July 27th deadline, but I'd like to highlight a few specific points today, if I might.

Since the beginning of 2020, I have been serving as the developer coordinator on the Responsible Offshore Development Alliances, or RODA's, Joint Industry Task Force. For those who don't know, the Joint Industry Task Force was created in June of 2019 to improve communications between the commercial fishing and offshore wind industries with a specific focus on promoting coexistence between the offshore wind energy development -- between offshore wind energy development and commercial fishing practices.

Members of the Task Force include members of various commercial fisheries and the following offshore wind developers: Orsted, Equinor, Vineyard Wind, Mayflower, Atlantic Shores, Avangrid Renewables, EMBW, and RWE.

In my capacity as the Task Force's developer coordinator, I organize and prepare the offshore wind developers for Task Force meetings and other communications with the fishing community; I work with RODA's executive director and the Task Force

facilitator to prepare materials and develop meeting agendas; I coordinate with RODA as appropriate to communicate with management, science and regulatory agencies regarding joint recommendations or major joint initiatives or Task Force concerns; and I work with RODA staff to provide educational exchanges to further improve dialogue and build greater understanding between the two industries.

The work of the Task Force cannot be overstated, and RODA deserves a lot of credit for creating such an important group dedicated to promoting coexistence between the two industries.

While the Task Force meets formally about four times a year, the fishermen and offshore wind developers also meet to have educational exchanges, have numerous additional conversations regarding the issues facing the two industries at large, and several side conversations between the individual developers and fishermen regarding more project-specific issues. So the conversations between the two industries are continuous and ongoing. It's a privilege for me to help facilitate communications between these two

important industries in such a significant forum.

I would be remiss if I didn't also take this time to mention the substantial benefits of offshore wind energy development in general, and the Vineyard Wind Project in particular.

Offshore wind energy is clean, renewable and reliable with average capacity factors similar to coal and typically higher than other renewable energy sources. In addition to producing clean energy, offshore wind development creates several additional benefits.

Building commercial scale offshore wind facilities will spur over $70 billion in private investment and grow tens of thousands of well-paying U.S. jobs. In fact, according to a recent report from the American Wind Energy Association, building out 20,000 to 30,000 megawatts of offshore wind power by 2030 will support between 45,000 and 83,000 jobs in development, construction and operations and maintenance in the same period.

Offshore wind development can also help mitigate the impact of climate change, the largest threat facing our ocean ecosystems and coastal

communities vulnerable to the rise of sea levels.

Offshore wind development has been shown to improve recreational fishing opportunities and increased tourism, based on the experience of Block Island, the nation's first offshore wind facility.

And lastly, offshore wind development can help ensure America's energy security.

For its part, the Vineyard Wind Project is an 800 megawatt facility that will be located more than 15 miles off the coast of Martha's Vineyard and will be the nation's first commercial scale offshore wind project in federal waters. The project will provide clean, renewable and cost effective electricity to 400,000 homes and businesses in Massachusetts saving ratepayers more than $1.4 billion in energy related cost savings over the life of the project.

Also, the Vineyard Wind project will create 3600 jobs for local residents while making a significant contribution towards climate change mitigation by avoiding almost 1 7 million tons of carbon dioxide from being emitted into the air per year.

I'd also like to briefly touch on the transit lanes issue, as this is an issue of great importance to both the Vineyard Wind 1 Project and offshore wind industry as a whole, and express SIOW's support for Option D-2 in the SEIS.

In late 2019, Vineyard Wind along with the other developers of the New England wind energy -- wind energy areas, proposed to advance all future projects in their lease areas with a uniform one-by-one-nautical-mile layout. The U.S. Coast Guard has since determined that this type of standard and uniform grid pattern layout would maximize safe navigation in the wind energy area. The one-by-one-nautical-mile layout eliminates at least 30% of the area's potential energy production but addresses the main comments from the commercial fishing industry regarding the need for transit lanes to ensure safe navigation raised during the public consultation process for Vineyard Wind 1.

The one-by-one-nautical-mile uniform layout creates over 200 transit lanes throughout the entire wind project area.

The U.S. Coast Guard has endorsed the

one-by-one-nautical-mile layout, finding that the standard and uniform grid pattern would allow for safe navigation and continuity of Coast Guard missions through seven adjacent wind farm lease areas over more than 1400 square miles of ocean. Adding transit lanes to a uniform one-by-one-nautical-mile turbine spacing layout, spacing that is already greater than that of any existing offshore wind project in the world, would threaten the viability of all offshore wind projects in the region and their ability to meet the clean energy supply goals.

Additional transit lanes will result in substantial technical challenges, delays, cost increases to consumers, and more environmental impacts from offshore wind development with marginal gains and, as identified by the Coast Guard, potentially greater conflict among transiting and fishing vessels that are funneled into the corridors thereby increasing traffic density and risks for vessel interaction.

For these reasons, Alternative F should not be selected. The Supplemental Draft EIS is a thorough, well thought out --

CHRISTINE DAVIS: Nancy?

NANCY SOPKO: Yes?

CHRISTINE DAVIS: Can you wrap up your comments, please?

NANCY SOPKO: Yes.

CHRISTINE DAVIS: All right. Otherwise, I can put you at the end, if you'd like to continue it a little bit. But otherwise, if you can wrap your comments up, that would be appreciated.

NANCY SOPKO: I only have 30 seconds left.

CHRISTINE DAVIS: Okay. Perfect. Thank you.

NANCY SOPKO: The Supplemental Draft EIS is a thorough and well thought out analysis that supports implementation of the one-by-one layout without transit lanes as the alternative with the least impact and most benefits.

SIOW urges BOEM to chooses D-2 and issue the record of decision as soon as possible.

Thank you.

CHRISTINE DAVIS: Thank you very much.

Wayne (sic), you're next, then Joel, then Gabriel, then David and Tobias. And I believe, that's what I'm seeing in the queue. So if you are interested in speaking, please press Star 1.

Be patient and wait to speak to the operators. They are managing a lot of traffic. And then we'll go from there.

And then also, as we are getting closer to the end of the public comment period, just a reminder, for those of you on Zoom, to use that Q & A function at the bottom of your screen to enter any questions that you might have.

And so with that, I'll turn it over to Wayne (sic).

DUANE GATES: Hi, Christine. Can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you so much.

DUANE GATES: Thank you.

Okay, my name is Duane, D-u-a-n-e, Gates G-a-t-e-s, and I'm the President of the Fairfield County Building Trades in Fairfield, Connecticut, known as also the Gold Coast, but I'm speaking on behalf of Bridgeport.

Bridgeport has been selected as a port to build some of these wind turbines, and it's very important for us. I represent 3500 craftsman in Fairfield County building trades, and Bridgeport

is an area -- it's our largest city in Connecticut, but there's a lot of unemployment down there.

And so I'm speaking in favor of all this because of the opportunities to possibly create new jobs and new careers for my members and the future generations.

Right on the other side of the port -- this port has been vacant for 20-plus years. Again, it's a port that needs -- needs work. On the other side of the port is PSE&G powerhouse. It's a coal-fired powerhouse that has to be decommissioned next year.

So this is very important to us because you're -- you're taking away a powerhouse that is contaminating our city, and now we're going to put a new project here that will help our -- not only the city residents but our craftsmen.

I've heard a lot of very interesting comments today from a lot of professional people. I thank you. You know, I commend everyone's professionalism. But, again, my job is to promote union labor and my people that I represent.

Vineyard Wind has made a commitment to us to

do a project labor agreement here in Connecticut, which is great. They've also talked about Pathways programs for training. And again, it's all about our next generation of construction workers.

So on behalf of Fairfield County Building Trades, we support the one-by-one layout.

And thank you very much for your time.

CHRISTINE DAVIS: Than you Duane.

All right. Next, we have Joel, then Gabriel, David and Tobias.

Go ahead, Joel. Joel are you still with us? Or perhaps on mute?

JOEL RINEBOLD: Joel Rinebold here. Can you hear me?

CHRISTINE DAVIS: I can you just fine now. Thank you.

JOEL REINBOLD: Okay. Perfect.

Joel Rinebold; Joel, J-o-e-l, Rinebold, R-i-n-e-b-o-l-d. I'm Director of Energy at the Connecticut Center for Advanced Technology. I've been at this position for 15 years. Prior to that, I was Executive Director of the State of Connecticut Siting Council, and I was in that

position for over 15 years also.

Compliments to the Bureau of Ocean Energy Management for development of an accurate record. We believe this record supports public need for renewable energy, public value for jobs, supply chain development, economic development, review of alternatives that include -- that are necessary for the -- for the Environmental Impact Statement and review of impacts that have a theme to avoid, minimize, and mitigate these environmental impacts.

In terms of the alternative spacing, which has come up by several of the other speakers, we -- we support the one-nautical-mile-by-one-nautical-mile spacing. I think the record is accurate and in supports the finding that this one-by-one spacing is -- is -- is adequate for passage navigation and turning for both commercial and fishing vessels.

We do not support the four-mile corridor alternative. This larger, wider corridor does not -- does not seem to be supported by the record, does not seem to be necessary for navigation. If this alternative were to be

selected, it would result in the sacrifice of the benefits and value of the renewable energy and the economic development value. Hence, we don't support it.

In summary, we -- we do support the project. We think the project -- I think the approval of this project is supported by the record for clean energy jobs, economic development. We think the value of these benefits is -- is consistent with the findings for environmental impacts that have been avoided, minimized, and mitigated. We support the alternative for the one-by-one nautical mile spacing. We do not support the four-mile corridor. If selected, that would sacrifice energy jobs, economic value.

And last, we support approval of the project without delay.

Thank you very much. And we will put more detailed written comments into the record.

Thank you.

CHRISTINE DAVIS: Thank you. Next we have Gabriel, then David then Tobias. And I believe that is the end of my queue. So again, if you are interested, please press Star 1 to get into that

queue.

So with that, I'll turn it over to Gabriel.

GABRIEL BELLEBUONO: Hi, can you hear me this time?

CHRISTINE DAVIS: Yeah, I can hear you just fine.

GABRIEL BELLEBUONO: All right. That was my fault last time. My apologies.

All right, so my name is Gabriel Bellebuono, G-a-b-r-i-e-l B-e-l-l-e-b-u-o-n-o. I'm 20 years old. I've grown up on Martha's Vineyard. I graduated in 2018. And I didn't go to college immediately because I wasn't totally sure of what I wanted to do, so I've been on the island landscaping and metalworking.

And when this opportunity presented itself, basically at my doorstep, something of this size, or the importance of a renewable energy project this size locally is just too huge for me to pass up.

The economic impact, the -- the personal attack on climate change, I feel like -- I'm enlisted in the classes to be an offshore wind technician that are being offered by ACEMV and

Bristol College.

Climate change has got to be the biggest thing for me, because as a 20-year-old growing up and watching water levels rise is not something I want to be a part of. So anything I can do to stop that, work towards a different path for the world and the economy in the U.S., just everything.

So yeah, all in all, I'm in full support and fully invested in Vineyard Wind. It's really good to hear the support from everyone else who's been on this call.

Thank you to BOEM for the opportunity to speak. Yeah, thank you.

CHRISTINE DAVIS: Thank you. Next we'll have David and then Tobias.

So David, go ahead. David, are you still with us? OR perhaps on mute?

DAVID ARAUJO: I'm still here.

CHRISTINE DAVIS: Oh, good.

DAVID ARAUJO: You have -- you have me?

CHRISTINE DAVIS: Yep, I have you loud and clear. So if you can state and spell your name, please. Thank you.

DAVID ARAUJO: Sorry about that.

CHRISTINE DAVIS: No worries.

DAVID ARAUJO: This David, D-a-v-i-d, Araujo, A-r-a-u-j-o. I'm here on behalf of Southeastern Mass Building Strategies as the President of that organization.

It's been -- this is the second call that I've made, and it's been -- it's been very good today. I have to say that you've had a lot of professional people on, as stated before, facts and figures, a lot of support, which I think is a great thing. It's just amazing to me where we started as a country, you know, way back in the 1900s, and the things that we did to our environment, and where we are today going through this process. And how intense this process is and all the research and all the time that everyone has spent just to get to this point. And hopefully, we can continue on the right course to help our environment, you know, the way we should. And -- and hopefully we can leave this -- this -- this planet better for our kids, grandkids and their kids.

Again, you know what I'd like to touch on is

the nautical-mile layout. I think that the wind industry, especially the Vineyard Wind people, have taken a lot of time and a lot of effort to make as much concession as they can on the one-by-one-nautical-mile layout. I think that they've -- they've done a great job in promoting that.

I think that they can that the concerns of the fishermen, and, you know, the sport anglers and anyone else who uses the ocean. I think it's obviously big enough for -- for everyone to have a piece and enjoy the waters that we're accustomed to. This project will help preserve those waters, as the young man just said before me, will help preserve hopefully the rising of those waters by the -- you know conserving the environment.

You know this is going to bring quite a bit of power, 13,000 megawatts of energy plus by -- by not going with this -- with this layout, more than then if we did. So I think it's very important for this project, and future projects, for that matter, that that the one-by-one layout be adhered to.

You know, my concern is -- is power. We are

a society of great demand of power. You know, we're all accustomed to turning on the light switch or plugging in the hair dryer, or make sure the AC system (indiscernible) day like today. And with all the plants in Southeastern Mass and the Cape that are being decommissioned, we are going to find, you know what we need to find, more power. And this couldn't be coming at a better time for our need for power.

And, again, you know, the education piece of this, as I stated before in previous comments, there are children that are going to our grammar schools right now who don't even know that they're going to be involved in this particular industry. And it really is a very big industry. I know there was some -- some figures thrown out today of some 80,000 jobs, or -- once this project is finished constructing and it's -- through it's like process.

So again, I would thank BOEM for their, you know, diligence. It's been a great venue today, Christine. You've done a hell of a job, you know, keeping it all together. And I do commend everyone involved. And again, I worked with

Vineyard Wind, daily, weekly, monthly basis talking back and forth trying to get agreement on a project labor agreement for -- for the 15 or 20,000 people, construction workers through the trades in Southeastern Mass that I represent, and they couldn't be a better partner.

And I look forward to working with the other developers, you know, as we move through this very exciting wind industry.

And really, it's about time that the United States really stepped up and got behind this. And hopefully, we can surpass the rest of the countries who are already involved in this and really be a leader in the wind industry.

Again, I thank you for the opportunity to speak today. And I commend everyone on their comments and their -- and their work going forward.

CHRISTINE DAVIS: Thank you.

And I want to acknowledge Jim and Michelle and Jenn, and all the others from BOEM that are listening in and are preparing answers to questions that we received in Q & A and supported this process.

With that, I'm gonna turn it to Tobias. Tobias, I believe, is the last person to speak. If anyone else wants the opportunity to do so, please press Star 1 now and get in the queue. If we don't have anyone, we'll be ending the comment period after Tobias.

So with that I'll turn it over to you.

TOBIAS GLIDDEN: Hello there. Tobias Glidden -- can you hear me fine? -- T-o-b-i-a-s, Glidden, G-l-i-d-d-e-n.

CHRISTINE DAVIS: Yes, we can hear you just fine. Thank you. Go ahead.

TOBIAS GLIDDEN: Lovely. Thank you.

So I am a fifth-generation fishmonger on Nantucket. I'm also the youngest ever serving former member of the Nantucket Select Board. I am a member of the Marine Mammal Alliance Nantucket we look after preserving stranded marine mammals. And I'm also a historic preservationist on buildings on Nantucket.

And I wanted to just put in a few points and comments. And I wanted to first give my thanks to BOEM for the process of moving the wind turbines off to about 15 nautical miles. The spreading out

of the turbines at one nautical mile apart, I think, mitigates any historical view impacts.

Nantucket has a huge history of winds. We are a sailing colony, a whaling colony, and we have a wind -- wind turbines on a large hill on Nantucket. So we really appreciate this -- this time, this new chapter for Nantucket in being a part of offshore winds.

From the fishery side, I've seen the fish being really negatively impacted due to industrial fishing for the last hundred years. And so I'm really excited for the opportunity for fish to come back from these turbines. I think there's going to be a huge benefit to the marine habitat from these turbines. We've seen that in Block Island already. And I've spoken to a number of commercial fishermen on Nantucket, and they're all supportive of the project.

I want to thank BOEM for moving the turbines out to about the 20,000 edge. That's an important fishing habitat, and so we appreciate that.

And so lastly, I'd like to say, you know, this is -- this is awesome for Nantucket. We are going to see potentially two feet of sea level

rise over the next 90 years.

And so we are a national historic landmark. And if we do not deal with climate change, and if this project and the gigawatts of wind behind it do not move forward, we are going to lose the opportunity to save a historic landmark.

The visual impacts have been mitigated. Vineyard Winds has done a phenomenal job of covering a number of the concerns with this project. And I just please strongly ask you to move this project forward in an expedient way. There is so many countless benefits for this project, and it would be a huge disservice to slow it down.

We've been working on this for over 15 years in various capacities. And it is -- it is time to harness the wind as Nantucketers have done for hundreds of years.

Thank you.

CHRISTINE DAVIS: Thank you for your comments. And thank you everyone for participating in the process today.

If you do want to try and get into the queue, again, one final call for that Star 1.

And then in the meantime, while I give that just a minute, I want to remind you that we are going to go into the question-and-answer session in just a second here. A number of folks have already used the Q & A function on Zoom. That should be located on the bottom of your screen. If you press on the Q & A icon, a pop-up box should appear and you can enter your questions there.

Just one more minute to see -- I don't believe we've got anyone else popping up to be in the queue.

So with that, I will officially close the public comment meeting for today at 4:40 p.m. Eastern Time, and we will move on to the question and answers.

So in addition to the public comment, which is so very much important, two-way communication is a priority for BOEM. So at this time, we are going to answer the questions that we've been receiving throughout the day.

Let's start by answering the questions that meeting participants have already submitted. And if anyone else wants to add some in the next 15 to 20 minutes or so, we will address those as well.

If you've already done so, you want to submit a question, please use that Zoom icon, the Q & A icon at the bottom of your screen. We have several folks who have been watching the Q & A box and are prepared to start answering your questions.

And at this time, I'm going to turn it to Isis Farmer who is with BOEM. She's gonna moderate this section and get the answers to the questions that we received, and also open it up for other questions. So as reminder, please use that Q & A function on Zoom.

And with that, I'll turn it over to Isis.

ISIS FARMER: Hi, Christine. We actually have one more person who just submitted a name to give public comment.

CHRISTINE DAVIS: Oh, sure. Look at that, Jonathan.

Okay. So thank you. All right. We'll reopen the commentary. And Jonathan, apologies for not catching that a little sooner on my screen. So go ahead and state and spell your name please, and we'll go from there.

JONATHAN LEVENSHUS: Thank you very much.

My name is Jonathan Levenshus, J-o-n-a-t-h-a-n, Levenshus, L-e-v-e-n-s-h-u-s, and I'm the Director of Federal Campaigns for the Sierra Club's Beyond Coal Campaign.

Thank you for convening a series of public hearings on the recently released supplement to the draft EIS for the Vineyard 1 -- Vineyard Wind 1 Project.

This Sierra Club's Beyond Coal Campaign supports offshore wind. The Vineyard Wind SEIS, which expands the prior cumulative activities scenario for offshore wind development along the Eastern Seaboard reveals that offshore wind can be done in an environmentally responsible way and provide the clean energy that East Coast states are demanding.

The analysis notes that as offshore wind advances, we will see reduced emissions from polluting fossil fuel plants and improve air quality, and every investment in renewable energy helps in the fight against climate change.

While we fight climate change, we must also avoid, minimize, and mitigate potential threats to the marine environment, such as underwater noise,

ship strike and turbine collisions.

By taking precautions and adopting the measures outlined in the SEIS for siting, constructing and operating turbines, and committing research and project monitoring to understand and protect marine wildlife, we will protect our valuable ocean resources.

The expanded analysis produced by BOEM also predict that offshore wind farms will generate approximately 22 gigawatts, enough to power nearly 8 million homes along the U.S. Atlantic Coast within the next decade. That full scale of offshore wind development reinforces how important -- how it's more important than ever to ensure that when projects adequately protect coastal jobs and recreation and the future food that the oceans provide to the world.

That's why the Sierra Club is supportive of Boeing's preferred alternative to distribute Vineyard Wind's winds turbines arrangement to one-nautical-mile spacing. The arrangement of turbines in this orientation would allow vessels to travel unobstructed and help to avoid navigational impacts.

The approval of this project, which will also have important economic impacts to the region. Vineyard Wind 1 will create 3,600 good-paying jobs for local residents, and it's expected that project will save ratepayers more than $1.4 billion in energy related cost over the 20-year contract with the State of Massachusetts.

The untapped offshore wind resource along the U.S. Eastern Seaboard is one of the most powerful in the world and is within reach of densely populated areas where energy demands are high and new resource options are few.

The offshore wind energy could create 83,000 jobs by 2030 and deliver over $25 billion in annual economic input by that same year.

In closing, the one-nautical-mile spacing proposal has been shown to be flexible enough for offshore wind developers to construct efficient and reliable wind farms while also ensuring navigable waterways for maritime commerce and supporting the needs of coastal communities and businesses. I urge BOEM to accept the one-nautical-mile spacing proposal, which is by far the best option on the table to create a

competitive dynamic coastal marketplace for offshore wind projects that will also result in economic growth and environmental protection for states from Maine to the Carolinas.

Thank you for your time today.

CHRISTINE DAVIS: Thank you. And knowing that we had Jonathan join in, I just want to give it one more minute or two for folks to press Star 1 before we bring things to and end.

As I've mentioned, we also have the Q & A session coming up next, but I also wanted to encourage folks to visit the Frequently Asked Questions that are in the virtual meeting page BOEM has set up. There's a bunch of information there and FAQs that have been gathered throughout the process. So I encourage you to check that out as well.

And I think -- Isis, I think I'm going to try to turn it over to you again. Are you good to go?

ISIS FARMER: I think we are. Thank you, Chris -- Christine.

So thank you everyone. My name is Isis Farmer, and I'm an Environmental Coordinator in BOEM's Office of Renewable Energy Program. But I'm

also one of the co-leads for the Vineyard Wind Supplemental Environmental Impact Statement. And we have -- we have a few questions that several folks have submitted throughout our meetings. And so with that, we're going to get started.

So please note that you may not see the questions right away, but you will see them pop up as we answer them verbally. So we appreciate your patience with that.

And for our first question, I'm going to take this question. The question is about a request for correction. That's the Responsible Offer Development Alliance submitted under the Information Quality Act for the Massachusetts and Rhode Island Port Access Route Study. And the question is about whether a request for corrections has been submitted under the Information Quality Act for any previous Port Access Route studies.

So BOEM is not aware of any requests for corrections that have been submitted for other -- for other Port Access Route studies, and the U.S. Coast Guard is the federal lead for those.

And for the next question, I'm going to ask

for Jim Bennett, our program manager, to turn on his camera and unmute his line.

JIM BENNETT: How is that?

ISIS FARMER: That's great, Jim. Thank you.

So the question that I have for you is about how BOEM is planning to enforce developers' commitments for continuing monitoring for things like, you know, whales and birds, as well as cable landings, and ensuring that cables are properly installed and remain buried.

JIM BENNETT: That's a great question, especially in view of the fact that we're looking at a dozen or more projects over the coming decade. It's going to be a real challenge to be able to keep up with things.

All of this revolves around the approval of COPs, which will include -- undoubtedly include monitoring requirements, as well as the requirements that already exist under the renewable energy regulations. And to address -- there's a couple of things that we're doing to address this compliance over time.

One is, we're working very closely with our sister agency, the Bureau of Safety and

Environmental Enforcement, to help us with the health, safety and environmental guidelines that are going to be required.

Because in addition to COP approval, we also have a requirement for a facility design report and a fabrication and installation report which provides a lot more detailed -- a lot more detailed information, engineering specifications for projects. And to help with that, we require a third-party certified verification agent, or CVA, which is an independent company employing professional engineers, for both the examination, design and the installation. So we have the mechanisms in place to address things like the monitoring of cables and the ensuring burial depth.

But I also want to mention the -- our environmental studies program, which we put in place for Outer Continental Shelf activities many decades ago, actually, and has contributed over 80 million towards the identification of information needs for renewable energy, and that includes information to inform policy decisions on OCS renewable energy development.

And one example is RODEO, the Real-time Opportunity Development Observation Program, which we have been pursuing both at Block Island and now at CVOW off of Virginia in order to collect actual data on effects so that we can identify what additional information is needed. And that is one of the many mechanisms we have in place to deal with the challenges that we're going to be facing in the coming decade.

Thank you.

ISIS FARMER: Thanks, Jim. So for our next question, I'm going to ask for Jenn Bucatari to turn on her camera and unmute her line.

JENNIFER BUCATARI: Hi. Can you hear me?

ISIS FARMER: I can hear you just fine. Thanks, Jenn.

So the question that I have for you is: What are the positives and negatives of a broad fishing lane through the wind farm?

And I'm assuming they're talking about the transit lane in alternative F.

JENNIFER BUCATARI: Okay, yes, thank you.

Alternative F, which, as we mentioned, describes the addition of a two- or

four-nautical-mile transit lane. And -- well the lane is for transit, so it's important to point out that it's not for a fishing lane, it's a transit lane.

We did, though, assess the recreational fishing vessels, and that they could congregate at structures alongside the transit lanes possibly increasing risk of collisions and allisions in these areas. Impacts from Alternative F defer to depending on if F is paired with Alternative A or with Alternative D-2.

So compared to the proposed action alone, which would be A, establishment of an up-to-four-nautical-mile-wide transit lane under Alternative A with F. So if you're pairing F -- F and A together, both alternatives, that could reduce impacts related to risk of collisions and allisions.

Alternatively, establishment of an up-to-four-nautical-mile-wide transit lane through alternatives through the D-2 layout, which is that one-nautical-mile east-west layout, with Alternative F, so a transit lane with the D-2 layout could result in increased impacts related

to allisions and collisions including to military and national security vessels. It -- but would reduce impacts on military and national security search-and-rescue activity.

So with respect to the increased impacts, the reasoning for this is that the northwest-southeast transit lane orientation under Alternative F would differ from the east-west orientation of the D-2 layout of Vineyard Wind 1 turbines under D-2.

So the differing orientations of the transit lane and the turbine layout could actually increase navigational complexity for vessels operating within the lease area, including these military and national security vessels.

As mentioned in the presentation I gave a few hours ago, the implementation of the four-nautical-mile-wide transit lane may allow, though, for some science -- the ship-based scientific research and survey activities to occur within the transit lane, depending on what the conditions are.

So -- but you can find a summary of the anticipated impacts to each resource from Alternative F within the Supplemental EIS table

and executive summary. It's Table ES-2. And you can also find additional information about direct, indirect and cumulative impacts of Alternative F, which include adverse and beneficial impacts within each resource area, within Chapter 3 and within the Appendices A and B of the Supplemental EIS.

ISIS FARMER: Thank you, Jenn.

And for our next question, I'm going to ask for Ben to turn on his -- on his camera and unmute his line.

BEN SUSSMAN: Right here.

ISIS FARMER: Thank you, Ben.

So the question that I have for you is -- there's a question about potential recreational fishing benefits and how they were considered, and whether things like aquaculture activities or generation of hydrogen were considered in the Environmental Impact Statement.

BEN SUSSMAN: So recreational fishing benefits were considered in the Environmental Impact Statement. In particular, benefits due to the aggregation effects of new structures such as wind turbine foundations. They're discussed in

Section 3.10 of the Supplemental EIS. The lessee would be limited to activities in the approved -- its approved COP. And activities by other entities could occur in the wind release energy area -- within the energy lease area, excuse me, if they don't interfere with the lessee's activities.

Each COP points plan submitted for BOEM's review will go through its own project specific environmental analysis.

ISIS FARMER: Thank you, Ben.

And so for the next question, I'd like to ask for Kyle Baker.

And, actually, before we leave you, Ben, can you actually introduce yourself and say, you know, your name as well as your position and role?

BEN SUSSMAN: Right. Apologies.

My name is Ben Sussman. I'm with ERM. We are the consultant to BOEM in preparing the Environmental Impact Statement.

ISIS FARMER: Thank you.

And so at this point, can I have Kyle Baker turn on his camera and unmute his line? Kyle, would you mind introducing yourself, giving your position area of expertise?

KYLE BAKER: Sure, thanks, Isis.

My name is Kyle Baker. I'm a marine biologist in the Office of Renewable Energy Programs. I'm a subject matter expert in the area of marine mammals and sea turtles.

ISIS FARMER: Thank you, Kyle.

And so the question that I have for you is whether BOEM can assure that future development beyond Vineyard Wind will be similarly conditioned. And this -- this commenter essentially said that, you know, there's been some work with NGOs to mitigate impacts to Right Whales, and so they want to know how we consider incorporating this information moving forward for other offshore wind projects.

KYLE BAKER: Sure. Thanks, Isis.

Yeah, that's a really good question, and one that's on a lot of our minds, as well as stakeholders' minds.

For each project, mitigation measures will be developed through the National Environmental Policy Act process, such as this. It's a consultation NOAA fisheries under the Endangered Species Act, as well as the NOAA fisheries

permitting process under the Marine Mammal Protection Act.

In some cases, the developer voluntarily includes measures in its Construction and Operations Plan.

BOEM continues to work with stakeholders through collaborative efforts, such as the development of best management practices, they do workshops to develop consistent and effective measures for the protection of Right Whales, as well as other protected species. And we're doing that with scientists, environmental NGOs in the industry and with partners as well as others.

Although we can't yet require mitigation and monitoring measures to COPs, we haven't received yet the updated responsible development of offshore wind import with future COPs.

ISIS FARMER: Thank you, Kyle.

And the next question I have is for Ian. Ian, would you mind turning on your camera and unmuting your line and introducing yourself?

IAN SLAYTON: Hello, my name is Ian Slayton. I'm a physical scientist at BOEM in the Office of Renewable Energy Programs. I worked on the

cumulative scenario, and also I'm the air quality subject matter expert.

ISIS FARMER: Thank, Ian.

And the question I have for you is whether -- the question says -- assumed -- assumes that the additional transit lane proposal, and in this case, I'm assuming that they're talking about Alternative F, would reduce the output potential of renewable energies. And assuming that this is so, what would be the percentage of that production decrease?

IAN SLAYTON: Due to the transit lane alternative, essentially no megawatts will be lost on the Vineyard Wind 1 Project. It's BOEM's assumptions that it would push the project further south and into the Vineyard Wind 501 lease area beyond the project area.

However, if Alternative F was selected, it is likely that any neighboring leases which contains this lane studied in Alternative F would also need to continue this lane and potentially incorporate the other lanes considered in the cumulative scenario.

This would eliminate a portion of available

building space throughout Rhode Island and in the Massachusetts lease areas. The loss and technical capacity would ultimately depend on the size of the turbines that -- that are used going forward for other projects.

But if we're assuming available technology of 12 megawatt turbines going forward, that would be something in the neighborhood of 3,300 megawatts. And there's more information on this in the SEIS in Chapter 2 on Page 5.

ISIS FARMER: Thank you, Ian.

And for our next question, we're going to go back to Jenn. Would you mind turning on your camera and unmuting your line?

Okay. And so the question that I have for you is, it's another question about the Responsible Offshore Development Alliance's request for corrections. And the question says that the Responsible Offshore Development Alliance's requests for corrections suggests that a two-by-two-nautical-mile grid layout would be ideal which would require twice as much space to generate the same amount of energy. Considering that BOEM requested that the U.S. Coast Guard

consider the energy goals of Massachusetts, Rhode Island, Connecticut and New York in their Port Access Route Study, would a layout that precluded the attainment of these goals be explored?

JENNIFER BUCATARI: Thanks, Isis. And sorry for not introducing myself before.

I'm Jenn Bucatari. I know most of you recognize me from the presentation. But I am one of the other -- Isis's partner on the SEIS development as an environmental coordinator.

Okay. So it's important to note that the Supplemental EIS addressing state energy demands not state goals, just to make that clarification.

As I mentioned in the introduction, with the technology that's available right now off the shelf, full demand from New York and New Jersey would not be met.

The Supplemental EIS itself does discuss in Appendix G, an alternative considered but not analyzed in detail, that included alternate spacing of 1.5 to two nautical miles or greater between the wind turbine generators. This would result in turbines outside of the lease area. And while this alternative could reduce impact on

fishing opportunities within the project area, it would route -- because it would reduce placing -- it would result in placing turbines outside the lease area. This would essentially constitute a different proposal.

So in addition to the increased environmental impacts that could occur from longer cabling requirements, this alternative would not meet the purpose and need of the proposed project and would effectively be the same as selecting Alternative G, or the no-action alternative.

ISIS FARMER: Thanks, Jenn.

And for our next question, we're going to go back to Ben. And would you mind turning on your camera and unmuting your line?

BEN SUSSMAN: Happily?

ISIS FARMER: Thank you.

And the question that I have for you is, there -- the question is -- is about whether the -- the question asks whether, you know, they understood correctly that the major environmental justice -- justice impact was related to the New Hampshire Avenue landfall location. And since it's no longer being considered by Vineyard Wind,

There's no longer a major impact on environmental justice population. And they want to ensure that that's their -- their understanding of that issue is correct.

BEN SUSSMAN: That is correct. The Supplemental EIS found that the proposed action with the New Hampshire Avenue landing site would have overall major direct and indirect impacts on environmental justice communities, particularly for individuals in the commercial and for-hire recreational fishing industry near Lewis Bay. That would be a result of disruption of navigation into and out of the bay.

With the elimination of New Hampshire Avenue landing site, the proposed action's impacts on environmental justice would be reduced to moderate.

ISIS FARMER: Thank you, Ben.

And for our last question, the question says: Do the statements of number of homes that power -- that are powered by -- that power -- that power is provided to include an estimate of the adoption of electric vehicles, or is this not a reasonably foreseeable outcome of electrification? How will

excess power be dealt with? And will developers be paid to shut down if there is more production than demand?

So I'm going to turn this over to Kirsten, who's joining us from the Massachusetts Clean Energy Center. Kirsten, would you mind turning on your camera and I'm unmuting your line. There we go. All right. Thanks, Kirsten. Is your line unmuted? No, I think you're still on mute. No problem. Okay, great.

All right. Well, we're gonna hand this over to Nils. So Nils, would you mind unmuting your line? There we go.

NILS BOLGEN: Yeah, sure. Can you hear me?

ISIS FARMER: Yes. Yep. Go for it.

NILS BOLGEN: So, on the first part of the question, on whether or not the -- you know the estimated typical energy consumption per year in a home, you know, included assumptions about EV adoption or -- or, you know, for that matter, electrification of -- of heating. I don't have an answer for that. The calculation could be done either way.

And so that's -- but that might not be sort

of the real crux of this question.

Anyways, it -- it may be more about the second part, which is, you know, what would happen if -- if the wind turbines were producing more power than the grid needed at a particular time.

This is something that does happen on occasion in areas that have high penetrations of wind energy but, you know, management of those situations happens between the generator and the grid operator; in this case ISO New England. So it would be between ISO New England and the generator, Vineyard Wind in this case.

I think -- and you know, I don't have definitive answers for any of these, but I -- you know, I would expect that the -- you know, the question of whether or not Vineyard Wind would be paid during a curtailment scenario.

So say, you know, there was a lot of -- a lot of offshore wind and a lot of solar energy 10 years from now in a spring month where, you know, the sun is very bright, the wind is blowing and electric loads are relatively low, you now, if that led to a curtailment situation, you know, how that would be handled, I think would be between

Vineyard Wind and the utilities that have the power purchase agreement.

So you know, it's not -- it's not a definitive answer there, but I think that's the best we have.

ISIS FARMER: Thank you, Nils, we appreciate that.

And so that's -- those are all of the questions that we have. Unless there are any others, I will hand it back over to Christine.

CHRISTINE DAVIS: Sure. Thank you, Isis and everybody else who contributed to that Q & A session.

Just one last opportunity for folks to use that Q & A box and -- and enter any questions that you have.

Meantime, I wanted you to know a couple of things about the public comment period. We do have one more meeting on Thursday. And as you can see on your screen, for those of you who still on Zoom, you can write your comments in or go online at regulations.gov. In all cases, please do note the Docket Number BOEM-2020-0005.

So, I think we're good on the questions. And

in a minute, I'm going to turn it back to Jim Bennett to offer closing remarks. But personally wanted to thank everyone for participating in the process today, and have a great rest of your week. Stay well and be safe.

So turning it over to Jim now. Thank you.

JIM BENNETT: Thank you, Christine.

And I also want to thank the team here at BOEM And with ERM that have made the best of this situation. We've had some very effective communication in this virtual environment. So again, thanks to all of you for your patience and participation in this process.

Especially want to thank the State of Massachusetts for joining us, as this kind of an effort requires not only all stakeholders, but most certainly the federal and state governments working together.

I want to repeat again that BOEM -- we at BOEM oversee the expeditious and orderly development of energy resources on the Outer Continental Shelf with appropriate environmental safeguards. This is our responsibility, but your input is critical.

And we at BOEM remain committed to working with all of you to ensure the success of offshore activities, protecting our oceans and coasts and their communities that depend upon them, while still allowing the United States to remain a global energy leader and innovator.

One final thought, as a reminder, as you just heard, the public comment period is open until July 27. And as you see on the screen, there's a number of different ways you can participate in this process. Please, please do so. Please take advantage of the opportunity, as it will improve the decision-making process.

Thank you again, and I hope everyone stays well.

OPERATOR: That concludes today's conference. You may disconnect at this time.

(The meeting was adjourned at 5:06 p.m.)

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C E R T I F I C A T E

Commonwealth of Massachusetts

County of Norfolk, SS

I, Darcy Lee Schramn, a Professional Court Reporter and Notary Public in and for the Commonwealth of Massachusetts, do hereby certify that the foregoing Public Information Meeting was taken before me on July 2, 2020. The said testimony was taken digitally and transcribed under my direction. To the best of my knowledge, the within transcript is a complete, true and accurate record of said Meeting.

I am not connected by blood or marriage with any of the said parties, nor interested directly or indirectly in the matter in controversy.

In witness whereof, I have hereunto set my hand and Notary Seal this 22nd day of July, 2020.

_____

Darcy Lee Schramn

My Commission Expires:

April 4, 2025