PUBLIC INFORMATION MEETING

Vineyard Wind SEIS Public Meeting

Virtual Public Meeting Day 1

June 26, 2020

5:00 p.m.

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

OPERATOR: Thank you. Good afternoon. Welcome and thank you all for joining today's conference. At this time all participant lines have been placed in listen only mode.

To ask a question during the question and answer session, please press Star 1 on your touch tone phone.

Today's conference is being recorded. If you have any objections, please disconnect at this time. And now I'd like to turn today's conference over to Christine Davis. Thank you, you may begin.

CHRISTINE DAVIS: Hello, my name is Christine Davis, and I want to thank you for joining us today. I am with ERM, the third party contractor that's working with BOEM Staff on the environmental review for the Vineyard 1 Project.

I'm here today to help you facilitate and guide you through this meeting. We appreciate everyone taking your personal time to share your thoughts with us.

The purpose of our meeting today is to gather your input on the Vineyard Wind's proposed Off Shore Wind 1 Project, and more specifically

supplements 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're recording and we have court reporters documenting this meeting for public record.

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 call it today. And Jim will formally welcome everyone to this meeting. Jim.

JIM BENNETT: Thank you, Christine. And good afternoon, everyone. On behalf of the Department of the Interior, I want to thank you for joining us for today's public meeting. Again, my name is Jim Bennett. I am the program manager for the Bureau of Ocean Energy Management or BOEM's Off Shore Renewable Energy Program.

It is unfortunate that we can't be together in person today. I hope that 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 in-person public meetings.

Our team has put together a system that will enable us to continue our dialogue in this new virtual format to help inform our decisions. So first off, who are we? BOEM is the Federal Bureau within the Department of the Interior that oversees the environmentally and economically responsible development of our energy and mineral resources. This is on two and a half billion acres of outer continental shelf or OCS. That's pretty significant because it's slightly more than the area the total land mass of the United States, including Alaska. So it's a big job, and BOEM has a strong history of meeting our nation's growing energy needs.

Our responsibilities includes the development of renewable energy as well, renewable energy resources, essentially offshore wind. Over the past 10 years, we've been working with states, with stakeholders, with industry and with the public to identify the best areas for off shore 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 for

renewable energy. It has the potential for the capacity of almost 22 gigawatts of electricity to contribute to state goals of almost 30 gigawatts in the region. For these leases we have approved 10 site assessment plans or SAPS; we currently are reviewing seven construction and operations plans or COPS. These SAPS and COPS are both formal steps in our regulatory process to go from leasing offshore to the generation of electricity.

We anticipate receiving an additional up to eight more COPS over the 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 steel in the water for the outer continental shelf has just occurred in the last few weeks with the costal Virginia offshore wind project or CVOW. And we anticipate a dozen or more commercial scale wind farms during the coming decades. We want to make sure that these projects are done right. Our objective is to ensure that offshore winds, commercial fishing, maritime navigation, and other uses of the oceans can all be pursued successfully. This does not mean that there

will not be any impact, there will be impact, 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 mitigations. This will allow us to establish a strong foundation for all projects going forward.

These public meetings are an opportunity for you to help us meet this goal. And for us to hear you to the end I just identified, particularly for the Vineyard Wind Project. Vineyard Wind is the first commercial off shore wind project analyzed under the one federal decision process, and we have worked through this process for the first time, we have 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 Vineyard Wind draft environmental impact statement or draft EIS. Some of these requested a more robust analysis of cumulative impacts. As a result, on Friday, June 12th, we formally released a supplement

to the draft environmental impact statement for the proposed Vineyard Wind 1 offshore energy project. The supplements of the draft EIS expands the reasonably foreseeable offshore wind development scenario and analyzes the effects of that scenario.

The supplement to the draft also analyzes previously unavailable fishing data, a transit lane alternative proposed by the fishing community and changes to the construction and operations plan that have occurred since the draft EIS was published. These updates were the 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 for the review of future projects. That's why it's vitally important for the decision making that you all carefully review the supplement to the draft EIS and provide us with comments. We are making every effort to hear from you. This is one of five virtual public meetings that we are holding throughout the open comment period and there are multiple ways to provide comments.

Your input will help the Department of the

Interior and BOEM meet our goal of getting this right. We remain committed to a permitting process that minimizes user conflicts and establishes a strong foundation for wind projects moving forward. Thank you, and stay well.

Now I would like to welcome a representative from the state of Massachusetts, so I'm going to turn it over to Lisa Engler, the Director of the Massachusetts Office of Coastal Zone Management. Thank you.

LISA ENGLER: Thank you, Jim. On behalf of Energy and Environmental Affairs Secretary Kathleen Theoharides, we are pleased to welcome the Bureau of Ocean Energy Management for tonight's public meeting on the supplement to the draft environmental impact statement for the Vineyard Wind 1 Project. Joining me from fellow Massachusetts agencies tonight are Bruce Carlile from the Massachusetts Clean Energy Center, and John Logan from the Massachusetts Division of Marine Fisheries. We're looking forward to the presentation and the opportunity to hear your comments and input to the federal review process for this Vineyard Wind 1 Project.

Global climate change presents a serious

threat to the Commonwealth environment, residents, communities and economy. Governor Baker has expressed the need for action, stating the magnitude of the impacts from climate change requires to put politics aside and act together quickly and decisively. We still have the opportunity to check the severity of future impacts by aggressively reducing 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 emissions 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 a 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 both the public and the private sectors and will require changes to business as usual.

Developed and operated off shore winds will be keys to meeting these carbon emission targets. For more than a decade we have worked closely with our federal, state local, and tribal partners

through BOEM's Intergovernmental Taskforce on Offshore Energy in the planning, sighting, leasing and review of potential wind projects on the Outer Continental Shelf.

We have also worked closely with stakeholders through state formed fisheries and habitat working groups and in community meetings and discussions. The fishing industry is a critical partner in the development of offshore wind, and we value the opportunity to use the venues for important dialogue and feedback in the responsible development of offshore winds. In 2017, as directed by state legislation, Massachusetts issued a competitive request for proposals for offshore wind energy, and in 2018 selected Vineyard Wind, which will result in significant greenhouse gas reductions at a highly competitive price.

Now, the Federal NEPA review process led by BOEM is a critically important component and our collective responsibility to avoid and minimize potential adverse effects. In the case of the Vineyard Wind 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 in the SEIS ensures that potential impact of individual projects are evaluated. In parallel to the BOEM review, the Vineyard Wind 1 Project was reviewed by state agencies, including the Massachusetts Department of Environmental Protection, the energy facilities, the Massachusetts Environmental Policy Act office, The Department of Public Utilities and the Massachusetts Office of Coastal Zone Management.

This Massachusetts state review process is now complete. Thank you all for coming out tonight for joining us in this virtual platform. Your participation is very important as we continue to work with agencies, stakeholders and 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. Okay, we're going to flip to the agenda now and BOEM will provide an overview of the project. They'll discuss the environmental review process, and the next step, respond to questions and then open the meeting for public testimony. As a reminder, the focus of the

meeting is to receive public comments. We'll spend the bulk of our time together today on that agenda item. Anticipate starting the public comment portion of the meeting in a little less than an hour.

Everyone who would like to provide comments today will need to press Star 1 to get into the queue. If you've not already done so, please do so now. Even if you've preregistered, we need you to press Star 1, so that we can see that you're here and that you're in the queue. For those of you who are on Zoom, please note that you have both the Q & A and the chat function.

They have different purposes which will remind on the next slide. So that we can provide as many parties as possible the opportunity to provide comments, we ask that you keep your comments to approximately five minutes. As attendees you're not going to come through on camera today, but your voice will come through on the phone so only BOEM, ERM and I will be on video today, so please note that all oral comments that will be provided will be on the record.

All right. So let's go to the next slide and talk about BOEM. Thank you. All right. So you

have both the Q & A and chat functions. So those of you online you should be able to see the icons at the bottom of your screen. If you click on the Q & A icon you will see a pop up box for you to type in the question.

We will answer questions at the end of the presentation at the end of public testimony. Don't be alarmed if you don't hear a question right away because they'll show up as we answer them verbally in the Q & A sessions.

Please only use the Zoom chat function to notify us about a Zoom or audio technical issue. Attendees will only use the raise hand function if we call on you. So if at any time you have technical challenges using Zoom you can continue to participate in this meeting by calling 1-888-606-7043 and entering the participant code 6516733#.

If you want to give public testimony and have not already done so please press Star 1. We'll begin with those who have preregistered and continue with those who are in the queue from today. Does anyone have any questions specifically about Zoom or the phone line that you'd like to ask right now?

If so, you can click on the Q & A right now to type in the question or Star 1 right now to submit your questions to the operator. So wait just a second to see if anyone has got any questions that they type into the Zoom Q & A, or press Star 1. (Pause) Just another minute. All right. I don't see any questions, there will be opportunity for more about them, the actual process and the project.

So with that, I'm going to turn it over to Jennifer Bucatari from the Bureau of Ocean Energy Management. She's going to explain the environmental review process and then provide an overview of supplements, such as SEIS. After her presentation, we will answer questions. As a reminder to sign up to provide comments later in this meeting, please make sure that you press Star 1 to get in the queue. With that, right now I'm going to turn it over to Jen Bucatari. Jen, are you there?

JENNIFER BUCATARI: Sorry, I'm coming.

CHRISTINE DAVIS: No worries. Good deal.

JENNIFER BUCATARI: There we go. Didn't want to switch the slide. Hello, everyone, and welcome to the Vineyard Wind supplement to the draft environmental impact statement, also known as the

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

My name is Jennifer Bucatari, and I am one of the environmental coordinators for 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 the Center for Disease Control and state and local health authorities. As such, we're moving forward with our public meetings in a virtual environment in order to provide information to the public in the safest and most efficient way possible, and to receive 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 can be seen here on the slide. You have likely visited this page to register. But either way, we encourage you to explore this page and the additional content that we have there.

This content includes posters and presentations to mimic the stations that we normally have at an in-person meeting. The posters as seen here relay a brief summary of important topics to our stakeholders. The presentations on the virtual meeting web page, seen here, are summaries of impacts to several key topics or resources. The presentations were developed and recorded by the BOEM subject matter experts, who also developed the supplemental EIS impact analysis for that 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 maker to either approve, approve with conditions or disapprove a plan.

Through the NEPA process, an EIS or environmental impact statement must be prepared if the 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, and an analysis of reasonable alternatives and cumulative effect.

BOEM's renewable energy leasing and development process occurs in four phases. For the Vineyard Wind 1 Project, we are in that fourth phase, which includes conducting an environmental review of the lessees, 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 SEIS, was published on June 12 2020. The Vineyard Wind 1 proposed project location is seen here on the right. And it's 12 nautical miles at it’s nearest point to land. The project is situated southeast of Martha's Vineyard.

The proposed cable land falls 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 SEIS began following public hearings that were held in February, 2019. Comments from public and stakeholder requested an expanded cumulative analysis and analysis of fishing data that was previously unavailable to BOEM. In addition, updates to the

construction and operations plan were submitted by Vineyard Wind on January 31, 2020, and March 9, 2020.

BOEM developed the supplemental EIS to address comments from the public and stakeholders, expand the cumulative analysis, analyze previously unavailable fishing data, a new alternative and project changes, as mentioned. In January and March 2020 the 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. These turbines may be either all monopile foundation, or 50% monopile and 50% jacket foundation.

Vineyard Wind also submitted changes to the onshore substation. For the expanded 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 SEIS is 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 additional project information about the Vineyard Wind Project, please see the project on site as you see below on the bottom of the slide. To be most helpful comments received should be as specific as possible.

A substantive comment discusses the accuracy of the information to just alternate methodologies, and the reason or reasons why they should be used, provides new information relevant to the analysis, identify the different source of credible research, which if used in the analysis could result in different effect or provides clarification where needed.

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

environmental analysis, the cumulative impact scenario, the project design envelope and the status of environmental complication.

While the supplemental EIS includes analysis of the direct and indirect impacts of the proposed action, the focus of the supplement is on expanded cumulative impact scenario, the new alternative and the information that has changed or become available since issuance of the draft EIS in 2018. This inverted triangle represents the different levels of reasonably foreseeable development we considered our cumulative scenario.

A bar usually encompasses the bar below it. The lower bars will often be duplicative rather than additive. For example, Vineyard Wind 1 at the bottom is already included in the bar above, 5.4 gigawatts of construction and operation plan, submitted or approved, that's the second from the bottom.

The previous standard for the scope of reasonably foreseeable offshore wind development was based on projects permitted and added to the projects entering the construction permitting process. This time, we began by examining the greatest number of possible projects, and then

eliminated offshore development that would be unreasonable to consider based on the lack of state demand, or technical inability.

Starting at the top, 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 bubble 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's 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 dark bar down is the state capacity commitment. While the tier system in the

draft EIS will get development from a regulatory and project perspective. In this scenario, we examined future projects from a state demand perspective. This number has grown over the last several months and is currently at about 29 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 would not be 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 commitments of New York and New Jersey exceed the technical resource potential of leases in transmission range. Also there are going to be conflicts such as with cultural resource site, historical sites, essential fish habitat and navigation that will make

developing the entire technical resource potential of existing Atlantic leases impossible.

Therefore, this level of development is not considered reasonably foreseeable. This bar from the top and all those that follow below it make up our reasonably foreseeable cumulative scenario. This includes any projects with off take or with awarded off take, any projects that have entered or announced their intention of entering the permitting process, and of course any approved projects. If a project has a name to it, it is likely included.

After considering all projects with award construction operation plans, or that have been announced there is still some state capacity left over that has not been awarded. This potential for additional future development beyond named projects is also accounted for and analyzed in this scenario. If you would like additional information on the cumulative scope, or to hear this presented again, please visit the virtual meeting room webpage to listen to a presentation on the subject. Now we'll go over the action alternatives and other alternatives.

We'll go over the proposed action and other

alternatives. The proposed action is the construction operation and 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 cable would occur within the range of the design parameters outlined in the Vineyard Wind Construction and Operation Plan subject to applicable mitigation measures.

Alternative B excludes the New Hampshire Avenue landfall location to potentially reduce impact on environmental and socioeconomic resources. On June 26 2020, or today, Vineyard Wind informed BOEM that they're no longer pursuing the New Hampshire Avenue landing site. While the New Hampshire Avenue site was included in the construction and operations plan, the new land has obtained all of the state and local permits necessary to bring the cable on shore at the Covell Beach landing site.

Alternative C excludes surface occupancy, and the northernmost portion of the proposed project area, to potentially reduce impact from the proposed project and to reduce potential conflicts with

existing ocean uses, such as marine navigation and commercial fishing.

Alternative D-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 uses such as commercial fishing and marine navigation.

Alternative D-2 would require a layout in an 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 uses, such as commercial fishing.

Alternative E reduces the project size to no more than 84 turbines. This alternative would potentially reduce impact on existing ocean uses and on environmental resources due to the fore foundation.

Alternative F,the new alternative in the SEIS, will 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 vessels through the project area from southern New England or areas on Georges Bank.

Alternative G is the no action alternative, and 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, impact from reasonably foreseeable future offshore wind and non-wind related activities would still occur. This alternative is required to be analyzed underneath us. 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, include the new vessel transit lane in response to the January 3rd, 2020 responsible offshore development alliance, also 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 figure here. Although the proposal includes six total transit lanes, only one intersects with the Vineyard Wind

project as shown in this figure. As mentioned, the purpose of the proposed northwest-southeast transit corridor would be mainly to facilitate traffic vessel transit 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 could have occurred in these areas would not be eliminated but instead the displaced turbines would be shifted south within the Vineyard Wind 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 agreement per east-west orientation and one nautical mile by one nautical mile spacing. The positions shown do not necessarily represent future turbine location. The intent of the figure is to show the potential displacement of turbine if all six transit lanes were to occur. The turbine locations within the pale yellow lane would not be utilized. Under

the current cumulative scenario displacement of all the turbine locations is not feasible and, therefore, the addition of all 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 see here. The subject matter experts that analyze impacts to these resources are also on this webinar, and will answer questions following and presentation. These resources just mentioned are also seen in the summary table found in the executive summary. This table summarizes the overall direct and indirect and the cumulative impact for each resource.

The following five slides have the summaries for additional resources not seen here. 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 tables in appendices A as in apple and B as in boy in the

SEIS.

The color coding on the table indicates if the highest impact level is minor, moderate or major, with green being minor, yellow moderate and orange major. You could find the definition of impact levels in table 1.2-3 in Appendix B as in boy of the SEIS. In addition, there is a poster on the project webpage which details the impact level definition.

For resources with an indirect and direct impact level of negligible or minor the impacts analysis has been moved to Appendix A. This was done to meet the page limits goals outlined in the Department of Interior 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 wind 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 alternative. Resource impact levels seen here include terrestrial and costal fauna, coastal

habitat, fintech resources, fin fish, invertebrates and the central fish habitat.

Additional resource impact levels are seen here, including marine mammal, sea turtles, demographics, employment and economic, environmental justice. Direct and indirect effects span from negligible to major depending on the specific community affected. We will talk about no notable differences between the alternatives in future slides. Resource impacts levels seen here include cultural, historical and archaeological resources, recreation and tourism and commercial fisheries and for hire recreational fishing.

Resource impact levels seen here include land use and coastal infrastructure and navigation and vessel traffic. The resource seen here is other uses, which includes research and surveys, military and national security, aviation and air traffic, cable and pipelines and radar source system. Resources seen here include air quality, water quality, birds and bats. All of these resources are included in Appendix A as in apple.

For a little bit more detail here we will discuss the direct and indirect impact of the

proposed action, as summarized in executive summary table, and assessed in detail in chapter 3 of the SEIS. BOEM determined that for most resources, direct and indirect impacts were negligible to moderate with some major short and long-term impact.

The proposed action or certain action alternatives could have major direct or indirect impacts on environmental justice communities and other uses. The following major impacts to these resources are anticipated: Major direct impacts on environmental justice communities could occur from the proposed action and alternatives other than B, F and the no action alternative G.

The placement of cable and maintenance within Lewis Bay associated with the New Hampshire Avenue landfall site would lead to potential effects on vessel traffic and to environmental justice populations that rely on consistent fishing or employment and income from marine businesses.

This impact would lessen to moderate under alternative B, which would exclude the use of the New Hampshire landfall location. As mentioned on the alternative slide 18, Vineyard Wind is no longer pursuing the New Hampshire Avenue landfall location.

Alternative F leads to lower direct and indirect impacts for environmental justice due to reduced impacts related to allisions and collisions from the presence of the transit lane.

The reduced risk of collisions or allisions would lessen the impact on marine businesses and also on the low income workers employed in these industries. By reducing impact on these businesses, alternative acts would have a smaller incremental impact on environmental justice populations. Although those 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 creates navigational hazard to survey aircraft and vessels and restricts access to survey location. This would impact the statistical design of surveys and cause a loss of information leading to major impact. Analysis of the other resource areas listed here found a direct and indirect impact were minor to moderate beneficial from the proposed action and action alternative.

Here we will discuss the cumulative impact of the proposed action in addition to ongoing activities, future offshore non-wind activities and future offshore wind activities.

For most resources cumulative impacts were minor to moderate, with 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 impacts rating is driven mostly by changes due to fish distribution and availability associated with climate change, reduced stock levels due to fishing mortality, and permanent impact due to the presence of structures such as cable protection measures and foundations from off-shore wind activity.

Major cumulative impacts on navigation could occur as a result of the presence of structures which increases the risk of collisions and allisions under the proposed action. And all alternatives with the exception of D-2, F with D-2 and 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, spacing between structures, and the regular layout.

Major cumulative impacts from scientific research and surveys, as mentioned on the previous slide under the other uses section of the supplemental EIS, could occur as a result of the proposed action and all action alternatives due to the presence of structures, which could hinder surveys within the project area. This is similar to the direct and indirect impacts with 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 permitted other than D-2 and alternative acts with D-2 due to navigational complexity from structure programs, which would increase the difficulty to conduct search and rescue operations.

The major impact goes down to moderate for search and rescue operations under D-2 or F paired with D-2 due to the uniform grid in D-2 or the vessel transit lane with the uniform grid alternative F with D-2. There are also minor

beneficial cumulative impacts such as those in coastal habitat, 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 do not consider in the draft EIS supplemental EIS that requires new analysis. There are also ongoing complications, including the Endangered Species Act, the Marine Mammal Protection Act, the National Historic Preservation Act and the Madison-Stevens Fishery Conservation and Management Act consultation that needs to be completed prior to the signing of the record of decision.

BOEM is working with agencies to incorporate new project changes into existing consultation. Additional details about ongoing and completed consultations may be found in Appendix D. BOEM's Vineyard Wind web page includes a variety of informative documents, including Vineyard Wind's construction and operations plan, copies of the draft and supplemental EIS, including a large print

copy of the supplemental EIS and a link to the virtual meeting room web page.

Within the virtual meeting room web page, you will find aforementioned posters and presentations along with additional posters and presentations, highlighting key topics and resource areas like our how to comment poster.

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

CHRISTINE DAVIS: Thank you, Jen. So we'll go on to the next slide and we'll start talking about what it looks like to provide comments. You can provide comments on SEIS by using regulations.gov, providing oral testimony during any of our public meetings, and by mailing comments to the Office of Renewable Energy Programs at the address provided on the slide and on the Vineyard Wind virtual meeting page that Jen just mentioned. If you'd prefer to submit your comments electronically visit http://www.regulations.gov and search for the docket number BOEM, B-O-E-M, -2020-0005. Next click on "comment now."

Comments may also be submitted by mail with the envelopes labeled EIS Supplement to draft EIS, addressed to the Program Manager at the office of renewable energy, Bureau of Ocean Energy Management. The address is 45600 Woodland Road Vam-Orep V-a-m-o-r-e-p, Sterling, Virginia and the zip there is 20166.

Comments must be postmarked no later than July 27, 2020. BOEM does not confer on those comments, so please include your name and address as part of your submittal. All 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. Moving on to the next slide.

Two-way communication is very much a priority for BOEM. So at this time we're going to answer questions. We'll start by answering the questions meeting participants have already submitted and add any others that we see come in during the next 15,20 minutes or so. Some of you have already done this, but if you'd like to submit a question, please use the Q & A icon on Zoom at the bottom of your screen. Several people are dedicated

to watching this Q & A box. We'll pause the Q & A when the verbal period begins so we can give our full attention to those who are providing comments and public testimony. However, you will still be able to use the Q & A to submit questions during that time; however, we will hold our answers until the end of the public testimony. This meeting is being recorded so we can share it on the website in the future, and so that the court reporter can get a good record of the meeting. Again, please use the Q & A box.

As reminders, the focus of today's meeting is to receive public comments. I encourage you to visit the frequently asked questions on the virtual meeting web page. BOEM will revise them as needed to address the common comments received today an during the other public comment meetings. With that I'm going to turn it over to Isis Farmer with BOEM and she's going to begin the Q & A portion of this meeting. So, Isis.

ISIS FARMER: Thank you, Christine. My name is Isis Farmer, and I am one of the environmental coordinators co-leads for the Vineyard Wind 1 Supplemental Impact Statement. We do have a couple

questions in the Q & A box. But if there are others, feel free to continue to enter those questions in for the next couple of minutes as Christine noted. So our first question,.

I'm going to turn over to Jen, Jennifer Bucatari, so, Jen, if you wouldn't mind turning your camera back on and unmuting your line. And the question that we received was about alternatives. The question says, the explanation is not clear as to alternative, charts would help. And so I imagine this question might be about, you know, what the alternatives are, and maybe the comparison of impact amongst alternatives. So maybe it would be helpful to give some more information about where they can find more information about those.

JENNIFER BUCATARI: Sure. There's additional -- I'm not really sure of the question -- there is additional information about each alternative in the supplemental and the draft EIS. The new alternative would be the only one that's not in the draft; it's in the supplemental EIS. And there's a lot of figures in there in both the draft and the supplemental that explain the differences between alternatives such as the alternatives that

limit the number of turbines in the northeast portion of the wind development area. And a lot of those figures for the sake of saving some space on the page numbers that we had are moved to the appendix, so you'll find them in the appendices of the supplemental EIS. If somebody has a specific question they want to put in the question and answer box about alternatives I'd be happy to try to answer that.

ISIS FARMER: Yes, you know, I know it's difficult in electronic form. So if we don't answer your question or you would like a follow up feel free to submit another question through the Q & A box. Thank you, Jen. We have another question about commercial fisheries. So I'd like to ask Brian Hooker to start his video and unmute his line.

BRIAN HOOKER: Hi. Can you hear me?

ISIS FARMER: I can. Thank you, Brian.

BRIAN HOOKER: Great.

ISIS FARMER: The question says in the assessment of impact the supplemental environmental impact statement C that direct and indirect impact on regulated fisheries qualifies as moderate. However, the cumulative impact is qualified as

major. The document indicates that mitigation of the sort committed for Vineyard Wind could reduce the cumulative impact if applied to future offshore projects. Are you assuming that such mitigation would not be applied in the future? If so, why make that assumption?

BRIAN HOOKER: Thank you, Isis. So mitigation plans, including financial compensation plans, are currently proposed on a project by project basis. BOEM in conducting the analysis did not want to make the assumption on the nature of future mitigation plans, and those plans have not been submitted or undergone an environmental review. I think a good example of this is that, you know, for Vineyard Wind the mitigation plans that are presented in the SEIS even vary between, you know, different states. The path that Rhode Island has taken is different in some ways than the path that Massachusetts has taken. So I think these serve as a great example of what can be done, but by no means are they necessarily what all future mitigations plans may look like.

ISIS FARMER: Thank you, Brian. We have a couple of general questions as well as some

additional questions about our NEPA process. I'm going to start with the next question. Can I have Michelle, would you mind turning your camera on and unmuting your line and having you introduce yourself?

MICHELLE MORIN: Yes. My name is Michelle Morin, I'm the Chief of BOEM Environment Branch for Renewable Energy.

ISIS FARMER: And, Michelle, the question is, as we are considering cumulative impacts, why not develop a smaller project first as to scale this effort up and learn from mistakes? Why go from five to 105 foundations?

MICHELLE MORIN: Yes, thank you. And thank you, for the person that submitted the question. So the Block Island Wind Forum was definitely a great learning experience for us, and we took full advantage of that through our environmental studies program. And we are doing the same thing with the project, the two turbines that were just installed off the shore of Virginia, and will continue to do that as other projects come online. But through our regulations, we are still required to consider, review the proposals that are in front of us. We can

end those reviews, consider alternatives, those that are described in the question.

ISIS FARMER: Thank you, Michelle. And I think I have a couple more for you. One is why is it that BOEM has required this full and time consuming review when such a review is not required for the oil and gas industry?

MICHELLE MORIN: Thank you. Thank you for the question. There are some differences in the approach to meet the oil and gas and renewable energy. And part of that has to do with the rights that are conveyed with the different forms of leasing for renewable energy. It's only the right for the lessee to use the area to develop its plan. So we do a more staged approach and the full review for renewable occurs at this stage at the COPS stage. So there is also an environmental impact statement prepared for oil and gas, it does occur earlier in the process. So the boats do get that full environmental impact statement, just at different points in the process.

ISIS FARMER: Thank you, Michelle. The next question is about what authority or actions will BOEM take if developers get the rod and the permits,

and then do not install as promised? For example, if they move the foundation location away from the lat long location they are approved for or could potentially block transit and navigation lanes? So, Michelle, maybe there may be part of the question that you might want to answer, but I'll also ask for Arianna to turn her camera on and unmute her line. Okay. So the first question I'd like you to answer is about the consequences of not building the project as approved, and I'd like for Arianna to follow up about the portion about navigation.

MICHELLE MORIN: Okay, thank you. So the projects are, are monitored for exactly, you know, that they are installed the way that they are proposed and approved to do so. If a project was approved, there's engineering reports that also get committed and those are reviewed, again to assure scope. If a developer does for some reason to deviate, according to our regulations, that triggers what we call a revision to a construction operation plan, which can trigger a new environmental review, or of those revisions and a new approval point.

ISIS FARMER: Thank you, Michelle. And Arianna, would you mind introducing yourself?

ARIANNA BAKER: Hello, my name is Arianna Baker. I'm the navigation analyst here at BOEM. So I was part of the navigation section in this supplemental environmental impact statement. So with regards to navigation, I will say that we do work with Coast Guard throughout the process, including in the FTR and FIR process, facility design report and fabrication installation report process, which goes into how the wind farm will ultimately be built. Coastguard is involved throughout that time, Coast Guard is involved with submitting and approving the developer's private navigation. So they do have their eyes on navigational safety throughout and the actions that BOEM will take with regards to the consequences are essentially what Michelle just laid out.

CHRISTINE DAVIS: Thank you, Jen. We're just going to pause here for a moment as we organize a few of the questions that we have left. So we appreciate your patience. Okay, and we have a couple of general questions that I will answer. The first being, do you have the ability to post a written version of each question, which would make it easier to follow online? Isis, do you want to address the Q

& A question?

ISIS FARMER: So yes, we are. It takes a little time because we are getting a few questions and it's difficult when we get all of them all at once, but we are systematically going through the questions and either answering them live as, you know, we're doing right now or if, you know, there are questions that have a simple written response, We will submit those written responses and submit them. You will see the questions once they are answered.

So I apologize it does take a little bit of a delay. But I will mention that, you know, we are in the process of -- we do have some existing frequently asked questions that are already on our website. And we'll continue to try to update that throughout the public comment period. So the next question is, this project spent orders of magnitude more money on lobbying in Washington D.C. in 2019, than they offered in their commercial fisheries mitigation. Can BOEM discuss this discrepancy? You know, we can't address, you know, the lobbying of a particular company. However, I think Brian Hooker can provide some information on the fisheries

mitigation that Vineyard Wind has proposed. So, Brian, would you mind turning on your camera and unmuting your line?

BRIAN HOOKER: Sure, yeah, the SEIS does detail what the mitigation packages that I referenced previously were -- I need to start my video again -- Brian Hooker again, it might take me a minute to pull up what those exact figures are so I could respond when I have those up in front of me, but we do detail what exactly those compensation packages are in in the SEIS. So if you want to come back to that, Isis,I can do that after I have it pulled up.

ISIS FARMER: That sounds great. Thank you. The next question is just generally about, seeing in the questions and again as I mentioned earlier, questions will pop up as they are answered. We are receiving several of them. So, you know, we really appreciate your patience as we answer them. There's another question about BOEM revising the draft environmental impact statement and the question is, will BOEM be revising the draft environmental impact statement after the supplemental environmental impact statement, if finalized, and will it be

reopened for public comment?

So for clarification, the supplement to the environmental impact statement which we're discussing this evening, supplements that draft environmental impact statement that was issued in December of 2018. But public comment, that's open now for 45 days is currently open for comments on that supplemental document. And as we've mentioned this evening, that document, both the supplement as well as the draft, are available on BOEM's websites. And we're happy to provide those links. So we encourage you to provide your comments on the record. And we will incorporate review and incorporate those comments into the final environmental impact statement which will be the next step in our process. There's a question about what is the preferred alternative, and the preferred alternative will be selected and incorporated into the final environmental impact statement. Okay, we're just in the process of organizing our questions.

BRIAN HOOKER: Isis, if you want me to talk about the compensation package, I can do that while you're organizing it.

ISIS FARMER: Okay, great. Sounds good. Brian, feel free to turn your camera back on.

BRIAN HOOKER: So this is detailed in a couple different sections of the SEIS. But if you also look in the coastal consistency under Section E, we do outline, you know, what has been agreed to. So for venue -- Wind has agreed to provide fisheries mitigations as required by Rhode Island enforceable policies, which includes a $4.2 million fund for direct compensation to Rhode Island fishermen for loss of equipment or claims of direct impact.

In addition, Vineyard Wind will provide Rhode Island with 12 and a half million to establish the fish -- the Rhode Island fisheries future viability trust and so -- and then also for Massachusetts. Looks like now -- I'll come back on the Massachusetts one, for some reason I have the wrong version up.

ISIS FARMER: No problem. We'll keep moving along with our questions. Okay. The next question is if BOEM is following the one Federal decision process, why are you doing separate consultations with other agencies now? So I mentioned that the one federal decision is all about working together with

other federal agencies. And so the Vineyard Wind project is a one federal decision project. And it does include, you know, not just NEPA, but it also incorporates other consultations as well. And we've worked very closely with our cooperating agencies, including NOAA, including the U.S. Coast Guard, and other federal partners. And so there are more details in the SEIS about the status of those consultations. And if there are any more specific questions about those consultations themselves, feel free to put it into the question and answer box. There's another question that says why didn't BOEM consider the benefits of renewable energy while describing the negative impacts of this project? We did consider the beneficial impact.

And if you'll look in our supplemental environmental impact statement, there's a table in the appendix that lays out the definitions for both negative impacts as well as beneficial impact. And what you'll notice if you look at the comparison of the different impacts for the different resource areas is that you will see noted for several that there are beneficial impacts as well as adverse impact. We also have a couple of questions about the

cumulative impact scenario. So I'd like to ask for Ian to turn on his camera as well as unmute his line, and please introduce yourself before you speak.

IAN SLAYTON: Hello, my name is Ian Slayton. I'm a physical scientist at BOEM. Do we have the question?

ISIS FARMER: Yes. So I'll read out the first question. What led you to the conclusion that all other projects in the queue would go forward as planned, even if one is rejected? Worded differently, how can you anticipate a 22 gigawatt build out if the first project is rejected, given a likely chilling effect on the whole industry? So I think the question is about, you know, why we made the assumption of the 22 gigawatt build out for the cumulative impact scenario?

IAN SLAYTON: Yeah. So we were looking at it from a state demand perspective, like what are the outstanding demand that is being attempted to be filled by development. And the reason to do it that way, is so that we're looking at the greatest amount of impact possible so that we're analyzing, you know, the highest impact scenario other than

something would be less than that. And from that, you know, the public decision makers can use that information going forward.

ISIS FARMER: Thank you. Ian, the next question: Does BOEM consider that if Vineyard Wind does not or cannot move forward, that it might endanger market investment in all future projects?

IAN SLAYTON: That might be more of an economics question.

ISIS FARMER: Marty, would you or Michelle like to take this question? And I'll reread it, while one of you turns on your camera and unmutes your line. The question is does BOEM consider that if Vineyard Wind does not or cannot move forward, that it might endanger market investment in all future projects? This may be a question that maybe Michelle can answer.

MICHELLE MORIN: Thank you, Isis. Again, this is Michelle Morin, Chief of Environment Branch. I believe that's really outside the scope of our environmental impact statement. But in a supplemental EIS we do discuss how if the project is not approved that other projects in the area could step in to possibly fill that need.

ISIS FARMER: Thank you, Michelle. And so there was another question about whether oil and gas leases are evaluated via the one federal decision policy. So one federal decision is an executive order, Executive Order 13-807, and, yes, it is a requirement that if it's a major infrastructure project, that it be, you know, analyzed under one federal decision unless project proponents opts out of that process. And Michelle, I didn't know if you wanted to say anything else about that.

MICHELLE MORIN: Yes, if I can add on to that. So one of the other requirements is that as environmental impact statement would be prepared, and as I explained earlier, for oil and gas that occurs at the beginning of the process and some areas of the Outer Continental Shelf for oil and gas another environmental impact statement is prepared before plans are approved. For example, the Liberty Project in Alaska.

In those cases because of environmental impact statement is being prepared, it would fall under one federal decision. So again, if the environmental impact statement is not being prepared for an oil and gas plan the one federal decision

process wouldn't be followed.

ISIS FARMER: Thank you, Michelle. And I wanted to do a time check with Christine. How are we with questions about -- I just want to make sure that we a lot enough time for public testimonies.

CHRISTINE DAVIS: Yeah, I agree, Isis. We we are a little bit over what we were hoping for timing wise. So perhaps if we answer a few more, then we can switch over to the public comment. And we do have allotted some time at the very end to catch up on some if we have some that we want to sift through and figure out the right answer here.

ISIS FARMER: Thank you, Christine. So I'm going to try to maybe do two more questions on some resource areas that we have not discussed yet. Okay, so David Bigger would you mind turning on your video and unmuting your line?

DAVID BIGGER: Hello, I've unmuted my line. Thank you Isis. My name is David Bigger,I'm a biologist, I specialize in aviary and bat issues.

ISIS FARMER: And, David, would you mind turning your video on?

DAVID BIGGER: Yes, I can. I think I can.

ISIS FARMER: Thank you.

DAVID BIGGER: Ah.

ISIS FARMER: And so the question for you is for bird impacts did BOEM use an external contractor to estimate bird injury? If so, was this estimate peer reviewed in any way?

DAVID BIGGER: I'm not sure -- Well, let's see. I'm not sure which specific part of the analysis for the person who is asking the question is referring to, but I would say that if I think it's for the collision -- for the collision part, it's no, did not use an external contractor for that. And it was something that was discussed internally. The process was reviewing the count.

ISIS FARMER: Thank you, David. And I'm going to go for one more navigation question. Arianna, would you mind turning your computer on and unmuting your line?

ARIANNA BAKER: Hi, Isis. Hello.

ISIS FARMER: So the question for you is during the SEIS process what has been the Coast Guard's positon on the feasibility of verbiage in the transit lane proposal? The Coast Guard's proactive study's findings seem to recommend firmly against it in favor of the one nautical mile spacing

between turbines.

ARIANNA BAKER: Thank you very much, Isis, for that. So to clarify for anyone who's on the phone and unfamiliar with the Massachusetts and Rhode Island Port Access route study, in the past year, the US Coast Guard has conducted a navigation study of all the combined lease areas in the areas offshore Rhode Island and Massachusetts. And the findings for that final report came out earlier this month. So with regards to that, I cannot speak to any other particular agency's opinions, because that's the opinion of that agency. However, alternative D-2 and D-2 considered with alternative F have both a lower impact rating than the other alternatives due to the regular and predictable nature of the one by one nautical mile east-west oriented gridded layout. So this is a very similar layout to what Coast Guard recommended in their final MARIPARS report, which you can find through the Coast Guard. And it has also been cited, the draft version of the report has been cited in our SEIS, and we will be citing the final version of the report and the final back statement.

So with regards to that, that layout would

allow any vessel masters to thread a predictable course throughout the entirety of the Rhode Island-Massachusetts areas, in addition to allowing for traffic dispersal throughout all those combined lease areas. I will note that US Coast Guard did concur with our analysis and our impact ratings in the supplemental environmental impact statement.

ISIS FARMER: Thank you, Arianna. And so I, again given the time, we are going to try to allow some time at the end to go back to questions. But I think at this point, I'm going to turn it back over to Christine so that we can get started on our public testimony portion of this evening's meeting.

CHRSTINE DAVIS: And that sounds good. Thank you for your patience, folks. There are a lot of questions that had some pretty good substance to them. So let's move on to the public comment period. If you're providing comments, your remarks will be recorded and transcribed into the administrative record.

Even though you may see your name in the chat box on your screen, if you're online, please state your name slowly and spell your first and last name for us, so the court reporter and anyone who is

joined by phone only can hear it properly. Also, if you'd like, please indicate if you're with an organization, if applicable, you can add that in too.

All comments will be saved and provided and be taken into consideration by BOEM in the final EIS. The comments you make today will be recorded and will be publicly posted. Please be mindful of the time because we have quite a few people signed up to speak. I ask that you wrap things up at the five minute mark. If you need more time, we'll put you at the end of the queue. This will allow everybody the opportunity to speak at least once. And then if time allows, we'll give you another chance.

Please note that if your comments are lengthy, you can also submit them in writing, as both written and oral comments are considered equally. We will take repeat speakers but only after everyone who is interested has provided comments at least once. We have a randomly sorted list of individuals who preregistered to speak. And after that, we will identify the first speaker who is -- I'll identify the first speaker and you can see

some of them in the chat box already, but I will also state them orally, and I'll give a couple of people's names out in advance so that you can prepare for your comments.

Typically, when we're in person, I really like to greet you at the meeting so I can hear you pronounce your name. We don't have that luxury today. So I apologize for any mispronunciations that I make. I realize that we all like to hear names properly pronounced, so I ask for your patience and understanding.

I think one way that I'm going to do it, if possible, is use first name and last name initials. We will commit to getting all the questions and comments from today and the other meeting altogether and responding as appropriate in the final EIS. In order to devote our full attention to those providing comments, we're going to pause the Q & A and bring that portion of the meeting to a close. You can still ask them, but we won't address them until later on. So with that I do believe our first speaker is Tom S. and then after Tom we'll have Kate Warner, Rosemary Carey, Paul E. and Ben, Alan. So I'm going to ask Tom to unmute your line and we will

get you in place in just a minute so that you can be our first speaker and the operator will make you go live. So just be patient.

OPERATOR: Tom, your line is now open.

TOM SOLDINI: Thank you, Christine. My name is Tom Soldini, S-o-l-d-i-n-i as spelled in the chat room. I'm a resident of Edgartown, on Martha's Vineyard. Is the audio okay?

CHRSTINE DAVIS: Yes. Thank you.

TOM SOLDINI: Great. Thanks. So I'm here this evening to voice my enthusiastic support of the Vineyard Wind 1 Project and to make a few comments with regard to the SEIS during the larger development of offshore wind on the east coast. First, let's remember the critical nature of this project and of offshore wind in general, Vineyard Wind 1 is the single most significant step that we in Massachusetts can take to advance the cause of reducing greenhouse gases and to mitigate climate change. Vineyard Wind 1 alone will generate clean, renewable and cost competitive energy for over 400,000 homes and businesses. It will reduce carbon dioxide emissions by more than 1.6 million tons per year. Putting that in more practical terms, that's

the equivalent of eliminating the emissions for 325,000 cars.

We cannot make significant progress toward eliminating CO-2 emissions without a massive increase in availability of renewable, inexpensive electricity to the northeast United States. Offshore wind has the highest potential to fill that need. This SEIS is an important document, in that sets the stage to tap that potential. To quote from an article that was published yesterday in the National Law Review, "This project is within the scope of the 22 megawatts considered in the supplemental EIS now have a template for moving forward and can incorporate mitigation strategies and lessons learned from the Vineyard Wind Project. This should greatly simplify and potentially accelerate the environmental permitting process for offshore wind projects going forward.

"They go on to state for that reason alone, global offshore wind supply chain companies considering the US market should see the supplemental EIS as a strong positive signal for future opportunities here. Beyond fighting climate change, the creation of the offshore wind industry

in the United States will bring important new economic opportunity at a time when it's urgently needed. Studies suggest that the offshore wind industry will create more than 80,000 jobs in the next 10 years."

The build out of Vineyard Wind 1 alone will create 3600 jobs in southeastern Massachusetts. Locally here on Martha's Vineyard, Vineyard Wind operations and maintenance center will create 40 to 50 new long-term stable, professional jobs which are intended for Vineyard residents through a local professional development program funded by Vineyard Wind. That may seem like a small thing in the national scheme of things, but for our island community, it will be an important opportunity to participate in a new and growing industry.

Lastly, I would just like to touch on the topic of transit through the wind development areas. There's been a long and important debate around the most practical and safest way to manage maritime traffic in the area. Many proposals have been considered, as we just heard in the Q & A period a moment ago, the US Coast Guard has endorsed the one by one nautical mile layout, finding that it will

create multiple safe navigation corridors without funneling vessels into congested corridors and without interfering in the Coast Guard's maritime safety and rescue activities.

This was an important debate. But now the experts have spoken, we should rely on the Coast Guard's professional judgment and move forward. I'll close just by repeating my endorsement of the development of offshore wind, and very specifically Vineyard Wind 1. This broader study of the cumulative effects found no insurmountable problems with Vineyard Wind 1. Climate change is upon us now. We need to move ahead quickly and begin to tap this new source of renewable energy. Thank you for your time.

CHRISTINE DAVIS: Thank you for your kindness, Tom. Up next will be Kate Warner. And after that Rosemary, Paul and Alan. So, Kate.

KATE WARNER: Yes. Can you hear me?

CHRSTINE DAVIS: Yes.

KATE WARNER: Okay, good. I fully support -- I'm Kate Warner, K-a-t-e W-a-r-n-e-r. And I speak on behalf of myself and the Island Climate Action Network. I fully support offshore wind. I've

seen offshore turbines in Denmark and they are a thing of beauty. The U.S. is very late to the game and we need to avail ourselves of this very valuable resource.

Wind projects off the east coast will be a big asset in helping us reduce the pace of climate change. On the Vineyard, we are looking at ways to use electricity for all our energy needs and to be 100% renewable by 2040. Vineyard Wind and other offshore projects make goals such as ours possible. I like that Vineyard Wind has responded to the fishing industry and provides the layout to be one by one nautical mile grid, and that the Coast Guard has endorsed this layout.

I think option D-2 is adequate as stated by the Coast Guard. I like that Vineyard Wind has incorporated aircraft detection lighting system into their projects, which will make nighttime lighting impacts greatly reduced. That was a particular concern of mine as I saw that blinking lights in Denmark. As Tom has stated, Vineyard Wind will create 3600 jobs for local residents over the life of the project.

We need jobs on the Vineyard that are

sustainable and not reliant on the seasonal and tourist industry. This has become more clear during this time of COVID-19. And, finally, I heard you say that you've weighed the effects of climate change on the fishing industry and environmental justice communities in terms of what fish will be available or no longer available as climate change continues and ocean waters warm. I think that is correct as I believe what fishermen are able to catch is going to change radically because of climate change, and that's something that seriously needs to be considered. That's it. Thank you.

CHRISTINE DAVIS: Thank you for your comments, Kate. Up next we have Rosemary Carey, and then Paul E., and then Alan passed. So Rosemary.

ROSEMARY CAREY: Yes, hi. Can you hear me okay?

CHRISTINE DAVIS: Yes, I can hear you fine, and state and spell your name please.

ROSEMARY CAREY: Thank you. My name is Rosemary, R-o-s-e-m-a-r-y, Carey, C-a-r-e-y. I live in Falmouth, Massachusetts, and I am a volunteer organizer with 350 Cape Cod. Like many of my neighbors here on the Cape, I was deeply

disappointed to see the Vineyard Wind Project delayed last year. After reviewing the sites, I'm here today to urge you to approve the project with no further delay. Cape Cod is particularly vulnerable to the impacts of climate change, flooding and destruction from coastal storms have become commonplace, and they take their toll, economically and spiritually, actually.

At the same time, our tourist economy is suffering the effects of the pandemic as well. On the state level, we're counting on the energy produced by the new grid to help meet our greenhouse gas emissions goals, and to stop the most catastrophic effects of climate change. This project will create tens of thousands of well paying jobs in our region, particularly southeastern Massachusetts, and ensure that energy is more affordable for Cape Codders.

Without harnessing wind, the most abundant energy resource we've got, we would have to rely on fossil fuel sources and infrastructure that pollute our air and water, exacerbate climate change and disproportionately affect the health and well being of poor and black and brown communities.

This project has been in the works for more than 10 years and during that time Vineyard Wind has demonstrated its willingness to make changes that meet the concerns of the community. This site demonstrates that offshore wind energy can be developed responsibly while addressing the concerns of wildlife, fishing, and navels. We need Vineyard Wind offshore wind project to move forward. I urge you to approve it. Thank you very much.

CHRISTINE DAVIS: All right, thank you very much. Paul, you are up next and then after that we've got Alan S., Marc R., Maria H., and Michael McGarty.

I'm going to go with that instead -- thank you. So with that, Paul?

PAUL EIDMAN: Can you hear me?

CHRISTINE DAVIS: Yes, I can hear you fine, if you can spell your last name, thank you.

PAUL EIDMAN: Great. My name is Paul Eidman, last name spelled E-i-d-m-a-n. And I represent Anglers for Offshore Wind Power, and just make it -- I'll just kind of burn through this if that's okay. So anglers I want to speak mainly -- predominantly about recreational angling and the impacts toward

our community. So anglers are already feeling the impacts of climate change as our waters warm and the sea levels rise, and a lot of our species are migrating northward, and we're experiencing more intense storms.

So responsibly developed wind power is a key source of clean energy that will reduce pollution driving climate change. In addition, the offshore wind turbine structures are likely to become fishing hotspots due to the artificial reef effect, just as they have at Big Block Island.

The SEIS has identified certain impact, and we have some concerns that we heard from recreational anglers about the impacts that include noise from surveys, pile driving during turbine construction, operation and especially EMFs or electromagnetic fields. Disturbance specifically to fish species. And then we've also heard about some disruption of larval transport for important species like flounder and overall changes in fish species abundance and distribution. So our best effort to review the existing science agrees with the conclusions in the SEIS that most impacts are likely to be temporary and highly localized.

Specifically, the SEIS found that fisheries impacted noise, primarily pile driving are likely to be localized and temporary. Operational noise and vibration impacts during operation are minimal. And, similarly, geological and geophysical survey noise impacts are not likely to rise, fishery level impacts are also temporary and highly local. The EMF impacts are minimal as well and only felt in a small area directly over the cable. Notably, one study showed a response from lateral branches like lobsters, sharks and rays, which is reflected in a report. Particular attention needs to be paid to these species moving forward but concerns raised about the EMF impacts the other species, especially at the population level, don't seem to be supported by the literature. In addition to numerous scientific studies, EMF impacts defy commonsense.

And there are numerous sea floors -- excuse me, there are numerous sea floor cables across the Northeast, which have not had an identified impact on any of the species distribution or abundance. Larval transport, as I mentioned, we feel that's more likely to be impacted by changing water temperature and salinity rather than the presence of

the structures. But we should continue to monitor this as more projects are developed. And also it's important to note that the majority of the wind turbines out there will be developed in areas where fishing for highly migratory species is present. So in general, we believe that the recreational fishing impacts should be split out from commercial in the SEIS, and while there are many overlapping issues the impacts are not likely to be at the same level. So if you're entanglement, loss and damage is negatively impactful to a for hire recreational vessel, but seem conflated at multiple points in the SEIS.

Given overall minimal temporary impact and likely benefits from the reef effect, recreational vessels will see little or no detrimental effects and some positive. The major cumulative effects concern for recreational fisherman is changes in species distribution and abundance by changing habitat types like with the change what fish are found in the wind energy areas and at what time.

It'll be difficult to assess if this is positive or negative, depending on how species assembly, you know shift in these locations, but

projects moving forward should ensure monitoring before, during and after construction to assess project level and cumulative changes in fish abundance and distribution. For hire recreational vessels should be compensated for lost revenue during construction. And that would be based on verifiable data that demonstrates fishing activity in the project area.

If this data is difficult to obtain or verify the compensation could mirror what was done for the Block Island wind farm, where industry groups were given financial resources to increase marketing of fur fishing. I'm almost done here, the SEIS should clarify that any impacts to HMS or higher vessels is likely to be constrained to construction. Because of the reef effects referred to in the SEIS, it is highly likely that the migrating HMS will be attracted to the turbine foundations. And this was clearly witnessed firsthand when Mahi-Mahi at Block Island Wind Farm and when the turbines were placed into service.

Also, BOEM should consider guaranteed recreational fishing access outside of construction and maintenance as a permit condition. Many

developers have assured anglers that this in fact will be the case. But a permit condition will ensure it's guaranteed. This guarantee is essential to ensuring recreational anglers and benefit from the reef effect of the turbine structures. And that is all I have. Thank you.

CHRISTINE DAVIS: Thank you so much. All right. Going forward, you can see the names that are in the chat box that you can see there. I believe we have got Alan S. next and then Marc and the Maria and then Michael. So, Alan, do you want to go ahead?

ALAN STRAHLER: Yes, this is Alan, can you hear me?

CHRISTINE DAVIS: I can hear you just fine. Thank you. If you could state your name and spell it please, thank you.

ALAN STRAHLER: Sure. My name is Alan, spelled A-l-a-n, Strahler, S-t-r-a-h-l-e-r. I'm the chair of the Edgartown Energy Committee. And our job is to help the town save energy and reduce greenhouse gas emissions. Edgartown is one of six communities on Martha's Vineyard Island, close to the project and the main power supply cable for the

Vineyard Wind project passes through our town waters. In my additional written comments, I will assess the environmental impacts of the projects and the mitigation. But today I just like to make two points briefly, concerning first the benefits of renewable energy that the project will bring. And second, the local benefits to island communities.

Regarding energy benefits, climate change is coming so fast that every country, state, city and town and their inhabitants will take every step available, and as soon as possible to reduce greenhouse gas emissions. This means obtaining our electricity from renewable sources, not fossil fuels. Vineyard Wind 1 will be the first of many offshore wind projects that provide renewable energy through wind power. This project alone will make a substantial contribution to the renewable energy supplied to Martha's Vineyard Island. Under the leadership of Martha's Vineyard Commission, the island is moving on a track to 50% renewable energy consumption by 2030 and 100% by 2040. Although our consumption is small compared with the problem, it is our contribution to mitigating global climate change. We can't make our goal without the help of

Vineyard Wind.

The Commonwealth also has a goal of becoming net zero, carbon neutral, by 2050. This goal can't be achieved either without offshore wind energy. When energy is also cheap, Vineyard Wind will save ratepayers more than 1.4 billion during the first 20 years of the project. We need renewable energy and we need it as fast as we can get it. Regarding local benefits, I want to point out that the Vineyard Wind will bring major benefits to Edgartown and other Island communities. Over the life of the project 3600 jobs will be created for local communities as has been previously cited. Vineyard Wind will provide continuous long term benefit to local employment and local economies, and to its partner, Vineyard Power, Vineyard Wind is working with the adults and community and continuing education on Martha's Vineyard, our local Regional High School and Bristol Community College to train the workforce needed to meet the demands of this new industry.

This group is presently providing offshore wind technician certificates in a two year program. The technicians will repair and maintain the

electromechanical components of the wind turbines. The Tisbury Marine Terminal, which will harbor the specialized vessels needed to service the wind turbines will bring new infrastructure and well-paid year round jobs to 40 new employees and trainees. Our island communities need the direct benefits the Vineyard Wind will provide. So I'd like to thank everyone for the opportunity to make these statements. And I'll pass it on to the next person. Thank you.

CHRISTINE DAVIS: Thank you so much, Alan. The next person that for comment is Marc Rosenbaum. But before Marc goes, I want to remind everyone, if you've preregistered to speak tonight, you still need to press Star 1 to get into the queue so that we know that you're here present at the meeting with us today. So anyone who wants to speak, please press Star 1, be patient, the operator will get to you and we will get you in the queue. So again, even if you've preregistered, please do press Star 1. So we have Marc up next. Marc R., Maria, Michael. And so with that, I'll turn it over to Marc. Thank you.

MARC ROSENBAUM: Hi, my name is Marc Rosenbaum spelled M-a-r-c, R-o-s-e-n-b-a-u-m, and

I'm an energy engineer with about 40 years of experience working in energy efficient buildings and renewable power. My master's thesis at MIT in 1975 was on wind power. So I've been a long-term enthusiast about wind. I live and work on Martha's Vineyard. Vineyard Wind is a project with multiple major benefits to Massachusetts, Martha's Vineyard and the whole region. Its environmental benefits as a source of clean, renewable energy are huge. The Vineyard is amongst the most vulnerable communities in the U.S. to the effects of climate change, sea level rise the increase in frequency and intensity of major storms, with the attendant loss of both life and property.

Vineyard Wind will help us avoid almost 1.7 million tons of CO-2 emissions every year, which is our part in mitigating climate change. It's not any good to talk about doing something without making your own commitment. This is ours. The Vineyard Wind Project aligns with our goals of becoming 50% renewably powered by 2030 and 100% renewably powered by 2040, and with similar bipartisan Commonwealth of Massachusetts targets. And as renewable energy displaces the combustion of fossil fuels, air

pollution levels will decrease, and there'll be less risk of shoreline destruction from unpredictable fuel spills. One of the great things about wind power is a fuel spill from a wind turbine farm is just another really windy day. The economic benefits, as others have mentioned are profound here, Vineyard Wind will create thousands of well-paying jobs, instead of sending our money to distant companies and distant countries.

To transition to a renewably powered way of life, we need to decarbonize our economy. And that means converting buildings to heat pumps, electrically powered, and transportation to electric vehicles. This means that the demand for electricity on Martha's Vineyard will at least double. And that will spin off hundreds of new well-paying jobs to do the work, the actual physical work of making these transitions from boilers and fossil fuel burning equipment to heat pumps. Demand for electricity on Martha's Vineyard, if we achieve our goal, will at least double. And we already have some of the highest electricity costs in the U.S. The cost of energy from Vineyard Wind will be fixed and stable and not subject to international strife or politics

or fuel shortages or price volatility. So a stable cost of energy is a significant economic benefit to Martha's Vineyard. I couldn't be more in support of this project. I think it's such a win for the whole region, as well as a small island that I live on, and I encourage its moving along in this process so we can start putting some wind turbines up. Thanks so much for the opportunity to speak today.

CHRISTINE DAVIS: Thank you, Marc for your comments. Next we'll have Maria, then Michael, then Vana and Ben. So with that I will go to Maria. Maria, Are you on by chance? Unmute your phone and the operator will let Maria in, please. We have just another minute here. May I ask the operator, are you seeing Maria in the queue? Okay. All right, I'm not seeing Maria in the queue. So we'll go forward with Michael and if Maria pops up in a bit we'll add her back in, but for right now let's move forward with Michael. Michael, are you on and can you unmute yourself and -- I just want to reach out to the operator, are you seeing Maria or Michael by chance? Maria says that she's here and her phone is unmuted, but I don't think it's going through. Can someone help her out with that? Is the operator on?

(Pause)

ISIS FARMER: Christine, this is Isis, I might suggest that we just pause here for a minute or two to allow the operator to catch up.

CHRISTINE DAVIS: Okay. Thank you. We are anticipating that she might be speaking to someone else. So give us just a minute. Now, I think maybe what it was, as I told everybody hit Star 1 on your phone line and so they're getting folks lined up in the queue. So we'll just be a little bit patient and let's see if we can get that resolved. In the meantime I thank folks for providing the comments, we've been able to hear everybody so far, you've been very gracious with your time. I appreciate that. So, thank you for being considerate and leaving time for us all to hopefully get as many people in here today as we can. All right, Maria, I'm hopeful that you can be able to talk now. Can you give it a shot and see if we can hear you. Maria.

MARIA HANNA: Can you hear me?

CHRISTINE DAVIS: Yes. Awesome. We're back. Thank you.

MARIA HANNA: All right. Well, let me back

up then. Good evening. My name is Maria Hanna. M-a-r-i-a, Hanna, H-a-n-n-a and I represent Survival Systems USA in Groton, Connecticut. We are a Connecticut safety training provider. And we have historically provided training to over 100,000 military and civilian aviation and maritime personnel around the U.S. and the world. We cannot more strongly voice our enthusiastic support for the Vineyard Wind Project. New industries don't come along very often. The approval of the Vineyard Wind project will have significant positive, immediate and long-term benefits to local companies such as ours. In order to invest in and develop a skilled trained workforce, there needs to be a consistent predictable project to allow the existing workforce time to assimilate the new skills and time for the younger workforce and those who are still in school to consider entering new industry.

Vineyard 1 is an ideal example of the type of project that could foster and grow an entire U.S. based workforce, specifically in the New England area, for decades to come. Additionally, there's always a concern regarding safety improvements, and that the rush to embrace a new industry will

sacrifice safety protocols. The wind industry has had the benefit of adopting and improving on the safety standards that have been developed in the aviation, the maritime, the oil and other related industries, like the ones that I already trained. I cannot understate the significant investment in focus and safety protocols and safety training that the wind industry has chosen, voluntarily mind you, to implement as a standard.

A Global Wind organization, GWO training standards, are mandated for all participants in the industry. As a training provider involved in all training of many of those industries, I can directly speak to the quality safety standards and preparation that the new workforce will embrace as they come into the wind industry. Downstream effects from providing training to local companies such as ours will bring revenue into the local areas as the trainees, not just from the local area, from other areas around the U.S. and around the world attend training at local training centers in order to work on the wind farm. As a GWO provider, we are excited to embrace this industry and we cannot more strongly voice our enthusiastic support for the Vineyard Wind

project. Thank you for your time.

CHRISTINE DAVIS: Thank you very much. Okay, next we have Michael and Susanna and then Ben. So Michael, turn it over to you. Is Michael McGarty available?

Again, we'll wait just a minute to see if -- Oh, there you are.

OPERATOR: Michael, your line is open, check the mute on your phone.

MICHAEL MCGARTY: Hello, can you hear me?

CHRISTINE DAVIS: Yes, we can hear you now.

MICHAEL MCGARTY: Hello, my name is Michael McGarty, that is M-i-c-h-a-e-l, McGarty, M-c-G-a-r-t-y. I'm a resident of New Bedford, Mass. I'd first like to thank BOEM for completing the draft of this detailed cumulative analysis of 10 years' worth of current and future offshore wind farm development in less than one calendar year. Thank you. I'm glad that this next critical step has been taken towards the creation of the domestic offshore wind industry. Now, as demonstrated by the format of this hearing, we are living in a challenging time, the pandemic gripping the world has had both evident and still untold effects on our lives and

livelihoods.

With the uncertainty that comes with living through this, the approval of Vineyard Wind 1 can provide us with a reliable source of clean, renewable energy that because the reputable bid for this project will save Massachusetts ratepayers more than a billion dollars over the project's lifetime. I am one of the many people that are ready, willing and able to begin careers in this industry that may be new in the U.S., but well-established and led by a European friends who have been building and operating offshore wind farms for almost 30 years. The approval of this project will directly lead to the creation of thousands of jobs in trades that come with good pay and benefits. I just received my diploma today for my first, although be it late in coming, college degree, an Associates in Engineering Transfer from Bristol Community College here in Massachusetts. Bristol has also established the nation's first undergraduate degree program in offshore wind that begins this fall that will help train a new domestic workforce that will be necessary for the many jobs that will be created along the Atlantic Coast for decades to come. In

order to complete this draft, BOEM identified and chronicled many impact producing factors, determined both direct and cumulative impacts, whether adverse, neutral or beneficial. I will cover these findings in future comments. However, I would like to comment today on our shared ocean resource. In order for a domestic offshore wind industry to exist, our established marine industries will have to learn to adapt and share the vast potential that does and will continue to exist on the Atlantic Outer Continental Shelf.

Vineyard Winds have devoted great resources and time to engage stakeholders throughout this process. Since the release of the draft environmental impact statement in 2018, they have incorporated stakeholder concerns by agreeing to the one by one nautical mile grid placed in a turbine shown an alternative D-2 and taken steps to use Cocoa Beach for the cable landfall. Mitigation should be undertaken when it can benefit affected parties but not to undermine the economic feasibility of this project or future projects. For this reason I urge BOEM not to select alternative F using either the two nautical mile or four nautical

mile transit lane. I just wanted to provide this initial comment today, I may have questions posed and I will be providing further written comments. Thank you for your time.

CHRISTINE DAVIS: Oh, thank you very much. Next we have Susanna, then Ben, Richard, Abby, and then Danielle. So, Susannah, you're up next.

SUSANNAH HATCH: Hi, can you hear me?

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

SUSANNAH HATCH: Great. My name is Susannah Hatch. First name spelled S-us-a-n-n-a-h. Last name spelled H-a-t-c-h. Thank you for the opportunity to testify today. I'm the Clean Energy Coalition Director At the Environmental League of Massachusetts. We strongly recommend that BOEM promptly approve the Vineyard Wind 1 Project. Offshore wind is our region's best opportunity for new sources of energy. This clean energy resource is the single biggest lever we can pull to reduce emissions, address the climate crisis and grow the economy at the same time.

Massachusetts and many New England states have mandated emissions limits and offshore wind

energy is critical to meeting those mandates. Per ISO New England's analyses around 1/6th to 1/3rd of New England's old fossil fuel plants will likely retire over the next decade, and it is imperative that we fill this gap with clean energy. Closing these plants and replacing them with offshore wind will also reduce pollution and lead to improved air quality, which as COVID-19 has clearly demonstrated is an extremely important public health issue. The SEIS itself recognizes this and also recognizes that without offshore wind, quote, "additional more polluting fossil fuel energy facilities would come or be kept online to meet future power demand," end quote. This outcome would be unacceptable from a climate and health perspective. The economic potential of offshore wind must also be recognized. This aspect is all the more important in this time of the severe economic downturn. As the cost of this resource continues to decline, offshore wind will save ratepayers billions of dollars over the terms of their contracts.

Analyses have found that the responsible expansion of this industry would bring at least 83,000 jobs, as well as generate annual economic

impact of $25 billion by 2030. The clean energy industry has suffered enormous job loss in this economic crisis. In Massachusetts alone, we lost nearly 19,000 clean energy jobs during April and May. Offshore wind could bring those job numbers back and more. As an environmental organization we believe strongly in environmental and wildlife protection. The SEIS reinforces our belief that offshore wind energy can be developed in a manner that protects wildlife and habitat and should advance as quickly as responsible development allows.

We support the uniform one by one nautical mile grid layout and commend the offshore wind industry for finding this compromise with the fishing industry, which the U.S. Coast Guard found allows for safe navigation through the wind energy areas. We oppose the additional transit lanes through the wind energy areas, which would severely reduce the amount of energy that could be produced, render this offshore wind project not viable and severely curtail our responsibility to mitigate the serious severe impacts of climate change. We strongly urge BOEM to promptly approve this project

and allow for the expansion of responsibly developed offshore wind. We will be submitting written comments with more detail. Thank you for your time.

CHRISTINE DAVIS: Thank you very much, Susannah. Next we have Ben, then Richard, Abby, and then Danielle. So Ben.

BEN ROBINSON: Hello, can you hear me?

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

BEN ROBINSON: Hi, I'm Ben, B-e-n, Robinson, R-o-b-i-n-s-o-n. I am a Planning Board member and a member of the Martha's Vineyard Commission as well as chairing the Martha's Vineyard Commission Climate Action Task Force. The Martha's Vineyard Climate Action Task Force would like to thank the Bureau of Ocean Energy Management for the opportunity to provide public comment in response to the supplemental environmental impact statement for the proposed Vineyard Wind project off the southern coast of Martha's Vineyard.

The CATF was formed by the Martha's Vineyard Commission, the regional planning agency for Dukes County in May of 2019, with the primary goal of developing master plans to eliminate fossil

fuel use on the Vineyard and adapt to our changing climate in the coming years and decades. The CATF is represented by a broad cross section of constituencies from all six island towns including appointed officials from town energy committees and other leading island organizations. The continued burning of fossil fuels resulting in the emission of greenhouse gases is threatening the livability of our planet and island by contributing to rising sea levels, extreme weather events, ocean acidification, adverse health impacts, economic destabilization and increased pollution, ultimately threatening human civilization as a whole.

In December, 2019, the Martha's Vineyard Commission adopted a climate emergency resolution, which includes support for a non-binding resolution to be proposed at the town meeting in all six island towns. The proposal aims to demonstrate public support for eliminating the island's reliance on fossil fuels by 2040 and ensuring the island's energy needs are met from renewable sources. In our region of the United States, the only viable large scale source of renewable energy is offshore wind. The resolution also calls in the preparation of the

master energy and adaptation plans for the island, each of which is premised on a single fundamental, eliminating the island's reliance on fossil fuels and mitigating the impacts of climate change as you move to fossil free environment.

The Stanford Solutions Project in 2012 identified a completely renewable energy grid in the U.S. little higher 16.4% from offshore wind, and for Massachusetts, we will need 55% of our energy to come from offshore wind. It's with this sense of urgency that the CATF urges t to approve the Vineyard Wind project without any further delay. Responding to specific items within the SEIS we would like to relay the following in regards to the potential impacts to our island community. Development of future offshore wind activities aligns with Martha's Vineyard goals to become 100% renewable in home heating, electricity and transportation by 2040.

Development of future offshore wind activities aligns with the Commonwealth target to become net zero by 2050, which means making power generation as clean as possible and derived from renewable sources Port investment and usage by

offshore wind projects will have a direct permanent and beneficial impact on employment and economic activity by providing jobs and supporting marine service industries. This is important for the Vineyard where there is a pressing need to diversify our local economy, which today is largely a seasonal operation.

Port development and future job creation and Vineyard Haven Harbor the island's sole year round port located in the town of Tisbury on Martha's Vineyard, a direct byproduct of offshore wind farm development offers an opportunity well-suited to the island's marine and human resources and promises to make a significant contribution to a sustainable Island economy for long term.

A growing and significant part of our local blue economy and family owned aquaculture businesses, these small businesses -- in particular shellfish businesses -- are under increasing threat promotion acidification from greenhouse gas emissions. As acidity increases, shells become thinner, growth becomes slower and death rates rise. Impacts from ocean acidification will be mitigated

by renewable offshore wind. Because the future of offshore wind facilities would produce three fewer greenhouse gas emissions and fossil fuel power generating facilities with similar capacities, the reduction in greenhouse gas emissions due to future offshore wind projects or avoidance of increased greenhouse gas emissions from equivalent fossil fuel powered energy production will result in long-term beneficial impacts on demographics, employment and economics.

We encourage any future developers also to work with BOEM to incorporate aircraft detection lighting systems on their turbines as Vineyard Wind 1 has proposed for their project in order to significantly reduce the amount of time that lighting will be visible from shores on Martha's Vineyard. We applaud Vineyard Wind for taking this feedback from our community and incorporating ADLS in their project, which makes nighttime lighting impacts in our local community reduce to negligible. Thank you for the attention on this matter and allowing us to speak today.

CHRISTINE DAVIS: Thank you, Ben. Next we have Richard, and then Abby, and then Daniel. And

then we may have Polly, although we're not seeing you on the line right now. So if we don't resolve that, we'll go on to Ben H. So the next person up is Richard, go ahead and begin your comments, Richard.

RICHARD TOOLE: Okay. Can you hear me?

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

RICHARD TOOLE: Thank you. Thank you for having this great process. I know we're all living in this virtual world now. I don't think we're getting used to it, that's for sure. But anyway, my name is Richard Toole, R-i-c-h-a-r-d Toole, T-o-o-l-e. I've been a resident of the Vineyard for going on for 50 years. I live in the town of Oak Bluffs. I represent the town of Oak Bluffs on the Cape and Vineyard Electric Cooperative on the Cape Light Compact, and I'm also chairman of Oak Bluffs Energy Committee. And as my fellow people then spoken so much more eloquently than I'm ever going to be able to do, Kate, and Marc and Alan, Ben. I'm involved in committees that they're working on. I don't need to repeat everything or anything that they said, I agree with everything 100%.

I guess I'm thrilled at this point. I don't

know how long this is going to go on. But so far everybody has spoken in favor of this proposal. So I think that says a lot. This is the only solution to our -- to our climate change problem. If we don't go to clean, renewable energy as soon as possible and stop burning fossil fuels, we're going to be in big trouble, and has already been mentioned, this is Martha's Vineyard, an island five miles off the coast. And we are facing dire consequences, probably even if we change completely at this point because so much has been done. So I just want to say please, please, as soon as possible, approve this project and let them get underway. Thank you very much.

CHRISTINE DAVIS: Thank you, Richard. Next we have Abby, then Daniel, potentially Callie and then Ben. So with that, we'll turn it to Abby. Audio Hello, Abby.

ABBY WATSON: Can you hear me?

CHRISTINE DAVIS: Yeah, I can you great, Abby, go ahead.

ABBY WATSON: Excellent. Thank you. My name is Abby Watson, A-b-b-y W-a-t-s-o-n. I am the head of Government Affairs for North America so Siemens Gemesa could make the renewable energy, and

alongside the entire industry, we've eagerly awaited the outcomes of BOEM's work to assess the cumulative impacts of offshore wind off the Northeast Coast of the U.S. We applaud the agency's rigorous effort to quantify and analyze all of the associated benefits and impacts across multiple stakeholders and users of ocean resources. We deeply appreciate the opportunity to provide testimony to you today as one of those interested stakeholders.

Siemens Gamesa Renewable Energy is the world's leading offshore wind turbine manufacturer with extensive experience entering new markets and establishing offshore wind supply chains to serve those markets. SGRE is proud to have secured conditional orders and preferred supplier status for over 4300 megawatts of future U.S. offshore wind projects.

We're also actively in the process of supplying the turbines, including the construction program for their installation, and ultimately will support the operations and maintenance services for the Coastal Virginia Offshore Wind Pilot Project. This project is being led by our partners Dominion Energy and Earth Shed who have shown a deep

commitment to advancing offshore wind and the opportunities it provides to communities.

Construction on this important pilot project, the first turbines to be installed in federal waters here in the U.S., is nearing final completion with both turbines now fully installed. We're very proud to be part of this project, which brings us one step closer in positioning the U.S. as a global leader in the offshore wind market. The public benefits of the Vineyard Wind offshore wind development extend well beyond the geographic boundaries of the offtake seeds. As other people have commented today, the American Wind Energy Association estimates that offshore wind will create 83,000 new U.S. jobs and $25 billion in annual economic output through 2030. And Vineyard Wind as the first utility scale project is the tipping point for this pent-up commercial energy. The market signal that will come from Vineyard is clearly seen in the range of offshore stakeholders that have come here today to offer their support and hope for future investment opportunities.

Given the broader implications of BOEM's final assessment of the Vineyard Wind supplemental

EIS which will impact the development of a majority of the U.S. offshore wind market, many elements of the U.S. offshore wind value chain are poised to make investments pending the outcome of this process. The success of Vineyard Wind is crucial to the success of the U.S. future offshore wind industry. As an equipment manufacturer, we cannot provide detailed comments on the majority of BOEM's findings in their draft SEIS that pertain to areas outside our expertise. However, we would like to express concern about alternative F and its potential impact on the capacity of the lease areas currently available to the offshore wind industry. This proposal to create additional transit lanes beyond the one by one nautical mile grid lanes that have already been established, would substantially reduce the areas available for development without significantly improving national navigational safety for vessels.

Such a reduction in potential capacity for these lease areas may pose a threat to the ability for adjacent states to meet their clean energy goals. Siemens Gamesa has a long-standing commitment to investment in the U.S. In the last few years

alone, we've invested $35 million in capital expenditures that our two U.S. onshore wind manufacturing facilities in Kansas and Iowa, are now actively engaged in discussions with stakeholders in several states on how to localize our offshore wind supply chain to benefit local communities. Such discussions cannot come to fruition if offshore wind developers are not able to proceed with their planned projects due to a significant shift in project economics or timeline.

In conclusion, we urge the Bureau of Ocean Energy Management to consider the vast potential benefits that offshore wind can bring to the U.S. and strike an appropriate balance that helps bring this transformative industry to our shores. Thank you for the opportunity to provide comments today.

CHRISTINE DAVIS: Thank you very much, Abby. Next we'll have Daniel, and I believe Polly is gone, but Polly Ferran, if you can press Star 1 now just for a last chance to get you back in the queue. So after Daniel, it'll be Polly if she joins us, Ben, and then we've got a Massachusetts State Senator joining us. So we'll go with Daniel right now. Daniel.

DANIEL WEBB: Hi, this is Daniel, can you hear me?

CHRISTINE DAVIS: Can hear you perfectly, thank you.

DANIEL WEBB: Great. My name is Daniel Webb spelled D-a-n-i-e-l. Last name W-e-b-b. I appreciate the opportunity to provide public comments. I'm a native and year-round resident of Cape Cod, and live in Falmouth. I wanted to disclose that I work in the field of renewable energy. But my work is all land based and it's not connected in any way to these offshore proposed projects. I've reviewed the SEIS and I believe it's been done thoroughly and diligently. And I think it clearly shows the benefits of offshore wind and that those benefits significantly outweigh the impacts. Of course, no energy source has zero impacts. Certainly our current reliance on fossil fuels has many, many negative impacts on climate change, on our economic security, and on geopolitical stability. Although offshore wind is new to North America, it really is not a new technology.

The first offshore wind farm was built 30 years ago in 1991 in Denmark, so the impacts and the

benefits of this technology can be assessed from those three decades of experience. I know that the impact on fisheries primary concern with these offshore wind farms. I believe that our fisheries will benefit from reduced carbon emissions and reduced climate change, less ocean acidification. Further, fishing communities, people who are familiar with ships and machinery and working on the oceans, people with those very specialized skills will be among the first to benefit from well paid technical jobs in offshore wind. And long after construction is over, the operation and maintenance requirements are substantial and will be ongoing for decades.

An impact statement by definition examines the impacts of building something. However, we should also consider the opposite question. What are the impacts of delaying or reducing the growth of offshore wind? Delaying or reducing renewable energy growth means more climate change, more pollution, more extreme weather, and more money leaving our region to pay for fossil fuels that are brought in from elsewhere. I believe that once these offshore wind farms are operating, we will all be much more

secure. By more secure I mean better energy security, better economic security, better geopolitical security, and better climate security. Thank you for the opportunity to comment.

CHRISTINE DAVIS: Thank you very much. Okay, next we have our second Ben of this session and then the state senator. We believe Julius is on but we're not 100% certain, just very similar to Molly. If not, we'll move on, potentially to Keeley and then to Mike. With that, I'll turn it over to Ben, please.

BEN HELLERSTEIN: Great. Thank you so much to BOEM for the opportunity to offer our testimony today. My name is Ben Hellerstein and I'm the State Director for Environment Massachusetts, the statewide environmental advocacy organization. We work to protect clean air, clean water and open space together with our tens of thousands of citizen members and supporters. We're part of a national network Environment America that advocates for offshore wind energy and other policies to protect our environment up and down the East Coast and across the country.

We support the use of our offshore wind

resources to provide limitless pollution free energy for Massachusetts and other East Coast states. In Massachusetts, as other speakers have pointed out, offshore wind is the largest renewable energy resource we have. In 2018 we released a report Wind Power to Spare, the Enormous Energy Potential of Atlantic Offshore Wind, documenting the potential for offshore wind energy along the Atlantic coast.

Our report shows that Massachusetts has the highest offshore wind potential of any state in the country. Our potential is equivalent to more than 19 times the state's annual electricity consumption. And even if our heating and transportation are converted to electric power, which is a trend that is already underway and something that is absolutely necessary, Offshore wind will still be sufficient to power Massachusetts eight times over. Our offshore wind resources along with our potential for other forms of clean energy, like solar, give us confidence that a future powered by 100% clean and renewable energy is feasible.

When we achieve 100% renewable energy our air will be cleaner, our communities will be healthier, and we'll be doing our part to avoid

devastating climate change. As SEIS says, Vineyard Wind and other proposed offshore wind projects will help Massachusetts and other East Coast states to reduce their reliance on polluting fossil fuels. Once completed, the Vineyard Wind project will produce approximately 6% of the electricity consumed from Massachusetts, while avoiding 1.6 million tons of carbon dioxide annually, the equivalent of taking 325,000 cars off the road.

The project will also result in a significant reduction in other pollutants like nitrogen oxides and sulfur dioxide that harm our health. There's been an extensive process to gather input on Vineyard Wind from key stakeholders, beginning with the selection of lease areas and continuing through multiple stages of the project design.

As other speakers have pointed out, Vineyard Wind has responded to this input by making significant adjustments in the project plans, and the company has also shown a commitment to building a cooperative relationship with the project's host communities. They have committed to significant investments in renewable energy and resiliency in

communities throughout southeastern Massachusetts. The SEIS reinforces our view that Vineyard Wind can be built in a way that protects wildlife in our natural resources. Vineyard Wind represents The launching point for the American offshore wind industry. Please advance this project as quickly as possible so that all of us can breathe cleaner air and live in a safer climate. Thank you.

CHRISTINE DAVIS: Thank you very much, Ben. Next we'll have the state senator. Potentially we might have Keeley, but if not, we'll move on to like Jacob. Jacob, William, David. Actually, I may say William Lake than David and then William Birdwell. So with that, I'll turn it over to the state senator from Massachusetts.

SENATOR MARC PACHECO: Can you hear me?

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

SENATOR MARC PACHECO: Great. Thank you very much. My name is Marc, M-a-r-c, last name Pacheco, P-a-c-h-e-c-o. I am the Dean of the Massachusetts State Senate and the founding Chair of the Global Warming Committee here in the Commonwealth of Massachusetts. And the author of the 2008 Global

Warming Solutions Act, which is a legally binding piece of legislation that is now statute that requires a greenhouse gas reduction in the Commonwealth, and in the process of making sure that we also have this binding legal authority to get to net zero by 2050. The administration is also on board with that. And in order for us to do that, we need this offshore wind initiative to go through off the coast of Massachusetts.

The Vineyard Wind 1 project is something that deserves to be approved. It will significantly impact our public health in our air quality in a positive way. It will reduce significantly greenhouse gas emissions, it will create literally thousands and thousands of jobs, will be the leader in terms of this industry in America. And when you look at the cost savings that consumers will have as a result of this, it's over a billion and a half dollars through the life of the project that they will save on utility bills. So when you look at the the cost savings to consumers, when you look at the jobs that will be creating, we're on the cusp of a sustainability revolution. When you look at the greenhouse gas reduction and the impact, positive

impact on public health.

For all these reasons, I'm urging the Bureau of Ocean Energy Management to immediately approve this as quickly as possible. It has been frustrating from the perspective of someone who has been out to Denmark and numerous other places in Europe and beyond where we've seen the offshore wind industry thrive, when we've seen it thrive sharing ocean space with the fishing industry. The fishing industry when we look at that industry in Massachusetts, it's always been a big part of our culture, and a big part of our economy, and a big part of the food product here in in Massachusetts, and I see very little impact at all on the fishing industry, especially when you balance that against what will take place with the cumulative impact of ocean acidification and ocean warming on the fishing industry, which will have a serious detrimental impact on the fishing industry. So I hope that when BOEM is reviewing this, I hope they're reviewing the standards up against what will take place in terms of increased climate change.

And finally, I just want to say that the cost of inaction here will be in the trillions of

dollars. If we do not act quickly on this and send the message to the industry as a whole, that both the state and federal government and all of the state governments in the northeast that are onboard here, that this does not move forward, it will send a negative message both I think up to the federal government level and to the industry as a whole, because if you look at this anywhere else in the world, it has been a success. This can be a win-win-win scenario. And very rarely are there these types of opportunities where you can have a win-win outcome with proposals that come forward. That will happen with the adoption of the Vineyard Wind 1 Project. Thank you very much, and I'll follow it up with some written testimony.

CHRISTINE DAVIS: Thank you very much, Senator. okay with that, I don't believe Keely is on but one last chance. Then after that, we'll have Mike, then William Lake. Then David and then William Birdwell. So Keely by chance. Okay. Ahead to Mike, are you there?

MIKE JACOBS: Mike Jacobs is here. Can you hear me?

CHRISTINE DAVIS: Awesome. Thank you. Go

ahead.

MIKE JACOBS: This is seamless. Mike Jacobs, M-i-k-e J-a-c-o-b-s. I'm a seasonal Martha's Vineyard Island resident, the members of Vineyard Power Cooperative. One point I recall from my youth, the prominently visible wind turbines in Vineyard Haven, and on Cuttyhunk Island adjacent to Martha's Vineyard that showed me the possibility of our future for our community and our energy supplies in wind power. In the development of the offshore wind, and in this particular package of impacts addressed in the SEIS there is two areas of concern that has been addressed, and I want to describe those for the project in the SEIS.

First, the visual impacts from aircraft warning lights is a concern that needs to be addressed, and its opposed use of lights activated only when aircraft approach addresses our community concerns. This has been described properly as negligible and the SEIS.

Second, importantance of impacts on water users, which includes but is much larger than the group that are fishermen. So significant issue for all island residents and, in fact, all coastal

dwellers in the northeast.

So regarding navigation, the wind developers have agreed to a one mile by one mile and uniform layout, which the coast guard has endorsed. If this is good enough for the U.S. Coast Guard, it's good enough for the rest of us. But more important of water uses is a benefit of opening the U.S. to offshore winds as a reducer of greenhouse gas emissions. Our island and all the harbors throughout the Northeast are facing higher sea level rise than other parts of the USA.

With fossil fuel use access to the water will be impaired by sea level rise. The proposed action building this wind farm and the cumulative effects of building the 20 plus wind farms will reduce carbon emissions and methane emissions and help protect our harbors and our access to the waters. In closing, I want to say this is a complete and adequate environmental impact statement. And I hope that you will please direct the approval at this time. Thank you.

CHRISTINE DAVIS: Thank you. I can't remember if you spelled your name and just because I didn't, can you please just do that again?

MIKE JACOBS: Mike, M-i-k-e, Jacobs, J-a-c-o-b-s.

CHRISTINE DAVIS: Thank you very much. Okay. Next, we'll go to the first William. Oh, I'm sorry. I believe that Keely's on now. Let's see if we can get Keeley and then we'll go to William Lakeland, David. And then the other William Birdwell. Well, so Kelly, are you on? Can we get to you now?

KEELY MENEZES: Hi, yes, I'm on. Can you hear me?

CHRISTINE DAVIS: Oh, thank you for your patience. Thank you, and I can hear you just fine. So go ahead.

KEELY MENEZES: Okay, great. Hi, everyone, my name is Keeley. I'm a resident in Massachusetts as well as the current Master's in Public Health student at Tufts University.

I have an interest in environmental health and the massive positive public health implications of a shift towards renewable energy sources such as offshore wind. I really would like to echo a lot of the things that I heard said earlier in the call, as well as kind of reiterate some of it from a public

health impact standpoint.

I see in the potential beneficial impact levels portion of the SEIS, you all site notable and measurable improvements in human health, and I would just like to expand on that a little bit. So the carbon emissions created by the current energy infrastructure in the United States is a major factor in our warming climate.

Some of the health impacts that of that warming climate include consequences of human labor in hotter environments, which include increased risk of heat exhaustion and heatstroke, as well as worsening of chronic conditions like lung and heart and kidney disease. Consistent exposure to higher temperatures also have been linked to increase instances of violence and aggression, declines in cognitive function, and the worsening of mental health conditions.

The infrastructural and healthcare and emotional costs have increased instances of extreme weather events due to rapid barometric changes, and the relationship between rising sea surface temperature and the strength of germline, all of those mass public health threats. Their direct costs

there in terms of drownings, other injuries, property damage, disaster related health system failures, as well as a massive cause of human displacement and a rise in climate refugees. They're also consequences of climate changes and elevated transmission of tick, mosquito and waterborne illnesses. These are caused by longer warm water seasons and increased water temperatures, which support bacteria and pathogen populations and speed of virus replication cycle. CO-2 emissions and the health effects of climate change have an inverse relationship on the nature and basis as well. So those that produce the most are just simply disproportionately, that's a global burden.

The United States emits six times the global average of CO-2. So it should be taken as a personal responsibility upon the United States to make a change here. Investing in renewable energy has the capacity to directly reduce human suffering on a global scale. And this process here offshore in offshore wind represents an infinitely important shift away from fossil fuel and a new deviation of that burden. And I would just like to echo an individual before me talked about how the cost of

inaction is just so much greater than the cost of action. And I would like to put that into some healthcare terms, so it costs roughly $30 per ton more to use a renewable source of energy than a fossil fuel source and energy, but as a direct result of that carbon being removed from the environment by a renewable source that results in a 50 to $380 per ton of CO-2 savings in healthcare costs, pushes up to more than a 10 times difference. And as well, as you know, the innumerable jobs is far more the renewable energy sector is far more employable than oil sectors.

I have a massive amount of respect for the attention of detail and all the project impact statements and meticulousness of this process from all the parties involved. But I would like to celebrate the consideration of marine ecosystems in this process, while urging you all to take a step back and consider how the net impact of this project is measurable gains for all ecosystems, one we've waited for far too long, and are all deserving of. As a young person I would just like to say that I think that confronting the global climate crisis is one of the greatest self-help opportunities of

our lifetime and is absolutely our responsibility to act, and this is a wonderful first step to do so. Thank you so much.

CHRISTINE DAVIS: Thank you, Keely. By chance can you spell your first and last name for the court reporter, please.

KEELY MENEZES: Yeah, Keely, K-e-e-l-y, Menezes, M-e-n-e-z-e-s.

CHRISTINE DAVIS: Thank you very much. Okay. So with that now we'll turn it to William Lake. And then we've got David and then William Birdwell. And just as a quick reminder we are getting towards the end of our list. If you've preregistered and you haven't yet hit Star 1 to make sure you're in the queue, please do so. Anyone on the phone or on zoom, please press Star 1 to make sure that you have had a chance to get your name in the queue. All right. So with that, William Lake, please.

WILLIAM LAKE: Thank you. Can you hear me?

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

WILLIAM LAKE: Thank you. William Lake, L-a-k-e. I live in the town of Aquinnah on Martha's

Vineyard. I'm a Director of Vineyard Power, which is the nonprofit, local partner of Vineyard Wind and chair of Aquinnah's Climate and Energy Committee. Like all of the previous speakers, I strongly support the Vineyard 1 Project. I applaud BOEM for all the work that's gone into the draft EIS and now the supplement. The supplement demonstrates again, on a larger scale, the strong public interest benefits of developing the offshore wind industry on our northeast seaboard.

Economic benefits of this industry promise to be tremendous at a time when some other U.S. industries struggle or decline, offshore wind is set to take off and provide thousands of good paying jobs not only in the construction and operation of the wind turbines themselves, but also indirectly through the development and expansion of ports, shipping and related industries. As others have noticed, the offshore wind industry is expected to create more than 80,000 jobs in the next 10 years, with private investment reaching upwards of $25 billion per year by 2030. And Vineyard Wind alone creates 3600 jobs for local residents over the life of the project. And because wind can now produce

energy so cheaply, Vineyard Wind will save ratepayers more than $1.4 billion in energy costs during the first 20 years of the project. But even more important will be the contribution of offshore wind to combating climate change caused by fossil fuel energy generation.

Our island and coastal communities are already seeing the impacts of climate change in more extreme storm events, alternating flooding and drought and sea level rise. Vineyard Wind alone will remove almost 1.7 million tons of CO-2 from the atmosphere annually. Thus, it will help to achieve Martha's Vineyard's goal of being 100% renewable for electricity by 2040 and the Massachusetts target of being carbon neutral by 2050. And because offshore wind generates power at long term fixed prices, it provides a hedge against fossil fuel volatility, protecting consumers and providing greater energy security.

Offshore wind is the renewable energy source that we have on the Northeast seaboard. Other parts of the country may have other resources, such as hydroelectric, geothermal, or onshore wind. But here offshore wind is it. If we're going to harness

renewable energy in our region, this is the resource we have. I hope the project will be clear to go ahead promptly. And I thank you very much.

CHRISTINE DAVIS: All right, thank you very much too. All right. So we are getting down to the number of speakers that we have in the queue. So just a reminder, Star 1 if you want the opportunity to speak tonight. Next we'll have David if you can take your name please. David.

DAVID BORRUS: David Borrus. D-a-v-i-d. B-o-rrr-u-s. I am the business manager for Pile Drivers and Divers Local 56. We are a statewide local but we are the marine construction division of the United Brotherhood of Carpenters. So we recently celebrated our 100th anniversary.

In the last hundred years we have been the constructors of all major offshore projects in New England and certainly in coastal Massachusetts gas and energy lines that gear island outfall, some recent ones but sunken tube tunnels, you name it, we've done it. And I represent -- there's over 500 men and women who do this work. I want to state at the outset that many of the speakers have, you know, referenced the important environmental and

socioeconomic benefits of the Vineyard Wind project. We're in agreement with all of that.

My focus is of course, is the business managers on the jobs, and we are the people as I think Marc Rosenbaum said, we're the people who are going to construct this work, and our members are mariners, they are welders, pile drivers, commercial divers, riggers. This is the nuts and bolts of how the first stage of this project will happen is with skilled trades workers and men and women who make up our Local and we have worked quite well with Vineyard Wind, they have been big supporters of skilled workers. They've contributed heavily to training programs that our members are taking right now.

We worked with Mass EC, Vineyard Wind in the United Brotherhood of Carpenters, after going over $150,000 -- 100,000 came directly from CEC and 200,000 was contributed to that fund by Vineyard Wind to train workers to the GWO standard. I believe Maria Hannah spoke to that, that's the basic offshore safety standard. We already have 24 members, men and women who have been through the program ready to go to work. And another person

recently spoke -- might have been William Lake -- who spoke to the local -- the ancillary jobs this will create, in addition to the construction, but development of ports. To that we have -- we were the construction force that built the Marine Commerce Terminal in New Bedford and currently we have a dive job there going on to -- I believe it's coding process for the pier there. We have specified with our with our employers -- with our signatory contractors that New Bedford and local area residents get first crack at this work. And I can tell you right now the first two divers on that project, the current dive project there at the Marine Commerce Terminal, were born and raised in New Bedford. We support very much the -- that the option D in the SEIS is sufficient and certainly allows for -- and that's the 1.1 nautical miles between towers allows for safe transit of the area, the Coast Guard has sent us plenty of room. We support that option, we fully respect the needs of commercial fishermen to access and transit the area.

We also want to say the ocean is a shared resource and other people have to make their livings on the ocean, such as marine construction workers as

well. The Coast Guard feels not only it's a good -- it's a good plan for transiting the space, but also that it allows for them to do the search and rescue operations and everything else. So the work that the Coast Guard does, and we feel that's the choice that BOEM should make to move this project forward. We strongly support the permitting of the Vineyard Wind 1 Project and we hope to see the permits issued soon so we can begin this work that all of us, so many people tonight have stated so many good reasons to get it going. We believe that like many of you do, it's a win. It's a win for energy independence for Massachusetts. It's a win for clean, renewable power, and it's a win for jobs for the residents of southeastern Massachusetts. Thanks very much.

CHRISTINE DAVIS: Thank you. Next we'll have William Birdwell and then Nicole and then Amber. So William, William Birdwell.

WILLIAM BRIDWELL: Hello, can you hear me?

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

WILLIAM BRIDWELL: Okay. Yes, first of all, my name is William Bridwell. That's W-i-l-l-i-a-m B-r-i-d-w-e-l-l. And I would like to say that I am

a member of Vineyard Power, and I want to thank you very much for letting me speak this evening. I want to start by saying that climate change is real and its effects are already being felt around the world. It's going to get worse, especially if we don't take steps to reduce our impact. That being said, green energy is a way to reduce that impact. And that is why Vineyard Wind project is so important. I was going to bring up some more of the other talking points about the concern with the fisherman and the amount of jobs that it will produce and the amount of energy that this project will produce, that being green energy, but all those points have been talked up quite well already.

So I would also like to say that this offshore project will also help Martha's Vineyard to reach its goal of hopefully having green energy and transportation by the year 2040 at a 100% level. I don't have anything else to add except that hopefully we can get this project going quickly. And that I think that there is no need to fear this technology is so good now that it's got 30 years experience, as someone has pointed out earlier, and I just hope that we can get started sooner than

later. Thank you for letting me speak.

CHRISTINE DAVIS: Thank you, William, and thank you for spelling your name for us. Appreciate it.

WILLIAM BRIDWELL: That's all right, no problem.

CHRISTINE DAVIS: All right, next we'll have Nicole and then Amber. And as I see it right now, I think that's all we have. So if you are interested in providing comments yet this evening, please press Star 1 at this time so we can get you

in the queue. With that I'll turn it over to Nicole to state and spell your name, please.

NICOLE DIPAOLO: Hello, my name is spelled Nicole, N-i-c-o-l-e, DiPaolo, D-i-P-a-o-l-o. Can you hear me?

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

NICOLE DIPAOLO: Awesome. Thank you. My name is Nicole DiPaolo, I'm from the National Wildlife Federation, and I want to start by thanking you for your work on this cumulative impact report and for the opportunity to speak on it. The National Wildlife Federation has been advocating for

responsibly developed offshore wind power for over a decade. Climate change is the greatest threat to American wildlife, wild places and communities around the country. We know that strong action must be taken to make a rapid transition to a responsible clean energy economy. We believe that the Vineyard Wind 1 Project will be a positive contribution to this transition and that it move forward.

Responsible development of offshore wind avoids, minimizes and mitigates impact to wildlife every step of the way. Vineyard Wind has supported our high standards for wildlife protection. And last winter, they signed a historic agreement with the National Wildlife Federation and our partners at the Natural Resource Defense Council and Conservation Law Foundation to protect the critically endangered North Atlantic Right Whale.

This agreement commits Vineyard Wind to restricted period for construction, limiting the times of year that pile driving can occur to those when right whales are less likely to be present. Also in the agreement, the developer commits to enhance monitoring protocols and the best technology available to be employed throughout construction,

taking the strongest possible measures to reduce noise, observe and detect marine mammals and report and share data and adapt strategies guided by the best and most current science.

Last but certainly not least, vessel speed restrictions are implemented in all seasons. Vessel strength and entanglement in fishing gear are the leading cause of the North Atlantic Right Whale death. There were only 400 of these whales remaining in the world today, and of these only 95 are breeding females. And just yesterday, one was found dead on the New Jersey coast. We believe that the precedent-setting agreement between Vineyard Wind, ourselves and our partners will help avoid these tragedies.

We also believe that these practices should be a standard for all projects and simply a barrier to entry for the industry. And we appreciate Vineyard Wind's commitment to leading by example and demonstrating the commercial viability of our request. Our high standards for renewable energy development allow for us to make every attempt to avoid the most devastating impacts of climate change, while also avoiding and minimizing

disruption to vulnerable species and habitat. We must stand these projects up as soon as the responsible development will allow. Over 10,000 megawatts of coal, nuclear and oil-fired power plants providing energy to New England are likely to retire in the next few years. We have no time to lose. The technology is ready. The cost is competitive. And the time is right for launching this global industry in the United States that could create over 83,000 jobs by 2030 and invest tens of billions of dollars into our economy. Thank you so much.

CHRISTINE DAVIS: All right. Thank you, Nicole. I appreciate your comments. And it looks like we're down to a couple more folks. Amber and then David. So, Amber, go ahead. Please state and spell your name.

AMBER HEWETT: Yes. Hello. Can you hear me?

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

AMBER HEWETT: Hi, I'm Amber Hewitt. Amber is A-m-b-e-r and Hewett is H-e-w-e-t-t. Thank you so much for the opportunity to speak this evening, and I just have to applaud how smoothly this has run.

Thank you to everyone who worked to rise to this challenge and hold virtual hearings so successfully. I'm speaking to you this evening as a candidate for state representative in the First Essex District of Massachusetts. That's on the North Shore. And I will not repeat in detail, but I will simply agree with an underscore the various levels of urgency we've already heard resounding in the comments this evening.

The urgency of climate change calls on the Commonwealth as it calls on every entity to advance solutions that rise to the scale of the challenge, and here in the northeast regions offshore wind power carries unmatched potential to transform our energy story into what it needs to be. We've also heard the urgency of launching an offshore wind industry during this energy crossroads New England sets up today. For decades too long our inability to align the political will needed to harness this opportunity has wedded us to the volatile fossil fuel market, and all the environmental public health and social justice impacts that come with it.

We've heard about the economic urgency of this moment, and the desperate need for long term

high quality jobs, like the thousands this project will deliver, and the tens of thousands more the industry as a whole has to offer the region. Large scale Clean Energy Solutions, like offshore wind power, are critical to building a resilient future we must reach for. And finally, this is the right project to start with. It's been vetted, it has adapted to concerns and Vineyard Winds commitment to protecting vulnerable wildlife like the critically endangered North Atlantic Right Whale, as we heard from our last commenter, sets the important precedent for the industry to follow.

This is the project and this is so long past the time. I urge approval of Vineyard Wind 1 so that we can get to work here in the Commonwealth and across the region on meeting the moment, this moment that demands the very best of us. Thank you so much.

CHRISTINE DAVIS: Thank you, Amber. So next we have David and at this time, David is the last speaker that I have so one more opportunity for folks to press Star 1 if you'd like to provide comment tonight; otherwise, we will wrap things up after David. So Star 1 if you want to comment. And with that, I'll turn it over to David.

DAVID ARAUJO: Hi, my name is David Araujo, I'm the president of the Southeastern Mass Building Trades. My name is spelled D-a-v-i-d A-r-a-u-j-o. I am calling tonight in response to this project in favor of this project for the 15 to 20,000 construction workers that I represent in Southeastern Mass.

The trades have been directly involved with onshore and offshore wind up to this date with the offshore being Block Island in Rhode Island. We have the expertise to perform this work, I think that we are ready for the offshore wind industry -- overdue actually for the offshore wind industry to be involved in the United States. I think that it's well overdue. Vineyard Wind is committed to making sure that the jobs are United States jobs. With a foreign training on the onset, but very soon to be all United States jobs. They have contributed a lot to training not only at the trade level, but also in the colleges and in the high schools and in the areas of Southeastern Mass.

I think that the federal waters that this project will be involved with is an area where everyone can benefit, not only the fishing industry,

but the construction industry. And I do think that what everyone has said before me, you know, I could say ditto to, it's all very good points. Again, I would say that this meeting tonight has been very good, very well run. I appreciate the opportunity. And we look forward to working with Vineyard Wind and all of the other developers that will be involved in offshore wind, and I'd like to see the agency approve this permit as soon as possible. So that we can get started as soon as possible. I mean, we're looking at probably 20 to 30 years of work between construction and maintenance when the construction is over. And, you know, it's something for the next generation who are in school right now who don't even know that they want to get in this industry that will have the opportunity for a good paying job and a good way of life and support their families throughout Southeastern Mass.

So again, I do appreciate the opportunity to speak, and I commend Vineyard Wind on their due diligence and the hard work that they've done. And hopefully the goalpost will not get moved again. And we will be at the goal line -- we're at the goal line, and we need to get over it. Thank you.

CHRISTINE DAVIS: Thank you, David. In just a minute, we're going to go back to the question and answers. We did want to get the public comment first.

So we'll circle back to answer some of the questions that have been appearing in the chat box. So I want to make a last call for anyone who wants to provide comments, please press Star now, whether or not you've preregistered or you've just joined us via phone, you just jumped in midstream, any of that please press Star 1 and we'll see if there's anyone else, and then, as I noted, we're going to get back to some of the Q & A's.

I think I'm going to make this one of the last calls for Q & A too in the chat box, just so that we do have an end in sight tonight. It's been very good, but I just want to make sure that we give everybody a chance to press Star 1 to speak or into that chat box to ask the final questions that we can bring the meeting to a close. So I'm going to reach out to my colleagues, have you seen -- anyone else want to join the queue, operator, anyone else wanted to join the queue?

OPERATOR: At this time, ma'am I'm showing

no one else queued up.

CHRISTINE DAVIS: All right, thank you. So with that, I am going to end the public testimony portion of this meeting at 7:50 p.m. And I will turn it back over to Isis Farmer to lead us through the remaining question and answers. So Isis.

ISIS FARMER: Thank you, Christine. So continuing on with our questions and answers, there were two questions that were somewhat similar. So I'm going to provide the answer to both. The first question is why didn't BOEM do this before the wind energy areas were leased? And so I'm assuming the question is relating to development of an environmental impact statement. And the second question, if the COP has not been approved yet, and the surveying efforts were not in the site assessment plan, how are the developers allowed to conduct the operations that have been going on for the past two or three summers to do geophysical and geotechnical work? If the construction and operations plan is not approved yet, how can Vineyard Wind be conducting fish surveys? So thanks for these questions. BOEM's environmental review process occurs in several phases. During the first

phase, we work closely with state renewable energy task forces and other stakeholders to review available data, understand potential user conflict and identify the areas that are most appropriate for leasing. And the goal there is really to identify areas that have the least amount of user conflict. And that would have the, you know, least impact on biological, physical and archaeological resources.

Once those areas are identified BOEM conducts an environmental review on the leasing process, and, you know, the only thing that leasing does is it allows lessees to conduct additional survey work and submit additional plans for BOEM approval. And so the first -- after that survey work -- once that survey work is planned, the lessees submit a survey plan to us and so we review their plans for geophysical and geotechnical surveys, they're also able to submit a site assessment plan, which often involves the construction or installation of a meteorological tower, or one or more meteorological buoys. And so if you want more information about the environmental assessment that was done on the leasing process -- on the leasing of the lease that is currently owned by Vineyard Wind

you can go to BOEM's website, and that information is at www.BOEM.gov. And you can get there by clicking on the state activities page and clicking on Massachusetts. That environmental assessment was issued in 2014.

And so, after that site assessment plan is issued and lessees conduct their site assessment work and complete their survey work, they use that information and incorporate it into their construction and operations plan, which is what we review during our project specific environmental review, which is currently the stage that we're in now. And the next question that we have, I will turn it over to Jen for a couple questions. So, Jen, if you wouldn't mind turning on your camera and unmuting your line.

JENNIFER BUCATARI: Can you hear me?

ISIS FARMER: I can.

Okay, so the first question for you is what is the process at BOEM if this lease is granted to Vineyard Wind, and they immediately turn around and sell the project, what is in place to keep the environmental protection in place?

JENNIFER BUCATARI: So any environmental

protections or required mitigations that are in place through the NEPA analysis will be incorporated as conditions of the construction and operations plan approval, and these conditions would then be transferred to any future lessees acquiring the project, as well as their operators. In addition, any new entity would have to be deemed technically legally and financially qualified.

ISIS FARMER: Thank you. Did the agency consider whether the industry is even viable under alternative F?

JENNIFER BUCATARI: The supplemental EIS did discuss the challenges of alternative F with respect to offshore wind power generation in several places, but mostly in chapter 2 of the SEIS. But further analysis of this is out of the scope of the SEIS. The SEIS considers alternatives to the proposed action that are feasible with regards to that project.

ISIS FARMER: Thank you, Jen. Our next question is about the cumulative scenario. And so, Ian, would you mind turning on your camera and unmuting your line.

IAN SLAYTON: Hello.

ISIS FARMER: Apologies, I want to get on the right slide here. Okay, Ian, the question that I have for you is, why did BOEM go as far south as Seabow off of Virginia.

IAN SLAYTON: So the reason why we went so far south, and actually we went even further south, we considered the Athen grid lease as well and the Virginia commercial lease for the level of development dependent on the state demand nearby, and also non-offshore wind related activities even further south than that. And it's because of some resources having a mobile component. So, for example, marine mammals or migratory birds, they can potentially be exposed to overlapping effects from projects that far south in this scenario.

ISIS FARMER: Thank you, Ian, and we have a couple more questions on commercial fish. So Brian Hooker, would you mind turning on your camera and unmuting your line? Thanks, Brian. A question that I have for you is, can Brian repeat where in the supplemental environmental impact statement he is reading the fisheries mitigation summary from? I wrote down coastal consistency Section D. But looking at the table of contents, this doesn't make

sense. Does the draft environmental impact statement also go over mitigation, or is it just in the supplemental EIS?

BRIAN HOOKER: Yeah, so actually it's a couple of different questions there. But in the DEIS, we did discuss, you know, the financial compensation programs; however, they were not as formalized as they are now. I think at the time of the publication of the DEIS negotiations with Rhode Island and Massachusetts were ongoing since publication of the DEIS those two formal programs have been concluded. For states other than Rhode Island and Massachusetts, Vineyard Wind does have a gear loss compensation program that is open to everyone and has evaluated their -- done their own evaluation of, you know, financial revenue exposure and the construction operations plans located in volume three appendix F of the COP where they've indicated that they would be setting aside funds for other states for fishermen that experience any revenue loss to be able to apply for those funds. However, those weren't just formalized for consideration in the SEIS as the programs that were developed under the coastal zone program of Rhode

Island-Massachusetts. I think that answers.

ISIS FARMER: The next question, how could BOEM attribute climate change to the impact of the project on fisheries without considering the benefits?

BRIAN HOOKER: So while the impact producing factors in the way the supplemental EIS was set up, you know, look at all the other impact-producing factors that were out there and looked at the incremental contribution of Vineyard Wind on all those, you know, impact-producing factors. So, it's very easy to look at the science on climate change and how climate change is influencing the distribution of fish and how that distribution of fish is affecting management and, therefore, commercial owned or for hire recreational fisheries. And it was a contribution to that impact rating. And that's detailed in table 3.11-1 in Appendix B in both in the baseline description and in the climate change impact-producing factor row in that same table. What is more difficult to do is then look at, you know, what reduction, if any, in climate change impacts like what I think you referred to as the ocean acidification and, you know, the sea level

temperatures -- the sea surface temperatures, what the impact of all these projects will have to bring those down to a status quo or reducing some of that. That's a little bit more unsettled, and I think we discussed, you know, some of those uncertainties in the climate change section of the SEIS. But that's why it was difficult to convey a benefit that would then result in a benefit to commercial fisheries if Vineyard Wind was approved.

ISIS FARMER: Thank you, Brian. And let me know if you feel you've already answered this next question. The question is, are you considering the cumulative impact of ocean acidification and climate impact? For example, ocean warming on fishing industry, which would be greater than any other cumulative impact?

BRIAN HOOKER: Yeah, I think that was perhaps -- yeah, I think that last response I think addressed that.

ISIS FARMER: Thanks. And the last question -- well, the last question I have for you on commercial fish is, if I understand correctly, only Rhode Island and Massachusetts commercial fishermen qualify for mitigation for impact. Why is this state

based rather than regional based or project level based? Has mitigation been offered to the other impacted stakeholders beyond commercial fishermen?

BRIAN HOOKER: Yeah, I think I addressed that one too. I think I rolled that one into my last response on mitigation, indicating, you know, that although there's formal programs for Rhode Island and Massachusetts, Vineyard Wind has indicated that there would be funds available for other states or fishermen from other states to apply for compensation as well, both for gear loss and for revenue, and that those programs are just not as formalized as those through the Coastal Zone Management Act.

ISIS FARMER: Thanks, Brian. And the last question I have for you is do blue methyl filter out larvae various in suspension, was this considered in the supplemental environmental impact statement?

BRIAN HOOKER: So, you know, that specific question is difficult to quantify, we did look at the differences in prey and predator-prey relationships as a result of the artificial reef effect. So we did kind of capture it in that broad discussion that by having these artificial reefs,

you're changing some of the predator-prey dynamics that might currently exist, but we did not go into, you know, the specific, you know, if the foundations are colonized by muscles and muscles, you know, filter, you know, larvae, you know, what the percentage of larvae is compared to, you know, natural mortality, natural predation, and, you know, what that could eventually do to the recruitment of whatever species was, you know, filtered out and predated upon by muscles. So it's captured under that, the more -- that broader heading.

ISIS FARMER: Thank you, Brian. And the next question that I have is for Arianna. Arianna, would you turn on your camera and unmute your line.

ARIANNA BAKER: Hello, Isis.

ISIS FARMER: Hi, Arianna. The question for you is how many how many potential megawatts are lost due to the transit lane option? I'm assuming the questions referring to alternative F. And how many megawatts are lost by the one by one nautical mile layout change?

ARIANNA BAKER: Yeah, so this is a bit of a complicated question to answer, but I'll try and do it as distinctly possible. Essentially due to

alternative best, the transit lane alternatives, no megawatts would be lost specifically within the Vineyard Wind 1 Project area. The projects would simply be pushed further south as the Vineyard Wind's remaining lease area. However, should alternative F be selected, it is likely that any neighboring leases, which contain the lane that was studied in alternative F would also need to continue this lane both in width and orientation through their leases, and is very likely that this other lane culture considered in the cumulative scenario would often need to be incorporated into those future leases.

So this would result in an elimination of a portion of available building space throughout the combined Rhode Island and Massachusetts areas. The loss in technical capacity would ultimately depend on the size of each turbine selected for each subsequent project. But in our SEIS BOEM estimates a loss in the technical capacity of the Rhode Island-Massachusetts lease areas of approximately 3300 megawatts. The more information about this can be found in chapter 2 on page 5, specifically with regards to the one by one nautical mile layout, it's

generally considered a sub-optimal layout for the industry, which will decrease the potential power density of the area, but I cannot speak to an exact number of how much technical capacity is lost from them operating such a layout.

ISIS FARMER: Thank you, Arianna. And that was our last question. So I'm going to turn it back over to Christine.

CHRISTINE DAVIS: All right, thank you. Thank you very much. We'll make one last call for anyone to put anything in the Q & A and get ready to wrap this up real soon. As you can see on the screen we've had up for quite some time now there are a number of ways to provide public comment. We will have four more meetings on the 30th, July 2nd, then the 9th. But for tonight, unless we hear anything in the next little bit, we will have the last chance for questions during today's meeting. Pause just for a minute if someone's typing. Again, we'll have a handful more meetings, and there are numerous ways to submit comments. So not seeing anything pop into the Q & A, in a moment, I'll hand it over back to Jim Bennett for closing remarks from BOEM.

But first, I want to personally thank

everybody who's been with us this evening. Thank you for participating in this process. I wish you a great weekend, stay safe and be well. So with that, I'll turn it over to Jim.

JIM BENNETT: Thank you, Christine. Appreciate it. And I also want to thank the team here at BOEM, with you at ERM, you've done a great job making the best of our situation and allowing effective communication in this virtual environment. And, again, thanks to everybody who participated. Thanks for your patience, and thank you for your participation.

We at BOEM remain committed to working with all of you to ensure the success of offshore activities, protecting our oceans and coasts, and the communities that depend upon them, while still allowing the United States to remain a global leader and innovator in energy production.

Just one final thought as a reminder, you just started from Christine, the public comment period is open until July 27. And there are a number of ways you can still participate in the process as you see on the screen. So please do so. And thank you again and stay well.

OPERATOR: This concludes today's conference. Thank you for your participation. You may disconnect at this time.

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(The Meeting was concluded at 7:51 p.m.)

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 June 26, 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 8th day of July, 2020.

Darcy Schramn

Darcy Lee Schramn

My Commission Expires:

April 4, 2025