Kate McCarthy
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March 1, 2023

Mr. Douglas Boren, Director
Pacific Region
U.S. Bureau of Ocean Energy Management
760 Paseo Camarillo, Suite 102
Camarillo, California 93010-6002

Re: Proposed Offshore Computer Chip Manufacturing Facility

Dear Mr. Boren,

My name is Katie McCarthy and I am writing to you in response to the Bureau of Ocean Energy Management (BOEM) seeking input on the environmental review process for the proposed construction of an offshore computer chip manufacturing facility off the coast of Santa Barbara. I am interested in the project because I am currently a student at the University of California, Santa Barbara and there is a large potential for harmful environmental impact on the Santa Barbara Channel if this project is approved. These two aspects, coupled with the fact that the channel is a hotspot of biodiversity, prove the importance this project holds for me. I would recommend preparing an Environmental Impact Statement (EIS) because of the implication of the project's intensity in terms of significance factors. The types of impacts that should be considered are economic effects, environmental impacts, climate change impacts, air quality, water quality, recreation, aesthetics, and historical/cultural resources. Potential mitigation strategies would be reducing the speed of ships traveling between the coast and the facility, treatment of wastewater, and requiring the use of renewable energy. Some alternatives that could be considered include creating a smaller facility, building the facility on land, or a combination of the two.

Level of Review

I would recommend that the federal agency action of building the offshore computer chip manufacturing facility be assessed with an Environmental Impact Statement because it's certain that there will be negative impacts on the (human) environment if this project were to come to fruition. This was determined through an analysis of significance factors, which determine the significance of a project's impact. First, beneficial and harmful effects were assessed. The main benefit of this project is the creation of jobs and increased money in the economy. The facility also provides a useful service, as computer chips are necessary for the conduction of our

technology-based society. Harm to the environment, endangered species, aesthetics, and current human activities in the area are the major negative effects concerning this agency action. Each of these impacts will be explored more in-depth as the analysis of significance factors develops. Another significance factor is the unique characteristics of the geographic area that may be affected by the activity. The Santa Barbara Channel is a site of unparalleled species density and diversity and is often referred to as the "Galapagos" of North America. Thus, this demonstrates that building the facility in an area with such biodiversity would negatively affect the ecosystem that is currently thriving there. This is a unique feature of the area that increases the intensity of risks. Next, the degree to which the effects of the activity are likely to cause controversy was examined. The people of Santa Barbara are very involved with environmental issues, so there is bound to be an uproar from environmentalists in the area in regard to the effects of the activity. Therefore, it would be wise to conduct an EIS, as opposed to an EA, to establish a full report on the effects of building and operating the manufacturing facility. The degree to which the activity may adversely affect an endangered species was also looked at to determine its intensity. Otters and blue whales are among some of the endangered species that rely on the healthy, thriving ecosystem of the Santa Barbara Channel for migratory or habitat reasons. Specifically, the impacts on blue whales were most concerning as they use the channel for migration and are often struck by cargo ships traveling between ports on the California coast. With the transportation needed for workers, equipment, materials, and finished products between the coast and the facility, there is likely to be an increase in fatal ship strikes to blue whales and other wildlife. An EIS would provide more information about the exact level of risks to endangered species as it presents a need for further investigation. Another related significance factor that was analyzed to determine the intensity of risks the project presents is whether the act threatens any law designed to protect the environment. The Endangered Species Act's (ESA) purpose is to preserve ecosystems upon which endangered or threatened species depend and to conserve and recover listed species. Thus, the agency action to build this facility, and its subsequent operation, are likely to violate the ESA, which is why an EIS is recommended. It's glaringly obvious that the production and operation of the offshore computer chip manufacturing facility have adverse impacts on the environment, which will need to be further investigated in a thorough EIS.

Impacts to Consider

Some impacts that need to be addressed in the EIS include effects on the economy, the environment, climate change, air quality, water quality, recreation, aesthetics, and historical/cultural resources. The economic benefits of the facility, like bringing money into the economy and the creation of jobs should be analyzed in the EIS. This will help to determine if the adverse impacts of the facility are outweighed by the benefits to the economy. There is, however, potential for negative impacts on the economy by harming industries that rely on the health and beauty of the area. For example, commercial and recreational fishing industries require healthy and abundant populations of fish to successfully operate. There are also

businesses that rent recreational equipment for people to use in the channel, and lots of tours, which will likely see a drop in public interest due to aesthetic reasons. The impacts on the aesthetics of the area are great as well. Many people live in and travel to Santa Barbara because of the beauty of the ocean and the view of the Channel Islands. The facility will act as an eyesore and block the clear view of the islands, which will have compounding effects on industry, as previously mentioned. Environmental impacts should also be covered in the EIS. Aspects such as impacts on native species, ecosystem health, and migratory species are all vital to the creation of a thorough EIS. The EIS should also consider the impacts of climate change. Computer chip production requires massive amounts of energy, which will likely be sourced from fossil fuels, which will increase greenhouse gas emissions that will exacerbate climate change. The EIS should determine if any air pollutants that are a threat to the air quality will result from the manufacturing or functioning of the facility. Air pollutants will likely be blown onshore, increasing negative impacts from poor air quality for residents. Water quality is yet another crucial impact to examine in the EIS. Wastewater and hazardous waste are byproducts of computer chip production, which, if released into the surrounding environment, will detrimentally harm the wildlife in the channel. Lastly, the EIS should consider the impacts of historical and cultural resources. The area is historically home to the Indigenous tribe of the Chumash who have previously used the area as a source of subsistence fishing. The cultural importance of the thriving channel ecosystem cannot be understated for the Chumash, thus it needs to be addressed in the EIS. Overall, an analysis of these effects will result in a thorough EIS which can be used to determine if the agency action is justified in its context.

Mitigation Measures and Alternatives

A few options for mitigating the impacts of the computer chip facility include reducing the speed of ships traveling between the coast and the facility, treatment of wastewater, and requiring the use of renewable energy. By reducing the speed of ships that are needed to transport workers, materials, equipment, and the finished product between Santa Barbara and the manufacturing plant, there is a reduction in the risk of the activity on migratory whales, like the endangered blue whale. Traveling at a slower speed gives the whales more time to get out of the ship's way, thus decreasing the number of fatal strikes that would typically occur. Treating wastewater before disposal will also help mitigate the negative impacts of the activity by decreasing the adverse effects on water quality. There's also the option of transporting the wastewater onshore to be treated before disposal. One final mitigation strategy would be requiring the energy for the facility to come from renewable sources, like wind or solar, in hopes of reducing impacts on climate change, which the increased burning of fossil fuels is bound to affect.

Alternatives to the project are creating a smaller facility, building the facility on land, or a combination of the two. A smaller facility would have a smaller footprint and would potentially have a better reception by the public. A four square mile facility would certainly cause uproar

purely due to the size, but if there was a way to manage production on a scale of two square miles, it's more likely to go over smoothly with residents. There is also the option of finding a place on the mainland to build the facility, it might just need to be moved outside of Santa Barbara if finding space is an issue. It's claimed that land-based locations are not large enough to accommodate the plant and associated facilities, but if there is also a reduction in size or the upwards building of the facilities, there is a possibility of it working on land. All Environmental Impact Statements are required to consider a no-action alternative as well, which will provide a baseline for comparison of other alternatives.

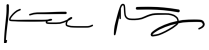
Agency Requirements by ESA

All federal agencies, including the BOEM, have a duty to consult and a duty to conserve under the Endangered Species Act. The duty to consult means that all federal agencies must ensure that their actions don't jeopardize the continued protection and conservation of listed species under the act. The agency needs to determine whether there are listed species in the area and if the project will affect said species. If so, they are required to get a formal consultation and a biological opinion from the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS). The duty to conserve requires all federal agencies to aid in the conservation of listed species. To conserve means to take an action necessary to bring a species to the point at which the protections of the ESA are no longer necessary.

In the context of this project, the BOEM is required to ask for consultation under the duty to consult. There are known listed species in the project area (e.g. blue whales, sea otters) and it's likely that the project will affect these species, as previously stated. Therefore the BOEM should consult the USFWS and obtain from them a biological opinion. They are also required to conserve under the ESA when it comes to this project. If there is a negative impact determined by the biological opinion, the agency would need to take action to aid in the conservation of the listed species. The BOEM will need to do whatever is necessary to do so, including suspending the manufacturing and operation of the facility.

In response to the Bureau's proposed project, I would recommend preparing an Environmental Impact Statement (EIS) because of the implication of the project's intensity in terms of significance factors. The types of impacts that should be considered in the EIS are effects on the economy, environment, climate change, air quality, water quality, recreation, aesthetics, and historical/cultural resources. Potential mitigation strategies would be reducing the speed of ships traveling between the coast and the facility, treatment of wastewater, and requiring the use of renewable energy. Some alternatives that could be considered include creating a smaller facility, building the facility on land, or a combination of the two.

Sincerely,



Kate McCarthy