

Ocean Climate Action Plan (OCAP)

A policy framework for developing the
US Blue Economy in the 21st century

Second Draft March 2020

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Executive Summary

The Ocean Climate Action Plan (OCAP) is a policy framework for developing the US Blue Economy in the 21st century to achieve two objectives: **1. To use ocean and coastal resources to reduce greenhouse gas emissions and/or 2. To enable coastal communities to more effectively adapt to climate impacts.** We use the World Bank definition of the Blue Economy, which defines it as the “sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystems.”¹

The plan is broken into four issue-areas: 1. Coastal Adaptation and Financing, 2. Offshore Renewable Energy, 3. Sustainable Fisheries, Aquaculture, and Marine Biodiversity Conservation, and 4. Ports, Shipping & the Maritime Sector. OCAP includes the best ideas from individuals and organizations across industry, academia, NGOs, government, indigenous groups, communities at risk and youth and student groups (since they represent the generation that will bear the brunt of climate change impacts). The policy recommendations included in this document should appeal to individuals and organizations representing all political viewpoints, as ensuring a healthy and vibrant ocean and coastal economy and ecology is firmly in the national interest.

Coastal states contain most of the US population and produce most of the nation’s GDP, and these figures will only grow over the coming decades.² However, with the combined climate impacts of sea level rise, ocean acidification, harmful algal blooms, and increased storm impacts, the coastal regions of the US are particularly vulnerable to major disruptions that could threaten large segments of the economy.³ In order to build coastal resilience and promote sustainability, new policies and investments are required that promote innovation in multiple key Blue Economy sectors. While climate change will impose significant costs on coastal communities across the US, developing a dynamic Blue Economy will also provide significant opportunities for economic growth that will build new industries and create many new jobs.

In the Ocean Climate Action Plan justice and equity concerns are integral to the entire framework, with a special focus on generating broad-based prosperity that provides opportunity and recompense not only to the major population centers and wealthiest regions, but also to marginalized and disadvantaged communities that tend to be at greater risk of pollution and climate impacts.

Currently, OCAP is a working document that will be finalized by the end of 2020, after which we hope to begin on translating the framework into a suite of national legislation that can be introduced in Congress as early as February 2021.

¹ See <https://www.worldbank.org/en/news/infographic/2017/06/06/blue-economy>.

² Coastal shoreline counties produced 40% of the nations total jobs and contributed 46% of the gross domestic product in 2016. In a [NOAA report](#) it was reported that 40% of the US population lives in coastal counties, a 39% increase in population in coastal shoreline counties was reported from 1970 to 2010, and an 8% increase in population was projected for 2010 to 2020.

³ See the Fourth National Climate Assessment, [Chapter 8: Coastal Effects](#).

I. Overview

I.1. Background

In early 2019 individual members of Congress and many presidential hopefuls issued a slew of climate change proposals that generated significant media and public attention and discussion. They all acknowledged that current efforts by the US federal government to both mitigate and adapt to climate change are insufficient, and bolder action is required. All of these proposals were very focused on terrestrial resources with little attention paid to the ocean. In response, Jason Scorse, Director of the Center for the Blue Economy at the Middlebury Institute in Monterey, CA and David Helvarg, Executive Director of Blue Frontier, decided to outline what a climate policy that focused on ocean and coastal resources might look like. They [published their piece](#) in March, 2019 in the online conservation science magazine Mongabay.

Subsequently, David and Jason had dozens of conversations with ocean leaders across the country and realized that a larger effort to build a national coalition and consensus for an Ocean Climate Action Plan (OCAP) was needed. This culminated in the first OCAP meeting in Monterey, CA on October 18, 2019. That meeting was attended by ~60 of the state's leading ocean and coastal experts, including representatives from industry, academia, government, NGOs, and youth activists. The keynote speaker was California Controller Betty Yee, who emphasized how important developing the Blue Economy is for the state and how she is prioritizing aggressive climate policy to ensure California's continued economic prosperity. Controller Yee's speech was preceded by representatives from Heirs To Our Oceans, a youth group dedicated to marine conservation and addressing climate change, who emphasized that it is the younger generations who will bear the brunt of climate decisions made today.

The California OCAP meeting was a working meeting, in which participants spent most of the day in one of three groups:

#1: Coastal Adaptation & Financing;

#2: Offshore Renewable Energy;

#3: Sustainable Fisheries, Aquaculture, and Marine Biodiversity Conservation.

We discussed the obstacles and opportunities to enacting strong climate policy in these areas, and had a larger discussion at the end of the day on the next steps forward. The feedback and ideas that were generated during this meeting have informed the policy recommendations that make up the remainder of this document. A fourth issue area—**#4: Ports, Shipping, and the Maritime Sector**—is included in this draft because it is central to ocean climate policy, but we did not have the critical mass of participants needed to discuss this issue in the California

meeting. So far, we have generated the policy recommendations for this issue area through research and consultation with a growing lists of industry experts.

According to the most recent IPCC report on the Ocean and Cryosphere [Ice],⁴ climate change is accelerating and the future for marine ecosystems and coastal communities is threatened if significant actions to both mitigate greenhouse gas emissions and adapt to a warmer planet are not taken immediately. The OCAP framework outlines the key steps to achieve these ends and develop a robust and strong Blue Economy for the nation.

The policies and investments outlined in the remainder of the document will make America a world leader in many of the innovative industries that will define the 21st century, which will in turn, produce a large number of new jobs, sustained economic growth, and the restoration of our most prized coastal habitats. They will ensure that coastal communities across the country are able to effectively adapt to coastal climate impacts, which include rising sea levels, greater storm frequency, harmful algal blooms, and ocean acidification. Financing and economic support must be made available to all to meet these needs, and it is imperative that special attention is paid to vulnerable communities of color and low-income groups in our coastal regions.

This OCAP 2nd draft represents the collective wisdom of more than 100 participants in the process to date. We are soon going to expand to the national stage for a more detailed conversation with even greater input across industry, government, NGOs, academia, indigenous groups, and youth activists.

I.2. OCAP's Boundaries

The Ocean Climate Action Plan (OCAP) is a policy framework for developing the US Blue Economy in the 21st century to achieve two objectives: **1. To use ocean and coastal resources to reduce greenhouse gas emissions and/or 2. To enable coastal communities to more effectively adapt to climate impacts.** OCAP does not address every issue that afflicts the nation's public seas and coastlines. Illegal fishing, invasive species, marine plastics, and many other issues present serious problems to the marine environment that require policy attention. But they are presently outside the scope of the OCAP framework.

As stated previously, in the Ocean Climate Action Plan justice concerns are integral to the entire framework. OCAP is focused on generating broad-based prosperity that provides opportunity and recompense not only to major coastal population centers and wealthier regions, but also to marginalized and disadvantaged communities. From a practical point of view OCAP is only achievable when it fully integrates the economy, the environment, and equity.

⁴ See the IPCC Special [Report](#) on the Ocean and Cryosphere in a Changing Climate.

I.3. Next Steps & Goals

This first OCAP draft was disseminated to all of those who attended the October 18th meeting, in addition to many additional individuals and groups who expressed interest in participating in the formulation of this policy framework. Everyone was sent both a link to the draft document and a separate link to a feedback document where they could leave specific comments on any of the sections. In this manner, the entire feedback process has been (and will continue to be) fully transparent and participants can observe how the framework develops over time.

All of the first round of feedback has been incorporated (where appropriate and feasible) into this 2nd OCAP draft. The next step is a national OCAP meeting, after which the feedback gathered will be incorporated into a 3rd OCAP draft, and then recirculated to all participants who have engaged at any time in the OCAP process. At this juncture we will solicit a final round of comments, after which we will develop a final OCAP draft no later than the end of 2020. An advisory group will be formed to ensure that the final report represents the consensus of all of the key stakeholder groups.

The OCAP final draft will be translated into federal legislation that can be acted on in the new Congress in 2021. We hope to have bipartisan sponsorship on these bills in both the House and Senate. We will also develop state policy initiatives that are complementary to the national effort.

OCAP's ultimate goal is no less than the implementation of bold, comprehensive, and effective ocean climate policy across the nation that helps to promote broad-based prosperity and needed adaptation for the American public.

I.3. OCAP is Nonpartisan

The Ocean Climate Action Plan is a nonpartisan document that represents the best ideas from across the political spectrum for ensuring the sustained strength of the US economy and conserving the nation's environmental legacy.

One of OCAP's core premises is that our ocean and coastal economies suffer from pervasive *market failure*⁵: many externalities from industry are not properly priced in the market, many offshore industries are currently being stymied due to a lack of clear enforceable property rights, and large gaps in information lead to inefficient decisions about ocean and coastal resource use. Correcting these market failures in order to spur rapid innovation in the Blue Economy is one of OCAP's top priorities. Ensuring that markets function properly is a deeply conservative objective.

⁵ [Definition of market failure.](#)

At the same time, OCAP views correcting market failures as an incomplete solution to the climate challenge and the many social injustices that climate change exacerbates. Therefore, OCAP also pays close attention to environmental justice concerns, and sees a need for large public investments in key Blue Economy sectors. These objectives are deeply liberal in nature.

Combined into a unified whole, OCAP contains both conservative and liberal economic philosophies that are mutually reinforcing. Correcting market failure leads to more efficient, innovative, and sustainable economic growth, while smart public investments lead to even greater innovation, inclusion, and prosperity. Taking environmental justice concerns seriously ensures widespread participation in the planning for, and resulting benefits of, this new prosperity and greater social cohesion in a time of climate crisis, both of which are necessary and just.

I.5. OCAP's Position on a National Greenhouse Gas Tax

The overwhelming majority of economists across the political spectrum recommend a national carbon tax to mitigate greenhouse gas emissions.⁶ Support for such a tax is shared by virtually all environmental and conservation groups and many industry leaders, including the maritime sector.⁷ While the specifics regarding implementation of such a tax are beyond OCAP's scope, three views on such a tax are warranted. First, OCAP supports a broad-based greenhouse gas tax that captures all relevant greenhouse gases emitted across the US economy. A tax solely on carbon could bias the economy towards other very potent greenhouse gases, such as methane, which would both distort the intent of the tax and potentially significantly reduce its mitigation impacts. Second, OCAP believes that a significant portion of the revenue generated by a future greenhouse gas tax should be invested in key sectors to promote blue innovation, protect vulnerable coastal communities, and upgrade our national infrastructure, including living or "green" infrastructure. Third, given the potential regressive impacts of a GHG tax on low-income communities, some of the tax revenue should be used to ensure that these groups are not negatively impacted economically.

⁶ In a statement published in the [The Wall Street Journal](#), forty-five top economists across the political spectrum wrote a letter supporting a carbon tax. Since, [The Climate Leadership Council](#) reports that 3,558 U.S. economists have signed their support.

⁷ Many industry leaders and NGOs have [stated their support](#) for a carbon tax.

II. Issue Area #1: Coastal Adaptation and Financing

Key Objectives

Objective #1: *To catalyze a large scale dynamic living shorelines industry that employs many thousands of workers across the US and restores the nation's most threatened coastal ecosystems.*

Objective #2: *To reform the National Flood Insurance Program so that it is financially sustainable and promotes climate resilient development.*

Objective #3: *To ensure that low-income, vulnerable, and tribal coastal communities, as well as US territories, are provided with economic support to retreat from unstable shorelines and/or transition to climate resilient development.*

Objective #4: *To significantly improve storm water management to reduce coastal flooding and pollution risks for coastal communities.*

Key Talking Points

- Throughout the US living shorelines often provide not only superior climate resilience than grey infrastructure, but at lower cost.
- Living shorelines not only offer protection for critical infrastructure and communities, but provide many ecological benefits, including cleaner water, increased biodiversity, and more greenspace, all of which have myriad health benefits.
- The living shorelines industry can provide good high-paying jobs to Americans of all education levels, while restoring our nation's most prized coastal habitats.
- The National Flood Insurance Program is broken—it doesn't promote sensible long-term climate resilient development nor is it financially sustainable.
- Poorly managed storm water systems are incredibly wasteful and inefficient, leading to increased flood risk and damages, as well as toxic pollution in coastal communities; improved systems can both save money and improve public health.

II.1. Introduction

The policies and investments outlined in this section are for the purpose of ensuring that coastal communities across the country are able to effectively adapt to coastal climate impacts (rising sea levels, greater storm frequency, and ocean acidification), and that economic support is available to all to guarantee these development needs; it is imperative that special attention is paid to vulnerable, racially diverse, and low-income areas.

II.2. National Flood Insurance Program (NFIP) Reform

Currently, NFIP is failing in multiple ways to adequately promote coastal resilience or promote social justice. The program as currently structured is not financially sustainable,⁸ and it isn't promoting the type of innovation and forward-looking guidance to communities to allow them to use the best available science to promote climate resilient development in low-risk areas. The program's incentives are poorly constructed and require major reform; as currently construed NFIP represents the largest market failure in the coastal real estate sector.

The following are the OCAP's suggested changes to NFIP:

1. All flood insurance policies should be priced based on accurate actuarial rates, and these actuarial tables should be updated every 5 years; for properties where accurate actuarial rates would represent a more than 15% increase in the insurance premium, these increases should be phased in over a period of 3-10 years, with lower-income groups given the most time to adjust to the higher rates.⁹
2. The program should be required to use the latest flood maps that have the best available scientific data on likely future storm impacts, and they should be updated every 5 years. Areas where climate impacts are likely to become worse over time should be flagged.
3. Payments to repetitive loss properties should be capped and these caps reduced significantly over a short time frame. Second home and rental properties should be flagged.
4. Buyout programs should be greatly increased and 'sister cities' programs initiated that link inland communities, including adjacent counties, with coastal residents that seek to relocate. Such a system might include the transfer of development rights from coastal regions to other inland areas. Disadvantaged communities that face increased climate risks should be given priority for buyouts. A certain amount of the funding for buyout and managed retreat should be designated to US island territories and tribal nations that face particularly severe climate impacts.
5. New funding to support the development of managed retreat plans and climate resilience should go to communities that have broad-based representation from all income, racial and ethnic groups.
6. National mandatory disclosure laws should be put into place that require disclosure of past flood damages, money received by federal agencies for disaster relief, and the current flood risk profile for all residential and commercial properties to all potential buyers.

⁸ The U.S. Government Accountability Office stated in their [2019 High Risk Report](#) that "as of September 2018, FEMA's debt stood at \$20.5 billion despite Congress having canceled \$16 billion in debt in October 2017. Without reforms, the financial condition of NFIP could continue to worsen."

⁹ The Biggert-Waters Flood Insurance Reform Act of 2012, which represented a rare moment of bipartisanship in this period, was largely repealed shortly after it was passed because some property owners were hit with very large increases in insurance premiums immediately after its passage. In order not to repeat this same mistake, special care must be paid to ensuring that those faced with higher premiums are given adequate time to respond, and also additional assistance where necessary.

II.3. Promoting Living Shorelines

OCAP views large scale restoration of living shoreline ecosystems—beaches, marshes, wetlands, eelgrass, dunes, reef systems, etc.—as crucial for both mitigation and adaptation to climate change. Many of these ecosystems sequester large amounts of carbon while also protecting critical infrastructure from storm impacts and sea level rise.¹⁰ These systems also have the added co-benefits of improving coastal biodiversity, fish and wildlife habitat, reinforcing one of the linchpins of the Blue Economy.

With the right incentives, the existing wetlands and estuary restoration industry can be expanded into a much larger and innovative living shorelines sector, with the potential to employ many thousands of additional US workers from all educational backgrounds. Engineers, planners, landscape architects, and coastal biologists are needed for this work, as well as laborers with specialized skillsets.

Currently, the impediments to the widespread development and scaling of living shorelines are primarily informational rather than economic.¹¹ Many individual actors, whether residential property owners or businesses, don't have sufficient experience with living shoreline infrastructure to adequately trust that they will protect their properties and provide long-term resilience, while there is a surplus of operational data on hardened infrastructure, such as seawalls. This informational asymmetry is the biggest market failure in this sector, which OCAP seeks to correct.

OCAP's recommendations for promoting living shorelines nationally are:

1. Fund the Army Corps of Engineers to begin living shorelines demonstration projects in all regions of the US to test different living shorelines systems, and make all data publicly available. Also, charge the Corps with developing engineering standards for all categories of living shorelines. These standards will create a scientifically-based and consistent set of performance metrics for living shorelines that can be used to compare different options against their “grey” infrastructure alternatives, and also include green-grey hybrid scenarios. (It is important to note that historically the Army Corps has been responsible for many coastal engineering projects that have been extremely detrimental to coastal ecosystems and coastal resiliency; the efforts noted above would help to shift the Army Corps in a more sustainable direction.)

¹⁰ NOAA [study](#) finds ‘living shorelines’ can lessen climate change’s effects.

¹¹ See [Tradable Permits for Shoreline Protection: Reshaping Regulation Under the Coastal Act for the Era of Sea Level Rise](#) prepared by the Center for Blue Economy and The Nature Conservancy.

2. Lift the Army Corps rule for the ‘cheapest disposal’ of dredged sediment, which is often then dumped out at sea; instead require all clean sediment dredged by the Corps to be put to beneficial reuse for coastal restoration in partnership with the states.
3. Fund state governments to develop pilot living shoreline projects in all at-risk coastal counties.
4. Create a national database of living shoreline projects that is easily accessible and free to the public. Responsibility for keeping the database current should fall on a new federal position within the Army Corps, in cooperation with coastal state agencies.
5. Build on current efforts to establish ‘blue carbon’¹² protocols so that living shorelines can apply for carbon credits in both state and national climate programs.
6. Require consideration of living shoreline alternatives in all coastal NEPA environmental impact statements (EIS) where feasible.
7. Fund the development of living shorelines K-12 curriculum, and vocational and community college programs to develop the industry and train the new coastal ecosystem restoration workforce.

II.4. Improving Storm Water Management

Storm water has both climate mitigation and adaptation elements. Transporting water to cities is very energy-intensive,¹³ and therefore, any water that can be stored during storms can reduce future energy use. In addition, damages from flooding due to storm water crises are very costly, and include public health impacts when sewage systems overflow or get backed up. Finally, pollutants from inland areas that end up in coastal ecosystems decrease overall system resiliency, which is already being strained by climate change.

OCAP’s recommendations for promoting better storm water management are:

1. Require the installation of permeable surfaces in urban areas, which absorb storm water and recharge aquifers, that capture an 85th Percentile storm as a U.S. EPA baseline standard in all states.
2. Create financial incentives to reduce erosion, nutrient runoff and flooding caused by agricultural practices by encouraging no-till soil management, riparian setbacks, dry farming, and other effective farming practices.
3. Fund the development of watershed restoration plans that take a comprehensive view on managing storm water.

¹² See <https://oceanservice.noaa.gov/facts/bluecarbon.html> and <https://www.thebluecarboninitiative.org/about-blue-carbon>.

¹³ According to the [Center for Sustainable Systems, University of Michigan](#), “2% of total U.S. electricity use goes towards moving and treating water and wastewater, a 52% increase in electricity use since 1996.”

4. Prioritize storm water management that protects low-income communities from property damage and health risks.
5. Maintain natural background water quality for all marine sanctuaries to ensure they act as "hope spots" for biodiversity in the face of climate change.

II.5. Protecting Critical Coastal Infrastructure—transportation, energy, water, and communications

Coastal climate change impacts that threaten critical infrastructure will severely harm the economies of coastal communities, and often disproportionately harm vulnerable populations, whose livelihoods are easily disrupted and often dependent on hourly wage labor. Many communities, especially smaller ones, do not have sufficient public funds to build more resilient infrastructure, and therefore, face a downward spiral of lower quality services, followed by property value declines and a lower tax base, and then a further diminished ability to adapt to climate change.

OCAP makes the following recommendations regarding critical coastal infrastructure:

1. Provide matching federal funds for coastal infrastructure projects that prioritize protecting vulnerable communities, while protecting critical coastal ecosystems.
2. Link greater cost sharing from private developers with permitting for higher density development in already built areas (which can also help with housing affordability).

III. Issue Area #2: Aquaculture, Sustainable Fisheries, and Marine Biodiversity Conservation

Key Objectives

Objective #1: *To help US fisheries, including those managed by tribal nations, adapt to climate impacts and maintain economic viability.*

Objective #2: *To catalyze rapid growth and innovation in a new sustainable aquaculture industry that will produce many thousands of new jobs, while improving environmental quality and the US trade balance.*

Objective #3 *To adapt management and selection of National Marine Sanctuaries, National Monuments, and other protected areas that preserve biodiversity, and cultural and historical values to improve climate resilience.*

Key Talking Points

- Current US fisheries policy was not designed with climate change in mind; it needs to be updated now that species are migrating to new regions as ocean waters warm and acidify.
- The US lags behind much of the world with its undeveloped aquaculture industry; there is huge potential to create many new well-paying jobs that reduce our need for seafood imports, while also improving environmental quality in our coastal regions.
- The economic and ecological value of the U.S. system of marine reserves can be greatly enhanced with new climate standards for management and research.

III.1. Introduction

Climate change poses unique challenges to the fishing industry, aquaculture and marine biodiversity conservation. With waters warming and ocean acidification increasing, many species are moving to areas outside of their normal ranges, or are threatened by changes in their food supply.¹⁴ In addition, pollutants from land-based sources, particularly agriculture, threaten these fish habitats, decrease their resiliency, and kill large numbers of fish through eutrophication every year. This makes both marine species management and fishing increasingly complex. Fishing is also a very energy-intensive industry, from the energy required to power the boats to the refrigeration needed to transport the product.

Aquaculture, which is a relatively undeveloped industry in the US¹⁵, has the potential to produce large quantities of seafood for the US population, which can reduce pressure on wildfish catch as well as the need for US seafood imports (thereby improving the US trade balance). In addition, aquaculture production (under certain conditions—more on his below) can be very low or even

¹⁴ See [this article](#) in Bloomberg; [this post](#) by the Environmental Defense Fund; and [this article](#) in Science Daily.

¹⁵ See [NOAA U.S. Aquaculture Highlights from 2016](#).

net-negative on carbon emissions, and produce inputs for energy production, medicines, cosmetics, and other industrial uses

III.2. OCAP's Recommendations for Aquaculture, Fisheries, and Biodiversity Conservation

To promote sustainable seafood production while protecting marine biodiversity, OCAP recommends the following policies:

1. Provide incentives for fishermen to upgrade to more energy efficient boats, propulsion systems, and refrigeration methods including new R&D funding to develop more cost-effective technologies in these areas.
2. Update the Magnuson-Stevens Act to help ensure that the fishery management process is adapting to, and planning for, the impacts of climate change, including adequate management of new, emerging, or migrating fisheries, early detection of shifting stocks, monitoring of bycatch, and promoting resilience of fish populations.
3. New R&D funding and financial incentives for low-trophic sustainable aquaculture (and mariculture); creating an 'Aquaculture Sustainability Index' that uses life-cycle analysis with true cost accounting (that includes the costs of externalities) to target grants and government funding to those projects with the highest sustainability scores. Proposed projects could be scored similar to LEED certification, with tiers such as platinum, gold, etc. Projects that score high on the sustainability index should be streamlined for quick federal approval; the current system is incredibly cumbersome and discourages investment in this burgeoning sector.
4. New R&D funding to explore potential symbiotic links between agriculture and aqua/mariculture (e.g. using nutrient run-off from farms to grow algae).
5. Provide incentives to distressed fishermen to transition to harvesting new lower trophic level or farmed species (such as sea vegetables or shellfish), and funding to help develop new markets for these products.
6. Increase habitat protection for marine species and ecosystems threatened by climate change or biodiversity loss (i.e. ensure that they have sufficiently large and safe migratory corridors, breeding sites, and nurseries).
7. Link aquaculture and protected offshore sites to blue carbon markets in order to generate additional financial incentives.
8. Increase small-business loans and support for local aquaculture and sustainable fishing startups that serve local communities; this could be accomplished through an expansion of USDA's Farm Services Agency.

IV. Issue Area #3: Offshore Renewable Energy

Key Objectives

Objective #1: *To catalyze the large scale deployment of offshore wind power in the US that rivals the EU by 2030.*

Objective #2: *To ensure that the approval process for offshore wind projects is both streamlined and that appropriate checks are put in place to protect critical offshore habitats and biodiversity.*

Objective #3: *To ensure that a robust program of research, development, and incentives is created to determine the commercial viability and scalable deployment of additional renewable ocean energy systems such as wave, current, tidal, and thermal.*

Key Talking Points

- The US currently lags well behind the rest of the world in its offshore wind industry, with only one small project (off of Block Island) currently operating in all of US territory.
- The US has significant wind resources that can provide a large segment of 100% clean electricity for the nation to help meet our climate goals.
- Offshore leases can provide billions of dollars to the federal government in new revenue while generating clean power and more jobs.
- Contrary to popular perception, most proposed offshore wind development in the US would not significantly impact coastal viewsheds or negatively impact property values.

IV.1. Introduction

Mitigating climate change requires the rapid decarbonization of the US economy.¹⁶ This requires both a reduction in fossil fuel use and a rapid increase in clean energy solutions. With respect to the former, *OACAP recommends an immediate moratorium on all new offshore oil and gas development across the US*. Not only do these projects threaten to increase our reliance on fossil fuel at a time when this dependence needs to be reduced, but oil spills pose great risks to coastal ecosystems and the economies that depend on them. Republican and Democratic leaders in coastal states oppose increased offshore drilling because they know that coastal property values and tourism are dependent on clean healthy coastal waters, which are threatened by offshore drilling.¹⁷ There is, however, support for increased offshore renewable energy development, which is clean, carbon-free, and doesn't pose significant risks to water quality or wildlife. The

¹⁶ To limit global warming to 1.5°C, the IPCC [reports](#) that “global net human-caused emissions of carbon dioxide (CO₂) would need to fall by about 45 percent from 2010 levels by 2030, reaching ‘net zero’ around 2050.”

¹⁷ Bipartisan letters, one led by New Jersey Republican [Frank LoBiondo](#) and the other led by Florida Republican [John Rutherford](#), were written to voice opposition to offshore oil and gas drilling and were each supported by 100 members of congress.

US lags far behind many of its closest competitors in the EU in offshore wind energy production, despite having tremendous untapped wind energy potential on both coasts.¹⁸

IV.2. Policies to Promote Offshore Wind Production in the US

In order to rapidly accelerate the production of offshore wind energy OCAP makes the following recommendations:

1. Develop offshore renewable targets for wind energy in all coastal states (governors can do this through executive action or through designated representative Ocean Planning Bodies).
2. Support and expand regionally-based Ocean Planning Bodies that bring state, federal and tribal agencies together to promote effective, streamlined decision-making on offshore clean energy and reduce conflict between public ocean users. (The lack of clear property rights for offshore wind development is perhaps the biggest market failure in this sector).
3. Institute new national guidelines for the siting of offshore wind in federal waters that do not conflict with the Navy, regional planning, and/or the commercial fishing industry; create mitigation funds from wind projects to compensate any lost revenue from fishermen. The goal is to quickly provide clear and transparent information to the wind industry as to where they can and cannot deploy offshore wind energy. In aggregate, these siting alternatives should provide up to 100 GW of national offshore wind power. In addition, set a national target for the production of 230 GW of national offshore wind power by 2030 (equivalent to what the EU presently has); this will generate sufficient economies of scale to attract investment in domestic manufacturing capacity.
4. Develop micro-power grids to link offshore renewable power sources to smaller and more isolated coastal communities and tribal nations to build resilience in coastal energy production.
5. Develop public outreach campaigns to educate the public about the low visibility impacts of fixed and floating turbines many miles off the coast to counter false narratives about negative wind power impacts.
6. Require third-party ocean habitat experts to ensure unique and essential habitat isn't harmed in offshore wind site location determination; create national guidelines for best practices to ensure minimum biological impacts of wind turbines, both during installation and lifetime operation.
7. Consult with top EU industry leaders and governments who are leading the world in offshore wind production.

¹⁸ In Europe there are [3,072 grid-connected offshore wind turbines](#), spanning 11 countries, which equals a total of 10,393 megawatts of capacity as of 2015. For a comparison, the United States has the potential for over [4,000 gigawatts](#) of offshore energy, which could power the country four times over if utilized.

8. Develop a plan for obtaining rare earth metals from a sustainable and diverse supply chain for the US wind industry, with an emphasis on the reuse of existing minerals in lieu of new extraction.

IV.3. Other Forms of Offshore Renewable Energy (e.g. tidal, wave energy, and ocean thermal energy conversion)

Most offshore renewable energy technologies apart from wind are not yet economically and/or technically viable, but they may be in the future. Federal R&D funds should be invested in other offshore renewable technologies, including pilot wave, tidal¹⁹, and deep water ocean thermal projects, with the goal of scaling any technologies that meet strict life-cycle impact standards by 2030.

¹⁹ See this document on Nova Scotia's tidal energy sector, which can be a model for the US:
<https://energy.novascotia.ca/featured-stories/top-10-things-you-need-know-about-tidal-energy-nova-scotia>.

V. Issue Area #4: Ports, Shipping, and the Maritime Sector

Key Objective: *To rapidly accelerate the decarbonization of US ports and the shipping industry.*

Key Talking Points

- Air pollution from US ports presents a significant health threat to many US cities and adjacent, predominantly low-income, communities of color.
- Many ports, particularly in Los Angeles, Long Beach, and San Diego, are leading the way towards clean power and climate resilience.
- We need national standards to upgrade all of US ports both to meet our climate goals and to protect vulnerable communities from excessive air pollution.
- We need U.S. leadership and incentives to change shipping standards in design, fuels, and propulsion with the aim to decarbonize commercial shipping by 2050.

V.1. Introduction

Currently, along with transporting 90 percent of consumer goods, US ports produce a significant amount of the nation’s air pollution and greenhouse gas emissions²⁰—both from ships and the trucks/trains that transport the cargo inland. At the same time, they are centers of great industrial innovation. In coastal areas around the country, the communities that are located adjacent to ports are often low-income and/or communities of color, which bear the brunt of the elevated levels of air pollution.²¹ Therefore, continued innovation in the port and maritime sector is not only crucial for mitigating greenhouse gas emissions, but also for promoting environmental justice.

In addition, the cruise ship sector of the shipping industry is growing rapidly²² and its GHG emissions are growing along with it. Therefore, many of the innovations that we seek in greater energy efficiency in the ports sector also can apply to cruise ships (and shipping more generally).

V.2. OCAP’s Recommendations for Ports, Shipping, and the Maritime Sector

In order to bring all US ports into the 21st century OCAP makes the following recommendations:

²⁰ According to the [Third IMO Greenhouse Gas Study in 2014](#), “For the period 2007–2012, on average, shipping accounted for approximately 3.1% of annual global CO₂.”

²¹ See [Public Health Impacts section](#) of the ruling by the EPA for Control of Emissions From New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder.

²² See <https://www.wexinc.com/insights/blog/wex-travel/consumer/growing-cruise-industry-tackles-same-trends-as-land-travel/>.

1. Create national standards for Clean Air Action Plans at all US ports (based on the outstanding progress made by the Ports of Long Beach and Los Angeles).²³ These standards should include:
 - Matching federal grants for the electrification of US port infrastructure;
 - Vessel speed reduction programs for ocean-going vessels to a maximum of 10 knots when entering sensitive areas to reduce emissions (and also reduce whale strikes);
 - Transitioning away from diesel engines to cleaner sources, such as zero emission vehicles and hybrid vessels;
 - Making shore power available at all major container and cruise ports to reduce idling;
 - Thorough involvement in the planning process from members of the adjacent impacted communities.
2. Fund job retraining and placement programs for port workers displaced by automation.
3. Link new renewable energy sources directly to ports/port infrastructure.²⁴
4. Adapt standards for U.S. public port authorities to match or surpass the International Association of Ports and Harbors Environmental Ship Index program for clean ships including reduction of Greenhouse Gas (GHG) emissions.²⁵
5. Set federal standards for low sulfur-emission fuels to be used within U.S. territorial waters by 2030, based on the California standard, and for significant reductions of all greenhouse gas emissions from shipping entering US. Waters by 2040.
6. Require that (where feasible), all ports install living shoreline defenses instead of hard armoring in response to climate change impacts.

²³ See the San [Pedro Bay Ports Clean Air Action Plan](#).

²⁴ See [NY State's plan](#) to link new offshore wind to ports.

²⁵ <https://www.portoflosangeles.org/environment/air-quality/environmental-ship-index>

VI. Additional Issues

During the first California meeting on OCAP, held on October 18, 2019 in Monterey, participants raised some additional issues that don't fall neatly into one of the four issue areas above. OCAP stakeholders need to determine the extent to which these ideas should be developed and included in the larger OCAP framework, either as separate issue areas or if they can be incorporated into the already existing action area recommendations. As a reminder, OCAP focuses squarely on ocean-coastal policies that 1. Reduce GHG emissions and/or 2. Help coastal regions adapt to climate impacts.

The additional issues are:

1. How to generate large scale political support for OCAP across different constituent groups and demographics.
2. How to increase OCAP support from the inland states that don't have coastlines and direct links to ocean/coastal issues; start with the states that border the Great Lakes and include them directly in OCAP recommendations.
3. Potential development of region-specific OCAP recommendations to better tailor OCAP to the interests of different parts of the country and existing programs such as the West Coast Regional Ocean Partnership—the rationale is that by providing specific regional benefits groups will be more inclined to support the entire OCAP framework.
4. Marine plastics—whether there is a strong enough climate link to warrant this dangerous petroleum product's inclusion into the OCAP framework. For more info see the articles in [this link](#).
5. Desalination—whether OCAP should have a position/recommendations on this topic.
6. Agriculture more broadly—given the links between the run-off from this sector and its impacts on coastal regions.
7. Deep Sea mining—is there sufficient activity, or potential activity and climate impact in this sector in the US to warrant its inclusion in OCAP?
8. Ocean waste water recycling—California is leading the way on this—it reduces ocean acidification hotspots and helps improve coastal water supply.
9. Education – incorporating ocean climate information into both schools and informal education outlets (see point #7 in Living Shorelines section on p.10).

VII. Appendix A: Proposed Federal Legislation from 2017-2019 that addresses OCAP-related issues

Issue Area #1: Coastal Adaptation and Financing

National Flood Insurance:

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
H.R. 2874 21st Century Flood Reform Act	6/12/17	Passed House	Rep. Sean Duffy (R-WI)	To achieve reforms to improve the financial stability of the National Flood Insurance Program, to enhance the development of more accurate estimates of flood risk through new technology and better maps, to increase the role of private markets in the management of flood insurance risk, and to provide for alternative methods to insure against flood peril, and for other purposes.
H.R.7270 - COASTAL Implementation Act of 2018	12/12/18	Introduced	Rep. Randy Weber (R-TX)	This bill amends the Omnibus Public Land Management Act of 2009 to revise the authority of the National Oceanic and Atmospheric Administration, including to authorize (1) the deployment of sensors to enhance data collection in coastal states that are at highest risk of experiencing geophysical events, and (2) post-storm assessments for each coastal state that suffers indeterminate losses from a storm. The bill amends the National Flood Insurance Act of 1968 to require the Federal Emergency Management Agency to publish for comment in the Federal Register a standard formula (COASTAL Formula) to determine and allocate wind losses and flood losses for claims involving indeterminate losses.
H.R.469 - To require the use of replacement cost value in determining the premium rates for flood insurance coverage under the National Flood Insurance Act, and for other purposes.	1/10/19	Introduced	Rep. Blaine Luetkemeyer (R-MO)	This bill directs the Federal Emergency Management Agency (FEMA) to incorporate the replacement cost value of a structure insured under the National Flood Insurance Program of 1968 in its consideration of chargeable premium rates. FEMA must conduct a study regarding risk rating redesign utilizing replacement cost and report the findings to Congress.

H.R. 830 Flood Insurance for Farmers Act of 2019	1/29/2019	Introduced	Rep. John Garamendi (D-CA)	Lifts some floodplain building requirements for farmers. No longer have to lift any new or repaired structures to above the flood line. Also discounts NFIP rates where levees are in place. (now included in HR 3167)
H.R.1666 - To amend the National Flood Insurance Act of 1968 to allow for the consideration of private flood insurance for the purposes of applying continuous coverage requirements.	3/11/19	Introduced	Rep. Kathy Castor (D-FL)	To amend the National Flood Insurance Act of 1968 to allow for the consideration of private flood insurance for the purposes of applying continuous coverage requirements, and for other purposes.
S.1144 - Flood Insurance Rate Map Interagency Technology Act of 2019	4/11/19	Introduced	Sen. Marco Rubio (R-FL)	This bill modifies technical requirements for National Flood Insurance Program (NFIP) rate maps. Specifically, the Federal Emergency Management Agency (FEMA) must consult with the Department of Defense, the U.S. Geological Survey, and the National Oceanic and Atmospheric Administration to obtain information relevant to NFIP rate maps. FEMA may include this data, as well as specified property survey information, in NFIP rate maps. The format of NFIP rate maps must conform to specified data and protocols.
H.R.2462 - Flood Mapping Modernization and Homeowner Empowerment Pilot Program Act of 2019	5/1/2019	Introduced	Rep. Mike Quigley (D-IL)	Would establish a pilot program to enhance the mapping of urban flooding and associated property damage and the availability of such mapped data to homeowners, businesses, and localities to help understand and mitigate the risk of such flooding, and for other purposes.
S.1693 - National Flood Insurance Program Extension Act of 2019	5/23/19	Became Law	Sen. John Kennedy (R-LA)	Reauthorized the National Flood insurance through June 14, 2019 as they could not come to an agreement. Was then pushed back to September 30, 2019. And then pushed to December 20, 2019
H.R. 3091 National Flood Research and Education Act	6/4/19	Introduced	Rep. David Lebsack (D-IA)	Aims to To establish a National Flood Research and Education Center (in NOAA) to provide research, data, and recommendations on physical science, social science, economic analysis, policy analysis, risk analysis, monitoring, predicting, and planning as they relate to flooding and flood-related issues.

H.R. 3111 National Flood Insurance Program Administrative Reform Act of 2019	6/5/2019	Introduced	Rep. Nydia Velazquez (D-NY)	Relevant piece: Pilot program for voluntary inspections by "Write Your Own" private flood policy providers. Potential to expand private flood insurance.
H.R.3146 - Fair Flood Insurance Act of 2019	6/5/19	Introduced	Rep. David Scott (D-GA)	This bill exempts from rulemaking the Federal Emergency Management Agency's (FEMA's) implementation of monthly premium payment schedules for flood insurance. FEMA may implement this schedule as a pilot program. The Government Accountability Office must report on the costs associated with monthly payment of premiums. FEMA must annually report on these costs.
H.R. 3167 NFIP reauthorization act of 2019	6/10/2019	Introduced	Rep. Maxine Waters (D-CA)	Reauthorizes the NFIP through 2024. Includes flood mapping modernization and mitigation pilot programs and funding. Expands flood coverage, reduces fees for families and small businesses. DOES NOT: Increase premiums in high-risk areas.
H.R.3258 - Flood Insurance Integrity Act of 2019	6/13/19	Introduced	Rep. Gus Bilirakis (R-FL)	This bill directs the Government Accountability Office (GAO) to review every four years the rate tables established by the Federal Emergency Management Agency (FEMA) for implementing the National Flood Insurance Program (NFIP). The GAO must determine whether (1) the chargeable premium rates for flood insurance coverage are actually sound, based on standard actuarial practices used in the private sector; and (2) such chargeable premium rates are sufficient to ensure the long-term financial sustainability of NFIP. The bill also directs the GAO to review annually the process for establishing and updating flood insurance rate maps and determine the degree of accuracy of the mapping process.
S.2171 - Flood Insurance Continuing Education and Training Act	7/18/19	Introduced	Sen. Roger Wicker (R-MS)	This bill requires insurance agents selling flood insurance policies to complete a continuing education course every two years.
H.R.3872 / S.2187 - National Flood Insurance Program Reauthorization and Reform Act of 2019	7/23/19	Introduced	Rep. Frank Pallone JR (D-NJ)/ Sen. Robert Menendez (D-NJ)	To reauthorize the National Flood Insurance Program.

FEMA Risk Rating 2.0		Delayed until Oct. 2021	FEMA	FEMA is delaying an overhaul of flood insurance rates by one year until after the next election cycle. The plan with raise flood insurance costs for some and reduce it for others. This is said to be the Trump administration's attempt to modernize the National Flood Insurance Program and more more accurately detail property risks. Ironically, despite Trump's administration climate denial this policy would model would account for changing frequency of flood frequency and storm data.
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Coastal Infrastructure:

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
S. 110/H.R. 4062 Digital Coast Act	1/12/17	Passed Senate	Sen. Tammy Baldwin (D-WI)/Rep. C. A. Dutch Ruppersberger (D-MD)	To help coastal communities better prepare for storms, cope with varying water levels, and strengthen coastal economic development planning efforts. Requires NOAA to create a digital coast program. The program must: (1) provide an online resource that integrates geospatial data, decision-support tools, training, and best practices to address coastal management issues and needs, and to enhance resilient communities, ecosystem values, and coastal economic growth and development; and (2) provide for the documentation, dissemination, and archiving of the data.
H.R. 5787 Strengthening Coastal Communities Act	5/18/18	Became Law	Rep. Neal Dunn	Adopted 35 revised maps produced by US Fish and Game depicting 59 Coastal Barrier Resources System units.
H.R.6288 - COASTS Act	6/28/18	Introduced	Rep. Seth Moulton (D-MA)	To require research in coastal sustainability and resilience, to ensure that the Federal Government continues to implement and advance coastal resiliency efforts, and for other purpose. This bill directs the National Oceanic and Atmospheric Administration to award competitive grants to certain entities for (1) activities that strengthen coastal communities, and (2) restoration of coastal habitats to provide vital habitat for fish and strengthen the resilience of coastal ecosystems.
H.R. 925 North American Wetlands Conservation Extension Act	1/20/19	Passed House	Rep. Mike Thompson (D-CA)	Reauthorizes the North American Wetlands Conservation Act through 2024. The original act has funded over 2950 projects totally 1.73 billion in grants. It's a matching grants program that protects wetlands conservation.

H.R. 729: Coastal and Great Lakes Communities Enhancement Act	1/23/19	Passed House	Rep. Derek Kilmer (D-WA)	This bill authorizes the Department of Commerce to award grants to Indian tribes to achieve any of the following coastal zone objectives: 1) Protect, restore, or preserve areas in the zone that hold important ecological, cultural, or sacred significance for the tribes or traditional, historic, and aesthetic value essential to the tribes. 2) Prepare and implement a management plan and technical plan for important coastal areas. 3) Implement coastal or shoreline stabilization measures for the purpose of public safety, public access, or cultural or historic preservation. (Previously: Tribal Coastal Resiliency Act)
H.R. 1317 Coastal Communities Adaptation Act	2/22/19	Introduced	Rep. Harley Rouda (D-CA)	Aims to improve the resilience of the built and natural environment to natural disasters and climate change using, among other measures, natural and nature-based features, and for other purposes.
Emergency Coastal Resilience Fund	6/1/19	Congress appropriated funding	National Fish and Wildlife Foundation, NOAA	This fund was created to respond to natural disasters in 2018 as a way of addressing emergency coastal resilience recovery. The fund supports large conservation projects that strengthen natural systems and protect coastal communities from future impacts of storms, floods and other natural disasters. The NCRF's goal is to restore or expand natural features to minimize impacts of naturally occurring events. 1) Reduce the impact of coastal flooding and associated threats to property and key assets, such as hospitals and emergency routes 2) Improve water quality for coastal communities 3) Benefit fish and wildlife by enhancing ecological integrity
H.R. 3115: Living Shorelines Act of 2019	6/5/19	Introduced	Rep. Frank Pallone Jr. (D, NJ), Sen. Kamala Harris (D,CA)	Bill to direct NOAA to make grants to state and local governments and NGOs to carry out climate-resilient living shoreline projects that protect coastal communities by supporting ecosystem functions and habitats with the use of natural materials and systems and for other purposes.
H.R. 3210 Coast Guard Shore Infrastructure Improvement Act	6/11/19	Introduced	Rep. Debbie Mucarsel-Powell (D-FL)	To require the Commandant of the Coast Guard to take certain steps to improve Coast Guard shore infrastructure
S.1909 - Resilient Highways Act of 2019	6/19/19	Introduced	Sen. Kirsten Gillibrand (D-NY)S	To amend title 23 to ensure federal-aid highways and bridges are more resilient to mitigate the impacts of sea level rise and extreme weather events.

H.R. 3541 Coastal State Climate Preparedness Act of 2019	6/27/19	Introduced	Rep. Carbajal (D-CA)	Would Amend the Coastal Zone Management Act (1972) to require the Secretary of Commerce to establish a coastal climate change adaptation preparedness and response program. Would provide grants for Coastal states to design and implement plans. (Specifically mentions establishing habitat buffer zones, providing climate refugia, restoring ecosystem function)
S. 2057 National Climate Bank Act	7/8/2019	Introduced	Sen. Edward Markey (D-MA)	Provide financial support for investments in the US in clean and low-emissions technologies and processes. Conduct low-cost procurements in the US that will be used to lower emissions. Mobilize private capital through the Federal investment and support a more robust marketplace for clean technologies. Enabling low and moderate income individuals and communities to benefit from and afford projects and investments that reduce emissions.
H.R. 4093 National Oceans and Coastal Security Improvements Act of 2019	7/30/19	Introduced	Rep. Donald Beyer (D-VA)	Aims to create funds for coastal restoration, development, and management to prepare for coastal risks including sea level change, hurricanes, coastal economics changes etc. Also could be used as "enhancing" the resiliency of transportation, emergency response, water, and other infrastructure b/c of the same risks as above.
H.R. 4160 Restoring Resilient Reefs Act	8/1/19	Introduced	Sen. Marco Rubio, (R-FL)	To reauthorize the Coral Reef Conservation Act of 2000 and to establish the US Coral Reef Task Force. Coral reefs can provide coastal protection.
S. 2636/H.R. 2470 Clean Water Infrastructure Resilience and Sustainability Act	10/17/19	Introduced	Sen. Benjamin Cardin (D-MD), Rep. Salud Carbajal (D-CA)	To amend the federal water pollution control act to make grants available to increase resilience of publicly owned treatment works to natural hazards. Grant money could be used to: relocate treatment works at risk by natural hazards, emergency efficiency, watershed protection, etc.
H.R. 5102 Coastal Resilience Research and Education Act	11/14/19	Introduced	Rep. Jimmy Pannetta (D-CA), Rep. Waltz (R-FL)	This would provide the National Oceanic and Atmospheric Administration (NOAA) the authority to designate public universities and colleges as National Centers of Excellence in Coastal Resilience Research and Education. This designation recognizes institutions exhibiting leadership in research and education focused on resilience and mitigating flooding and shoreline erosion. The legislation also formalizes collaborative partnerships with federal agencies, which ensure the sharing of science-based research, information and policy recommendations to the federal government to

				protect vulnerable coastlines.
H.R. 2748, the Safeguarding America's Future and Environment (SAFE) Act	1/29/20	Introduced ;Passed Committee	Rep. Cartwright, Matt (D-PA)	The purpose of this Act is "to establish an integrated national approach to respond to ongoing and expected effects of extreme weather and climate change by protecting, managing, and conserving the fish, wildlife, and plants of the United States, and to maximize Government efficiency and reduce costs, in cooperation with State, local, and Tribal Governments and other entities".

Disaster Preparedness:

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
Robert T. Stafford Disaster Relief and Emergency Assistance Act	11/23/1988	Law	NA	The Stafford Act constitutes the statutory authority for most Federal disaster response activities especially as they pertain to the Federal Emergency Management Agency (FEMA) and FEMA programs.
H.R. 3531 Resilient Communities Act 2019	6/27/2019	Introduced	Rep. Sam Graves (R-MO)	To amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act to provide capitalization grants to States to establish revolving funds to provide assistance to reduce the harmful impacts to people and property from multiple hazards, and for other purposes.
H.R. 3702 Reforming Disaster Recovery Act	7/11/2019	Passed House	Rep. Al Green (D-TX)	To authorize the Secretary of Housing and Urban Development to provide disaster assistance to States, Puerto Rico, units of general local government, and Indian tribes under a community development block grant disaster recovery program, and for other purposes.
H.R.4741 - Connecting Communities Post Disasters Act of 2019	10/18/2019	Introduced	Rep. Pete Olson (R-TX)	To provide that the Federal Communications Commission and communications service providers regulated by the Commission under the Communications Act of 1934 shall not be subject to certain provisions of the National Environmental Policy Act of 1969 and the National Historic Preservation Act with respect to the construction, rebuilding, or hardening of communications

				facilities following a major disaster or an emergency declared by the President, and for other purposes.
S. 2796: Ensuring Disaster Recovery for Local Communities Act of 2019	11/6/2019	Introduced	Sen. Thom Tillis (R-NC)	Aims to expedite disaster assistance to states, local govt and indian tribes under a community development block grant disaster recovery program
H.R. 5176 Climate Resiliency Service Corps Act	11/19/2019	Introduced	Rep. Judy Chu (D-CA)	To amend the National and Community Service Act of 1990 to establish a climate resiliency service corps to help communities withstand and respond to changes in the Earth's climate with respect to natural disasters, and for other purposes.

Issue Area #2: Offshore Renewable Energy and Marine Spatial Planning

Offshore Wind:

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
H.R. 1014 Offshore Wind for Territories Act	2/6/2019	Introduced	Rep. Jennifer Gozalez-Colon (R-Puerto Rico)	This bill wants to amend the outer continental shelf lands act to apply to the territories of the US, establish offshore wind lease sale requirements, to provide dedicated funding for coral reef conservation.
S 1769/HR 3068 Offshore Wind Jobs and Opportunity Act	6/10/19	Introduced	Sen. Edward J Markey (D-MA)/Rep. William Keating (D-MA)	Aims to require the secretary of energy to establish an offshore wind career training grant program.
S. 1957 Offshore Wind Incentives for New Development Act (Offshore WIND Act)	6/25/19	Introduced	Sen. Edward Markey (D-MA)	Would provide a tax credit for investment in offshore wind facilities which start construction before 2026.
S. 1988 Incentivizing Offshore Wind Power Act	6/26/19	Introduced	Sen. Thomas Carper (D-DE),	To amend the Internal Revenue Code of 1986 to extend the energy credit for offshore wind facilities.
S. 2261: Clean Energy Victory Bond Act of 2019	7/25/19	Introduced	Sen. Tom Udall (D-NM)	Aims to create a clean energy bond system to fund clean energy/renewable energy sources to help with climate change energy needs.

S. 2418 Conservation of America's Shoreline Terrain and Aquatic Life Act	8/1/2019	Introduced	Sen. Bill Cassidy (R-LA)	A bill to amend the Gulf of Mexico Energy Security Act of 2006 to modify a definition and the disposition and authorized uses of qualified outer Continental Shelf revenues under that Act and to exempt State and county payments under that Act from sequestration, to provide for the distribution of certain outer Continental Shelf revenues to the State of Alaska, and for other purposes.
H.R. 4294 American Energy First Act	9/11/2019	Introduced	Rep. Steve Scalise (R-LA)	Empower states to manage the development and production of fossil fuels and gas on available federal land and to distribute revenue from oil and gas from the Outer Continental Shelf to certain coastal state, to promote alternative energy development.
S 2660: Wind Energy Research and Development Act of 2019	10/22/19	Introduced	Sen. Tina Smith (D-MN)	To establish a grant program for wind energy research, development, and demonstration. (Has specific section on offshore wind in legislation)
Draft: Growing Renewable Energy and Efficiency Now (GREEN) Act	11/19/19	Draft Bill	Chairman Mike Thompson (D-CA)	The bill would promote renewables (relevant to offshore wind and OCAP) by : 1) Promote and incentivize the reduction of GHG emissions through new and existing tax benefits 2) Support the use of zero-emissions transportation and infrastructure - Ports! 3) Invest in green workforce though energy credits for manufacturers (bring on scaled wind manufacturing) 4) Advance env. justice through tax credits and research

Banning Offshore Oil and Gas:

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
HR 310/S1318: West Coast Ocean Protection Act	1/8/19	Introduced	Rep. Jared Huffman (D-CA), Sen. Dianne Feinstein (D-CA)	Ban offshore drilling on the west coast
H.R.286 - Florida Coastal Protection Act	1/8/19	Introduced	Rep. Kathy Castor (D-FL)	This bill prohibits the Bureau of Ocean Energy Management from offering any tract for oil and gas leasing or pre leasing in the following areas:the Eastern Gulf of Mexico Planning Area that is within 125 miles of the coastline of Florida, the South Atlantic Planning Area that is south of 30 degrees 43 minutes North Latitude, or the Straits of

				Florida Planning Area.
H.R.341 - COAST Anti-Drilling Act	2/5/19	Introduced	Rep. Frank Pallone Jr (D-NJ)	This bill prohibits the Department of the Interior from issuing a lease or other authorization for the exploration, development, or production of oil, natural gas, or any other mineral in the Mid-Atlantic, South Atlantic, North Atlantic, Straits of Florida, or Eastern Gulf of Mexico planning areas.
H.R.337 - Defend our Coast Act	2/5/19	Introduced	Rep. A. Donald McEachin (D-VA)	This bill prohibits the Department of the Interior from issuing a lease for the exploration, development, or production of oil or gas in the Mid-Atlantic planning area of the Outer Continental Shelf.
H.R.287 - New England Coastal Protection Act	2/5/19	Introduced	Rep. David N. Cicilline (D-RI)	This bill prohibits the Department of the Interior from issuing a lease for the exploration, development, or production of oil or natural gas off the coast of Maine, New Hampshire, Massachusetts, Rhode Island, or Connecticut.
H.R.279 - California Clean Coast Act of 2019	2/5/19	Introduced	Rep. Salkud Carbajal (D-CA)	This bill prohibits oil and gas exploration and leasing in areas of the outer Continental Shelf located off the coast of California.
H.R.1149 - Atlantic Coastal Economies Protection Act	2/11/19	Introduced	Rep. Jefferson Van Drew (D-NJ)	This bill prohibits the Department of the Interior from issuing certain permits to engage in geological and geophysical exploration for mineral resources on the Atlantic Outer Continental Shelf.
H.R.1333 - No Drilling in Our Backyards Act	3/8/19	Introduced	Rep. Nanette Diaz Barragan (D-CA)	This bill prohibits the Department of the Interior from issuing a permit for any oil and gas drilling operation that is located within 1,500 feet from a home, business, school, or other building that requires special protection.
H.R.1146 - Arctic Cultural and Coastal Plain Protection Act	5/1/19	Passed House	Rep. Jared Huffman (D-CA)	This bill prohibits the Bureau of Land Management from administering an oil and gas leasing, development, production, and transportation program in and from the Coastal Plain of the Arctic National Wildlife Refuge in Alaska. The bill establishes permanent fees that the Department of the Interior must collect from the operators of offshore oil and gas facilities subject to inspection under current law, including inspection fees for offshore platform facilities and drilling rigs. All fees collected must be deposited into the Ocean Energy Safety Fund established by this bill. Interior may use the funds to administer the inspection

				program, to the extent that the funds are provided in advance in an appropriations bill. Passed house and moves to senate.
H.R.1941 - Coastal and Marine Economies Protection Act	6/19/19	Passed House	Rep. Joe Cunningham (D-SC)	This bill prohibits the Department of the Interior from offering any tract for oil and gas leasing or pre leasing in the Atlantic Outer Continental Shelf planning area (North Atlantic, Mid-Atlantic, South Atlantic, and the Straits of Florida) or the Pacific Outer Continental Shelf planning area (Washington/Oregon, Northern California, Central California, and Southern California). Passed house and moves to senate.
H.R.205 - Protecting and Securing Florida's Coastline Act of 2019	6/19/19	Passed House	Rep. Francis Rooney (R-FL)	This bill permanently extends the moratorium on oil and gas leasing, preleasing, and related activities in certain areas of the Gulf of Mexico.

Issue Area #3: Aquaculture, Sustainable Fisheries, and Marine Biodiversity Conservation

Aquaculture:

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
S.3138 AQUAA Act	6/26/18	Introduced	Sen Roger Wicker (R-MS)	This bill directs the Department of Commerce to establish an Office of Marine Aquaculture within the National Oceanic and Atmospheric Administration to coordinate regulatory, scientific, outreach, and international issues related to aquaculture. Commerce must establish a research and development program to award competitive, peer-reviewed grants to fund research and extension services, including to develop and evaluate methodologies to prevent, minimize, and mitigate potential adverse ecosystem and socioeconomic impacts of marine aquaculture.
H.R. 3384 Coral Reef Sustainability Through Innovation Act 2019	6/20/2019	Introduced	Rep. Ed Case (D-HI)	This would authorize federal agencies to establish prize competitions for innovative or adaptation management development relating to coral reefs ecosystems.

Assistance for Local Fishing Communities:

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
Magnuson-Stevens Fishery Conservation & Management Act	5/29/1905	Law	NA	Primary law governing marine fisheries in federal waters. Focus is to: prevent overfishing, rebuild overfished stocks, increase economic and social benefits of fisheries. Seems to be balancing economic growth with fish stock levels.
S. 39 Sustainable Fisheries Act	10/11/1996	Law	Sen. Ted Stevens (R-AK)	The Sustainable Fisheries Act of 1996 is an amendment to the Magnuson-Stevens Fishery Conservation and Management Act, a law governing the management of marine fisheries in the United States. (Sec. 106) Requires national fishery conservation and management standards to: (1) provide for the sustained participation of fishing communities and minimize adverse economic impacts on those communities; (2) minimize bycatch and its mortality; and (3) promote the safety of human life at sea.
H.R. 5946 Magnuson-Stevens Reauthorization Act	1/12/2007	Law	Rep. Richard Pombo (R-CA)	To amend the Magnuson-Stevens Fishery Conservation and Management Act to authorize activities to promote improved monitoring and compliance for high seas fisheries, or fisheries governed by international fishery management agreements, and for other purposes.
S. 1609 Longline Catcher Processor Subsector Single Fishery Cooperative Act	12/22/2010	Law	Sen. Maria Cantwell (D-WA)	A bill to authorize a single fisheries cooperative for the Bering Sea Aleutian Islands longline catcher processor subsector, and for other purposes.
National Fish and Habitat Action Plan	7/1/2012	National Partnership	US Fish and Wildlife and US Forest Service, NOAA, EPA	Operate and fund conservation projects through private and public partnerships in all 50 states. Goals include 1) Protect/maintain intact, healthy aquatic systems 2) Prevent further degradation of fish habitats 3) Reverse decline in the quality and quantity of aquatic habitats to improve the overall health of organisms 4) Increase the quality and quantity of fish habitat
H.R. 774 Illegal, Unreported, and Unregulated Fishing	11/5/2015	Law	Rep. Madeleine Bordallo (D-GU)	To strengthen enforcement mechanisms to stop illegal, unreported, and unregulated fishing, to amend the Tuna Conventions Act of 1950 to implement the Antigua Convention, and for other

Enforcement Act				purposes.
H.R. 6452 Ensuring Access to Pacific Fisheries Act	12/7/2016	Law	Rep. Aumua Amata (D-AS)	To implement the Convention on the Conservation and Management of High Seas Fisheries Resources in the North Pacific Ocean, to implement the Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, and for other purposes.
S. 1520 Modernizing Recreational Fisheries Management Act	7/10/2017	Law	Sen. Roger Wicker (R-MS)	A bill to expand recreational fishing opportunities through enhanced marine fishery conservation and management, and for other purposes.
H.R. 1023 Great Lake Fishery Research Authorization Act	2/6/2019	Enacted within H.R. 1865	Rep. Mike Quigley (D-IL)	To authorize the Director of the United States Geological Survey to conduct monitoring, assessment, science, and research, in support of the binational fisheries within the Great Lakes Basin, and for other purposes.
S.446 - Great Lakes Fishery Research Authorization Act	2/12/2019	Introduced	Sen. Gary Peters (D-MI)	This bill authorizes the U.S. Geological Survey (USGS) to conduct monitoring, scientific assessments, and research in support of fisheries within the Great Lakes Basin between the United States and Canada. The USGS shall 1) execute a comprehensive, multi-lake, freshwater fisheries science program; 2) work cooperatively with regional, state, tribal, and local governments; and 3) consult with interested groups, including academic and Canadian agencies.
H.R. 1218 American Fisheries Advisory Committee Act	2/13/2019	Introduced	Rep. Don Young (D-AK)	Aims to establish the American Fisheries Advisory Committee to assist in the awarding of fisheries research and development grants
H.R. 1240 Young Fishermen's Development Act 2019	2/14/2019	Introduced	Rep. Don Young (D-AK)	This bill directs the National Sea Grant Office in the National Oceanic and Atmospheric Administration to establish a Young Fishermen's Development Grant Program to provide training, education, outreach, and technical assistance initiatives for young fishermen.
S. 754 National Fish Habitat Conservation Act of 2019	3/12/2019	Introduced	Sen. Mike Crapo (R-ID)	This bill establishes the National Fish Habitat Board to (1) encourage partnerships among public agencies and other interested parties to promote fish conservation, (2) establish national goals and priorities for fish habitat conservation, (3) recommend to Congress entities for designation as a Fish Habitat Partnership, and (4) review and make recommendations regarding fish habitat conservation projects.

S. 778 Coastal Communities Ocean Acidification Act	3/13/2019	Introduced	Sen. Lisa Murkowski (R-AK)	Would direct the Secretary of Commerce (via NOAA) to conduct coastal community vulnerability assessments related to ocean acidification, and for other purposes. (Specifically mentions communities that depend on coastal resources)
H.R. 1716 Coastal Communities Ocean Acidification Act	3/13/2019	Passed House	Rep. Chellie Pingree (D-ME1)	This bill requires the NOAA to conduct and update at least once every seven years an ocean acidification coastal community vulnerability assessment with a corresponding public report. The assessment must identify (1) U.S. coastal communities that are most dependent on coastal and ocean resources that may be impacted by ocean acidification; (2) the nature of those communities' vulnerabilities, including the economic impact on local or regional commercial fisheries and recreational opportunities; and (3) key knowledge gaps where research could be devoted to better understand the possible ocean acidification impacts and possible adaptation strategies for the communities.
H.R. 1747 National Fish Habitat Conservation Through Partnership	3/13/2019	Introduced	Rep. Robert J Wittman (R-VA)	Aims to encourage partnerships among public agencies and other interested persons to promote fish conservation (including fishing communities). Wants to establish "National Fish Habitat Board" with broad representation from many interested groups (tribal groups and fishing communities included).
H.R. 3514 To amend the Magnuson-Stevens Fishery Conservation and Management Act to provide fisheries disaster relief for commercial fishery failures that are due to certain duties, and for other purposes.	6/26/2019	Introduced	Rep. Seth Moulton (D-MA)	This bill authorizes the Department of Commerce to provide disaster relief for commercial fishery failures that occur because of an increase in duties on U.S. seafood or fish products imposed as retaliation for increases in duties imposed by the United States.
S. 1984 Amendment to the Magnuson-Stevens Fishery Conservation and Management Act	6/26/2019	Introduced	Sen. Ron Wyden (D-OR)	Would authorize the Department of Commerce to provide disaster relief for commercial fishery failures that occur because of an increase in duties on U.S. seafood or fish products imposed as retaliation for increases in duties imposed by the United States.

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H.R. 3697: Strengthening Fishing Communities and Increasing Flexibility in Fisheries Management Act	7/11/2019	Introduced	Rep. Don Young (R-AK)	Reauthorizes Magnuson-Stevens act and adds flexibility for fishery managers
S. 2346 Fishery Failures: Urgently Needed Disaster Declarations Act	7/30/2019	Introduced	Sen. Roger Wicker (R-MS)	To improve the Fishery Resource Disaster Relief program of the National Marine Fisheries Service. To help provide assistance to fisheries and fishermen who have lost revenue do to a "resource disaster" in the fishery
H.R. 4679 Climate Ready Fisheries Act	10/15/2019	Introduced	Rep. Joe Cunningham (D-SC)	To require the Comptroller General of the United States to submit to Congress a report examining efforts by the Regional Fishery Management Councils, the Atlantic States Marine Fisheries Commission, and the National Marine Fisheries Service to prepare and adapt United States fishery management for the impacts of climate change, and for other purposes.
HR 4723 Fish Act	10/17/2019	Introduced	Rep. Jared Huffman (D-CA)	Aims to identify salmon conservation areas.

Marine Protected Areas:

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
Endangered Species Act	1973	Law	NA	Provides framework to conserve and protect endangered and threatened species and habitat.
H.R. 3252 (97th): Coastal Barrier Resources Act & Coastal Barrier Improvement Act amendment	6/12/1905	Passed House	Rep. Thomas Evans Jr (R-DE)	Reauthorized the Coastal Barrier Resources Act and expanded the John H. Chafee Coastal Barrier Resources System by including areas of Puerto Rico, the U.S. Virgin Islands, the Great Lakes, and enlarging some previously designated units along the Atlantic and Gulf coasts. This Act also created

				a new category of areas called "otherwise protected areas" (OPAs). These are based on areas under federal, state, or local law, or held by a qualified organization, primarily wildlife refuge, sanctuary, recreational, or natural resource conservation purposes. Federal flood insurance allocation spending is prohibited in these areas.
H.R. 5909 Florida Keys National Marine Sanctuary and Protection Act	11/16/1990	Law	Rep. Dante Fascell (D-DL)	Designates a specified area in Florida as the Florida Keys National Marine Sanctuary under the Marine Protection, Research, and Sanctuaries Act of 1972. This act also prohibits the use of large vessels as well as prohibits hydrocarbon exploration and extraction operations. Further, it requires the Secretary to develop a comprehensive management plan among other initiatives.
Coral Reef Conservation Act	12/23/2000	Reauthorized	NA	Established to protect, conserve, and restore the nation's coral reefs by maintaining healthy ecosystem function.
H.R. 4410 Oceans Act	2000	Passed House & Reintroduced	Rep. James Saxton (R-NJ)	Formed the US Commission on Ocean Policy (commission appointed by George Bush) to update policies from 1969 Stratton Commission Report. The Pew Commission also aided this endeavor.
H.R. 4208 National Marine Sanctuaries Program Reauthorization Act	Reauthorized 1988 & Revised 2000	Law	Rep. Mike Lowry (D-WA)	The latest revision (2000) now requires the sanctuary system to be collectively managed as the National Marine Sanctuary System. The enforcement ability was also increased through the revision and the revision amended prohibited activities such as the sale, import, or export of any sanctuary resource.
H.R. 81 Shark Conservation Act	1/4/2011	Law	Rep. Madeleine Bordallo (D-GU)	The Shark Conservation Act of 2010 (SCA) (H.R. 81, S. 850) was passed by the 111th United States Congress that amended the High Seas Driftnet Fishing Moratorium Protection Act and the Magnuson–Stevens Fishery Conservation and Management Act to improve the conservation of sharks. The act protects all shark species, with an exception for commercial fishing of smooth dogfish (<i>Mustelus canis</i>) with a valid State license within 50 nautical miles (93 km; 58 mi) of any given State's coast.
High Seas Driftnet Fishing Moratorium Protection Act	1/12/2011	Final Rule	Sen. Ted Stevens (R-AK)	Was not originally enacted when Sen. Ted Stevens proposed the bill. The final rule implements identification and certification procedures to address illegal, unreported and unregulated fishing activities and bycatch of protected living marine

				resources. The objectives are to address noncompliance with international fisheries management and conservation agreements, and encourage the use of bycatch reduction methods in international fisheries. The Act is in accordance with US obligations to international trade law, including the WTO Agreement.
S. 52 International Fisheries Stewardship and Enforcement Act	1/25/2011	Introduced	Sen. Daniel Inouye (D-HI)	A bill to establish uniform administrative and enforcement procedures and penalties for the enforcement of the High Seas Driftnet Fishing Moratorium Protection Act and similar statutes, and for other purposes.
H.R. 2706 Billfish Conservation Act	10/5/2012	Law	Rep. Jeff Miller (R-FL)	Prohibits any person from offering billfish or billfish products for sale, selling them, or having custody, control, or possession of them for purposes of offering them for sale or selling them.
H.R. 335 & S. 10 South Florida Clean Coastal Waters Act	1/8/2019	Passed House	Rep. Brian Mast (R-FL) & Sen. Marco Rubio (R-FL)	Establishes an inter-agency task for on harmful algal blooms and hypoxia to develop a plan for reducing, mitigating, and controlling harmful algal blooms and hypoxia in S. Florida.
H.R. 1834 Defending Our National Marine Sanctuaries from Damaging Chemicals Act	3/18/2019	Introduced	Rep. Francis Rooney (R-FL)	Require the Secretary of Commerce to issue regulations prohibiting toxic sunscreens in Marine Sanctuary where coral is present.
H.R. 2236 Forage Fish Conservation Act	4/10/2019	Introduced	Rep. Debbie Dingell (D-MI)	Would improve the management of forage fish. To work alongside the Magnuson-Stevens Act and provide better stewardship of lower level trophic feeders for sustainable fisheries.
S. 1371 Oxybenzone and Octinoxate Impact Study	5/8/2019	Introduced	Sen. Jeff Merkley (OR-D)	Require the EPA to conduct a study on the effects of oxybenzone and octinoxate on the environment and public health.
S. 1375 & H.R. 2587 Reef Safe Act	5/8/2019	Introduced	Sen. Jeff Merkley (OR-D) & Rep. Tulsi Gabbard (D-HI)	Require the Commissioner of Food and Drugs to develop standards for 'Reef Safe' sunscreen labels.
S. 372 A resolution for the federal government to establish a national goal of conserving 30% of land and	10/22/2019	Introduced	Sen. Tom Udall (D-NM)	A resolution to set a national goal of 30% land and ocean conservation.

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Executive Order 13840 Ocean Policy To Advance the Economic, Security, and Environmental Interests of the United States	6/19/2018	Executive Order	President Donald Trump	This order directs the national ocean policy to prioritize economic growth and national security. This executive order repealed and replaced the EO 13547 which prioritized ocean stewardship.

Issue Area #4: Ports and the Maritime Sector

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
IMO Sulfur rule 2020	Effective Jan 2020	Effective January 2020	International Maritime Organization (UN)	Reduces acceptable Sulfur limits for shipping fuels to 0.50% mass by mass. IMO is also hosting a Symposium on IMO 2020 and Alternative Fuels Oct 17-18 2019
S. 1177 SEAL Act (Shipping and Environmental Arctic Leadership Act)	5/23/2019	Introduced	Sen. Lisa Murkowski (R-AK)	This bill creates the Arctic Seaway Development Corporation to provide services related to safety and environmental protection and response in the Arctic region, including to (1) construct deep water port facilities in the Arctic necessary to manage and facilitate increased marine traffic; (2) maintain a relationship with east and west coast ports serving Arctic trade; (3) collect voluntary maritime shipping fees from vessels operating in the Arctic; and (4) establish strong ties among U.S. residents of the Arctic region, Arctic shippers, and the maritime insurance industry.
H.R. 3020 SEAL Act	5/23/2019	Introduced	Rep. Don Young (R-AK)	To establish a congressionally chartered seaway development corporation in the Arctic, consistent with customary international law, with the intention of uniting Arctic nations in a cooperative Arctic shipping union, where voluntary collective maritime shipping fees will help fund the infrastructural and environmental demands of safe and reliable shipping in the region.

Additional Related Policy

Policy Title	Date Introduced	Current Status	Sponsors	Brief Summary
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H.R.6300 - National Ocean Policy Act of 2018	6/29/18	Introduced	Rep. Jimmy Panetta (D-CA)	This bill provides statutory authority for Executive Order 13547, titled "Stewardship of the Ocean, Our Coasts, and the Great Lakes." (The order established a national policy to ensure the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources, enhance the sustainability of ocean and coastal economies, preserve our maritime heritage, support sustainable uses and access, provide for adaptive management to enhance our understanding of and capacity to respond to climate change and ocean acidification, and coordinate with our national security and foreign policy interests.)
S. 2260: Save Our Seas 2.0: Improving Domestic Infrastructure to Prevent Marine Debris Act	7/24/19	Introduced	Sen. Dan Sullivan (R-AK)	In progress bill sponsored by Dan Sullivan (R, Alaska) to improve domestic infrastructure in order to prevent marine debris.
HR 1689/S 763 Climate Change Resiliency Fund for America Act 2019	3/12/19	Introduced	Rep.Theodore E. Deutch [D-FL]	Aims to create a climate change advisory commission to develop recommendations, frameworks and guidelines for projects to respond to climate change
HR 4051 Climate Action Rebate Act 2019	7/25/19	Introduced	Rep. Jimmy Panetta (D-CA)	To create a Climate Action Rebate Fund in order to efficiently reduce greenhouse gas emissions, provide a monthly rebate to the American people, encourage innovation of clean energy technologies and create new economic opportunities, ensure the resiliency of our infrastructure, assist with the transition to a clean energy economy, and leave a healthier, more stable, and more prosperous nation for future generations.
S 2057 National Climate Bank Act	7/8/19	Introduced	Sen. Ed Markey (D-MA)	To establish a national climate bank.
HR 330 Climate Solutions Act	1/8/10	Introduced	Rep. Ted Lieu (D-CA)	To reduce greenhouse gas emissions and protect the climate.
S. 10: South Florida Clean Coastal Waters Act of 2019	1/1/19	Introduced	Sen. Marco Rubio (R-FL)	Now out of both House and Senate Committees. Requires the Inter-Agency Task Force on Harmful Algal Blooms and Hypoxia to develop a plan for reducing, mitigating, and controlling harmful algal blooms and hypoxia in South Florida, and for other purposes. (H.R. 355 was sponsored by Rep. Mast and was voted out of Committee in Sept 2019).

HR 2448 Ocean Acidification Research Partnerships Act	5/1/19	Introduced	Rep. Salkud Carbajal (D-CA)	<p>This bill requires the National Oceanic and Atmospheric Administration (NOAA) to provide grants for collaborative research projects on ocean acidification developed and conducted through partnerships between the seafood industry and the academic community. NOAA must prioritize projects that (1) address ecosystems and communities vulnerable to the impacts of ocean acidification, (2) demonstrate support from local stakeholders, or (3) utilize seafood industry assets as research and monitoring platforms.</p> <p>NOAA may provide grants to a partnership in which a marine-dependent industry is substituted for the seafood industry.</p>
H.R.4520 - Modernizing America with Rebuilding to Kickstart the Economy of the Twenty-first Century with a Historic Infrastructure-Centered Expansion Act	9/26/19	Introduced	Rep. Brian Fitzpatrick (R-PA)	<p>To amend the Internal Revenue Code of 1986 to eliminate certain fuel excise taxes and impose a tax on greenhouse gas emissions to provide revenue for maintaining and building American infrastructure, and for other purposes.</p>
H.R.3923 - Environmental Justice Act of 2019	7/23/19	Introduced	Rep. Raul Ruiz (D-CA)	<p>To require Federal agencies to address environmental justice, to require consideration of cumulative impacts in certain permitting decisions, and for other purposes.</p>
H.R.3384 - Coral Reef Sustainability Through Innovation Act of 2019	6/20/19	Introduced	Rep. Ed Case (D-HI)	<p>This bill authorizes the federal agencies on the U.S. Coral Reef Task Force, which includes the National Oceanic and Atmospheric Administration, to carry out prize competitions that promote coral reef research and conservation. The prize competitions must be designed to help the United States achieve its goal of developing new and effective ways to advance the understanding, monitoring, and sustainability of coral reef ecosystems.</p> <p>Priority is given to establish programs that address communities, environments, or industries that are in distress due to the decline or degradation of coral reef ecosystems.</p>

HR 1568 Scientific Assistance for Very Endangered North Atlantic Right Whale Act	3/6/2019	Introduced	Rep. Seth Moulton (D-MA)	Would require the Department of Commerce to provide financial assistance for the conservation of the North Atlantic right whale. Further, Commerce must conduct plankton surveys using a continuous plankton recorder.
HR 9 Climate Action Now Act	3/27/19	Passed House	Rep. Kathy Castor (D-FL)	To direct the President to develop a plan for the United States to meet its nationally determined contribution under the Paris Agreement. (Passed in house)
HR 988 NEAR Act of 2019	2/6/19	Passed House	Rep. Bill Posey (R-FL)	National Estuaries and Acidification Research Act of 2019 or the NEAR Act of 2019 This bill directs the Department of Commerce to arrange for the National Academies of Sciences, Engineering, and Medicine to conduct a study that: examines the existing science of ocean acidification in estuarine environments, examines the challenges to studying ocean acidification and acidification's interactions with other environmental stressors in estuarine environments, provides recommendations for improving future research with respect to ocean acidification in estuarine environments, and identifies pathways for applying science in management and mitigation decisions related to ocean acidification in those environments.
HR 1921 Ocean Acidification Innovation Act of 2019	3/27/19	Passed House	Rep. Derek Kilmer (D-WA)	This bill authorizes a federal agency with a representative serving on the Interagency Working Group on Ocean Acidification to carry out a program that awards prizes competitively for innovative efforts to research or respond to ocean acidification. Priority must be given to establishing programs that address communities, environments, or industries that are in distress due to the impacts of ocean acidification.
HR 1237 COAST Research Act of 2019	2/14/19	Passed House	Rep. Suzanne Bonamici (D-OR)	This bill addresses the effects of ocean and coastal acidification on marine organisms and ecosystems. Specifically, the bill reauthorizes through FY2024 and revises the Ocean Acidification Program of the National Oceanic and Atmospheric Administration and the ocean acidification grant program of the National Science Foundation. The bill expands those programs, as well as the ocean acidification activities of the National Aeronautics and Space Administration (NASA), to include efforts to research and monitor the effects of coastal acidification.

