

Opportunities for Ocean-Climate Action in the United States

Introduction and Report Summary (15 Minutes)	Mark Michelin, CEA Consulting
The Current Opportunity (5 minutes)	Dr. Ayana Elizabeth Johnson, Urban Ocean Lab, Ocean Collectiv, How to Save a Planet
Building on Policy Momentum (5 minutes)	Dr. Jane Lubchenco, Oregon State University, former NOAA Administrator
Offshore Wind (5 minutes)	Dr. Stephanie McClellan, Special Initiative on Offshore Wind
Ports and Community Impacts (5 minutes)	Ms. Margaret Gordon, West Oakland Environmental Indicators Project
Shipping (5 minutes)	Madeline Rose, Pacific Environment
Q&A (20 minutes)	



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Ocean-based measures can contribute up to 14% of the United States' required emissions reductions to limit warming to 2°C



14%

Of required emissions reduction to limit warming by 2°C





Marine Renewables

520 Mt CO₂ 2050 Mitigation Potential

- Establish national offshore wind deployment targets combined with direct financial support
- Identify sufficient sea space for the development of offshore wind through ocean planning and efficient permitting



Shipping

61 Mt CO₂ 2050 Mitigation Potential

- Leverage EPA authority to set federal emissions reduction targets in line with or exceeding IMO targets
- Reduce localized emissions and promote environmental justice by mandating zero at-berth emissions for ships in port
- Establish a centralized monitoring, reporting, and verification data collection system for U.S. shipping



Blue Carbon

16 Mt CO₂e 2050 Mitigation Potential

- Strengthen policies to bring BC habitat loss rates to zero
- Integrate BC habitat protection and restoration into shoreline protection plans and policies
- Establish national governance of BC to maintain a standardized inventory

Fishing and Aquaculture

7 Mt CO₂e 2050 Mitigation Potential

- Maintain and strengthen fisheries management by incorporating climate adaptation
- Provide grants and loan guarantees for efficiency upgrades and for low- or zeroemission fishing vessel technology



Sub seabed CCS

60 Mt CO₂ 2050 Mitigation Potential

- Enhance and extend the 45Q tax credit
- Amend the Low Carbon Fuel Standard in California to include offshore storage



Dietary Shifts

39 Mt CO₂e 2050 Mitigation Potential

Selected Policy Recommendations

 Increase the recommended amount of seafood consumption in the U.S. dietary guidelines



Measure Co-be	enefit						
	Jobs	\$ Economic benefits	Environmental justice and just transition	Hazard reduction	Pollution reduction	Health	Environmental benefits
Offshore wind and marine renewables	\oslash	\oslash	\oslash		\oslash	\oslash	
Coastal protection, restoration and cultivation	on, ⊘	\oslash		\odot	\oslash		\odot
Decarbonizing U.S. shipping		\oslash	\oslash		\oslash	\oslash	
Fisheries and aquaculture efficiency and diets	\oslash	\oslash			\oslash	\oslash	\oslash
Carbon dioxide storage below the seabed	\oslash	\oslash	\oslash		\oslash		
Offshore oil and gas morator	ium*			\oslash	\oslash	\oslash	\odot



OFFSHORE WIND POWER: REACHING THE CLIMATE AND ECONOMIC BENEFITS





Dr. Stephanie McClellan January 28, 2021

Developing up to 30 Gigawatts of U.S. offshore wind energy by 2030 is expected to support

83,000 Jobs

Developing just

would support

Of those 83,000 jobs,

59,000 Jobs

Will be jobs in project development and construction

360,000 Jobs

200 Gigawatts

or about 9% of the U.S. offshore wind technical resource potential by 2050



Reaching 30 GW by 2030 Massachusetts: 3,200 MW Connecticut: 2,000 MW New York: 9,000 MW New Jersey: 7,500 MW Maryland: 1,200 MW Virginia: 2,500 MW

* 30 GW powers ~ 20 million homes



US "technical resource" of offshore wind power = 2,059 GW (NREL/TP-5000-66599)

Federal facilitation of offshore wind energy to realize its full climate and economic benefits

• Department of the Interior

• Permitting and leasing

• Department of Defense

Compatibility assessments, procurement, Maritime Administration funding (NDAA)

• Department of Homeland Security

• U.S. Coast Guard, PARS

• Department of Labor

• Workforce training

Federal facilitation of offshore wind energy to realize its climate and economic benefits

Department of Energy

• Transmission, R&D to allow nation-wide use of offshore wind technology, create American IP and drive domestic manufacturing

Department of Commerce

• Manufacturing incentives and investments

• Department of Transportation

• BUILD grants for ports and vessels