



Ocean-based carbon dioxide removal in the U.S.: Legal Challenges and Opportunities

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BACKGROUND

U.S. Policy Landscape

- Increased interest and funding for carbon dioxide removal
- FY2020 Appropriations of \$60 million to DOE for negative emissions technologies
- 2021 stimulus bill authorizes potential of \$175 million more, \$60 million for non-direct air capture
 - In proposed house bill, DOE would receive \$95 million
- DOE's ARPA-E MARINER program oversees \$50 million for the study of macroalgae



U.S. Jurisdiction over the Oceans

- Jurisdiction shared among coastal states and federal government
- **Submerged Lands Act**
 - Boundaries of each coastal state extend 3 n.m. from coastline
 - Two exceptions – Texas & Florida extend 9 n.m. in Gulf of Mexico
- U.S. waters beyond state boundaries up to 200 n.m. under exclusive federal control
- **Outer Continental Shelf Lands Act**
 - Fed gov also has exclusive authority over land of the outer continental shelf
 - Exceeds 200 n.m. in some instances



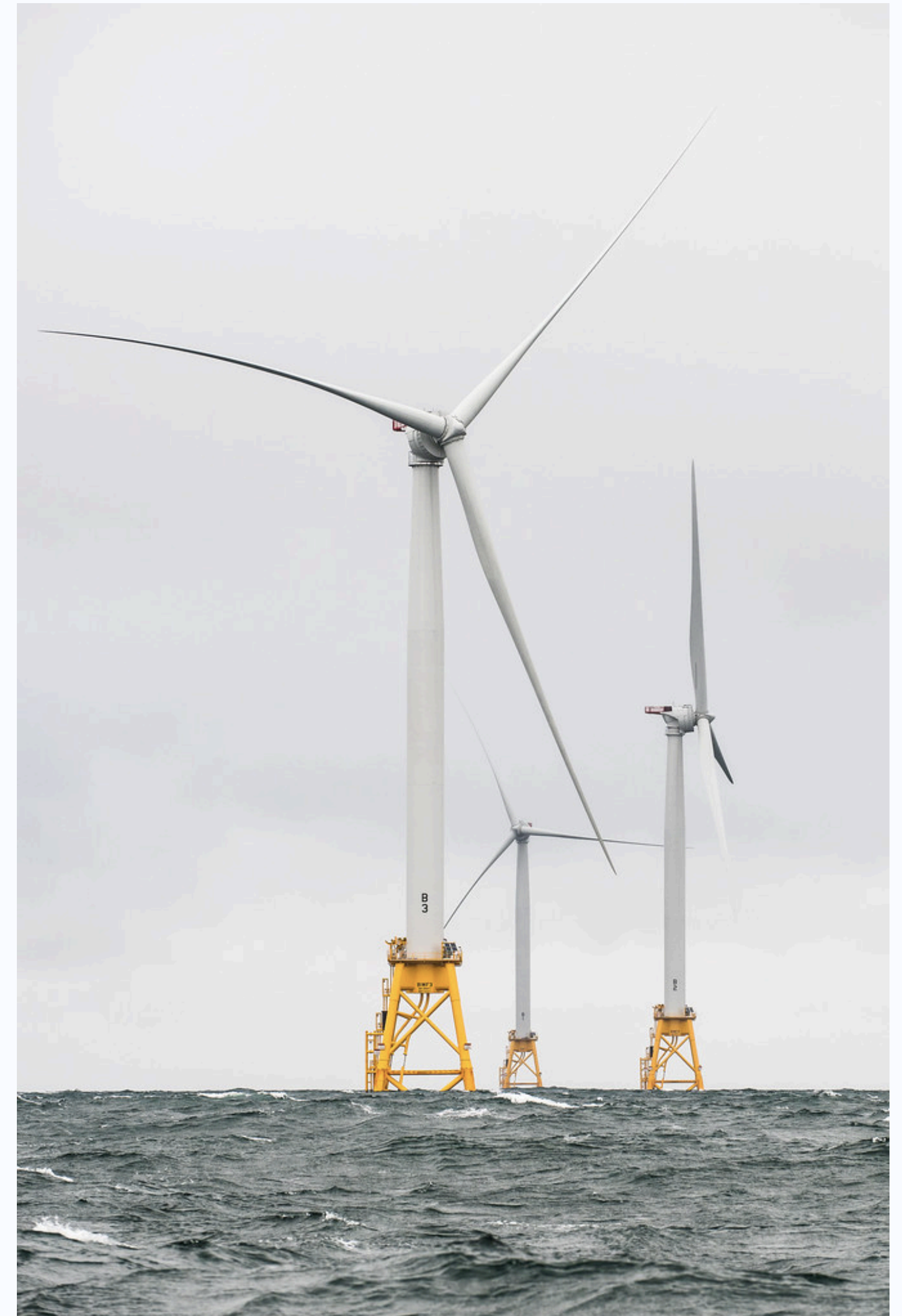
Siting Facilities in U.S. Waters: Navigation

- U.S. Coast Guard aids to navigation program
- National Environmental Policy Act
- Endangered Species Act
- Coastal Zone Management Act



Siting Facilities in U.S. Waters: Use of Seabed

- Outer Continental Shelf Lands Act authorizes BOEM to lease areas of the outer continental shelf
- National Environmental Policy Act
- Endangered Species Act
 - Migratory Bird Treaty Act
 - National Marine Sanctuaries Act
- American Indian Religious Freedom Act
- Coastal Zone Management Act
- Federal Aviation Admin regulations
- Jones Act



Siting Facilities in State Waters

- State agency lease for use of seabed
- State aquaculture permits
- Army Corps of Engineers permit under Rivers and Harbors Act
- Clean Water Act
- Little NEPAs
- State permits for construction in sensitive areas
- Local permitting



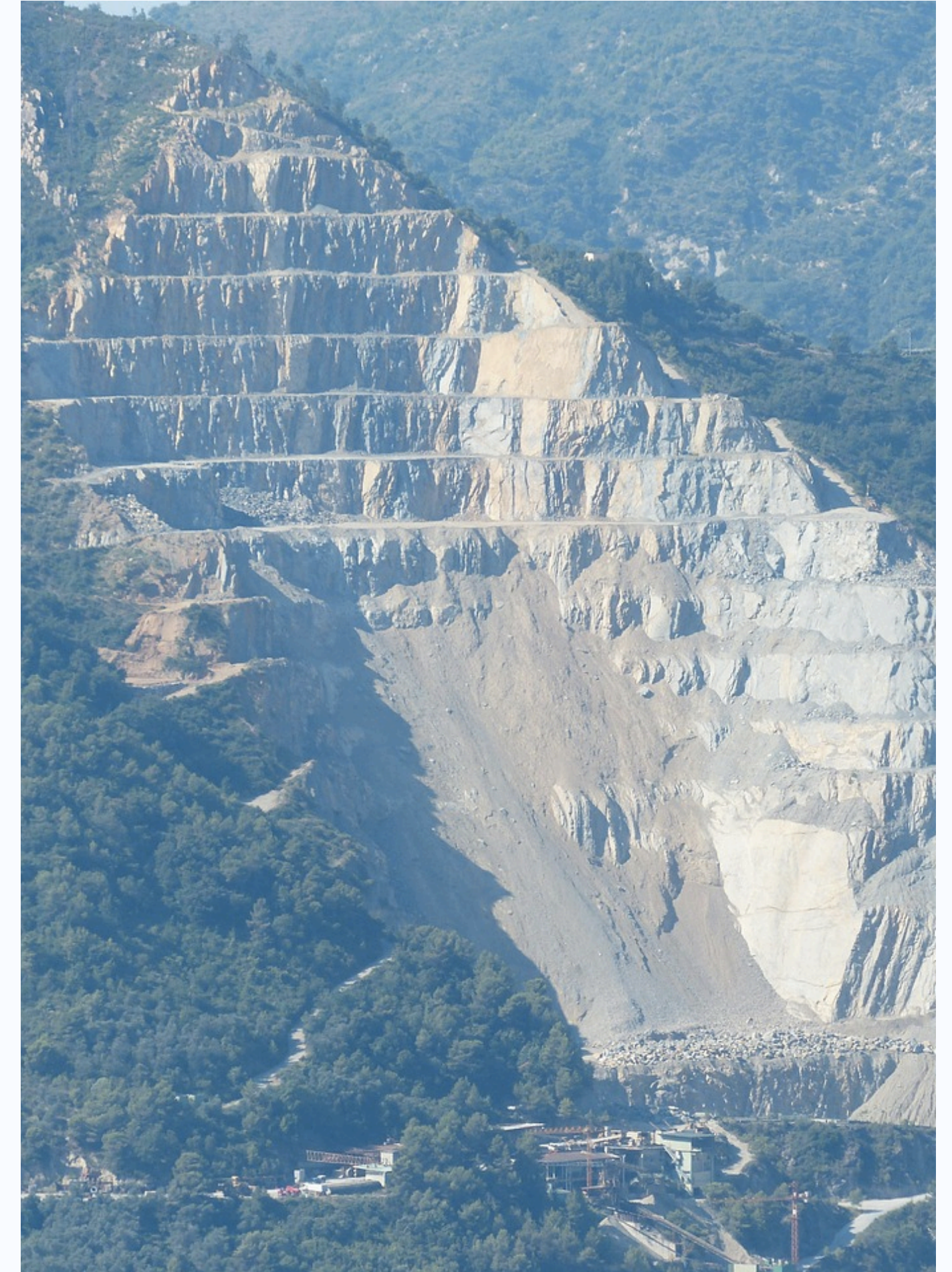
Discharging Materials into U.S. Waters

- Marine Protection, Research, and Sanctuaries Act
- EPA permit required where
 - Materials transported from within U.S. or
 - Use of U.S. vessel or
 - Dumping within 12 n.m. of coast
- Dumping may only occur in EPA-designated dump sites



Related Activities

- Mining
 - Bureau of Land Management (BLM) oversees mining on fed land under General Mining Law of 1987
 - States have administrative regime for sales and leasing (often similar to BLM)
 - Environmental reviews under Clean Air Act, Clean Water Act, Resource Conservation & Recovery Act
- Shipping of hydrochloric acid
 - U.S. Coast Guard Regulations
 - Hazardous Materials Transportation Act
 - Emergency Planning and Community Right-to-Know Act



Projects Implicating Tribal Rights

- Several treaties secure the rights of Native Americans to fish in historical fishing waters
- Implied federal gov and state duty to avoid damage to such habitat
- Federal agency consultation requirements under Executive Order 13175
- State agency consultation requirements in Alaska, Washington, Oregon, and California



CONTACT INFORMATION

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IMPORTANT LINKS

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