

AAPA POWERS Conference – Environment Committee Meeting

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MARAD - Maritime Decarbonization Activities

- **META Projects/RD&T Efforts**
 - NDAA Updates
 - List of current/planned projects
- **Domestic and International Policy/Collaborations**
 - Zero Emission Shipping
 - Green Corridors
 - Transportation Decarbonization Blueprint/Maritime Strategy
- **Aspen Workshop Series**
- **Challenges and Partnership Needs**

Brief Background - Two Primary Functions

- **Manage the Maritime Environmental and Technical Assistance (META) Program**
 - Technical Assistance is broadly interpreted to include needed RD&T and technology demonstration and verification
 - Main topic areas of focus since inception
 - Port/vessel emissions/multimodal modeling/decarbonization
 - Aquatic nuisance species (ballast water/hull fouling)
 - Vessel-generated underwater noise
 - Safety

- **Support Domestic and International Maritime Environmental Policy**
 - Partnerships with US agencies
 - International engagements (IMO/ISO)

2023 NDAA Requirements

- **META**

- Establish U.S. Center for Maritime Innovation to support RD&T efforts
- Approval to award “grants” in addition to cooperative agreements

- **Report on Alternative Marine Fuel Bunkering Facilities at Ports**

- **Report on Effective Vessel Quieting Measures**

Maritime Decarbonization

Current Projects

- Vessel Energy Efficiency and Decarbonization Guide (recently completed)
- Microgrid Demonstration
- Smartships GHG Emissions Calculator
- Battery Electric Workboat Techno-economic Analysis
- Vessel Carbon Capture and Storage Study
- Future Energy Options Studies
 - Great Lakes
 - California
 - Gulf Coast
- Lifecycle Emissions Analysis for Battery Electric
- Blue Carbon Study (recently completed Phase I)
- Low Carbon Fuel Engine Testing
- US EEZ Emissions Modeling Database (planned)

How MARAD Fits - interface with maritime stakeholders and regulatory agencies to seek economically sound solutions to maritime environmental challenges

Office of Environment and Innovation Environmental Policy Focus -

Domestic

- Work with regulatory agencies on policy development and guidance that affect the US maritime transportation sector:

- EPA/USCG/NOAA/DOT modes
- OCAP
- SOST

International

- Support/advise the US Delegation on several international efforts:

- International Maritime Organization (IMO)
- International Organization for Standardization (ISO)
- Mission Innovation - Zero Emission Shipping Mission
- Clydebank/Quad
- COP
- Arctic (IARPC and PAME)

DOT/EPA/DOE/HUD

- US National Blueprint for Transportation Decarbonization
 - Released January 2023
 - Requires modal-specific strategies to tier off/provide more detail

- US Maritime Decarbonization Strategy
 - MARAD working w/DOE/EPA/USCG to develop
 - Focus on ports and vessels
 - Define the sector/needs/goals
 - Estimated completion date is Summer 2023

- **Aspen Institute - Unlocking U.S. Leadership Toward Zero Emission Shipping - Opportunities, Challenges and Pathways Forward**
 - Held November 3, 2022, 1st in a series
 - Goals
 - Information sharing of efforts
 - Identify challenges
 - Engage in partnership
 - Representation from industry, gov't, NGOs, Congress
 - Next meeting planned for May 2023

- **USG Senior Level Coordination**
 - Regular meet ups among MARAD/DOE/EPA/USCG/NOAA
 - Align programs/strategy/efforts

- **Recognizing that decarbonization is a main focus of this Administration and one of the biggest issues globally, how do we sort through the issues/challenges?**
 - Common understanding of terms/concepts

- **Maritime Decarbonization isn't solely focused on a single component...**
 - Port/vessel interface
 - Port-based equipment
 - Cargo flow to and through the port

- **We need input from industry to make this work effectively**
 - Is it incentives, policy, R&D, other?

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META Website -- <https://www.maritime.dot.gov/innovation/meta/maritime-environmental-and-technical-assistance-meta-program>