Blue Sky Maritime Coalition May 21, 2024
Roundtable Workshop: Engaging with Government

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Event Overview

Blue Sky Maritime Coalition hosted Roundtable Workshop: Engaging with Government on May 21, 2024 in Washington, D.C. This two hour in-person session was a milestone event for Blue Sky and the U.S. maritime industry; it brought together the private sector and public government agencies to sit shoulder-to-shoulder and discuss each stakeholder's needs and solutions to achieve a net-zero GHG maritime value chain.

The Roundtable Workshop was attended by over 50 individuals that represented 31 Blue Sky member organizations, 8 U.S. federal government agencies, and 2 foreign embassies.

The attendees sat among five tables. Each table was assigned a theme that followed Blue Sky's Workstreams:

1. Finance, Commercial & Chartering
2. Green Shipping Corridors
3. Measurement & Operational Efficiency
4. Policy, Regulatory & Incentives
5. Technology, Infrastructure & Fuels

The discussions were broken into three sections, each guided by a question prompt:

1. What do you want to see from Industry? What do you want to see from government / regulators?
2. How can we ensure that we are part of your organization's process?
3. How can we move faster? How can we reconcile our organizations' timelines and restraints for collective success?

A Facilitator at each table guided the group's conversations. Individuals from the government agencies and embassies moved tables between each question prompt. At the end of the event, each table's Scribe presented their group's takeaways to the broader audience.

The below is a summary of the event's discussions and takeaways.

Acknowledgements

Thank you to ABS for providing the meeting space and facility support. Thank you to NAMEPA for their in-kind support which ensured the event's smooth logistics.

Blue Sky Maritime Coalition is deeply grateful to the table Facilitators and Scribes for their leadership during the Roundtable Workshop.

Thank you to all the organizations and each individual that attended and contributed to Roundtable Workshop: Engaging with Government. Your support and engagement is bringing our maritime industry closer to a more sustainable and equitable future.

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10 Action Items from Roundtable Workshop: Engaging with Government

1. **POLICY TEAM:** Blue Sky must engage in IMO processes
    a. It is important to compare US decarbonization efforts with other countries like Canada
    b. Establish liaison team
        i. Responsibilities? Work products? Expectations?

2. **FINANCE TEAM:** Generate a framework to incentivize emissions reductions within chartering
    a. The collaboration required between industry and government to develop guidance for this framework.
    b. Similar to ZEMBA's efforts to create a new framework.

3. **POLICY TEAM:** Be more vocal on the Hill.
    a. Take a proactive role in educating the DC agencies and elected officials
        i. Plan in-person meetings with reps, with staffers, with caucuses, etc.
        ii. Send advocacy letters to reps, staffers, caucuses, etc.
    b. Advocate for more funding at MARAD.
        i. MARAD funding can help de-risk new technology costs
    c. Participate in more federal advisory councils
    d. Create advocacy 'teams' with:
        i. Public and community groups
        ii. Other industry groups
        iii. Other NGOs
    e. Establish meetings with congress and representatives
        i. Tell government what kinds of incentives would support maritime industry
        ii. Advocate for technology-agnostic incentives and policies
            1. Establish goal-based regulations instead of prescriptive regulations
        iii. Advocate for Sustainable Maritime Fuel Challenge
        iv. Advocate prioritization for green shipping corridors
        v. Emphasize maritime's importance and opportunities for reps' constituents
            1. Jobs, Infrastructure, Air Quality, Local economy, etc.

4. **POLICY, FINANCE, TECHNOLOGY TEAM COMBO:** Share Blue Sky's Biofuels Webinar with US Customs and Border Patrol
    a. Invite USCBP to present educational webinar on its role and sphere in biofuels
        i. USCBP is seeing an increase in biofuel feedstock imports.
        ii. USCBP is helping to get biofuel feedstock supply in faster.
    b. Joint meeting after educational webinar
        i. How to work together going forward?
            1. What does industry need to do to support USCBP's role w/biofuels?
            2. What does USCBP need to do to support industry's role and adoption of biofuel?
        ii. What is our common biofuels / feedstock goal?
            1. More supply?
            2. Differentiated carbon intensity ratings?
            3. Resolve barriers to selling biofuels to international carriers
                a. This may limit options for alternative fuels in some GSCs.
                b. This area needs further review and consideration.

5. **FINANCE TEAM:** Work with the national labs
    a. On annual budget requests and Cooperative Research and Development Agreements.
    b. Help to write the grants and navigate the funding opportunities
        i. Improve alignment with industry needs.
        ii. Improve government understanding of available technologies to avoid 'pushing' industry toward unattainable, expensive requirements.

6. **POLICY TEAM:** Establish recurring feedback sessions with MARAD
    a. How can MARAD's tool be more useful?
    b. Collaborate on data mapping project

7. **M&OE TEAM:** Complete a Data Mapping Project
    a. Which data collection tools are currently available?
    b. What data is being collected
        i. By government agencies / industry / individual organizations?
        ii. Is it estimated or concrete data?
        iii. Is it apples to apples?
    c. Aggregate the data
    d. Identify where the data gaps are

8. **POLICY TEAM:** Generate a comprehensive visual map to explain agencies
    a. Where does each agency get funding?
    b. Who / What / Where is each agency responsible for?
    c. Who are the decisionmakers at each agency (appointed, senior, etc.)
    d. How they interact and influence each agency
    e. What their goals and responsibilities
    f. How can / should industry get involved in each agency's education, planning, execution processes?

9. **TECHNOLOGY TEAM:** Create a tool for tow make-up
    a. Inland vessels aren't good candidates for many alternative fuels. Operational efficiencies could be critical to drive reductions on inland. Must consider barges and towing vessels
        i. Need a tool to help w/tow make-up

10. **GSC TEAM:** Establish centralized GSC working group
    a. Establish this working group through the Center for Maritime Innovation:
    b. The MARAD Center for Maritime Innovation is a good resource to support GSC development across multiple GSC initiatives, especially with common needs.
    c. Establish group's purpose:
        i. To share best practices among GSCs
        ii. To share information on GSCs
        iii. To promote idea-sharing
        iv. To promote resource collaboration
    d. Identify common core elements that "qualify" an initiative as a Green Shipping Corridor
        i. one definition or one type of approach to GSC is limiting.
        ii. The Government should accept and support various types of GSCs
    e. Meet quarterly
    f. Coordinate and facilitate informal sharing sessions at industry conferences
        i. AAPA conferences, United Nations' COP, NASEM, TRB, etc.

g. Organizations to include:
    i. Blue Sky Maritime Coalition
    ii. ABS
    iii. Bureau Veritas
    iv. Clean Energy Ministerial
    v. DNV
    vi. GLSLS Commission
    vii. Lloyd's Register
    viii. National Labs
    ix. Transport Canada
    x. US Coast Guard
    xi. US Department of Energy
    xii. US Department of Transportation
    xiii. US Environmental Protection Agency
    xiv. Others?
h. GSCs to include:
    i. Great Lakes St. Lawrence Seaway
    ii. Gulf of Mexico
    iii. Pacific Northwest to Alaska Green Corridor
    iv. LA/Long Beach – Singapore
    v. LA/Long Beach – Shanghai
    vi. PNW – Republic of Korea
    vii. Houston – Antwerp/Bruges
    viii. Others?

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Finance, Commercial & Chartering

What do you want to see from industry? What do you want to see from government / regulators?

Industry needs from Government:
More inclusive reports and policymaking to reflect the industry's nuances.

- Most government reports focus only on deep sea shipping and coastwise transport.
- Specifically need to include inland (locks), harbor craft (depth and length constraints).
- Long lifespan of vessels in brown water vs blue water
    - This directly impacts retrofit needs instead of newbuilds.

More guidance and incentives:

- Need to develop a charting framework to address inefficiency and incentivize emissions reductions.
- Vessels are 30-60% higher cost to implement emission reductions, yet receive the same price for moving cargo. Incentives are needed for the owners (or operators) to be able to move forward with emission reductions.

Regulatory alignment with what is available.

- Batteries have limited use cases.
- Charging at docks is limited.
- Utilities are not motivated to provide the services.

Support access to alternative fuel supplies

- Maritime sector struggles to get access to biofuels.
- Maritime is excluded from the Renewable Fuels Standard.
- Tugs could use renewable diesel right now and get a 60% reduction in emissions, but it is not available. It should be prioritized for maritime use where it is critical.

Government needs from Industry:
Communicate to government. Be more vocal.

- Help the government catch up on the technology options and the specific needs of the maritime sector.
- Congress needs to hear from the maritime industry.
- Maritime is too quiet and not present on the Hill.

How can we ensure that we are part of your organization's process?

Industry needs to respond to Title 17 RFI to shape the opportunity to best fit maritime's needs.

- Provides loan guarantees for clean energy manufacturing, including maritime vessels.

Tell government what kinds of incentives would support industry

- Tax credits that are focused on the elimination of GHG emissions.
- Avoid tax credits that are specific to a type technology or certain sector.

To be part of the Agency organizational process on funding:

- Work with the national labs on annual budget requests and CRADA (Cooperative Research and Development Agreements).
- Partnerships can help to write the grants and navigate the funding opportunities towards meeting industry needs.
- Discuss the timing challenge of government grants not meeting the industry reality.

How can we move faster / reconcile organizations' timelines/restraints?

To make an impact at a faster rate, industry needs support to obtain what works today such as renewable diesel.

- Alternative fuel availability is a major challenge for industry.
    - Incentives drive the market and the fuel goes primarily into California.
    - US Customs and Border Patrol are seeing an increase in biofuel feedstock imports and are helping to get supply in faster.

Develop a shared narrative, then share that story.

- Raise voices, especially at Congress.
- Industry needs to stop competing so much with itself and unify their voices to be heard.
- Use the new National Maritime Strategy to share story.
- To garner support, emphasize national and economic security in addition to climate security
- Leverage the Marine Highways program (DOT).
    - Emphasize the significant reductions in emissions and road congestion that could result from moving more goods by waterways.

Maritime needs the ability to experiment.

- Majority of companies can't afford to experiment (money, employee headcount restraints).
- Test and fail must occur faster
- Need demonstration opportunities such as research vessels
- MARAD Maritime Innovation Center could be a source for this experimentation.
    - Industry needs to raise voices to get it fully funded.

Once technologies are demonstrated, we need government funding to de-risk private capital to scale up the new technologies.

Key Takeaways

There must be a green business case.

The conversation highlighted the importance of inclusivity across maritime operations, emphasizing the need to consider inland and tug operations, not solely focusing on deep-sea activities due to the different operational needs. Tugs were proposed as potential first movers in emission reduction efforts.

Inefficiencies in chartering were addressed, underscoring the need for a framework to encourage emission reduction in charters, requiring collaboration between industry and government to establish guiding principles. The discourse also touched on ZEMBA's efforts in creating a framework for zero or reduced emission alternatives in chartering, addressing the importance of regulations aligning with industry capabilities rather than being disproportionately ahead in timelines.

The government stressed the importance of industry support and the need for mutual understanding of maritime complexities and technology options to facilitate effective collaboration for incentives. Funding gaps especially in inland and coastal maritime operations compared to deep-sea ventures were recognized,

noting the challenges in aligning government and industry timelines for funding opportunities. Suggestions were made for earlier collaboration to streamline processes.

Tax credits were recommended as an effective incentive focusing on emission reduction rather than specific technology types. The importance of remaining technology-agnostic was stressed in the context of multiple technology considerations. The availability of renewable diesel was highlighted as a viable option currently, albeit with distribution challenges, pointing out the necessity for testing and demonstrating other technologies and ensuring their availability.

Green Shipping Corridors

Types of GSC: We noted that there are many types of GSCs with different objectives/purposes and stakeholders. We highlighted that one definition or one type of approach would be limiting. The Government should accept and support various types of GSCs, but some common core elements should probably be acknowledged to "qualify" as a GSC.

US Government Approach to GSCs: We noted that the US Government seem to have an opportunistic approach vs a strategic approach to identifying, encouraging, and supporting GSCs. The US is reacting to GSC opportunities initiated by others more than setting priorities for particular routes, commodity flows, etc. The focus seems to be more on diplomatic priorities and cooperation than technical decarbonization progress in the industry. This is understandable, but GSCs could be a more strategic tool for accelerating US decarbonization.

Cost of Carbon Gap: We discussed that GSCs must make financial/business sense to advance and that without a cost of carbon emissions the business case will be difficult. Right now, GSCs are mostly initiated on decarbonization aspirations and early perception of end-customer interest in lower carbon marine transportation options. The willingness to pay for those options has not been established. Without an economic cost for carbon emissions, the business case for GSCs may struggle to develop the needed support in the U.S. Other incentives could influence this, but a cost of carbon is the most important driver.

US Government Focus on US Flag Fleet: We noted that funding for maritime vessel decarbonization is lagging funding available for port decarbonization and decarbonization of other transportation assets. Even where funding is available, the focus is mostly on the US Flag Fleet. Of course, the US Flag Fleet and other domestic vessel operations are only a part of the overall carbon emissions challenge, which is influenced strongly by international vessel arrivals/departures and port stays. There was sense that GSCs might not receive as much priority as they might deserve because they mostly deal with international vessel traffic.

Sustainable Marine Fuels Challenge: We discussed how initiating a Sustainable Marine Fuels Challenge (like the SAF Challenge for the Aviation Industry) might have positive affect on interest and implementation for GSCs. Alternative fuels considerations are an important element common to every GSC. The industry seems to strongly support a Sustainable Marine Fuels Challenge initiative.

Political Will & Uncertainty: We discussed that some support for GSCs may be weak or paused awaiting clarity on decarbonization priorities after the upcoming election. The desire for progress by the current Administration before the upcoming elections is helpful, but industry seems to be awaiting election outcomes before making major investments.

Policy/Regulatory Barriers: We noted that there are some policy/regulatory barriers that seem to be inhibiting some actions that would support GSC progress. For example, barriers to selling biofuels to international carriers may be limiting options for alternative fuels in some GSCs. This area needs further review and consideration.

Tasks / Activities

Working Group for GSCs with US Connections: We noted that some efforts have been made to share best practices among GSCs. This includes DOE's efforts with the Clean Energy Ministerial to share information and best practices on GSCs as well as informal sharing sessions at conferences (e.g., at the most recent AAPA event in Denver). The Blue Sky Maritime Coalition work stream on GSCs meets regularly to give updates on GSCs associated with Blue Sky, but this does not include all US-affiliated GSCs (e.g., LA/LB – Singapore, LA/LB-Shanghai, PNW-Republic of Korea, Houston-Antwerp/Bruges, etc.). We discussed

the value of an overall coordination/information sharing working group that could be hosted by a Government Agency, AAPA, Blue Sky, ABS, or some other organization (or a combination of these).

Center for Maritime Innovation: We noted that the MARAD Center for Maritime Innovation may be a good resource for helping to support GSC development across multiple GSC initiatives, especially with common needs.

Key Takeaways

We acknowledged the diverse spectrum of green shipping corridors, ranging from narrow pathways to extensive networks with various implementation challenges. A key observation was the need for a more strategic approach rather than opportunistic selection of green shipping corridors to ensure better government support in terms of facilitation, engagement, and incentives. The discrepancy between the costs of carbon and the incentives required to drive action was highlighted as a significant barrier. Developing specific incentives linked to the cost of carbon was identified as crucial to expedite the implementation of green shipping corridors.

Discussions centered on the lack of prioritization of green shipping corridors within government programs, suggesting the need for special grant programs and expanded support frameworks to accelerate progress. Balancing government priority between US-flagged vessels and international carriers, and aligning policies to fuel the latter's operations in the US were recognized as essential considerations. The concept of a Green Fuel Grand Challenge, akin to efforts in the aviation sector for Sustainable Aviation Fuel (SAF), was proposed as a high-priority initiative linked to green shipping corridors and broader fuel-related decisions.

Challenges related to political uncertainties, policy reactions to election cycles, and regulatory barriers, such as limitations in selling biofuels to international carriers, were noted as factors influencing corridor discussions. Recommendations included the establishment of a comprehensive working group focused on green shipping corridors to promote idea-sharing, best practices, and resource collaboration among stakeholders. Additionally, the upcoming MARAD Center for Maritime Innovation was highlighted as a potential resource to provide technical assistance in advancing discussions and initiatives related to green shipping corridors.

Measurement & Operational Efficiency

What do you want to see from industry? What do you want to see from government / regulators?

Industry needs better digital twins

- Need less expensive, more readily deployable digital twins
- Need digital twins that can be customized for the maritime environment
- Improve use of digital twin data
    - Must make it easier for operators to run calculations
    - Must make it easier for operators to utilize the info from calculations
- High costs to build twins for older vessels
    - Inland vessels aren't good candidates for many alternative fuels
    - Operational efficiencies could be critical to drive reductions on inland
    - Must consider barges and towing vessels
        - Need a tool to help w/tow make-up

Industry needs consistent standards

- Industry lacks of standardization
- Industry lacks benchmarks
- This creates a ripple effect of challenges
- There are several tools available, but each has limitations
    - Must refine the tools
    - Must bring tools closer to

Industry and Government need better data

- Is Industry collecting data? Which data points?
- Is Government collecting data? Which data points?
- We must aggregate these data sets to drive industry-wide learnings and improvements.

It's a challenge to compare based on extraction point

- There are changes from hand-to-hand
- Blue water = fuel is sampled
- Brown water = fuel it is not sampled

Task / Activity:

- Provide feedback to MARAD
    - How can MARAD's tool be more useful?
- Data Mapping
    - What data do we need
    - What data is being collected
    - Identify where the data gaps are

How can we ensure that we are part of your organization's process?

- Tools exist that utilize both calculations and real-world data derived from sensors
    - Can be cost-prohibitive for entire vessel fleets
        - How to reasonably incentivize from government side?
        - Need to standardize actionable data that can be incentivized
- Industry engagement through federal advisory council does not represent all affected industries
    - Maritime has been excluded
- FACs and funding streams (through applications, management of grant programs)

  - Sometimes programs authorized by a statute limit the utilization for decarbonization
  - Need to link goals to projects and build links among programs
  - Utilize congressional levers to support establishment of statutes that better support industry

How can we move faster / reconcile organizations' timelines/restraints?

- Operational efficiency can drive faster improvements
  - How can government support operators to improve their efficiency
- Make sure incentives/policies/regulations are politically supportable/sustainable
  - If there's a business case, it's not political or politicized
  - Industry voices at agencies and on the Hill can move government decisions faster

- Business decisions are based on long-term certainty
  - Certainty such as fuel availability, technological viability, etc.

- Industry should collaborate with National Labs to expedite research and development
  - Labs can support decision-making criteria (*i.e.*, GREET model)

- Workforce development is a big gap

- It is difficult for Industry to overcome the competitiveness.
  - Need support (CBI) to facilitate information sharing.

- Everything comes back to standardization and aggregation of data.
  - We need this to identify and share best practices

Key Takeaways

There is a potential to achieve 15 to 20% greenhouse gas savings through operational efficiencies without necessitating fuel switch. This is a compelling cost-effective approach to improve decarbonization.

The conversation revolved around optimizing data collection, data aggregation, and data sharing. There was a focus on leveraging digital twins tailored for the maritime environment. Identification of data gaps among vessel operators was emphasized to facilitate industry-wide operational efficiency enhancements.

The lack of standardization and benchmarking opportunities highlighted the need to evaluate existing tools, enhance industry standards, and collaborate effectively to unlock improvement potential across the industry.

We must enhance collaboration between industry and government entities, considering the limitations in government feedback mechanisms due to statutory authorities. Industry's potential role in leveraging congressional influence to support statutory frameworks was discussed.

Efforts were made to link various government programs towards a cohesive approach, emphasizing information sharing to expedite operational efficiency enhancements. Developing specialized programs and standardizing information aggregation to identify best practices were seen as key strategies.

Challenges related to confidentiality and the balance between competition and information sharing were acknowledged. Exploring avenues within the government that offer more agility, such as national labs or research and development-focused departments, was suggested as a more dynamic approach compared to the regulatory process.

Policy, Regulatory & Incentives

What do you want to see from industry? What do you want to see from government / regulators?

Industry needs engageable technology and incentives to be faster and stronger overall.

Industry wants to see a certainty in regulations and enforcement

- There is a lack of infrastructure in, on, and off highway
- Need certainty on how clean fuels are regulated
- Regulation without enforcement will not create a level playing field
- Certainty on grid availability
- Support with utilities to achieve common goal

Industry needs clarity on leading agency

- Who is in charge?
- Industry needs clear leadership on all agencies who can implement the plan

Government / Regulators need Industry to work with the national labs

- Industry needs to work with labs on R&D
- Deeper certainty can come out of certainty on technologies

How can we ensure that we are part of your organization's process?

We should create goal-based regulations for decarbonization instead of prescriptive regulations

- This will allow flexibility for different types of vessels and operational profiles

The U.S. Coast Guard's role includes:

- Regulating the construction of ships
- Inspections
- Ensuring compliance for safety at sea
- Coast Guard's focus in the energy transition is on policy and regulation (not incentives)
- Important to keep this in mind when engaging USCG to avoid disappointing interactions

To be part of government / regulators' processes, participation and support is critical.

- Public participation
- Industry support
- Input and collaboration with other NGOs

We must engage in IMO processes

- It is important to compare US decarbonization efforts with other countries like Canada

How can we move faster / reconcile organizations' timelines/restraints?

To move faster, Industry needs incentives:

- Incentives specifically tailored for ships and vessels
- Electric ferries have had grant success, but this is small; limited to individual project.
- Industry needs long-term, durable tax incentives for Original Equipment Manufacturers (OEMs) to drive sustainability.
- Need incentives to develop and distribute alternative fuels

Infrastructure Importance:

- Focus on infrastructure significance
- Highlight the necessity of fueling and charging infrastructure beyond just the vessels themselves

- Must show infrastructure limitations impact diverse fuel options

To move faster, Industry must:
- Take a proactive role in advocating for change
- Be able to utilize biofuels
    - Biofuels are efficient method to reduce emissions in the near-term.
- Provide input to government and regulators
    - Industry has the technical expertise required
    - Industry can support government navigate the complexities in traditional maritime practices

Industry and Government must collaborate to move faster
- Federal agencies have a limited scope in regulatory affairs
- Disseminate data broadly, quickly, and effectively
    - How can we gather information on fuel developments?
- We must put effort into building bridges between stakeholders
    - Workshops
    - Without collaboration, we end up with funding focus challenges (*e.g.*, IRA)

Demonstrations are incredibly important to move forward, faster.
- Need to invest in demonstrations for competitive technology development and achieve sustainable maritime practices.
- Must explore MARAD's role in promoting maritime decarbonization within the Department of Transportation (DOT)
    - Can MARAD engage with different agencies to enhance this role?

Collaborative Approaches and Future Strategies:

- Past initiatives focused on collaboration among federal agencies and senior executives to promote joint efforts.
- Consider hosting annual forums or industry briefings
- Rotate locations for workshops, and involving hill staffers in decision-making processes.
- Send class rules to the Coast Guard for input
    - This will provide insight into technical requirements
- Sell fuel for cold ironing
    - This could benefit managing local stakeholders and ensures the investment viability.

Key Takeaways

The conversation centered around US policy formation involving various stakeholders in the maritime industry, covering ocean-going and US flagships, inland ports, and the necessary infrastructure. We delved into the origin and current status of maritime policies, considering if decisions are unilateral from the administration or influenced by industry feedback.

Collaboration between industry and governmental levels was emphasized, highlighting the significance of engaging with federal agencies and Congress to shape maritime decarbonization priorities and potential legislation.

The role of different agencies was a key point of discussion, stressing the importance of understanding their authorities, limitations, and interagency collaboration.

The workshop brought together diverse agency representatives, a rare occurrence, to facilitate informed discussions on policy shaping. Data emerged as a common necessity for informing policy decisions, with industry driving the agenda while maintaining a neutral stance on future fuel choices up to 2050 and beyond. Emphasis was placed on starting the decarbonization journey from the fuel standpoint and ensuring regulations are effectively crafted with industry input to avoid unintended consequences.

Incentives, including tax breaks, grants, loans, and essential infrastructure requirements, were highlighted for long-term planning, underscoring the need for industry expertise in shaping these initiatives. Suggestions for future workshops included potential annual or semi-annual events, possibly coinciding with maritime week, to facilitate substantive discussions among government officials and industry experts for ongoing collaboration and progress in maritime decarbonization efforts.

Technology, Infrastructure & Fuels

Biofuels and Available Technologies:

- Drop in fuels: How do we get credit and recognize the use of lower carbon fuels (Well-to-Wake)?
- Only select locations have immediate availability, and incentive gaps remain for non-compliance markets.
- "regional hubs" or "common routes" are required to make lower carbon fuels available, though many can be readily blended with traditional options.
- Affordability remains a concern for biofuels outside compliance markets.
- Including Category 3 engines for RIN qualification would help increase the use case for biofuels.
- The BTC (blender's tax credit) is also not available for ocean-going vessels and, if not extended, may expire in 2025
- The panel discussed how available zero-emissions electric technologies impact immediate operability and how hybrid solutions could help bridge the technology gap.
- Immediate biofuel usage and, in some cases, coupling with hybrid solutions can immediately drive meaningful emissions reductions.
- The ZE future state is important, but targeting grants and incentives towards technologies that make an immediate impact would be helpful.

Communication and Research Opportunity:

- We need to continue dialog around the limitations and "what would need to be true" to achieve net zero emissions between government agencies and industry.
- Collaboration helps frame research opportunities and highlights key incentive gaps.
- It's important to ensure that regulations work hand-in-hand with available technologies to achieve improvements. Gaps between regulation and execution increase costs and slow progress.

Structural Barriers to Address:

- New technologies are expensive to develop when delivered individually. Aggregating or incentivizing a "batch" vs. one-offs could help accelerate the transition.
- Operating companies assess chartering vs. buying assets due to elevated market costs for new builds, particularly when considering the introduction of new technology.
- Inland barging is often lost in the shuffle of the larger Jones Act market. Developing solutions based on categories may help organize feasible technology solutions for vessel classes vs. the more significant industry.
- Operators often preferred developing new technologies through a single integrator partner rather than piecing a solution together. The structure helps with real-world troubleshooting.

Key Takeaways

We discussed the need for a framework to incentivize emission reduction within chartering, highlighting the collaboration required between industry and government to develop guidance for this framework. The conversation touched upon ZEMBA and their efforts to create a new framework for exploring zero emission alternatives in chartering.

The discussion emphasized the importance of regulations aligning with industry capabilities, noting that pushing regulations too far ahead of available industry solutions poses challenges and timelines that are not in sync.

The government acknowledged the need for industry support to catch up, particularly in the complex maritime sector where technology options and operational nuances may not always be well understood.

Funding gaps, especially for inland and coastal maritime operations compared to deep-sea ventures, were identified as an issue. The mismatch between government and industry timelines in funding opportunities was highlighted, with suggestions to align efforts earlier to streamline processes.

Tax credits were proposed as effective incentives for emission reduction, with emphasis on remaining technology-agnostic to accommodate the diverse technological considerations underway.

Availability of renewable diesel was underscored as a current viable option, albeit with challenges in distribution, while testing and demonstrating other technologies were deemed crucial for their adoption.