

**Advice to Council No: 23-02**

**JPAC Public Forum on the Role of Ports in Fighting Climate Change**

The Joint Public Advisory Committee (JPAC) of the Commission for Environmental Cooperation (CEC) of North America:

**IN ACCORDANCE** with Article 6(4) of the [Agreement on Environmental Cooperation](#) (ECA), which states that JPAC “may provide advice to the Council on matters within the scope of this agreement, and may perform such other functions as the Council may direct”;

**HAVING** conducted a [Public Forum](#) in Halifax, Nova Scotia, Canada, on 1 December 2022 to discuss the role of ports in fighting Climate Change, including climate mitigation, green shipping corridors, zero-emission fuels and supporting infrastructure, and the environmental and social justice dimensions of ports, with invited experts from port authorities, the maritime transportation industry, NGOs, academia and governments;

**RECALLING** the CEC [2021-2025 Strategic Plan](#) and the Parties’ commitment to improve air quality and address ship pollution through the “*Clean Air, Land and Water*” and “*Preventing and Reducing Pollution in the Marine Environment*” pillars;

**RECALLING** Article 24(10) of the [CUSMA/T-MEC/USMCA](#) on the *Protection of the Marine Environment from Ship Pollution* which identifies areas of mutual interest for cooperation on pollution of the marine environment from ships, including emissions from ships;

**RECALLING** [key deliverables](#) from the 2023 North American Leaders’ Summit (NALS), including the “[recognition of] the urgency for rapid, coordinated and ambitious measures to build clean energy economies and respond to the climate crisis. At the NALS, the three leaders committed to combatting the climate crisis by: (...) Developing a North American clean hydrogen market, including potential cooperation on research and development, safety codes and standards, cross-border hydrogen clusters, green freight corridors, and integrated maritime operations;”

**RECALLING** the Clydebank Declaration for Green Shipping Corridors, signed by Canada and the United States during COP 26, which supports the establishment of at least six green shipping corridors, zero-emission maritime routes between two (or more) ports, by 2030;

**RECOGNIZING** the Parties’ collaborative efforts—through the CEC Operational Plan of 2017–2018, and more specifically under the Reducing Pollution from Maritime Transport project—to reduce emissions from the movement of goods and the maritime transportation sector;

**RECOGNIZING** that the maritime transportation sector is responsible for 3% of global GHG emissions, and that these emissions are expected to rise considerably if no significant actions are taken;

**RECOGNIZING** that the maritime transportation sector is not explicitly covered by the Paris Agreement, and that the strategy developed by the International Maritime Organization (IMO) for the reduction of GHG emissions is not aligned with the commitment to limit global warming to 1.5°C and calls for individual countries to develop strong domestic action;

**RECOGNIZING** that ports are the point of intersection between land and sea, where people live and are disproportionately impacted by local air pollution from freight transportation activities (i.e., road, rail and maritime), as well as by climate change through extreme weather events;

**RECOGNIZING** that an increasing number of actors, including port authorities, maritime transportation and energy production, storage and distribution companies, and governments, are seeking to develop local, regional and international partnerships and agreements to support and create green ports, hubs, and shipping corridors, which represent a unique and timely opportunity for trinational collaboration and cooperation in North America;

**SUBMITS** the following comments and recommendations for Council’s consideration:

Ports have played a crucial role throughout human history, facilitating the movement of people and goods, and promoting cultural and economic exchange between different regions and civilizations.

The presentations and discussions during the JPAC Public Forum highlighted best practices, issues, challenges, and potential solutions to mitigate climate change and reduce GHG emissions and other air pollutants from port-related activities, as well as the impact of port activities on local communities (see Annex 1). These included the importance of:

- Strategic collaboration and partnership across the value chain and between private and public sectors, to support the development and uptake of low and zero-emission fuels and infrastructure;
- Recognizing the crucial role that governments play in decarbonizing ports by developing policies, laws and regulations, incentives and private-public funding mechanisms to help first movers reduce risks, and investing in infrastructure;
- Considering all maritime transportation sources of pollution (e.g., ballast water, invasive species, underwater noise, etc.) when talking about green shipping corridors;
- Providing the appropriate space and mechanisms to properly engage local, Indigenous and environmental justice communities, as well as labor force and other stakeholder groups, in port activities, including port development and transition toward decarbonization;
- Educating and mobilizing the public on the topic of environmental justice.

## **Recommendation #1: Create a Permanent CEC Initiative on Ports and Climate Change**

The Public Forum highlighted the diversity of issues that can be tackled under the topic of ports and climate change, including environmental justice, Indigenous perspectives and engagement, air, soil and marine pollution, trade, decarbonization, energy transition, etc. All of these are of relevance for the CEC and could benefit from increased trilateral cooperation, whether to share knowledge and best practices on processes, legal tools, technologies, innovations, etc., between the three countries, or develop common understanding, definitions, metrics and standards at the continental level. The CEC Secretariat has historically played an important role in facilitating knowledge-sharing and capacity building, including for the freight sector, and is uniquely positioned to help lead and disseminate these initiatives at the continental scale.

- JPAC recommends that the Council create a permanent initiative on Ports and Climate Change and support projects related to the role of ports in responding to climate change and global ecological transition. This could include projects identifying and disseminating best practices on the role of ports in climate mitigation, on the electrification of port operations and associated freight activities, on zero-emission fuels, on operational and energy efficiency measures and on meaningful engagement with environmental justice and Indigenous communities in North America.

## **Recommendation #2: Create a North American Ocean-Climate Action Plan**

North American ports are strategically positioned to lead environmental initiatives that support the three countries' climate commitments. The Public Forum highlighted several impressive initiatives being developed and implemented by a wide array of actors, to increase the sustainability of ports and maritime transportation activities, as well as the wellbeing and prosperity of the communities in which they operate (e.g., ecosystem restoration initiatives, the availability of shore power systems, the purchase of vessels that use low-carbon fuels, the electrification of cargo handling equipment, the Zero-Emission Shipping Mission initiative). Invited experts also highlighted current risks facing first movers, as well as the limited availability of low and zero-emission fuels, and how governments have a crucial role to play in supporting the decarbonization of port-related operations and the maritime transportation sector. This provides an opportunity for the governments of Canada, Mexico and the United States to come together and align strategies to put North America at advantage in this transition.

- JPAC recommends that the Council support the creation of a North American Ocean-Climate Action Plan to put North America at advantage and support the development of sustainable ports.
  - Experts invited as part of the Public Forum shared potential recommendations that could be considered as part of the Action Plan including:
    - The immediate ban on the use of HFO in US and Canadian Arctic waters;

- The elimination of public funding for fossil fuel uptake at ports (e.g., LNG);
- Advancing zero-emission technology and solutions across the freight sector;
- Target zero-emissions from ships at berth by 2030;
- Target zero-emission shipping by 2040.

### **Recommendation #3: North American Agreement on the Use of Low and Zero-Emission Fuels**

During the Public Forum, invited experts confirmed the availability and maturity of low and zero-emission fuels and technologies, to reduce the emissions from port operations and the maritime transportation sector. To help reduce risk and increase the pace of the industry transition, the governments of Canada, Mexico and the United States could provide a clear signal to the industry by signing a North American Agreement on the use of low and zero-emission fuels. This agreement could also drive the transition to represent a strategic advantage for North America.

- JPAC recommends that the governments of Canada, Mexico and the United States sign a North American Agreement on the Use of Low and Zero-Emission Fuels, to support the ecological transition and the Parties' global climate commitments.

Additional recommendations shared by invited experts as part of the Public Forum are also available in Annex 2.

JPAC is confident that the recommendations contained herein are relevant to the CEC Council's strategic priorities and is unanimous in supporting this Advice to Council.

**Approved by the JPAC members  
23 February 2023**



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**Annex 1- Key Highlights from the Public Forum**



**JPAC Public Forum on the Role of Ports in Fighting Climate Change  
“Moving the needle toward industry decarbonization”  
1 December 2022 Halifax, Canada.**

**Summary Record**

**ITEM 1: Land Acknowledgment by Louie Porta and Welcoming Remarks by Richard Paul**

JPAC Chair Louie Porta began the meeting by acknowledging the ancestral and unceded territory of the Mi'kmaw nation and the seven districts of the Mi'kmaq people; Kipuktuk, which traditionally means Big Harbor, a traditional Gathering Place for thousands of years, where families came together to harvest, share their culture, and be together. He then introduced Mr. Richard Paul for welcoming remarks.

Mr. Paul welcomed everyone to the Mi'kmaw territory. He expressed the hope that the Public Forum would bring together different perspectives aimed at creating a sustainable future. As a representative of the Membertou community, he underlined the progress the community has made, becoming one of Canada's most economically thriving Indigenous communities. He highlighted their most recent project, which is electrifying their fishing vessels to reduce emissions through their commercial operations.

**ITEM 2: Opening Remarks by Louie Porta, JPAC Chair**

Mr. Porta thanked all the attendees and the organizers who had made the meeting possible. He expressed that he and his colleagues from Canada, Mexico, and the United States were pleased to be hosting the Forum in Halifax. He then presented the agenda and introduced Daniel Taillant, Executive Director of the Commission for Environmental Cooperation.

**ITEM 3: Welcoming Remarks by Jorge Daniel Taillant**

Mr. Taillant said that the CEC is a place where experiences can be shared and where governments can come together alongside civil society and Indigenous leaders to advance action. He highlighted the importance of ports in reducing emissions, and how shipping corridors can be part of the solution for addressing climate change. In conclusion, Mr. Taillant also thanked everyone for participating in the Public Forum.

**ITEM 4: Federal Address by Andy Fillmore**

Mr. Fillmore, the Parliamentary Secretary to Canada's Minister of Innovation, Science, and Industry, stated that cities have the responsibility to exercise their power and lead the way in fighting against climate change, and that ports share that power. Furthermore, the way ports are built and operated will determine if Canada meets its environmental goals. He highlighted two key areas of focus for the Government of Canada:

- The development of green hydrogen, one of the most promising opportunities for decarbonizing ports.
- International collaboration for the development of green shipping corridors. At COP 26, the government of Canada joined 22 other countries in signing the Clydebank Declaration, which seeks to establish at least six green shipping corridors by the middle of the decade.

#### **ITEM 5: Provincial Address by Timothy Halman**

Mr. Halman, Nova Scotia's Minister of Environment and Climate Change, emphasized the critical role that ports can play as the world shifts from fossil fuels to green hydrogen and electrification.

He highlighted the importance of creating opportunities for everyone, and that decarbonizing port operations is essential for Nova Scotia. He also shared that the provincial government was going to release a new climate risk assessment and climate plan for Nova Scotia, which will provide further actions and details on risks and solutions they must all embrace moving forward.

#### **ITEM 6: The Role of Ports in Climate Mitigation**

##### **Moderator:**

- **Octaviana V. Trujillo**, JPAC Chair

##### **Invited Speakers:**

- **Antonio Santos**, Federal Climate Policy Director, Pacific Environment
- **Daniel Dagenais**, Vice President, Port Performance and Sustainable Development, Port of Montreal
- **Orlando Cabrera-Rivera**, Head of Unit for Environmental Quality, Commission for Environmental Cooperation

During this panel, the speakers discussed the many social and environmental facets of port activities and their potential role in climate mitigation. The panelists mentioned the work they have been doing to reduce emissions, protect biodiversity, and reduce local impacts on local communities, and highlighted the importance of collaboration and working alongside the private and public sectors. The speakers also emphasized:

- Public policies that look after the environment and communities affected by the ports should be developed.
- The importance of governance structures and mechanisms when developing rules, policies and guidelines.
- The importance for governments to stop funding the bunkering of fossil fuels and set targets aligned with the Paris Agreement.
- Clients, shippers and major retailer companies can support the decarbonization of the supply chain by acting on the demand and requesting net zero products.

- One of the challenges for reducing emissions at ports is the availability of infrastructure for bunkering zero emission fuels.
- Private-public funding mechanisms are essential to increase the speed of port electrification, and for developing zero emission fuels infrastructures.
- Investments in air quality monitoring are necessary.
- Ports must be viewed and managed more holistically, including all related freight operations.
- The need to develop domestic green shipping corridors to support international commitments.

### **ITEM 7: Green Shipping Corridors as a Tool for Industry Decarbonization**

#### **Moderator:**

- **Louie Porta**

#### **Speakers:**

- **Salomon Diaz**, Coordinator for the Decarbonization of Ports, WWF – Mexico
- **Michael Berube**, Deputy Assistant Secretary for Sustainable Transportation, US Department of Energy
- **Brennan Sydor**, Energy and Sustainability Consultant, Arup
- **Brent Dancey**, Director of Marine Climate Action, Oceans North

During this panel, speakers discussed how green shipping corridors can act as a tool to decarbonize the maritime transportation sector, as well as the role of ports and the status of current initiatives. The panelists highlighted how port decarbonization would bring benefits to mitigate climate change and improve the health of nearby communities. Some key takeaways from the panel discussion included the importance of:

- Establishing partnerships across the supply chain.
- Engaging with different stakeholders and working alongside communities.
- Establishing regional goals and domestic commitments to decarbonize ports.
- Taking action since the technology exists.
- Investing in monitoring systems to reduce port emissions and improve air quality.
- Considering the impact of the transition on labour force.
- Considering all maritime transportation sources of pollution (e.g., ballast water, invasive species, underwater noise, etc.) when talking about green shipping corridors.
- Recognizing the crucial role that governments play in decarbonizing ports by developing policies, laws and regulations, such as zero/low carbon fuel standards, helping first movers reduce risks and investing in infrastructure.

### **ITEM 8: Zero Emission Fuels and Infrastructure**

#### **Moderator:**

- **Robert W. Varney**, JPAC member



**Speakers:**

- **Allan Gray**, President and CEO, Halifax Port Authority
- **Xiaoli Mao**, Senior Researcher, International Council on Clean Transportation
- **José Álvarez Rosas**, Environmental and Energy Sector Consultant
- **Lee Kindberg**, PhD, Head of Environment & Sustainability North America, Maersk
- **Jeff Grant**, Vice President, Transportation Solutions, HTEC

During this session, guest speakers discussed options for zero-emission fuels, their status, and potential ways to increase their uptake. The panelists mentioned the work they have been doing and highlighted the important role of governments to support the development of zero emission fuels. They also stressed that:

- Collaboration and partnerships across the value chain will be needed to support the development and uptake of low and zero emission fuels and supporting infrastructures.
- Demand for net zero products and signals from key actors have been some of the drivers behind industry taking action toward reducing their emissions. Early funding is also key.
- The future of sustainable fuels will include a combination of different fuel options depending on the networks, route and type of vessels.
- Regulations already exist around some green fuels in different countries; it is necessary to review those regulations and not overly complicate their application at a global scale.
- One of the main challenges in decarbonizing the maritime transportation industry is the availability of zero emission fuels. A new ecosystem supporting fuel supply needs to be developed.
- The role of the government is to become a facilitator, to apply transparent and practical regulations that will incentivize the use of new fuels and technologies. If regulations are not mandatory, then incentives should be applied.
- Global metrics should be developed to ensure the consistency of targets and goals for green shipping corridors.
- When fuels are being developed, it is essential to make sure the developers adhere to the standard and consider the life cycle of the fuels.

**ITEM 9: Report from the National and Governmental Advisory Committee Representatives on the Role of Ports in Fighting Climate Change, by Andy Carey and Marina Brock**

Mr. Andy Carey, NAC Chair, shared information on development efforts in the border region between the United States and Mexico:

- The demands for the water supply are increasing and are having ever more significant impacts, economically and environmentally.
- Collaborative work between Mexico and the United States can help resolve some long-standing challenges around the San Diego–Tijuana River regarding groundwater management.

## **ITEM 10: Environmental and Social Justice Dimensions of Ports**

### **Moderator:**

- **Esteban Escamilla Prado**, JPAC member

### **Speakers:**

- **Sabaa Khan**, Director General, Quebec and Atlantic Canada, David Suzuki Foundation
- **Heather Kryczka**, Staff Attorney, Environment, Equity & Justice Center, Natural Resources Defense Council (NRDC)
- **Heather Tomley**, Managing Director of Planning and Environmental Affairs, Port of Long Beach
- **Andrew Rhodes Espinoza**, Ocean Coordinator, Undersecretariat for Multilateral Affairs and Human Rights, Secretariat of External Affairs of Mexico

During this session, invited speakers discussed how ports and local stakeholders can work together to increase the well-being and prosperity of their communities. The invited panelists started by mentioning their essential work on local environmental justice projects, and the importance of adapting laws around this topic. They highlighted the following:

- The right to a healthy environment must be recognized.
- Educate and mobilize the public on the topic of environmental justice.
- Consider the local impact of port operations and associated freight activities, and put port facilities at a safe distance from where people live and go to work.
- Access to information (e.g., location of facilities).
- Respect Indigenous Peoples' right to free, prior, and informed consent.
- Provide appropriate space and mechanisms to properly engage local, Indigenous and environmental justice communities.
- Address global and local public health and regional air quality impacts; reinforce environmental health protection standards.

## **ITEM 11: Overview of SEM Process and Dialogue by Paolo Solano**

Mr. Paolo Solano, CEC Director of Legal Affairs and Submissions on Enforcement Matters (SEM), introduced the SEM process and the key elements that must be included in a submission, and then provided an overview of current active submissions.

## **ITEM 12: Public Engagement**

During this session, JPAC members opened the floor for members of the public, participating in-person or virtually, to provide input on the Public Forum's theme. Some of the comments are as follows:

- Indigenous voices must be at the table.
- The importance of considering the cumulative effect of port operations.
- Port expansion should be mindful of surrounding communities.
- Green leases are another tool to support the decarbonization of ports.



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- The importance of addressing the concept of green corridors ecologically.
- Stronger regulations are required.
- Heavy Fuel Oils (HFO) need to be banned immediately.
- It is essential to consider all the species affected by maritime corridors.

**ITEM 13: Closing Session by JPAC members**

JPAC members thanked the public for their participation. They emphasized the importance of dialogue with all stakeholders in generating new ideas and moving toward a more sustainable future. They noted that it is vital to involve local and Indigenous communities in this issue and to foster cooperation among the three countries.

## Annex 2- Recommendations Shared by Invited Experts

### Recommendations from Pacific Environment:

We recommend that the governments of Canada, Mexico, and the U.S.:

- Align on trilateral ambition on 1.5°C-aligned climate targets for maritime shipping, specifically committing to pursue zero-emission shipping by 2040.
- Align on 100% zero emissions from ships at berth by 2030, modeling national policies off of California's At Berth regulation (<https://ww2.arb.ca.gov/our-work/programs/ocean-going-vessels-berth-regulation>) as needed.
- Align on stopping short-lived climate pollutants in maritime shipping, specifically stopping fossil fuel (e.g., LNG) uptake in maritime shipping and build out at North American ports.
- Ships burning heavy fuel oil (HFO) produce black carbon. This short-lived climate pollutant heats the atmosphere and increases the rate of loss of glacier and sea ice. The IMO ban in 2021 on the use of HFO is insufficient, allowing some ships to use HFO until 2029. Given the U.S. and Canada's current ambitions on climate change, they must move faster. We recommend an immediate ban on the use of HFO in U.S. and Canadian Arctic waters. (For additional background, see: <https://policyoptions.irpp.org/magazines/april-2021/ban-on-heavy-fuel-oil-in-the-arctic-is-too-weak/>.)

## Recommendations from the World Wildlife Fund (WWF)-Mexico

### Inventarios de emisiones

1. Elaborar y publicar un inventario integral, actual y accesible sobre las emisiones de los puertos y del transporte marítimo tanto doméstico como internacional (INECC, SEMAR).
2. Definir una metodología nacional estandarizada y homologada entre puertos para el cálculo de las emisiones domésticas e internacionales (INECC, SEMAR).
3. Actualizar y hacer pública la información del RENE, RETC (SEMARNAT) y ASIPONAS (SEMAR) sobre las emisiones de las empresas portuarias y del transporte marítimo.
4. Actualizar los datos de los impactos ambientales y a la salud por la contaminación marítima (SEMAR, SSA).

Lo anterior, es indispensable para dimensionar integralmente las emisiones de GEI marítimas y portuarias y formular e implementar la normatividad y las políticas públicas de descarbonización en esos sectores, sobre todo por la tendencia al crecimiento de los puertos y rutas marítimas.

### Instrumentos Normativos

5. Incluir objetivos y estrategias de descarbonización en instrumentos de política nacional:
  - Estrategias, Programas y otros instrumentos sobre Cambio Climático (SEMARNAT)
  - Estrategias y Programas de Calidad del Aire (SEMARNAT).
  - Política Nacional para el Manejo Sustentable de Mares y Costas de México (SEMAR, CIMARES)
  - Política Marítima Nacional (SEMAR)
  - Estrategia de Implementación de la Economía Oceánica Sostenible (SRE)
6. Actualizar Reglas de Operación y Programas Maestros de Desarrollo Portuario para incluir la obligación de publicar periódicamente el inventario de sus emisiones, así como también establecer objetivos y estrategias de descarbonización (SEMAR, ASIPONAS).
7. Ratificar del Anexo VI del Convenio Marpol (SRE, SEMAR, SEMARNAT, SENER).
8. Emitir normas sobre la emisión de gases de efecto invernadero para puertos y transporte marítimo (SEMARNAT).
9. Implementar la Estrategia Inicial y las resoluciones de la OMI relacionadas con emisiones atmosféricas del transporte marítimo (SEMAR).
10. Asegurar que los proyectos de expansión de puertos y rutas marítimas (Dos Bocas, Corredor Interoceánico, Veracruz, Manzanillo) incluyan objetivos y estrategias de descarbonización (SEMAR y promoventes de los proyectos).
11. Fomentar la inclusión del tema de descarbonización marítima en espacios de coordinación nacionales y subnacionales (CIMARES, CICC, Comités y Consejos Estatales).
12. Asignar financiamiento para la investigación de medidas efectivas de descarbonización (CONACYT, SEMAR, SEMARNAT) e incentivos y beneficios fiscales y económicos para las empresas que implementan medidas de descarbonización (SEMAR, SHCP, SAT, Aduanas).
13. Sumar a más empresas portuarias y navieras para que adquieran el reconocimiento de empresas y puertos limpios (PROFEPA).

## Capacidades y alianzas locales y regionales

14. Fortalecer las capacidades de las comunidades aledañas a los puertos para que tengan acceso a la información de las emisiones y cuenten con presencia e incidencia en mecanismos de coordinación relacionados con puertos y transporte marítimo (Organizaciones Locales, ASIPONAS).
15. Solicitar capacitación y entrenamiento a la OMI para la implementación de la Estrategia Inicial y sus guías y cajas de herramientas para reducir las emisiones de gases de efecto invernadero<sup>1</sup> (SEMAR, SER, SEMARNAT).
16. Promover campañas de concientización sobre la importancia de reducir emisiones y contribuir al combate al cambio climático y al mejoramiento de la salud de las comunidades portuarias (SEMAR, SEMARNAT, SSA).
17. Adherirse a iniciativas internacionales (SRE, SEMAR), como:
  - Green Shipping [Challenge](#), para descarbonizar el transporte marítimo lanzado en la COP27
  - [Declaración](#) Clydebank sobre [corredores](#) Marítimos Verdes (COPCC26)
  - [Declaración](#) sobre emisiones marítimas cero en 2050 (COPCC26).
  - [Puertos](#) para la Gente para descarbonizar los puertos del Pacífico
  - [Llamado](#) a la Acción para la Descarbonización Marítima de la Alianza Getting to Zero

## Energía Renovable

18. Reemplazar la producción y el abastecimiento de combustible fósil por combustible cero emisiones (SENER).
19. Eliminar gradualmente el uso de combustibles fósiles y transitar a emisiones netas cero de gases de efecto invernadero (SENER, SEMAR).
20. Fomentar el uso de energías renovables en los puertos y transporte marítimo (SEMARNAT, SENER, SEMAR).
21. Desalentar cualquier nueva infraestructura portuaria o proyectos de transporte marítimo que utilicen combustibles fósiles (SEMAR, SENER).
22. Implementar las medidas recomendadas en los estudios “Mexico: fuelling the future of shipping” (GZC, 2021) y la transición energética del transporte marítimo: Oportunidades estratégicas en México (GZC, 2022)<sup>2</sup>, elaborados por el Foro Marítimo Mundial y la coalición “Getting to Zero”<sup>3</sup> (SEMAR, SEMARNAT, SENER).

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<sup>1</sup> <https://greenvoyage2050.imo.org/download-publications/>

<sup>2</sup> <https://www.globalmaritimeforum.org/press/with-quick-and-strategic-action-mexico-can-become-a-competitive-producer-and-exporter-of-zero-emission-fuels>

<sup>3</sup> Getting to Zero Coalition es una alianza de más de 150 empresas de los sectores marítimo, energético, infraestructura y financiero, con el apoyo de gobiernos clave y organizaciones intergubernamentales. La Coalición se compromete a poner en funcionamiento buques comercialmente viables en aguas profundas con cero emisiones, propulsados por combustibles de cero emisiones para 2030.

[https://www.ucl.ac.uk/bartlett/energy/sites/bartlett\\_energy/files/p4g-getting\\_to\\_zero\\_coalition\\_mexico\\_report.pdf](https://www.ucl.ac.uk/bartlett/energy/sites/bartlett_energy/files/p4g-getting_to_zero_coalition_mexico_report.pdf)

### Medidas operativas y de eficiencia energética

23. Implementación de medidas operativas y de eficiencia energética recomendadas por la OMI y otros organismos internacionales (SEMAR, SEMARNAT, SRE)
24. Modernizar, cambiar o electrificar equipo de carga y embarcaciones más pequeñas (por ejemplo, remolcadores, transbordadores, etc.) (SEMAR, ASIPONAS, prestadores de servicios de puertos).
25. Empezar nuevos proyectos de infraestructura relacionados con puertos y el transporte marítimo cero emisiones (SEMAR, ASIPONAS, prestadores de servicios de puertos).
26. Analizar e implementar medidas y acciones de eficiencia energética y operativa en los puertos y transporte marítimo, como por ejemplo el “Justo a Tiempo” (SENER, SEMAR).
27. Exigir cero emisiones a todos los buques atracados o fondeados en puertos de México, considerando las fechas comprometidas internacionalmente (SEMAR, ASIPO).



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Letters of recommendations shared by the Moving Forward Network (MFN)





October 26, 2021

The Honorable Michael Regan, Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue  
N.W. Mail code 1101A  
Washington, DC 20460  
Email: [Regan.Michael@epa.gov](mailto:Regan.Michael@epa.gov)

Cc: Joseph Goffman, Acting Assistant Administrator, Office of Air and Radiation (OAR)  
Sarah Dunham, Director, Office of Transportation and Air Quality (OTAQ)  
Alejandra Nunez, Deputy Assistant Administrator for Mobile Sources, Office of Air and Radiation (OAR)  
Bill Charmley, Director Assessment and Standards Division, Office of Transportation and Air Quality (OTAQ)  
Matthew Tejada, Director, Office of Environmental Justice

Dear Mr. Regan:

The Moving Forward Network (MFN)<sup>1</sup> writes the following to the U.S. Environmental Protection Agency (EPA) to present the need for EPA to prioritize environmental justice in freight impacted communities by aggressively advancing zero-emission technology and solutions across the freight sector. We appreciate the EPA's commitment to meet with EJ and grassroot organizations and communities. However, this letter highlights the critical need for immediate actions to be taken in conjunction with these meetings. With people's health and environment on the line, the EPA must move a Zero Emissions agenda, which crosses the freight sector and prioritizes environmental justice. The global freight transportation system is one of the largest sources of pollution across the country. Freight transportation relies on thousands of diesel trucks, locomotives, cargo handling equipment, and ships, aimed at moving huge volumes of goods from places of manufacturing to distribution e.g. warehouses, to places of consumption, i.e. the market, small business, etc. Presently this system contributes to significant amounts of localized pollution in areas that

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<sup>1</sup> The Moving Forward Network (MFN) is a national network of organizations that center grassroots, frontline knowledge, expertise, and engagement with the communities across the US that bear negative impacts of the global freight transportation system. In collaboration with allies and partners, MFN identifies local solutions that call for community, industry, labor, government, and political action that advances equity, environmental justice, and a zero-emissions focused just transition. MFN's vision is to see that negatively burdened communities become healthy, sustainable places by reducing and ultimately eliminating the negative impacts of that system. MFN is deeply committed to advancing environmental justice, equity, economic justice, and a just transition.

are already overburdened by other sources of pollution. All of which generates a significant amount of pollution that contributes to an ongoing health crisis in environmental justice communities and the climate crisis across the globe.

## **Introduction**

Over a decade ago, EPA recognized that more than 13 million people (3.5 million of whom are children) live near major marine and inland ports or rail yards, and that these individuals are disproportionately low-income communities of color and susceptible to increased health risks from air pollution.<sup>2</sup> These figures do not include the approximately 45 million individuals who live within 300 feet of a highway<sup>3</sup> or close to large distribution centers where diesel emission sources congregate. These problems persist today with a rapidly growing freight system, an expanding network of warehouses and last-mile logistics centers, and constantly increasing throughput volumes at our ports and railyards. The result is that, even as technology has allowed for reducing emissions from trucks and other freight-moving equipment, increases in activity have outpaced the gains achieved by EPA rules that have not been amended in over a decade.

President Biden's January 27, 2021 Executive Order on Tackling Climate Change at Home and Abroad directs agencies to "make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts." To fulfill that mission, EPA must include reducing freight-related air pollution as a top priority for the Agency.

This letter outlines specific actions EPA must advance to finally provide relief to freight-impacted communities. These policies, rules, programs, outlined below must include guaranteed emission reductions in environmental justice communities. In addition, the Moving Forward Network looks forward to working with EPA to facilitate collaboration with community partners as a key part of this effort. EPA should foster action oriented, regular meetings in each region with environmental justice communities adversely affected by freight-related air pollution, and identify short- and long-term goals/policies/programs that address the unique needs of each community while aiming to clean-up the freight system as a whole.

### **I. Federal Rules**

EPA must prioritize using its rulemaking authority under the Clean Air Act to address freight-related sources of pollution. Rules send the necessary signal to the market that a transition to zero-emissions must occur. Yet many of these sources are protected from state and local controls by federal preemption. EPA regulations are thus critical in advancing technology and protecting overburdened communities. Moreover, many of EPA's rules on the freight sector have not been amended for decades, and the most

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<sup>2</sup> Office of Transportation and Air Quality (OTAQ), U.S. Environmental Protection Agency (EPA), *Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression Ignition Engines Less than 30 Liters Per Cylinder*, EPA420, pp. 2-57 (March 2008). Available at: <http://www.regulations.gov/#!documentDetail:D=EPAHQ-OAR-2003-0190-0938>.

<sup>3</sup> See Office of Transportation and Air Quality (OTAQ), EPA, *Near Roadway Air Pollution and Health* (May 22, 2015). Available at: <http://www.epa.gov/otaq/nearroadway.htm>.

stringent standards imposed by those rules no longer require the emission reductions that could be achieved using modern technologies. EPA must quickly move forward with new federal rules for all of the following, and at every regulatory opportunity, EPA must include mandates that rapidly advance zero-emission solutions.

### A. Heavy-Duty Truck Standards

Advancements in zero-emission truck technology are enabling more dramatic progress to tackle pollution. We understand that EPA has traditionally considered zero-emission technologies as part of the solution for reducing greenhouse gas emissions, but EPA must also incorporate these feasible controls in strategies for reducing all emissions, including criteria pollutants like nitrogen oxides and particulate matter. The rapid development of zero-emission technologies warrants a fresh approach to overhauling the fossil-fueled freight system. It is no longer adequate to focus solely on incrementally cleaning combustion vehicles. Thanks to improving zero-emission technology, pollution from trucks can not only be lowered but eliminated. Zero-emission trucks are commercially available,<sup>4</sup> economically compelling,<sup>5</sup> and the single most effective solution for reducing freight emissions.<sup>6</sup> Advances in this technology are outpacing even the best estimates from just a few years ago—cost and technology assessments of battery-electric trucks from 2018 are already becoming obsolete.<sup>7</sup> The barriers that once relegated zero-emission trucks to be considered a niche solution are shrinking, allowing zero-emission trucks to become the centerpiece in our battle against air and climate pollution. At every regulatory opportunity, EPA must include policies that rapidly advance zero-emissions not just in certain market segments but for the entire truck sector.

EPA's forthcoming NOx standards for heavy-duty trucks starting in MY2027 is the first unmissable opportunity to drive this transition. As part of that upcoming rulemaking, President Biden's August 5, 2021 Executive Order on Strengthening American Leadership in Clean Cars and Trucks directs EPA to "consider[] the role that zero-emission heavy-duty vehicles might have in reducing emissions from certain market segments."<sup>8</sup> Now is the time to hasten the transition to zero-emission trucks and buses, and EPA has one of the best opportunities to do so by setting stringent emissions standards that include both limits on NOx emissions and escalating zero-emission sales mandates that provide a clear signal for manufacturers to chart a path toward zero-emissions. At a minimum, the federal government should require that all new trucks must have zero emissions beginning in 2035, with intermediate targets before

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<sup>4</sup> See MJ Bradley & Associates, Medium- & Heavy-Duty Vehicles (July 2021)

<http://blogs.edf.org/climate411/files/2021/08/EDFMHDVEVFeasibilityReport22jul21.pdf>.

<sup>5</sup> See Amol Phadke et al, Why Regional and Long-Haul Trucks are Primed for Electrification Now (Mar. 2021)

[https://eta-publications.lbl.gov/sites/default/files/updated\\_5\\_final\\_ehdv\\_report\\_033121.pdf](https://eta-publications.lbl.gov/sites/default/files/updated_5_final_ehdv_report_033121.pdf).

<sup>6</sup> OECD, International Transport Forum, Transport Outlook - 2019, at 157

[https://doi.org/10.1787/transp\\_outlook-en-2019-en](https://doi.org/10.1787/transp_outlook-en-2019-en) stating "[s]caling up decarbonisation measures for road freight transport that have already been tested and are comparatively easy to introduce is one of the most immediate actions required."

<sup>7</sup> See, e.g. estimates from the ICCT, which have already been surpassed several years ahead of schedule

[https://theicct.org/sites/default/files/publications/Zero-emission-freight-trucks\\_ICCT-white-paper\\_26092017\\_vF.pdf](https://theicct.org/sites/default/files/publications/Zero-emission-freight-trucks_ICCT-white-paper_26092017_vF.pdf)

<sup>8</sup>

<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/08/05/executive-order-on-strengthening-american-leadership-in-clean-cars-and-trucks/>

then. EPA needs to ensure that the new NO<sub>x</sub> standard is implemented across the country and that the rule ramps up zero-emission technology requirements for all types of trucks and buses.

First and foremost we cannot afford to delay. EPA must complete the NO<sub>x</sub> and GHG rules in 2022. Further, EPA's medium- and heavy-duty vehicle emission standards must be additive to and not preempt state policies. Additional policies should be adopted as soon as possible to accelerate the retirement of all combustion trucks on or before 2045, and to quickly build out the infrastructure and operational environment to facilitate this transition without impacting drivers in environmental justice communities. Many of these policies fall under EPA's purview, however some, like prioritizing the conversion of the oldest trucks on the road, which are often operated by misclassified drivers, may require exercise of President Biden's whole of government/interagency approach.

In setting these standards across the freight sector, EPA must consider environmental justice impacts and priorities "from source to tailpipe to grave."<sup>9</sup> This means thinking through the unintended consequences of regulatory design. For example, regulations must avoid promoting false solutions, (e.g., carbon trading and/or "greenwashed" energy that comes from non-renewable and heavy-polluting sources such as natural gas, biomass, etc.), that will only lead to further burdening our environmental justice communities. Standards that focus solely on reducing or eliminating carbon, rather than eliminating all combustion emissions, can allow these false solutions to continue through offsets and other accounting games that concentrate emissions in the most impacted communities. At the same time, transportation electrification must be accompanied by standards and regulations around renewable electricity generation, i.e. wind and solar,<sup>10</sup> that will not further burden environmental justice communities. Decisions on siting the new electricity infrastructure must be coordinated with environmental justice leaders, address cumulative impacts and support mandatory emissions reductions.

## **B. Locomotives and Railyards**

EPA also needs to take immediate action to clean up the nation's incredibly polluting freight rail industry. Children, families, and workers live near railyards and freight rail routes where some of the dirtiest switcher and line-haul locomotives belch diesel particulate matter each day, sometimes just feet from homes, schools, and workplaces. Communities have had to pay for the rail industry's pollution with their health for decades, and continue to suffer devastating short- and long-term health consequences from exposure to diesel pollution.

We ask that EPA adopt a much-needed rulemaking by the end of 2022 to address the public health dirty air crisis caused by locomotive pollution. EPA should include a Tier 5 zero-emission locomotive standard for all new freight locomotives that requires 100% of all new switchers be zero-emission by 2025, and 100% of all new line-hauls be zero-emission by 2030. We also ask that EPA set significantly more stringent emission standards for all remanufactured locomotives and locomotive engines, so that 100% of

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<sup>9</sup> "To grave" means that how and where waste from the ZE technology as well as the diesel vehicles that will no longer be in use must consider the waste stream in the planning and implementation of ZE policies and programs.

<sup>10</sup>Renewable energy may have many definitions based on the source of energy. MFN considers solar and wind to be renewable energy. However, there are important EJ and equity implications that come from these "cleaner" energy sources (i.e siting, manufacturing, shipping, etc). All of these must be considered with EJ leadership before endorsing specific renewable energy recommendations.

all remanufactured switchers meet the Tier 4 standard by 2025, and 100% of all line-haul locomotives meet the Tier 4 standard by 2027. EPA should require the forced retirement of any locomotives or locomotive engines that do not meet a zero-emission Tier 5 standard by 2045. In addition, EPA should work with our organizations to create a strategy to eliminate pollution burdens from concentrated railyard operations that pose significant health and safety risks, including but not limited to pollution and impacts from the operation of locomotive maintenance facilities, locomotive parking/idling and supporting warehouses, throughout EJ communities and railyard maintenance facilities.

### **C. Marine Vessels**

Marine vessels are one of the largest contributors of cancer-causing pollutants around seaports and inland waterways. Ships and boats that operate along our coastlines and in our lakes still operate on dirty diesel engines and are responsible for a significant amount of diesel particulate matter exposure in portside communities. To address the health risks associated with marine vessels, we recommend that EPA adopt a rulemaking by the end of 2022 that will maximize zero-emission requirements for marine engines.

Specifically, EPA should include a Tier 5 zero-emission standard that will require 100% of new marine engines to be zero-emission by 2035. EPA should also require all remanufactured marine diesel engines to meet the Tier 4 standard by 2025 and the retirement of any marine engines that do not meet the zero-emission standard by no later than 2045.

To support the shift towards zero-emission vessel operations, EPA should continue to provide grants for the installation of shore power infrastructure and ship emission capture systems to reduce at-berth emissions. In fact, EPA should direct all Regional Administrators to work with local state and port officials to incorporate shoreside power and ship emission capture standards into their State Implementation Plans. We also encourage EPA to require all ships at-berth in U.S. ports emit zero emissions under the United States' port state control authority. Finally, because EPA's domestic regulations only apply to U.S. vessels, we urge EPA to push its federal colleagues at the U.S. Coast Guard, National Oceanic and Atmospheric Administration, and the Department of State to push for strong international standards and other strategies to clean up toxic hotspots near seaports at the International Maritime Organization.

### **D. Cargo Handling Equipment**

Cargo handling equipment (e.g. forklifts, loaders, gantry cranes, tractor trucks, and yard hostlers) is an ineffectively regulated major source of pollution in port-adjacent communities. These pieces of equipment are regulated under EPA's nonroad engine rule, which has not been amended since 2004 and has failed to adequately reduce their pollution. Like freight trucks, this equipment is ripe for electrification--it does not travel beyond the port, rail yard or warehouse, and can be recharged on site or operated with a permanent electrical connection. Ports around the globe have already demonstrated many examples of this zero-emission equipment.<sup>11</sup> The Clean Air Act directs EPA, from time to time, to revise the standards for

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<sup>11</sup> Electric yard cranes have entered service at the Port of Long Beach, a fleet of electric forklifts runs on on-site renewable energy at the Port of Hull in the United Kingdom, and rubber tire gantry cranes are in operation at the Port of Montevideo in Uruguay.

nonroad engines and vehicles to achieve the greatest degree of emission reductions achievable. It is beyond time for EPA to revise these standards and include zero-emission mandates for cargo handling equipment. By 2023, EPA should adopt new nonroad standards for port, warehouse, and railyard cargo handling equipment that achieves 100 percent zero-emission equipment by no later than 2026,<sup>12</sup> which is the date that the largest port complex in the U.S. also plans to achieve zero-emissions.<sup>131415</sup>

### **E. Indirect Source Review Rules**

The rapid and unchecked growth in warehousing has created toxic hotspots around the country well beyond the traditional ports and railyards that have been the focus of freight regulations. EPA must use its authority to address this growing problem. In addition to directly regulating mobile sources with new federal standards, EPA should also support the electrification of freight operations by exercising its authority to adopt regulations on freight facilities that “indirectly” contribute to pollution hotspots by concentrating mobile source emissions. Indirect source<sup>16</sup> requirements can support transportation electrification by encouraging zero-emission operational strategies for moving freight, and ensuring magnet sources have the infrastructure necessary to support zero-emission trucks and equipment.<sup>17</sup> Because of the expansive nature of warehouses across the country and lack of regulations protecting the health and safety of frontline communities, the timeline for EPA to move an indirect source rule and review process for warehouses needs to be aggressive with targeted goals and accountability structures that begin immediately.

EPA has authority to regulate “major federally assisted” indirect sources as part of a federal implementation plan.<sup>18</sup> EPA has used federal implementation plans to address regional NOx pollution from power plants, and should include federal indirect source rules as part of future federal NOx plans. These federal rules can serve as a model for states wishing to address these NOx sources, or provide a backstop for those states unable or unwilling to regulate these sources.

## **II. Support State and Local Freight Controls**

In addition to adopting the federal regulatory measures outlined above, EPA must also support state and local actions to address freight pollution in areas that violate the national ambient air quality standards, create toxic “hot spots,” and/or increase inequities in pollution burdens. The following are

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<sup>12</sup> California Air Resources Board, Cargo Handling Equipment Regulation to Transition to Zero-Emissions (Description of Approach),

<https://ww2.arb.ca.gov/resources/documents/cargo-handling-equipment-regulation-transition-zero-emissions>

<sup>13</sup> <https://ww2.arb.ca.gov/ou.r-work/programs/cargo-handling-equipment>

<sup>14</sup> CARB, Cargo Handling Equipment: 2011 Regulatory Amendments, <https://ww2.arb.ca.gov/sites/default/files/2020-07/chefactsheet121813.pdf>

<sup>15</sup> <https://ww2.arb.ca.gov/resources/documents/cargo-handling-equipment-regulation-transition-zero-emissions>

<sup>16</sup> See 42 U.S.C. § 7410(a)(5)(C) (defining “indirect source”)

<sup>17</sup> The South Coast Air Quality Management District recently adopted a warehouse indirect source rule that promises to cut pollution from the trucks traveling to and from warehouses, electrify warehouses, and create local clean energy jobs. Allyn Stern et al, “South Coast AQMD Adopts Warehouse Indirect Source Rule, First Reporting Months Away,” *National Law Review* (May 18, 2021)

<sup>18</sup> 42 U.S.C. § 7410(a)(5)(B)

recommendations on steps EPA should take to bring necessary attention and resources to the environmental justice priorities around freight facilities.

### **A. Direct States to Quantify the Problem**

First and foremost the EPA needs to be applying its authority to ensure that all states are submitting state implementations plans and meeting air quality standards. The Clean Air Act includes very specific deadlines for the adoption of plans and rules, for demonstrating progress in reducing emissions and achieving attainment,<sup>19</sup> but EPA often must be sued by community groups to enforce these deadlines. EPA must commit to fulfilling its mandatory duties to make the air planning process meaningful. By the end of 2021, EPA should make a publicly available list of those states and air quality control regions with upcoming and outstanding SIP obligations. This list should include the timeline for when states are responsible for submitting plan requirements and when EPA must act on those submittals. For those states that are out of compliance, EPA should be imposing sanctions and adopting federal plans as required by the Clean Air Act to ensure compliance.<sup>20</sup> As the 2009 NEJAC recommendations highlighted, there is a basic need to identify facilities of concern and engage the communities around those facilities in formulating solutions. Unfortunately, the current approach to state implementation planning does not facilitate that sort of facility-based assessment because emissions inventories typically quantify the emissions from various categories of sources including heavy-duty trucks and locomotives without providing information on how those emissions are aggregated at freight hubs. EPA has authority to revise how inventories are prepared in order “to assure the [nonattainment plan] requirements . . . are met.”<sup>21</sup> EPA should require States to report the emissions from freight facilities in order to allow communities to understand the pollution and health risks created by freight operations, and devise and advocate for control measures and solutions to address the problem.

### **B. Provide Guidance on Control Options Available to State and Local Authorities**

To date, EPA has provided little to no guidance on current options for mobile source measures that could be adopted by state and local agencies responsible for addressing air pollution, even though the failure to consider these types of measures has been found to be a violation of the Clean Air Act.<sup>22</sup> Too often, state and local air districts assume that because the sources of emissions at freight facilities are mobile sources subject to federal preemption protections, state or local agencies have no authority at all to regulate these sources.<sup>23</sup> The reality is that state and local agencies have a number of tools available to them to control pollution from freight sources, and EPA should issue guidance to assist states in their evaluation of

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<sup>19</sup> See, e.g., 42 U.S.C. §§ 7410, 75027505a, 7509, 7511a, 7513, and 7513a.

<sup>20</sup> See, e.g., 42 U.S.C. §§ 7410(c), (k), (m), and 7509.

<sup>21</sup> 42 U.S.C. § 7502(c)(3)

<sup>22</sup> See *Sierra Club v. EPA*, 294 F.3d 155, 162-63 (D.C. Cir. 2002) (vacating EPA approval of plan for D.C. area based on failure to consider measures such as retrofitting trucks and buses and controlling airport ground support equipment); see also Memorandum from Roger Strelow, Asst. Admin Air and Waste Mgmt., EPA to EPA Regional Administrator (Dec. 9, 1976) (explaining that fulfilling the Act’s reasonably available control measure requirement requires consideration of area and mobile sources controls as well controls on stationary sources); 80 Fed. Reg. 15340, 15371 (Mar. 23, 2015) (proposed PM2.5 implementation rule).

<sup>23</sup> See, e.g., 42 U.S.C. § 7543(a) and (e).

available options including: regulations on the use of existing engines and vehicles<sup>24</sup> indirect source review requirements on facilities that attract mobile sources,<sup>25</sup> and public fleet purchase requirements.<sup>26</sup> Finally, while states are generally precluded from adopting standards for new engines and vehicles that are more stringent than federal standards, California is not, and states with nonattainment plans are free to adopt standards that are identical to the California standards.<sup>27</sup> As part of EPA's guidance, EPA should encourage states where freight sources are important contributors to violations of the national standards to adopt mobile source measures that California, and EPA (through its preemption waiver approval), have deemed feasible.

### **C. Develop Incentive Funding Strategies to Target Freight Sources**

EPA must develop a more targeted strategy for awarding federal funds to promote zero-emission technologies in freight operations. Funding should only support zero-emission projects and be targeted to applicants that meet strict criteria, including for example, ports with facility-specific emissions inventories that are publicly available and meet meaningful health risk and emission reduction goals, mandate community and environmental justice participation. Finally, funding programs must be coupled with regulatory requirements to provide clear market signals.

### **Enforce Civil Rights Obligations on Entities Receiving Federal Funds**

EPA should also ensure that federal funding recipients are complying with civil rights obligations and are not approving or otherwise enabling freight projects that create disproportionate impacts on communities of color. It can do so by, for example, weighing-in on local decision-making processes to emphasize the importance of EJ assessments for freight facilities that evaluate impacts to air quality in the immediate community compared to air quality impacts in other parts of the city/municipality, along with more comprehensive evaluation of cumulative environmental burdens and disparities consistent with a "cumulative impacts" framework. Coordination with the U.S. Department of Transportation and other federal agencies with freight responsibilities to these ends is also necessary and called for by President Biden's government-wide commitment to achieve environmental justice.<sup>28</sup>

## **III. Conclusion**

Environmental justice communities are disproportionately impacted by the pollution and effects of climate change that comes from the freight sector. The effects of climate change nationally can already be seen in an increase in extreme weather events, rising sea level, higher temperatures, and prolonged heatwaves. The window within which society as a whole can take action to avoid the worst effects of climate change is rapidly closing. Preventing the consequences of climate change will require drastic changes in energy production, use, and consumption. To effectively implement the necessary considerations there needs to be collaboration between the EPA, other regulatory departments,

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<sup>24</sup> see *id.*

<sup>25</sup> *id.* § 7410(a)(5)

<sup>26</sup> See *Engine Mfrs. Ass'n v. South Coast Air Quality Management Dist.*, 498 F.3d 1031, 1045-49 (2007)

<sup>27</sup> 42 U.S.C. §§ 7507 and 7543(e)(2)(B)

<sup>28</sup> [https://legacy-assets.eenews.net/open\\_files/assets/2021/02/02/document\\_gw\\_03.pdf](https://legacy-assets.eenews.net/open_files/assets/2021/02/02/document_gw_03.pdf)



environmental justice communities and frontline workers. The concerns and recommendations shared in this letter are not meant to be an exhaustive list but to illustrate the breadth to which the freight sector should be addressed. EJ communities are bearing the public health and environmental burdens from this ever expanding freight sector. MFN is calling upon the EPA to be a leader in prioritizing and implementing actionable policies and programs that center equity and justice while moving Zero Emission solutions now.

Thank you for your consideration. We look forward to hearing from you. If you have any questions or would like to schedule a follow up meeting please contact, Angelo Logan at [alogan@oxy.edu](mailto:alogan@oxy.edu) and Molly Greenberg at [greenbergm@oxy.edu](mailto:greenbergm@oxy.edu).

Sincerely,

**The Moving Forward Network Advisory Board and Staff**

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November 17, 2022

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Re: Zero Emission in Freight Year in Review from 10/26/2022 Letter Submitted by MFN

Dear Administrator Regan:

A year ago, the Moving Forward Network<sup>1</sup> sent the U.S. Environmental Protection Agency (EPA) a letter demanding the Agency address the cumulative impacts from the freight sector.<sup>2</sup> Now, one year later, the Moving Forward Network is sending a renewed request due to little progress at EPA. We remain committed to working with the Agency to address the deadly pollution caused by the global freight system. We know the EPA has made efforts to address the myriad impacts cumulatively hitting ours and other environmental justice (EJ) communities across the country. Nevertheless, the urgency to do more to address freight-related pollution and freight-related burdens from both inland and seaports is ever growing and critical, especially as this sector continues to expand in its impacts. We urge EPA to reflect on the past year and the

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<sup>1</sup> The Moving Forward Network (MFN) is a national network of organizations that center grassroots, frontline knowledge, expertise, and engagement with the communities across the US that bear negative impacts of the global freight transportation system. MFN includes over 50 organizations spanning more than 20 sea and inland port adjacent cities. In collaboration with allies and partners, MFN identifies local solutions that call for community, industry, labor, government, and political action that advances equity, environmental justice, and a zero-emissions focused just transition. MFN's vision is to see that negatively burdened communities become healthy, sustainable places by reducing and ultimately eliminating the negative impacts of that system. MFN is deeply committed to advancing environmental justice, equity, economic justice, and a just transition.

<sup>2</sup> Moving Forward Network. (October 26, 2021). [Letter from Moving Forward Network to Administrator Michael Regan]. Retrieved from [https://www.movingforwardnetwork.com/wp-content/uploads/2021/11/MFN-Zero-Emission-in-Freight-Letter-to-EPA-10\\_26\\_21.pdf](https://www.movingforwardnetwork.com/wp-content/uploads/2021/11/MFN-Zero-Emission-in-Freight-Letter-to-EPA-10_26_21.pdf).

inactions on freight and renew the Agency’s commitment to addressing these cumulative burdens. We remain committed to holding this administration accountable and to prioritizing environmental justice, addressing overburdened communities<sup>3</sup>, and adopting policies and programs that will confront this deadly polluting sector.

The global freight transportation system is one of the largest sources of pollution across the country. On-port operations, coupled with thousands of diesel trucks, locomotives, and ships, contribute to significant amounts of localized pollution in areas already overburdened by other sources of pollution. Port pollution is an environmental and health injustice – increasing asthma, heart disease, and cancer rates. We know that the ports and freight-related industries, i.e., rail and warehouses, are often located closest to EJ communities. Frequently the ports are served by the oldest and, therefore, dirtiest sources of pollution, and to compound the issues, these sources move and are mobile, traversing through our communities and adding to the cumulative burdens.

### **A. Heavy-Duty Truck Standards**

The recent draft report from EPA’s Science Advisory Board reinforced the public health and environmental impacts from an overburden of traffic related air pollution for environmental justice communities. “Research also shows that heavy-duty vehicles are a major contributor to inequitable traffic-related air pollution distributions. In addition, reducing heavy-duty vehicle nitrogen oxides (NOx) emissions is necessary to reduce air pollution disparity, which persists across the U.S. despite declining regional average pollution levels over decades.”<sup>4</sup> Because of the deadly impacts from heavy-duty trucks, EPA must ensure that a strong policy is in place that will require/mandate emissions reductions for environmental justice communities.<sup>5,6,7</sup>

And while we acknowledge that in the past year, since our initial letter, EPA has made some advancements in streamlining zero-emission truck policy that enables more dramatic progress in tackling pollution, the timing and sense of urgency have not been met. MFN’s 2021 letter stated that EPA must also incorporate feasible controls in strategies for reducing all emissions,

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<sup>3</sup> We use this term to connect with regulatory authority definitions such as EPA’s definition of “overburdened community “Minority, low-income, tribal, or indigenous populations or geographic locations in the United States that potentially experience disproportionate environmental harms and risks.” <https://www.epa.gov/environmentaljustice/ej-2020-glossary>. However, it is important to note that MFN declares there is no acceptable level of pollution burden for our communities.

<sup>4</sup> United States Environmental Protection Agency. (n.d.). Science advisory board. United States Environmental Protection Agency. Retrieved October 17, 2022, from [https://sab.epa.gov/ords/sab/f?p=114:18:14582673407232::RP,18:P18\\_ID:262](https://sab.epa.gov/ords/sab/f?p=114:18:14582673407232::RP,18:P18_ID:262)

<sup>5</sup> Moving Forward Network. (August 2, 2022). *Comments in Support of Granting California’s Waiver Request for the Heavy-Duty Low NOx Omnibus Rule, Docket No. EPA-HQ-OAR-2022-0332*. [https://www.movingforwardnetwork.com/wp-content/uploads/2022/11/Moving-Forward-Network-Comments\\_-The-Omnibus-Low-NOxRegulation.pdf](https://www.movingforwardnetwork.com/wp-content/uploads/2022/11/Moving-Forward-Network-Comments_-The-Omnibus-Low-NOxRegulation.pdf)

<sup>6</sup> Moving Forward Network. (August 2, 2022). *Comments in Support of Granting California’s Waiver Request for the 2018 Heavy-Duty Emissions Warranty Amendments, Docket No. EPA-HQ-OAR-2022-0330*. [https://www.movingforwardnetwork.com/wp-content/uploads/2022/11/Moving-Forward-Network-Comments\\_Heavy-Duty-Vehicle-and-Engine-Emission-Warranty-and-Maintenance-Provisions.pdf](https://www.movingforwardnetwork.com/wp-content/uploads/2022/11/Moving-Forward-Network-Comments_Heavy-Duty-Vehicle-and-Engine-Emission-Warranty-and-Maintenance-Provisions.pdf)

<sup>7</sup> Moving Forward Network. (August 2, 2022). *Comments in Support of Granting California’s Waiver Request for the Advanced Clean Trucks Rule, Zero-Emission Airport Shuttle Rule, and Zero-Emission Powertrain Certification Rule, Docket No. EPA-HQ-OAR-2022-0331*. [https://www.movingforwardnetwork.com/wp-content/uploads/2022/11/Moving-Forward-Network-Comments\\_-Advanced-Clean-Trucks\\_-Zero-Emission-Airport-Shuttle\\_and\\_Power-Train-Certification.pdf](https://www.movingforwardnetwork.com/wp-content/uploads/2022/11/Moving-Forward-Network-Comments_-Advanced-Clean-Trucks_-Zero-Emission-Airport-Shuttle_and_Power-Train-Certification.pdf)

including criteria pollutants like NOx and particulate matter. In response to our letter, we were assured that the EPA was “actively pursuing rulemakings to establish new NOx and GHG standards for heavy-duty engines and vehicles.”<sup>8</sup> The assurances, however, began fading over time.

Since MFN’s 2021 letter, EPA did move forward with its Clean Trucks Plan, which includes two proposed rulemaking actions to address both global warming greenhouse gas (GHG) emissions and criteria pollution from new heavy-duty trucks. The first proposed rule targeting additional GHG reductions for a narrow three-year window (Truck Model Years 2027-2029) has now been postponed to next year to be combined with an as-yet proposed rule covering 2030 and beyond. We remain hopeful, based on public statements, that this will be finalized quickly and revise the woefully inadequate proposed targets to better align with what the industry is capable of achieving through electrification, as well as to lay a strong foundation for additional regulations consistent with a 100 percent zero-emission target for all new trucks by 2035. The second, a rule restricting NOx emissions from new vehicles, is on track to be finalized by 2022, as requested by MFN; however, based on the proposal, the final rule is not likely to do *anything* to accelerate the industry’s transition to zero-emission heavy-duty trucks, and, based on news reports, it appears unlikely the final rule will even clean-up diesel combustion engines to the greatest degree achievable as required by the Clean Air Act.

MFN remains committed to zero emission solutions that are being proposed that require renewable energy sources<sup>9</sup> and do not allow for so-called “near zero” fuel alternatives like natural gas. In fact, EPA’s allowing non-renewable energy sources like natural gas actually incentivizes the sorts of “false solutions” that MFN expressly warned EPA against. These “bridge” and alternative fuels only further the environmental injustices caused by the “false solutions” and exchange one source of pollution for another, increasing the impacts being felt in environmental justice communities by further entrenching fossil fuel pollution and delaying the zero emission solutions needed.

MFN reiterates their recommendation that as we move to implement zero-emission based technology for medium- and heavy-duty vehicles, EPA must include a plan along with additional policies to accelerate the retirement of all combustion trucks on or before 2045 and to quickly build out the infrastructure and operational environment to facilitate this transition without impacting drivers in environmental justice communities.

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<sup>8</sup> Letter from Joseph Goffman in response to Molly Greenberg on January 19, 2022

<sup>9</sup> Renewable energy may have many definitions based on the source of energy. MFN considers solar and wind to be renewable energy. However, there are important EJ and equity implications that come from these “cleaner” energy sources (i.e., siting, manufacturing, shipping, etc.). All of these must be considered with EJ leadership before endorsing specific renewable energy recommendations.

Importantly, neither of the rules EPA moved forward guarantees a minimum level of electric trucks on the road nor a clear path to eliminating the harmful emissions from heavy-duty trucks on *any* timetable, let alone one consistent with MFN's requests. The administration touts the importance of zero emissions for medium and heavy-duty vehicles, yet the policy is not matching the rhetoric. This disconnect between words and policy has resulted in zero regulatory actions put forth by EPA to date that address the ongoing harm from diesel trucks currently on the road or that mandate emission reductions in environmental justice communities.

## **B. Locomotives and Railyards**

The rail industry remains one of the most significant sources of environmental pollution for many environmental justice communities that are already experiencing cumulative impacts across the country. Many of our members live near railyards and freight rail routes, where some of the dirtiest switcher and line-haul locomotives belch diesel particulate matter each day. For these reasons, a year ago, MFN urged the EPA to initiate a rulemaking on locomotives and railyards by the end of 2022. MFN noted the immediate need for EPA to adopt a Tier 5 zero-emission standard, to set much more stringent standards for remanufactured locomotives and engines, and to require the retirement of heavily-polluting locomotives and engines. The need for EPA to take these actions to eliminate railyard pollution in environmental justice communities has not subsided, and if anything, has increased.

On November 9, 2022, EPA responded to petitions for rulemaking from California and the San Joaquin Valley Air Pollution Control District, asking the agency to adopt updated emission standards.<sup>10</sup> In these responses, EPA committed to evaluating how best to address air pollutant emissions from the locomotive sector. Notably, EPA did not approve the petitions or commit to adopting a Tier 5 zero-emission locomotive standard. While we appreciate that EPA agreed to take steps to clean up locomotive pollution at the federal level, it is critical that the agency adopt strong, zero-emission regulations that reflect the dire public health needs for communities and the requirements set forth under Clean Air Act section 213(a)(5) to achieve the greatest degree of emission reduction achievable. EPA must adopt these updated standards swiftly, and include zero-emission locomotive technology that is already available today, including overhead catenary and battery-electric technology. We continue to urge the EPA to take action on transitioning all new switchers to be zero-emission by 2025 and all new line-hauls to be zero-emission by 2030.

## **C. Marine Vessels**

Marine vessels are one of the largest contributors of cancer-causing pollutants around seaports and inland waterways. Ships and boats that operate along our coastlines and in our lakes still

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<sup>10</sup>Joseph Goffman. (November 9, 2022). [Letter from Joseph Goffman to Liane M. Randolph]. Retrieved from <https://www.epa.gov/system/files/documents/2022-11/locomotive-regs-carb-petition-response-2022-11.pdf>

operate on dirty diesel engines. The continual impacts on our environmental justice communities are immense. Air pollution causes 266,000 premature deaths per year worldwide, while one additional vessel in port leads to 3.1 hospital visits per thousand Black residents within 25 miles of a port and 1.1 hospital visits for White residents.<sup>11</sup>

For these reasons, one year ago, MFN noted effective rulemaking was necessary to maximize zero-emission requirements for marine engines. Additional recommendations included higher standards for new and remanufactured marine engines along with requirements for zero emissions from ships at-berth in U.S. ports, and federal adoption of California's recent at-berth regulations.<sup>12,13</sup> EPA has yet to address implementing any rulemaking. We again implore EPA to take steps toward transitioning toxic diesel engines so that by 2035 100 percent of new marine engines will be zero-emission. Along with setting zero emission engine standards we continue to urge EPA to move on critical policies and programs that would guarantee emission reductions and can be implemented immediately like mandatory vessel speed reduction programs.

#### **D. Cargo Handling Equipment**

Our October letter, noted the ineffectively regulated pollution from cargo handling equipment operating within and around ports and other freight hubs. These typically diesel-powered pieces of equipment should be controlled under EPA's nonroad engine rule, which has not been amended since 2004.

To date, we have received no response to our request that EPA promulgates new nonroad standards for cargo handling equipment by 2023 to transition these sources to zero-emissions. Based on our review of the EPA official webpage, "Regulations for Emissions from Nonroad Vehicles and Engines," and of EPA publications in the Federal Register, we are not aware of any effort by EPA to revise its more than 18-year-old standards for nonroad engines.

The Clean Air Act directs EPA to update nonroad engine and vehicle standards to pursue the greatest degree of emissions reductions achievable. EPA's failure to initiate any such update is all the more glaring given how remarkably the potential for emissions reductions from this source has improved with the widespread commercial availability of zero-emission cargo handling equipment. EPA's 2004 standards are wildly out of step with the actions being taken by the State of California and Ports around the globe to transition to zero emission forklifts, yard

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<sup>11</sup> O'Leary, A. (2022). *Maritime freight: Local and global impacts, technologies and considerations*. (pp. 1-31). Opportunity Green/Moving Forward Network. [https://www.movingforwardnetwork.com/wp-content/uploads/2022/07/MFN\\_Maritime-Freight-Report.pdf](https://www.movingforwardnetwork.com/wp-content/uploads/2022/07/MFN_Maritime-Freight-Report.pdf)

<sup>12</sup> Briscoe, T. (2022, October 17). *Ports reveal unprecedented surge in harmful emissions; officials blame COVID-19 logjam*. Los Angeles Times; Los Angeles Times. <https://www.latimes.com/environment/story/2022-10-17/ports-blame-covid-19-for-spike-in-harmful-emissions>

<sup>13</sup> California Air Resources Board. (2020, August 27). *California approves updated "At-Berth" regulation, expanding efforts to cut pollution from ships in California ports*. California Air Resources Board. <https://ww2.arb.ca.gov/news/california-approves-updated-berth-regulation-expanding-efforts-cut-pollution-ships-california>

tractors, cranes, and container handlers. Hundreds of pieces of zero-emission cargo handling equipment are already commercially available, and new technology is actively being demonstrated in operations across the country and the world.<sup>14</sup> We urge EPA to correct course and immediately take steps to speed the transition from poisonous diesel to zero-emission cargo handling equipment so that by 2026, all new equipment will be 100 percent zero-emission.

### **E. Indirect Source Review Rules**

The impact of freight facilities that “indirectly” contribute to pollution hot spots such as warehouses, railyards, and ports was another important note in the letter sent in October of 2021. The EPA has not made any efforts to adopt any regulations for freight facilities and “major federally assisted” indirect sources. There continues to be an immediate need for the implementation of EPA’s authority to address indirect sources of pollution. MFN emphasized the growing problem of rapid and unchecked growth in warehousing and the need to immediately move an indirect source rule and review processes for warehouses, railyards, and ports.

### **F. Support State and Local Freight Controls**

We appreciate that EPA has followed up on some of the demands that focused on supporting state and local freight controls with a public dashboard to track SIP obligations, a port emissions inventory guidance document to guide ports across the country in quantifying their emissions, and a fuel cell technology assessment for ports. Within our 2021 letter, we also requested a commitment to accountability. We, therefore, ask how EPA has ensured that all of the states have submitted their state implementation plans and are meeting air quality standards. This information is important for transparency and accountability in general but also critical in the context of the recently announced funding from the Inflation Reduction Act and the Infrastructure Investment and Jobs Act. Clear guidance is needed to determine how the money and resources will be distributed to overburdened and environmental justice communities. Money and resources should be utilized to support and mandate emission reduction from freight sources.

A critical piece of supporting state action is the granting of California waivers. EPA must grant the five waiver requests from California on mobile source measures currently pending at the Agency. MFN submitted comprehensive comments signed by our members and supported by organizations outside of MFN from across the country, all arguing that these waivers must be granted in full.<sup>15</sup> While we appreciate EPA’s decision to hold a public hearing on these decisions, as reflected in our comments, there were numerous concerns over EPA’s commitment to environmental justice communities as a result of problems in the public comment, public outreach, transparency, and translation efforts.

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<sup>14</sup> California CORE. (2022). *Eligible Equipment Catalog*. California Core. (Accessed Oct. 5, 2022) <https://californiacore.org/equipmentcatalog/>

<sup>15</sup> Ibid. See footnotes 5, 6, and 7



## **G. Funding Strategies and Civil Rights Obligations**

In August 2022, President Biden passed the Inflation Reduction Act into law. The law provides billions in investments for zero-emission technology. Specifically, the bill includes \$3 billion in competitive grants and rebates to be administered to eligible recipients by EPA to purchase or install zero-emission port equipment and permitting and planning necessary. Of that funding, \$750 million must be used for ports in non-attainment areas. Another program to be administered by EPA is \$1 billion in competitive grants and rebates to purchase class 6 and 7 zero-emission vehicles and related infrastructure. In addition, the funding can be used for workforce development, training, and planning activities. \$400 million of this funding must be reserved for vehicles serving at least one community in non-attainment areas. \$60 million is available for the Diesel Emissions Reductions (DERA) program, which provides grants, rebates, and loans to reduce diesel emissions from transportation.

The Environmental and Climate Justice Block Grants include \$3 billion for projects up to three years in length, including investments in zero-emission technologies and the necessary technical assistance. EPA administers the Greenhouse Gas Reduction Fund; it includes \$15 billion for competitive grants to enable low-income and disadvantaged communities to deploy or benefit from zero-emission technologies, which would be important for EPA to track and coordinate. Another important program to coordinate is the Qualified Commercial Vehicle Tax credit administered by the IRS. Given all the funding opportunities, there needs to be clear guidance working with environmental justice communities on how the resources should be distributed to ensure that they reach those most burdened by the impacts of freight.

Additionally, there needs to be coordination with EPA and other federal agencies on the process for eliciting feedback and input from EJ communities. EPA should ensure continued engagement and clear next steps at the stakeholder meetings. Furthermore, there should be clear guidance that requires accountability and transparency in the spending but also the tracking of the application of the money. It is critical that EPA does not stop at distributing these investments - they must complement them with strong regulatory requirements that are in development now.

In September, the EPA announced a new Office of Environmental Justice and External Civil Rights. This office will have hundreds of staff members and a Senate-confirmed director, marking one of the most visible efforts so far by the Biden administration to ensure that the well-being of marginalized communities is an integral part of federal decision-making. While the announcement acts as a follow-up of the commitments from the administration, questions remain on what and how the office will work to ensure environmental justice and civil rights. How will this office move to address the decades of neglect that the industry has benefited from while communities have suffered at the hands of the freight sector? Administrator Regan is quoted that this office will “memorialize the agency’s commitment to delivering justice and equity for all, ensuring that no matter who sits in the Oval Office or no matter who heads EPA, this work will

continue long beyond all of us to be at the forefront and the center of everything this agency does.” For MFN, it is important that in addition to ensuring that resources and money go to environmental justice communities, there are clear commitments and timelines to moving critical policies that will hold the industry accountable and ensure protections in the long term.

## **Conclusion**

Environmental justice communities are impacted daily by the cumulative impacts of toxic pollution, environmental racism, and the consequences of climate change. Delays and inactions exacerbate these impacts on comprehensive policy needs that will mandate emissions reduction across the freight sector. The technology available and the economic and health benefits of moving comprehensive regulations that center zero emissions while prioritizing environmental justice are not just feasible; it is deadly to continue to delay action. Climate change is hitting the communities least responsible for the climate crisis, therefore requiring drastic changes in energy production, use, and consumption. MFN operates on the principle that environmental justice communities and frontline workers are stronger together. We also embrace the collaboration with EPA and regulatory departments; this is critical to moving the demands coming from MFN and begin addressing freight impacts. To ensure this commitment is a top priority from the EPA, we are raising our request for Administrator Regan to meet with the communities on the frontline of freight impacts. MFN is requesting an in-person meeting as soon as possible on the issues highlighted in both of the letters to develop a plan on how to engage and move forward together.

Thank you for your consideration. We look forward to hearing from you. If you have any questions or would like to schedule a follow up meeting, please contact Molly Greenberg at [greenbergm@oxy.edu](mailto:greenbergm@oxy.edu).

Sincerely,

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