



# Environmental Protection Network

## Resetting the Course of EPA

### Reducing Air Emissions from Mobile Sources



*This paper is part of the [Resetting the Course of EPA](#) project by the [Environmental Protection Network \(EPN\)](#), a bipartisan network of more than 500 former EPA career employees and political appointees across the country who served under multiple Democratic and Republican administrations.*

*Resetting the Course of EPA outlines specific and actionable steps that EPA leadership can take to reset the course of the agency to address the most significant and pervasive threats to public health and our environment. As there is no single roadmap, EPN looks forward to collaborating with others to advance the dialogue around the future of EPA and set ideas into motion that will better protect the health and wellbeing of everyone.*

Additional Resetting the Course of EPA documents are available here:

<https://www.environmentalprotectionnetwork.org/reset>

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## Summary

Our nation faces unprecedented economic and public health harms from the COVID-19 pandemic and the long-term existential threat from global climate change. Across the country, people suffer from high levels of ozone, particulate matter (PM), and other pollutants, particularly people living in low-income communities and communities of color. EPA should develop a coordinated and comprehensive transportation approach, including shared mobility and transit strategies, that:

- ❖ Achieves air quality, climate, and environmental justice goals.
- ❖ Promotes infrastructure investment, job creation, and economic growth.
- ❖ Delivers a more affordable and accessible transportation future.

Electrification of the transportation sector provides a unique opportunity to make dramatic progress in air quality and public health, including improving environmental justice outcomes. Along with decarbonizing other sectors, it is currently the only viable pathway for achieving national climate goals, and will protect the U.S. auto manufacturing base. EPA must reassert its historic leadership in air pollution control and lead in this transportation transformation to protect public health and promote infrastructure investment, jobs creation, and economic growth.

## Recommendations

1. **Advance the transformation of light-duty (LD) and heavy-duty (HD) vehicles to electrification.** Work with the White House to issue a Presidential Memorandum announcing the goal of reducing criteria pollutant and greenhouse gas emissions from on-highway vehicles through electrification, and begin EPA rulemakings for aggressive LD greenhouse gas emissions (GHG) standards, HD GHG standards, and HD oxides of nitrogen emissions (NOx) standards. [\[Read More\]](#)
2. **Affirm California’s authority to set motor vehicle standards for GHG and other emissions and “opt-in” by other states to California standards.** California has been a critical partner in promoting vehicle pollution technology innovation in the past and will play a critical role in the electrification of the transportation sector. Issue a Presidential Memorandum and begin an EPA proceeding to waive Clean Air Act (CAA) preemption for California’s GHG and Zero-Emission Vehicle (ZEV) standards. Undo EPA’s 2019 withdrawal of the waiver, its decision on state opt-in, and U.S. Department of Transportation’s (DOT’s) Energy Policy and Conservation Act (EPCA) Preemption rule. [\[Read More\]](#)
3. **Establish EPA as a leader of a cross-agency workgroup on highway vehicle climate and air quality issues.** With EPA leadership, the federal cross-agency workgroup should develop a comprehensive strategy so electrification of on-highway vehicles achieves air quality and climate goals, including improving health outcomes in environmental justice communities. [\[Read More\]](#)
4. **Review EPA’s other mobile source programs for GHG and criteria emissions control.** Develop a strong policy addressing GHG and other emissions from ocean-going vessels and aircraft, with EPA playing a major role. [\[Read More\]](#)
5. **Rebuild EPA’s Office of Transportation and Air Quality (OTAQ) as a national and global leader in sustainable transportation.** OTAQ has been underfunded, threatened, and demoralized. Rebuild OTAQ to implement these recommendations and restore its leadership in promoting technology innovation and sustainable transportation. [\[Read More\]](#)

## Recommendation #1: Advance the transformation of light-duty and heavy-duty vehicles to electrification.

### IMMEDIATE ACTIONS

- ❖ Issue a Presidential Memorandum spelling out the goal of electrification of both LD and HD vehicles as currently the only viable pathway for achieving national climate and air quality goals (e.g., ozone and PM), as well as protecting the U.S. auto manufacturing base.
- ❖ The Memorandum should call for EPA to initiate a rulemaking to set aggressive GHG standards for LD vehicles (cars, sport-utility vehicles, and smaller pickups and vans) and lead to almost all new LD vehicles being electric vehicles (potentially including fuel cells) by the 2030 to 2035 time frame.
  - ◆ This rulemaking should maintain, to the extent possible, the progress made by the [2017 and Later Model Year \(MY\) LD Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy \(CAFE\) Standards](#). EPA and DOT/National Highway Traffic Safety Administration (NHTSA) should coordinate with the Department of Justice (DOJ) to address pending litigation on the [Safer Affordable Fuel Efficient \(SAFE\) Vehicles Final Rule for Model Years 2021-2026](#) adopted in 2020.
  - ◆ Based on statutory constraints in [EPCA](#) on considering electric vehicles when setting CAFE standard stringency, DOT/NHTSA should set CAFE standards, but only for up to five MYs, as allowed under EPCA.
- ❖ The Memorandum should call for EPA to initiate a rulemaking to adopt Phase III GHG standards for HD trucks and engines (larger pickups and vans, vocational trucks, and tractor trailers) building on the current HD Phase II GHG standards. Phase III should lead to a significant percentage of applications being all electric by 2035, with remaining applications being electric in the 2045 time frame. The Memorandum should also call for EPA to initiate a rulemaking to adopt the next generation of NO<sub>x</sub> emissions controls for HD trucks and engines, given that they are a major contributor to urban NO<sub>x</sub> and PM.
- ❖ The rulemakings should account for and incentivize investment in infrastructure and associated job creation. EPA should work closely with California and other states, automakers and suppliers, labor, key federal departments, industries involved in promoting electrification, non-governmental organizations, and other stakeholders on each of these rulemakings.

### EARLY ACTIONS, INCLUDING THE FIRST 100 DAYS

- ❖ Initiate the LD GHG, HD GHG, and HD NO<sub>x</sub> rulemakings by publicly announcing rulemaking schedules and highlighting key decision issues for management.
  - ◆ Regulatory time frames (e.g., appropriate MYs for the standards)
  - ◆ Range of stringency options
  - ◆ GHG performance standards, with or without national ZEV requirements
  - ◆ Regulatory issues (e.g., regulatory categories, attribute, attribute curves, etc.)
  - ◆ Relationship to criteria pollutant standards
  - ◆ Unique HD GHG issues (trailers, gliders, etc.)

## FIRST YEAR AND SUSTAINED ACTIONS

- ❖ Issue notices of proposed rulemakings for the LD GHG, HD GHG, and HD NO<sub>x</sub> rulemakings.
- ❖ Make significant analytical progress towards the final rules.
- ❖ Publish the final rules for all three rulemakings.

## Recommendation #2: Affirm California’s authority to adopt motor vehicle standards for GHG and other emissions and “opt-in” by other states to California’s standards.

California has been a critical partner with EPA in promoting innovative vehicle emissions control technologies since the 1960s, and has often been an important “testing ground” for new technologies and programs prior to national implementation. Most recently, California has been the leader in promoting the electrification of LD and HD vehicles.

## IMMEDIATE ACTIONS

- ❖ Issue a Presidential Memorandum calling for EPA to begin a proceeding to waive CAA preemption for its [GHG standards and ZEV mandate](#). Undo EPA’s 2019 withdrawal of the CAA [waiver](#), its decision on state opt-in, and DOT’s EPCA preemption rule. Address related litigation.
  - ◆ EPA’s 2019 withdrawal of California’s waiver for its GHG standards and ZEV mandate should be replaced by a new grant of a waiver. EPA should exercise its waiver authority in a manner that recognizes the historic flexibility California has enjoyed for decades to address its serious air pollution problems and promote innovation.
  - ◆ NHTSA should undo the 2019 EPCA preemption rule to preserve state authority with respect to GHG emissions standards and ZEV mandates. NHTSA’s rule incorrectly interprets EPCA as prohibiting California and other states from adopting new motor vehicle GHG standards or ZEV mandates.

## EARLY ACTIONS, INCLUDING THE FIRST 100 DAYS

- ❖ Start the process for granting a waiver of CAA preemption for California’s GHG standards and ZEV mandate, including reconsideration of the prior withdrawal of California’s CAA waiver.

## FIRST YEAR AND SUSTAINED ACTIONS

- ❖ Take final action on an EPA waiver of CAA preemption for California’s GHG standards and ZEV mandate.

### Recommendation #3: Establish EPA as a leader of a cross-agency workgroup on highway vehicle climate and air quality issues.

EPA’s OTAQ—and its [National Vehicle and Fuel Emissions Laboratory \(NVFEL\)](#)—with highly trained engineers, scientists, economists, and policy analysts, has been the global leader in reducing vehicle emissions since 1970. Its regulatory program has sparked major technological innovation, including historic environmental innovations such as catalytic converters, unleaded gasoline, low-sulfur gasoline and diesel, the use of computers on cars, and diesel particulate traps.

These innovations have not only reduced pollution, but have also made cars and trucks higher quality, more reliable, and more durable. OTAQ has supplemented its regulatory programs with innovative, voluntary approaches to further reduce emissions from sources that directly impact communities, such as ports, school buses, and freight operations. These programs have cut across various federal agencies and levels of government.

This history positions EPA to be a leader in ensuring that air quality and climate goals are advanced by technologies and strategies such as electric vehicles. Electrification of on-highway vehicles will have significant impacts on auto manufacturers, consumers, dealers, vehicle repair shops, and other businesses, and will necessitate consumer education and awareness as well as critical involvement by power generators and providers of charging stations. The electrification of on-highway vehicles and major changes in the power sector need to occur during the same time frame.

EPA should be designated as a leader of a federal cross-agency workgroup charged with developing a comprehensive strategy to address climate and air pollution impacts of the expected electrification of on-highway vehicles. EPA should also play an important role in ensuring air quality and climate goals are fully addressed in the areas of autonomous vehicles, shared mobility and public transit, and on-road vehicle data collection.

#### IMMEDIATE ACTIONS

- ❖ Designate EPA as a leader of a federal cross-agency workgroup charged with developing a comprehensive strategy to address climate and air pollution impacts of the expected transformation of on-highway vehicles. The workgroup should include the Departments of Transportation, Energy, Defense, Agriculture, Health and Human Services, Labor, and others, as appropriate. This can be part of the Presidential Memorandum in Recommendation #1, or part of a separate Memorandum or Executive Order, e.g., one addressing climate policy.

#### EARLY ACTIONS, INCLUDING THE FIRST 100 DAYS

- ❖ EPA initiates the cross-agency workgroup process, with a timeline geared to the EPA rulemaking for on-highway vehicles in Recommendation #1.

#### FIRST YEAR AND SUSTAINED ACTIONS

- ❖ Host a National or International Summit on Vehicles and Climate.

## Recommendation #4: Review EPA’s other mobile source programs for GHG and criteria emissions control.

EPA programs address off-road vehicles and equipment, including construction and agriculture, ocean-going vessels, and aircraft—and their fuels—all important contributors to air pollution. EPA should review and update its programs to best achieve needed air pollution reductions.

Ocean-going vessels and aircrafts are important sources, and international organizations (International Maritime Organization, International Civil Aviation Organization) are major actors, as well as federal departments (Coast Guard, Federal Aviation Administration). EPA has successfully reduced air pollution from ocean-going vessels, but has only had limited success in addressing aircraft emissions. The administration should develop a strong policy for addressing GHGs and other emissions from these sources, with EPA playing a major role in developing and implementing the policy.

As electricity increases as a power source for on-highway vehicles, as well as for some parts of the off-road sector, use of hydrocarbon-based fuels for mobile sources will be reduced. However these fuels will likely continue to be used for a significant period of time for various new and used vehicles and equipment, on-highway and off-road. In this context, EPA should evaluate strategies to reduce emissions from hydrocarbon-based fuels to achieve air quality and GHG goals.

EPA should closely examine the [Renewable Fuel Standard \(RFS\) Program](#) and consider potential changes to increase GHG reductions from renewable fuels. EPA should also evaluate the adoption of a federal Low Carbon Fuel Standard (LCFS) under the CAA, including close examination of potential interactions with other federal and state programs. A federal LCFS could preempt state LCFS programs, and EPA should consider the pros and cons of additional state LCFSs, e.g., on a regional level. Under the CAA, a federal LCFS would be in addition to and not a substitute for the RFS. EPA should also consider what cost-effective reductions could be achieved under an LCFS incremental to the RFS.

### EARLY ACTIONS, INCLUDING THE FIRST 100 DAYS

- ❖ Lay the groundwork and start to develop a strategy to ensure that over the next 10-plus years, EPA’s programs for hydrocarbon-based fuels achieve the best air quality and GHG reductions from mobile sources. This would include a close evaluation of the RFS program and the adoption of a federal LCFS under the CAA.
- ❖ Review policies for reducing GHG and criteria emissions from ocean-going vessels and aircraft, as well as for off-road sources such as construction and agriculture.



## Recommendation #5: Rebuild OTAQ as a national and global leader in sustainable transportation.

OTAQ’s leadership role, which had long received bipartisan support, has been significantly weakened by the Trump administration. Overall staff levels have decreased, and staff with key expertise has left the agency. Staff morale is likely at an all-time low. OTAQ’s budget has not only been cut, but costs of NVFEL laboratory operations, previously paid centrally, have been shifted to OTAQ’s operating budget. This has prevented proper maintenance of heavy-duty testing capacity and investment in advanced technology testing.

EPA leadership should re-establish OTAQ’s role as a national and global leader in promoting technology innovation and sustainable transportation. Increasing its budget and staffing levels will allow OTAQ to expand its staff expertise and laboratory capabilities to address emerging technologies and strategies such as electric, fuel cell, and autonomous vehicles; shared mobility and public transit; and on-road vehicle data collection, enabling OTAQ to effectively implement the above recommendations. It will also help rebuild staff morale.

### IMMEDIATE ACTIONS

- ❖ In the Fiscal Year 2022 President’s budget, request resources to support the electrification of the LD and HD vehicle fleets, including support for electric infrastructure, technology development, and job creation.
- ❖ Initiate staff surveys and focus groups to identify and design approaches to rebuild staff trust and morale. Create safeguards to ensure that decision-making relies on objective scientific information.

### EARLY ACTIONS, INCLUDING THE FIRST 100 DAYS

- ❖ Re-establish advisory boards, including the CAA [Mobile Source Technical Advisory Committee](#), with scientists with expertise instead of relying on industry lobbyists.

### FIRST YEAR AND SUSTAINED ACTIONS

- ❖ Increase OTAQ budget and staffing levels targeted to climate rulemakings and voluntary programs, environmental justice, NVFEL laboratory capabilities, and emerging technologies such as electric, fuel cell, and autonomous vehicle technologies, and shared mobility strategies.
- ❖ Implement follow-up actions to improve staff morale based on feedback from staff surveys and focus groups.

## Participants in the EPN Workgroup

### Reducing Air Emissions from Mobile Sources

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