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# **EPA/DOT Greenhouse Gas and Fuel Efficiency Phase II Standards for Medium- and Heavy-Duty Vehicles**

Briefing for Mitigation Working Group August Meeting

# Why is Phase II needed?

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- Freight sector CO<sub>2</sub> emissions are projected to increase by nearly 200 million metric tons by 2040\*
- More than what is expected in the commercial, industrial or residential sectors
- Transport already accounts for over 500 million tons of CO<sub>2</sub> annually\*



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# Background on the Phase II Standards

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- Called for in President's Climate Action Plan
- Produces benefits into the next decade
- Developed over 4 years with extensive testing and research
- Over 400 stakeholder meetings, public feedback and outreach to industry, environmental organizations, labor unions and others
- Encourages wider use of current technologies and development of more advanced, cost-effective technologies



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# Overview of the Phase II standards

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- Finalized 8/16/2016 in joint EPA/DOT action
- Cover model years 2021-2027
  - semi-trucks
  - large pickups and vans
  - all types of buses and work trucks
- Significant benefits across all vehicle types
- 25% GHG reduction from a Phase I 2018 tractor vs. a Phase II 2027 tractor



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# Overview of the Phase II standards

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- First time standards for trailers
- Trailer standards take effect in 2018 (DOT in 2021)
  - credits available for voluntary participation
  - provisions to accommodate small businesses
- Includes averaging, banking, and trading (ABT) credit provisions
  - advance introduction of new technologies
  - reduce compliance costs
  - address lead time challenges



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# What are the long term impacts over the lifetimes of the vehicles?

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The Phase II standards are expected to:

- Lower CO<sub>2</sub> emissions by approximately 1.1 billion metric tons
- Save vehicle owners fuel costs of about \$170 billion
- Reduce oil consumption by up to 2 billion barrels



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# What is the financial impact on the transportation sector?

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- Fuel savings more than offset costs
- Favorable payback periods for truck owners
  - 2027 long-haul truck buyer could recoup extra technology cost in under two years by fuel savings
- Up to \$230 billion in net benefits to society over the lifetime of vehicles sold under the program
  - fuel savings, carbon reductions, energy security
  - health, travel, refueling



# A Balanced Plan to reduce GHGs from the freight sector

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- 10% more GHG reductions than the originally proposed rule
- Improved compliance provisions
  - more repeatable and accurate test procedures
  - enhanced enforcement audits
  - protection against defeat devices
- Stronger diesel engine standards
- Improved vocational vehicle program
- Regulatory structure better tailored to match the right technology for the job



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# A Balanced Plan to reduce GHGs from the freight sector

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- Increased flexibility to minimize impacts on small businesses
- Maintains the structure and gradual phase-in of proposed standards
- Allows manufacturers to choose their own technology mix
- Gives manufacturers lead time to ensure technologies are reliable and durable



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# For More Information

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For details on DOT's and EPA's Phase II GHG emissions and fuel efficiency standards for medium- and heavy-duty vehicles, please visit:

[www3.epa.gov/otaq/climate/regs-heavy-duty.htm](http://www3.epa.gov/otaq/climate/regs-heavy-duty.htm)

[www.nhtsa.gov/fuel-economy](http://www.nhtsa.gov/fuel-economy)



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# Questions?



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