

# Diesel Clean-Up Campaign

... a win for health, climate, and jobs

## Reducing Black Carbon from Diesels:

### *A Fast-Acting Strategy to Strengthen the Climate Bill*

#### **Diesel Black Carbon – A Potent Global Warming Agent**

- Black carbon was one of the largest contributing pollutants to global warming in the past century
- As a warming pollutant, black carbon is about 2000 times more potent than the equivalent amount of CO<sub>2</sub> over a 20-year period.
- Black carbon warms by absorbing sunlight and radiating heat into the air (like a blacktop road). Black carbon can darken snow and ice, and directly accelerate melting.
- U.S. has the highest per-capita emissions in the world for black carbon.
- Over half of U.S. black carbon comes from diesels: 41% from on-road diesels and another 16% from off-road diesels.

#### **Solutions**

- Diesel particulate filters (DPFs) are the only retrofit technology that can virtually eliminate black carbon particles (90+ percent effectiveness).
- Replacing (and scrapping) older diesel engines or retrofitting them with filters provides one of the few opportunities to achieve *immediate* climate benefits, complementing long-term efforts to reduce CO<sub>2</sub> emissions.
- Because diesel black carbon is a constituent of deadly particulate matter, reducing this pollution will also improve public health and could avoid thousands of premature deaths in the U.S. each year.
- In addition, estimates show that for every dollar spent on reducing particulate matter pollution from 4 diesel engines, \$12 would be avoided in health damages. Keybridge Associates estimates that a \$1B investment in clean diesel technology would yield 19,000 jobs.

[www.dieselfcleanup.org](http://www.dieselfcleanup.org)

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## Policy Context

- Despite clean diesel regulations for new engines there are 11 million old diesels in the U.S. that may be in use for decades. These should be retrofit with the same filter technology required under U.S. EPA rules for new on-road and off-road diesels. Installing a diesel particulate filter on 1 million tractor-trailer trucks would yield the same climate benefits as eliminating the pollution from 21 million passenger cars.
- The current climate bills (Waxman-Markey, Kerry-Boxer, and Kerry-Lieberman) authorizes a diesel black carbon reduction fund, and direct EPA to exercise its existing statutory authority under current law (i.e., the Clean Air Act) to reduce black carbon emissions, ***however, under current law, EPA only has authority to require about 1 million of these engines to install DPFs.***
- In addition, the Kerry-Boxer bill devoted a small percentage of the auction proceeds from the bill to funding diesel black carbon reductions.

## Policy Solutions

1. **Funding**: It is appropriate and necessary to provide funding for many of these retrofits through the allowance value and/or auction proceeds of the climate bill, especially for public fleets and fleets working on public works projects or contracts with the government. ***In order to be eligible for funding under a diesel black carbon reduction program, the engines treated under the program should meet the particulate matter emissions standards in effect for new engines of that type at the time of the grant, loan, or rebate application. In addition, anti-idling shutoff devices should be eligible for funding.***
2. **Requirements**: ***EPA needs additional authority to reduce the diesel black carbon from the rest of the existing fleet including the authority to require them to meet new engine particulate matter emission standards and limit idling.*** Michael Walsh, a former EPA official and internationally-recognized transportation consultant, has estimated that installing a diesel particulate filter on 2 million additional engines would yield a CO<sub>2</sub>e of 230 MMT by 2020.