

## AB 1527: Example Demonstrating Need

Current guidelines for Carl Moyer and 1B will drive projects towards diesel trucks because they are significantly less expensive in this situation. Natural gas and hybrid vehicles offer additional GHG and petroleum reduction benefits, but Prop 1B and Carl Moyer do not provide any additional financial incentives to encourage fleet owners to use these technologies – diesel and alternative fuel vehicles are treated equally. The rough example below illustrates the problem with the current incentives structure.

If the funds can be combined, there is an incentive to “upgrade” to a more advanced vehicle technology that provides additional benefits, in the form of petroleum and GHG emissions reduction. The need for increased incentives is particularly severe in the current economic climate, as fleet owners that may have been willing to pay for the incremental costs of an advanced alternative fuel truck in better times (for corporate branding or other reasons) may not be able to make the investment now.

### Economics of Fleet Purchase Decisions

WITHOUT AB 1527		WITH AB 1527	
<u>Incentives and Restrictions</u> <ul style="list-style-type: none"> <li>Prop 1B grant (diesel or NG): \$50k/truck</li> <li>AB 118 grant (NG only): \$40k/truck</li> <li>CANNOT combine Prop 1B and AB 118, even if doing so would get incremental benefits</li> </ul>		<u>Incentives and Restrictions</u> <ul style="list-style-type: none"> <li>Prop 1B grant (diesel or NG): \$50k/truck</li> <li>AB 118 grant (NG only): \$40k/truck</li> <li>CAN combine Prop 1B and AB 118 where doing so gets incremental benefits</li> </ul>	
Options for fleet owners: Fleets can choose to buy...	Net Cost for fleet	Options for fleet owners: Fleets can choose to buy...	Net Cost for fleet
• Diesel truck with Prop 1B grant	\$50k	• Diesel truck with Prop 1B grant	\$50k
• NG truck with Prop 1B grant	\$95k	• NG truck with Prop 1B <u>and</u> AB 118 grant (combining state funds under authority provided by AB 1527)	\$55k
• NG truck with AB 118 grant	\$105k		

***Diesel trucks are far less expensive than natural gas trucks. Fleets are likely to purchase diesel trucks. The state will get criteria emission reductions but will miss out on GHG and petroleum reduction potential.***

***Natural gas is cost competitive with diesel due to the combination of state funds. This should encourage deployment of alt fuel vehicles, providing incremental GHG and petroleum reduction benefits.***

NOTE: The numbers used in this example are rough and are presented to illustrate the value of this legislation. These rough estimates come from conversations with people in the industry, numbers in the CEC AB 118 Investment Plan Document, and the Staff Draft Concept Paper for Prop 1B.

## AB 1527: Example Demonstrating Benefits

New diesel trucks are “cleaner” than the older diesel trucks they are replacing. The benefit of newer diesel trucks is the reduction in so-called “criteria pollutants.” These include particulate matter and smog-forming emissions. Newer diesel trucks generally do not yield greenhouse gas or petroleum reduction benefits, however, as they still run on diesel fuel, which has an inherently high carbon content.

Alternative and advanced vehicles such as natural gas or hybrid trucks can also help the state achieve other economic and environmental goals. Alternative fuels directly reduce our dependence on petroleum, diversifying our energy supply and helping the state transition toward a clean energy economy. This has direct and important environmental benefits in the form of reduced greenhouse gas emissions, as natural gas, electricity, and other alternative fuels have lower carbon contents than diesel fuel.

**Benefits of new trucks replacing old diesel vehicles**

Benefits Vehicles	Criteria Pollution Reductions (particulate matter and smog)	Global Warming Pollution Reductions (GHG emissions)	Reduced Petroleum Dependence
New cleaner diesel truck	✓		
Natural gas truck	✓	✓	✓

Both new diesel and natural gas trucks will have significant criteria emission benefits over older diesel trucks. The **benefits are roughly equal** for the two technologies, with natural gas having a slight advantage.

Natural gas trucks can get up to a **21% reduction in GHG emissions** when compared with diesel trucks, according to CARB’s analysis for the Low Carbon Fuel Standard. Natural gas trucks running on biomethane get much more significant reductions.

Alternative fuel vehicles reduce the state’s dependence on petroleum. This contributes to **energy security** goals and shields fleet owners from high and volatile oil prices.