

Abstract:

Mobile Sources: Overview, Alternatives, Issues

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This presentation will review the problems associated with emissions from mobile sources at the local and global levels. Based on the recent work of the World Business Council for Sustainable Development, it will show how the problems globally and in many parts of the world will continue to get worse without aggressive steps to control vehicle emissions. It will also show the tremendous progress that has occurred in the industrialized countries in controlling conventional pollutants – CO, HC, NO_x and PM from vehicles and the steps that are already being taken to follow in a similar path in developing countries.

Two scenarios will be presented, focusing on four major categories of on road vehicles – light duty gasoline vehicles, light duty diesel vehicles, medium duty trucks and heavy trucks. One scenario will show under business as usual that greenhouse gases will increase quite rapidly over the period until 2050. An alternative scenario will show that all of the greenhouse gases with the exception of CO₂ can be reduced under what the author considers a plausible set of assumptions. Even with CO₂, he will show that substantial progress is possible and will highlight some of the technologies that are capable of achieving substantial gains.

The presentation will conclude with a contrast of the policy approaches that have been applied to conventional pollutants over the past 50 years compared to the approaches with greenhouse gases and argue that a good model exists for policymakers to follow.