

## **Non-CO<sub>2</sub> Greenhouse Gases: Methane**

**Source/Sectors:** Mobile Combustion

**Technology:** Options in general (A.1.4)

### **Description of the Technology:**

Methane emissions from mobile sources depend on methane content of the motor fuel, the amount of hydrocarbons remained un-burned in the engine exhaust, the engine type, and post-combustion controls. In vehicles without emission controls, the amount of CH<sub>4</sub> emitted is highest at low speeds and when the engine is idle. Poorly tuned engines would have higher CH<sub>4</sub> emissions (USEPA, 2006a).

Little information regarding technological options for methane emission reduction in this sector was found from the literature search. Basically, using alternative fuels, reducing travel, and improving vehicle efficiency can reduce methane emissions from this sector (CARB, 2004).

**Effectiveness:** Not applicable

**Implementability:** Not applicable

**Reliability:** Not applicable

**Maturity:** Not applicable

**Environmental Benefits:** It reduces methane emissions.

**Cost Effectiveness:** Not applicable

**Industry Acceptance Level:** Not applicable

**Limitations:** Not applicable

### **Sources of Information:**

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4. European Commission (2001) "Economic Evaluation of Sectoral Emission Reduction Objectives for Climate Change", Brussels. (Document can be found at [http://ec.europa.eu/environment/enveco/climate\\_change/sectoral\\_objectives.htm](http://ec.europa.eu/environment/enveco/climate_change/sectoral_objectives.htm))
5. International Energy Agency (2003) "Building the Cost Curves for the Industrial Sources of Non-CO<sub>2</sub> Greenhouse Gases", Report Number PH4/25, IEA Greenhouse Gas R&D Programme, Cheltenham, United Kingdom, October 2003.

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7. U.S. Climate Technology Program (2005) "Technology Options for the Near and Long Term", U.S. Department of Energy, <http://www.climate-technology.gov/index.htm>, August 2005.
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11. U.S. Environmental Protection Agency (2006a) "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 to 2004", Office of Atmospheric Programs, United States Environmental Protection Agency, EPA-430-R-06-002, June 2006.
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