



Department of Energy
Washington, DC 20585

March 5, 1998

MEMORANDUM FOR: Mary Hutzler
Director, Office of Integrated Analysis and Forecasting
Energy Information Administration

FROM: Thomas J. Gross
Deputy Assistant Secretary
for Transportation Technologies
Energy Efficiency and Renewable Energy

SUBJECT: Assumptions for Diesel Fuel Penetration Study

The purpose of this memorandum is to request an additional scenario for the analysis you are conducting for us on the impacts of increased penetration of diesel technology in the transportation sector. In addition to the three scenarios specified in my memorandum of November 19, 1997, we also request that you run a case in which advanced diesel technology begins penetrating the market in 2000, reaching 30 percent of light duty vehicle sales by 2010, and remaining constant thereafter, but with the sulfur content of diesel fuel reduced to 50 parts per million (ppm). This differs from the original three scenarios which assume a sulfur content of diesel fuel of 500 ppm. In discussions with your office, your staff has indicated that this case can be run with no changes to the basic modeling framework within the National Energy Modeling System. This case will be of considerable value to the study, since there are environmental issues associated with a high penetration of diesel-fueled vehicles.

Thank you for your cooperation. If you have any questions, please contact Phil Patterson on 6-9121.



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November 19, 1997

MEMORANDUM FOR: Mary Hutzler
Director of Integrated Analysis and Forecasting
Energy information-nation Administration

FROM: Thomas J. Gross
Deputy Assistant Secretary
for Transportation Technologies
Energy Efficiency and Renewable Energy

SUBJECT: Diesel Fuel Price Sensitivity Analysis

As you may be aware, the Office of Transportation Technologies (OTT) annually estimates and reports energy and emission benefits of its research, development, and deployment programs as part of Energy Efficiency's "Quality Metrics" initiative. The Quality Metrics process is designed to collect a wide range of data and information required for the Government and Performance Results Act of 1993, the National Performance Review's Performance Agreements with the President, and Executive Order 12862 on setting Customer Service Standards. The information is also valuable in responding to requests of the White House, Congress, the Department, and Energy Efficiency and Renewable Energy.

During the reporting process, benefits estimates are reviewed both internally and externally. As OTT focuses more effort on the development of advanced high efficiency diesel engines for both light and heavy duty vehicles, our market penetration estimates of this technology also increase. As a result, reviewers have raised concerns regarding the impact of a substantial increase in the demand for diesel fuel on both refinery capacity and petroleum related fuel prices.

Therefore, OTT requests that EIA use NEMS to estimate the price impact on transportation fuels as the demand for diesel fuel increases under three different scenarios.

- (1) Advanced diesel technology begins penetrating the market in 2000, increasing to 10 percent of light duty vehicle sales by the year 2010 and remaining constant thereafter.

- (2) Advanced diesel technology begins penetrating the market in 2000, increasing to 20 percent of light duty vehicle sales by the year 2010 and remaining constant thereafter.
- (3) Advanced diesel technology begins penetrating the market in 2000, increasing to 30 percent of light duty vehicle sales by the year 2010 and remaining constant thereafter.

For each scenario, we request that the results be compared with the AEO reference case annually through 2020. A delivery date of January 16, 1998, is requested.

We would like to schedule a meeting with you to further discuss this matter and address any recommendations you may have. Thank you for your attention, and I look forward to hearing from you.