AUTOMOBILE INSPECTION AND READJUSTMENT PROGRAM (AIR PROGRAM)

Performance Audit, November 2012
Report Highlights

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PURPOSE

Determine the ongoing public need for the AIR Program using statutorily mandated factors such as the program's effect on ambient air quality, the program's cost-effectiveness relative to other air pollution control measures, and the need for further reductions in pollution to meet national air quality standards.

BACKGROUND

- The General Assembly established the AIR Program in 1980 to reduce vehicle emissions and meet federal air quality standards.
- The program covers all or parts of nine counties in the Front Range and requires motorists to have their vehicles pass an emissions test periodically. Vehicles that fail the test must be repaired and pass the test before having their registration renewed.
- Colorado currently meets all national air quality standards except for ozone. The Department has developed the *State Implementation Plan* to achieve compliance with the ozone standard and to maintain compliance with other standards.

OUR RECOMMENDATIONS

The Department should improve the cost-effectiveness of the AIR Program by working with the Air Quality Control Commission to:

- Adopt a longer model-year exemption period, including the 7-year exemption period currently being proposed as well as additional years, as warranted.
- Implement on-board diagnostic (OBD) system testing and consider the possibility of extending OBD testing further to include all model year 1996 and newer vehicles as well as basing its OBD testing on diagnostic codes specifically related to a vehicle's emissions system.

The agency partially agreed with these recommendations.

EVALUATION CONCERN

The ongoing public need for the AIR Program in its current form is uncertain because the benefits of the program on air quality are small and are likely to decrease over time. In addition, there are measures that the Department can take to increase the cost-effectiveness of the program without significantly affecting its emissions reduction benefits. As a result, revamping or eliminating the program should be considered.

KEY FACTS AND FINDINGS

- Using Calendar Year 2011 data, the AIR Program is estimated to reduce emissions of ozone precursor gases by 25.3 tons per day in the program area. These emissions reductions are estimated to decrease ozone levels in the program area by up to 0.34 parts per billion, which represents 0.5 percent of the 75 parts per billion ozone national air quality standard.

- The annual cost of the AIR Program increased 36 percent between Calendar Years 2008 and 2011 due primarily to the overall increase in the number of vehicles in the program area, including those added from the expansion to Larimer and Weld counties in 2010.

- The cost-effectiveness of the program was measured at $7,200 per ton of pollutants removed from the atmosphere. Our 2009 audit reported cost-effectiveness at $7,700 per ton; however, the comparability of these figures is diminished due to different methodologies being used in the two audits. The Department reported in its AIR Program annual reports that the cost per ton of removed pollutants increased from $4,200 per ton in Calendar Year 2008 to $7,400 per ton in Calendar Year 2011.

- Because of stricter vehicle manufacturing standards, air quality will continue to improve with or without the AIR Program, as older vehicles are retired and replaced with newer, cleaner vehicles.

- Extending the AIR Program's model-year exemption period beyond the current four years and using OBD testing instead of the traditional emissions test for model year vehicles 1996 and newer would reduce program costs without significantly affecting the AIR Program's emissions reduction benefits. Various options were modeled with the most cost-effective ranging from $37.7 million to $45.9 million annually in costs, compared to the $66.1 million cost in 2011.

COST SAVINGS

Increasing the AIR Program's model-year exemption period and using OBD testing for some model years would save motorists up to $28.4 million annually, depending on the option chosen.

For further information about this report, contact the Office of the State Auditor
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