

Budget Questions and Requests for Information
2013-14 Recommended Budget
Question # 21

QUESTION: Why do we not use propane to fuel some of our police vehicles as they do in the City of Raleigh?

RESPONDENT: Lance Norris, Public Works Director
Barry Lowry, Fleet Program Manager
Brian Callaway, Energy Management Specialist

RESPONSE: We believe that our practice of converting our police fleet to use E-85 (85% ethanol and 15% unleaded fuel blend) is a better option than propane to reduce our carbon footprint. Propane is a by-product of oil refining and is entirely a fossil fuel. While it yields a 14% tailpipe carbon savings compared to standard unleaded fuel, E-85 yields an 80% reduction.

Through our fleet replacement program, we have converted 55% of our police vehicles to E-85. This is an increase of 54% since 2007. This, along with the continuing greening of the rest of the fleet when possible, has lowered our overall fleet carbon emissions by 14% since 2005. The Police Department is preparing to replace 15 Police Crown Victorias with E-85 Police Interceptors that are smaller and run on six cylinders. These vehicles will be more efficient than the current E-85 patrol vehicles.

Although the lifecycle carbon emissions, overall energy balance, and land-use effects of corn-based E-85 are subject to valid concerns, advancements in E-85 production technology are accelerating and are expected to position E-85 as the lowest overall carbon fuel solution of -the alternatives that are currently available.

The City of Raleigh's Police Department has converted 2% (20 vehicles) to the use of propane 90% of the time. The conversion (total cost of \$106,000) was accomplished through a grant, and the provision of a fueling facility at no cost through a large local vendor. While the cost is currently favorable, the tax credit is scheduled to expire at the end of the current year.

While we continue to expand the use of compressed natural gas (CNG) in heavy-duty, low-mpg/high-fuel-consuming diesel vehicles, we will investigate future opportunities for smaller vehicles as conversion costs become more feasible and fueling capabilities are enhanced.

Our current practice is to purchase vehicles to reduce our carbon footprint (bio-fuel, electrical and natural gas), to reduce size (when practical), and to reflect advancements in the field.