Wheels: This being Earth Week, do you have any ideas or suggestions about what the average vehicle owner can do to reduce emissions?

Halderman: Whenever thinking about what we can or should be doing, I try to keep some basics in mind such as:

- 1. Energy costs will likely increase over time.
- 2. Vehicles will likely get smaller in reaction to government mandated fuel economy and emissions regulations.

With these principles in mind, I feel that some of the things we can do to reduce our "carbon footprint" (carbon fuel usage and emissions) is to try to do some or all of the following:

- Drive less when possible by carpooling or combining several short trips into one to reduce fuel usage.
- Slow down. Driving at or below the speed limit increases fuel economy and reduces emissions.
- Purchase a more fuel efficient vehicle. This often means purchasing a smaller vehicle and this can be an issue if a larger vehicle is needed regularly. However, if a larger vehicle is only needed a few times a year, such as pulling a trailer or going on a vacation, consider renting a larger vehicle for that short time thereby saving fuel by using the smaller vehicle the rest of the year.
- Consider purchasing a hybrid electric or electric vehicle. While the fuel savings may take over 80,000 miles before the extra cost is recovered by the improved fuel economy, this is one way to get improved fuel economy from the size vehicle that is needed.
- Consider purchasing an alternative fuel vehicle. Vehicles that can use E85 (85% ethanol and 10% gasoline) are the most commonly available vehicles that can use an alternative fuel. While E85 costs less per gallon than gasoline, unfortunately, using E85 does reduce fuel economy and is often difficult to find in many areas.
- Consider an electric or an extended range electric vehicle. Purchasing an electric vehicle such as a Nissan Leaf may be a good choice but another vehicle will be needed for trips longer than about 70 miles. An extended range electric vehicle, such as the Chevrolet Volt, would greatly reduce the use of gasoline usage and can be driven up to about 40 miles on electric alone. However, the cost of both of these vehicles is higher than a conventional gasoline powered vehicle making the payback period about as long as a hybrid electric vehicle.

Fleet operators should consider using vehicles that can use compressed natural gas (CNG) as a logical way to reduce our dependence on oil. While some vehicles are available to purchase that operate on CNG, there are very few locations where the fuel is available because most are restricted to *private* access only (fleet or government use).

