

## Illinois Climate Change Advisory Group

Subgroup: Transportation  
Policy Name: #44 Fuel efficiency and/or low carbon fuel requirements  
for government vehicles.  
Policy Type: Standards  
Estimated 2020 Reductions: 77,000 metric tons  
5/11/07

### Affected sectors, subsectors or entities

Sector: Transportation  
Subsector: State fleet vehicles

### Description

Illinois law requires the state to purchase FFVs and hybrids unless it is not feasible. This proposal would apply the same requirement to local government vehicles in Illinois as well, and hybrid vehicles must be “full” hybrids, not “mild” hybrids.

### Rough estimate of reductions from BAU in 2020

Illinois CMS projects that of the 12,000 total vehicles in the state fleet by 2015, the number of hybrids and FFVs will change as follows:

#### **1200 more hybrids in the state fleet by 2015 (cars and light trucks)**

Assume non-hybrids avg mpg = 24  
Assume hybrids avg. mpg = 38  
1200 gas vehicles @ 18000 miles each per year @ 24 mpg = 900,000 gallons  
1200 hybrid vehicles @ 18000 miles each per year @ 38 mpg = 568,421 gallons  
Savings = 331,579 gallons/year

331,579 gallons X 19.4 pounds CO<sub>2</sub>/gallon = **2924 metric tons reduced in 2015 from hybrids.**

#### **6000 more FFVs in the state fleet by 2015.**

Assume a 21% GHG benefit for ethanol.  
Assume 50% of the FFV miles will be on E85, rather than regular gas, by 2015.

6000 non-FFVs X 18,000 miles per year @ 24 mpg = 4.5 million gallons.

Replacement with 6000 FFVs running 50% of the time with E85 (assume 80% avg. ethanol):  
4.5 million gallons X 0.80 X 0.5 = 1.8 million gallons of ethanol replacing gasoline.

1.8 million gallons X 19.4 pounds CO<sub>2</sub>/gallon X 0.21 ethanol carbon benefits = **3333 metric tons reduced in 2015 from FFVS.**

**Total 2015 CO<sub>2</sub> reductions from state fleet improvements: 2924 + 3333=6257 metric tons.**

Assume that local governments can achieve proportional reductions in their fleets by 2015.

Reductions from the state fleet = 6257 metric tons in 2015/12,000 vehicles = 0.5 metric tons/vehicle in 2015.

**Assume 154,000\* local government fleet vehicles in Illinois X 0.5 tons reduced /vehicle = 77,000 metric tons CO2 reduced in 2015.**

\*Sec. of State's office: Number of "M" Plated vehicles (municipal, county, park district, etc.). This may omit some government vehicles.

### **Written Comments**

#### Ford Motor Company

Not all hybrids are created equal. As manufacturers produce mild and full hybrids, the fuel savings in this category could be substantially different. While a full hybrid will result in the greatest fuel savings, fleets will soon have numerous mild hybrid options. Any state policy in this area should distinguish between the technologies.