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Climate Change Other Federal Use/Transportation: Federal Transportation Executive Order [2]

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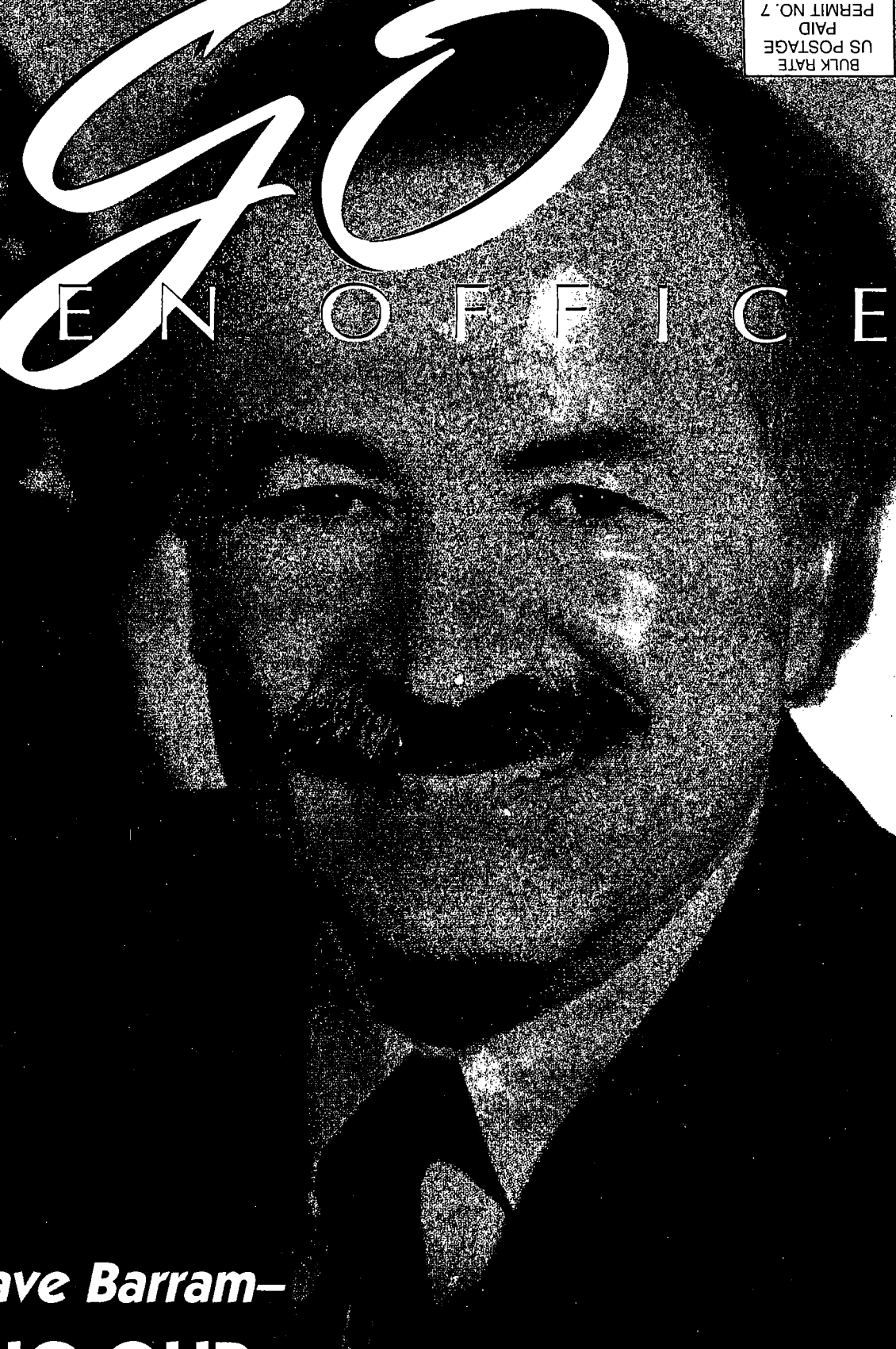
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NOVEMBER 1999

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GO GREEN OFFICE



GSA's Dave Barram—
GREENING OUR
GOVERNMENT

Friday Nov 19 2³⁰ PM

CAR EO MEETING

When:

Where: 115 OEOB

~~Janet~~
Shelley Fidler

mm

Jeff Seabright

mm

David Gardiner

mm

Josh Gotbaum (Mariah ~~Stevens~~ 5-9188)

Seibel

Fri 2:30

✓

~~Henry Kelly 6-6033~~

mm

~~Lisa Kountoupes 6-6620~~

mm

Linda Lance (Lakeyia 6-5142)

mm

Randy Steer

mm

Morley Winograd (Sophia Jackson 6-9008)

held on calendar

Jennifer Muller 6-2816

mm

Ron Minsk 6-2809

mm

Joe Aldy 5-1455

mm

Dan Reicher (Vernillia 586-7701)

NOT Tues, canceled 9, Thurs 1:30-5, Fri 2:30-5

~~? David Leater?~~
Camille Mittelholtz (DoT) 366-4861

VM

David Rodgers (Energy) 586-9118

VM

Lee Slezak

VM

Elgo / David

Tacke Robinson

*** ERROR TX REPORT ***

TX FUNCTION WAS NOT COMPLETED

TX/RX NO	0307	
CONNECTION TEL	9011492283771103	
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RESULT	NG	STOP

Jeff:

I can only offer a few comments on the analysis you faxed. First, most of the analysis reflects the situation that industrial capacity is growing in developing countries much more rapidly than existing capacity is being replaced (or new capacity added) in the U.S. This fact enables dev. countries to install more modern technology/processes to represent a larger share of capacity. (e.g. continuous casting)

Second, the analytic metric for cement production reflects the current US situation of relying on "pure" portland cement (with potential blending at the batch concrete plant) versus that of the rest of the world where a performance specification standard exists which allows blending to take place within the definition of cement. This is the very issue we are working to change.

Third, I question some of the assumptions (not considering elec. generation efficiency) as not providing a life-cycle analysis approach.

Last, these two sectors aren't nearly the largest energy users in the industrial sector (cement is about 2%); by far the largest are chemicals and refining (each about 22-24%) – no mention is made of these.

Hope this provides some help,
Janet

fax to:
Jeff Seabright
US delegation

20% Federal Fleet Petroleum Fuel Reduction

1. Assumptions

The Federal Fleet can achieve a 20% reduction in annual petroleum consumption through numerous means. The following represents a combination of these options believed to be representative of the ones that might actually be used to meet both the Primary and Secondary Goals of the Executive Order.

- EPACT AFVs in the Federal Fleet use alternative fuel for 50% of their fuel use. This satisfies the Executive Order Section 202 Secondary Goal.
- Agencies acquire passenger cars with an average fuel economy that is 2 miles per gallon (mpg) higher than their FY1999 passenger car fuel economy average and light trucks with an average fuel economy that is 3 miles per gallon (mpg) higher than their FY1999 light truck fuel economy average. This satisfies the Executive Order Section 203 Secondary Goal.
- Forty percent of medium and heavy duty trucks use B20 for fuel, and 5% use natural gas. This is one option to achieve the remaining fuel reduction needed to meet the Primary Goal.

2. Results

The following table summarizes the FY 2005 petroleum fuel displacement and costs for the above assumptions.

Summary of Results in FY2005					
	Fuel Displacement (million gallons) [% reduction]	Cost Difference			Cost per Gallon Saved (\$ / gal)
		Vehicles (\$ million)	Fuel (\$ million)	Net Total (\$ million)	
AF Use in EPACT AFVs	26.1 [12.3 %]	\$0.0 ¹	\$9.6	\$9.6	\$0.37
Acquisition of Higher Fuel Economy Cars & Light Trucks	11.2 [5.3 %]	\$30.2 ²	(\$7.6)	\$22.6	\$2.02
AF Use in Medium and Heavy Duty Vehicles	5.0 [11.8 %]	\$12.6	\$6.3	\$18.9	\$3.79
Total Net Cost (\$ million)				\$51.1	-
Total Net Cost per Gallon Saved (\$/gallon)				-	\$1.21

why is this
more than 20%?

November 16, 1999

Percent of Annual Total Federal Fleet Cost	2.4%	-
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1 The cost for EPACT vehicles is not included because they are already mandated.

2 Assumed \$1,000 average incremental cost for higher fuel economy cars and trucks

3. Summary

The above represents what is believed to be typical costs for the Federal Fleet on average overall to achieve the Primary Goal of the Executive Order. Individual agencies will experience costs higher or lower than these costs depending on the options they choose to achieve compliance.



Angela C. Mizeur

11/19/99 10:15:01 AM

Record Type: Record

To: See the distribution list at the bottom of this message

cc:

Subject: Re: Federal Fleet EO

Attached please find Henry Kelly's comments on the paper that was circulated yesterday. It would be helpful to review them before today's meeting at 2:30. Thank you.

----- Forwarded by Angela C. Mizeur/WHO/EOP on 11/19/99 10:06 AM -----



Henry Kelly <hckelly@erols.com>

11/18/99 09:41:45 PM

Record Type: Record

To: Angela C. Mizeur/WHO/EOP, david.gardiner@a1.eop.gov

cc:

Subject: Re: Federal Fleet EO

I don't have everyone's emails so I'm counting on you to send this to anyone that cares.

Brief Comments:

Section 101: We have several tools for reducing greenhouse gasses (properly listed in section 102). This section seems to contemplate only (1) fuel efficiency of vehicles, and (2) low carbon fuels. I'd suggest removing the following phrase: "through improvements in fleet fuel efficiency and the use of alternative fuel vehicles (AFV) and alternative fuels" and substituting "using cost-efficient approaches".

Section 102: There must be some good reason for making greenhouse gas reduction a secondary goal!? Shouldn't it be our primary goal? If there are technologies that cut petroleum consumption 20% but greenhouse gas production by 7% should we encourage them instead of favoring technologies that can achieve large savings in both? I suspect that the problem children involve corn ethanol (vs. cellulosic ethanol) and perhaps natural gas. Do we really want to send a confusing signal in order to preserve what may not be good technical options?

402(g) add "low rolling resistance tires" to the list of qualifying technologies.

fine

?

7
L
such as _____

maybe jetison
"primary" vs. "secondary"

THREE APPROACHES FOR REDUCTION OF PETROLEUM FUEL USE IN THE FEDERAL FLEET

1. Introduction

This report analyzes the benefits and estimates the costs of three approaches for reducing petroleum fuel use in the Federal fleet: increased use of alternative fuel in Federal light duty vehicles, increased fuel economy for Federal light duty cars and trucks, and increased use of alternative fuel in Federal medium and heavy duty vehicles. Other approaches for reducing petroleum fuel use include, for example, downsizing, reducing vehicle miles traveled, improving load planning for heavy vehicles, and use of public transportation, are beyond the scope of this analysis.

The three basic approaches described in this report are moderate, stretch, and breakthrough programs. Each approach has been developed and refined based on experience with Federal fleet use of alternative fuel vehicles (AFVs) over single years and 3 to 5 years in the expected availability of AFVs in the fleet. These estimates are by no means the only approaches to reducing petroleum fuel use in the Federal fleet. Other approaches include, for example, downsizing, reducing vehicle miles traveled, and use of public transportation, are beyond the scope of this analysis.

1.1. Description of Three Approaches

1.1.1. Alternative Fuel Use in Cars and Light Trucks

AFVs are required by the Energy Policy Act of 1992 (EPACT) to be used by Federal light duty vehicles (cars and light trucks) for 15% of their total fuel use by 2005. However, many agencies are currently not using AFVs. This approach is designed to increase the amount of alternative fuel used in agency AFVs. Note, however, that even though agency purchases of AFVs increase at the 15% level over time, the total number of light duty AFVs in the Federal fleet will plateau at about 70,000 in the 2001-2005 timeframe.

1.1.2. Moderate

- EPACT car and light truck AFVs use alternative fuels for 15% of their total fuel use by 2005. Alternative fuel use is phased in over three years starting in 2001.

1.1.3. Stretch

- EPACT car and light truck AFVs use alternative fuels for 50% of their total fuel use by 2005. Alternative fuel use is phased in over three years starting in 2001.

1.1.4. Breakthrough

- EPACT car and light truck AFVs use alternative fuels for 80% of their total fuel use by 2010. Alternative fuel use is phased in over six years starting in 2001.

Economy Improvements in Cars and Light Trucks

Federal agencies already buy a significant number of light duty cars and trucks that are better than the average fuel economy of vehicles on the road. Lack of data, however, did not allow this analysis to estimate the actual fuel economy average for today's fleets, or for FY 1999 purchases. This analysis assumed that Federal purchases are at the average for available cars and light trucks, and that improvements if agencies begin purchasing the leading fuel efficient vehicles on the market. This is dubbed the best in class approach. However, even greater benefits can be obtained with the introduction of advanced technology or PNGV type vehicles that offer 2x fuel economy. This analysis estimated the benefits and costs of acquiring PNGV type cars and light trucks in the breakthrough scenario, though the availability of such vehicles to the Federal Government is highly uncertain.

1. Moderate

- * Cars are chosen based on "Best in Class" starting in 2001

2. Stretch

- * Cars and Light Trucks are chosen based on "Best in Class" starting in 2001

3. Breakthrough

- * 75% of the non-AFV compact cars are 2X-PNGV (50 mpg) vehicles; phased in over four years starting in 2001. 25% of the non-AFV light trucks are 2X-PNGV (30 mpg) vehicles; phased in over six years starting in 2005

C. Alternative Fuel Use in Medium and Heavy Duty Trucks

Federal agencies are not required to buy alternative fuel medium and heavy duty trucks or buses. However many agencies are considering such vehicles due to complement light duty AFVs and reduce emissions in critical areas (e.g., National Parks, metropolitan areas). This analysis estimates the benefits and costs of expanded agency use of alternative fuels in this segment.

1. Moderate

- * 20% of Medium and Heavy Duty Trucks use B20 by 2005, starting in 2001 and phased in over three years.

2. Stretch

- * 40% of Medium and Heavy Duty Trucks use B20, 60% use natural gas (CNG or LNG) by 2005, starting in 2001 and phased in over three years

3. Breakthrough

- * 60% of Medium and Heavy Duty Trucks use B20; 15% use natural gas (CNG or LNG) by 2010, starting in 2001 and phased in over five years

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II. Federal Fleet Fuel Consumption Baselines

When determining how much percentage progress has been made, it is critical to understand the total Federal motor vehicle fuel consumption baseline. This analysis estimates progress against two different baselines.

A. All Except Tactical DOD Vehicles: 325 million gallons per year. This number includes all motor vehicles in all agencies, except tactical vehicles, even if these vehicles are not covered by the Energy Policy Act.

Except Tactical DOD Vehicles, Ambulances, Law Enforcement, and Postal Delivery
223 million gallons per year. This number removes from the baseline all vehicles that are not covered by the Energy Policy Act, and are unlikely to ever be covered by an executive order. In effect, this baseline represents the fuel consumption that can be addressed through a new executive order.

III. Costs

The Federal Fleet will incur several additional costs associated with policies:

- * Incremental vehicle cost
- * Incremental fuel cost
- * Incremental refueling facility costs

Vehicle Costs

The incremental costs of "Best in Class", PNGV, and medium-duty and heavy-duty AFVs were estimated. Incremental costs associated with EPACT light-duty AFVs were not counted since they will have to be acquired under law. The following are the incremental costs assumed.

- * "Best in Class": \$1,000/vehicle (this is a likely upper limit, but is not unreasonable unless manufacturer competition for Federal vehicles can be maintained.)
- * PNGV cars: \$5,000 in 2003, decreasing to \$2,000 in 2005, and then decreasing to \$1,000 in 2010 (this is optimistic, given the very low prices Federal agencies pay for vehicles).
- * PNGV trucks: \$5,000 in 2003, decreasing to \$2,000 in 2010 (this is optimistic, given that no PNGV trucks have been developed).
- * Medium-Duty CNG AFVs: \$11,000/vehicle (likely to decline in the future)
- * Heavy-Duty CNG AFVs: \$18,000/vehicle (likely to decline in the future)

Fuel Costs

The following are the gasoline gallon equivalent (GGE) costs of the fuels assumed (no taxes are included):

- * Gasoline: \$0.68
- * Diesel Fuel: \$0.69

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- * CNG: \$0.58
- * Propane: \$0.47
- * E85: \$1.12
- * B20: \$1.12

Infrastructure Costs

For the Stretch and Breakthrough scenarios, the cost of providing refueling infrastructure was assumed. Based on recent experience, a value of \$250 per vehicle was assumed for E85, and \$2,000 per vehicle for CNG. No incremental cost was assumed for B20 because existing tanks can be used. No incremental cost for propane was assumed because propane refueling facilities are inexpensive and will typically be provided by propane suppliers. The potential exists that private fuel providers would pick up some or all of these costs, but recent experience indicates that Federal agencies will need to invest significant resources.

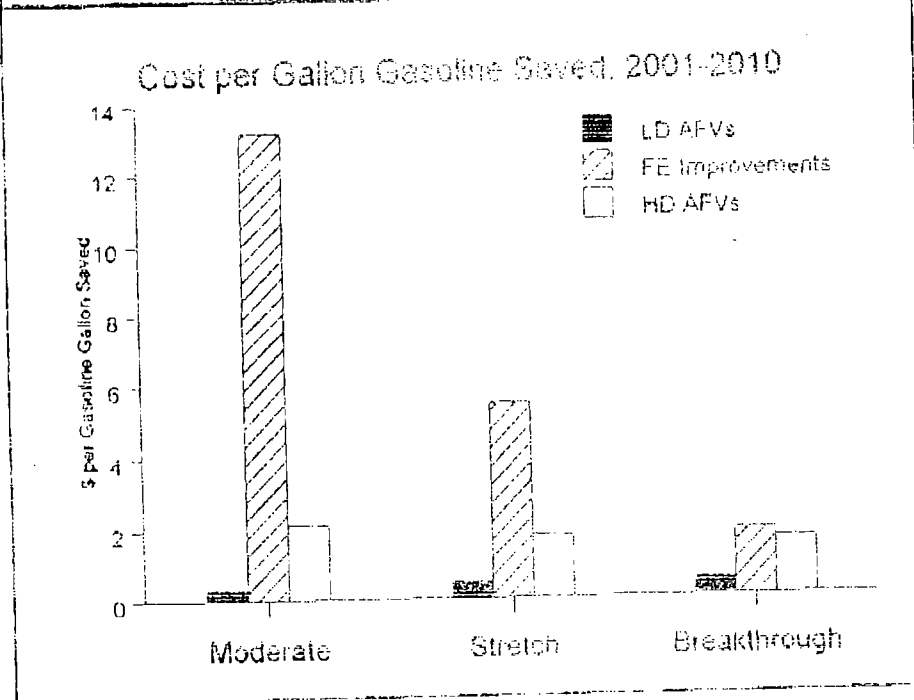
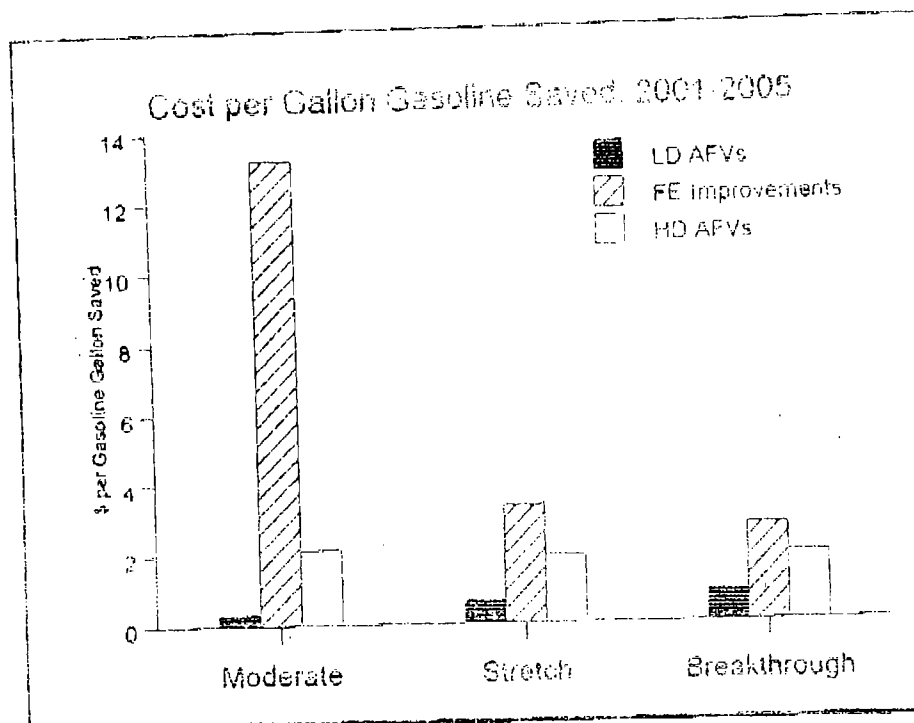
IV. Greenhouse Gases

The gases were estimated assuming the full fuel cycle, expressed as CO₂ equivalent, based onREET Model version 1.4

A Comment on Costs

There are multiple ways to present the costs of these approaches. Total costs, annual costs, percentage of costs over current vehicle expenditures, costs per gallon saved, costs per ton of greenhouse gas emissions saved, or some combination of these. In the time allotted, this analysis estimated the total costs and the costs per gallon saved. The total costs seem large, however, annual Federal spending on vehicles and fuels dwarfs these total costs—but more data is needed to provide a precise estimate.

The following figures show the cost per gasoline gallon saved. The costs/gallon of alternative fuel for light duty vehicles is the lowest of the three approaches. The cost of fuel savings for "Best in Class" is very high because of a small difference between the average and maximum fuel economy of compact cars (about 10% of all Federal Fleet cars) and because none of the incremental cost of \$1,000 per vehicle is assumed to be recovered when the vehicle is taken out of service (sold to the public or state government). (Note: all scenarios include the savings of gasoline not purchased.) Please note, however, that if manufacturer competition is maintained for 5 years or more, and the costs of best in class are closer to \$100 per vehicle, or even \$0, the benefit/cost ratio of this option become much more attractive. The costs/gallon of PNGV vehicles is actually quite good assuming the vehicles become available to the Federal agencies at the costs estimated.



DOE/EE-347/October 15, 1999

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V. Results

2001-2005	Moderate	Stretch	Breakthrough
Gasoline Saved, Million Gallons	86.8	164.6	174.9
Gasoline Saved, Percent (Baseline A)	4.5	8.5	9.0
Gasoline Saved, Percent (Baseline B)	6.5	12.3	13.1
GHGs Reduced, Percent (Baseline A)	1.4	3.7	3.2
GHGs Reduced, Percent (Baseline B)	2.0	5.3	4.7
Incremental Vehicle Costs, \$ Millions	105.1	169.3	167.7
Net Fuel Costs, \$ Millions	30.4	30.0	45.1
Incremental Infrastructure Costs, \$ Millions	0	27.8	77.2
Total Costs, \$ Millions	135.5	239.1	230.0
\$/Gallon Gasoline Saved	1.56	1.45	1.31

2001-2010	Moderate	Stretch	Breakthrough
Gasoline Saved, Million Gallons	195.3	365.0	501.1
Gasoline Saved, Percent (Baseline A)	6.0	11.3	15.4
Gasoline Saved, Percent (Baseline B)	8.8	16.4	22.5
GHGs Reduced, Percent (Baseline A)	1.9	4.8	5.3
GHGs Reduced, Percent (Baseline B)	2.7	6.9	7.7
Incremental Vehicle Costs, \$ Millions	236.5	423.2	217.1
Net Fuel Costs, \$ Millions	68.3	187.0	136.7
Incremental Infrastructure Costs, \$ Millions	0	29.8	77.2
Total Costs, \$ Millions	304.8	640.0	427.0
\$/Gallon Gasoline Saved	1.56	1.78	0.85

DOE/EE-345 October 15, 1999

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TO: ROGER BALLENTINE

FROM: DAVID GARDINER
JEFF SEABRIGHT

RE: EARLY CREDIT

OCTOBER 15, 1999

During the past two weeks, we have consulted with governmental and non-governmental experts regarding possible options for taking bold steps on early credit legislation. There seems preliminary support for the Administration to take a bolder stance by favoring a specific legislative approach, and for pushing an approach that would simply protect emitters baselines. A draft of specifications for such a bill is attached. Before implementing such an approach, however, we recommend that you consult with

- * others within the White House, including George Frampton and Gene Sperling.
- * key players on the Hill, including Jimny Powell.

Key players in non-governmental organizations, including Kevin Fay, Rich Rosenzweig, Bill Bumpers, and someone from DDT.

We have discussed three basic options for policies that we might support: a credit approach like the Chafee-Lazio bills that grants future greenhouse gas credits for reductions from a corporate baseline, a tax credit combined with a Chafee-Lazio approach, and the simple baseline protection approach.

Experts from Treasury, DOE, NEC, and EPA are concerned that the Chafee-Lazio approach is extremely complex and runs substantial risk of being attacked as giving away pollution permits for emission reductions that are not real. In addition, these experts seem uniform in their opinion that a tax proposal was problematic for the same reasons, and that it could be a substantial budget commitment. If there was desire for a tax credit approach, these experts would favor using a specific list of actions that could earn credits, rather than granting credits against a baseline. They felt that this approach would be less subject to gaming, and would be more easily enforceable for the Internal Revenue Service. However, there was broad support for a baseline protection approach, provided that it did not commit to a specific method of permit allocation in the ultimate greenhouse gas trading plan.

The industry people that we have talked to (Fay, Rosenzweig, Bumpers) all seem comfortable with a baseline protection approach, although we have not discussed details as to how to do it. We have not had discussions with the AHA, and this is probably not useful until after this session is completed.

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Removing Disincentives for Early Action

Businesses face considerable uncertainty about future legislation to reduce greenhouse gas emissions. Both the timing of a future program and form that it would take are unknown. This second uncertainty can discourage firms from voluntarily undertaking actions that reduce greenhouse gas emissions. Legislation can greatly reduce this uncertainty.

Many firms express the fear that they will be penalized for taking early actions to reduce greenhouse gas emissions when future legislation is enacted establishing a mandatory emission reduction program. Based perhaps on their familiarity with the acid rain program, they assume that the allocation of emissions allowances or permits under such a program would be based on firms' emissions *as of a baseline year*. They fear that if they have reduced their emissions before that baseline year, they will be shortchanged in that allocation. They say this is leading them to postpone some emission-reducing actions that they would otherwise have made.

Legislation could be enacted now providing a congressional commitment that firms that act early will not be penalized by the structure of any future program. The legislation need only commit that, when a future mandatory program to reduce greenhouse gas emissions is adopted, that program will not penalize those who have reduced their greenhouse gas emissions. It could specifically oppose allocating allowances based on a historical baseline later than 2000.

In addition to a simple statement, the legislation could also specify that there are at least three ways that Congress could provide such a "no penalty" commitment. It should not specify which of mechanism described above would be adopted in the future and should leave open the possibility that another mechanism could be adopted provided that it does not penalize firms that reduce emissions before the mandatory program is adopted. The three specific approaches that could be positively referenced are:

- * Baseline protection. If a future program allocates allowances according to firms' emissions in a baseline year, only a *past* year (e.g., 1999) will be chosen for the baseline. Firms would then be free to make emission reductions any time after the baseline year knowing that they will not prejudice their allowance allocations.
- * Performance benchmarks. Alternatively, a future program could allocate emissions allowances according to a performance-based benchmark (e.g., emissions per unit of output) that would be applied to all firms within an industry, regardless of their individual historical emissions. Under this approach a firm's historical performance or emissions level is irrelevant. As above, a firm would know that it can reduce emissions at any time without affecting the number of allowances it will receive.
- * Auction. Finally, a future program could allocate emissions allowances by auction. Here again, historical emissions would be irrelevant. Firms would need to purchase only enough allowances to cover their emissions when the program takes effect, and acting early would reduce the amount that they ultimately need to purchase.

EPA reform effort

EPA continues in its position that no negotiations can advance here until resolution of the enforcement initiative. The affected utilities and enforcement met again (8th) to attempt a negotiated settlement; utilities offered a package along the lines of what we have discussed (but with too long of a time frame). Everyone's grumpy. This time enforcement walked out; enforcement indicated NOVs are forthcoming, but wouldn't indicate when - several weeks or months. This situation was predicted and provides the opportunity to come in with a national plan; we can't let this win for our side slip away. Linda Lance and I are meeting (15th) to discuss options. Burson has just called George on the line again. There will be action for you here when you return, but I don't yet know when. Inabebe's hearing (14th) on reopening the Clean Air Act did not address this topic. I spoke at the Keystone Energy Board (8th) on an integration approach; Sam Napothano (EPA) indicated that EPA's models showed that utilities made more \$ by installing SCR because they could increase their marginal price. (What assumptions do these guys make??) He was strongly criticized by even the friends.

Auto/EPA consultations

Until we make an internal decision on how to proceed (i.e. whether to create a climate leadership coalition, how willing we are to reconstruct a tax package) there seems to be not much point in a "status round" of meetings. Industry sectors (except utilities) are at work on the items we care about (leading initiatives, working with EPA/DOE on efficiency improvements, considering whether to join initiatives of the Future, etc), but no sector is going to make a commitment agreement. Utilities have moved beyond this to proposing a broad package of minimum actions that would spur further CO₂ reductions. There are several companies we could approach and work with to make a reduction pledge. My choices would be Alcoa, Bethlehem and TRC. Aluminum and cement industries see themselves as "solutions" companies (increased use of my product would reduce overall emissions even if mine go up); there is a challenge with most of the companies in these sectors that this fact doesn't let them off the hook of improving their emissions profile. We continue to engage these guys as they make progress; must feel no sense of urgency given the political situation.

We also have the issue of what we can offer these guys - why should they work with us. The technical assistance front is well covered. David Gaudin and I are reaching with DOT to advance the idea of changing transportation procedures on concrete to encourage more blending and to educate with our local guys. There are specific initiatives in most sectors where they'd like a little help. A strong look at retooling our tax package is in order. We've had minimal interest in much of what's been offered. By my math, \$500+ M (lose CHP, electric vehicles...) should be spread among other new initiatives. This could contain a particular focus on companies that manufacture energy efficient appliances (my idea for a refrigerator rebate with much bigger impact on carbon and energy efficiency, reliability (lower demand) and green electricity issues). We haven't made any contact on the manufacturing side. The concept of tax incentives to offset (Taxes on CO₂ offsetting ideas that should also be pursued. I have several companies working the numbers on this for us so we can evaluate magnitude of cost.

Draft Components for Transportation E.O.
("Plain English" attempt)

Note that the specific numerical targets are all open for discussion. The figures used here are based on numbers proposed in previous discussions.

EXECUTIVE ORDER

Greening the Government Through Efficient Vehicles

By the authority vested in me as President by the Constitution and the laws of the United States of America, including [...], I hereby order as follows:

[Introductory stuff here]

Section 1. Goals. It is the intent of the Administration to reduce petroleum consumption by Federal agencies, to reduce greenhouse-gas emissions resulting from the use of petroleum, and to promote the use of alternative fuels and advanced, efficient vehicle technologies.

Section 2. Reduction in Total Petroleum Use. Each agency must reduce the total amount of petroleum-based transportation fuel that it uses by 20 percent, relative to its 1999 usage, by 2005. Agencies must track and report fuel use by all vehicles that they operate, whether the vehicles are owned or leased, and by any fleets of vehicles operated on behalf of the agency or under the agency's direction. Agencies should be able to document that use of private vehicles has not been substituted for use of government vehicles in order to achieve this goal.

Section 3. Reduction in Greenhouse-Gas Emissions. It shall be the goal of all agencies to reduce their greenhouse-gas emissions from the use of transportation fuels by 10 percent by 2005 and 20 percent by 2010. The Department of Energy will use the data submitted by agencies to calculate each agency's progress toward that goal, and will inform each agency of the results of those calculations.

Section 4. Petroleum Reduction Per Vehicle-Mile Traveled. [Option 3] As part of its effort to achieve the overall petroleum consumption goal of Section B1, each agency must reduce the average quantity of petroleum consumed per vehicle-mile traveled in the agency's fleet by at least 5 percent by 2003, 10 percent by 2005, and 20 percent by 2010, relative to the agency's 1999 baseline.

Section 5. Increase Federal Fleet Average Fuel Economy. [Option 4] As part of its effort to achieve the overall petroleum consumption goal of Section B1, each agency must increase the average fuel economy of all of the petroleum-fueled vehicles in the agency's fleet by at least 1 mpg by 2003, 2 mpg by 2005, and 4 mpg by 2010, relative to the agency's 1999 baseline.

- Maybe require justification to purchase of fuel inefficient

[The numbers in Sections 4 and 5 are chosen to be roughly equivalent.]

Section 6. Increase Use of Alternative Fuels. Use of alternative fuels in vehicles that are capable of it will help agencies achieve the other goals of this and other Orders. Each agency shall establish a goal and plan for operating its alternative-fuel vehicles on alternative fuel to the maximum extent practicable. These goals should ensure that the agency purchases at least the following amounts of alternative fuel for each alternative-fuel vehicle that it operates, by the years indicated:

- (a) 50 gallons gasoline-equivalent by 2004,
- (b) 100 gallons gasoline-equivalent by 2007, and
- (b) 150 gallons gasoline-equivalent by 2010.

Section 7. Baseline Data. The Department of Energy will be responsible for ensuring that adequate data is provided by agencies for 1999 to allow for the calculation of baseline quantities. If adequate information is not provided by the agencies, DOE will calculate estimated values to use as the baseline, in consultation with the agency and OMB. If DOE deems it necessary for any specific agencies, it may establish temporary, estimated baselines and then refine those baseline estimates using 2000 data.

Section 8. Reporting. Each agency currently includes information on transportation fuel consumption in its annual report to DOE/FEMP and OMB on energy efficiency. Beginning with reports submitted for 1999 actual consumption, those reports must include:

- (a) the agency's consumption of alternative transportation fuels,
- (b) a calculated average fuel economy for the agency's fleet, and
- (c) a brief narrative description of actions the agency is taking to achieve the goals of this order, including reductions in vehicle-miles traveled, use of alternative fuels, acquisition of more efficient vehicles within each size class, and replacement of less-efficient classes of vehicles with more efficient classes.

Section 9. New Generation Vehicles. Within 120 days of this order, the Secretary of Commerce, in consultation with the Secretary of Energy, the Administrator of the General Services Administration, and the Partnership for a New Generation of Vehicles (PNGV), shall identify Federal sites that would be the best candidates for testing and evaluation of the early prototypes of PNGV 2X and 3X vehicles.

Added Hybrid electric

Section 10. Definitions.

- (a) "Agency fleet" means the total combination of all vehicles operated by the agency, whether owned or leased, and all vehicles operated in private fleets at least 50 percent of the time on behalf of or at the direction of the agency.

(b) “Baseline” refers to the measured, calculated, or estimated value of any quantity discussed in this order for a specific agency for fiscal year 1999. This value will be used as the basis for calculating each agency’s progress toward the reduction goals of this order.

(c) “Average fuel economy” means the calculated average of the EPA “combined city/highway” fuel economy ratings for all the vehicles in an agency’s fleet.

(d) “Flex-fuel” refers to vehicles that can operate on a range of mixtures of fuels. A “petroleum flex-fuel” vehicle is one that can operate on petroleum fuels or alternative fuels, such as a car that can use any mixture of ethanol in gasoline from 100 percent gasoline to 85 percent ethanol.

(e) “Gasoline-equivalent” refers to the energy content of an alternative fuel. For alternative fuels that are at least 85 percent non-petroleum (by volume), one gallon gasoline-equivalent of alternative fuel is an amount of that alternative fuel that contains the same energy as a gallon of gasoline. This would apply to ethanol and methanol-based fuels, propane, natural gas, and electricity. For biodiesel fuel, only the percentage of the fuel that is not petroleum-derived is to be used in the gasoline-equivalent calculation.

Section 11. General Provisions.

(a) This order is intended only to improve the internal management of the Executive branch and is not intended to create any right, benefit, or trust responsibility, substantive or procedural, enforceable by law by a party against the United States, its agencies, its officers, or any other person.

(b) [Scope]

(c) [Severability]

Responses to Issues Raised About Key Provisions in Earlier Discussions

Option	Issue	Response
Option 1 - Sec. 2	Possible switching to use of private fleets	Definition of agency fleets includes private fleets used 50% of the time or more for the benefit of the agency.
	Possible substitution of private (employee) vehicles for some trips, paying mileage instead of fuel.	Explicitly addressed in the last sentence in B1
	Possible switching to use of cabs	Low level of concern; no solution proposed. Budgets for local travel/petty cash are fairly tight.
	Possible switching to use of planes	Low level of concern; no solution proposed.
Option 2 (not used)	Could cause purchase of extra vehicles to meet target	Low level of concern; no solution proposed.
	Could create disincentive to reduce fleet size (consolidation of low-use vehicles) that might otherwise be a management objective.	Moderate concern. Allow recalculation of baseline if agency fleet size is reduced. (Not if increased.) Included as C1(b).
Option 3 - Sec. 4	Reporting burden.	Moderate concern. Jennifer Muller has checked with agencies and this doesn't sound so hard for them after all. Many already collect the data.
Option 4 - Sec. 5	If worded as specific average fuel economy targets for specific dates, may create problems for agencies with a high level of trucks and SUVs.	High concern. Section C3 is drafted to implement the increases against an individual baseline for each agency, which solves the problem unless agency missions change significantly.
		Fallback option: If we want to use specific fuel economy targets rather than changes from an agency baseline, the Secretary of DOE can issue waivers that allow an agency to meet targets set for various classes of vehicles.

Draft Components for Transportation E.O.

[Introductory stuff here]

Section A. Goals. It is the intent of the Administration to reduce petroleum consumption by Federal agencies, to reduce greenhouse-gas emissions resulting from the use of petroleum, and to promote the use of alternative fuels and advanced, efficient vehicle technologies.

Section B1. Reduction in Total Petroleum Use. Each agency must reduce the total amount of petroleum-based transportation fuel that it uses by 20 percent, relative to its 1999 usage, by 2005. Agencies must track and report fuel use by all vehicles that they operate, whether the vehicles are owned or leased, and by any fleets of vehicles operated on behalf of the agency or under the agency's direction. Agencies should be able to document that use of private vehicles has not been substituted for use of government vehicles in order to achieve this goal.

Section B2. Reduction in Greenhouse-Gas Emissions. It shall be the goal of all agencies to reduce their greenhouse-gas emissions from the use of transportation fuels by 10 percent by 2005 and 20 percent by 2010. The Department of Energy will use the data submitted by agencies to calculate each agency's progress toward that goal, and will inform each agency of the results of those calculations.

[Select *one* of the "C" options – they largely overlap.]

Section C1. Petroleum Reduction Per Vehicle. [Option 2] (a) As part of its effort to achieve the overall petroleum consumption goal of Section B1, each agency must reduce the average quantity of petroleum consumed per vehicle in the agency's fleet by at least 5 percent by 2003, 10 percent by 2005, and 20 percent by 2010, relative to the agency's 1999 baseline.

(b) If an agency's fleet size decreases, the agency may ask DOE to recalculate their baseline, adjusted to the smaller number of vehicles.

Section C2. Petroleum Reduction Per Vehicle-Mile Traveled. [Option 3] As part of its effort to achieve the overall petroleum consumption goal of Section B1, each agency must reduce the average quantity of petroleum consumed per vehicle-mile traveled in the agency's fleet by at least 5 percent by 2003, 10 percent by 2005, and 20 percent by 2010, relative to the agency's 1999 baseline.

Section C3. Increase Federal Fleet Average Fuel Economy. [Option 4] As part of its effort to achieve the overall petroleum consumption goal of Section B1, each agency must increase the average fuel economy of all of the petroleum-fueled and ~~petroleum flow-fuel~~ vehicles in the agency's fleet by at least 1 mpg by 2003, 2 mpg by 2005, and 4 mpg by 2010, relative to the agency's 1999 baseline.

[The numbers in the alternates for Section C are chosen to be essentially equivalent.]

maybe need to limit to non alt fuels vehicles

Section D. The Department of Energy will be responsible for ensuring that adequate data is provided by agencies for 1999 to allow for the calculation of baseline quantities. If adequate information is not provided by the agencies, DOE will calculate estimated values to use as the baseline, in consultation with the agency and OMB.

Section E. Reporting. Each agency currently includes information on transportation fuel consumption in its annual report to DOE/FEMP and OMB on energy efficiency. Beginning with reports submitted for 1999 actual consumption, those reports must include:

- (a) the agency's consumption of alternative transportation fuels,
- (b) a calculated average fuel economy for the agency's fleet, and
- (c) a brief narrative description of actions the agency is taking to achieve the goals of this order, including reductions in vehicle-miles traveled, use of alternative fuels, acquisition of more efficient vehicles within each size class, and replacement of less-efficient classes of vehicles with more efficient classes.

Section F. New Generation Vehicles. Within 120 days of this order, the Secretary of Commerce, in consultation with the Secretary of Energy, the Administrator of the General Services Administration, and the Partnership for a New Generation of Vehicles (PNGV), shall identify Federal sites that would be the best candidates for testing and evaluation of the early prototypes of PNGV 2X and 3X vehicles.

Section G. Definitions.

- (a) "Agency fleet" means the total combination of all vehicles operated by the agency, whether owned or leased, and all vehicles operated in private fleets at least 50 percent of the time on behalf of or at the direction of the agency.
- (b) "Baseline" refers to the measured, calculated, or estimated value of any quantity discussed in this order for a specific agency for fiscal year 1999. This value will be used as the basis for calculating each agency's progress toward the reduction goals of this order.
- (c) "Average fuel economy" means the calculated average of the EPA "combined city/highway" fuel economy ratings for all the vehicles in an agency's fleet.
- (d) "Flex-fuel" refers to vehicles that can operate on a range of mixtures of fuels. A "petroleum flex-fuel" vehicle is one that can operate on petroleum fuels or alternative fuels, such as a car that can use any mixture of ethanol in gasoline from 100 percent gasoline to 85 percent ethanol.

Option & Draft	Issue	Response
Option 1 - ¶ B1	Possible switching to use of private fleets	Definition of agency fleets includes private fleets used 50% of the time or more for the benefit of the agency.
	Possible substitution of private (employee) vehicles for some trips, paying mileage instead of fuel.	Explicitly addressed in the last sentence in B1
	Possible switching to use of cabs	Low level of concern; no solution proposed. Budgets for local travel/petty cash are fairly tight.
	Possible switching to use of planes	Low level of concern; no solution proposed.
Option 2 - ¶ C1	Could cause purchase of extra vehicles to meet target	Low level of concern; no solution proposed.
	Could create disincentive to reduce fleet size (consolidation of low-use vehicles) that might otherwise be a management objective.	Moderate concern. Allow recalculation of baseline if agency fleet size is reduced. (Not if increased.) Included as C1(b).
Option 3 - ¶ C2	Reporting burden.	Moderate concern. Jennifer Muller has checked with agencies and this doesn't sound so hard for them after all. Many already collect the data.
Option 4 - ¶ C3	If worded as specific average fuel economy targets for specific dates, may create problems for agencies with a high level of trucks and SUVs.	High concern. Section C3 is drafted to implement the increases against an individual baseline for each agency, which solves the problem unless agency missions change significantly.
		Fallback option: If we want to use specific fuel economy targets rather than changes from an agency baseline, the Secretary of DOE can issue waivers that allow an agency to meet targets set for various classes of vehicles.

Morley A. Winograd@OVP
07/06/99 03:51:26 PM

Record Type: Record

To: Roger S. Ballentine/WHO/EOP@EOP
cc: John Kamensky/OMB/EOP@EOP
Subject: Transportation EO

*fire if we can
find it.*

Roger:

This one has a lot of deja vu in it for us. We (NPR) tried to get the building efficiency EO redone to get out of its command and control mode with lots of administrative burden and reports for the agencies into some kind of an incentive structure instead. Ultimately we were unsuccessful. We also tried to get it written in Plain Language as required by earlier EOs but that caused Todd all kinds of last minute agita. So, hopefully we can do better with this one. Here are my initial thoughts on the draft. Happy to work with you and/or your team to make it better and productive:

1. I agree with everyone of what I presume to be your handwritten comments on the side of the document.

2. We cannot put forward an EO which is conflict with the direction that PNGV is taking. This happens whenever the EO singles out petroleum as the enemy even if used in "bi-fuel or flexible fuel" vehicles. We have invested a lot of money in making these hybrid vehicles which certainly do use gasoline more energy efficient and it would be both contradictory and counter productive to prevent their usage by federal government. This happens as I read it in Sec. 203, 402(c), 402 (e), 503 (a) and maybe 704.

3. The EO is full of the reporting requirements we fought so hard against in the last EO. GPRA is not about energy efficiency, it is about accomplishing the fundamental missions of the agency. We successfully fought having any of that in the final EO before and would do so again. But there are other parts of this idea that creep in everywhere, like with budget submissions, agency plans, personnel evaluations, etc. that are way too broad and unnecessary. They won't actually accomplish anything but resentment towards the order. All of them are bad but the one that will blow this EO out of the Congressional water is 504(e) requiring agencies to establish a 1990 (sic) baseline for their carbon emissions and then report annually on those same emission levels. Talk about a hot button! And again, not consistent with PNGV.

4. Speaking of which, Sec. 506 devoted to the subject is OK (and even a good idea) but you can't have PNGV as such be consulted because it isn't an agency. We can work the wording here. What might be an even better idea is to also have federal government buy the remaining fleet of EVs that GM made so they can get some of their half billion of sunk costs out of what turned out to be a dead end technological solution.

5. I assume someone from DoD will kill you before they let Sec. 607 with its incredible micromanagement of their waiver get approved. *agree*

6. To avoid favoring technologies that might not have any additional market viability beyond government purchases, I would get rid of SEc. 503 (a). *what if it includes gas?*

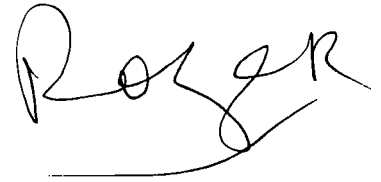
As for some positive ideas, what we should be thinking about here is how we can use our buying power to jump start the market for these kinds of transportation alternatives. To do that we need agencies excited about buying them. What about having GSA create a buying consortium allowing these vehicles to get purchased at a good price and then have GSA further subsidize the agency's acquisition of them through one of their revolving fund mechanisms? That way we could eliminate all of this reporting overhead nonsense and have agencies out there doing what we want them to do because it is to their financial

AA

advantage to do so. GSA would become our tracking device and for that we could give them some kind of budgetary support. I'd be happy to talk to David Barram about all that if you think its worth pursuing.
Morley

FEDERAL FLEET POLICY COUNCIL

May 28, 1999



Dear Mr. Stern:

The Federal Fleet Policy Council (FEDFLEET) is requesting confirmation of the exempt status of law enforcement vehicles from targeted petroleum reduction goals in any forthcoming Executive Order on Federal energy environmental leadership through fleet and transportation efficiency.

Federal activities operate motor vehicles only as required to meet their mission requirements. Due to the unique and varied nature of law enforcement, only certain vehicles are able to perform the tasks necessary to accomplish these missions. These tasks include: 1) Surveillance, where a vehicle must blend in with the regular mix of vehicle traffic; 2) Pursuit, where a vehicle must accelerate, handle, and brake at high performance levels; and 3) Transport, where a vehicle must accommodate and secure the movement of detainees, weapons and other materials.

Our law enforcement subcommittee met to discuss plans for increased energy efficiency in Federal motor vehicle fleet operations. This subcommittee meeting included law enforcement fleet managers from the headquarters level of the Department of Justice (Federal Bureau of Investigations, Drug Enforcement Agency, and the Immigration & Naturalization Service), Department of Treasury, and the Department of Interior.

We are supportive of administration objectives to lead the displacement of petroleum consumption and the reduction of greenhouse gas emissions through the use of alternative fuel vehicles (AFV), alternative fuels, and improvements in fleet efficiency. However, we believe that law enforcement vehicles should be exempt from specifically targeted mandates for the following reasons:

- The unique nature of law enforcement missions significantly hinders adherence to the requirements.
- Law enforcement fleets face expanded mission requirements and additional staffing levels which impede achievement of these goals.
- It is impossible to forecast the environmental friendliness of the large number of seized vehicles utilized by law enforcement fleets to accomplish their missions.
- Adequately sized and equipped alternate fuel vehicles, suitable for law enforcement, are not available from OEM manufacturers.

- The percentage of law enforcement vehicles compared to the total Federal fleet is extremely small and has little impact on overall fleet environmental improvements.

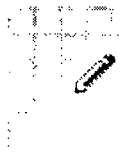
The FEDFLEET law enforcement subcommittee requests the opportunity to express our views on this issue directly with you. Please contact Bill Rivers at (202) 208-7631 to discuss the exemption for law enforcement fleets, which is crucial for the ability of law enforcement fleets to accomplish their missions before issuance of this Executive Order.

Sincerely,



Carol A. Sutton
Chairperson,
FEDFLEET Steering Committee





Jefferson B. Seabright
08/03/99 09:26:07 AM

Record Type: Record

To: Roger S. Ballentine/WHO/EOP@EOP
cc: Angela C. Mizeur/WHO/EOP@EOP
Subject: Re: Federal fleet background materials 

Roger: I agree this was very helpful material and hope we can get consensus tomorrow on one option to pursue. We should forward the materials to all invitees today.

As I mentioned last week, I think Proposal 2 (reduce average petroleum use per vehicle for the entire fleet) is the best option. It will will 1) result in real enviro benefits because less fuel used means less impact; 2) gives agencies the flexibility to implement based on their situation -- more alt fuels, more efficient cars, fewer SUVs, etc. -- this latter point should appeal to Morley as consistent with re-invention; and 3) has the simplicity of the Bush EO but is different and more meaningful (can't hit goal by downsizing)..



David.Rodgers@ee.doe.gov

08/03/99 10:21:02 AM

Record Type: Record

To: Roger S. Ballentine/WHO/EOP

cc: Jefferson B. Seabright/WHCCTF/EOP, Lee.Slezak@ee.doe.gov, Joan.Glickman@ee.doe.gov

Subject: Re: Federal fleet background materials

Dear Roger,

Here is the short answer: If alternative fuel use was required for light duty vehicles only, the impact would be small overall, but would have a visible impact on local federal fleets and help build alt. fuel infrastructure. If alt. fuel use was encouraged across the fleet, including medium and heavy-duty vehicles, the potential is much larger.

We think the petroleum reduction approaches will induce significant alternative fuel use in light, medium, and heavy-duty vehicles, especially in coordination with efforts to promote dedicated alternative fuel vehicles which offer the best emissions performance as well.

David Rodgers

Roger_S._Ballentine@who.eop.gov on 08/02/99 07:03:21 PM

To: David Rodgers/EE/DOE

cc: Jefferson_B._Seabright@whcctf.eop.gov, Lee Slezak/EE/DOE, Joan Glickman/EE/DOE

Subject: Re: Federal fleet background materials

Kudos to DOE. These were excellent materials. Thanks to you and all who helped out. One question I had is whether anyone also looked at how a phased in alt fuels use requirement would work.

May 3, 1999

EXECUTIVE ORDER

DRAFT

**Federal Energy Environmental Leadership
Through Fleet and Transportation Efficiency**

By the authority vested in me as President by the Constitution and the laws of the United States of America, including the Energy Policy and Conservation Act, as amended (42 U.S.C. 6201 et seq.), the Energy Policy Act of 1992 (Public Law 102-486), section 301 of title 3, United States Code, the Energy Conservation Reauthorization Act of 1998 (ECRA), **and section 2010 of title 15, USC?** it is hereby ordered as follows:

PART 1 – PREAMBLE

Section 101. **Federal Leadership.** The purpose of this order is to ensure that the Federal Government exercises leadership in the displacement of petroleum consumption and the reduction of greenhouse gases through improvements in fleet fuel efficiency and the use of alternative fuel vehicles (AFV) and alternative fuels. Reduced petroleum use and the displacement of petroleum by alternative fuels will foster markets for more fuel efficient products, encourage new technologies, enhance energy self-sufficiency and security, and ensure a healthier environment through the reduction of greenhouse gases and other pollutants in the atmosphere.

PART 2 - GOALS

(but not requirements)

Section 201. **Increased Fleet Efficiency.** Through cost-effective measures, each agency operating ~~300 or more~~ motor vehicles within the United States shall reduce its entire fleet's average annual petroleum consumption per vehicle by at least 20 percent by FY 2005 in comparison with FY 1999.

Section 202. **Purchase of Alternative Fuel Vehicles.** Each agency shall fulfill the acquisition requirements for alternative fuel vehicles established by the Energy Policy Act of 1992 while increasing its use of alternative fuels.

Section 203. **Ensure Use of Alternative Fuel.** Through cost-effective measures, each agency shall substantially increase use of alternative fuels in its vehicle fleets and restrict the use of petroleum in bi-fuel and flexible-fuel vehicles.

PART 3 - ORGANIZATION AND ACCOUNTABILITY

Section 301. **Annual Budget Submission.** Each agency's budget submission shall include a line item that specifically requests funding necessary to achieve the goals of this order.

Section 302. **Government Performance and Results Act.** Each agency shall develop an implementation plan for fulfilling the requirements of this order. Each agency shall include goals and objectives from its plan in its Strategic and Annual Performance Plans required by the Government Performance and Results Act.

Section 303. **Annual Reports.** Each agency shall measure and report its progress in meeting the goals of this order on an annual basis. Agencies shall follow reporting guidelines as developed under Section 306(a) of this order. Each agency's annual report shall describe how the agency is using each of the strategies described in Part 4 to help meet the goals of this order. The annual report shall explain why certain strategies if any, have not been used. Agency reports should be consistent with the reports submitted to DOE and Congress. Agency reports are due to the President on January 1 of each year beginning in the year 2000.

Section 304. **Designation of Senior Agency Official.** Within 90 days of the date of this Order, each agency shall designate a senior official, at the Assistant Secretary level or above, to assume responsibility for the agency's alternative fuel vehicle and fleet fuel efficiency programs, and for meeting the requirements of this Order, including the Annual Report to the President.

Section 305. **Interagency Coordination.**

(a) **Interagency Federal Energy Coordination.** The Office of Management and Budget's Deputy Director of Management shall be responsible for working with the agencies to meet the goals of this order and report their progress. The Deputy Director of Management shall be responsible for encouraging inclusion of appropriate agency requests for funding Federal energy management in the President's Annual Budget Request to Congress. In addition, the Deputy Director shall be responsible for evaluating each agency's progress in improving energy management; and, submitting agency scorecards to the President to report progress.

The Deputy Director of Management shall assist agencies in developing budget submissions that include funding requests for carrying out the requirements of this order. The Deputy Director of Management will also work with DOE and other agencies to create:

- (1) guidelines for agencies' preparation of annual funding requests to meet the goals and requirements of this order;

(2) guidelines for agencies' preparation of the Annual Report to the President on energy management, including budget information, the agency's funding request to OMB, and the amount appropriated by Congress to implement provisions of this Order.

(3) an agency energy scorecard including criteria to evaluate each agency's progress in meeting the goals of this order.

(b) **President's Management Council.** The President's Management Council, chaired by the Deputy Director of Management at OMB and consisting of the Deputy Secretaries of all Federal agencies, will assess agencies' progress in improving Federal transportation management at least once per quarter. The President's Management Council will provide a forum to identify the financial barriers to the acquisition and use of Federal AFVs and alternative fuels, develop innovative methods for agencies to overcome these barriers, and make this information readily available to all agencies.

Section 305. **Applicability.** This Order applies to each agency operating ~~300 or more~~ motor vehicles within the United States. Agencies will not be exempt from the requirements of this Order due to limited appropriations.

PART 4 – FEDERAL LEADERSHIP IN TRANSPORTATION

Section 401. **Cost Effective Measures.** Each agency shall ensure that all investments in vehicles and fuels consider the full life cycle cost to lower the Federal Government's cost of operations, reduce energy consumption, and reduce carbon emissions. The Department of Energy will issue guidance to clarify how agencies determine the full life-cycle cost for investments in vehicles and fuels.

Section 402. **Energy Management Strategies.** Agencies shall use the following energy management strategies, where cost-effective, to meet the goals of this order.

(a) **Federal Fleet Fuel Efficiency.** Agencies may use any combination of the following approaches to meet the fuel efficiency goal of this order: ~~agencies shall~~ use more fuel efficient and advanced technology vehicles such as hybrids; reduce vehicle miles traveled; increase use of alternative fuels, renewable fuels, and replacement fuels; place limitations on vehicle type and engine size; and, implement fleet and/or vehicle downsizing among other strategies to improve fuel efficiency and reduce carbon emissions wherever practicable. Agencies shall encourage employees to use alternate modes of transportation (e.g., public transit) rather than an agency fleet vehicle or taxi for local business travel and commuting. Agencies should review their existing fleet including class and weight information; assess their fleet needs in terms of size and

why can't we have a mandate here?

vehicle type; replace retiring vehicles with more fuel-efficient vehicles; and purchase the most fuel-efficient vehicles to fulfill new fleet demands.

why focus
on AFVs
and not
efficiency?

(b) **Innovative Financing of AFV Purchases.** GSA shall implement innovative financing options to encourage the acquisition of AFVs and use of alternative fuels by agencies.

(1) Agencies shall be allowed to incorporate the incremental cost of a future replacement AFV into the lease rate of the current leased vehicle and will have the option of averaging AFV incremental costs across the agency fleet as provided by the Energy Policy Act of 1992.

(2) Agencies must pay a surcharge to GSA if alternative fuel infrastructure is available and a Federal fleet does not use alternative fuel in its AFVs at least 75% (?) of the time. The funds paid to GSA will be used to offset the incremental cost of future AFV and advanced technology vehicle acquisitions for the agency paying the surcharge.

?

(c) **Vehicle Reporting Credits.** In fulfilling the AFV acquisition requirements of the Energy Policy Act of 1992, each agency acquisition of an alternative fuel light-duty vehicle shall count as one credit towards those requirements. Agencies shall still earn credit for AFVs even if placed outside the metropolitan areas specified in the Act. Agencies shall receive additional credits for: AFV purchases that exceed their annual requirements; vehicles that exclusively use an alternative fuel; zero emission vehicles; and dedicated medium and heavy-duty vehicles. Agencies can also receive credits for significant documented alternative fuel use. The Department of Energy shall determine the number of credits and eligibility after consultation with other agencies.

what are
they?

(d) **Infrastructure.** To support the use of alternative fuel in AFVs, agencies shall arrange for fueling at commercial facilities that offer alternative fuels for sale to the public.

(1) Agencies should establish partnerships with state, local, and private entities to increase the availability of and support commercial fueling available to the Federal government and the public.

(2) Agencies should concentrate their acquisitions and promote alternative fuel infrastructure development in six metropolitan areas that have demonstrated a strong commitment to alternative fuels. The Department of Energy shall designate the six pilot areas, with input from other agencies.

(3) Agencies should use the authority granted to them in section 304 of the Energy Policy Act of 1992 to enter into commercial arrangements for the purpose of fueling

Federal AFVs where public fueling is unavailable.

(e) **Alternative Fuel Week.** One week each year shall be observed as National Alternative Fuel Week to recognize the importance of alternative fuels to the United States and to educate the public, including our children, on the many benefits of alternative fuels.

(f) **Public Awareness.** To increase the public awareness of Federal acquisition and use of AFVs, all Federal AFVs must prominently display the AFV Logo chosen in the General Services Administration/Washington Council of Governments national logo design competition. [GSA Policy Office is proposing this addition. Clean Cities doesn't support it.]

7
(g) **Procurement of Environmentally Preferable Motor Vehicle Products.** Consistent with Executive Order 13101 and the Resource Conservation and Recovery Act, 42 U.S.C. section 6901 et seq., in acquiring and maintaining motor vehicles, agencies shall acquire and use environmentally preferable products, including but not limited to re-refined lubricating oil, retread tires, tires containing 5-10% post-consumer content, and bio-based products (e.g. lubricants), when such products are reasonably available and meet applicable performance standards.

(1) **Re-refined Motor Oil.** Effective six months after the date of this order, no agency shall purchase, sell, or arrange for the purchase of virgin petroleum oil when an environmentally preferable alternative is readily available and meets the vehicle manufacturer's recommended performance standards.

(2) **Climate Neutral Fuels.** Agencies are also encouraged to purchase climate neutral fuels, i.e. fuels for which associated life cycle emissions have been neutralized through other energy efficiency projects, use of renewable energy, or other appropriate activities.

Section 403. **Management/Government Performance.** Agencies shall use the following management strategies to assist them in meeting the goals of this order.

(a) **Awards.** Agencies shall use employee incentive programs to reward exceptional performance in implementing this order.

(b) **Performance Evaluations.** Agencies shall include successful implementation of the provisions of this order in the position descriptions and performance evaluations of agency heads, members of the agency energy team, fleet managers, their superiors, and other relevant employees.

(c) **Retention of Savings/Rebates.** Agencies granted statutory authority to retain a portion of savings generated from efficient energy management are encouraged to permit the retention of the savings at the facility or site where the savings occur to provide greater incentive for that facility and its site managers to undertake more energy management initiatives, including the purchase of energy efficient and alternative fuel vehicles and the use of alternative fuels.

(d) **Training and Education.** Agencies shall ensure that all appropriate personnel receive training for implementing this order.

(1) The head of each Agency shall issue guidance to their site and fleet managers to educate them on the requirements of the Energy Policy Act, the importance of compliance to the administration and the agency, and the procedures that must be followed to properly budget for and order AFVs.

(2) DOE and DOD shall make training available to all Federal agencies on the energy management strategies contained in this order.

PART 5 – Technical Assistance

Section 501. Within 120 days of this order, the Administrator of the General Services Administration, in consultation with other agency heads, shall:

- (a) provide a summary of agency AFV acquisition plans to potential AFV manufacturers to assist in their production planning. At least four months in advance of agency vehicle ordering cycles, GSA must provide to agencies the best available information on the production plans of AFV manufacturers.
- (b) develop, in coordination with DOE and EPA, and implement a vehicle rating system to clearly identify the light, medium, and heavy vehicles in the top five percent for fuel efficiency of their respective classes. This rating system shall be used in the Federal Motor Vehicle Standards to assist Federal fleet managers in selecting vehicles that will help them improve their fleet fuel efficiency.

Section 502. Within 120 days of this order, the Director of the Office of Management and Budget, ~~in collaboration with~~ in consultation with the Secretary of the Treasury, the Director of the Office of Personnel Management, the Administrator of the Environmental Protection Agency, and the Secretary of Energy, shall:

- (a) recommend legislation to the President for parking cash out by amending Federal employee compensation law (5 USC 7905 (b) (2)) to equalize tax treatment for

*Be fully met
efficiency
also?*

Good

Federal employees.

- (b) recommend legislation to the President to establish requirements and credits for alternative fuel use, incorporation of advanced high efficiency vehicles, and other appropriate approaches that will address barriers to petroleum consumption reduction.

Section 503. Within 120 days of this order, the Secretary of Defense, the Administrator of the General Services Administration and the Secretary of Energy shall:

- (a) report on the feasibility of retrofitting and operating an ethanol refueling station in the Washington, D.C. metropolitan area.

what about gas?

Section 504. Within 180 days of this order, the Secretary of Energy, in collaboration with other agency heads, shall:

- (a) issue guidance describing how agencies may obtain alternative fuel vehicle acquisition credits.
- (b) develop and issue guidelines to assist agencies in developing their Annual Reports to the President.
- © develop and issue guidance for entering into commercial arrangements, including the use of Energy Savings Performance Contracts (ESPC), to obtain refueling for Federal AFVs. This guidance must also contain information to assist agencies in determining the locations of existing public access alternative fuel infrastructure.
- (d) continue to provide technical assistance to other agencies that acquire AFVs and alternative fuels and must facilitate the coordination of the Federal Government's AFV program and continue the program begun in FY 1997 to provide partial funding assistance for agency acquisitions of dedicated electric vehicles.
- (e) issue guidance for each agency to track its annual carbon emissions after establishing its 1990 carbon baseline for fleets.

Section 505. Within 180 days of this order, the Administrator of the Environmental Protection Agency, in collaboration with the Secretary of Energy and other agency heads, shall:

- (a) develop guidelines for agencies to calculate their 1999 baseline fleet fuel usage.
- (b) issue guidance to agencies defining "climate neutral" and identifying "climate neutral" products.

Section 506. Within 120 days of this order, the Secretary of Commerce, in consultation with the Secretary of Energy, the Administrator of the General Services Administration, and the Partnership for a New Generation of Vehicles (PNGV), shall:

- (a) identify Federal sites that would be the best candidates for testing and evaluation of the early prototypes of PNGV 2X and 3X vehicles.

Section 507. Within 2 year of this order, the Secretary of Transportation shall:

- (a) direct all agencies with 500 or more employees in the Washington, D.C. metropolitan area to submit to DOT transportation management plans (TMPs) aimed at reducing single occupant vehicle trips to work sites. This effort is intended to assist agencies in meeting the requirements of Part 4 of the Order. These plans should address a range of measures including the expanded transit and vanpool benefits, parking cash-out to the extent allowed by law, and employee awareness programs. Plans should also address measures to increase use of ride sharing, bicycling and walking, staggered work hours, and telecommuting.

careful

- (1) Copies of the plans must be submitted to the National Capital Planning Commission.

- (2) Plans must be implemented within 18 months.

- (b) issue a report to the President on agency compliance with the TMP requirement and recommendations for changes in agency TMPs or executive orders to ensure better compliance.

PART 6 - GENERAL PROVISIONS

Section 601. **Revocation.** This order supersedes sections 9 and 10 of Executive Order 12759 of April 17, 1991. Executive Order 13031 of December 13, 1996 is revoked.

Section 602. **Existing Executive Orders.** All other Executive Orders remain in force.

Section 603. **Statutory Authority.** Agencies must carry out the provisions of this order to the extent consistent with their statutory authority.

Section 604. **Limitations.** This Order is intended only to improve the internal management of the executive branch and is not intended to create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law by a party against the United States, its agencies, its officers, or any other person.

Section 605. **Independent Agencies.** Independent agencies and agencies excepted from

earlier it is cited

coverage by Section 305 are encouraged to comply with the provisions of this Order.

Section 606. Government-Owned Contractor-Operated Vehicles. Agencies must ensure that all Government-owned contractor-operated facilities and vehicles comply with all applicable goals and other requirements of this Order and that these goals and requirements are incorporated into each contractor's management contract.

Section 607. Exemption for Military Tactical Vehicles. Military tactical vehicles are exempted from this Order's requirements for federal fleet fuel efficiency and alternative fuel vehicle acquisition. Agencies claiming exemptions for military tactical vehicles must provide information on the number of each class or type of vehicle claimed as exempt as well as an estimate of fuel consumption used by each type or class on an annual basis. Agencies should examine options for increasing fuel efficiency in these exempt vehicles and must report actions taken to increase fuel efficiency in these vehicles or fleets. All information required by this Section must be submitted annually under Part 3 of this Order.

Too Complicated

Section 608. Compliance. If an agency fails to meet requirements of the Energy Policy Act of 1992 and this Order, its report to the President must include an explanation for such failure and a detailed plan for achieving compliance using the agency's current and requested budgets.

PART 7 - DEFINITIONS

For the purposes of this Order:

Section 701. "Agency" means an executive agency as defined in 5 U.S.C. 105. For the purpose of this order, military departments, as defined in 5 U.S.C. 102, are covered under the auspices of the Department of Defense.

Section 702. "Acquisition" means acquiring by contract with appropriated funds supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated. Acquisition begins at the point when agency needs are established. It includes the description of requirements to satisfy those needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract.

Section 703. "Alternative fuel" means methanol, denatured ethanol, and other alcohols; mixtures containing 85 percent or more by volume of methanol, denatured ethanol, and other alcohols with gasoline or other fuels; natural gas; liquefied petroleum gas; hydrogen; coal-derived liquid fuels; fuels (other than alcohol) derived from biological materials; electricity; and any other fuel

the Department of Energy determines, by rule, is substantially not petroleum and would yield substantial energy security benefits and substantial environmental benefits, including net reductions of greenhouse gas emissions.

Section 704. "Alternative fuel vehicle" or "AFV" means a dedicated, dual-fuel, bi-fuel, or flexible-fuel motor vehicle.

Section 705. "Bi-fuel vehicle" means a motor vehicle with two separate fuel storage systems that is capable of operating on alternative fuel or petroleum fuel, but not a mixture of the two.

Section 706. "Bio-based product" means a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials.

Section 707. "Dedicated vehicle" means a motor vehicle that operates solely on alternative fuel.

Section 708. "Dual-fuel vehicle" means a motor vehicle with two separate fuel storage systems that operates on a mixture of alternative fuel and petroleum fuel.

Section 709. "Environmentally preferable" means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. The comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

Section 710. "Flexible-fuel vehicle" means a motor vehicle that is capable of operating on alternative fuel, petroleum fuel, or a mixture of the two.

Section 711. "Heavy-duty vehicle" means a motor vehicle of more than 26,000 pounds gross vehicle weight rating that is certified for use on all public roads and highways.

Section 712. "Light-duty vehicle" means a motor vehicle of less than or equal to 8,500 pounds gross vehicle weight rating that is certified for use on all public roads and highways.

Section 713. "Medium-duty vehicle" means a motor vehicle of more than 8,500 pounds and less than or equal to 26,000 pounds gross vehicle weight rating that is certified for use on all public roads and highways.

Section 714. "Motor vehicle" means a vehicle that meets the definition of section 216(2) of the Clean Air Act, 42 U.S.C. 7550(2).

Section 715. “Renewable fuel” means fuel derived from a renewable feedstock such as agricultural crops or the byproducts thereof, herbaceous and woody crops, solar energy, wind power, and geothermal heat.

Section 716. “Replacement fuel” means the portion of any motor fuel that is methanol, ethanol, or other alcohols, natural gas, liquefied petroleum gas, hydrogen, coal derived liquid fuels, fuels (other than alcohol) derived from biological materials, electricity; ethers; or any other fuel the DOE determines, by rule, is substantially not petroleum and would yield substantial energy security benefits and substantial environmental benefits, including net reductions of greenhouse gas emissions.

Section 717. “Zero-emission vehicle” or “ZEV” means a dedicated alternative fuel vehicle that produces no evaporative or tailpipe emissions, e.g., pure electric vehicles and hydrogen-fueled vehicles.

WILLIAM J. CLINTON
THE WHITE HOUSE

Report on Agency Performance in Acquiring Alternative Fuel Vehicles

July 22, 1999

This report is intended to provide an assessment of federal agency performance in meeting the statutory requirements set forth by the Energy Policy Act of 1992 and Executive Order 13031. The report also highlights a number of additional concerns relating to agency performance.

BACKGROUND INFORMATION

The Energy Policy Act of 1992 (EPAct) set yearly targets for federal agencies to meet in the acquisition of alternative fuel vehicles (AFVs). For the purposes of EPAct, acquisitions include both purchases and leases of AFVs as well as the conversion of conventionally-fueled vehicles to AFVs. In particular, the act specified that for FY 1996, 25% of agency fleet vehicle acquisitions should be alternative fuel vehicles, subject to certain conditions and exemptions. This percentage increased to 33% for FY 1997, 50% for FY 1998, and 75% for FY 1999 and each year thereafter.

Signed by President Clinton on December 13, 1996, Executive Order 13031: "Federal Alternative Fueled Vehicle Leadership", established reporting requirements to ensure that agencies comply with the requirements set forth in EPAct. On October 8, 1998, OMB issued the latest guidance to agencies on reporting alternative fuel vehicle acquisitions. This guidance requested that data be reported for FY 1997 and FY 1998 along with projected FY 1999 and FY 2000 data. According to the guidance, acquisitions were to be reported for the fiscal year in which they were ordered, not the year in which they were received. E.O. 13031 also requires agencies to include in their reports a plan to come into compliance if they have not already achieved that.

In general, the EPAct requirements apply to agency fleets of 20 or more light-duty vehicles (vehicles under 8500 lbs) that are "centrally fueled or capable of being centrally fueled" and are primarily operated in Metropolitan Statistical Areas (MSAs) or Consolidated Metropolitan Statistical Areas (CMSAs) with populations of 250,000 or more according to 1995 Census data. Vehicles that do not meet these requirements are considered geographically exempt from the EPAct requirements. Certain exemptions are also made for law enforcement, emergency, and national security vehicles. In addition, agencies have the opportunity to receive extra credits toward the statutory acquisition requirements by obtaining zero emission vehicles (ZEVs) or alternative-fueled medium-duty or heavy-duty vehicles.

In accordance with the EPAct and E.O. 13031 requirements, agencies were asked to report the total number of vehicles acquired in each fiscal year, those exempt for law enforcement or geographic reasons, and AFVs separated by fuel type. Agencies were also asked to provide the same information for their entire fleet. A copy of the reporting form is provided in Appendix A.

CAVEATS/QUALIFICATIONS

Before discussing agency performance, it is necessary to provide certain qualifications for the data used in this report. First and foremost, all of the data is self-reported by the agencies and has not been independently confirmed. In general, the data provided by the agencies are only estimates of vehicle acquisitions. Some agencies have done a better job than others at tracking vehicle acquisitions agency-wide. This may be a result of a number of factors: agency size, the level of decentralization in purchasing vehicles, inadequate information systems, as well as the level of commitment to meeting the goals of EPAct and E.O. 13031. The total fleet figures were clearly wrong in many cases, and a number of agencies have stated that this information is generally the most difficult to obtain. Many agencies also reported uncertainties arising from the receipt of vehicles ordered through the General Services Administration (GSA) that were not the AFVs they expected to receive.

Due to many late data submissions by agencies and a desire to release at least an initial assessment by the end of July, OMB was not able to discuss with each agency all of the questions that the data presented. However, major concerns about the data were addressed to the appropriate individuals within the agencies. Where necessary, apparent miscalculations on the part of the agencies were corrected. For the purposes of determining projected agency compliance for FY 1999 and FY 2000, agencies reporting the expected purchase of M85 flexible-fuel (or "flex-fuel") vehicles in these years received credit for these vehicles in the analysis despite the fact that production versions of these vehicles are no longer available as of FY 1999. In a few cases, agencies would not be in compliance for FY 1999 and FY 2000 if these vehicles were not counted. These agencies need to ensure that other AFVs are substituted for planned acquisitions of these vehicles in order to meet the EPAct requirements for these fiscal years.

OVERALL AGENCY PERFORMANCE

As a whole, agency performance in meeting the EPAct requirements has been mixed. In FY 1997, the agencies reported 24% of their EPAct covered fleet vehicles were AFVs, missing the target of 33%. In 1998, the agencies performed significantly better, reporting an overall AFV acquisition rate of 57% and beating the 50% target. However, the projected data for FY 1999 and FY 2000 indicate that overall, the agencies will miss the 75% target with EPAct covered acquisition rates of 70% and 67% respectively. Appendix B provides a consolidated summary of AFV acquisitions for fiscal years 1997-2000 as reported by the agencies. Included is a breakdown of AFV acquisitions by agency, year, and vehicle fuel type.

These AFV acquisition rates may be overestimated, however. A number of agencies placing orders through GSA reported that GSA, when unable to get the AFVs from the manufacturer, may have delivered conventionally-fueled vehicles without notifying the agency it was doing so. This is particularly a problem with the flexible-fuel vehicles that look like conventional vehicles and run on gasoline. GSA has maintained, however, that this problem only occurred with a very small number of orders in FY 1999, and that it has not been a problem in previous years.

While the the FY 1998 target appears to have been met and FY 1999 projections clearly indicate an improvement from 1998, there are still reasons for apprehension besides the fact that the 1999 target is not expected to be met. Of particular concern is the heavy reliance on E85 flex-fuel vehicles in both fiscal years. These vehicles represented a full 86.3% of AFV acquisitions in FY 1998 and 78.6% in the FY 1999 projections. This is up from only 28.5% of AFV acquisitions in FY 1997 and largely accounts for the dramatic jump in EPAct covered AFV fleet acquisitions from FY 1997 to FY 1998.

The advantage of the E85 flex-fuel vehicles to the agencies is clear. The agencies incur no incremental costs for the vehicles, vehicle performance is comparable to a conventionally-fueled vehicle, and these vehicles can be run on gasoline. Unfortunately, because E85 fuel is not available in most areas, these vehicles are run almost exclusively on gasoline. The apparent lack of interagency coordination in developing a critical mass to establish demand for the fuel may be a substantial hindrance to the establishment of such refueling sites.

In conjunction with the rise in E85 flex-fuel vehicle acquisitions from FY 1997 to FY 1998, acquisitions of compressed natural gas (CNG) vehicles fell from 61% to a mere 12.3% of AFV acquisitions. This is most likely due to the high incremental cost of CNG vehicles and the resulting financing problems. This trend is of concern because compressed natural gas is an alternative fuel that actually is available in many MSAs and is generally less expensive than gasoline, resulting in longer-term savings that may even offset a substantial portion of the initial incremental cost.

The FY 2000 projections indicate a significant drop in the relative percentage of E85 vehicles acquired as well as a significant increase in the use of CNG/gasoline dual-fuel vehicles. While this is encouraging, it is important to recognize that agencies facing serious funding constraints in FY 2000 may feel compelled to alter these plans in favor of the E85 vehicles that don't require the incremental costs.

The FY 2000 projections are a concern to OMB for another reason. While OMB commends the U.S. Postal Service for its plans to purchase 1500 electric vehicles in FY 2000, this purchase, and the additional 1500 credits associated with it, significantly improve the government-wide AFV acquisition percentage. The projected 67% AFV acquisition rate for EPAct covered fleet vehicles is already below the 75% statutory requirement and is a step backwards from the FY 1999 projections, but it would be substantially worse were it not for the Postal Service's plan to obtain these electric vehicles.

INDIVIDUAL AGENCY PERFORMANCE

On an individual level, only eight of the nineteen agencies reporting data met the FY 1998 EPAct requirement, and only four of the eleven that did not meet the FY 1998 requirement submitted a credible plan to come into compliance. Many apparently are not planning on doing so for fiscal years 1999 and 2000 either. Furthermore, there are a number of related issues that are equally disquieting. Appendix B provides a list of agencies covered by the EPAct AFV requirements and whether each agency met or expects to meet the EPAct requirements for fiscal years 1997 through 2000.

Failure to Meet OMB Reporting Requirements

The failure of many agencies to meet the reporting requirements of OMB is a serious concern. Nearly half of the agencies not exempt from the EPAct requirements failed to submit the required data on time. It seems that in some cases the reporting information, once sent to the agency, never reached the appropriate individual(s) in the agency. In other cases, the AFV reporting portion of the combined energy management guidance was simply dismissed by the individual responsible for responding to the guidance.

In addition, even when these agencies did finally submit information to OMB, it was often incomplete. In many agencies, particularly those lacking an environmental mission or an internal environmental office, there often appeared to be a very poor understanding of the reporting requirements. In particular, many of the agencies who are not meeting the EPAct requirements never submitted a plan for coming into compliance. Many agencies didn't report any total fleet figures at all. Thus, the total fleet figures in Appendix B may be substantially lower than they are in reality. In some cases, it was quite clear that the individual responsible for submitting the information knew nothing about agency fleet management or AFVs. In some cases, agencies provided wildly varying data upon questioning, and often the data did not seem realistic.

In particular, the Department of Commerce and the Department of Housing & Urban Development (HUD) had a very difficult time providing correct data, and therefore, the data used for this report for both agencies is rather questionable. It seems clear that neither agency has a well-organized plan for meeting the AFV acquisition requirements of EPAct. In addition, the Office of Personnel Management and the Social Security Administration failed to report data to OMB, and the Department of Veterans Affairs, while submitting total vehicle acquisition data for FY 1999 and FY 2000, did not submit projections for AFV acquisitions.

Liberal Use of Exemptions

Finally, a number of agencies appear to have certainly made liberal, if not excessive, use of the exemptions allowed by EPAct. In particular, the law enforcement exemption appears to be used quite liberally, and only GSA, the Department of Veterans Affairs, and the State Department provided any explanation at all for their claimed exemptions despite the fact this was required by the OMB guidance. All of this leads to the conclusion that a number of federal agencies do not seem to be taking the EPAct requirements or E.O. 13031 seriously.

The Top Performers

Although the United States Postal Service did not quite meet the AFV acquisition requirement of 33% in FY 1997 (only 28%), the agency far exceeded the 1998 statutory requirement with an AFV percentage of EPAct covered fleet acquisitions of 88%. The agency also appears to be supporting the use of ZEVs and ULEVs (ultra low-emission vehicles) through its recent

acquisitions and future plans. The agency has even converted a substantial number of vehicles to CNG vehicles.

The Department of the Interior started slow as well in 1997 with a 23% acquisition rate, but improved tremendously in 1998 with a rate of 61%. Furthermore, the agency's plans indicate that it is quite committed to meeting the goals of EPO and setting an example for other agencies. In many cases, the agency has acquired AFVs even in geographically exempt locations, and acquiring and promoting AFVs appears to now be integrated into the agency's mission. The agency's projections indicate that it intends to far exceed the EPO requirement for FY 2000.

The Poor Performers

Department of Justice (DOJ) – OMB is particularly concerned with the agency's use of exemptions in addition to its failure to comply with the EPO statutory requirements. For FY 1997, the agency claimed exemptions for over 97% of its fleet yet still did not meet the EPO requirements for the remaining 3% of its vehicles. In terms of the total DOJ fleet, the agency had 34,009 vehicles at the time data was submitted in FY 1998. The agency claims that 33,491 were exempt for law-enforcement reasons, while 436 vehicles were exempt due to geographic placement. This leaves a total 82 vehicles, or less than one out of every 400 vehicles, as EPO covered vehicles for which the agency would need to meet the EPO statutory requirements upon replacement. Again, the agency still did not meet the EPO requirement, having only acquired five AFVs in 1998.

For FY 1999, exemptions comprised over 99% of the agency's fleet acquisitions, while for FY 2000, the agency claims its fleet acquisitions to be 100% exempt. Furthermore, the agency did not meet, nor does it plan to meet, the acquisition targets for 1998 and 1999 on its few remaining non-exempt vehicles. While OMB realizes that the Department of Justice is a law-enforcement agency, it is very difficult to believe that nearly every vehicle acquired by the agency is a police-type vehicle that could not perform its duties if it were an AFV.

Treasury Department – As with DOJ, OMB is concerned about the number of law-enforcement exemptions claimed. In all four years of reported data, the agency is claiming approximately 98% of its vehicles to be exempt from the EPO requirements. Furthermore, of the remaining 2% of its fleet vehicle acquisitions, only 18% were AFVs in FY 1997, and only 4% were AFVs in FY 1998. Thus, the department acquired only two AFVs out of a total of 2321 vehicles acquired in 1998. The agency's projections further indicate that it has no plans to meet the EPO requirements in FY 1999 or FY 2000.

Environmental Protection Agency – The EPA has lagged behind somewhat in acquiring AFVs, particularly given the agency's mission and its role in air quality issues. AFVs comprised only 14% of EPA's EPO covered fleet acquisitions in FY 1997 and only 35% in FY 1998. EPA also does not expect to meet the EPO requirements for 1999 either, however, agency projections indicate that EPA will meet the requirements in FY 2000. This is troubling given the fact that EPA is clearly one of the agencies that should be setting an example for other agencies.

OMB has also had discussions with the agency to ensure that the law enforcement exemption is being used appropriately for its fleet vehicles.

Department of Agriculture – USDA has clearly lagged behind in meeting the EPCa requirements with an 18% AFV acquisition rate in FY 1997 and only a 45% rate projected for FY 2000. The agency has expressed the need for manufacturers to produce more off-road vehicles, however, with more and more manufacturers offering such vehicles, the agency should be able to revise its current plans in order to meet the FY 2000 requirement.

Comments on Selected Other Agencies

Department of Defense – With large numbers of light-duty vehicles located in concentrated areas, the Department of Defense (DOD) should be in an ideal situation for meeting the EPCa requirements on its covered fleet vehicles. The fueling infrastructure, if not available, should be relatively easy to acquire or establish. However, the department's AFV acquisition rates were only 24% in FY 1997 and 23% in FY 1998. Furthermore, DOD's projections for FY 1999 and FY 2000 are 50% and 49%, respectively. The department has cited the lack of suitable AFVs as a reason for not meeting the EPCa requirements. However, manufacturers have significantly increased the number of different types of AFVs available in the past two years. Performance of many of these vehicles is comparable to their conventionally-fueled counterparts. OMB thus considers this argument to be somewhat weak for 1999 and 2000.

Department of Energy (DOE) – As with many agencies, DOE started off slow in 1997 with AFVs comprising only 17% of EPCa covered fleet acquisitions, and did not quite meet the 1998 requirement either. However, the agency appears to be making substantial improvements for fiscal years 1999 and 2000 by acquiring significantly more AFVs than are required by EPCa. FY 1999 and FY 2000 projections indicate that the agency intends to improve its AFV acquisition rate to greater than 100% of its EPCa covered fleet vehicles for both years. It is important that DOE remains committed to actually meeting these projections in its purchases in order to set an appropriate example for other agencies.

Department of Transportation (DOT) – DOT also started off slow and didn't meet EPCa requirements in 1997 or 1998, but projects compliance in 1999 and 2000 with EPCa covered AFV acquisition rates of 76% and 80%, respectively. As with the EPA and DOE, it's appropriate for DOT to set an example for other agencies.

Department of Veterans Affairs (DVA) – DVA did not provide AFV projections for FY 1999 or FY 2000. The agency also did not meet the EPCa targets for FY 1997 or FY 1998. However, it is perhaps important to mention that the agency does have several unique problems – such as the acquisition of older vehicles from other agencies and the acceptance of donated vehicles – that make meeting the EPCa requirements particularly difficult.

ADDITIONAL ISSUES

There are a number of other issues and constraints that need to be addressed in order to improve EPAct compliance *and* meet the substantive goals of EPAct and E.O. 13031.

In particular, many agencies – including the DOE department responsible for managing AFV programs – have complained about inadequate service and poor information from GSA regarding vehicles ordered or leased through GSA. According to these agencies, GSA does not track AFV acquisitions by agency, nor does it provide any sort of consolidated report to the agencies regarding the vehicles ordered and the vehicles shipped to the agency. GSA has denied this and claims that it sends this information to the fleet manager of each agency. OMB has requested a copy of such a report, but has yet to receive one from GSA.

As previously mentioned, many of the agencies also reported that GSA was often unable to fulfill agency orders for AFVs and instead provided conventional vehicles in their place. According to DOE, this may often be an issue if agency orders were not placed before the manufacturers' deadlines since most manufacturers produce their AFVs only in the fall. It is often not clear where the responsibility for such failure lies – within the agency or with GSA – but it is obvious that there is a communication breakdown between the other agencies and GSA.

Agencies have also pointed to a number of external factors that have limited their ability to meet the EPAct requirements. Most prominent among these are the lack of a fueling infrastructure and the lack of suitable AFVs for certain uses.

While the fueling infrastructure is indeed a significant issue, many agencies seem to have missed the goals of the EPAct requirements, one of which is to develop the demand for these fuels in order to promote their use and establish a refueling infrastructure (i.e., to break the “chicken and egg” cycle). It is for this reason that only large fleets located in MSAs are covered under EPAct. Additionally, the availability of flexible-fuel vehicles allows agencies to run these vehicles on gasoline until the infrastructure can be developed. OMB is concerned, however, that many agencies are making no efforts to obtain these fuels when they *are* available, and instead are only acquiring the flexible-fuel vehicles in order to be in compliance with EPAct.

The lack of suitable AFVs is certainly another understandable agency concern. In particular, manufacturers have been slow to offer SUV-type vehicles as AFVs. However, manufacturers have more recently been offering a variety of vans and light-duty trucks as AFVs, which, in many cases, might be substituted for SUVs. It is also not clear that agency missions require the acquisition of so many SUVs, which set other undesirable precedents like reducing the average fuel economy of the federal fleet and also typically increasing total fleet costs.

RECOMMENDATIONS

There are a number of steps that the agencies need to take in order to improve compliance with the EPAct requirements and to realize the goals of both EPAct and E.O. 13031.

One of the most fundamental concerns is with agency information management and communication problems. As previously noted, many agencies have expressed problems with GSA services, predominantly relating to the tracking of orders and actual shipments of AFVs. Many agencies claim that they often don't receive all of the AFVs they order through GSA nor do they receive explanations as to why. GSA needs to ensure that it is communicating this information to the agencies. Specifically, GSA needs to take a proactive role and clearly communicate to its customers what AFVs are available and when they must be ordered to meet any necessary deadlines for the procurement process. The AFV coordinators in each of the agencies also need to be aware of any deadlines for submitting orders, and they as well need to make sure that their fleet managers are meeting these deadlines on planned acquisitions. It also seems reasonable that GSA should be able to provide agencies with consolidated lists of orders and actual shipments through improved information systems, perhaps even through GSA's online system.

Besides GSA, many of the other agencies clearly need to improve their information management as well. The agency AFV coordinators need to be in regular contact with AFV representatives at DOE to ensure that they have the latest information on the vehicles and fuels that best fit agency needs. DOE's extensive online information is an excellent resource for agencies. With its role as an information resource for other agencies, DOE should also make sure that agencies are aware of the latest vehicle ordering and reporting requirements and should take a more active role in agency data collection. Agency AFV coordinators should also be in regular contact with their fleet managers to disseminate this information.

Interagency coordination is clearly another issue that needs to be addressed. Agency fleet managers need to be aware of other fleets that are operating in the same MSAs and need to actively coordinate with these fleets to encourage local fuel providers to establish alternative fuel refueling sites that would also be available to the general public. With its high concentration of federal fleet vehicles, Washington, D.C. is the ideal place to start. In areas where this is not possible, agencies may still be able to establish their own sites through effective coordination.

Those agencies with environmental, energy, or transportation goals as a major part of their missions – namely DOE, EPA, and the Departments of the Interior, Transportation, and Agriculture – have an especially important role in AFV acquisitions. These agencies need to take leadership roles and set examples for the other agencies. They should also provide support through interagency collaboration whenever possible. The fact that several of these agencies have yet to meet the EPAct requirements is an obvious concern.

Agencies must request – and be appropriated – funding to cover the incremental cost of AFVs, particularly propane and natural-gas vehicles. Operationally, many agencies prefer those vehicles over E85 flexible-fuel vehicles, but they cannot afford them.

Finally, and perhaps most important, *all* of the federal agencies need to be committed to the AFV *goals* of EPAct and E.O. 13031 and not only to meeting the statutory requirements of these laws. This includes a proactive approach to actually acquiring and *using* alternative fuels in the flexible-fuel vehicles the agencies purchase. Future OMB guidance will be modified to require fuel reporting as well as vehicle reporting.

APPENDIX A

Sample AFV Acquisition Reporting Form FY 1997-2000

Sample AFV Acquisition Reporting Form

(Dept or agency) _____ AFV Acquisition Report for FY 19 _____

		Acquisitions				**Total
		Converted	Leased	Purchased	Total	Fleet
1	Total # of vehicles acquired	xxxxxx			0	
2	Exempt as law-enforcement or national-security vehicles	xxxxxx			0	
3	Exempt due to geographic placement	xxxxxx			0	
4	EPAct "covered fleet" vehicles (line 1 - (line 2 + line 3) (No double-counting of vehicles in lines 2 and 3.)	xxxxxx	0	0	0	0
Light Duty AFVs						
5	E85 flex-fuel vehicles				0	
6	Dedicated ethanol vehicles				0	
7	M85 flex-fuel vehicles				0	
8	Dedicated methanol vehicles				0	
9	CNG dual-fuel vehicles				0	
10	CNG dedicated vehicles				0	
11	LNG dual-fuel vehicles				0	
12	LNG dedicated vehicles				0	
13	Propane/LPG dual-fuel vehicles				0	
14	Propane/LPG dedicated vehicles				0	
15	Dimethyl ether dedicated vehicles				0	
16	Electric vehicles (dedicated) -- ZEV				0	
17	Hydrogen dedicated vehicles -- ZEV				0	
	Unknown/not identified				0	
18	Subtotal of light-duty vehicles	0	0	0	0	0
Credit for Medium- and Heavy-duty AFVs						
19	# of medium-duty vehicles * 2				0	
20	# of heavy-duty vehicles * 3				0	
Extra Credit for Zero Emission Vehicles (Hydrogen and Electric Acquisitions)						
21	# of ZEVs * 1				0	
22	Total credits provided (line 19 + line 20 + line 21)	0	0	0	0	0
23	Total AFVs and credits (line 18 + line 22)	0	0	0	0	0
24	AFV percentage of EPAct covered fleet acquisitions (line 23+ line 4 x 100)		0%	0%	0%	0%

**Total fleet should include new acquisitions and existing vehicles for each category, (Line 1: total LDV fleet)

Submitting official: _____ Date: _____

Address: _____

Phone: _____ e-mail: _____

APPENDIX B

Consolidated Data on Agency AFV Acquisitions FY 1997-2000

**Agency Compliance and Projected Compliance with
EPAct Requirements, FY 1997 - 2000**

Agency or Department	1997	1998	1999	2000
Department of Agriculture	-	-	-	-
Department of Commerce	-	-	-	-
Department of Defense	-	-	-	-
Department of Energy	-	-	✓	✓
Department of Health & Human Services	✓	✓	-	✓
Department of Housing & Urban Devt.	-	-	-	-
Department of the Interior	-	✓	✓	✓
Department of Justice	-	-	-	-
Department of Labor	✓	✓	✓ ²	✓
Department of State	-	✓	✓	✓
Department of Transportation	-	-	✓	✓
Department of the Treasury	-	-	-	-
Department of Veterans Affairs	-	-	NR	NR
Environmental Protection Agency	-	-	-	✓ ²
Executive Office of the President	✓ ¹	✓	✓ ¹	✓ ¹
General Services Administration	✓	✓	✓	✓
National Aeronautics & Space Administration	✓	✓	✓ ²	✓ ²
Nuclear Regulatory Commission	-	-	-	✓
Office of Personnel Management	NR	NR	NR	NR
Social Security Administration	NR	NR	NR	NR
United States Postal Service	-	✓	✓	✓

Dash (-) = Not in compliance

NR = Not reported

¹ No vehicle acquisitions (or planned acquisitions) for fiscal year

² Agency compliance is contingent on planned purchase of M85 flex fuel vehicles. Agency needs to ensure that other AFVs are substituted for these M85 vehicles which are no longer being manufactured.

AFV Acquisitions: Total of all Reporting Agencies, FY 1997

	Acquisitions				**Total Fleet	Distribution of Vehicle Types
	Converted	Leased	Purchased	Total		
1 Total # of vehicles acquired	xxxxxx	22193	15625	37818	406746	
2 Exempt as law-enforcement or national-security vehicles	xxxxxx	1136	8248	9384	71011	24.8%
3 Exempt due to geographic placement	xxxxxx	9480	3801	13281	75939	35.1%
4 EPA Act "covered fleet" vehicles (line 1 - (line 2 + line 3) (No double-counting of vehicles in lines 2 and 3.)	xxxxxx	11577	3576	15153	259796	40.1%
Light Duty AFVs						
5 E85 flex-fuel vehicles	0	881	31	912	2087	28.5%
6 Dedicated ethanol vehicles	0	0	0	0	0	0.0%
7 M85 flex-fuel vehicles	0	205	17	222	1864	6.9%
8 Dedicated methanol vehicles	0	8	0	8	24	0.2%
9 CNG dual-fuel vehicles	1096	421	194	1711	11680	53.4%
10 CNG dedicated vehicles	64	65	95	224	1073	7.0%
11 LNG dual-fuel vehicles	0	0	0	0	0	0.0%
12 LNG dedicated vehicles	0	0	0	0	0	0.0%
13 Propane/LPG dual-fuel vehicles	5	8	2	15	120	0.5%
14 Propane/LPG dedicated vehicles	6	0	5	11	35	0.3%
15 Dimethyl ether dedicated vehicles	0	0	0	0	0	0.0%
16 Electric vehicles (dedicated) -- ZEV	1	8	85	94	197	2.9%
17 Hydrogen dedicated vehicles -- ZEV	0	0	0	0	0	0.0%
Unknown/not identified	0	8	0	8	8	0.2%
18 Subtotal of light-duty vehicles	1172	1604	429	3205	17088	
Credit for Medium- and Heavy-duty AFVs						
19 # of medium-duty vehicles * 2	109	0	175	284		
20 # of heavy-duty vehicles * 3	15	0	19	34		
Extra Credit for Zero Emission Vehicles (Hydrogen and Electric Acquisitions)						
21 # of ZEVs * 1	0	8	93	101		
22 Total credits provided (line 19 + line 20 + line 21)	124	8	287	419		
23 Total AFVs and credits (line 18 + line 22)	1296	1612	716	3624		
24 AFV percentage of EPA Act covered fleet acquisitions (line 23 ÷ line 4 × 100)	xxxxxx	14%	20%	24%		

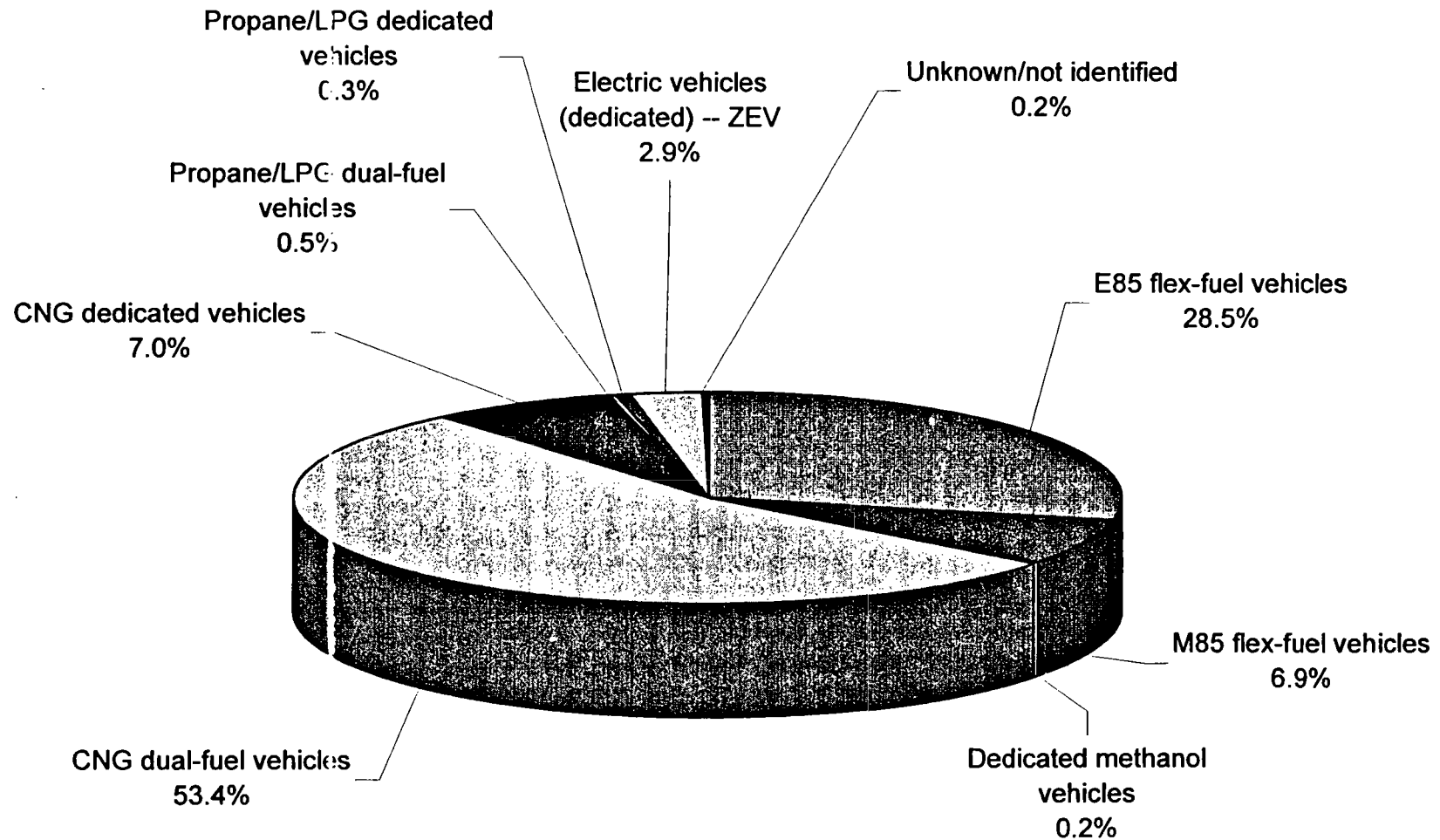
Agency Reported AFV Acquisition Data, FY 1997

Agency or Department	Vehicle acquisitions	Law enforcement exemptions	Geographic placement exemptions	EPAct covered fleet vehicles	AFV acquisitions & credits	AFV % of EPAct covered acquisitions
Department of Agriculture	3554	74	2740	740	136	18.38%
Department of Commerce	113	69	20	24	13	54.17%
Department of Defense	15114	469	7122	7523	1800	23.93%
Department of Energy	1112	22	528	562	98	17.44%
Department of Health & Human Services	520	74	314	132	49	37.12%
Department of Housing & Urban Devt.	340	16	0	324	101	31.17%
Department of the Interior	2450	376	1662	412	96	23.30%
Department of Justice	5490	5322	14	154	26	16.88%
Department of Labor	55	0	0	55	55	100.00%
Department of State	148	98	9	41	0	0.00%
Department of Transportation	1019	43	339	637	154	24.18%
Department of the Treasury	2215	2165	0	50	9	18.00%
Department of Veterans Affairs	1166	55	0	1111	73	6.57%
Environmental Protection Agency	271	83	0	188	27	14.36%
Executive Office of the President	NA	NA	NA	NA	NA	NA
General Services Administration	387	125	126	136	45	33.09%
National Aeronautics & Space Administration	545	0	407	138	114	82.61%
Nuclear Regulatory Commission	10	0	0	10	3	30.00%
Office of Personnel Management	NR	NR	NR	NR	NR	NR
Social Security Administration	NR	NR	NR	NR	NR	NR
United States Postal Service	3309	393	0	2916	825	28.29%

NR = Not reported

NA = Not applicable

Agency AFV Acquisitions by Vehicle Type, FY 1997



AFV Acquisitions: Total of all Reporting Agencies, FY 1998

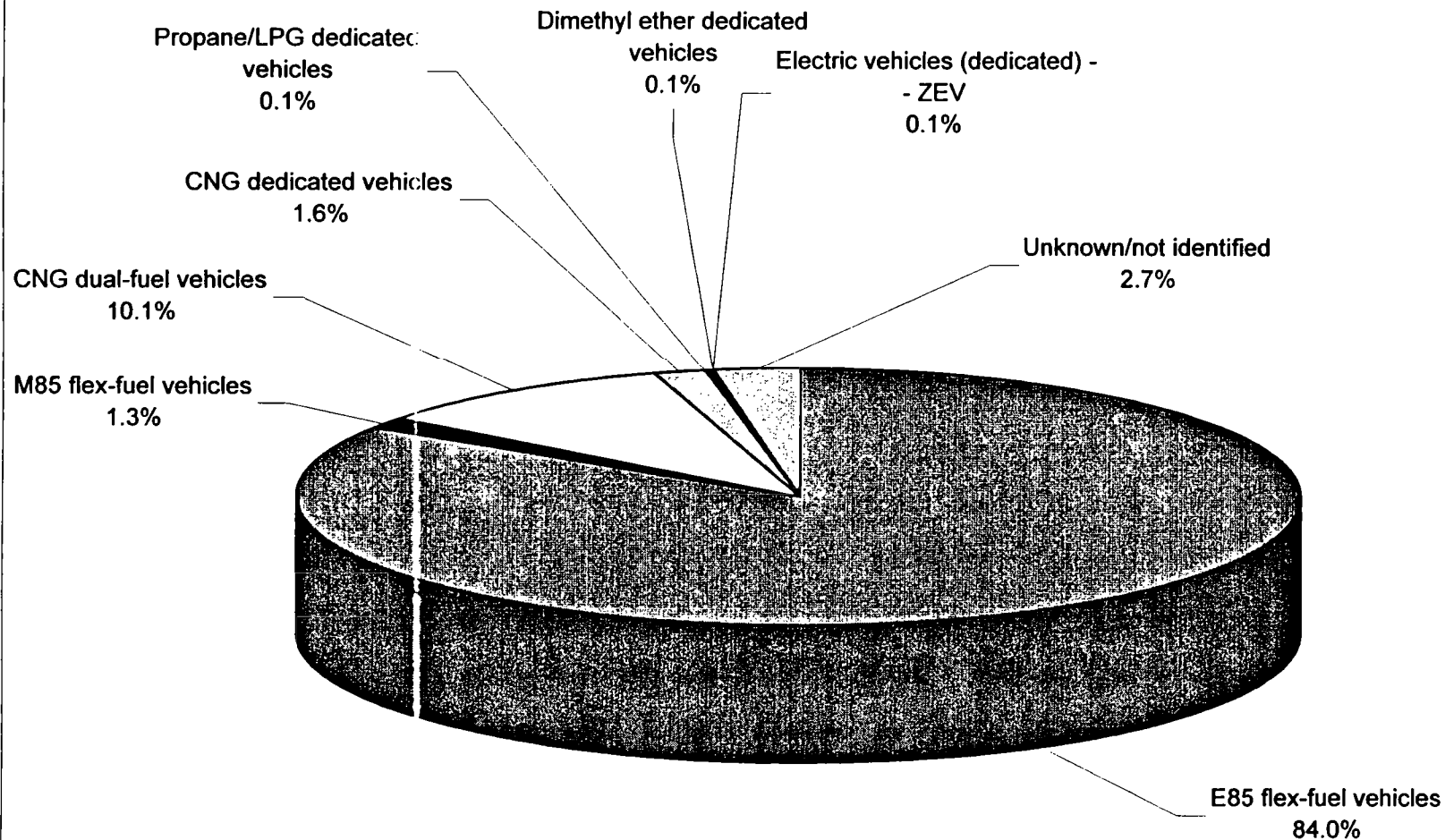
	Acquisitions				**Total Fleet	Distrubution of Vehicle Types
	Converted	Leased	Purchased	Total		
1 Total # of vehicles acquired	xxxxxx	22578	24994	47572	418819	
2 Exempt as law-enforcement or national-security vehicles	xxxxxx	960	7715	8675	77983	18.2%
3 Exempt due to geographic placement	xxxxxx	10736	3438	14174	75240	29.8%
4 EPAct "covered fleet" vehicles (line 1 - (line 2 + line 3) (No double-counting of vehicles in lines 2 and 3.)	xxxxxx	10882	13841	24723	265596	52.0%
Light Duty AFVs						
5 E85 flex-fuel vehicles	0	1275	10543	11818	13826	83.9%
6 Dedicated ethanol vehicles	0	0	0	0	0	0.0%
7 M85 flex-fuel vehicles	0	171	11	182	1417	1.3%
8 Dedicated methanol vehicles	0	0	0	0	23	0.0%
9 CNG dual-fuel vehicles	375	495	552	1422	12891	10.1%
10 CNG dedicated vehicles	36	186	5	227	1048	1.6%
11 LNG dual-fuel vehicles	0	1	0	1	1	0.0%
12 LNG dedicated vehicles	0	3	0	3	5	0.0%
13 Propane/LPG dual-fuel vehicles	2	0	4	6	106	0.0%
14 Propane/LPG dedicated vehicles	4	0	8	12	63	0.1%
15 Dimethyl ether dedicated vehicles	0	14	0	14	14	0.1%
16 Electric vehicles (dedicated) -- ZEV	0	9	8	17	210	0.1%
17 Hydrogen dedicated vehicles -- ZEV	0	0	0	0	0	0.0%
Unknown/not identified	0	379	0	379	215	2.7%
18 Subtotal of light-duty vehicles	417	2533	11131	14081	29819	
Credit for Medium- and Heavy-duty AFVs						
19 # of medium-duty vehicles * 2	9	3	8	20		
20 # of heavy-duty vehicles * 3	6	36	31	73		
Extra Credit for Zero Emission Vehicles (Hydrogen and Electric Acquisitions)	0	0	0			
21 # of ZEVs * 1	0	23	8	31		
22 Total credits provided (line 19 + line 20 + line 21)	15	62	47	124		
23 Total AFVs and credits (line 18 + line 22)	432	2595	11178	14205		
24 AFV percentage of EPAct covered fleet acquisitions (line 23+ line 4 x 100)		24%	81%	57%		

Agency Reported AFV Acquisition Data, FY 1998

Agency or Department	Vehicle acquisitions	Law enforcement exemptions	Geographic placement exemptions	EPAct covered fleet vehicles	AFV acquisitions & credits	AFV % of EPAct covered acquisitions
Department of Agriculture	4013	0	3100	913	231	25.30%
Department of Commerce	395	68	3	324	35	10.80%
Department of Defense	15675	487	7653	7535	1749	23.21%
Department of Energy	1096	51	470	575	264	45.91%
Department of Health & Human Services	728	48	594	86	105	122.09%
Department of Housing & Urban Devt.	395	22	0	373	52	13.94%
Department of the Interior	2200	375	1465	360	219	60.83%
Department of Justice	4828	4791	25	12	5	41.67%
Department of Labor	59	0	0	59	59	100.00%
Department of State	23	16	0	7	9	128.57%
Department of Transportation	1033	41	336	656	263	40.09%
Department of the Treasury	2321	2273	0	48	2	4.17%
Department of Veterans Affairs	1121	42	0	1079	168	15.57%
Environmental Protection Agency	171	18	0	153	54	35.29%
Executive Office of the President	49	0	0	49	28	57.14%
General Services Administration	320	55	132	133	89	66.92%
National Aeronautics & Space Administration	531	0	396	135	105	77.78%
Nuclear Regulatory Commission	3	0	0	3	1	33.33%
Office of Personnel Management	NR	NR	NR	NR	NR	NR
Social Security Administration	NR	NR	NR	NR	NR	NR
United States Postal Service	12611	388	0	12223	10767	88.09%

NR = Not reported

Agency AFV Acquisitions by Vehicle Type, FY 1998



AFV Acquisitions: Total of all Reporting Agencies, FY 1999

	Acquisitions				**Total Fleet	Distribution of Vehicle Types
	Converted	Leased	Purchased	Total		
1 Total # of vehicles acquired	xxxxxx	21370	28176	49546	408404	
2 Exempt as law-enforcement or national-security vehicles	xxxxxx	1032	8946	9978	77622	20.1%
3 Exempt due to geographic placement	xxxxxx	9766	3678	13444	70527	27.1%
4 EPA Act "covered fleet" vehicles (line 1 - (line 2 + line 3) (No double-counting of vehicles in lines 2 and 3.)	xxxxxx	10572	15552	26124	260255	52.7%
Light Duty AFVs						
5 E85 flex-fuel vehicles	0	2366	11198	13564	24969	77.0%
6 Dedicated ethanol vehicles	0	5	0	5	5	0.0%
7 M85 flex-fuel vehicles	0	86	14	100	1123	0.6%
8 Dedicated methanol vehicles	0	0	0	0	0	0.0%
9 CNG dual-fuel vehicles	99	2100	273	2472	13968	14.0%
10 CNG dedicated vehicles	6	408	22	436	1195	2.5%
11 LNG dual-fuel vehicles	0	0	0	0	0	0.0%
12 LNG dedicated vehicles	0	0	0	0	5	0.0%
13 Propane/LPG dual-fuel vehicles	0	46	6	52	133	0.3%
14 Propane/LPG dedicated vehicles	5	0	3	8	65	0.0%
15 Dimethyl ether dedicated vehicles	0	0	0	0	0	0.0%
16 Electric vehicles (dedicated) -- ZEV	0	88	526	614	798	3.5%
17 Hydrogen dedicated vehicles -- ZEV	0	0	0	0	0	0.0%
Unknown/not identified	20	332	2	354	336	2.0%
18 Subtotal of light-duty vehicles	130	5431	12044	17605	42597	
Credit for Medium- and Heavy-duty AFVs						
19 # of medium-duty vehicles * 2	8	15	84	107		
20 # of heavy-duty vehicles * 3	6	3	10	19		
Extra Credit for Zero Emission Vehicles (Hydrogen and Electric Acquisitions)	0	0	0			
21 # of ZEVs * 1	0	88	526	614		
22 Total credits provided (line 19 + line 20 + line 21)	14	106	620	740		
23 Total AFVs and credits (line 18 + line 22)	144	5537	12664	19345		
24 AFV percentage of EPA Act covered fleet acquisitions (line 23 ÷ line 4 × 100)		52%	81%	70%		

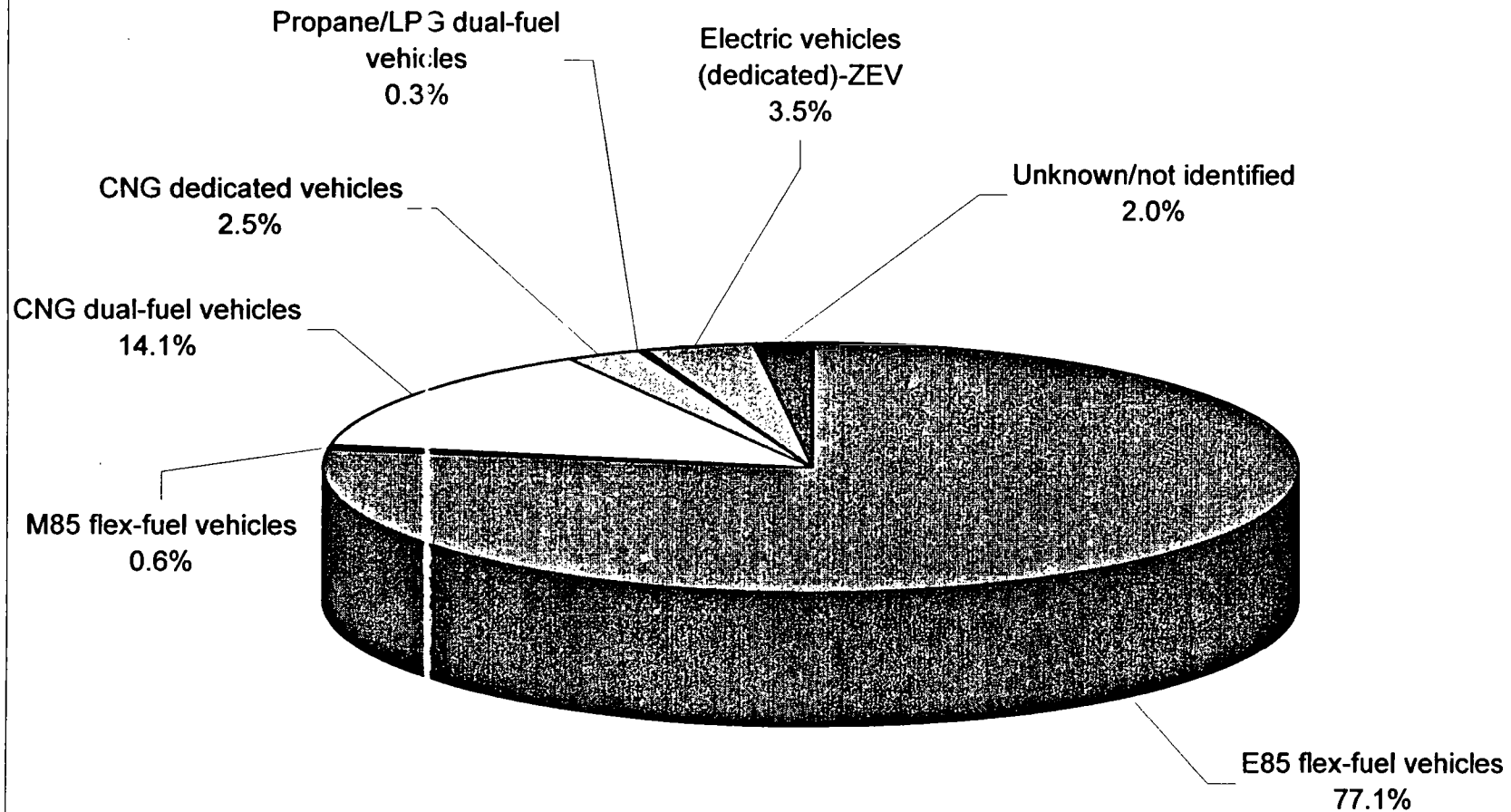
Agency Reported AFV Acquisition Data, FY 1999

Agency or Department	Vehicle acquisitions	Law enforcement exemptions	Geographic placement exemptions	EPAct covered fleet vehicles	AFV acquisitions & credits	AFV % of EPAct covered acquisitions
Department of Agriculture	4320	0	3460	860	254	29.53%
Department of Commerce	395	10	0	385	62	16.10%
Department of Defense	13300	497	6315	6488	3212	49.51%
Department of Energy	1600	37	640	923	1188	128.71%
Department of Health & Human Services	737	78	449	210	125	59.52%
Department of Housing & Urban Devt.	387	22	0	365	66	18.08%
Department of the Interior	2200	375	1350	475	365	76.84%
Department of Justice	5946	5787	108	51	16	31.37%
Department of Labor	61	0	0	61	61	100.00%
Department of State	146	99	0	47	37	78.72%
Department of Transportation	1197	39	594	564	427	75.71%
Department of the Treasury	2515	2469	0	46	16	34.78%
Department of Veterans Affairs	1278	55	0	1223	NR	NR
Environmental Protection Agency	116	6	0	110	53	48.18%
Executive Office of the President	NA	NA	NA	NA	NA	NA
General Services Administration	374	104	130	140	105	75.00%
National Aeronautics & Space Administration	531	0	396	135	105	77.78%
Nuclear Regulatory Commission	21	0	2	19	14	73.68%
Office of Personnel Management	NR	NR	NR	NR	NR	NR
Social Security Administration	NR	NR	NR	NR	NR	NR
United States Postal Service	14422	400	0	14022	12239	87.28%

NR = Not reported

NA = Not applicable

Agency AFV Acquisitions by Vehicle Type, FY 1999



AFV Acquisitions: Total of all Reporting Agencies, FY 2000

	Acquisitions				**Total Fleet	Distribution of Vehicle Types
	Converted	Leased	Purchased	Total		
1 Total # of vehicles acquired	xxxxxx	23954	20679	44633	405479	
2 Exempt as law-enforcement or national-security vehicles	xxxxxx	976	9809	10785	81380	24.2%
3 Exempt due to geographic placement	xxxxxx	10949	2554	13503	69118	30.3%
4 EPA Act "covered fleet" vehicles (line 1 - (line 2 + line 3) (No double-counting of vehicles in lines 2 and 3.)	xxxxxx	12029	8316	20345	254981	45.6%
Light Duty AFVs						
5 E85 flex-fuel vehicles	0	2654	2258	4912	28928	41.0%
6 Dedicated ethanol vehicles	0	0	0	0	5	0.0%
7 M85 flex-fuel vehicles	0	29	6	35	573	0.3%
8 Dedicated methanol vehicles	0	20	0	20	20	0.2%
9 CNG dual-fuel vehicles	0	2183	2394	4577	16783	38.2%
10 CNG dedicated vehicles	0	390	43	433	1720	3.6%
11 LNG dual-fuel vehicles	0	0	0	0	0	0.0%
12 LNG dedicated vehicles	0	0	0	0	5	0.0%
13 Propane/LPG dual-fuel vehicles	0	76	16	92	151	0.8%
14 Propane/LPG dedicated vehicles	0	0	3	3	45	0.0%
15 Dimethyl ether dedicated vehicles	0	0	0	0	0	0.0%
16 Electric vehicles (dedicated) -- ZEV	1	71	1527	1599	2314	13.4%
17 Hydrogen dedicated vehicles -- ZEV	0	0	0	0	0	0.0%
Unknown/not identified	0	303	0	303	301	2.5%
18 Subtotal of light-duty vehicles	1	5726	6247	11974	50845	
Credit for Medium- and Heavy-duty AFVs						
19 # of medium-duty vehicles * 2	0	15	5	20		
20 # of heavy-duty vehicles * 3	2	5	15	22		
Extra Credit for Zero Emission Vehicles (Hydrogen and Electric Acquisitions)	0	0	0			
21 # of ZEVs * 1	1	71	1527	1599		
22 Total credits provided (line 19 + line 20 + line 21)	3	91	1547	1641		
23 Total AFVs and credits (line 18 + line 22)	4	5617	7794	13615		
24 AFV percentage of EPA Act covered fleet acquisitions (line 23 ÷ line 4 × 100)		48%	94%	67%		

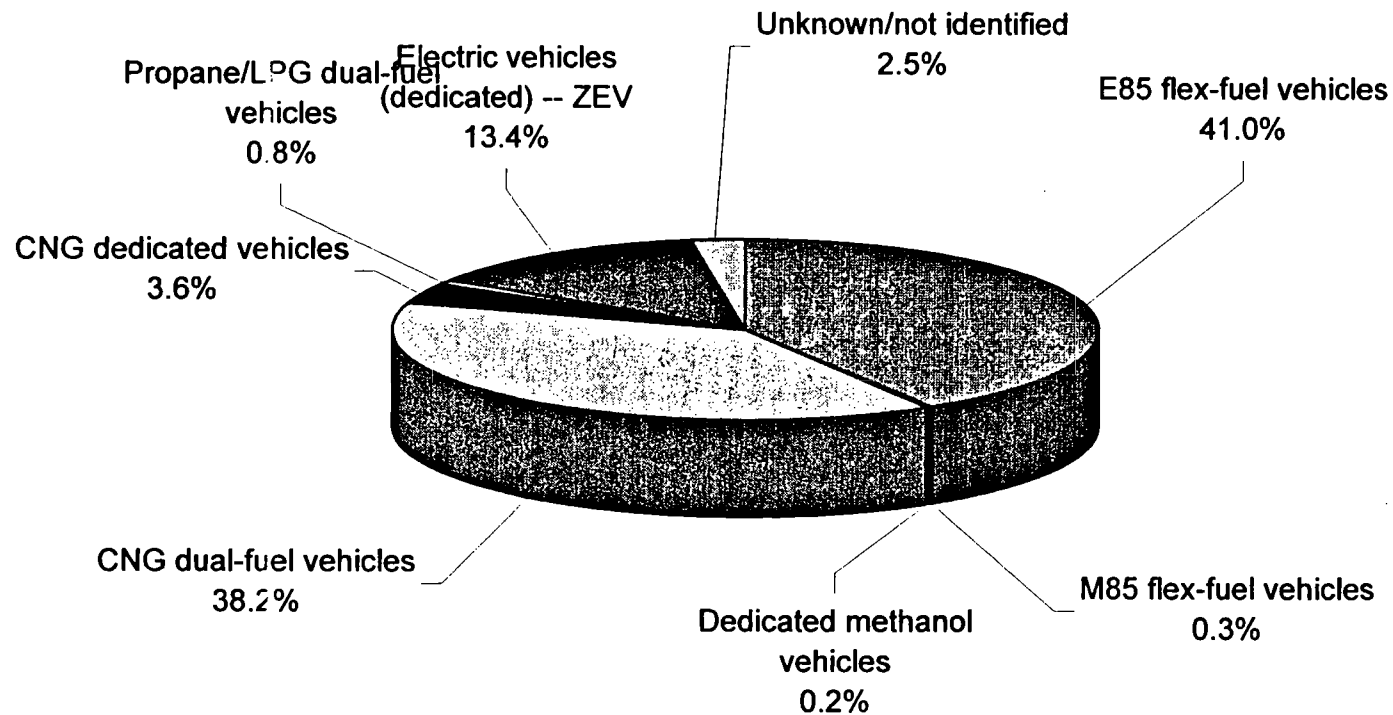
Agency Reported AFV Acquisition Data, FY 2000

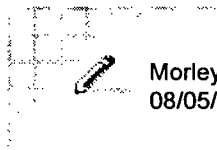
Agency or Department	Vehicle acquisitions	Law enforcement exemptions	Geographic placement exemptions	EPAAct covered fleet vehicles	AFV acquisitions & credits	AFV % of EPAAct covered acquisitions
Department of Agriculture	2808	75	2361	372	169	45.43%
Department of Commerce	401	10	0	391	64	16.37%
Department of Defense	15724	274	7694	7756	3772	48.63%
Department of Energy	1272	68	416	788	859	109.01%
Department of Health & Human Services	859	98	670	91	99	108.79%
Department of Housing & Urban Devt.	387	22	0	365	82	22.47%
Department of the Interior	2200	375	1350	475	495	104.21%
Department of Justice	6248	6228	20	0	8	NA
Department of Labor	70	0	0	70	66	94.29%
Department of State	61	43	0	18	28	155.56%
Department of Transportation	1015	37	440	538	430	79.93%
Department of the Treasury	2959	2913	0	46	16	34.78%
Department of Veterans Affairs	1259	51	0	1208	NR	NR
Environmental Protection Agency	186	67	0	119	92	77.31%
Executive Office of the President	NA	NA	NA	NA	NA	NA
General Services Administration	448	124	156	168	126	75.00%
National Aeronautics & Space Administration	531	0	396	135	105	77.78%
Nuclear Regulatory Commission	5	0	0	5	4	80.00%
Office of Personnel Management	NR	NR	NR	NR	NR	NR
Social Security Administration	NR	NR	NR	NR	NR	NR
United States Postal Service	8200	400	0	7800	7200	92.31%

NR = Not reported

NA = Not applicable

Agency AFV Acquisitions by Vehicle Type, FY 2000





Morley A. Winograd@OVP
08/05/99 08:37:12 AM

Record Type: Record

To: Roger S. Ballentine/WHO/EOP@EOP

cc: Jennifer R. Muller/OVP@OVP, Joshua Gotbaum/OMB/EOP@EOP

Subject: Fuel memo options

Roger:

I agree with you, it is an excellent summary memo. I have no problem with Proposal 1 from an NPR standpoint. Right kind of "steering" vs. "rowing" approach. I also think it puts this piece of management challenge into the mix of achieving mission just as company's have to do. I'm not sure that Option 2 is worth doing if there's little outside or inside support for it but I'd prefer it over Option3 if we have to do something more, simply because the tracking burden is less. I can't see any benefit in proceeding on Options 4 or 5 based on the memo. Your note points out that this one doesn't consider phasing in alternate fuel use and I think that is worth exploring as well.

Morley

RB - FYI - EH

David A. Bernell

08/05/99 06:17:51 PM

Record Type: Record

To: Elwood Holstein/OMB/EOP

cc:

bcc:

Subject: Re: New Transportation E.O. Meeting 

Josh's
views

According to Roger's office, there is no draft of an EO at this time. This seems to confirm Ben Burnett's comments about the working group being back at square one. Josh intends to go to the meeting tomorrow. He stopped by and said that the message he is going to deliver at Roger's meeting is "DOE has the capacity to analyze the effects of the various options. Let's have them do this and then we can come to a decision."

Information on Transportation Executive Order
July 30, 1999

1. Review of options for reducing agency petroleum use and/or raising fuel economy
2. Summarize existing CAFE requirements for GSA and other agencies
3. Summarize greenhouse gas language in the Energy Policy Act
4. Summarize the AFV USERS program to promote alternative fuel infrastructure
5. Review options for improved accountability of agency AFV acquisitions.

Prepared by DOE, EE-34, 7/30/99 O:\OTU\FLEET\RBallentine review options.wpd

1. Review options for reducing agency petroleum use and/or raising fuel economy

Attached is a review of five different approaches for addressing agency petroleum use and fuel economy. These include:

- overall petroleum reduction
- average petroleum reduction per vehicle
- average petroleum reduction per mile traveled
- increase in agency fleetwide fuel economy
- increase in agency fuel economy for each class (sedans and light-trucks)

The current proposed executive order contains a version of average petroleum reduction per vehicle. Although not endorsed by all agencies, the proposed approach and level were the result of months of discussion among the agencies, OMB, and the WHCCTF.

Rough estimates of oil reduction and fuel economy improvement have been made—these are preliminary estimates. A critical difference between the options is coverage: will the goal be for the entire fleet or for just light duty vehicles.

A critical issue is the calculation of fuel economy averages for the Federal fleet. If AFV credits are allowed, then a fuel economy goal would have to be very high to have a real fuel economy improvement. Our preliminary analysis does not use the AFV credits.

Please see attached pro/con review and summary table.

Doesn't look at phased-in alt. fuels use requirement.

2. Summarize existing CAFE requirements for GSA and other agencies

Under the Motor Vehicle information and Cost Savings Act of 1975 (P.L. 94-169), requires the Federal agencies to meet or exceed the fuel economy standards set by the Act. Law enforcement and military vehicles are excluded.

The current standards are 27.5 for sedans and 20.7 for light-trucks (including vans, trucks, and SUVs).

For several years, the agencies were held to a higher standard, dubbed FAFE. Up until 5 years ago, FAFE was about 2 mpg higher than CAFE. During that period, agencies experienced some problems in obtaining enough high fuel economy vehicles, especially in light trucks, to meet agency mission requirements.

would it help to make it fleet-wide?

The GSA Administrator is responsible for ensuring the agencies meet the requirements, as specified by the statute and re-inforced in executive order 11912. For many years, this requirement was a high priority and followed closely. Typically, the GSA would compile data from its own automotive center which provides the bulk of agency purchases. However, each agency is supposed to track vehicles acquired outside of the GSA automotive center. GSA staff would alert the Administrator if a specific agency appeared to be out of compliance. Agencies could apply to GSA for exemptions.

Federal agency fuel economy averages are computed using the manufacturer supplied fuel economy numbers that are used to compute a manufacturers CAFE. Thus, agencies are given credit for the use of alternative fuel vehicles in the same manner as manufacturers. For example, a dedicated natural gas vehicle can get an equivalent of 200 mpg, and an ethanol flexible fuel vehicle can get an equivalent of 30 mpg for purposes of calculating the agencies fleet average. Both manufacturers and agencies are capped in how much mpg benefit they can claim for the dual-fuel vehicles. We did not use the AFV credit in our calculations, but in reality, many agencies would likely acquire AFVs up to the maximum level if a new fuel economy requirement was implemented.

With declining emphasis on fuel economy standards over the last several years and good agency compliance with existing CAFE, reporting and tracking have been eased.

Anecdotally, we do hear that many individual agency fleets are requesting more SUVs to replace vans, and in some cases, sedans. This pattern reflects the growing popularity of the vehicles across the country.

3. Summarize greenhouse gas language in the Energy Policy Act

See separate attachment of excerpts from the Energy Policy Act:

1. Title I, Subtitle F, Federal Agency Energy Management
2. Title III, Sec. 502, replacement fuel supply and demand

authorizes the DOE to promote those alternative fuels that “will have the greatest impact in reducing oil imports, improving the health of our Nation's economy and reducing greenhouse gas emissions.”

3. Title V, Sec. 503, data collection

4. Title V, Sec. 507,- fleet requirement program

5. Title XII, Sec. 1209, DATA SYSTEM AND ENERGY TECHNOLOGY EVALUATION.

6. Title XIII, Coal R&D

7. TITLE XVI--GLOBAL CLIMATE CHANGE

4. Summarize the AFV USERS program to promote alternative fuel infrastructure

See attached write-up

5. Review options for improved accountability of agency AFV acquisitions.

The Energy Policy Act (Sec. 303-307) identifies the roles for the DOE and GSA related to Federal agency requirements to use AFVs, but reporting language is restricted to a requirement for GSA and USPS to report to Congress. Executive orders 12844 and 13031 set the primary reporting requirements from the agencies to the President.

Up until FY 1995, the DOE received appropriations for the incremental cost of agency AFVs and had significant influence over agency programs, and requested and received agency 5-year plans. With the lapse of funding, agencies have not reported to DOE.

As summarized in the draft OMB "Report on Agency Performance in Acquiring Alternative Fuel Vehicles" (July 22, 1999), agency reporting is not adequate. Furthermore, the Congress has imposed a reporting requirement on agencies due to Congressional concerns that agency compliance is not good. The first agency report to Congress is due January 1, 2000.

Selected options to improve accountability include:

- Request each agency head to designate a high-level official responsible for reporting
- Require reports to be submitted with annual budget submission
- Increase OMB involvement
- Improve interagency coordination
- Require line item in agency's budget submissions
- Authorize DOE or other agency head to collect reports
- Use accountability procedures from other new executive orders
- Status quo

The current draft executive order includes several accountability provisions, including designation of a high-level official, increased OMB involvement, line-item requirement for budget, GPRA compliance, and the President's management council. These provisions were reviewed by the inter-agency working group and were agreeable. Some of the new accountability provisions in other executive orders should be considered as well.

DEGREE OF IMPACT OF FLEET ACTIONS ON FLEET EFFICIENCY OPTIONS

Fleet Efficiency Options	Fleet Actions That Could Impact Option									FY 2005 Petroleum Reduction (million gallons) *
	AFV Acquisition	Alt Fuel Use	Advanced Technology Vehicle Acquisition	Smaller Vehicle Acquisition	Vehicle Miles Traveled Reduction	Fleet Size Reduction	Number of Vehicles Impacted per Year	Industry & Environmental Support	Agency Support	
Overall Agency Petroleum Reduction	Potential +	+	+	+	+	NI	500K	Both Medium	All, except EPA	69
Petroleum Reduction Average per Vehicle	Potential +	+	+	+	+	-	500K	Both Low	All, Except EPA	69
Petroleum Reduction Average per VMT	Potential +	+	+	+	+	NI	500K	Both High	All	69
Fleet CAFE Increase	NA	-	+	+	NI	NI	40k	Environmental only	Only EPA	1.6 ¹
Vehicle Class CAFE Increase	NA	-	+	+	NI	NI	40K	Environmental only	Only EPA	1.6 ¹

Note: + Indicates positive impact of action
 - Indicates negative impact of action
 NI Indicates no impact
 NA Indicated not applicable

* Calculations based on information from the GSA Federal Vehicle Policy Division's 1997 Federal Fleet Report

¹ Calculation based on 2 mpg increase by 2005 and no CAFÉ bonus credits for AFV acquisitions allowed for compliance. In reality, agencies would be very likely to acquire AFVs solely to gain high MPG credits granted for these vehicles.

PROPOSALS FOR FEDERAL FLEET PETROLEUM USAGE REDUCTION GOALS

Proposal 1: Total Overall Petroleum Reduction Targets

Example: A 20% reduction in petroleum usage by 2005

Pros

- Includes all vehicles (Light, Medium, and Heavy duty, new acquisitions, vehicles in inventory)
- Encourages overall fleet management improvements to promote overall fleet purchase and usage efficiencies.
- Rewards usage of alternate fuels and the usage of most fuel efficient vehicles for a particular function/activity.
- Measurable. Agencies have data to provide the baseline and are collecting data which could be used to calculate progress.
- Encourages purchase of advanced technology vehicles.
- Discourages big vehicles.
- Many Federal agencies would be agreeable.
- Indirectly addresses Vehicle Miles Traveled issues.
-
-

Cons

- Not original. Similar to E/O 12759 of 1991.
- Can be achieved by downsizing of fleets (although most fleets are already likely to be as lean as possible).
- EPA has expressed reservations because this option does not specifically require efficiency improvements or VMT reductions.
- Could be perceived as sending the message that energy conservation is more important than agencies' missions.
-
-
-

*must address cab
issue*

Proposal 2: Average Per Vehicle Petroleum Reduction Based on Number of Vehicles

Example: Reduce the average gallons of petroleum per vehicle for the entire fleet by 20% by FY 2005.

*must cover
leased
vehicles*

Pros

- Includes all vehicles (Light, Medium, and Heavy duty, new acquisitions, vehicles in inventory)
- Measurable. Data is easily obtained and overall average easily calculated.
- Rewards usage of alternate fuels and the usage of most fuel efficient vehicles for a particular function/activity.
- Provides flexibility in fleet management.
- Encourages purchase of advanced technology vehicles.
- Discourages big vehicles.
- Many Federal agencies would accept, although not strongly support.

Cons

- Could discourage fleet downsizing.
- EPA has expressed reservations because this option does not specifically require efficiency improvements or VMT reductions.
-
-
-

- May reduce VMT

Proposal 3: Average Per Vehicle Petroleum Reduction Based on Number of Vehicle Miles Traveled

Example: Reduce the average gallons of petroleum per mile traveled by 20% by FY 2005.

Pros

- Includes all vehicles (Light, Medium, and Heavy duty, new acquisitions, vehicles in inventory)
- Encourages overall fleet management improvements to promote overall fleet purchase and usage efficiencies.
- Rewards usage of alternate fuels and the usage of most fuel efficient vehicles for a particular function/activity.
- Discourages big vehicles.
- Encourages purchase of advanced technology vehicles.

Cons

- Agencies would have to track mileage on medium and heavy duty vehicles to measure progress.
- More difficult for fleets to track.
- Does not reduce VMT

Proposal 4: CAFE Increase of Overall Fleet

Example: Increase CAFE of the entire light duty fleet, with merged car/truck CAFE value, by 2 miles per gallon by FY 2005.

Pros

- Measurable and easy to calculate, using EPA mileage guide.
- Encourages changing vehicle classes (SUV to sedan).
- Discourages big vehicles.
- EPA would support.
- Encourages purchase of advanced technology vehicles.

Cons

- Includes only light duty acquisitions.
- Dependent on manufacturer offerings.
- No reward for alternate fuel usage.
- No incentive for VMT reductions.
- Focuses on purchase management, not overall fleet management.
- Agencies (except EPA) would oppose because it limits vehicle availability to fleets.
- GSA would oppose because it would limit competition and likely result in increased vehicle prices.

• **Proposal 5: CAFE Increase of Vehicle Class**

- Example: Increase CAFE of each vehicle class (i.e., sedans and light trucks) by 2 miles per gallon by FY 2005.

Pros

- Measurable and easy to calculate, using EPA mileage guide.
- Discourages big vehicles.
- EPA would support.
- Encourages purchase of advanced technology vehicles.

Cons

- Includes only light duty acquisitions.
- Dependent on manufacturer offerings.
- No reward for alternate fuel usage.
- No reward for vehicle miles traveled reductions.
- Focuses on purchase management, not overall fleet management.
- Does not encourage changing vehicle classes (SUV to sedan).
- Agencies (except EPA) would oppose because it limits vehicle availability to fleets.
- GSA would oppose because it would limit competition and likely result in increased vehicle prices.



David.Rodgers@ee.doe.gov

09/23/99 10:33:04 AM

Record Type: Record

To: Shelley N. Fidler/WHCCTF/EOP, Roger S. Ballentine/WHO/EOP, David Gardiner/CEQ/EOP
cc: steer_r@a1.eop.gov
Subject: Analysis on exec. order underway

Dear folks,

I plan to have paper to you by Friday afternoon that will cover the following questions raised on the draft exec. order:

- 1) The GHG emissions reductions impacts of meeting the 20% petroleum reduction requirement.
- 2) The differences between Sec. 4 and 5; do we need both? What are the likely impacts and unintended consequences?
- 3) Look at Sec. 6 and whether other strategies might be simpler but still get results.

I have consulted with GSA and asked for their input on:

- 1) Definitions for light, medium, heavy duty motor vehicles
- 2) How do agencies request SUVs to replace sedans? How would a "proscription" against large SUVs work?
- 3) Experience with the original Federal Avg. Fuel Economy standard (FAFE)

I got mixed reactions from GSA staff. They wanted to help, but also felt left out of the loop. Some folks didn't want to relay information through me--they wanted a seat at the table.

David

**Greening the Government Through Efficient Vehicles
Issue Discussion**

- 1) Emissions reductions from meeting petroleum reduction goal
- 2) Options for improving agency fleet fuel economy and trip efficiency
- 3) Options for encouraging alternative fuel use

4) Definition issues

5) GSA comments

6) Analysis

DOE, EE-34, 586-9118

DRAFT 9/24/99, 5:52pm

1) Emissions reductions from meeting petroleum reduction goal

Greenhouse gas emissions reduction will follow directly from petroleum reduction in agency fleets.

- If agencies reduce petroleum consumption by downsizing fleets, traveling fewer miles, or using more fuel efficient vehicles, greenhouse gas emissions reductions will be in 1:1 proportion to the petroleum saved. In the attached analysis, increases in fuel economy consistent with Section 5 as written, would result in about 3% petroleum reduction and greenhouse gas emissions reductions by 2005, and 8% by 2010.
- If agencies use alternative fuels, greenhouse gas emissions will vary for each alternative fuel, but will be less than 1:1 proportion to oil reduction. For example, ethanol fuel (E85) reduces GHG emissions by about 20% per gallon compared to gasoline. If an agency reduces petroleum consumption by 20% using E85, then GHG emissions will be reduced by about 4% (see Figure 1 in the attached analysis.)
- With petroleum consumption being reduced by a mixture of alternative fuel use and other means, resulting GHG emissions are somewhat lower than 1:1. As shown in the tables on page 4 of the analysis, a somewhat troublesome paradox exists in finding the right balance between the two approaches. A high rate of alternative fuel use helps achieve 20% oil reduction more easily and lowers the need for fuel economy improvement, but lowers GHG emissions reductions. On the other hand, a low rate of alternative fuel use requires increases in fuel economy that may be unattainable, yet results in larger GHG reductions if attained.
- Additional work needs to be done in understanding how oil reduction and GHG reduction could occur in medium and heavy duty vehicles.

2) Options for improving agency fleet fuel economy and trip efficiency

There are two options in the recent draft. Section 4 focuses on reducing petroleum use per mile traveled, encouraging agencies to use the most economical vehicle for each trip. Section 5 focuses on improving overall agency fuel economy.

Section 5 has a stronger statutory basis and much history. Under the Motor Vehicle Information and Cost Savings Act of 1975 (P.L. 94-169), Federal agencies must meet or exceed the fuel economy standards set by the Act. Law enforcement and military vehicles are excluded. The current standards are 27.5 for sedans and 20.7 for light-trucks (including vans, trucks, and SUVs).

what happened?

- For several years, the agencies were held to a higher standard, dubbed FAFE. Up until 5 years ago, FAFE was about 2 mpg higher than CAFE. During that period, agencies experienced some problems in obtaining enough high fuel economy vehicles, especially in light trucks, to meet agency mission requirements. GSA reports that the FAFE requirement applies to the entire Federal fleet, but that each agency must ensure it is complying.

- The GSA Administrator is responsible for ensuring the agencies meet the requirements, as specified by the statute and re-enforced in executive order 11912. For many years, this requirement was a high priority and followed closely. Typically, the GSA would compile data from its own automotive center which provides the bulk of agency purchases. However, each agency is supposed to track vehicles acquired outside of the GSA automotive center. GSA staff would alert the Administrator if a specific agency appeared to be out of compliance. Agencies could apply to GSA for exemptions.

is this law?

- Federal agency fuel economy averages are computed using the manufacturer supplied fuel economy numbers that are used to compute a manufacturer's CAFE. Thus, agencies are given credit for the use of alternative fuel vehicles in the same manner as manufacturers. For example, a dedicated natural gas vehicle can get an equivalent of 200 mpg, and an ethanol flexible fuel vehicle can get an equivalent of 30 mpg for purposes of calculating the agency's fleet average. Whereas manufacturers are capped in how much mpg benefit they can claim for the dual-fuel vehicles (1.2 mpg), we believe agencies are not capped by the law. The credits for dual-fuel AFVs expire in 2004, but dedicated AFVs credits are permanent.

- With declining emphasis on fuel economy standards over the last several years and good agency compliance with existing CAFE, reporting and tracking have been eased. It should be a simple matter for GSA to compile a report establishing a baseline for FY 1998 or FY 1999.

Section 5 would be very difficult to administer on the entire fleet.

- It would more appropriate and consistent with the statute to apply the requirements to new light duty vehicles. For agencies to impact the MPG of the entire stock of vehicles, all new purchases would have to be much higher current purchases for several years as vehicles turned over. Computing the baseline MPG for the entire stock would be very

*what if it applied only to new purchases?
Or phase in somehow?*

difficult. Computing and managing fuel economy averages for medium and heavy-duty vehicles would be very difficult.

- It would also be consistent with the statute to allow credits for AFVs. While this could encourage use of AFVs, it might also frustrate those who want to see more realistic fuel economy improvements. It would be appropriate to consider capping agency AFV credits consistent with the CAFE law.
- Most agencies are likely to resist an aggressive increase in the FAFE because historically it caused problems with availability of vehicles. With the advent of advanced technology vehicles, however, this problem could be ameliorated.

Section 4, as written, would help reduce petroleum consumption by encouraging agency personnel to use the most economical vehicle for each trip.

- As written, the requirement would apply to the agencies entire fleet, not just light duty vehicles
- Many agencies may find this requirement difficult to implement and track. Although agencies do collect and report total fuel consumption and total miles travelled, this data is highly aggregated. It would likely require significant changes in fleet management to track individual trips and vehicles chosen for particular trips.
- Many agencies would be frustrated at being asked to enforce a "small car" policy.
- Anecdotally, we do hear reports that agencies are joining the trend to larger trucks and SUVs for trips formerly taken by sedans. It's doubtful, however, that this trend is very large. SUVs and mini-vans are significantly more expensive than sedans and even light trucks. GSA Fleet Management reports that agencies requesting to replace a sedan with a light-truck must provide the incremental cost up-front. — how about additional justification?
- Agencies are currently limited by the Cost Savings Act to use the smallest vehicle available for the mission. If an agency wants a large size sedan, it must submit paperwork and receive approval. A similar provision could be developed for SUVs

→ strengthen?

3) Options for encouraging alternative fuel use

The most straightforward way is for agencies to meet a standard for alternative fuel use as a percentage of all fuel used for alternative fuel vehicles. Agencies already report the amount of alternative fuel consumed, the amount of petroleum fuel consumed and the number of alternative fuel vehicles.

See also GSA comments in this area.

More to be provided.

4) Definition issues

Consensus seems to indicate the current draft was referring to motor vehicles, and exclusive of marine and aircraft. The issue of off-road vehicles is not addressed. See GSA's draft comments.

US General Services Administration
Comments on Proposed Transportation Executive Order
September 24, 1999

The General Services Administration (GSA) is pleased for this opportunity to comment on the proposed transportation Executive Order entitled "Greening the Government through Efficient Vehicle". Building upon our support of the Energy Policy Act of 1992 and Executive Order 13031, GSA supports goals of reducing the use of petroleum-based products and greenhouse-gas emissions in the Federal fleet. However, we do wish to offer the following comments.

Section 2:

We feel that the 20% reduction in petroleum-based transportation fuel by 2005 as compared to 1999 levels of usage is the primary driver toward achieving all of the goals of this proposed executive order. A reduction of this kind would certainly assist the agencies in significantly reducing greenhouse gas emissions. Furthermore, agencies would have a strong incentive to use alternative fuels and advanced vehicle technologies in striving to meet the 20% reduction. In addition, petroleum-based fuel usage is very easy for agencies to track in terms of capturing accurate petroleum use data and monitoring their progress toward this goal.

However, confusion could occur concerning which applications this reduction affects. For example, can fuel reductions in marine or aviation applications count toward the 20% goal? Based on discussions with the Department of Energy, our sense is that such reductions would not count toward this 20% goal.

Such confusion may be avoided by clearly stating which vehicles should reduce their fuel use or by stating which vehicles are not covered by this reduction. For example, the Section 2 could state, "each agency must reduce the total amount of petroleum-based transportation fuel that it uses in sedans, station wagons, buses, and all 4x2 and 4x4 light duty trucks under 12,500 pounds gross vehicle weight rating (or some other appropriate GVWR) by 20 percent". Or Section 2 could state, "each agency must reduce the total amount of petroleum-based transportation fuels consumed by its commercial motor vehicles designed primarily to operate on highways."

As mentioned, Section 2 could simply state what is not covered by the 20% percent reduction by indicating, "while agencies should strive for similar reductions in fuel used in marine, aviation, tactical, or other non-road units, such reductions may not be counted toward this 20% reduction goal."

If this executive order intends to maintain the exemptions for law enforcement, emergency units, or vehicles involved with national security, it should clearly state so in order to avoid any potential misunderstandings.

Section 3:

We feel that the petroleum-based fuel reduction goal expressed in Section 2 and the greenhouse-gas reduction goals in Section 3 are so closely linked that achieving the fuel reduction goals will most likely result in reductions in greenhouse gas emissions similar to those sought in this executive order.

Having said that, we have concerns about the agencies' ability to accurately measure their greenhouse gas emissions and foresee great difficulty in calculating a relevant baseline. This type of data is not something that is currently tracked by the agencies. Very specific and detailed instructions will have to be issued by DOE or even EPA to the agencies on how to carry out this section. ★

Setting a strict goal may unintentionally limit the use of the most effective alternative fuel for an area. Agencies would need guidance as to what alternative fuels or combination of alternative fuels could meet the greenhouse gas reduction goal. We don't know if the use of ethanol alone would meet the reduction goal or CNG alone or even electricity alone. Also, someone needs to clarify if E85 is an acceptable fuel for reducing greenhouse gas emissions. So far, no one has indicated either way.

Speaking of EPA, historically, vehicle emissions have been within the realm of this agency while alternative fuels and advanced vehicle technologies have been within the purview of DOE. It may be a good idea to involve EPA in the early stages of this executive order. They may be able to provide some valuable insight on what language to use in order to clearly express the greenhouse gas related goals of this Executive Order and how best to achieve them.

Note: While we provide comments below, we recommend the deletion of Sections 4 & 5 since the 20% petroleum-based fuel reduction in Section 2 should provide agencies enough incentive to manage their acquisitions in the spirit of the Executive Order and achieve its intents.

Section 4:

With Section 2's 20% reduction goal of petroleum-based fuels in place, we are not sure why this section is needed. It is rather vague and confusing. Instead of focusing on miles per gallon, "the average quantity of petroleum consumed per vehicle-mile traveled" seems to focus on gallons per mile!

It is our understanding that by focusing on gallons per mile this section is intended to limit the number of sport utility vehicles (SUVs) acquired by the agencies. If agencies have to reduce their petroleum-based fuel consumption by 20% while still having to complete their current missions, we feel that agencies would shy away from gas-guzzlers in favor of more fuel-efficient vehicles.

Section 5:

We agree that the Federal Government should take the lead in meeting and even exceeding the CAFÉ/FAFE miles per gallon (mpg) standards. However, as currently worded this section seems unconcerned with the CAFÉ/FAFE standards.

This section calls for increases in mpg of certain quantities by certain years based upon an agency's 1999 mpg rating. What if an agency's mpg rating is already far below the CAFÉ/FAFE standard? Under this current language, an agency could raise its mpg rating by 4 by 2010 but still be far below the standard required by law.

We feel that the CAFÉ/FAFE standards are the real key to improving mpg in the Federal government. One alternative to Section 5 is to statutorily increase the CAFÉ/FAFE standards across the board ensuring that commercially produced vehicles purchased by the Government achieve higher mpg goals. A more palatable alternative could be to change the language in Section 5 by calling for increases in mpg based upon the 1999 or 2000 CAFÉ/FAFE standards, rather than agencies' 1999 mpg baseline.

Finally, if this section is kept, it needs to clarify that the increases in mpg cover new light-duty vehicle acquisitions only and not an agency's entire fleet

Section 6:

Increasing the use of alternative fuels is a fantastic idea. However, the technology on which current fuel purchasing mechanisms are based makes it difficult for agencies to be able to separate their alternative fuel purchases from their gasoline or diesel purchases. Another hindrance to achieving these goals on a per-vehicle basis is the limited refueling infrastructure.

Furthermore, fuel consumption based on gallons is difficult to measure since the industry doesn't provide data across the board. It may be easier to focus on the dollars spent on alternative fuel, but even here companies often do not break out fuel bills by service station or even fuel type.

Another short-term alternative would be to set alternative fuel gallon targets that were fleet-wide rather than per vehicle. Section 6 could then call for long-term

gallon targets that were per vehicle as refueling infrastructure developed. A precedence for this can be found in the Energy Policy Act which required fleets to buy specific numbers of alternative fuel vehicles in certain years then required that AFVs represent specific percentages of agencies' new vehicle acquisitions in the out years. Finally, another alternative is to call for alternative fuel use targets as certain percentages of agencies' total transportation fuel consumption. While it would be hard for agencies to track actual gallons used per alternative fuel vehicle, they may be able to calculate how many gallons of non-petroleum-based fuel they consumed from their aggregate fuel totals.

Section 7.

We feel that EPA should be involved in calculating baseline standards for greenhouse gas emissions.

MEMO



To: David Rodgers-U.S. Department of Energy

Date: September 24, 1999

From: Richard L. Bechtold and Michael D. Laughlin-QSS Group, Inc.

Subject: Draft Federal Fleet Executive Order Greenhouse Gas Analysis

We have performed an analysis of the effects on greenhouse gas emissions on the draft proposed executive order to reduce the petroleum fuel consumption of the Federal Fleet. Included are recommendations for implementing changes in Federal Fleet CAFE.

Federal Fleet Data

To fully understand the results, it is important to understand the quality of the Federal Fleet data. The GSA maintains data on the number of vehicles, the miles they travel, and the amount of fuel they use, for the Federal Fleet. These data are collected through a survey process. The following are some pertinent facts about the Federal Fleet data:

- The latest data available are for 1997.
- The data include only those agency fleets greater than 2,000 vehicles—however, this is not a drawback since about 97% of all Federal Fleet vehicles are represented.
- Starting in 1997, both gasoline and diesel fuel use is tracked—however, use by vehicle type is not specified.
- Vehicle types are broken down into crude subdivisions. Cars are broken down the most thoroughly including subcompacts, compacts, full-size, and limousines. Light trucks are broken down only into 4X2's and 4X4's. Other classes include buses, ambulances, station wagons, and medium and heavy trucks. The amount and type of fuel used by these vehicle categories is not available.

Assumptions

Given the limitations of the data cited above, several assumptions were necessary in order to conduct analyses:

- The latest data (1997) were assumed to be the 1999 baseline.

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- No significant increase in the size of the Federal Fleet is assumed through 2010.
- All buses, and medium and heavy trucks were assumed to use diesel fuel.
- All cars were assumed to use gasoline.
- After accounting for diesel fuel use by buses, and medium and heavy trucks, we also assumed that all light trucks use gasoline, though we are sure some use diesel fuel. There was so little diesel fuel left unaccounted for that assuming all light trucks use gasoline should not introduce significant errors.
- Federal Fleet cars are kept for 4 years and light trucks are kept for 6 years before being replaced.
- All the diesel fuel used by the DOD was assumed to be used in tactical vehicles. All the gasoline used by the DOD was assumed to be used in non-tactical vehicles (assumed to be cars and light trucks).
- Current use of alternative fuel by the Federal Fleet is ignored because it is small and not well documented.

Results

Baseline

Table 1 lists the number of Federal Fleet vehicles included in this analysis, the gasoline and diesel fuel they use, and the greenhouse gases they produce. The 539 thousand vehicles represent about 95% of all Federal Fleet vehicles. These vehicles travel about 4.3 billion miles per year and use 278 million gallons of gasoline and 38 million gallons of diesel fuel. The greenhouse gases produced by these vehicles total 4.2 million tons per year CO₂-equivalent per year. (The greenhouse gases are for the full fuel cycle, based on GREET 1.4, expressed in CO₂-equivalent.)

Alternative Fuel Use

The alternative fuels that the Federal Fleet could use to achieve 20% petroleum fuel displacement by 2005 include E85, CNG, and propane. B20 could also be used but the maximum petroleum fuel displacement would be 2% if used in all diesel vehicles. Figure 1 presents the greenhouse gas reductions that would accrue if each agency were required to displace 20% of their petroleum fuel consumption with each of the alternative fuels (except for B20, which displaces 2%). Figure 1 illustrates that the greenhouse gas reductions would be in

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the 2% to 4% range. B20 is by far the most effective in reducing greenhouse gases, though it is expected that use of E85 made using cellulosic ethanol would give similar results per percent petroleum displacement.

Increased Fuel Economy

For this portion of the analysis, only cars and light trucks using gasoline are included since medium and heavy trucks do not have fuel economy numbers and have slow turnover rates in comparison to light duty vehicles. We also chose to exclude the Postal Service light trucks since they are overwhelmingly postal delivery vehicles with very slow turnover that have little prospect for increased fuel economy.

The remaining cars and light trucks have average in-use fuel economics of 21.5 and 15.6, respectively. The Federal government is supposed to be acquiring vehicles that on average equal the CAFE limits imposed on auto manufacturers—27.5 mpg for cars and 20.7 mpg for light trucks. Assuming this is true, we assume that the difference between CAFE and in-use fuel economy represents a discount that should be applied to new vehicle fuel economy to estimate their Federal Fleet in-use value. This allows an estimate of the "real-world" effect of acquiring vehicles with higher fuel economy.

Our analysis suggests that 20% reduction in Federal Fleet petroleum fuel consumption would occur by 2010 if the vehicles acquired each year had an average fuel economy 1.15 mpg higher than the previous year. (All references to fuel economy in this discussion are the adjusted or "window sticker" values.) To achieve a reduction of 20% by 2005 would require a yearly increase in fuel economy of new vehicles acquired of 2.8 mpg. Clearly, achieving a 20% reduction in petroleum fuel use by 2005 via fuel economy increase alone is not realistic. We also evaluated a scenario where the fuel economy of the vehicles acquired would be increased by 1 mpg by 2003, 2 mpg by 2005, and 4 mpg by 2010 (we assumed interim years would have linear increases between these points). This scenario resulted in a 3.1% decrease in petroleum fuel consumed by 2005 and 8.2% by 2010. Because the petroleum fuel being displaced is gasoline, the reduction in greenhouse gas emissions is almost the same (just very slightly less because the baseline has about 14% diesel fuel).

EPACT and Increased Fuel Economy Separation

If EPACT is fully implemented within the Federal Fleet, and that each alternative fuel vehicle uses alternative fuel 100% of the time, the decrease in petroleum fuel consumption would be 18% by 2005 and 23% by 2010. Greenhouse gas reductions would be 2% by 2005, and 3% by 2010. Reaching 20% petroleum fuel reduction by 2005 would require that the remaining non-EPACT vehicles increase their new vehicle acquisition fuel economy by 0.2 mpg per year.

However, we know that 100% alternative fuel use is unrealistic. We looked at scenarios where

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alternative fuel use in EPACT AFVs was 75%, 50%, and 25% of total fuel use for these vehicles. The following table lists the annual new vehicle fuel economy increase needed to achieve 20% petroleum fuel reduction in both 2005 and 2010, for these percentages of alternative fuel use. (It is assumed that the EPACT AFVs are not required to have a fuel economy increase.)

Federal Fleet New Vehicle Fuel Economy Annual Increase Needed with EPACT			
20% Petroleum Fuel Reduction	Percent Alternative Fuel Use in Federal Fleet EPACT AFVs		
	75	50	25
2005	0.9	1.8	3.0
2010	0.2	0.6	1.1

The table below lists the greenhouse gas reductions corresponding the table above.

Combined Federal Fleet EPACT and New Vehicle Fuel Economy Annual Increase Scenario Change in Greenhouse Gases			
20% Petroleum Fuel Reduction	Percent Alternative Fuel Use in Federal Fleet EPACT AFVs		
	75	50	25
2005	-8.5%	-12.0%	-15.6%
2010	-7.2%	-11.8%	-15.7%

Fuel Economy Versus Per Mile

Expressing the goals in terms of petroleum use per mile of vehicle travel is the most restrictive case compared with an overall petroleum use goal (e.g., 20% reduction by 2005) or requiring an increase in new vehicle acquisition fuel economy. However, it has two severe drawbacks: 1) it will be universally loathed by the fleet managers; and 2) it will be nearly impossible to enforce (i.e., cheating will be almost impossible to prevent). The reason that it will be impossible to enforce is that vehicle miles can easily manipulated to be whatever the fleet manager wants them to be. Hiding fuel purchases will take collusion among several people making it less likely to occur. Likewise, the fuel economy of all vehicles is known, so cheating on a system that tracks the fuel economy of new vehicles acquired will also be very difficult. But probably more importantly, the fleet managers should at least be given the flexibility to determine how to reduce petroleum fuel consumption, whether it be through more fuel efficient vehicles, alternative fuel vehicles, or just using vehicles less.

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Table 1. Federal Fleet Vehicles, Fuel Use, and Greenhouse Gases

Agency Type	Vehicle Type	Number of Vehicles	Miles Traveled (millions)	Gasoline Used (million gallons)	Diesel Used (million gallons)	Greenhouse Gases (thousand tons CO ₂ -equivalent)
Civilian	Cars	97,358	1,036.1	47.0		608.2
	Light Trucks	143,809	1,288.0	81.0		1,049.3
	Medium Trucks	15,918	95.7		9.8	141.9
	Heavy Trucks	6,988	12.9		1.9	28.1
Military (non-tactical)	Cars	8,450	98.7	5.1		66.2
	Light Trucks	62,331	677.5	44.8		580.6
Postal Service	Cars	9,342	72.1	4.0		51.5
	Light Trucks	180,346	836.8	96.0		1,242.9
	Medium Trucks	9,293	56.7		5.6	80.9
	Heavy Trucks	4,927	140.0		21.0	303.1
Totals by Vehicle Type	Cars	113,150	1,206.9	56.1		725.9
	Light Trucks	386,486	2,802.3	221.8		2,872.8
	Medium Trucks	25,211	152.4		15.4	222.8
	Heavy Trucks	11,915	152.9		22.9	331.2
Totals		538,762	4,314.5	277.9	38.3	4,152.7

NI - Not Included

Note for GHGs: Based on full fuel cycle from the GREET model, version 1.4

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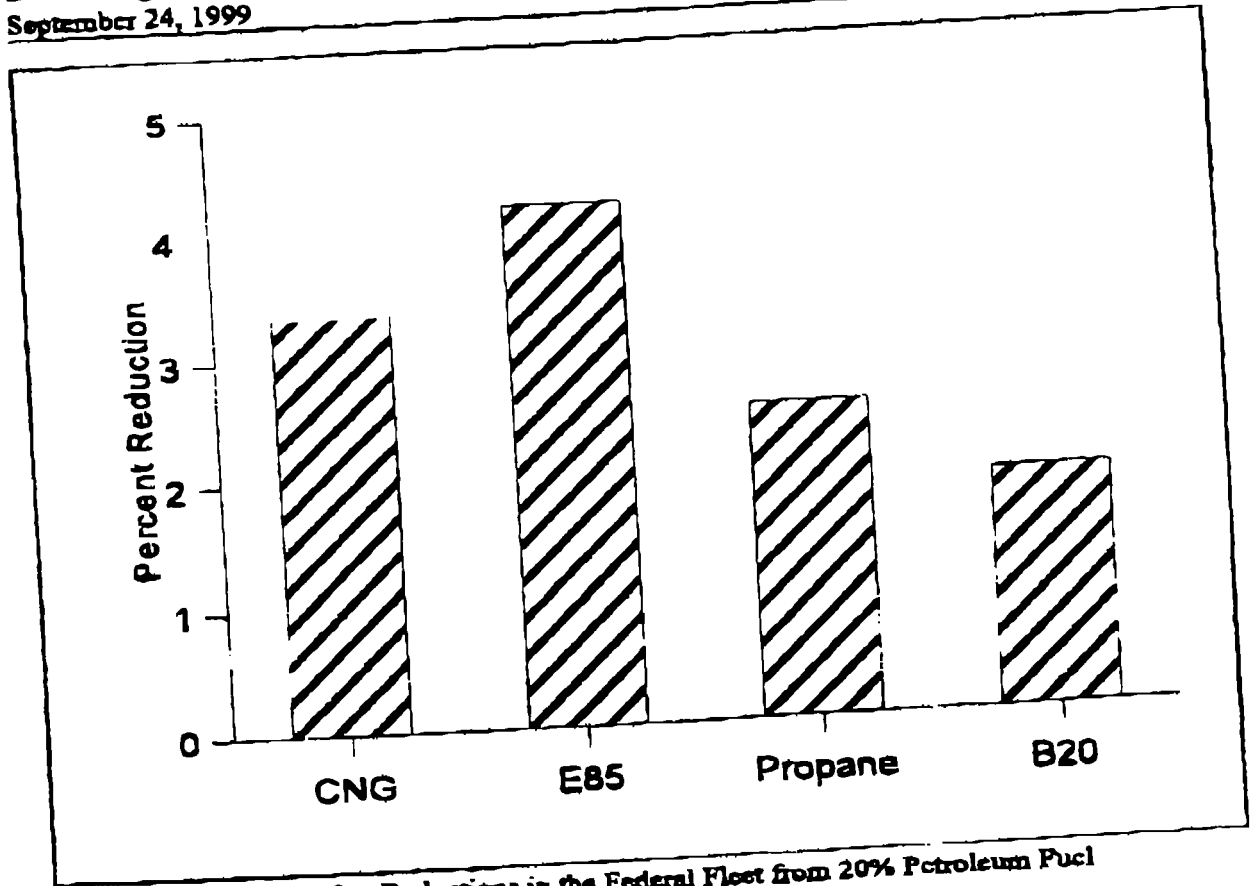


Figure 1. Greenhouse Gas Reductions in the Federal Fleet from 20% Petroleum Fuel Displacement (2% Displacement from B20)