University of North Carolina at Greensboro

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Fleet Information	
Total Leased Vehicles	27
Total County Titled Vehicles	0
Total State Titled Vehicles	155
Total Other Vehicles	50

Breakdown of State Titled Vehicles Only

Vehicle Type	Quantity	Miles
Gasoline Only	128	-
Diesel	14	-
Hybrids	0	-
Flex-fueled Vehicles	13	-
Comp Natural Gas	0	-
Propane	0	-
Electric (non-titled)	17	-
Other	0	-
10% Eligible	0	-
Totals	**155**	**N/A**

Fuel Information

State Titled Vehicles Only

Fuel Type	Gallons	Pet. Eqv.
Gasoline	37,242	37,242
E10	0	-
E85	0	-
Diesel	10,823	10,823
Off-road Diesel	0	-
B5	0	-
B20	0	-
B100	0	-
CNG	0	-
Propane	0	-
Other	0	-
	Quarts	
Petroleum Motor Oils	2,000	500
Syn & Rec Motor Oils	100	-
	Total	48,565

Fueling Infrastructure

Location	Age	Size	Fuel
Campus	10	8000	Gas
Campus	10	3000	Diesel

Instructions

Fill out all information (exception - miles if N/A)
Complete with data from fiscal year 2004-2005
Please note if fuel includes more than State Vehicles
Count hybrids and FFV's only once in the breakdown, do not count them as gasoline vehicles
10% Eligible vehicles include police & emergency
10% eligible educational vehicles must have specific modifications for instructional purposes

Notes/Comments

Odometer readings as of 8/31/06 have been attached for vehicles with odometers.

29 of the 159 E10 usage vehicles do not have odometers
159 E10 vehicles should reduced by 13FFV

Motor Fleet vehicles are fueled on campus also

Potential for Biofuels Expansion

Location	Space	Tk Size	Fuel

Potential Reduction in Petroleum use for your organization;		Projected Reduction			
Conservation	Reduce speeds, efficient cars, task pooling	1,457	gallons	=	3.00%
E10	Using E10 for all gasoline vehicles	3,724	gallons	=	7.67%
E85	Using E85 for all flex-fueled vehicles	2,919	gallons	=	6.01%
B5	Using B5 for all diesel vehicles	541	gallons	=	1.11%
B20	Using B20 for all diesel vehicles	2,165	gallons	=	4.46%
B100	Using B100 in 1/10th of your diesel vehicles	1,082	gallons	=	2.23%
FFV	Substituting one FFV using E85	213	gallons	=	0.44%
CNG/Propane	Replacing one vehicle with a CNG/LPG car	313	gallons	=	0.65%
Electric	Replacing one vehicle with an electric car	313	gallons	=	0.65%
Syn & Rec Oils	Using all synthetic and recycled motor oils	2,000	quarts	=	1.03%

Petroleum Displacement
Goal : 20.0%
9,713 gallons

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Petroleum Displacement	**2006-2007**	**2007-2008**	**2008-2009**	**2009-2010**	**2010-2011**	**Initial Cost**	**Yearly Cost**
5%	Switch over all Diesel (~15,673 gallons per year) to B20						$470
3%	Implement an organization wide campaign to reduce speeds, eliminate unnecessary idling, stop fast accelerations, and encourage carpooling						
7.5%	Switch over all 55,212 gallons of gasoline to E10						$4,693
(.026)/yr 1.03%	Switch all gasoline vehicles to Synthetic Motor Oils over a 4 year period ---------->						
(.045)/yr 1.84%	Purchase 1 Electric Car for Maintenance	Purchase 1 Electric Car for Maintenance	Purchase 5 Electric Car for Maintenance	Purchase 5 Electric Car for Maintenance		$18,000/ea	$90,000
2.0%		Use E85 in 13 FFV's as it becomes available in University area					$1,440
		Approximately 12,000 gallons of E85 from public pumps in 13 FFV's					
Totals	**15.6%**	**17.6%**	**17.6%**	**17.6%**		**$21,000**	**$27,603**

Possible additional vehicle purchases from 2006 - 2010

Year	Quantity, Vehicle Type and Description	Purpose	Fuel / Hybrid		Additional Cost
2007	15 Neighborhood Electric vehicle	Facilities work			$270,000
2008	5 Neighborhood Electric vehicle	Facilities work			$90,000
2009	5 Neighborhood Electric vehicle	Facilities work			$90,000
2010	5 Neighborhood Electric vehicle	Facilities work			$90,000

University of North Carolina at Greensboro	Fleet and Fuel Reporting	Hoyte Phifer (336) 256-0430 hdphifer@uncg.edu

Fleet Information	2005-2006		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011	
Vehicle Type	**Total #**	**Miles**	**Total #**	**Miles**	**Total #**	**Miles**	**Total #**	**Miles**	**Total #**	**Miles**	**Total #**	**Miles**
Gasoline	128	615,807	128	595,362	118	202,863	107	288,300	105	251,000	109	285,909
Diesel	14	71,238	14	68,799	16	76,837	16	74,400	18	103,000	21	116,436
Hybrid	-	-	-	-								
Flex-fueled Vehicles	14	50,349	14	33,461	16	26,451	15	42,000	17	49,000	19	44,624
Comp Natural Gas	-	-	-	-								
Propane	-	-	-	-								
Electric	-	-	2	-	17	314	17		30	5,196	35	163,674
Emergency/Ed (10%)	-	-	-	-	5	75,000	4	29,000	4	32,000	4	20,260
Totals	**156**	**737,394**	**158**	**697,622**	**172**	**381,465**	**159**	**433,700**	**174**	**440,196**	**188**	**630,903**
	1%	**N/A**	**2%**	**-5%**	**11%**	**-48%**	**3%**	**-41%**	**12%**	**-40%**	**21%**	**-14%**

Fuel Information	2005-2006		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011	
Fuel Type	**Gal**	**Petr.**	**Gal**	**Petr.**	**Gal**	**Petr.**	**Gal**	**Petr.**	**Gal**	**Petr.**	**Gal**	**Petr.**
Gasoline	-	-	-	-		-		-		-		-
E10	38,540	34,686	38,047	34,242	37,622	33,859	35,000	31,500	33,300	29,970	36,416	32,774
E85	-	-	-	-		-		-		-		-
Diesel	-	-	-	-		-		-		-		-
B5	-	-	-	-		-		-		-		-
B20	15,673	12,538	15,852	12,682	18,039	14,431	18,400	14,720	20,000	16,000	22,724	18,179
B100	-	-	-	-		-		-		-		-
CNG	-	-	-	-		-		-		-		-
Propane	-	-	-	-		-		-		-		-
	Qrts		**Qrts**		**Qrts**		**Qrts**		**Qrts**		**Qrts**	
Petroleum Motor Oils	1,975	494	465	116	190	48	170	43	5	1		-
Syn & Rec Motor Oils	125	-	351	-	450	-	581	-	799	-	610	-
Total Petroleum Use		**47,718**		**47,040**		**48,338**		**46,263**		45,971		50,954
% Change in PDP		**-2%**		**-3%**		**0%**		**-5%**		**-5%**		**5%**

PDP goal by 2011:	**-20.0%**

ref line # 34 JO'N

Notes:
2005-2006 The campus utilized 17 non-titled electric vehicles
2006-07 The campus purchased 2 titled electric vehicles
2007- 08 The campus has purchased 15 additional electric vehicles and 2 additional flex fuel.

Vehicle get less miles per gallon, increasing the number of gallons used.

2009-2010 -The parking division added one more diesel buses and more routes encouraging less private vehicle travel on campus

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Results Noted (by FY 2009-10) as relate to your PLAN

Plan for FY 2011-12

all PDP participating fleets results to 2009-10

Overall Results from all participating fleets

	FY 2004-05	FY 2009-2010	
Fuel Type	thousand of gallons	thousand of gallons	% change
Gas	14,935	3,165	-79%
E10	598	11382	1803%
E85	242	398	64%
Diesel	8,526	1602	-81%
B5	-	7	
B20	1,870	8157	336%
B100	-	2	
Total Biodiesel as B20	1,870	8,167	337%
CNG	3	0	-92%
Propane	56	5	-91%
Petroleum Motor Oils	48	35	-27%
Syn & Rec Motor Oils	3	6	115%
Total Fuel	**26,283**	**24,760**	**-5.8%**
Total Petroleum	**25,581**	**21,638**	**-15.4%**
T.Fuel (adj. for growth)	**26,877**	**24,760**	**-7.88%**
T.Petro (adj for growth)	**26,153**	**21,638**	**-17.26%**

vehicles reported in PDP

	FY 2004-05	FY 2009-2010	
Vehicle Types	#	#	% change
Gasoline	10,816	9,436	-13%
Hybrid	78	129	65%
Flex-fueled Vehicles	4,752	7,018	48%
Comp Natural Gas	14	5	-64%
Diesel	4,498	5,066	13%
Propane	192	150	-22%
Emergency/Ed (10%)	6,007	5,871	-2%
Electric	13	199	1431%
Total	**26,370**	**27,874**	6%

Of the Overall 17.5 % petroleum reduction:
3.95% displaced by reduced mileage (conservation)
4.01% displaced through E10 use
0.49% displaced through E85 use
4.7% displaced through biodiesel use
4.3% displaced through efficiency

Your organization result to date

University of North Carolina at Greensboro results to date (2009-10)

% of Goal	State Organization	Petro Use	Petroleum Displacement Achievements	PDP Actions (Petroleum Reduction)
26%	UNC Greensboro	-5%	making progress, goal is achievable in time left	focus on NEV's, decreased miles, universal E10 and B20 usage

% Reductions Caused by PDP Actions (by FY 09-10 as reported)

Miles	E10	E85	B5	B20	B100	CNG	Prop	Syn Moil
-40.3%	6.2%	0.0%	0.0%	7.5%	0.0%	0.0%	0.0%	0.40%

your organization plan to date

University of North Carolina at Greensboro

Petroleum Displacement	2005 thru2007	2007-2008	2008-2009	report progress 2009-2010	plan next year and forward 2010-2011	beyond 2011
Actual	**-3%**	**0%**	**-5%**	**-5%**		
-40.3%	reduction in miles has contributed to PDP					
6.2%	E10 use has significantly contributed toward PDP					
7.5%	Exclusive use of B20 biodiesel has significantly contributed toward PDP					
0.40%	use of synthetic motor oil has contributed toward PDP					
Previously Noted						
5%	Switch over all Diesel (~15,673 gallons per year) to B20					
3%	Implement an organization wide campaign to reduce speeds, eliminate unnecessary idling, stop fast accelerations, and encourage carpooling					
7.5%	Switch over all 55,212 gallons of gasoline to E10					
(.026)/yr 1.03%	Switch all gasoline vehicles to Synthetic Motor Oils over a 4 year period ---------->					
(.045)/yr 1.84%		Purchase 1 Electric Car for Maintenance	Purchase 1 Electric Car for Maintenance	Purchase 5 Electric Car for Maintenance	Purchase 5 Electric Car for Maintenance	
PLAN						
2.0%		Use E85 in 13 FFV's as it becomes available in University area Approximately 12,000 gallons of E85 from public pumps in 13 FFV's		Diesel bus fleet and routes have been expanded in an effort to reduce campus auto transportation in return increasing diesel fuel.		

space for Plan notes

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	08-'09	09-'10	10-'11
baseline efficiency factor	15.200	15.200	
efficiency factor	8.090	8.230	
change indicated	-46.78%	-45.86%	

Conservation and Efficiency

defining steps taken to reduce petroleum consumption - Purchase of electrical vehicles

your fleet efficiency appears to have decreased. Is there an explanation?

In the process of reporting PDP results we have been able to directly attribute petroleum use changes due to: mileage; alternative fuel use; number of vehicles; use of synthetic or recycled motor oil. Indirectly we have been attributing any other change to "change in efficiency", a positive change may be called "conservation". To better define what portion of PDP performance is due to "change in efficiency or conservation" Please answer the following:

Has your agency/ department/ organization initiated any steps, **not previously reported,** intended to improve fleet vehicle efficiency? Please place "X" as appropriate

	2009-'10	2010-'11
YES	X	
NO		x

what did you change? Place "X" in appropriate box(es)

examples: a mechanical change could include equipment changes to vehicles or fueling infrastructure to make them more efficient. New hybrid autos or new fuel card reader systems would be mechanical. Process change could be an accounting system change, vehicle reassignment, or a carpooling system. Behavior could be drivers improving fuel economy by driving more efficiently or drivers combining errands or carpooling to reduce mileage.

	mechanical	2009-'10		2010-'11	
		X			
		yes	no	yes	no
1a	changed vehicle types	X		x	
1b	use fuel management system	X		x	
1c	use on-board idle reduction mechanism		X		x
1d	other mechanical system change				

	process	2009-'10		2010-'11	
		X			
		yes	no	yes	no
2a	changed fuel accounting system		X		x
2b	reduced on-board weight		X		x
2c	set carpooling policy		X		x
2d	reassigned vehicles to reduce fuel use		X		x
2e	check tire pressure routinely	X		x	
2f	evaluate MPG performance by vehicle		X	x	
2g	other process system change				

	behavior	2009-'10		2010-'11	
		X			
		yes	no	yes	no
3a	trained drivers on economical driving	X		x	
3b	reminded drivers to save fuel	X		x	
3c	set policy on idle reduction		X	x	
3d	evaluate driver behavior (on economy)		X	x	
3e	carefully observe speed limit	X		x	
3f	reward economical driving or punish inefficient driving		X		x
3g	other behavior change				

when did you first change it? Place "question #" in box best marking when process began. There may be multiple marks.

	mechanical	process	behavior
before 2005			
FY 04-05			
FY 05-06			X
FY 06-07	X	X	X
FY 07-08			
FY 08-09			
FY 09-10			
FY 10-11			x

How did you change it? Please note question # you are referring to.

examples may include new procedures, training, or directives affecting vehicle choice or vehicle use; installation of new equipment to dispense fuel or account for its use.

mechanical

1a- We have asked administrative staff to use electric vehicles instead of trucks or cars when it is necessary to drive a vehicle on campus. We have made special efforts to purchase electric vehiles. 1b- We changed our refueling system in 07 which enabled us to get better tracking of fuel dispensed and odometer readings.

new in FY 2010-'11: We are tracking mpg on Facilities Operations vehicles

process

2e- We have encouraged strongly that each driver be responsible for maintaining the correct air pressure in their vehicle tires. Oil is all being switched to synthetic and is included on PM's. Parking Services has implemented 3 new alternative transportation programs. (Zipcar) (Zimride) (Emergency Home Program)

new in FY 2010-'11:

behavior

Economical driving tips are printed in department newsletter and campus newspaper. No policy has been set for idling but it is stressed during department meetings as a reminder of petroleum reduction efforts. We are currently drafting a policy on idling.

new in FY 2010-'11:We have set a no idling policy for Facilities Operations employees

From your Results Noted tab you are now aware of what portion of your PDP performance change (positive or negative) was attributed to efficiency and conservation last year.

Your '09-'10 PDP report indicated -45.86% was attributed to change in efficiency. Of the noted changes in each of these three categories what part will you attribute to current and future activities in each?

Your answers may total 0% if not applicable, otherwise the total will be 100%.

FY	2009-10	mechanical	
FY	2010-11	mechanical	
FY	2011-12	mechanical	

FY	2009-10	process	
FY	2010-11	process	
FY	2011-12	process	

FY	2009-10	behavior	
FY	2010-11	behavior	
FY	2011-12	behavior	