

North Carolina Central University

Fleet Information	
Total Leased Vehicles	48
Total County Titled Vehicles	37
Total State Titled Vehicles	83
Total Other Vehicles	3

Breakdown of State Titled Vehicles Only		
Vehicle Type	Quantity	Miles
Gasoline Only	69	479,464
Diesel	2	36,000
Hybrids	0	-
Flex-fueled Vehicles	0	-
Comp Natural Gas	0	-
Propane	0	-
Electric	0	-
Other	0	-
10% Eligible	0	-
Totals	71	515,464

1801 Fayetteville St  
Durham NC 27707

Fuel Information		
State Titled Vehicles Only		
Fuel Type	Gallons	Pet. Eqv.
Gasoline	31,964	31,964
E10	-	-
E85	-	-
Diesel	3,600	3,600
Off-road Diesel	0	-
B5	0	-
B20	0	-
B100	0	-
CNG	0	-
Propane	0	-
Other	0	-
	Quarts	
Petroleum Motor Oils	432	108
Syn & Rec Motor Oils	0	-
Total		35,672

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Fueling Infrastructure			
Location	Age (Yrs)	Size	Fuel
Phy Plant	7	1,500	Gas
Phy Plant	30	150,000	E2

Instructions	Notes/Comments
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	Reported of fuel consumption is more than State vehicles. ( tractors, gators, etc)  Baseline Data from FY 2005-06 because no accurate reporting previous to that. Note: will not be able to obtain gasoline consumption in 2004-2005.( Tran)

Potential for Biofuels Expansion			
Location	Space	Tk Size	Fuel
Central		8,000	E10
Receiving			

Potential Reduction in Petroleum use for your organization;		Projected Reduction			
Conservation	Reduce speeds, efficient cars, task pooling	1,070	gallons	=	3.00%
E10	Using E10 for all gasoline vehicles	3,196	gallons	=	8.96%
E85	Using E85 for all flex-fueled vehicles	-	gallons	=	0.00%
B5	Using B5 for all diesel vehicles	180	gallons	=	0.50%
B20	Using B20 for all diesel vehicles	720	gallons	=	2.02%
B100	Using B100 in 1/10th of your diesel vehicles	360	gallons	=	1.01%
FFV	Substituting one FFV using E85	342	gallons	=	0.96%
CNG/Propane	Replacing one vehicle with a CNG/LPG car	502	gallons	=	1.41%
Electric	Replacing one vehicle with an electric car	502	gallons	=	1.41%
Syn & Rec Oils	Using all synthetic and recycled motor oils	432	quarts	=	0.30%

Petroleum  
Displacement  
Goal : 20.0%  
7,134 gallons

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Possible additional vehicle purchases from 2006 - 2010					
Year	Quantity, Vehicle Type and Description	Purpose	Fuel / Hybrid		Additional Cost
2008	5 Electric utility vehicles	Replace gasoline trucks	Electric		\$110,000
2008	2 small Ford Ranger service trucks	For Ground hauling trash	gasoline		\$48,000
2009	Purchased 3 electric vehicles				
2010	Plan to buy 3 more electric vehicles	HVAC, Plumbing	Electric		\$51,000
2011	Plan to Purchase 2 Diesel tractors to haul trash, 9 EVHs	Facilities Services	Diesel , Electric		\$90,000
			Diesel		

# North Carolina Central University

## Fleet and Fuel Reporting

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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	69	479,464	79	462,030	85	540,465	82	532,950	67	381,833	87	360,702
Diesel	2	36,000	2	26,175	3	24,000	2	3,540	2	200	2	2,000
Hybrid	-	-	-	-								
Flex-fueled Vehicles	-	-	-	-								
Comp Natural Gas	-	-	-	-								
Propane	-	-	-	-								
Electric	-	-	3	500	3	500	6	1,000			15	15,000
Emergency/Ed (10%)	-	-	-	-								
<b>Totals</b>	<b>71</b>	<b>515,464</b>	<b>84</b>	<b>488,705</b>	<b>91</b>	<b>564,965</b>	<b>90</b>	<b>537,490</b>	<b>69</b>	<b>382,033</b>	<b>104</b>	<b>377,702</b>
	<b>0%</b>	<b>0%</b>	<b>18%</b>	<b>-5%</b>	<b>28%</b>	<b>10%</b>	<b>27%</b>	<b>4%</b>	<b>-3%</b>	<b>-26%</b>	<b>46%</b>	<b>-27%</b>

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	31,964	31,964	30,802	30,802	36,031	36,031	35,530	35,530	7,669	7,669		-
E10	-	-	-	-		-		-	7,302	6,572	20,039	18,035
E85	-	-	-	-		-		-		-		-
Diesel	3,600	3,600	1,745	1,745	979	979	354	354	432	432	12,411	12,411
B5	-	-	-	-		-		-		-		-
B20	-	-	-	-		-		-		-		-
B100	-	-	-	-		-		-		-		-
CNG	-	-	-	-		-		-		-		-
Propane	-	-	-	-		-		-		-		-
	<b>Qrts</b>		<b>Qrts</b>		<b>Qrts</b>		<b>Qrts</b>		<b>Qrts</b>		<b>Qrts</b>	
Petroleum Motor Oils	432	108	632	158	203	51	475	119	434	109	383	96
Syn & Rec Motor Oils	-	-	-	-		-		-		-	277	-
<b>Total Petroleum Use</b>		<b>35,672</b>		<b>32,705</b>		<b>37,060</b>		<b>36,003</b>		<b>14,781</b>		<b>30,542</b>
<b>% Change in PDP</b>		<b>0%</b>		<b>-8%</b>		<b>4%</b>		<b>1%</b>		<b>-59%</b>		<b>-14%</b>

PDP goal by 2011: -20.0%

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## Plan for FY 2011-12

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%
<b>Total</b>	<b>26,370</b>	<b>27,874</b>	6%

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

North Carolina Central University				results to date (2009-10)	% Reductions Caused by PDP Actions (by FY 09-10 as reported)								
% of Goal	State Organization	Petro Use	Petroleum Displacement Achievements	PDP Actions (Petroleum Reduction)	Miles	E10	E85	B5	B20	B100	CNG	Prop	Syn Moil
293%	NC Central University	73%		slight increases, unable to store E10 on campus as planned	-25.9%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

North Carolina Central University	
report progress	plan next year and forward

Petroleum Displacement	2005 thru2007	2007-2008	2008-2009	2009-2010		2010-2011	beyond 2011
Actual	-8%	4%	1%	-59%		-14%	

-25.9%	increase in mileage has not helped PDP			Purchased 9 Electric vehicles	Replace Gasoline Gators with

previously Noted				
3.0%	Conservation efforts to reduce miles, eliminate idling, better driving habits	Opened road blocks after finish steam project.	a) Facilities Services: 3	Diesel Gators for Ground Dept
2.0%	using 2 electric cars instead of gasoline vehicles	More control in fuel pump and driving		
4%	using 3 electric cars instead of gasoline vehicles	gasoline vehicles. Had more EVHs	b) Reslifes : 2	

as Planned					
0.5%		Buy recycled or synthetic motor oils ( 250 quarts at +\$4.5 per quart)	No		
7.1%		Purchase 5 Electric Vehicles for Facilities Services ( \$ 22,000/ Vehicle)	Purchased 3 EV in June.Total is 6 EV		
1.0%		Purchase 2 Segway for Policed Dept..( 2 SEGWAY at \$5,000 each)	Yes		
4%		Purchased 3 electric vehicles for replaced 3 vans( 2009)	Yes		

space for Plan notes

	08-'09	09-'10	10-'11
baseline efficiency factor	14.4501	14.4501	
efficiency factor	14.929	24.630	
change indicated	3.31%	70.45%	

Conservation and Efficiency

defining steps taken to reduce petroleum consumption

your fleet efficiency appears to have increased tremendously over baseline, more than 70%

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

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.

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

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

		2009-'10		2010-'11	
behavior		X			
		yes	no	yes	no
3a	trained drivers on economical driving			Yes	
3b	reminded drivers to save fuel	Yes		Yes	
3c	set policy on idle reduction				No
3d	evaluate driver behavior (on economy)	Yes		Yes	
3e	carefully observe speed limit			Yes	
3f	reward economical driving or punish inefficient driving				No
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
before 2005
FY 04-05
FY 05-06
FY 06-07
FY 07-08
FY 08-09
FY 09-10
FY 10-11

process
before 2005
FY 04-05
FY 05-06
FY 06-07
FY 07-08
FY 08-09
FY 09-10
FY 10-11

behavior
before 2005
FY 04-05
FY 05-06
FY 06-07
FY 07-08
FY 08-09
FY 09-10
FY 10-11

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
<b>new in FY 2010-'11: Replaced 8 cylinder vans( Facilities Services) , trucks( Facilities Services) and police patrol cars with Electric vehicles</b>
process
<b>new in FY 2010-'11: Promoted conservation energy and reduced CO2 emission to Service staff by introduced more electric vehicles in Service vehicle, and University Police fleets.</b>
behavior
<b>new in FY 2010-'11:</b>

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 70.45% 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	70
FY	2011-12	mechanical	

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

FY	2009-10	behavior	
FY	2010-11	behavior	20
FY	2011-12	behavior	