

MEMORANDUM

September 10, 2009

TO: Transportation, Infrastructure, Energy & Environment Committee
FROM: Susan J. Farag, Legislative Analyst *SJF*
SUBJECT: **Update: Fleet Management Services – Biodiesel Fuel and Rental Car Utilization**

Those expected for this worksession:

David Dise, Director, Department of General Services (DGS)
Millie Souders, Chief, Fleet Management Services (DFMS)
Maggie Orsini, DFMS
Calvin Jones, DFMS
Robert Cerio, National Biodiesel Board

The Division of Fleet Management Services is expected to update the Committee on several issues that came to light during FY10 budget worksessions, including:

- The suspension of biodiesel use in Fleet vehicles;
- The need to reduce spending on Enterprise rental cars by \$100,000;
- The underutilization of MC CarShare and reducing its fleet size by 10 vehicles.

The Committee originally met on June 29, 2009 to discuss these issues. At that time, Committee members asked that additional information be gathered regarding the problems associated with implementing the use of biodiesel fuel in County vehicles and to bring it before the Committee at a later date.

Council staff requested updated information from DFMS on the use of biodiesel fuel in County vehicles, as well as CarShare and rental car utilization, but had not received it at the time of packet publication (questions are attached at © 41). Staff will issue an addendum as soon as the information is made available.

BIODIESEL FUEL

As part of the CE Recommended FY10 budget, DFMS chose to discontinue the use of biodiesel and use ultra-low sulfur fuel instead, for a projected savings of about \$250,000. DFMS cited current fiscal constraints as one reason for making the switch back to regular diesel, but also advised it had encountered quality issues with the biodiesel fuel it had purchased, including algae growth in a storage tank. The Committee asked DFMS to work with suppliers and technical experts in the industry to rectify these problems and expedite the reimplementation of biodiesel fuels in the Fleet. **DFMS will update the Committee on its progress in doing so.**

One issue that DFMS mentioned having trouble with was its storage tanks. Arlington County has been using biodiesel (B20) successfully in its fleet since 2001. As such, it has developed some guidelines to assist others in the transition to biodiesel (©10-33). This guide outlines issues such on-site handling of fuel, including storage tank preparation, filter use, and cold weather considerations. It also provides a list of different types of vehicles and engines it has powered with B20 over the years. **The Committee should understand how County facilities, vehicles, and resources may differ from Arlington County, and what has made biodiesel implementation difficult within our Fleet.**

ENTERPRISE RENTAL CARS

During budget worksessions, the Committee also noted the high utilization of rental cars, and requested additional information be provided by DFMS. Enterprise rental invoices totaled \$328,521 in FY08 and \$295,937 in FY09 (©1-4). In FY09, about 60% of the rented vehicles were pick-up trucks and 10% were SUVs. DFMS stated that rental numbers in FY09 have decreased compared to the same period last year. From January to April 2009, County employees rented 76 vehicles, compared to 131 vehicles rented during the same period in 2008.

While considering the FY10 budget, the Council voted to reduce rental car spending by \$100,000. **DFMS will update the Committee on current rental statistics and what steps it has taken to reduce utilization. The most recent data provided by DFMS is outlined below:**

2009 Enterprise Rental Data	
Month	Number of Vehicles Rented
February	37
March	19
April	19
May	18

MC CARSHARE

The MC CarShare program is a pilot project that officially started the first week of January 2009. At the time the budget was being considered, DFMS had 28 vehicles available, and 22 employees had registered for the service. DFMS stated each vehicle costs the County \$1,100 per month, which is an all-inclusive charge to cover use, fuel, maintenance, and insurance. DFMS has met resistance from employees who are accustomed to having their own County assigned vehicles at their disposal rather than shared vehicles. DFMS however, is confident that the program will be a success once employees become more accustomed to the shared vehicle idea. In addition, as DFMS reduces the size of the administrative fleet through the re-assignment of underutilized vehicles, the CarShare alternative will become a more attractive option for County employees. Since the program was significantly underused, the Council voted to reduce the CarShare fleet from 28 vehicles to 18, with the knowledge that cars may be added back as more employees start using the program.

Utilization

Through April 14, CarShare had been used seven times for a total of 27.25 hours (© 5-6). For all of April, hours totaled 123, and May and June showed increased utilization as well, totaling 168 and 179 hours respectively (© 7-9). At the time this packet was printed, DFMS had not responded to a request for updated information; however, a recent news article indicated that in July, utilization fell to 79.5 hours (© 34-35).

DFMS will brief the Committee on its efforts to transition County employees from assigned administrative fleet vehicles to the MC CarShare program, as well as other efforts to increase CarShare utilization.

Committee members may also wish to ask DFMS to explain the contractual terms under which the County rents CarShare vehicles from Enterprise. While other municipalities have contracted with similar services on an hourly rental basis, overall costs to Montgomery County are \$1,100 a month per vehicle. Once MC CarShare becomes fully-utilized, will costs drop? Or will there be other savings associated with their use (i.e., fewer administrative fleet vehicles)? Recent news articles have also indicated that DFMS plans to issue a competitive bid in the fall for a new car-sharing agreement that will be less expensive. What is the current status of this procurement effort?

This packet contains:

	<u>© #</u>
Enterprise Rental Contract Expenditures (April 2009)	1- 3
MC CarShare Usage (April 2009)	4- 6
DFMS Update (June 25, 2009)	7- 9
“Biodiesel Implementation – Arlington County, VA”	10- 33
“Montgomery’s Little-Used Car-Share Program Used Less in July” (08/18/09)	34- 35
“U.S. Biofuel Boom Running on Empty” (08/29/09)	36- 40
Council Staff Questions to DFMS	41

ENTERPRISE INVOICES FY'08 ANALYSIS

July Total	\$30,772.85
August Total	\$ 30,748.52
September Total	\$ 12,852.88
October Total	\$ 14,072.48
November Total	\$ 34,808.96
December Total	\$ 36,916.33
January Total	\$ 47,333.68
February Total	\$ 9,765.93
March Total	\$ 46,268.11
April Total	\$ 20,641.40
May Total	\$ 8,177.68
June Total	\$ 36,162.81
TOTAL FY'08	\$328,521.63

VEHICLE CLASS

PICKUP	145	41.67%
4X4/SUV	89	25.57%
PASSENGER VAN	19	5.46%
CARGO VAN		
FULL SIZE	32	9.20%
MID SIZE	49	14.08%
INTERMEDIATE		
COMPACT	14	4.02%
TOTAL RENTALS	<u>348</u>	

DEPARTMENTAL USE

DPWT CONSTRUCTION	2	0.57%
DPWT HIGHWAY	212	60.92%
DPWT OPERATIONS	11	3.16%
DTS	1	0.29%
FIRE/RESCUE	56	16.09%
HHS	14	4.02%
OHR	1	0.29%

PERMITTING	3	0.86%
PROCUREMENT	2	0.57%
PUBLIC INFORMATION	9	2.59%
RECREATION	24	6.90%
SOLID WASTE	9	2.59%
STATES ATTY OFFICE	1	0.29%
TRANSIT SERVICES	3	0.86%
	348	

ENTERPRISE INVOICES FY'09 ANALYSIS

July Total	\$ 45,042.75
August Total	\$ 48,767.81
Sept Total	\$ 45,255.44
Oct Total	\$ 41,497.40
Nov Total	\$ 9,682.64
Dec Total	\$ 40,321.92
Jan Total	\$ 6,659.35
Feb Total	\$ 21,627.21
March Total	\$ 1,404.32
April Total	\$ 35,678.91
May Total	
June Total	
TOTAL FY'09	\$ 295,937.75

VEHICLE CLASS

PICKUP	192	59.26%
4X4/SUV	35	10.80%
PASSENGER VAN	21	6.48%
CARGO VAN	1	0.31%
FULL SIZE	17	5.25%
MID SIZE	27	8.33%
INTERMEDIATE	2	0.62%
COMPACT	29	8.95%
TOTAL RENTALS	324	

DEPARTMENTAL USE

CABLE OFFICE	1	0.31%
COUNTY COUNCIL	2	0.62%
DGS - CENTRAL DUP	6	1.85%
DGS - FACILITIES	22	6.79%
DGS - MOVING	1	0.31%
DPWT CONSTRUCTION	1	0.31%

DPWT HIGHWAY	221	68.21%
DPWT OPERATIONS	4	1.23%
FIRE/RESCUE	26	8.02%
HHS	4	1.23%
OMB	2	0.62%
PERMITTING	1	0.31%
PRE-RELEASE	2	0.62%
PROCUREMENT	2	0.62%
PUBLIC INFORMATION	4	1.23%
RECREATION	13	4.01%
SOLID WASTE	11	3.40%
TRANSIT SERVICES	<u>1</u>	0.31%
	324	

REGISTERED USERS

	Member ID	Building	Office Address	Delivery
1	1718	COB	100 Maryland Ave Rm 200	1/26/2009
2	1719	EOB	101 Monroe St. 6th Fl.	1/26/2009
3	1720	EOB	101 Monroe St Rockville MD 14th Fl	2/12/2009
4	1721	EOB	14th Floor	1/28/2009
5	1722	COB	100 Maryland Ave 4th Fl.	1/26/2009
6	1723	Crabbs Branch	16630 Crabbs Branch Way Rockville MD 20855	2/10/2009
7	1724	Orchard Ridge	100 Orchard Ridge Dr.	2/5/2009
8	1736	COB	100 Maryland Ave Rm 200	2/12/2009
9	1739	COB	4th Floor	1/28/2009
10	1682	SS/CrabbsBranch	delivering to EOB (Cafeteria)	1/28/2009
11	50000	Orchard Ridge	100 Orchard Ridge Dr.	2/10/2009
12	50001	EOB	101 Monroe 10th Fl	2/12/2009
13	50016	COB	COB, 4th Fl Department is DHCA	2/19/2009
14	50032	EOB	DOT- 5th Floor	2/27/2009
15	1717	255	255 Rockville Pike Suite 180 Rockville MD 20850	2/27/2009
16	50049	EOB		2/27/2009
17	50097	COB	Suite 210	3/13/2009
18	50114	COB	DTS- 3rd floor	3/23/2009
19	50137			4/7/2009
20	50138	COB	DTS- 3rd floor	3/26/2009
21	50146		COB 100 Maryland Ave., Room 302 240-626-9659	3/30/2009
22	50162	EOB		4/2/2009
23	50189	Crabbs Branch		4/13/2009
24	50209			
25	50210			
26	50211	COB	DTS- 3rd floor	4/17/2009
27	50250	Crabbs Branch		
28	50253	COB	DTS- 3rd floor	4/23/2009
29	50254	COB	DTS- 3rd floor	4/23/2009
30	50255	EOB		

(5)

MC CARSHARE USAGE

COUNTY BUSINESS USE

<u>DRIVER NAME</u>	<u>INDEX CODE</u>	<u>DEPARTMENT</u>	<u>WECAR LOCATION</u>	<u>DATE OF USE</u>	<u>USAGE TIME(HOURS)</u>
	501001030	DOT	EOB	2/19/2009	5.00
	344002001	DTS	COB	3/13/2009	2.00
	501001030	DOT	EOB	3/13/2009	2.50
	344005001	DTS	COB	4/1/2009	6.00
	508002003	DOT	EOB	4/2/2009	3.00
	344005001	DTS	COB	4/3/2009	4.75
	344005001	DTS	COB	4/6/2009	4.00
	344005001	DTS	COB	4/13/2009	7.50
	344005001	DTS	COB	4/14/2009	6.00
	344005001	DTS	COB	4/16/2009	11.00
		DOT	EOB	4/21/2009	1.50
		DOT	EOB	4/22/2009	2.50
		DTS	COB	4/22/2009	8.00
	344005001	DTS	COB	4/22/2009	7.00
	344005001	DTS	COB	4/23/2009	7.75
		DTS	COB	4/23/2009	5.00

83.50

PERSONAL USE

<u>DRIVER NAME</u>	<u>WECAR LOCATION</u>	<u>DATE OF USE</u>	<u>USAGE TIME(HOURS)</u>
	COB	4/22/2009	7.25

7.25

Farag, Susan

From: Souders, Millie
Sent: Thursday, June 25, 2009 2:33 PM
To: Farag, Susan
Subject: RE: Are you around the rest of this week?

I need to meet with David Dise before I give it to you which will be at 9 a.m. tomorrow.

Millie

Millie M. Souders, Chief
 Division of Fleet Management Services
 Department of General Services
 10-777-5738
 10-777-5700 (FAX)

-----Original Message-----

From: Farag, Susan
Sent: Thursday, June 25, 2009 2:20 PM
To: Souders, Millie
Subject: RE: Are you around the rest of this week?

Hi, Millie,

The packet's gone out already on this, but I will issue an addendum tomorrow with this information. Do you think you'll have the biodiesel info by tomorrow, so I can include it?

Susan

-----Original Message-----

From: Souders, Millie
Sent: Thursday, June 25, 2009 2:07 PM
To: Farag, Susan
Subject: RE: Are you around the rest of this week?

I haven't been able to get all the information you requested. We have an analysis on Biodiesel that isn't quite finished. If you have any questions on the information below, please call.

Millie M. Souders, Chief
 Division of Fleet Management Services
 Department of General Services
 240-777-5738
 240-777-5700 (FAX)

-----Original Message-----

From: Farag, Susan
Sent: Wednesday, June 24, 2009 1:28 PM
To: Souders, Millie
Subject: RE: Are you around the rest of this week?

Millie,

If it's easier, can you give me a written update on these things? I need to get the packet together by tomorrow at noon. Thanks.

- 1) What is the status of using biodiesel again in the Fleet? What steps have you taken, what are the next steps?

Fleets discontinued the use of Biodiesel in our transit fleet in October 2008 and are planning to discontinue the use in the heavy equipment fleet on July 1, 2009. Moving to only ultra low sulfur diesel will save the County \$300,000 annually.

- 2) Do you have updated Enterprise rental stats? Have you proposed and/or implemented any changes?

The number of Enterprise rentals is shown in the chart below for February, March, April and May. We do not have the June's data yet, but anticipate a significant reduction for June.

Usage for February	37
Usage for March	19
Usage for April	19
Usage for May	18

- 3) Do you have updated stats on CarShare usage?

See data below for April, May and June (Y-T-D)

April 2009 Trip Log

ID	Driver	Stack	Billing Start Time	Billing End Time	Duration (hours)	cost/br.	total chargeback
12672	400-27: (Howard Benn)	Executive Office Building - Toyota Prius Hybrid	4/21/09 9:45 AM	4/21/09 11:15 AM	1.50	\$6.00	\$9.00
12517	400-27: (Howard Benn)	Executive Office Building - Toyota Prius Hybrid	4/22/09 9:30 AM	4/22/09 12:00 PM	2.50	\$6.00	\$15.00
13386	400-27: (Howard Benn)	Executive Office Building - Toyota Prius Hybrid	4/29/09 11:30 AM	4/29/09 4:15 PM	4.75	\$6.00	\$28.50
9945	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/1/09 8:00 AM	4/1/09 2:00 PM	6.00	\$6.00	\$36.00
10399	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/3/09 11:00 AM	4/3/09 3:45 PM	4.75	\$6.00	\$28.50
10640	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/6/09 12:00 PM	4/6/09 4:00 PM	4.00	\$6.00	\$24.00
11517	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/13/09 8:30 AM	4/13/09 4:00 PM	7.50	\$6.00	\$45.00
11747	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/14/09 10:30 AM	4/14/09 4:30 PM	6.00	\$6.00	\$36.00
11966	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/16/09 5:00 AM	4/16/09 4:00 PM	11.00	\$6.00	\$66.00
12864	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/22/09 8:00 AM	4/22/09 3:00 PM	7.00	\$6.00	\$42.00
13034	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/23/09 7:15 AM	4/23/09 3:00 PM	7.75	\$6.00	\$46.50
13727	400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	4/29/09 8:30 AM	4/29/09 4:00 PM	7.50	\$6.00	\$45.00
10131	400-35: (Stacy Coletta)	Executive Office Building - Toyota Prius Hybrid	4/2/09 9:00 AM	4/2/09 12:00 PM	3.00	\$6.00	\$18.00
13218	400-35: (Stacy Coletta)	Executive Office Building - Toyota Prius Hybrid	4/24/09 8:15 AM	4/24/09 9:45 AM	1.50	\$6.00	\$9.00
12750	400-36: (Jim Jenkins)	County Office Building - Toyota Prius Hybrid	4/22/09 7:30 AM	4/22/09 3:30 PM	8.00	\$6.00	\$48.00



13032	400-36: (Jim Jenkins)	County Office Building - Toyota Prius Hybrid	4/23/09 9:00 AM	4/23/09 2:00 PM	5.00	\$6.00	\$30.00
11896	400-38: (Kathleen Hynes)	Crabbs Branch - Toyota Prius Hybrid	4/22/09 7:00 AM	4/22/09 3:00 PM	8.00	\$6.00	\$48.00
13294	400-44: (Larry McGoogin)	Executive Office Building - Toyota Prius Hybrid	4/28/09 1:30 PM	4/28/09 3:30 PM	2.00	\$6.00	\$12.00
13596	400-46: (Jeffrey Dunckel)	Executive Office Building - Toyota Prius Hybrid	4/30/09 9:00 AM	4/30/09 3:00 PM	6.00	\$6.00	\$36.00
12939	50114: (RICHARD ROGERS)	County Office Building - Toyota Prius Hybrid	4/22/09 12:45 PM	4/23/09 8:00 AM	19.25	\$6.00	\$115.50
					123.00		\$738.00

MC CARSHARE / WECAR TRIP LOG - MAY 2009

Trip ID	Member ID	Driver ID	Stack ID	Vehicle Type	Lot Description	Reservation Start	Reservation End	Actual Start	Actual End	Billable Start	Billable End	Duration
14149			44	Toyota Prius Hybrid	Crabbs Branch	05/01/09 8:45am	05/01/09 1:00pm	05/01/09 8:57am	05/01/09 11:57am	05/01/09 8:45am	05/01/09 1:00pm	4:15
17248			44	Toyota Prius Hybrid	Crabbs Branch	05/27/09 6:30am	05/27/09 11:00am			05/27/09 6:30am	05/27/09 11:00am	4:30
14738			30	Toyota Prius Hybrid	County Office Building	05/06/09 5:00am	05/06/09 11:00am	05/06/09 5:35am	05/06/09 10:21am	05/06/09 5:00am	05/06/09 11:00am	5:50
14917			30	Toyota Prius Hybrid	County Office Building	05/07/09 5:15am	05/07/09 11:00am	05/07/09 5:15am	05/07/09 10:36am	05/07/09 5:15am	05/07/09 11:00am	5:45
15480			30	Toyota Prius Hybrid	County Office Building	05/12/09 11:15am	05/12/09 1:15pm	05/12/09 11:24am	05/12/09 1:00pm	05/12/09 11:15am	05/12/09 1:15pm	2:00
15659			30	Toyota Prius Hybrid	County Office Building	05/13/09 2:15pm	05/13/09 3:15pm			05/13/09 2:15pm	05/13/09 3:15pm	1:00
15586			30	Toyota Prius Hybrid	County Office Building	05/13/09 6:30am	05/13/09 11:30am			05/13/09 6:30am	05/13/09 11:30am	5:00
14335			29	Toyota Prius Hybrid	Executive Office Building	05/04/09 11:45am	05/04/09 1:15pm			05/04/09 11:45am	05/04/09 1:15pm	1:30
16065			29	Toyota Prius Hybrid	Executive Office Building	05/18/09 12:15pm	05/18/09 2:15pm	05/18/09 12:15pm	05/18/09 2:18pm	05/18/09 12:15pm	05/18/09 2:15pm	2:00
14333			29	Toyota Prius Hybrid	Executive Office Building	05/04/09 10:30am	05/04/09 3:00pm			05/04/09 10:30am	05/04/09 3:00pm	4:30
14998			29	Toyota Prius Hybrid	Executive Office Building	05/07/09 1:30pm	05/07/09 3:30pm	05/07/09 1:29pm	05/07/09 2:33pm	05/07/09 1:30pm	05/07/09 3:30pm	2:00
15180			29	Toyota Prius Hybrid	Executive Office Building	05/11/09 8:00am	05/11/09 11:30am			05/11/09 8:00am	05/11/09 11:30am	3:30
15686			29	Toyota Prius Hybrid	Executive Office Building	05/14/09 7:00am	05/14/09 12:00pm	05/14/09 7:23am	05/14/09 10:54am	05/14/09 7:00am	05/14/09 12:00pm	5:00
16208			29	Toyota Prius Hybrid	Executive Office Building	05/18/09 11:00am	05/18/09 3:30pm	05/18/09 11:12am	05/18/09 3:44pm	05/18/09 11:00am	05/18/09 3:45pm	4:45
16773			29	Toyota Prius Hybrid	Executive Office Building	05/21/09 12:15pm	05/21/09 4:00pm	05/21/09 12:31pm	05/21/09 3:40pm	05/21/09 12:15pm	05/21/09 4:00pm	1:45
16988			29	Toyota Prius Hybrid	Executive Office Building	05/26/09 10:30am	05/26/09 3:30pm	05/26/09 10:58am	05/26/09 2:11pm	05/26/09 10:30am	05/26/09 3:30pm	3:00
15454			29	Toyota Prius Hybrid	Executive Office Building	05/12/09 9:00am	05/12/09 11:45am	05/12/09 9:15am	05/12/09 11:12am	05/12/09 9:00am	05/12/09 11:45am	2:45
16490			29	Toyota Prius Hybrid	Executive Office Building	05/20/09 10:15am	05/20/09 12:30pm			05/20/09 10:15am	05/20/09 12:30pm	2:15
13596			29	Toyota Prius Hybrid	Executive Office Building	04/30/09 9:00am	04/30/09 4:00pm	04/30/09 10:09am	05/01/09 2:59pm	04/30/09 9:00am	05/01/09 3:00pm	3:00
14955			30	Toyota Prius Hybrid	County Office Building	05/07/09 10:30am	05/07/09 5:00pm			05/07/09 10:30am	05/07/09 5:00pm	4:30
14534			30	Toyota Prius Hybrid	County Office Building	05/05/09 7:15am	05/05/09 12:00pm	05/05/09 7:34am	05/05/09 9:25am	05/05/09 7:15am	05/05/09 12:00pm	4:45
14740			30	Toyota Prius Hybrid	County Office Building	05/06/09 9:00am	05/06/09 2:30pm	05/06/09 9:19am	05/06/09 12:45pm	05/06/09 9:00am	05/06/09 2:30pm	3:30
15763			30	Toyota Prius Hybrid	County Office Building	05/14/09 7:15am	05/14/09 11:00am	05/14/09 7:49am	05/14/09 9:25am	05/14/09 7:15am	05/14/09 11:00am	3:45
16400			30	Toyota Prius Hybrid	County Office Building	05/19/09 7:30am	05/19/09 11:00am	05/19/09 7:48am	05/19/09 9:51am	05/19/09 7:30am	05/19/09 11:00am	3:30
15848			30	Toyota Prius Hybrid	County Office Building	05/15/09 9:00am	05/15/09 2:15pm			05/15/09 9:00am	05/15/09 2:15pm	3:15
16402			30	Toyota Prius Hybrid	County Office Building	05/19/09 9:00am	05/19/09 11:00am			05/19/09 9:00am	05/19/09 11:00am	2:00
16779			30	Toyota Prius Hybrid	County Office Building	05/21/09 8:30am	05/21/09 10:30am			05/21/09 8:30am	05/21/09 10:30am	2:00
17136			30	Toyota Prius Hybrid	County Office Building	05/26/09 11:30am	05/26/09 2:00pm			05/26/09 11:30am	05/26/09 2:00pm	2:30
16777			30	Toyota Prius Hybrid	County Office Building	05/21/09 8:30am	05/21/09 10:45am			05/21/09 8:30am	05/21/09 10:45am	2:15
14563			29	Toyota Prius Hybrid	Executive Office Building	05/05/09 1:00pm	05/05/09 3:30pm	05/05/09 1:07pm	05/05/09 3:08pm	05/05/09 1:00pm	05/05/09 3:30pm	2:30
14565			29	Toyota Prius Hybrid	Executive Office Building	05/06/09 1:00pm	05/06/09 3:30pm	05/06/09 1:10pm	05/06/09 3:17pm	05/06/09 1:00pm	05/06/09 3:30pm	2:30
14567			29	Toyota Prius Hybrid	Executive Office Building	05/07/09 1:00pm	05/07/09 3:30pm	05/07/09 1:31pm	05/07/09 2:46pm	05/07/09 1:00pm	05/07/09 3:30pm	2:30
16210			29	Toyota Prius Hybrid	Executive Office Building	05/18/09 11:00am	05/18/09 2:45pm	05/18/09 11:12am	05/18/09 2:14pm	05/18/09 11:00am	05/18/09 2:45pm	1:45
15661			29	Toyota Prius Hybrid	Executive Office Building	05/21/09 12:30pm	05/21/09 3:30pm			05/21/09 12:30pm	05/21/09 3:30pm	1:00
17421			29	Toyota Prius Hybrid	Executive Office Building	05/28/09 12:45pm	05/28/09 3:00pm	05/28/09 12:48pm	05/28/09 2:47pm	05/28/09 12:45pm	05/28/09 3:00pm	1:15
17423			29	Toyota Prius Hybrid	Executive Office Building	05/29/09 12:45pm	05/29/09 3:00pm			05/29/09 12:45pm	05/29/09 3:00pm	1:15
15773			29	Toyota Prius Hybrid	Executive Office Building	05/21/09 11:30am	05/21/09 2:00pm	05/21/09 11:56am	05/21/09 2:03pm	05/21/09 11:30am	05/21/09 2:00pm	1:30
15448			44	Toyota Prius Hybrid	Crabbs Branch	05/12/09 12:00pm	05/12/09 3:00pm	05/12/09 12:20pm	05/12/09 2:14pm	05/12/09 12:00pm	05/12/09 3:00pm	1:00
14575			29	Toyota Prius Hybrid	Executive Office Building	05/07/09 8:00am	05/07/09 12:00pm			05/07/09 8:00am	05/07/09 12:00pm	4:00
14577			29	Toyota Prius Hybrid	Executive Office Building	05/08/09 8:15am	05/08/09 10:30am	05/08/09 8:29am	05/08/09 9:35am	05/08/09 8:15am	05/08/09 10:30am	2:15
17204			29	Toyota Prius Hybrid	Executive Office Building	05/27/09 7:30am	05/27/09 11:30am	05/27/09 7:43am	05/27/09 9:41am	05/27/09 7:30am	05/27/09 11:30am	4:00

8

MC CARSHARE / WECAR TRIP LOG - JUNE 2009

Driver	Stack	Reserved Time Start Date/Time	Reserved Time End Date/Time	Actual Time Start Date/Time	Actual Time End Date/Time	Bill
400-29: (Glynn Anglin)	County Office Building - Toyota Prius Hybrid	6/2/2009 9:15	6/2/2009 12:00			
400-29: (Glynn Anglin)	County Office Building - Toyota Prius Hybrid	6/9/2009 10:00	6/9/2009 12:00	6/9/2009 10:18	6/9/2009 11:42	
400-29: (Glynn Anglin)	County Office Building - Toyota Prius Hybrid	6/12/2009 7:30	6/12/2009 9:30			
400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	6/2/2009 9:15	6/2/2009 16:00	6/2/2009 10:51	6/2/2009 15:03	
400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	6/4/2009 7:15	6/4/2009 11:00			
400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	6/8/2009 15:00	6/8/2009 16:00	6/8/2009 15:01	6/8/2009 15:11	
400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	6/16/2009 9:00	6/16/2009 16:00			
400-34: (douglas grover)	County Office Building - Toyota Prius Hybrid	6/24/2009 7:15	6/24/2009 8:15			
400-36: (Jim Jenkins)	County Office Building - Toyota Prius Hybrid	6/2/2009 7:15	6/2/2009 12:00	6/2/2009 7:22	6/2/2009 10:14	
400-36: (Jim Jenkins)	County Office Building - Toyota Prius Hybrid	6/3/2009 7:00	6/3/2009 15:30			
400-36: (Jim Jenkins)	County Office Building - Toyota Prius Hybrid	6/4/2009 7:15	6/4/2009 15:30			
400-36: (Jim Jenkins)	County Office Building - Toyota Prius Hybrid	6/16/2009 7:30	6/16/2009 11:00			
400-36: (Jim Jenkins)	County Office Building - Toyota Prius Hybrid	6/17/2009 7:45	6/17/2009 12:00			
400-36: (Jim Jenkins)	County Office Building - Toyota Prius Hybrid	6/18/2009 7:30	6/18/2009 11:00	6/18/2009 7:41	6/18/2009 10:45	
400-38: (Kathleen Hynes)	Crabbs Branch - Toyota Prius Hybrid	6/17/2009 6:30	6/17/2009 15:00	6/17/2009 6:58	6/17/2009 12:41	
400-38: (Kathleen Hynes)	Crabbs Branch - Toyota Prius Hybrid	6/23/2009 11:00	6/23/2009 16:00	6/23/2009 11:01	6/23/2009 15:48	
400-41: (Linda Whitcomb)	Crabbs Branch - Toyota Prius Hybrid	6/1/2009 13:15	6/1/2009 14:15	6/1/2009 13:39	6/1/2009 14:46	
400-41: (Linda Whitcomb)	Crabbs Branch - Toyota Prius Hybrid	6/2/2009 7:30	6/2/2009 11:30	6/2/2009 7:30	6/2/2009 11:12	
400-41: (Linda Whitcomb)	Crabbs Branch - Toyota Prius Hybrid	6/10/2009 8:00	6/10/2009 17:00	6/10/2009 9:04	6/10/2009 16:16	
400-41: (Linda Whitcomb)	Crabbs Branch - Toyota Prius Hybrid	6/15/2009 7:30	6/15/2009 11:00	6/15/2009 7:30	6/15/2009 10:04	
400-42: (John Castner)	County Office Building - Toyota Prius Hybrid	6/3/2009 12:15	6/3/2009 15:00	6/3/2009 12:16	6/3/2009 14:24	
400-42: (John Castner)	County Office Building - Toyota Prius Hybrid	6/4/2009 11:45	6/4/2009 13:30	6/4/2009 11:46	6/4/2009 13:17	
400-42: (John Castner)	County Office Building - Toyota Prius Hybrid	6/5/2009 9:15	6/5/2009 10:45	6/5/2009 9:19	6/5/2009 10:19	
400-42: (John Castner)	County Office Building - Toyota Prius Hybrid	6/17/2009 10:30	6/17/2009 15:30	6/17/2009 11:01	6/17/2009 14:42	
400-42: (John Castner)	County Office Building - Toyota Prius Hybrid	6/24/2009 6:30	6/24/2009 16:00			
400-43: (Gary Erenrich)	Executive Office Building - Toyota Prius Hybrid	6/1/2009 10:00	6/1/2009 16:30	6/1/2009 10:28	6/1/2009 16:04	
400-43: (Gary Erenrich)	Executive Office Building - Toyota Prius Hybrid	6/4/2009 12:15	6/4/2009 15:45	6/4/2009 12:26	6/4/2009 15:10	
400-43: (Gary Erenrich)	Executive Office Building - Toyota Prius Hybrid	6/9/2009 9:15	6/9/2009 12:00	6/9/2009 9:25	6/9/2009 11:26	
400-43: (Gary Erenrich)	Executive Office Building - Toyota Prius Hybrid	6/10/2009 15:30	6/10/2009 20:30	6/10/2009 15:55	6/10/2009 19:58	
400-44: (Larry McGoogin)	Executive Office Building - Toyota Prius Hybrid	6/3/2009 13:45	6/3/2009 15:30	6/3/2009 14:01	6/3/2009 15:04	
400-44: (Larry McGoogin)	Executive Office Building - Toyota Prius Hybrid	6/4/2009 8:00	6/4/2009 11:00	6/4/2009 8:18	6/4/2009 10:16	
400-44: (Larry McGoogin)	Executive Office Building - Toyota Prius Hybrid	6/5/2009 11:45	6/5/2009 15:30			
400-44: (Larry McGoogin)	Executive Office Building - Toyota Prius Hybrid	6/16/2009 11:00	6/16/2009 13:30			
400-44: (Larry McGoogin)	Executive Office Building - Toyota Prius Hybrid	6/23/2009 8:30	6/23/2009 10:30	6/23/2009 8:42	6/23/2009 10:17	
400-46: (Jeffrey Dunckel)	County Office Building - Toyota Prius Hybrid	6/5/2009 11:15	6/6/2009 11:15			
400-46: (Jeffrey Dunckel)	County Office Building - Toyota Prius Hybrid	6/8/2009 9:00	6/8/2009 10:00			
400-46: (Jeffrey Dunckel)	County Office Building - Toyota Prius Hybrid	6/18/2009 8:15	6/18/2009 18:15			
400-47: (Quinton McHenry)	Crabbs Branch - Toyota Prius Hybrid	6/9/2009 10:30	6/9/2009 12:30	6/9/2009 10:57	6/9/2009 11:54	

4) As far as recalling administrative fleet vehicles, are you still running into agencies that are hesitant to give them up? If so, what is necessary to ensure compliance?

Susan

-----Original Message-----

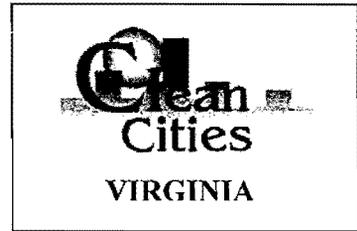
From: Souders, Millie

Sent: Tuesday, June 23, 2009 11:11 AM

To: Farag, Susan

Subject: RE: Are you around the rest of this week?

Susan-



Biodiesel Implementation – Arlington County, Virginia

Prepared for: Virginia Clean Cities

**Prepared by: Michael D. Atherton
Principal Consultant
Latitude Associates
(703) 486-8497**



TABLE OF CONTENTS

ARLINGTON COUNTY'S B20 PROJECT HISTORY	1
Fleet Profile	2
Vehicles Inventory	2
Engines	3
Engine Manufacturers	5
Procedures for Pre-1994 Equipment	6
Fuel for 2007 Engines	6
Grants and Rebates	7
Biodiesel Justification	7
ONSITE HANDLING	7
Procedures for Initial Reception of B20	8
Fuel Storage Description	9
Storage Tank Considerations	10
B100 Storage and On-site Blending	10
Storage Life	11
Cold Weather Considerations	11
Fleet Weather Procedures	11
B20 Throughput	11
OPERATIONS EXPERIENCE	11
Steps for Adoption	12
Filter Plugging Experience	12
Preventive Maintenance Routines	13
General Observations from Garage Staff and Drivers	13
Equipment Repairs After B20 Adoption	13
Drivability Observations	13
Biodiesel Fleet Fuel Economy	13
Environmental Benefits	14

Emissions Estimate	14
Hazardous Waste Testing	15
FUEL SUPPLIER	15
B100 Sources	16
B100 Specification	16
Delivery and Handling Logistics	17
Fuel Certification	17
Cold Weather Handling	17
B20 Certification Procedure and Documentation	18
Delivery Frequency and Quantity	18
Fuel Pricing and Contracting	18
Arlington's Contract Vehicle	18
New Tax Incentives for Biodiesel	19
CONCLUSION	20
APPENDIX A – ARLINGTON COUNTY BIODIESEL SCHOOL BUS FLEET	21
APPENDIX B – ARLINGTON COUNTY BIODIESEL VEHICLE FLEET	26
APPENDIX C – BIODIESEL SUPPLIERS	34
APPENDIX D – ARLINGTON BIODIESEL COST	36
APPENDIX E – ARLINGTON BIODIESEL PERSONNEL	38

Arlington County's B20 Project History

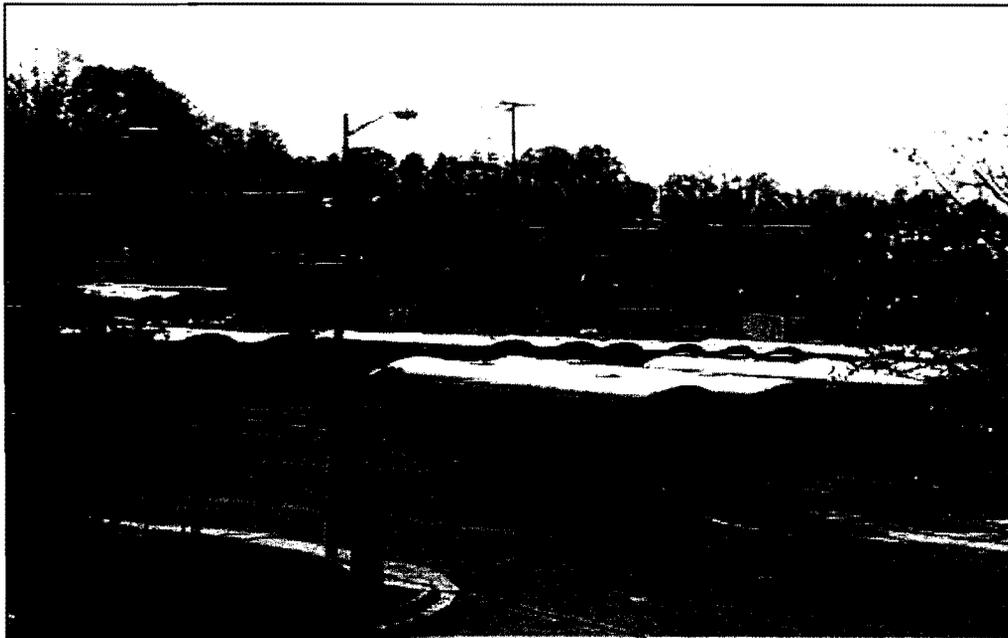
It began with citizens calling members of the Arlington County Board to raise concerns over the plume of exhaust that appeared every morning at 6 AM above the County's school bus parking lot. Growth in the area had resulted in new homes and townhouses just outside the facility.

Another unrelated event also resulted in calls to the Board members. A fire engine belched forth a cloud of smoke as it rounded a corner and accelerated. The citizens standing on the corner were left with blackened faces. Again, more calls to Board members were made.

Ric Hiller, Chief in the Department of Environmental Services, was contacted by the Board and asked, "Is there something that can be done?" Ric's response was "Yes, biodiesel". With the full support of the Board, Ric and his team began the process of implementing this new and cleaner burning fuel.

Chief Hiller is quick to point out that those who implement biodiesel today will have an easier go of it. The biggest hurdle at the time was finding a relatively local source for this, at the time, rare fuel. The operational implementation was a much simpler process.

Arlington began using B20 in its fleet of diesel powered school buses and other vehicles in September of 2001. Fleet management personnel report a dramatic reduction in particulate emissions and the early morning startup plume that precipitated citizen's concerns and ultimately the adoption of B20.



Arlington County School Bus Lot - Biodiesel makes vehicles and townhouses a better mix.

Fleet Profile

Arlington's school bus fleet numbers 138 vehicles, all of which are fueled with B20 (diesel fuel blended with 20% B100 (100% biodiesel). But, these are not the only County vehicles running on B20. In fact every vehicle and piece of equipment with a diesel engine is running on B20 with the exception of compressors and generators that sit idle and unused for long periods of time. These engines are fueled with conventional diesel because it is viewed as having a longer shelf life.



Arlington County School Bus – The Arlington County Fleet is varied by make, model and year, including very recent acquisitions and buses that are ten years old. (See Appendix A for a complete list)

Vehicles Inventory

The following chart is a **sampling** of vehicles in Arlington County's fleet that run on B20. A complete list of Arlington's biodiesel powered fleet is available in Appendices A (school buses) and B (other B20 fueled vehicles).

Type	Manufacturer	Model	Year
School Bus	Navistar	Vista	Various 90's and 00 model years
School Bus	Thomas	Saf-T-Liner and Transit	Various
School Bus	International	FE SB and RE SB	2004

Type	Manufacturer	Model	Year
School Bus	Ford	F350	
Fire Truck – Pumper	E-One	Cyclone	2001, 2002
Backhoe	Case	590	1996, 1997
Small Bus	Ford	E450	2000
Small Buss	Diamond Corp	Trolley	1998
Backhoe	John Deere	710D	2000
Pickup	Ford	F350	2003
Dump truck	Volvo	WG64	2000
Leaf collector	IHC	CO-1950	1986
Leaf collector	Freightliner	FC80	2003
Loader	Caterpillar	950G	2002

Representative list of the broad assortment of vehicle types and manufactures that Arlington County operates on B20. Note, a complete list is provided in Appendices A and B.

Arlington fuels all of its diesel powered vehicles with B20 including its fleet of school buses, emergency vehicles, construction equipment, environmental vehicles, transit buses, and light trucks. Arlington’s operations and maintenance personnel reported no discernible difference in vehicle performance and readiness when utilizing B20.

Also noteworthy, Arlington is replacing pickup trucks fueled with Liquid Propane Gas (LPG) with diesel powered pickups that will be fueled with B20. These vehicles are used primarily to supplement snow removal capacity. The switch was precipitated by two events in which the LPG vehicles caught fire and burned while plowing snow. The decision was made to switch to diesel based in part on the greater torque that diesel engines produce. In addition, fleet management pointed out that, in their experience, biodiesel vehicles have the following advantages over LPG vehicles:

- Fewer mechanical problems
- Less maintenance
- Better mileage

Engines

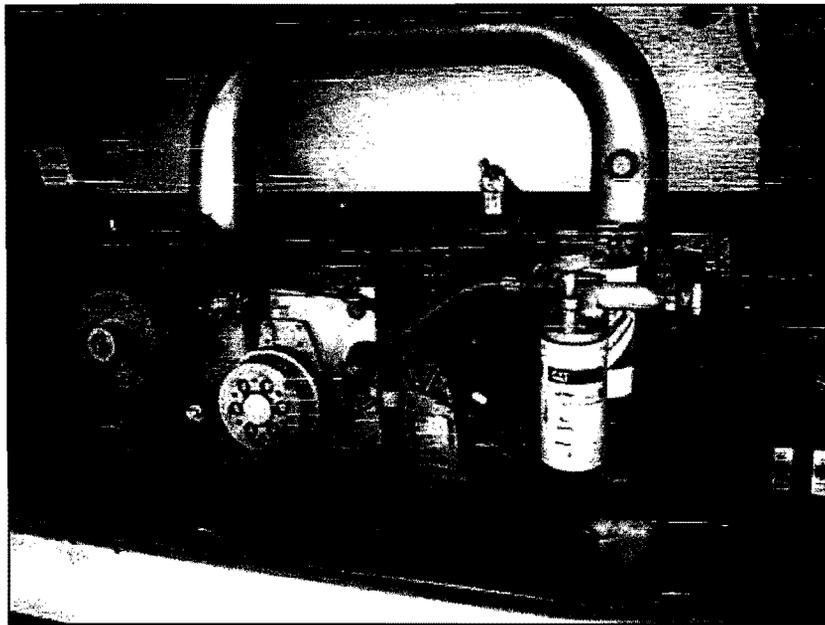
The previous section provided a sample of the wide variety of vehicles that Arlington fuels with B20. Fleet management personnel also provided the following list of engines with which they have B20 operational experience. This list is a representative subset and not a complete inventory of engine models.

Manufacturer	Engine
Caterpillar	3126 3116
Cummins	B series C series

Detroit	8.2 Liter Series 60
Ford	Power Stroke
International	DT 466 7.3 Liter

This table provides a sampling of the diesel engines that Arlington County is running on B20.

Arlington County personnel report no maintenance, performance, or reliability problems with any of the engines they operate on B20. Indeed, mechanics reported that they were pleasantly surprised that they could discern no cause and effect relationship between any specific maintenance issues and the adoption of B20. They also expressed that they expected problems with the collection of water in the fuel systems of engines running B20, but this problem has not materialized.



School Bus Engine – Arlington mechanics have experienced no mechanical problems that they can attribute to the adoption of B20

Prior to cutover to B20, Arlington County maintenance personnel reviewed fuel requirements for the engines they had in service. In some cases the operating manual, or warranty manual, either had no reference to biodiesel, or only referred to B5 (5% B100, 95% Diesel). In these situations further clarification was sought from the manufacturer. The following text is from a memo sent by Detroit Diesel to its distributors and received by Arlington County. It sheds some light on how manufacturers viewed biodiesel in January 2001:

“Biodiesel fuel is broadly defined in ASTM specification PS121, however this specification does not restrict feedstock types, nor does it include all the properties necessary to assure trouble-free operation. Detroit Diesel

permits the use of biodiesel derived from virgin soy methyl ester and rapeseed methyl ester when blended up to 20% maximum in diesel fuel. The resulting mixture must meet the fuel properties shown in Table 5 of DDC publication 7SE270.

Little long term use data exists, but concerns from combustion deposits, fuel injection system durability, and accelerated engine oil degradation warrant a cautious approach when considering the use of biodiesel. Failures attributed to the use of biodiesel fuel, or blends of biodiesel will not be cover by the Detroit Diesel product warranty.”¹

The good news is that since 2001, operators like Arlington County have been using B20 and report none of the potential problems that the memo mentions.

Engine Manufacturers

Diesel engine manufacturers have issued statements concerning the use of biodiesel in their products. The complete statements are available on the National Biodiesel Board’s web site at:

http://biodiesel.org/resources/fuelfactsheets/standards_and_warranties.shtm

The use of biodiesel does not void any engine manufacturer’s warranty. However, if a failure can be attributed to the use of biodiesel, as with any fuel, the manufacturer will not accept responsibility for the failure. The manufacturers do recommend, or note, the effects of various blends – but in each case the biodiesel component must meet the standard specifications for the comments to be valid. Since these positions were written, The American Society of Testing and Materials (ASTM) has issued and approved ASTM D6751 for neat (100%) biodiesel.

Manufacturer	Max Blend Recommendation
Caterpillar	B100
Cummins	B5
Detroit Diesel	No Comment
International	B20
John Deere	B5

Caterpillar indicates that all blends of biodiesel for all engines are acceptable, except on some older models – the 3003 through 3034, 3054, 3056 series engines. Care must be taken not to exceed five percent (B5) blends in the older engines.

Cummins notes that they do not expect any engine problems with the blends up to five percent (B5). Caution is advised for higher concentrations.

¹ Memo from Danny E. Larkin, Detroit Diesel Corporation, sent to all distributors worldwide, January 31, 2001.

Detroit Diesel cites potential problems with biodiesel use, but does not indicate a blend level with which they are comfortable.

International recommends a maximum blend of twenty percent (B20) in its suggested guidelines for biodiesel use.

John Deere approves the use of biodiesel blends with biodiesel concentration of up to five percent (B5)

Engine manufacturers are constantly evaluating fuel options and communicating their findings to their customers. The following link on the National Biodiesel Board's web site will provide updated information on the topic and links to copies of memos sent from diesel engine manufacturers to their customers:

http://biodiesel.org/resources/fuelfactsheets/standards_and_warranties.shtm

Emissions requirements, diesel fuel specifications, and fleet operating experience are evolving. As such it is important to remain in contact with engine manufacturers in order to stay in compliance with their operating requirements.

Procedures for Pre-1994 Equipment

Arlington's fleet management staff reported no requirement for deviation from standard operating and maintenance procedures for Pre-1994 equipment.

Fuel for 2007 Engines

The emissions requirements for diesel engines manufactured to meet 2007 standards will require devices such as EGR systems and catalytic converters. In addition, the use of Ultra Low Sulfur Diesel (ULSD) will be mandated starting in 2006. Arlington continues to examine the situation as it relates to B20. Arlington noted that there is a chance that a move to B5 may be necessitated by the changes in the 2007 compliant engines.

The technical definition for biodiesel and biodiesel blends is contained in ASTM D 6751 which summarizes it as: "a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100, and meeting the requirements of ASTM D 6751." To date most diesel engine manufacturers now support the use of blends up to 20% so long as the B100 is derived from virgin soybean oil. However, the 2007 requirements could change this and Arlington is monitoring the situation carefully.

Arlington fleet management suggested that they expect that the combination of ULSD and biodiesel will provide "the best of both worlds." Both fuels on their own provide environmental benefits with biodiesel providing improved lubricity and detergent

characteristics along with the fact that it is a renewable fuel. Arlington is still looking for definitive information on the impact of burning B20 in 2007 compliant engines.

Grants and Rebates

Arlington submitted for and received a \$500 rebate from the Virginia Soybean Association in 2002. This rebate is offered to anyone who purchases B2 biodiesel and above. The maximum value for the rebate is \$500 and funding is limited. In 2004 the funds had been exhausted but the Association suggested contacting them in their Williamsburg Virginia offices at (757) 564-0153 to get information on the current status of the rebate.

Biodiesel Justification

Arlington implemented biodiesel without significant outside funding support or technical assistance. The County determined that community support for the environmental benefits of biodiesel outweighed the additional fuel costs and provided the needed justification. Furthermore, the switch to biodiesel was viewed favorably because:

- Adoption of biodiesel could be implemented quickly
- Implementation of biodiesel required no infrastructure changes or enhancements
- Implementation of biodiesel did not require special vehicles or vehicle modifications
- Biodiesel enabled the county to easily achieve its objective of utilizing more renewable fuels

It is noteworthy, given Arlington's experience with alternative fuels, that fleet management considers biodiesel the easiest renewable fuel to implement.

Arlington personnel acknowledged that with biodiesel, NOx emissions actually increase slightly – an important consideration for operators like Arlington that are located in non-attainment areas. However, management was quick to express its belief that biodiesel's significant reduction in the emission of particulates, hydrocarbons, carbon monoxide, and carbon dioxide were a more than an acceptable trade-off.

Onsite Handling

Arlington fleet management reported that nothing changed with regard to onsite fuel handling after the adoption of B20. They are quick to point out that one of the benefits of B20 is the simplicity with which it is stored and dispensed. It is important to note that the Arlington County fleet also includes CNG, E85, and LPG vehicles and the county maintains its own storage and fueling infrastructure for each of these. As such, their comments are made against the backdrop of significant experience with other alternative fuels.



B20 Dispenser – Arlington pumps B20 and E85 from this dispenser at its Shirlington facility.

Procedures for Initial Reception of B20

While storing and dispensing B20 required no operational changes, management did stress the following three steps that should be undertaken prior to the cutover to biodiesel:

Prior to receiving the first shipment of any type of biodiesel:

1. Thoroughly clean diesel storage tanks
2. Add fuel filters at dispensers, or, if dispensers have fuel filters, switch to < 10 micron filters
3. Inventory additional vehicle and dispenser fuel filters

Biodiesel is a detergent. As such, it cleans every aspect of the fuel infrastructure, from trucks, to pipes, to tanks, to vehicle fuel systems. Cleaning storage tanks before adoption will reduce the initial incidences of clogged fuel filters.

Arlington indicated that the following service provider has experience cleaning fuel storage tanks:

Paul Cunningham
Tanks Direct
Beltsville, Maryland
(301) 595-2000 extension 13

Mr. Cunningham was contacted and expressed the following considerations for tank cleaning:

Tank Accessibility

tanks with manhole covers offer easier accessibility and therefore cost less to clean.

Storage and Disposal	timing a tank cleaning to coincide with the lowest possible tank level will reduce or eliminate the need to pump a tank empty and store its contents prior to cleaning. This reduces time and cost.
Cleaning Service	tanks may be squeegeed or thoroughly washed and dried. For biodiesel adoption, Mr. Cunningham suggests cleaning and drying before a tank is returned to service.

The cost for a thorough tank cleaning is between \$5,000 and \$10,000 depending on the combination of factors listed above. If the tanks are accessible and empty, a cleaning may be performed in as little as one day.

Even after a thorough tank cleaning, however, at cutover operators may still experience some increase in filter usage as the entire infrastructure continues to be cleaned by the biodiesel.

Arlington uses the following fuel filter on its biodiesel dispensers:

Filter	Vendor
Cim-Tek Filtration Hydrosorb II 800HS-10 Type 2 Pump Filter PN#:70063 Cost: \$37.00 each	L.A. Fritter & Son 4908 Creston St. Hyattsville, MD 20781 301.773.7800

Arlington reported that because of the preventative measures it undertook, (a thorough tank cleaning and the addition of fuel filters on dispensers) initial filter usage on vehicles was less than expected and current filter usage is at pre-biodiesel levels.

In addition to the steps listed above, drivers were also educated that initially after the cutover to biodiesel there was a potential for a short-term increase in clogged fuel filters. Drivers were instructed that at the earliest onset of sluggish performance, they were to return to the maintenance facility and their vehicle's fuel filter would be replaced immediately. Fleet management reported that at cutover to B20 they received very few in-service requests for fuel filter replacement.

Fuel Storage Description

Arlington stores pre-blended B20 in two locations. Its Shirlington facility has underground storage capacity for 24,000 gallons. An additional underground tank located at a fire station holds 30,000 gallons.

Storage Tank Considerations

Arlington's storage tanks are underground which provides a level of temperature consistency that above ground tanks do not. Biodiesel blends up to B20 can be stored either above ground or below ground though the preferred method is below ground. Biodiesel is more susceptible to cold weather fogging and gelling than straight diesel, although B20 is less problematic than straight B100. Underground tanks maintain the fuel at a higher temperature and therefore mitigate this problem.



Arlington Fueling infrastructure – Arlington made no changes to its existing fueling infrastructure except to thoroughly clean underground diesel storage tanks and add dispenser filters prior to receiving the first shipment of B20.

Arlington's B20 supplier suggested that above ground storage of B20 is acceptable so long as the tank's capacity is 4,000 gallons or more. In Virginia, tanks this size or larger have enough mass to retain heat to avoid fogging and gelling problems so long as the supplier adds an anti-gelling compound such as Arctic Flow (a common additive used for straight diesel cold weather handling as well).

B100 Storage and On-site Blending

Another option, one that Arlington has not considered, is on site storage of B100 and local blending. This option increases the sophistication of the operation by necessitating at least three tanks: one for diesel, one for B100, and at least one for the blended product. In addition, the infrastructure to blend diesel and B100 is required.

The benefit to this configuration is the flexibility it provides to blend any form of biodiesel (B2, B5, B20, B100) or no blending at all.

Storage Life

Arlington personnel indicated that they have had no problems storing B20 but that they are careful not to fuel vehicles or machines with biodiesel that are likely to sit unused for periods that significantly exceed more than 30 days. While all fuels degrade with the passage of time, biodiesel's shelf life is less than that of straight diesel. Examples of vehicles that are fueled with straight diesel prior to off-season storage include vehicles such as leaf blowers and snow plows. Also, backup generators and compressors that are used infrequently are stored with straight diesel.

Cold Weather Considerations

Arlington has experienced no cold weather related operating problems. Starting October 1st, the County's supplier adds Schaeffer Lubricant's Arctic Flow additive to the B20 it delivers. Arctic Flow is a liquid additive used in diesel fuel. It emulsifies completely with the fuel and can be used to prevent crystallization and increased wax-paraffin blocking in fuel flow lines and filter systems.

Fleet Weather Procedures

The county's B20 supplier begins adding Schaeffer Lubricant's Arctic Flow additive to B20 that is delivered from October 1st through March 15th. The application of this additive has resulted in no cold weather starting problems. However, Arlington's fleet management staff did note one operational precaution. Snow removal equipment and other engines and vehicles that are not used until after October 1st should be stored empty in the off-season and then fueled for winter readiness after October 1st. In this way Arlington ensures that the fuel in the vehicles contains the Arctic Flow additive and will not gel up as a result of cold weather storage.

B20 Throughput

Arlington reported that in fiscal year 2004 it consumed 602 thousand gallons of B20. This equates to 120.4 thousand gallons of B100. Fleet management expects this number to grow as they replace several vehicles that are fueled with Liquid Propane Gas (LPG) with diesel powered equivalents that will be fueled with B20. These vehicles are used for snow removal, and diesel vehicles provide additional performance and reliability over the LPG vehicles.

Operations Experience

Arlington County has significant operational experience with many different fuel types including E85, Liquid Propane Gas (LPG), and Compressed Natural Gas (CNG). Additionally, Arlington has a fleet of hybrid vehicles. This experience is noteworthy as it gives Arlington a unique perspective on the comparative ease with which an alternative fuel strategy can be adopted based on the fuel type selected.

Steps for Adoption

Arlington's impetus for adopting B20 was simplified in that it resulted from citizen requests for a solution to a highly visible environmental problem and it had the backing of the County Board. However, Arlington's fleet management staff pointed out that there are risks achieving driver buy-in associated with the switch to biodiesel if careful planning is not performed. The biggest risk identified by Arlington is the natural aversion that people have to change rather than the potential for technical or operational problems.

Arlington suggested that an initial step in adopting B20 is the creation of a project team comprised of the following personnel and associated responsibilities:

Team Member	Role
Senior Advocate	Liaison to drivers, mechanics, and other parties in the organization, who can communicate the benefits and rationale for utilizing biodiesel and is credible enough to set reasonable expectations for its adoption.
Purchasing Manager	Individual who can locate, negotiate, and coordinate with biodiesel suppliers.
Maintenance Manager	Liaison to mechanics, keeping them abreast of the status of the project. Verify with engine manufactures that engines running on the blend of biodiesel selected will be covered.
Parts Department Manager	Ensure that additional fuel filters are available at cutover
Fuel Manager	Coordinate fuel tank cleaning prior to arrival of first biodiesel delivery and ensure that biodiesel dispensers have adequate filtering.

Filter Plugging Experience

Arlington was proactive in preparing for the adoption of biodiesel by cleaning storage tanks and switching to <10 micron fuel filters on its dispensers. As such, it reports that there was no unexpected rise in vehicle fuel filter plugging or usage after adoption of B20. Indeed, fleet management believes that due to B20, it may be able to extend the fuel filter replacement interval on vehicles that receive regular and frequent maintenance. School buses receive maintenance every 30 pupil days or 2500 miles.

These vehicles are candidates for an extension of their fuel filter replacement interval, which will be expanded in increments of 30 days.

Preventive Maintenance Routines

Mechanics report that the adoption of B20 did not require any changes to preventative maintenance schedules or routines.

General Observations from Garage Staff and Drivers

Garage staff and drivers have reported no noticeable differences after the adoption of B20 except for the intended benefit: of a reduction in the emission of visible smoke and particulates in diesel exhaust.

Equipment Repairs After B20 Adoption

Arlington's maintenance staff, mechanics, and parts department reported that they could discern no change in the types of repairs that they have made since adopting B20 that could be directly attributable to utilizing B20. They admitted that they expected an increase in the incidence of and type of repairs performed on diesel fuel systems but were pleased to find that there may have actually been a slight reduction in such problems, perhaps owing to biodiesel's added lubricity and detergent properties.

Drivability Observations

Arlington's fleet management staff concedes that there is a slight theoretical degradation in vehicle performance after the adoption of B20. They suggest the drivers probably have not noticed the difference and that none have complained about it.

Fleet management noted that a mechanic drove a large truck to Richmond and was "up against the governor" while on the highway. The mechanic refueled with conventional diesel prior to returning to Arlington and was able to maintain highway speed with a lower throttle setting.

Arlington is an urban environment where, like rural environments, highway driving is infrequent, and then, only for short distances. Drivers have not reported performance problems and fleet management attributes this to the type of driving: speeds that rarely approach highway levels.

Biodiesel Fleet Fuel Economy

Due to limitations in its fleet management system, Arlington does not currently track fuel mileage. Changes are being made to the system so that the County can track this information and it expects to find that there is a small reduction in mileage attributable to biodiesel. However, other reports from fleet operators suggest that mileage is likely to

be slightly less to slightly better when using B20. The National Biodiesel Board reports that:

"Biodiesel has a higher cetane number than U.S. diesel fuel. In more than 50 million miles of in-field demonstrations, B20 showed similar fuel consumption, horsepower, torque, and haulage rates as conventional diesel fuel. Biodiesel also has superior lubricity and it has the highest BTU content of any alternative fuel (falling in the range between #1 and #2 diesel fuel)."²

Environmental Benefits

Arlington does not possess the equipment necessary to test emissions on diesel powered vehicles and to date there is no requirement to do so. However, fleet management, mechanics, and drivers have observed a dramatic reduction in visible exhaust and the production of particulates. The early morning plume of smoke that rose above the school bus parking lot is gone and pedestrians no longer complain about being covered with soot when a fire truck accelerates around the corner on which they are standing. Citizen concerns about diesel powered vehicles have abated.

Emissions Estimate

Arlington County's Energy Manager, John Morrill does estimate the benefit of using B20 based on emissions numbers for B20 published by the Environmental Protection Agency. Mr. Morrill reports high confidence that B20 provides the following emissions relative to conventional diesel:

Emission	Production Compared to Conventional Diesel
Particulates	-10%
Hydrocarbons	-21%
Carbon monoxide	-11%
Carbon dioxide	-16%
NOx	+2%

In October 2002 the EPA published a report titled: "A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions, Draft Technical Report" in which the following graph appeared:

² National Biodiesel Board, 2004, web site document: http://www.biodiesel.org/pdf_files/Myths_Facts.pdf

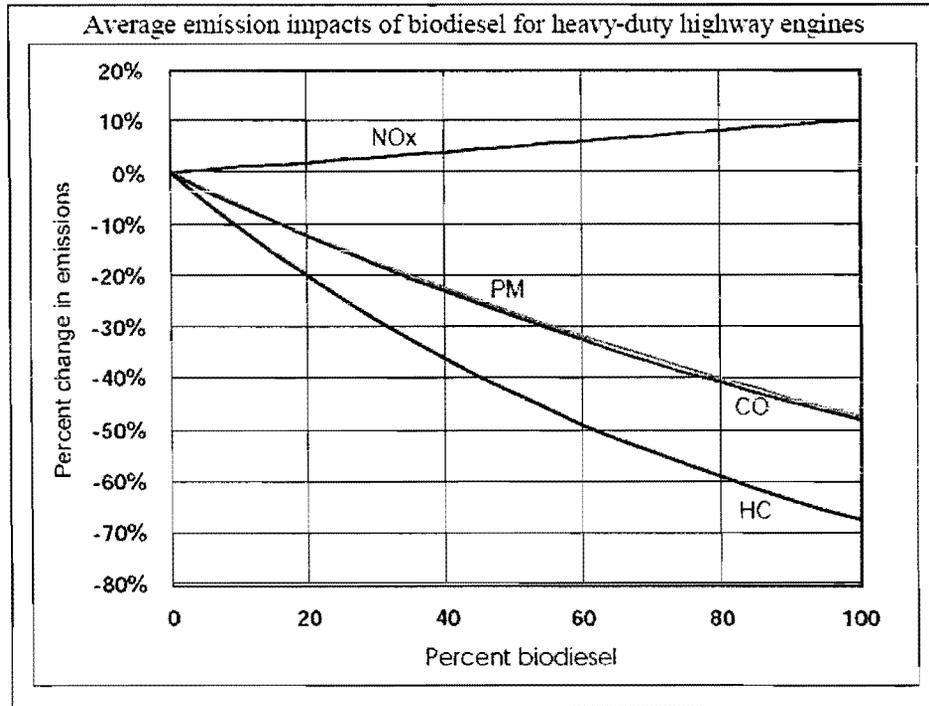


Figure 1 – Source: Environmental Protection Agency, *A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions, Draft Technical Report, October 2002.*

The graph shows the emission levels NOx, Particulates (PM), Carbon Monoxide (CO), and Hydrocarbons (HC) for a range of biodiesel blends.

Hazardous Waste Testing

Concerned about the potential for spent gasoline fuel filters to be considered hazardous waste, Arlington sent sample filters to a testing lab for analysis. The lab’s conclusion was that the spent filters are not hazardous waste. Arlington did not have a hazardous waste concern over the spent B20 fuel filters. Arlington crushes used filters and sends them to a recycler.

Fuel Supplier

Arlington County contracts with FleetCor of Norcross, Georgia (770) 449-0479 who subcontracts with Mansfield Oil of Atlanta, Georgia (800) 695-6626, who subcontracts with Tri-Gas Oil of Federalsburg, MD for the delivery of B20 to Arlington County. Tri-Gas has been delivering B20 to the County since September of 2001. Seth Powell of Tri-Gas can be reached at (800) 638-7802.

Tri-Gas receives rail car deliveries of B100 from World Energy Alternatives of Chelsea, Massachusetts’s Lakeland Florida biodiesel plant. World Energy’s representative for Virginia is Bob Gray: (330) 629-2440.

27

B100 Sources

Appendix C provides a list of National Biodiesel Board Members who supply biodiesel. It is important to note that suppliers maintain relationships with local distributors, so the location of a firm's headquarters will have little bearing on its capacity to deliver biodiesel.

Biodiesel is generally splash blended into the truck that delivers the final product. That is to say the supplier maintains a tank with B100 and a tank with diesel. The customer's order is blended as the truck is loaded to create the product requested (B2, B5, B10, B20).

Though rare, a fleet could order and store B100 and blend it on-site based according to its unique needs. This may offer the advantage of enabling the utilization of more than one biodiesel blend within the fleet. This approach requires a more sophisticated infrastructure and additional handling.

B100 Specification

The following technical description for B100 is based on ASTM D6757, provided by the National Biodiesel Board, and is available on its web site at:

http://biodiesel.org/pdf_files/bdspec.pdf

"Biodiesel is defined as the mono alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, for use in compression-ignition (diesel) engines. This specification is for pure (100%) biodiesel prior to use or blending with diesel fuel. A considerable amount of experience exists in the US with a 20% blend of biodiesel with 80% diesel fuel (B20). Although biodiesel (B100) can be used, blends of over 20% biodiesel with diesel fuel should be evaluated on a case-by-case basis until further experience is available. "

Property	ASTM Method	Limits	Units
Flash Point	D93	130 min.	Degrees C
Water & Sediment	D2709	0.050 max.	% vol.
Kinematic Viscosity, 40 C	D445	1.9 - 6.0	mm ² /sec.
Sulfated Ash	D874	0.020 max.	% mass
Sulfur S 15 Grade S 500 Grade	D5453	15 max. 500 max.	ppm
Copper Strip Corrosion	D130	No. 3 max.	
Cetane	D613	47 min.	

Property	ASTM Method	Limits	Units
Cloud Point	D2500	Report	Degrees C
Carbon Residue 100% sample	D4530**	0.050 max.	% mass
Acid Number	D664	0.80 max.	mg KOH/gm
Free Glycerin	D6584	0.020 max.	% mass
Total Glycerin	D6584	0.240 max.	% mass
Phosphorus Content	D 4951	0.001 max.	% mass
Distillation Temp, Atmospheric Equivalent Temperature, 90% Recovered	D 1160	360 max.	Degrees C

* To meet special operating conditions, modifications of individual limiting requirements may be agreed upon between purchaser, seller and manufacturer

**The carbon residue shall be run on the 100% sample

Delivery and Handling Logistics

Tri-Gas receives railcar loads of B100 at its Federalsburg, Maryland facility from World Energy's Lakeland, Florida manufacturing plant. It stores the B100 in underground tanks that maintain a narrow temperature range throughout the year. B100 is then splash blended into delivery trucks to create, in Arlington's case, B20. Arlington receives the product into two underground storage tanks located at two separate locations in the county. The county uses the same infrastructure that it did prior to the adoption of B20, with the exception of the addition of fuel filters on the fuel dispensers. Drivers fuel their own vehicles.

Fuel Certification

All B100 sold by Tri-Gas to Arlington County is produced from 100% virgin stock soy oil and is certified by their supplier World Energy to conform to ASTM D6751. Tri-Gas will provide on demand, written certification from the manufacturer, World Energy, that the B20 it delivers meets the ASTM specification.

Cold Weather Handling

B100 of soy oil origin will cloud at approximately 30-35 degrees and B20 will cloud at approximately 5-10 degrees. These temperatures will vary as a function of the biodiesel's feedstock (the raw material from which it was made, i.e. soybean oil, animal fat, etc.)

Tri-Gas stores their B100 in underground tanks that preserve the product at 50 to 55 degrees year round. Seth Powell of Tri-Gas indicated that Eastern Virginia winters are

generally warm enough that an above ground tank of 4000 gallons or more is sufficient to keep B20 from gelling so long as it is treated with a cold flow improver such as Arctic Flow.

Starting October 1st and continuing through mid-March, Tri-Gas adds a cold flow improver to its biodiesel. To date Arlington has not reported any problems with B20 gelling.

B20 Certification Procedure and Documentation

Arlington County has no formal B20 certification process and simply accepts its supplier's guarantee that the product it receives (B20) is blended with B100 that adheres to ASTM D6751. Tri-Gas stated that it would provide on demand, written certification from the manufacturer, World Energy, that the B100 it blends to create B20 meets the ASTM specification.

Delivery Frequency and Quantity

Arlington receives weekly truckload deliveries of B20 at its Shirlington Facility and monthly truckload deliveries to its satellite storage facility located at Fire Station #8.

Fuel Pricing and Contracting

A general rule of thumb expressed by Arlington County personnel and their supplier, Tri-Gas, is that biodiesel adds 1 cent per gallon for each percent of B100 in the final blended product. In other words, in 2004 B20, which is 20% biodiesel, costs 20 cents more per gallon than straight diesel.

Another important consideration is the proximity of the biodiesel supplier as transportation can be a significant cost driver.

Arlington's Contract Vehicle

George Barak, Purchasing Agent for Arlington County negotiated and executed the current purchase agreement for biodiesel. Below are several characteristics of the agreement:

- Type: Competitive bid
- Term: 10 years with 1 year continuations
- Status: Year 4
- Pricing: Based diesel commodity price as published for delivery at the Fairfax Terminal plus a negotiated markup
- Vendor: Prime contractor is FleetCor. Tri-Gas delivers biodiesel.
- Timing: Product is paid for by Arlington it is pumped into an Arlington County vehicle. FleetCor's FuelMan system manages the tracking

30

of fueling transactions with cards that are issued to drivers and used at each of Arlington's fuel dispensers.

Important considerations regarding pricing include:

- Proximity to a B20 supplier as it relates to transportation costs
- Customer tank capacity and the ability to accept full truck loads of B20

Arlington is still assessing the impact on pricing that new 2005 tax incentives (see below) will have on biodiesel, but has been told by its supplier that the tax benefit will be passed through to the County.

Arlington provided the following pricing information, shown graphically in Figure 2, for the first eight weeks of the county's fiscal year 2005.

It is important to note that the cost for diesel is recorded weekly by a staff member who notes the price at a local retailer on the way to the office. The price for B20 is the actual invoice price per gallon that Arlington pays for B20. Appendix D provides numerical data and pricing for fiscal years 2004 and 2005.

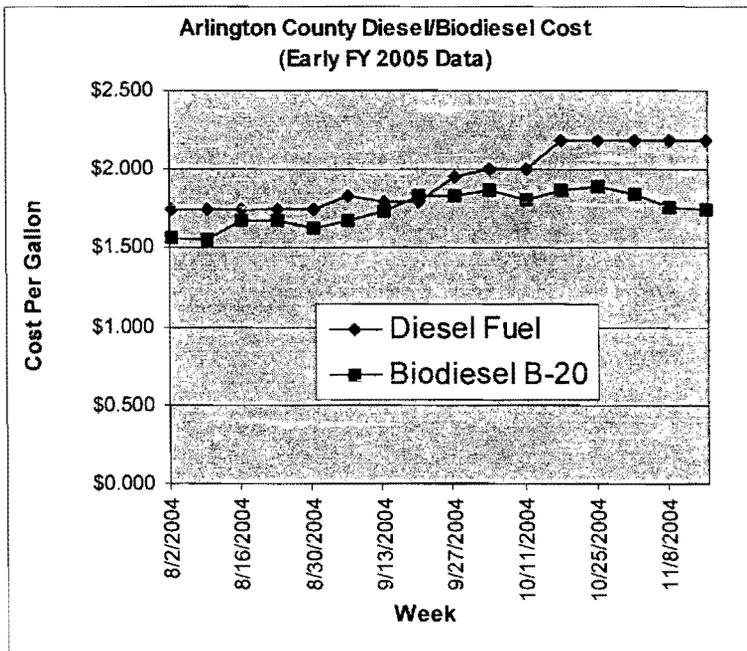


Figure 2 - Local retail diesel cost compared to Arlington's B20 cost.

New Tax Incentives for Biodiesel

The 2004 American Jobs Creation Act of 2004 contains provisions that provide significant tax incentives for biodiesel for the next two years starting in 2005. The provisions are applicable to taxable and tax-exempt fleet fuel programs. It is difficult to say exactly how this will affect pricing, but it appears that supply and demand are both likely to increase significantly in the near term. The Renewable Fuels Association (<http://ethanolrfa.org>) outlined the following provisions of this legislation as it relates to biodiesel:

- Creates a new tax credit for biodiesel: \$1.00 per gallon for biodiesel made from virgin oils derived from agricultural products and animal fats, and \$.50 per gallon for biodiesel made from agricultural products and animal fats;

31

- Allows the credit to be claimed in both taxable and nontaxable markets, i.e. tax exempt fleet fuel programs and off road diesel markets (dyed diesel);
- Streamlines the use of biodiesel at the terminal rack. The tax structure and credit will encourage petroleum blenders to blend biodiesel as far upstream as possible, which under the Renewable Fuels Standard (RFS) or Minnesota's 2% volume requirement will allow more biodiesel to be used in the marketplace.
- Streamlines the tax refund system for below the rack blenders to allow a tax refund of the biodiesel tax credit on each gallon of biodiesel blended with diesel (dyed or undyed) to be paid within 20 days of blending;
- The alternative minimum tax (AMT) will not be an issue for biodiesel. Any taxpayer eligible for the biodiesel tax credit will be able use the volume biodiesel excise tax credit system, which means they will be able to file for a refund for every gallon of biodiesel used in the marketplace without regard to the income of the taxpayer or whether the [biodiesel] is used in a taxed fuel or tax exempt fuel;
- No effect on the Highway Trust Fund – the biodiesel tax credit will be paid for out of the General Fund not the Highway Trust Fund.³

Conclusion

Arlington County implemented B20 biodiesel as a means to reduce the environmental impact diesel vehicles were having in the county. The impetus came from calls from citizens about the exhaust plume above the school bus parking during morning startup and the visible exhaust from heavy vehicles such as fire trucks. The effort had the support of the County Board.

Arlington's fleet management team prepared for the first delivery of B20 by cleaning storage tanks, adding fuel dispenser filters, and educating drivers on the potential for fuel filter clogging during the early stages of the cutover. In September of 2001, the county received its first shipment of B20. Due to their proactive approach, the implementation went smoothly and the problems anticipated were less disruptive than expected.

Maintenance personnel report no increase in the scope or nature of problems attributable to using B20. Likewise, drivers have not complained about or reported drivability issues. Storage and pumping of B20 is facilitated in Arlington's underground storage tanks with no modifications except for the addition of dispenser side fuel filters.

Overall, Arlington's fleet management staff expressed satisfaction with biodiesel. Their views take on added significance given their experience with a wide array of alternative fuel vehicles. The Arlington team had no reservations recommending to other fleet managers the adoption of biodiesel for all types of diesel powered vehicles.

³ Renewable Fuels Association, 2004, web site link: http://ethanolrfa.org/leg_position_jobsbill.shtml

Appendix E – Arlington Biodiesel Personnel

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Local

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Montgomery's little-used car-share program used less in July

By: [Alan Suderman](#)
Examiner Staff Writer
August 18, 2009

Montgomery County is still paying huge sums of money for a car-sharing program that almost no one is using.

The county paid Enterprise Rent-A-Car \$27,500 in July to rent 25 hybrid cars that were used a total of 79.5 hours -- a rate of essentially \$346 an hour. Only 11 county employees used the service that month, county records show.

Officials said in June that they hoped the car-sharing program would become more popular after the county reassigned 54 "under-utilized" county-owned cars from various departments by July 1, forcing employees to use the car-sharing program.

But that hope never materialized, and the use of the program dropped from 206.5 hours in June to fewer than 80 in July. County employees have used the cars for about 55 hours so far this month.

Millie Souders, chief of the county's fleet management service, said the county is cutting the number of available cars back to 20 and will issue a competitive bid in the fall for a new car-sharing agreement that will be less costly.

She said the county wasn't able to accept competitive bids for the pilot program, and instead amended an existing contract with Enterprise so that the program started as quickly as county leaders wanted.

The county pays Enterprise an all-inclusive \$1,100 a month per car, regardless of how much -- or little -- they are used. A comparable private car-share service, such as Zipcar, costs Montgomery County residents about \$10 an hour to use.

The Examiner first reported on the rocky start of the pilot program, which was used only three times for fewer than 10 hours during the first two-and-a-half months it was available to county employees.

Overall, the program has been used for just over 700 hours since it started in January, at a total cost of roughly \$220,000.

Still, officials said the car-share program allowed them save money by not having to buy 20 new cars and redeploying others, which they said saved the county \$500,000.

"Underutilized vehicles were redistributed to other departments resulting in significant cost avoidance," said David Dise,

34

Director of the county Department of General Services.

The District's government recently expanded a similar pilot car-sharing program that started in October, and officials there said they have been able to trim 360 vehicles from its fleet and expect savings of \$6.6 million over five years.

msuderman@washingtonexaminer.com

Find this article at:

http://www.washingtonexaminer.com/local/Montgomery_s-little-used-car-share-program-used-less-in-July-8119468-53503362.html

Check the box to include the list of links referenced in the article.

35

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AUGUST 27, 2009

J.S. Biofuel Boom Running on Empty

by ANN DAVIS and RUSSELL GOLD

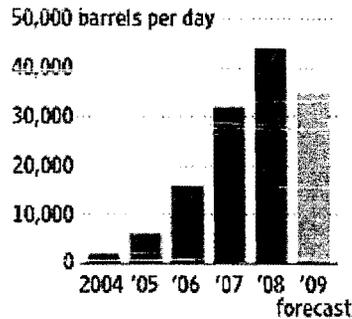
The biofuels revolution that promised to reduce America's dependence on foreign oil is fizzling out.

Two-thirds of U.S. biodiesel production capacity now sits unused, reports the National Biodiesel Board. Biodiesel, a crucial part of government efforts to develop alternative fuels for trucks and factories, has been hit hard by the recession and falling oil prices.

The global credit crisis, a glut of capacity, lower oil prices and delayed government rules changes on fuel mixes are threatening the viability of two of the three main biofuel sectors -- biodiesel and next-generation fuels derived from feedstocks other than food. Ethanol, the largest biofuel sector, is also in financial trouble, although longstanding government support will likely protect it.

Downshifting

U.S. biodiesel production



Source: Department of Energy

Earlier this year, GreenHunter Energy Inc., operator of the nation's largest biodiesel refinery, stopped production and in June said it may have to sell its Houston plant, only a year after politicians presided over its opening. Dozens of other new biodiesel plants, which make a diesel substitute from vegetable oils and animal fats, have stopped operating because biodiesel production is no longer economical.

Producers of next-generation biofuels -- those using nonfood renewable materials such as grasses, cornstalks and sugarcane stalks -- are finding it tough to attract investment and ramp up production to an industrial scale. The sector suffered a major setback this summer after a federal jury ruled that Cello Energy of Alabama, a plant-fiber-based biofuel producer, had defrauded investors. Backed by venture capitalist Vinod Khosla,

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36

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Cello was expected to supply 70% of the 100.7 million gallons of cellulosic biofuels that the Environmental Protection Agency planned to blend into the U.S. fuel supply next year. The alleged fraud will almost certainly prevent the EPA from meeting its targets next year, energy analysts say.

The wave of biodiesel failures and Cello's inability to produce even a fraction of what it expected have spooked private investors, which could further delay technology breakthroughs and derail the government's green energy objectives.

"If your investors are losing money in first-generation biofuels, I guarantee you they'll be more reluctant to put money into more biofuels, including next-generation fuels," says Tom Murray, global head of energy for German bank WestLB, one of the leading lenders to ethanol and biodiesel makers.

Domestically produced biofuels were supposed to be an answer to reducing America's reliance on foreign oil. In 2007, Congress set targets for the U.S. to blend 36 billion gallons of biofuels a year into the U.S. fuel supply in 2022, from 11.1 billion gallons in 2009. That would increase biofuels' share of the liquid-fuel mix to roughly 16% from 5%, based on U.S. Energy Information Administration fuel-demand projections.



Bloomberg News

Venture capitalist Vinod Khosla.

Corn ethanol, which has been supported by government blending mandates and other subsidies for years, has come under fire for driving up the price of corn and other basic foodstuffs. While it will continue to be produced, corn ethanol's dominant role in filling the biofuels' blending mandate was set to shrink through

2022. Cellulosic ethanol, derived from the inedible portions of plants, and other advanced fuels were expected to surpass corn ethanol to fill close to half of all biofuel mandates in that time.

But the industry is already falling behind the targets. The EPA, which implements the congressional blending mandates, still hasn't issued any regulations to allow biodiesel blending, though they were supposed to start in January. The mandate to blend next-generation fuels, which kicks in next year, is unlikely to be met because of a lack of enough viable production.

"I don't believe there's a man, woman or child who believes the industry can hit" the EPA's 2010 biofuel blending targets, says Bill Wicker, spokesman for Sen. Jeff Bingaman of New Mexico, chairman of the Senate Energy Committee.

The business models for most biofuel companies were predicated on a much higher price of crude oil, making biofuels more attractive. A government-guaranteed market was also central to business plans.

But once blending mandates were postponed, oil prices plunged and the recession crushed fuel demand, many biodiesel companies started operating in the red. Even ethanol producers, which have enjoyed government subsidies and growing federal requirements to blend it into gasoline, have been operating at a loss over the past year. Numerous established producers have filed for Chapter 11 bankruptcy-court protection.

Critics of the biofuels boom say government support helped create the mess in the first place. In 2007, biofuels including ethanol received \$3.25 billion in subsidies and support -- more than nuclear, solar or any other energy source, according to the Energy Information Administration. With new stimulus funding, this figure is expected to jump. New Energy Finance Ltd., an alternative-energy research firm, estimates that blending mandates alone would provide over \$33 billion in tax credits to the biofuels industry from 2009 through 2013.

Not all biofuels may be worth the investment because they divert land from food crops, are expensive to produce and may be eclipsed by the electric car. One fact cited against biofuels: If the entire U.S. supply of vegetable oils and animal fats were diverted to make biodiesel, production still would amount to at most 7%

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37

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f U.S. diesel demand.

roducers and investors now are pushing for swift and aggressive government help. Biodiesel makers are lobbying to kick-start the delayed blending mandates immediately and extend biodiesel tax credits, which expire in December.

On Aug. 7 more than two dozen U.S. senators wrote to President Barack Obama to warn that "numerous bankruptcies loom" in the biodiesel sector. "If this situation is not addressed immediately, the domestic biodiesel industry expects to lose 29,000 jobs in 2009 alone," the senators wrote, using estimates by the National Biodiesel Board.

Mr. Obama, who supported biofuels throughout his campaign, is working to roll out grants and loan guarantees for bio-refineries and green fuel projects, said Heather Zichal, a White House energy adviser. The pace of the disbursements should speed up this fall, administration officials say.

Obama officials defended the delay in biodiesel mandates. The EPA in May proposed rules that penalize soy-based diesel under the blending mandates, because deforestation from soybean cultivation is thought to offset the fuel's environmental benefits. Obama officials say the EPA must perform a thorough environmental review before it can issue rules. The amount of biodiesel that was to have been blended in 2009 will be added to the amount required for 2010, so that no volume is lost, they add.

Any state help might be too late for GreenHunter Energy. In 2007, the company, led by energy exploration executive Gary Evans, acquired a Houston refinery that processed used motor oil and chemicals and retrofit it to make 105 million gallons of biodiesel a year from all manner of feedstocks, from soybean oil and beef tallow to, potentially, inedible plant matter. GreenHunter's business model hinged on selling to a government-guaranteed buyer: GreenHunter has the capacity to make 20% of the 500 million gallons of biodiesel that Congress wanted to be blended into the 2009 fuel supply.

Until the mandate kicked in, GreenHunter and other biodiesel makers counted on exporting their output to Europe, a much bigger user of diesel.



GreenHunter

GreenHunter CEO Gary Evans speaking with the press at the opening of its biodiesel plant in June 2008.

GreenHunter opened in June 2008 as oil prices skyrocketed. By then, soybean oil prices were soaring, too, pinching refiners that had banked on using soy. Mr. Evans switched to inedible animal fats.

For about a month, when oil hovered above \$120 a barrel and traditional diesel ran over \$4 a gallon, GreenHunter says profit margins on turning animal fat into diesel rose as high as \$1.25 a gallon. It wasn't sustainable. The price of animal fat soared too, cutting margins again.

As the EPA continued to delay the blending mandates, the global downturn obliterated demand for regular diesel. Prices cratered. GreenHunter's plant took a direct hit from Hurricane Ike in September. By the time the plant reopened in late November, the price of diesel had dropped by more than half, and GreenHunter was losing money on every gallon of fuel.

The European Union dealt the final blow this spring when it slapped a tariff on U.S. biodiesel, killing what had been the industry's main sales outlet.

GreenHunter has since stopped producing biodiesel. The American Stock Exchange informed GreenHunter in May that the company was out of compliance with some listing requirements; the firm has submitted a plan to remain listed. Its stock has sunk to about \$2 a share from a high of \$24.75 in May 2008.

Bio-refinery carcasses are everywhere. GreenHunter's lender, West LB, arranged \$2 billion in ethanol and biodiesel loans, selling them to various investors beginning around 2006. Today, half of the \$2 billion in

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38

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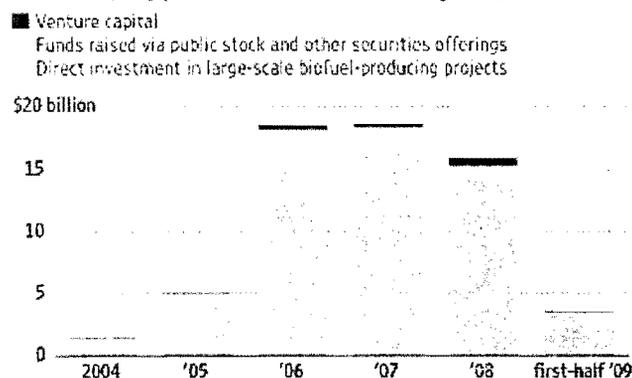
WSJ.com

Companies have defaulted or are being restructured, according to people familiar with the portfolio. Publicly traded Iowa Biosource Fuels Inc. filed for Chapter 11 bankruptcy reorganization in March.

Empire Renewables, a biodiesel maker in Washington, is trying to hang on as a storage depot, its founder says. Evolution Fuels, an outfit that used to sell a biodiesel brand licensed by country singer Willie Nelson, has topped production and said in a securities filing it may not be able to continue as a going concern. The company didn't return calls for comment.

Biofuel Bust

Total third-party private investment in biofuels globally



Note: Venture capital primarily went to next-generation fuels; the rest primarily went to corn ethanol and biodiesel. Government grants and subsidies and corporate research and development not included. Source: New Energy Finance Ltd.

Some senators have introduced a bill to extend biodiesel tax credits. A provision passed in the House grandfathers soy-based biodiesel into the blending mandates for five years.

Second-generation biofuels have had their own setbacks.

When seeking investors for Cello Energy in 2007, Jack Boykin, an entrepreneur with a background in biochemistry, said Cello had made diesel economically in a four-million-gallon-a-year pilot plant from grass, hay and used tires. What's more, he told investors he had successfully used the fuel in trucks, according to testimony in a federal court case in Mobile, Ala. He said he had invested \$25 million of his own money. An Auburn University agronomy professor advising the Bush administration on green energy endorsed his technology.

Alabama paper-and-pulp executive George Landegger and Mr. Khosla, the venture capitalist, separately invested millions in seed money into Cello and had plans to invest or lend more.

A lawsuit disputing the ownership stakes of investors produced Mr. Boykin's revelation, in a 2008 deposition, that he had never used inedible plant material such as wood chips or grass in his pilot plant, despite claims otherwise. Construction of his full-scale facility in rural Alabama moved forward anyway.

This year, Khosla representatives took samples of diesel produced at the new Cello plant and sent them off for testing. The results showed no evidence of plant-based fuel: Carbon in the diesel was at least 50,000 years old, marking it as traditional fossil fuel.

The EPA wasn't told about the test, and continued to rely on Mr. Boykin's original claims when it asserted in the Federal Register in May that Cello could produce 70% of the cellulosic fuel targets set by Congress that are due to take effect next year.

The jury returned a \$10.4 million civil fraud and breach-of-contract verdict against the Alabama entrepreneur in favor of Mr. Landegger, one of the investors. Work on the plant has been suspended. Several weeks after the verdict was delivered, Mr. Boykin presented evidence that he had tested fuel from the plant and it did contain cellulosic material. He is seeking a new trial.



GreenHunter

GreenHunter's biodiesel facility, built on the site of an old chemical and oil-processing refinery, opened in June 2008 on the Houston Ship Channel.

Mr. Boykin declined to comment, but his lawyer, Forest

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39

THE WALL STREET JOURNAL.

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Latta, said his client denies committing fraud. The carbon testing, he said, reflected only an early stage quality-control test during startup trials. It would be premature to conclude, Mr. Latta said in an email, that Cello's fuel-making process is a failure. "This is a first-of-its-kind plant in which there remain some mechanical issues still being ironed out," he wrote.

Margo Oge, director of the EPA's office on transportation and air quality, says the agency is "looking into the whole case of Cello." Mr. Khosla declined to discuss Cello, but said he doubts the 2010 cellulosic fuel mandates can be met. "All projects, even traditional well-established technologies, are being delayed because of the financial crisis," he said in an interview.

Write to Ann Davis at ann.davis@wsj.com and Russell Gold at russell.gold@wsj.com Printed in The Wall Street Journal, page A1

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40

Questions For DFMS

Biodiesel

1. Could you forward a copy of the biodiesel study you referenced at the prior meeting, including any updates you've added since then?
2. One issue that gets raised is whether engine manufacturers' warranties are voided by the use of biodiesel or certain blends of it. I've been reading that this is not necessarily the case, that engine manufacturers warrant their products, but not fuel or fuel effects. Instead, this should be guaranteed by fuel distributors instead. Do you know if this is the case? If so, do you know if any distributors in this area warranty their fuels?
3. What is the status on the need for more than one fuel inspector to test all loads/deliveries of biodiesel fuel made to 11 (?) fueling sites around the County? Is it possible to contract for these services?
4. I was told by another fleet manager (for our Public Safety vehicles) that on a recent tour of another jurisdiction, they saw a contracted company that came out to clean regular diesel fuel tanks on site. I was wondering if this is a practice that could be applied to our biodiesel fuel storage tanks. If so, is it a common practice? And would it be cost prohibitive?

CarShare

1. There was an article in the Gazette recently about CarShare utilization. Could you provide updated stats for this? It also mentioned you are going out for bid on a new contract. Could you provide details?
2. Please provide the current number and types of vehicles we have under the CarShare program.

Enterprise Rentals

1. What is the status of current rentals? Have you been able to reduce expenditures?
2. There was recently a story on the news about how the average cost of rental cars has increased significantly (about 30% for individuals) because rental companies are reducing the size of their fleets. Has this impacted the County at all?

ADDENDUM
T&E Committee #1
September 14, 2009

MEMORANDUM

September 11, 2009

TO: Transportation, Infrastructure, Energy & Environment Committee

FROM: Susan J. Farag, Legislative Analyst *SJF*

SUBJECT: **Update: Fleet Management Services – Biodiesel Fuel and Rental Car Utilization**

Attached are several documents forwarded by the Department of Fleet Management Services (DFMS) in preparation for the Committee meeting. Included are:

- DFMS Responses to Council Staff Follow-Up Questions;
- “Summary of Experience with Use of Biodiesel Fuels in Transit Buses”;
- “Automakers’ and Engine Manufacturers’ Positions of Support for Biodiesel Blends”; and
- MC CarShare Utilization Records.

BIODIESEL

According to DFMS’ response, the Fleet is not currently using biodiesel blends, although it supports the transition to B5. This percentage of biodiesel is the most widely supported by vehicle and engine manufacturers.

DFMS has worked with the National Biodiesel Board over the summer to address various implementation difficulties. Robert Cerio, a consultant to the NBB, will be attending the meeting to answer any questions.

The Committee should understand what barriers DFMS sees regarding the move toward using biodiesel in some or all of the Fleet. It is Council staff’s understanding there are no plans in the immediate future to move toward biodiesel use; however, the County Executive stated in his *Best Practices* letter to the White

House that the County has initiated pilot programs to replace ultra-low sulfur diesel fuel with biodiesel (© 23-24).

MC CARSHARE

DFMS provided updated information on the CarShare program as well, advising that there are currently 30 vehicles (24 Priuses and 6 Ford Escape Hybrids) within the CarShare fleet. At the end of June 2009, there were only 30 registered uses in the program, although that number has doubled to 60 and is expected to increase. The actual contract cost to the county (year-to-date) is \$209,630, although DFMS advises it has realized a savings of \$523,270 by not purchasing replacement administrative vehicles. CarShare usage from April 2009 through August 2009 is 746 hours. DFMS does not plan to go out to bid to replace the current CarShare contract.

The Committee should understand why the CarShare fleet size has not been reduced as discussed during the FY10 budget process (reduce fleet from 24 to 18 vehicles), and instead has increased with the addition of six hybrid SUVs.

ENTERPRISE RENTAL CARS

DFMS indicates that total rental costs have dropped significantly in the past 2 months. For comparative purposes, July 2008 rentals totaled \$37,405 while July 2009 rentals totaled only \$5,490. August 2008 rentals were \$38,003 while August 2009 numbers were \$3,258. **DFMS should provide an overview showing how they achieved these savings and what it expects regarding future utilization.**

This Packet Contains

DFMS Responses to Council Staff Follow-Up Questions	<u>©</u> 1-4
“Summary of Experience with Use of Biodiesel Fuels in Transit Buses”;	5-10
“Automakers’ and Engine Manufacturers’ Positions of Support for Biodiesel Blends”	11-19
MC CarShare Utilization Records	20-22
Excerpts from County Executive’s Best Practices	23-24

T & E Follow-Up Sept 14, 2009 Q&A

Biodiesel

1. Could you forward a copy of the biodiesel study you referenced at the prior meeting, including any updates you've added since then?

Please see Transit Resource Center (TRC) "Summary of Experience with use of Biodiesel Fuels in Transit Buses" report dated May 7, 2009 attached. TRC is an independently owned corporation dedicated to serving the needs of public transit systems and private bus operators throughout the United States and Canada. TRC is a consulting and management organization serving bus transit systems, school bus operations, and privately owned fleet operations (www.transitresourcecenter.com).

Additionally Robert Cerio, Consultant to the National Biodiesel Board (NBB), former Energy Resource Manager for Warwick, RI Public Schools, will be attending Monday's session.

Lastly, please note the current price difference between biodiesel and regular Ultra Low Sulfur Diesel (ULSD) is \$.125 per gallon which equates to an overall cost difference of \$391,905.25 for FY '10 based on an estimated diesel usage of 3,135,242 gallons.

2. One issue that gets raised is whether engine manufacturers' warranties are voided by the use of biodiesel or certain blends of it. I've been reading that this is not necessarily the case, that engine manufacturers warrant their products, but not fuel or fuel effects. Instead, this should be guaranteed by fuel distributors instead. Do you know if this is the case? If so, do you know if any distributors in this area warranty their fuels?

Most of Montgomery County's fuel purchases are made in partnership with the Washington Metropolitan Council of Governments' (COG) to ensure that the County obtains the lowest cost possible when purchasing fuel. In the COG fuel contracts, a fuel distributor is awarded by line item rather than a specific fuel manufacturer. The fuel distributor may purchase fuel from a variety of manufacturers' available at the Baltimore or Fairfax terminals or the "rack". The fuel in Montgomery County's tanks comes from a variety of manufacturers based on the fuel distributor's selection at the time of delivery.

Biodiesel fuel is not currently listed in any of the COG fuel contracts, but is similar to the COG fuel contracts process. The contract is awarded to a distributor that may purchase the diesel portion of the blend from different manufacturers available at the rack. Additionally, biodiesel suppliers may either blend the diesel fuel and the biodiesel to the specified blend percentage themselves or they purchase the fuel pre-blended.

Fuel is manufactured to specific standards based on fuel type. Vehicle manufacturers build vehicles to operate on fuels that meet the specific standard. Fuels that do not meet the specified standard can affect vehicle operability and emissions produced. The biodiesel industry has been very active in pursuing Automotive Society for Testing and Materials (ASTM) standards to cover biodiesel blends of 5% (B5), between 6% and 20% (B6-B20) as well as 100% (B100) to give vehicle/engine manufacturers clear fuel standard targets. Additionally, the biodiesel industry has developed BQ 9000 certification to help ensure that biodiesel (B100) is produced and maintained at ASTM 6751 standards.

The nearest BQ 9000 certified biodiesel supplier is located in Newark, NJ. As previously mentioned, the County receives fuel from the racks at Baltimore and Fairfax. Newark, NJ is approximately 223 miles from Rockville, MD compared to 44 miles to Baltimore, MD and 22 miles to Fairfax, VA.

Vehicle/Engine manufacturers are responsible for defining what fuels their engines are designed for and recommend the use of that fuel. The range of what is recommended by manufacturers is very broad. Recommendations can be as simple as referencing a blend percentage produced to the specified standard for all of the vehicles they manufacture or as complex as specifying blend percentages based on the model of vehicle. Some vehicle manufacturers recommend the feedstock that the fuel should be derived from (manufacturers' statements attached via www.biodiesel.org). The County owns and maintains vehicles from approximately 15 of the manufacturers covered on the list of OEM statements on the National Biodiesel Board's website.

Vehicle manufacturer warranties related to fuel systems are based on the recommendations provided in owners manuals and do not cover damage caused by fuels not meeting their recommended fuel standards. Since B5 is the most widely accepted blend, DFMS has supported the transition to B5.

In order to support vehicle manufacturers that recommend B5 as the highest acceptable blend of biodiesel and vehicle manufacturers that allow higher blends of biodiesel, the County would need to install additional tanks and dispensers at its fuel sites.

For the County to seek damage from a fuel distributor/manufacturer, the County must prove that the fuel provided by the distributor/manufacturer did not meet the appropriate ASTM specification upon delivery. The County would need to store samples of every fuel delivery at every county fuel site for comparison at a lab once a failure occurs.

3. What is the status on the need for more than one fuel inspector to test all loads/deliveries of biodiesel fuel made to 11 (?) fueling sites around the County? Is it possible to contract for these services?

DFMS has included **one (1)** additional position in its FY '11 FFI request to OMB. An analysis of staffing/contracting requirements for testing and monitoring fuel deliveries justifies at least one (1) additional position. Contractor costs are unknown but estimated to be the same cost of a full time position.

4. I was told by another fleet manager (for our Public Safety vehicles) that on a recent tour of another jurisdiction, they saw a contracted company that came out to clean regular diesel fuel tanks on site. I was wondering if this is a practice that could be applied to our biodiesel fuel storage tanks. If so, is it a common practice? And would it be cost prohibitive?

It has been DFMS experience that fuel tanks need to be cleaned at the change of fuel type stored within a fuel tank or if there is a traumatic event such as the delivery of contaminated fuel, water infiltration of some other associated event. Additionally, the "Biodiesel Handling and Use Guide", published by the National Renewable Energy Lab, revised in January 2009 chapter 3.6.3 makes reference to an initial cleaning only; there is no mention of a routine cleaning of fuel tanks after the initial cleaning.

CarShare

1. There was an article in the Gazette recently about CarShare utilization. Could you provide updated stats for this? It also mentioned you are going out for bid on a new contract. Could you provide details?

Current statistics for CarShare utilization are as follows:

- CarShare usage from April 2009 through the end of August 2009 is 746 hours.
- At the end of June 2009, there were only 30 registered users of CarShare. Currently, the registered users has doubled to 60 and continues to increase.

- The WeCar/MCCarshare fleet location is as follows:
 - 12 at 255 Rockville Pike garage
 - 8 at COB garage
 - 5 at EOB garage
 - 4 at Edison Park lot
 - 1 at Crabbs Branch lot

- Employee department breakdown is as follows:
 - 5 County Council
 - 2 DEP
 - 16 DGS
 - 3 DHCA
 - 16 DOT
 - 10 DTS
 - 2 FIN/ERP
 - 3 OMB
 - 2 OZAH
 - 1 PIO

The actual contract cost to the County for this pilot program year-to-date is \$209,630 however, because of this pilot program the County has realized a savings of \$523,270 by not purchasing replacement administrative vehicles (\$732,898 cost to replace scheduled administrative vehicles minus \$209,630 cost of CarShare to date = \$523,270).

DFMS is not currently going out for bid to replace the current CarShare contract. DFMS will finish the pilot period of one (1) year and then review and analyze actual data before making the decision of whether or not the program should continue.

2. Please provide the current number and types of vehicles we have under the CarShare program.

Currently, DFMS full complement of 30 vehicles includes 24 Toyota Prius Hybrids and 6 Ford Escape Hybrids.

Enterprise Rentals

1. What is the status of current rentals? Have you been able to reduce expenditures?

Currently DFMS is providing DPWT, Highway services with four (4) long-term rental vehicles through the enterprise contract. These rentals are for additional inspectors due to ARRA grant funds for roadway improvements received by Highway Services. Otherwise, overall car rental use has been greatly reduced due to a DFMS policy change requiring all incoming requests for vehicle rentals be approved by the Division Chief on a case by case basis.

Enterprise Rental Expenditure Comparison: 2008-2009

- Vehicle breakdown for July 2008 and July 2009 is as follows:
 - July 2008**
 - 19 Full-size Pickups
 - 3 Small Pickups
 - 5 Full-size cars
 - 4 Standard cars
 - 4 SUV's
 - 6 Mini vans
 - 1 Full-size SUV
 - 1 Cargo Van
 - July 2009**
 - 3 Small Pickups
 - 3 Intermediate cars
 - 1 SUV
 - 6 Mini vans
 - 1 Small/Med SUV
- Car class breakdown for August 2008 and August 2009 is as follows:
 - August 2008**
 - 22 Full-size Pickups
 - 4 Small Pickups
 - 1 Full-size SUV
 - 5 Small/Medium SUV
 - 9 Full-size cars
 - 3 Intermediate cars
 - 2 Compact cars
 - 2 Mini vans
 -
 - August 2009**
 - 2 Small Pickups

- 1 Small/Medium SUV
- 1 Minivan
-

Total Cost of Enterprise Rentals:

July 2008 - \$37,405.71

July 2009 - \$5,490.69

August 2008 - \$38,003.46

August 2009 - \$3,258.70

2. There was recently a story on the news about how the average cost of rental cars has increased significantly (about 30% for individuals) because rental companies are reducing the size of their fleets. Has this impacted the County at all?

As Council is aware, DFMS contracts out for car and light truck rental services. DFMS current contract is with Enterprise Rent-a-Car with the current term ending October 23, 2009. This contract may be extended through October 23, 2012. Although the contract contains a provision allowing for an annual price increase, this has not yet been requested by the vendor. The prices contained within the current contract may only be increased by formal contract amendment and are otherwise firm.



TRANSIT RESOURCE CENTER

**MONTGOMERY COUNTY, MD
DIVISION OF FLEET MAINTENANCE SERVICES**

**Summary of Experience
With Use of
Biodiesel Fuels in Transit Buses**

May 7, 2009

5840 Red Bug Lake Road, Suite #165
Winter Springs, FL 32708
(407) 977-4500
www.transitresourcecenter.com

tranrc@earthlink.net

DEFINITION

Biodiesel is a diesel fuel made from vegetable oil, waste cooking oil, or animal fat. The conversion of these organic matters into biodiesel is a chemical process that commonly uses an alcohol such as methanol and a catalyst such as sodium hydroxide.

APPLICATION AND BLEND NAME

Biodiesel is an alternative fuel which can be blended with petroleum diesel in various dilutions, or it can be used as a replacement for petroleum diesel.

Biodiesel in its pure form is commonly referred to as B100. When it is blended with petroleum diesel, the blend is identified using "B" followed by the percentage of biodiesel in the finished product. B5, for example, is 5% biodiesel.

ENVIRONMENTAL

Biodiesel has some attractive environmental benefits. It contains no sulfur, and it reduces emissions of particulate matter, carbon monoxide, and hydrocarbons. However, it slightly increases nitrogen oxide emissions.

BIODIESEL EXPERIENCE IN TRANSIT BUSES

- Transit systems in North America have experimented widely with the use of biodiesel as an additive to petroleum diesel in an effort to reduce greenhouse gases and particulate emissions.
- Transit systems have used biodiesel in lower blends (B5 - B20) due to the cost of biodiesel, supply capabilities, and biodiesel solvency.

- There have been very few quantitative studies of in-use biodiesel performance in transit buses. A National Renewable Energy Laboratory report published in 2006 documented a controlled experiment comparing use of B20 biodiesel with petroleum diesel over a 100,000 mile study period. The study scope was limited to nine (9) buses. (NREL/CP-540-40128).
- While the properties of biodiesel are similar to petroleum diesel, there are important differences which require different management practices. The Federal Transit Administration (FTA) published a report in 2007 titled Biodiesel Fuel Management Best Practices for Transit (FTA Report No. FTA-MO-26-7009,2007.1). This FTA report offers technical advice to transit operators who are interested in using biodiesel. It addresses many of the problems encountered in the use of biodiesel fuels in transit buses.

PROS AND CONS OF BIODIESEL

PROS

- Fuel economy of biodiesel is comparable to petroleum diesel at lower blend rates (B5 - B20).
- Oil analysis results of engines using biodiesel at lower blend rates do not show additional metal wear compared to petroleum diesel. Soot levels in the lubricant are found to be lower in B20 buses.
- Laboratory dynamometer testing on the CSHVC cycle using B20 fuels have shown reduced emissions of all regulated pollutants.

CONS

- The cost of biodiesel fuels is higher than petroleum diesel fuel.
- There are no national standards for biodiesel blend levels and quality. Consequently, there are erratic fuel quality characteristics that affect bus operators' experience in using biodiesel in transit operations.
- Use of biodiesel fuels may affect engine warranties. Each individual engine manufacturer determines what effect the use of biodiesel has on its commercial warranty.
- Biodiesel is an excellent medium for microbial growth (algae). Microbial contamination of biodiesel fuel has been the principal challenge facing bus operators who have selected biodiesel as an alternative fuel. Microbial particulates clog filters and fuel lines on buses which leads to inadequate fuel flow and engine shutdown.
- The use of ultra low sulfur diesel (ULSD) enhances the chance of microbial growths when blended with biodiesel fuel since ULSD has most microbial inhibitors removed in the hydro processing needed to reduce sulfur levels.
- Cold weather operations negatively affect bus operations using biodiesel fuels. FTA's report on best practices recommends special care by the fuel blender to avoid cold weather performance problems, especially filter plugging.

CURRENT CASES

The current use of biodiesel by transit operators is sporadic. There have been divergent experiences among transit operators who have used biodiesel fuels. A quick check of the random operators found the following:

<u>Richmond, VA</u>	Greater Richmond Transit Corporation discontinued use of biodiesel fuel due to engine performance problems with clogged filters, etc.
<u>Baltimore, MD</u>	The MTA previously used biodiesel fuels but discontinued its use after experiencing engine performance problems. The MTA is studying the potential for re-starting the program.
<u>Washington, D.C.</u>	No information could be obtained.
<u>Wilmington, DE</u>	Delaware Transit Corp. is not using biodiesel.
<u>Hartford, CT</u>	Connecticut Transit is currently using B5 biodiesel in its bus fleet. It reports no operational problems but states that it follows a stringent maintenance handling process to prevent problems.
<u>Denver, CO</u>	The RTD was a test site for the NREL study in 2006. RTD discontinued use of biodiesel due to unreliable suppliers and poor performance in operations.
<u>Seattle, WA</u>	Has discontinued its biodiesel program.

RECOMMENDATIONS

Biodiesel has recommendable properties and it is used by some bus transit operators. Biodiesel also has documented problems related to the effects of microbial contamination on engine performance.

Currently, the Montgomery County Department of General Services, Division of Fleet Management Services, is examining the cause of a myriad range of maintenance problems affecting the County's transit bus fleet. These maintenance problems are wide-spread and are currently making it difficult to meet pull-out counts required by published bus schedules.

It is recommended, therefore, that the County not return to the use of biodiesel fuels until the County can resolve problems in its overall bus maintenance program. Should the County elect to return to the use of biodiesel fuels in its transit fleet, it will be critical that correct biodiesel blends be selected that are compatible with local climate, duty cycle, engine warranties, and performance requirements. A cost evaluation should also be performed prior to start-up and monitored on a long-term basis. Finally, the County will need to develop a strict set of protocols for the delivery, storage, and treatment of biodiesel fuel to prevent known problems with biodiesel use.



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AUTOMAKERS' AND ENGINE MANUFACTURERS' POSITIONS OF SUPPORT FOR BIODIESEL BLENDS

Company	Biodiesel Blend Approval	Notes	Reference / Source	Last Updated
Acura	TBA	Honda and Acura are working in tandem to introduce the new I-DTEC clean diesel engine to the North American market, but this is now delayed (see links for delay notification). The I-DTEC engine meets the ultra-stringent U.S. EPA Tier II Bin 5 emission standards without the on-board storage of urea.	Click Here for more info	8/13/2009
Arctic Cat	B20	B20 Approved for use in Arctic Cat twin cylinder diesel ATVs. Biodiesel fuel must meet ASTM D6751 spec.	Click Here for more info	8/13/2009
Audi	B5	Audi has introduced 2 new diesels into the US market in 2009: the Audi A3 TDI Sedan and Audi Q7 3.0L TDI SUV. Audi supports the use of up to B5 biodiesel blends.	Click here for more info	8/13/2009
		Biodiesel blend level approval depends upon school bus model / engine. Those equipped with Cummins		

Blue Bird	B5 / B20	<p>engines support B20; those equipped with Ford / GM engines support B5. NBB is working with Bluebird to post biodiesel approval information by model on their website.</p>	<p>http://www.bluebird.com/product.aspx</p>	8/13/2009
BMW	B5	<p>BMW has introduced 2 new diesels into the US market in 2009; the BMW X5 xDrive 35d and the BMW 335d sedans. BMW supports the use of up to B5 biodiesel blends.</p>	<p>Click Here for more info</p>	8/13/2009
Buhler	B20	<p>B20 Approved for use in Buhler 4WD tractors powered by Cummins Tier 3 QSM and QSX engines.</p>	<p>Click here for more info</p>	4/18/2007
Case Construction Equipment	<p>B20 - Approved for more than 85% of Case Construction Equipment; B5 is approved for the remainder</p>	<p>Biodiesel fuels approved for use must comply with the North American Standard ASTM D6751. Biodiesel should be purchased from a trusted supplier who understands the product and maintains good product quality. Case recommends that you only use biodiesel from BQ 9000 accredited suppliers to maintain the quality and the consistency of the fuel.</p>	<p>Click here for more info</p>	6/11/2006
Case IH	<p>B100 - Approved for nearly half of the Case IH models sold globally B20 - Approved for more than 90% of Case IH models sold in US and Europe B5 - Approved for every Case IH engine sold globally</p>	<p>Visit www.caseih.com for biodiesel approval levels on specific products and equipment by model</p>	<p>Click here for more info</p>	1/21/2009
		<p>Tiered biodiesel blend approval</p>		

Caterpillar	B30 / B20 / B5	<p>structure based on equipment type and model. On-Highway Truck Engines (SEBU6385-07) - See page 31 for biodiesel recommendations. Caterpillar Commercial Diesel Engines Fluids Recommendations (SEBU6251-12) - See page 54. Visit www.cat.com for more information.</p>	<p>Caterpillar Commercial Diesel Engine Fluids Recommendations Caterpillar On Highway Diesel Engine Fluids Recommendations</p>	3/1/2009
Chrysler LLC	<p>B20 approved on Dodge Sprinter and on Dodge Ram for approved Government, Military and Commercial Fleets - B5 approved for all other diesel applications</p>	<p>B5 Factory Fill In place for Dodge Ram. Biodiesel fuel must meet ASTM D6751 or ASTM D7467 and fuel should be used within 6 months of production.</p>	<p>Click here for more info</p>	8/13/2009
Cummins	B20	<p>B20 Approval is for 2002 and later emissions-compliant On-Highway ISX, ISM, ISL, ISC and ISB engines. B20 is also approved for Off-Highway engines including: QSX, QSM, QSL, QSC, QSB6.7, QSB4.5, QSM Marine, QSM G-Drive. All 2010 Cummins engines will be B20 compliant.</p>	<p>Click here for more info Click here for info on Cummins 2010 diesel engines</p>	5/4/2009
Detroit Diesel	B5	<p>Biodiesel must meet ASTM D6751 and petroleum diesel must meet ASTM D975. Biodiesel should be sourced from a BQ-9000 Accredited Producer. Detroit Diesel is currently conducting research that may allow future B20</p>	<p>Click here for more info</p>	8/13/2009

Fairbanks Morse	B100	<p>acceptance.</p> <p>B100 approved for use in Opposed Piston (OP) Model 38D 8 1/8 diesel and dual fuel engines for continuous operations. Biodiesel must meet ASTM D6751.</p>	<p>Click here for more info</p>	2/1/2007
Ford Motor Co.	B5	<p>Any recent-model Ford truck with a diesel engine can run on a mixture including up to 5 percent biodiesel (B5), but higher amounts are not recommended at this time. Ford is currently conducting research that may enable future B20 acceptance.</p>	<p>Click here for more info</p>	8/13/2009
Freightliner	B5	<p>Freightliner is a division of Daimler Trucks North America. NBB is working with Freightliner to have a formal biodiesel statement posted on their website.</p>	<p>www.daimler-trucksnorthamerica.com</p>	8/13/2009
General Motors	<p>B20 - Available as a Special Equipment Option (SEO) on the 2009 Chevy Silverado, GMC Sierra, Chevy Express and GMC Savana for approved fleets B5 - All other GM diesel vehicles</p>	<p>B20 SEO available to fleets on the 6.6L Duramax diesel engine in the 2009 Chevy Silverado Heavy Duty and GM Sierra Heavy Duty One Ton Pickup, as well as on the Chevy Express and GM Savana Commercial Cutaway Vans with Duramax diesel engines</p>	<p>Click here for more info Example Order Guide Click here for more info</p>	8/13/2009
		<p>Honda and Acura are working in tandem to introduce the new i-DTEC clean diesel engine to the North</p>		

Honda	TBA	<p>American market, but this is now delayed (see links for delay notification). The I-DTEC engine meets the ultra-stringent U.S. EPA Tier II Bin 5 emission standards without the on-board storage of urea.</p>	<p>Click here for more info Click here for more info</p>	8/13/2009
Hyundai	TBA	<p>A diesel powertrain is being developed for the recently introduced Hyundai Veracruz SUV with launch expected in 2009 - 2010. Biodiesel blend approval level has not yet been announced.</p>	<p>Click here for more info</p>	6/5/2007
International / Navistar	B5 / B20	<p>Navistar unconditionally warrants use of biodiesel blends up to and including B5 blends meeting the ASTM D975-08a standard. Use of B6-B20 blends in International® MaxxForce™ Diesel Engines 2007-up is at the discretion of the customer/operator and will not automatically void an engine warranty. However, if engine component failure can be directly attributable to use of a B6-B20 blend not provided by a BQ9000 certified fuel supplier, not meeting the ASTM D7467-08 standard or not used per Navistar recommendations, Navistar may, at its option, deny</p>	<p>Click here for more info</p>	10/1/2008

Isuzu	B5	<p>warranty on the affected engine or engine component.</p> <p>Isuzu currently approves B5 but is in the process of completing research with B20 that may allow for future B20 support. Isuzu recommends using fuel that meets ASTM D6751.</p>	<p>Click here for more info Click here for more info</p>	8/13/2009
John Deere	B20	<p>John Deere places a B2 factory fill in all its U.S. diesel equipment. While 5 percent blends (B5) are preferred, biodiesel concentrations up to a 20 percent blend (B20) in petroleum diesel fuel can be used in John Deere engines through Tier 3/Stage III A. Biodiesel must meet ASTM D6751, and John Deere strongly recommends sourcing the fuel from a BQ-9000 Producer or Marketer.</p>	<p>Click here for more info</p>	8/13/2009
Kubota	B5	<p>Biodiesel must meet ASTM D6751 and petroleum diesel must meet ASTM D975. Kubota recommends purchasing biodiesel from BQ-9000 suppliers.</p>	<p>Click Here for more info Click here for more info</p>	8/13/2009
Mack	B5 produced from Soy Methyl Ester (SME or SOME)	<p>Biodiesel use is approved at B5 in all Mack engines including MP, ASET and E-Tech. The biodiesel must be supplied by a BQ-9000 Accredited</p>	<p>Click here for more info</p>	8/13/2009

Mercedes Benz	B5	<p>Producer and Certified Marketer.</p> <p>Mercedes-Benz USA now approves the use of B5 in all Common Rail Injection Diesel "COI-engines" – including BLUETEC engines. The only approved biodiesel content is one that meets the ASTM D6751 specification.</p>	<p>Click here for more info Mercedes diesel product info and B5 approval</p>	8/13/2009
New Holland	B100	<p>New Holland supports the use of B100 biodiesel in all equipment with New Holland-manufactured diesel engines, including electronic Injection engines with common rail technology. Biodiesel must meet the approved ASTM D6751 standard.</p>	<p>Click here for more info New Holland support for B100</p>	8/13/2009
Nissan	TBA	<p>Nissan to launch diesel Titan Light Truck in 2009 and diesel Nissan Maxima in 2010. Biodiesel blend approval level has not yet been announced.</p>	<p>Click here for more info</p>	8/13/2009
Perkins	B5 / B20	<p>Currently, all Perkins diesel engines are capable of using up to 5% RME without affecting the standard warranty terms. Many models, such as the 400 Series and 1100 Series engines, are also approved for up to B20 meeting ASTM D6751 and EN 14214.</p>	<p>Click here for more info Click here for more info</p>	8/13/2009
		Peterbilt is a		

Peterbilt	B5	<p>division of PACCAR Inc. NBB is working with Peterbilt to post a formal statement on biodiesel on their website.</p>	<p>PACCAR news release on green initiatives www.peterbilt.com</p>	8/13/2009
Sterling	B5	<p>NBB is working with Sterling Trucks to post a formal biodiesel position statement on their website.</p>	<p>www.sterlingtrucks.com/</p>	8/13/2009
Thomas Built Buses	B5	<p>Thomas Built Buses is a division of Daimler Trucks North America. NBB is working with Thomas Built to post a formal statement on biodiesel on their website.</p>	<p>www.thomasbus.com/</p>	8/13/2009
Tomcar	B100	<p>B100 is approved for use in the TomCar TM47, Tomcar's 953cc 3-Cylinder Turbo-Diesel commercial / recreational vehicle, and in the new TM57</p>	<p>Click here for more info</p>	2/1/2008
Tomcar	B100	<p>B100 is approved for use in the TomCar TM47, Tomcar's 953cc 3-Cylinder Turbo-Diesel commercial / recreational vehicle, and in the new TM57.</p>	<p>http://www.tomcar.com/</p>	8/13/2009
Toro	B20	<p>B20 is approved for 2008 and later Toro Reelmaster, Groundsmaster, Greensmaster, Workman and Multipro product families. Toro is offering upgrade kits for these product lines produced before 2008 to run on B20.</p>	<p>Click here for more info</p>	8/13/2009
		<p>Toyota will offer the Tundra pickup</p>		



Toyota	TBA	and the Sequoia SUV with a clean diesel V8 engine. In the near future, Biodiesel blend level approvals have not yet been announced.	Click here for more info	8/13/2009
Volkswagen	B5	B5 is approved for use in all Volkswagen of America TDI diesel vehicles. Biodiesel blend must meet all current petroleum industry specifications (ASTM D6751 and ASTM D975) and be purchased from a reputable commercial retail pump. Volkswagen of America is using biodiesel blends to power its entire 2009 Volkswagen Jetta TDI Cup race series, from the VW Jetta TDI racecars running on B5, to the generators and transport trucks running on blends up to B20.	Click here for more info Biodiesel use in VW Jetta TDI Cup race series	8/13/2009
Volvo	B5	Volvo Truck Corporation does not accept more than 5% biodiesel (SME) in diesel, ready mixed from the oil company.	Click here for more info	8/13/2009
Yanmar	B20	All Yanmar diesel engines are B20 compatible.	Click here for press release on B20 support	8/13/2009

- MARKET SEGMENTS**
- Electrical Generation
 - Farming
 - Fleets
 - General Interest
 - Bioheat² Fuel
 - Marine
 - Mining
 - Passenger Vehicles
 - Premium Diesel
 - School Buses
 - Transit

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- QUICK INDEX**
- Reports Database
 - Press Releases
 - Resources
 - News
 - Buy:99 Biodiesel
 - Misc Media
 - About NBB
 - Disclaimers
 - Contact NBB
 - Board

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"CARSHARE"

AS REPORTED IN JUNE

REGISTERED USERS

	Last Name	First Name	Member ID	Building	Office Address	Delivery
1	Grossman	Marlin	1718	COB	100 Maryland Ave Rm 200	1/26/2009
2	Skinner	Anthony	1719	EOB	101 Monroe St. 6th Fl.	1/26/2009
3	Piesen	Edmond	1720	EOB	101 Monroe St Rockville MD 14th Fl	2/12/2009
4	Damin	Adam	1721	EOB	14th Floor	1/28/2009
5	Moya	Laura	1722	COB	100 Maryland Ave 4th Fl.	1/26/2009
6	Jones	Calvin	1723	Crabbs Branch	16630 Crabbs Branch Way Rockville MD 20855	2/10/2009
7	Dise	David	1724	Orchard Ridge	100 Orchard Ridge Dr.	2/5/2009
8	Carrier	Francoise	1736	COB	100 Maryland Ave Rm 200	2/12/2009
9	Reilly	Scott	1739	COB	4th Floor	1/28/2009
10	Saini	Jag	1682	SS/Crabbs Branch	delivering to EOB (Cafeteria)	1/28/2009
11	Adams	Harold	50000	Orchard Ridge	100 Orchard Ridge Dr.	2/10/2009
12	Pogue	Thomas	50001	EOB	101 Monroe 10th Fl	2/12/2009
13	Korona	Luann	50016	COB	COB, 4th FlDepartment is DHCA	2/19/2009
14	Meier	Bruce	50032	EOB	DOT- 6th Floor	2/27/2009
15	Steed	Jeffrey	1717	255	255 Rockville Pike Suite 180 Rockville MD 20850	2/27/2009
16	Benn	Howard	50049	EOB		2/27/2009
17	Anglin	Glynn	50097	COB	Suite 210	3/13/2009
18	Rogers	Richard	50114	COB	DTS- 3rd floor	3/23/2009
19	Discini	Bernard	50137			4/7/2009
20	Grover	Doug	50138	COB	DTS- 3rd floor	3/26/2009
21	Surenko	Robert	50146		COB 100 Maryland Ave., Room 302	3/30/2009
22	Colella	Stacy	50162	EOB		4/2/2009
23	Hymas	Kathleen	50168	Crabbs Branch		4/13/2009
24	Mulford	Tammy	50209			
25	Thayer	Charles	50210			
26	Jenkins	Jim	50211	COB	DTS- 3rd floor	4/17/2009
27	Whitcomb	Linda	50260	Crabbs Branch		
28	Castner	John	50263	COB	DTS- 3rd floor	4/23/2009
29	Young	Keith	50254	COB	DTS- 3rd floor	4/23/2009
30	Erenrich	Gary	50255	EOB		
31	McGoogin	Larry	50263	EOB	10th Fl-DOT	4/27/2009
32	Dunckel	Jeffrey	50264	EOB	10th Fl-DOT	4/27/2009
33	McHenry	Quinton		Crabbs Branch		5/6/2009
34	Rosenstock	Matthew	50298	EOB	3rd floor	5/14/2009
35	Welsburger	Douglas	50298		255 Suite 120- EPA	5/4/2009
36	Wilson	Jan	50305		walling on response	
37	Utermohle	John	50332	51 Monroe		mailed
38	Gillis	Chris	50489	COB	6th Floor	6/26/2009

38

20

WeCar: Montgomery County Government Member List

First Name	Last Name	Department	Building	Member ID	Office Address	Delivery
Chris	Gillis	CNTY CNCL	COB	50489	6th Floor	6/28/2009
Richard	Hoye	CNTY CNCL	COB	50525	6th Floor	7/14/2009
Dan	Reed	CNTY CNCL	COB	50852	COB 6th Floor	8/14/2009
Debbie	Spielberg	CNTY CNCL	COB	50807	6th Floor	8/31/2009
Tiffany	Ward	CNTY CNCL	COB	50584	6th Floor	8/14/2009
		6				
Anthony	Skinner	DEP	EOB	1719	101 Monroe St. 6th Fl.	1/26/2009
Douglas	Weisburger	DEP	255	50299	Suite 120- EPA	5/4/2009
		2				
Harold	Adams	DGS	Orchard Ridge	50000	100 Orchard Ridge Dr.	2/10/2009
Judy	Davis	DGS	EMOCH	50828		
David	Dise	DGS	Orchard Ridge	1724	100 Orchard Ridge Dr.	2/5/2009
Juanita	Johnson	DGS	Orchard Ridge	50583	will be EOB soon	7/24/2009
Catherine	Sheehan	DGS		50655		
Jaffray	Staed	DGS	255	1717	255 Rockville Pike Suite 180 Rockville MD 20850	2/27/2009
James	Stiles	DGS	EOB	50537	EOB 11th FL	mailed
Jan	Wilson	DGS		50305	waiting on response	mailed
		8				
Debbie	Aceto	DGS - FLEET	Crabbs Branch	50610		7/28/2009
Kathleen	Hynes	DGS - FLEET	Crabbs Branch	50189		4/13/2009
Calvin	Jones	DGS - FLEET	Crabbs Branch	1723	16830 Crabbs Branch Way Rockville MD 20855	2/10/2009
Quinton	McHenry	DGS - FLEET	Crabbs Branch	50281		5/6/2009
Tammy	Mulford	DGS - FLEET	Crabbs Branch	50209		4/23/2009
Jag	Saini	DGS - FLEET	SS/CrabbsBranch	1682	delivering to EOB (Cafeteria)	1/28/2009
Charles	Thayer	DGS - FLEET	Crabbs Branch	50210		4/23/2009
Linda	Whitcomb	DGS - FLEET	Crabbs Branch	50250		4/23/2009
		8				
Luann	Korona	DHCA	COB	50016	COB, 4th Fl. Department is DHCA	2/19/2009
Laura	Moya	DHCA	COB	1722	100 Maryland Ave 4th Fl.	1/26/2009
Scott	Reilly	DHCA	COB	1739	4th Floor	1/28/2009
		3				
Girum	Awoko	DOT	Edison Park	50613		7/28/2009
Howard	Benn	DOT	EOB	50049		2/27/2009
Joe	Brannum	DOT	Edison Park	50750		8/21/2009
Stacy	Coletta	DOT	EOB	50162		4/2/2009
Brian	Copley	DOT	Edison Park	50660		8/4/2009
Jaffrey	Duncol	DOT	EOB	50264	10th Fl-DOT	4/27/2009
Robert	Eider	DOT	Edison Park	50757		8/21/2009
Gary	Erenrich	DOT	EOB	50255	10th Fl-DOT	4/24/2009
Barry	Fuss	DOT	Edison Park	50851		8/4/2009
Bobby	Gonzalez	DOT	Edison Park	50812	Edison Park Drive	7/28/2009
Jon	Hutchings	DOT	Edison Park	50621		7/28/2009
Alyce	Leach	DOT	Edison Park	50766		8/21/2009
Frances	Marcus	DOT	Edison Park	50712		8/14/2009
Larry	McGoogin	DOT	EOB	50263	10th Fl-DOT	4/27/2009
Michael	Mitchell	DOT	Edison Park	50811		7/28/2009
Thomas	Pogue	DOT	EOB	50001	101 Monroe 10th Fl	2/12/2009
		16				
Andrew	Akinola	DTS	EOB	50745	waiting for reply	
Glynn	Anglin	DTS	COB	50097	Suite 210	3/13/2009
John	Castner	DTS	COB	50253	DTS- 3rd floor	4/23/2009
Joan	Cole	DTS	COB	50650		8/4/2009
Bernard	Discini	DTS	COB	50137	DTS- 3rd floor	4/7/2009
Doug	Grover	DTS	COB	50138	DTS- 3rd floor	3/26/2009
Jim	Jenkins	DTS	COB	50211	DTS- 3rd floor	4/17/2009
Richard	Rogers	DTS	COB	50114	DTS- 3rd floor	3/23/2009
Robert	Surenko	DTS	COB	50146	DTS- 3rd floor	3/30/2009
Keith	Young	DTS	COB	50254	DTS- 3rd floor	4/23/2009
		10				
Matthew	Rosenstock	FIN/ERP	EOB	50298	3rd floor	5/14/2009
John	Utermohle	FIN/ERP	51 Monroe	50332		mailed
		2				
Adam	Damin	OMB	EOB	1721	14th Floor	1/28/2009
Bruce	Meler	OMB	EOB	50032	DOT- 5th Floor	2/27/2009
Edmond	Piesen	OMB	EOB	1720	101 Monroe St Rockville MD 14th Fl	2/12/2009
		3				
Francoise	Carrier	OZAH*	COB	1738	100 Maryland Ave Rm 200	2/12/2009
Martin	Grossman	OZAH*	COB	1718	100 Maryland Ave Rm 200	1/26/2009
		2				
Esther	Bowring	PIO	EOB	50765	4th Floor	8/19/2009
		1				

* - OZAH (Office of Zoning and Administrative Hearing)

21

August 2008

GPBR	Ticket #	Open Date	Close Date	Rental Days	Time Income	Govt Surcharge	Total Charges	Claim/Pol/PO#	First Name	Last Name	Corporate Car Class
1601	383306	8/6/2008	8/19/2008	14	540	3.92	543.92	508004001	LEE	BROCKETT	Intermediate
1601	383552	8/14/2008	8/18/2008	4	119.96	1.12	121.08		CARL	MAXIN	Fullsize
1601	391873	8/1/2009	8/10/2009	9	565.97	2.97	568.94		OMAR	RIVERA	Fullsize SUV
163L	135201	8/16/2008	8/18/2008	2	65.08	0.56	65.64		WILLIBROAD	ANTHONY	Fullsize P/up
164S	295815	7/25/2008	8/11/2008	18	693	5.04	698.04		LARONDA	STETHERSON	Intermediate
164S	296177	8/8/2008	8/18/2008	9	234.47	2.52	236.99		PAULA	RODGERS	Intermediate
1654	825199	7/19/2008	8/4/2008	17	600	4.76	604.76		CAROL	BROWN	Fullsize
1654	825200	7/19/2008	8/4/2008	16	532	4.48	536.48		ALEX	TAYLOR	Compact
1654	825242	7/20/2008	8/4/2008	16	686	4.48	690.48		SANORA	KAISER	Minivan
1654	825246	7/19/2008	8/1/2008	13	480	3.64	483.64		JASON	RUNDELL	Fullsize
1654	825247	7/21/2008	8/7/2008	18	784	5.04	789.04		MIKE	KRUMLAUF	Fullsize P/up
1654	825252	7/19/2008	8/1/2008	14	460	3.92	463.92		PHIL	SMAKULA	Fullsize
1654	825410	8/12/2008	8/15/2008	3	179.97	0.84	180.81		GABRIEL	GEORGE	Minivan
1654	825418	8/13/2008	8/16/2008	4	160	1.12	161.12	346001021-6999	DONNA	KEATING	Fullsize
1654	825531	8/20/2008	8/26/2008	6	294	1.68	295.68	76403	GREGORY	JUNGHANS	Fullsize P/up
1654	825543	8/21/2008	8/25/2008	4	196	1.12	197.12	362050050	ANTHONY	ROWLEY	Small/Med SUV
1654	825560	8/22/2008	8/29/2008	8	290	2.24	282.24	452050300	MARY	DAVIS	Small/Med SUV
1654	825595	8/25/2008	8/28/2008	3	120	0.84	120.84	452050300	JOSE	GUIERREZ	Fullsize
166H	022104	7/7/2008	8/6/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022123	7/8/2008	8/7/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Small P/up
166H	022125	7/8/2008	8/7/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Small P/up
166H	022151	7/7/2008	8/6/2008	30	1060	8.4	1068.4	PO 506003001-2201	LEROY	FISHER	Fullsize P/up
166H	022154	7/6/2008	8/5/2008	30	1176	8.4	1184.4	PO 506003001-2201	JEFFREY	FISHER	Small/Med SUV
166H	022155	7/9/2008	8/8/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022156	7/9/2008	8/8/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022160	7/2/2008	8/1/2008	30	960	8.4	968.4	PO 6507000619	LEROY	FISHER	Fullsize
166H	022181	7/4/2008	8/3/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022183	7/9/2008	8/8/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Small P/up
166H	022380	7/13/2008	8/12/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Small/Med SUV
166H	022381	7/12/2008	8/11/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022382	7/10/2008	8/9/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022383	7/16/2008	8/15/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022384	7/15/2008	8/14/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022385	7/11/2008	8/10/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022386	7/12/2008	8/11/2008	30	960	8.4	968.4	PO 6507000619	LEROY	FISHER	Fullsize
166H	022388	7/16/2008	8/15/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022430	7/18/2008	8/8/2008	22	855	6.16	861.16		LEROY	FISHER	Small P/up
166H	022598	7/18/2008	8/17/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Small/Med SUV
166H	022729	7/24/2008	8/23/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022732	7/27/2008	8/26/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022739	7/27/2008	8/26/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022740	7/23/2008	8/22/2008	30	912	8.4	920.4	PO 6507000619	LEROY	FISHER	Compact
166H	022741	7/24/2008	8/23/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022743	7/26/2008	8/25/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022744	7/25/2008	8/24/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	022751	7/31/2008	8/30/2008	30	1060	8.4	1068.4	PO 6507000619	LEROY	FISHER	Fullsize P/up
166H	023088	8/1/2008	8/31/2008	30	960	8.4	968.4	6507000619	LEROY	FISHER	Fullsize
166H	023110	8/13/2008	8/25/2008	12	496	3.36	499.36	6507000619AAA	LEROY	FISHER	Fullsize P/up
				1052			\$38,003.46				

22

- 22 Fullsize P/up
- 4 Small P/up
- 1 Fullsize SUV
- 5 Small/Med SUV
- 9 Fullsize
- 3 Intermediate
- 2 Compact
- 2 Minivan

August 2009

GPBR	Ticket #	Open Date	Close Date	Rental Days	Time Income	Govt Surcharge	Total Charges	Claim/Pol/PO#	First Name	Last Name	Corporate Car Class
166H	031092	7/5/2009	8/4/2009	30	1060	9.9	1069.9	506002051	LEROY	FISHER	Small P/up
166H	031094	7/5/2009	8/4/2009	30	1060	9.9	1069.9	506002051	LEROY	FISHER	Small P/up
166H	031533	7/27/2009	8/25/2009	29	1060	9.57	1069.57	506002051	LEROY	FISHER	Small/Med SUV
166H	032173	8/31/2008	8/31/2009	1	49	0.33	49.33	506002040	LEROY	FISHER	Minivan
				90			\$3,259.70				

- 2 Small P/up
- 1 Small/Med SUV
- 1 Minivan

3. An Effective and Efficient Transportation Network

- **Storm Operations Center:** Geographically situated in the mid-Atlantic region, Montgomery County, Maryland experiences an average of 15 winter storm events annually, depositing 16 to 30 inches of snow and ice across a 550-square mile area. To meet the challenges of winter road operations, Montgomery County developed a Storm Operations Center; a high-tech communications facility designed to 'bundle' existing technologies and enhance and streamline local and regional communications, accurately forecast local weather and road conditions, and optimize winter road resources.

The new Storm Operations Center allows DOT to improve its service to residents, enhance efficiencies and cost effectiveness of winter storm operations, and promote intergovernmental cooperation during winter storm events. Moreover, regional economic impacts of winter storms are mitigated and optimized as resources are allocated to the areas most impacted by storms. This optimization provides a systematic approach to road clearing operations thus restoring normal network-wide transportation operations.

- **Developed partnership for the purchase of Compressed Natural Gas fuel.** The Department of General Services' Division of Fleet Management Services partnered with the Office of Procurement in a cooperative purchase of natural gas through the Washington Metropolitan Council of Governments. Fleet Management utilizes natural gas as fuel for 95 transit buses translating into approximately 1.8 million therms annually. Through the reverse auction process, DGS was able to save approximately five cents per therm which equates to a \$270,000 savings over the three-year contract term.
- **Initiated Pilot Programs to Enhance Alternative Fuel Use and Improve Air Quality.** These programs include:
 - Replacing the aging and small compressed natural gas (CNG) fueling site with a new CNG site capable of supporting the County's small vehicle CNG needs as well allowing for use by the general public.
 - Replacing ultra-low sulfur diesel (ULSD) with biodiesel fuel for use by highway and heavy equipment use at all the depot fueling sites.
 - Establishing a Spill, Prevention, Control and Countermeasure Plan to support the County's activities at a leased facility for small transit bus operations and maintenance.
 - Piloting the retrofit of 10 dump trucks with diesel oxidation catalysts to reduce tailpipe emissions.
- **Implemented a Pilot Car Share Program.** The pilot was recently implemented to reduce the County-owned fleet of administrative vehicles and reduce greenhouse gas emissions. All vehicles are hybrid vehicles which save fuel consumption and reduce carbon emissions.
- **Reassignment of Underutilized Vehicles** to replace capital purchases of new vehicles/equipment. This measure further reduces capital expenditures during a period of constrained budgets (avoids an expenditure of over \$500,000 for new vehicles), but also

more fully utilizes current resources through a better deployment of equipment and eliminating the use of vehicles not required or for which limited requirements can be satisfied through the Car Share program discussed above. Total estimated savings is \$650,000.

4. Children Prepared to Live and Learn

- **The Germantown Community-Based Collaboratory for Positive Youth Development (CBC)** is a local community-based partnership consisting of local youth, nonprofit organizations, faith congregations, schools, government agencies, and local businesses. It identifies local assets for youth, challenges faced by youth, and priorities to address. Through ongoing development of public/private partnerships, advocacy and planning, the CBC developed prevention-oriented goals with strategies under several initiatives designed to promote greater youth participation for positive development in sustainable.

The five initiatives under this program are:

- Academic Enrichment
- Employment and Job Readiness/Preparation
- Arts and Culture
- Leadership/Personal Life Skills Development
- Sports/Recreation Plus

- **Excel Beyond the Bell:** Montgomery County has established Excel Beyond the Bell (Excel), a countywide initiative in cooperation with the Collaboration Council. This is a public/private partnership with a number of County agencies, community-based organizations, and providers. Excel's mission is to inspire children and youth to realize their full potential by building a sustainable system offering safe, quality and accessible out-of-school time programs.

Its four overarching goals are:

- Establish that Montgomery County residents of all generations will understand and support the value of out-of-school programs in preparing children and youth for positive futures that help sustain the local quality of life.
- Ensure that out-of-school programs will be safe, developmentally appropriate, and well run; all people who work with children and youth will be skilled in engaging them and supporting their intellectual, social-emotional, and physical development.
- Create an intentional mix of public and private funding and resources that will create and sustain accessible, high-quality programs.
- Collect data that describe need and demand for programs, their availability, and their impact on youth.

- **Broad Acres Elementary School Program Partnership:** The Department of Recreation partnered with Broad Acres Elementary School this year to pilot a morning