



General Administration
STATE OF WASHINGTON

Biodiesel Use by Washington State Agencies

July through December 2009

Published March 2010

Contacts:

Linda Villegas Bremer, Director, General Administration, (360) 902-7202

Sharon Case, Government Relations, General Administration, (360) 902-7208

Brief Summary of Report (July – December 2009)

Accomplishments :

- No technical problems or performance issues reported
- Eastern Washington availability of biodiesel aided by in-line blending capability
- Biodiesel for use on land increased from 4.3 to 7.2 percent (68,000 – 101,000 gallons)
- Biodiesel for marine use increased from .37 to .83 percent (30,000 – 72,000 gallons)
- In-line blending now used at Seattle Harbor Island truck terminal
- WSF applied for National Clean Diesel Funding Assistance Program grant to offset infrastructure upgrade costs

Recommendations:

- Continue negotiations to expand in-line blending in Eastern Washington
- Resume in-line blending negotiations with two terminals
- Launch six-month outreach effort for re-bid of fuel contract

BACKGROUND

In 2003 the State Legislature's attention to alternative sources of energy included the encouragement of state agencies to use biodiesel (B20 blends) in diesel-powered vessels, vehicles, and construction. Building on this effort, further action was taken in the 2006 Session to enact legislation that would help reduce the state's dependence on foreign oil, reduce emissions and stimulate local production and use of biodiesel. Engrossed Substitute Senate Bill (ESSB) 6508 required the state to:

- Establish a state renewable fuel standard; and
- Direct agencies to use a minimum of 20 percent biodiesel (B20) by total volume for operating diesel-powered vessels, vehicles, and construction equipment by June 1, 2009.

Due to serious budgetary constraints, the 2009 Legislature included a provision in the state's Transportation Budget (ESSB 5352) that reduced the biodiesel requirement for the Washington State Ferries (WSF). As the state's largest diesel user, WSF was directed to meet a minimum level of five percent biodiesel (B5) in the 2009-11 biennium, provided the price did not exceed the price of diesel by more than five percent.

REPORTING REQUIREMENTS

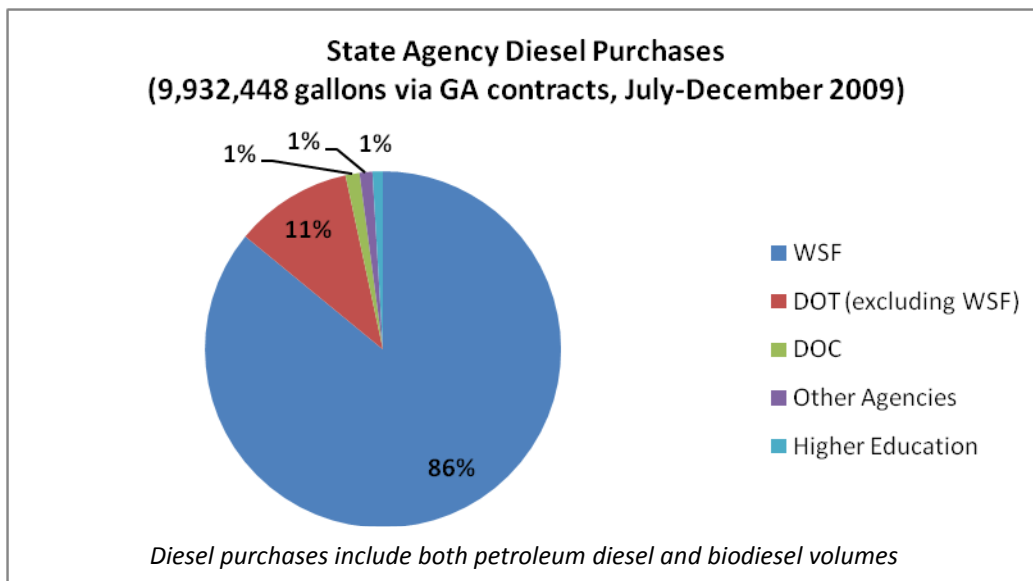
Since July 1, 2006, state agencies have been required to report their biodiesel fuel use to the Department of General Administration (GA), including a description of any problems encountered and how they were resolved. GA is directed to compile and analyze the agency reports and provide its findings and recommendations to the Governor and the Legislature bi-annually.

This report covers the period of ***July 1 through December 31, 2009***. Institutions of higher education are incorporated in this report, as they are included under the 20% biodiesel standard.

However, state colleges and universities are not mandated to use the GA fuel contracts. Consequently schools may have additional fuel purchases not covered within this report. The use of the term “biodiesel” in the context of this report means pure biodiesel (B100) unless otherwise designated.

STATE DIESEL USE

State agencies, including institutions of higher education, purchase approximately 26 million gallons of fuel annually, 75 percent of which is diesel. Since state-owned vehicles widely utilize WSDOT fuel stations, the Department of Transportation (DOT), including WSF, accounts for approximately 97 percent of the diesel purchased by state agencies.



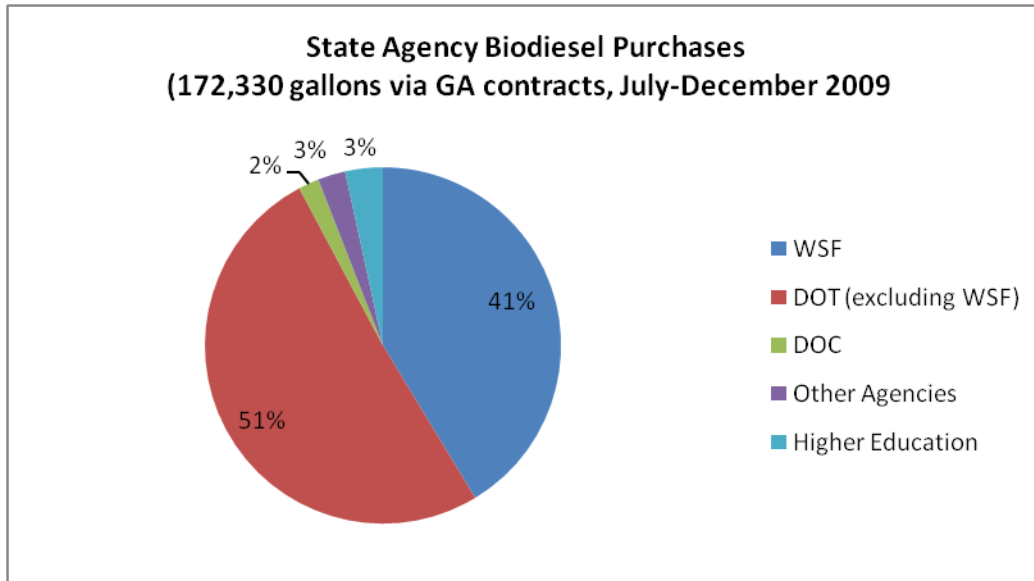
To satisfy state government’s need for bulk fuel and to most effectively leverage Washington’s collective buying power, almost all the state’s diesel is purchased through contracts administered by GA. In 2005, GA invited all local governments to participate in the creation of the state’s bulk-fuel delivery contracts. This action enabled GA to leverage the projected purchasing power of an additional 44 million gallons of fuel (including diesel, gasoline and heating oil) annually, 97 percent of which is purchased in Western Washington.

Although DOT (including WSF) is the largest state agency contract user, more than 120 government entities are utilizing the state contract to purchase 65 million gallons of fuel per year. Currently contract users can expect to pay 11 cents less per gallon than retail. A client agency contract adoption rate of almost 99 percent further confirms the value of the state fuel contract.

STATE BIODIESEL USE

During the period July 1- December 31, 2009, more than 9.9 million gallons of diesel were purchased by state agencies through the state fuel contract, including 172,000 gallons of

biodiesel. This is an increase of more than 74 percent from the 99,000 gallons purchased in the first six months of the year. Biodiesel use by state ferries more than doubled, as a B5 biodiesel blend became the standard fuel used by six vessels in the fleet. Biodiesel use in vehicles and equipment increased by more than 50 percent over the previous six months as higher blends became available at DOT fuel stations.



Marine Sector

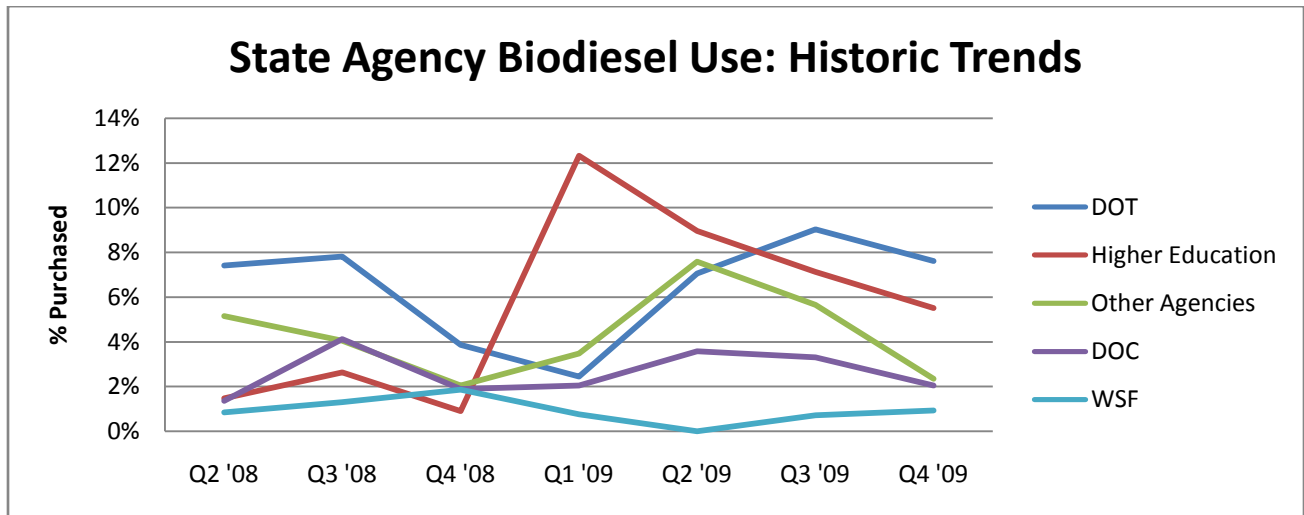
WSF purchases more than 16 million gallons of diesel annually from three different locations, depending on vessel size and route. The availability of in-line fuel blending at the Seattle Harbor Island truck terminal has allowed WSF to implement the B5 requirement for six vessels that fuel from this facility. Meanwhile WSF continues to work with its fuel suppliers and GA to achieve in-line blending or other creative ways to make biodiesel available at the two other terminals.

Biodiesel Use by State Ferries: July - December 2009

Diesel	Biodiesel	Total Gallons	Biodiesel %
8,463,792	71,224	8,535,016	0.83%

In December 2009, WSF applied for an EPA grant through its National Clean Diesel Funding Assistance Program to support use of biodiesel in vessels that fuel at the Anacortes truck terminal. These vessels consume 35 percent of the total fleet fuel volume. The grant would underwrite storage and blending infrastructure improvements, and help offset any price differential. Grant awards are anticipated in March 2010.

The limitation of the 5 percent price differential placed on WSF purchases in the State Transportation Budget was not a factor during the period July 1 - December 31, 2009. For example, the daily percentage difference between petroleum diesel and a B5 biodiesel blend during December 2009 ranged from 1 to 3 percent.



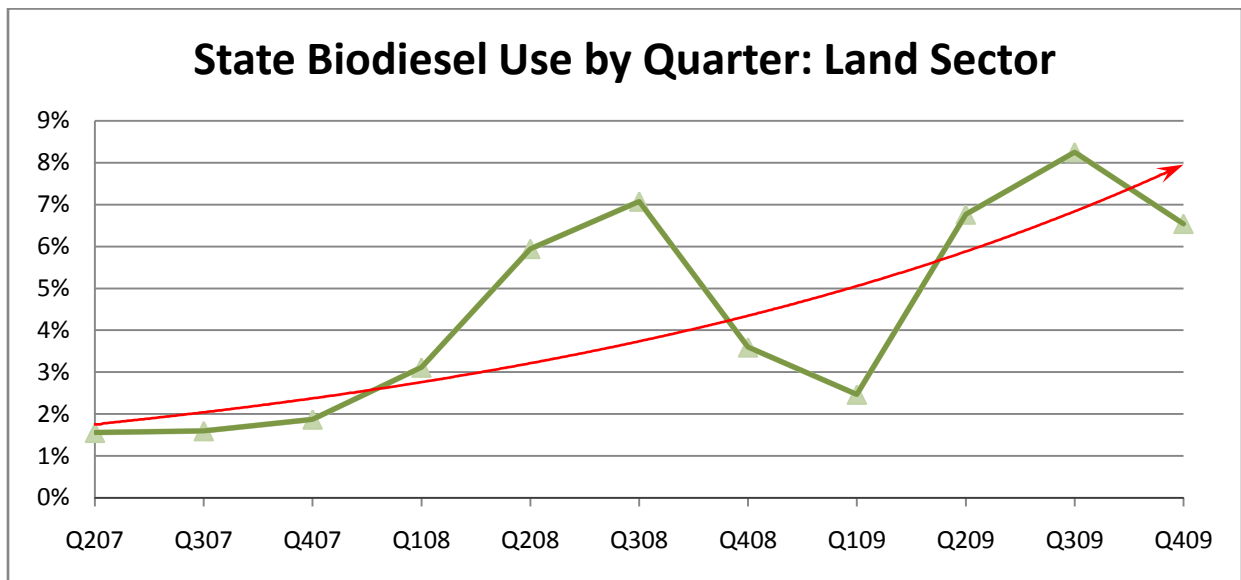
Land Sector

The total amount of biodiesel used by state agencies for use on land (other than WSF), increased from 68,000 gallons in the first six months of 2009 to 101,000 gallons in the remaining six months. The amount of biodiesel purchased increased from 4.3 to 7.2 percent.

Biodiesel Use by State Agencies: July - December 2009

Agency Name	Diesel	Biodiesel	Total Gallons	Biodiesel %
<i>DOT (land use)</i>	973,733	87,663	1,061,396	8.3%
<i>DOC</i>	122,655	3,240	125,895	2.6%
<i>Other Agencies</i>	111,448	4,301	115,749	3.7%
<i>Higher Education</i>	88,490	5,902	94,392	6.3%
Total	1,296,326	101,106	1,397,432	7.2%

The seasonal nature of biodiesel use can be seen in historic quarterly data, with the highest levels of use in the warmer months and lower levels in the colder months. This has been primarily attributed to gelling concerns, especially relating to DOT snow removal equipment. Removing this variability through an exponential trend line shows state agencies making steady progress in biodiesel use. In addition, it is anticipated that a recently initiated pilot project by DOT will help identify best practices for cold weather biodiesel purchasing and long-term storage.



KEY FINDINGS AND UPDATES

Land Sector

- No technical problems or performance issues were reported by any agency using biodiesel during this reporting period.
- The ability of state agencies to increase biodiesel use in rural areas, especially in Eastern Washington, has been hampered by a lack of availability. However, one Eastern Washington bulk fuel delivery contractor recently upgraded its operations to support in-line blending with Washington-produced biodiesel. This should help resolve biodiesel availability problems in portions of Eastern Washington.
- DOT recently initiated testing of three vehicles using biodiesel blends ranging from B40 to B70. This effort will explore cold weather performance and long-term storage for these high-level blends.
- This spring, GA will launch a six-month outreach effort as part of its process to finalize a re-bid of the state's replacement bulk fuel contract in April 2011. This will include extensive stakeholder work and demand profiling.

Marine Sector

- The Seattle Harbor Island truck terminal now offers in-line blended biodiesel, enabling all WSF vessels serviced by this terminal to comply with the 5 percent biodiesel mandate.
- GA is negotiating with operators of the Seattle Harbor fuel pier and the Anacortes fuel delivery contractor to install infrastructure upgrades necessary to supply WSF with in-line blended biodiesel.
- WSF recently applied for a \$614,469 National Clean Diesel Funding Assistance Program grant that would help offset the infrastructure upgrade costs necessary to gain access to in-line blended biodiesel at Anacortes.

OTHER FACTORS AFFECTING BIODIESEL USE AND AVAILABILITY

Expiration of Federal Biodiesel Tax Credit

Beginning in 2005, blenders of biodiesel were eligible to receive a \$1 per gallon federal tax credit, which is reflected in state contract prices. However, the blender credit expired December 31, 2009. Extension of the tax credit through December 31, 2010 is widely anticipated. House legislation that includes the tax credit extension was passed by the U.S. Senate in March and awaits final action. Pricing and availability may be affected if the credit is not renewed.

Limited In-Line Blending Infrastructure

When the state's current fuel contracts were bid, splash blending (a relatively simple process not requiring additional equipment) was a common practice. Since then, in-line blending has become an industry-recognized best practice and a factor affecting the amount of biodiesel used by the state. This blending method at the terminal allows for the most streamlined and flexible approach to introducing biodiesel into the market. Otherwise, distributors absorb the additional cost and liability of blending the fuel themselves, thus reducing economies of scale and increasing costs to the consumer.

Transitioning to in-line blending at some fuel terminals requires infrastructure upgrades to blend biodiesel in one continuous stream. Some have been slow to make these upgrade investments given the general economic conditions and the lack of market demand for biodiesel. Without infrastructure upgrades, the availability of in-line blended biodiesel in some Western Washington locations will continue to present challenges.

Uncertainty about Renewable Fuel Standards

Due to uncertainties surrounding state and national renewable fuel standards, many fuel contractors have been reticent to upgrade their biodiesel storage and blending infrastructure. This is a contributing factor to limited availability of biodiesel in Washington. It is believed usage will increase as additional fuel terminals begin offering biodiesel blends to distributors.

RECOMMENDATIONS/ACTION ITEMS

The following action items have been identified for GA:

- Continue to pursue negotiations with the Eastern Washington bulk delivery contractor now supplying in-line blended biodiesel from an in-state producer to expand coverage throughout Eastern Washington.
- Resume in-line blending negotiations with marine fuel contractors, including the Seattle Harbor Island Pier terminal and the Anacortes terminal.

- Initiate a fuel demand profiling effort, including a customer survey to better understand agency biodiesel purchasing decisions.
- Explore the inclusion of language in the replacement fuel contract that would give competing bidders the opportunity to achieve a higher score should they commit to acquire biodiesel from local producers.
- Review the specifications for Washington climate and feedstock as part of the fuel contract rebid process.