

State Fleet Fuel Purchases

Transportation Fuel Purchases for State Motor Vehicles in Fiscal Year 2007-2008

Section 1: Summary State Fuel Use in FY2007-2008

The information contained in the link at the bottom of this document includes transportation fuel purchases for state motor vehicles in the agencies, departments, and other entities in the executive branch but also includes the California Superior Court system, California State Universities, and District Agricultural Associations. It is believed that this is the first time this report has been compiled and as such, there are a number of notable assumptions presented in Section 2. The Department of General Services intends to publish this report annually, but since this is the first attempt, some assumptions and calculations may change from year to year.

Based on certain assumptions, during Fiscal Year 2007-2008, the state purchased approximately **34 million gallons of gasoline for just over \$106 million** and **11 million gallons of diesel for just over \$38 million** for vehicular transportation and equipment use. Also during FY 2007-2008, the state purchased **327,174 gasoline gallon equivalents of compressed natural gas and propane, and 66,183 gallons of E-85**. Please see Table 1 of the Section 3 spreadsheet for sources, figures, and some assumptions. This report does not include aviation and marine fuels.

For perspective, in FY 2006-2007, Californians purchased nearly 16 billion gallons of gasoline. Therefore, the **state purchases about two-tenths of one percent of the gasoline used in California**.

The state purchased 42 percent of its fuel with Voyager fleet credit cards from retail gas stations and 52 percent through bulk fuel contracts. The remaining gasoline purchases were made for rental cars used on state business, and there was an average 2.5 percent error assumption for fuel purchases that cannot be accurately tracked today. There was an average of over 32,000 state Voyager Card transactions per month during FY 2007-2008.

Section 2: Background information and assumptions

The following points are important to consider in any discussion of the integrity of the data presented in this report:

1. State fuel purchases are generally made through a decentralized system. Each state entity is responsible for the payment of its fuel purchases, and varying methods of data collection are in use today. DGS intends to produce this report annually, so please note that some assumptions and calculations may change from year-to-year as information sources become more standardized and data collection and analysis may be consolidated over time.

2. The DGS Office of Fleet & Asset Management produces the Form EIA-886 report each year, which is a federally mandated survey by the Energy Information Administration to compile data on the use of alternative fueled vehicles. The report requires information about the amount of alternative fuel consumed by states. In 2007 the State of California reported 161,713 gasoline gallon equivalents (GGE) of compressed natural gas (CNG), 40,404 gallons of E-85, 37,747 gallons of liquid propane gas, and 179 kilowatt hours (kWh) for electric cars. Information included in the EIA-886 report, which is collected by calendar year, is subject to the varying methods of data collection in each department (the data is self-reported to DGS) and does not include information from the Superior Court system. The EIA-886 report and this report will become increasingly consistent over time as the departments reported standardize their data collection and analysis.
3. This report is by fiscal year, not calendar year, because the bulk fuel contracts managed by DGS, which represent approximately 52 percent of the fuel purchased by the state, are made by fiscal year.
4. For bulk fuel purchases, the DGS Procurement Division divides the state into three zones, northern, central, and southern. All bulk fuel on state contracts for FY 2007-2008 was procured by competitive bidding managed by DGS Procurement. There were two vendors accepted as the final bidders on these contracts.
5. Some fuel is purchased by individual drivers for rental cars used in business travel. State employees can pay for fuel with the American Express Payment System or can recover the cost through the submission of a Travel Expense Claim (TEC). This is an important and necessary service to facilitate the productivity of employees traveling on state business. This method only allows for data collection at the department level by cost, not by the number gallons used. DGS has collected the total annual mileage driven in these vehicles for the 2007 *calendar* year from the state's three contract vendors; Enterprise, Avis, and Budget. DGS made the assumption that vehicle rental car use has been consistent over the last two years so has used the calendar year data provided by the rental car companies in this fiscal year report. To convert the cost into gallons, DGS assumed an average fuel economy of 20 miles per gallon per vehicle.
6. Some departments have the authority to make fuel purchases outside of the normal contracting process during emergencies. In most cases, they use a contract vendor if they are available and can supply the fuel, but in rural areas or in emergencies, they may have to make purchases outside of the normal contracting process. Also, some vehicles driven by state employees receive fuel from other sources. For example, Cal-Fire's local government contracts allow for the use of local government owned and fueled vehicles. Some state owned vehicles might use local government fueling sites if they are convenient to the driver. Additionally, state employees may use their personal vehicles to travel on state business and submit TECs for reimbursement. Although this kind of fuel use

does exist, there does not seem to be a readily available source of data. DGS believes the use of personally owned vehicles to be relatively small. Therefore, for the purposes of this report, DGS has assumed an estimate of an additional 1 percent for diesel and 3 percent for all grades and types of gasoline purchased outside of the normal bulk fuel contracting and Voyager card processes.

7. Voyager Fuel Card data is used to track diesel, CNG, propane, and all types and grades of gasoline purchased from retail fueling stations (including aviation fuel). But due to inconsistent fuel product codes for credit card processing at stations, analyzing the use of different types of fuels is difficult and requires the assumption of uncertain margins of error. Especially for alternative fuels, DGS can only determine exact types of fuel used by examining individual transactions and coordinating product codes with fueling stations. For example, a few stations assigned an old "M-85" (methanol) and other unknown fuel types, yet another assigned "Gasohol 7.7%" to E-85. Therefore, the centralized tracking of alternative fuels from commercial vendors is not yet possible on any scale beyond today's small handful of retail E-85 providers. For the purpose of this report, E-85 purchases from retail stations (Voyager) were included in the overall gasoline total. The state's ability to accurately track alternative fuel purchases will only become more problematic as the number of stations that sell various alternative fuels come on-line.
8. Fuel product code accuracy is a significant problem at the point-of-sale with merchants and credit card companies among the approximately 9,000 retail fueling stations in California. The federal General Services Administration is experiencing the same problem in their attempts to calculate the purchases of exact fuel types nationwide. Often, station operators do not know what codes are used in their credit card readers to bill their customers through the various credit/debit card systems in use today. Also, station owners may not be eager to make the investment required to upgrade their systems to give them more product code flexibility (a new system can cost \$6,000 or more) because they are paid for fuel regardless of the product code entered at the point of purchase.
9. The Petroleum Convenience Alliance for Technology Standards (PCATS) is the entity that was established to develop and adopt technology standards for retailers and suppliers, including payment system product codes. PCATS staff describes product code standardization as a multi-faceted problem that may require federal level coordination and response. While the GSA has endorsed PCATS codes in the X9.104 credit card standard, there are no incentives for retailers to adjust their systems.
10. As AB118 (Nuñez) funds are distributed, DGS recommends that the Air Resources Board and the California Energy Commission investigate the product code consistency problem and determine what resources might be available to coordinate codes and assist in the process of upgrading payment processing systems. Without consistent product codes, it will remain difficult, or impossible, to

know the locations or how much of the different types of fuel were purchased from commercial retailers.

11. Some of the CNG and Propane used in alternative fuel vehicles is purchased from vendors that do not accept the Voyager Card system or have their own credit card systems. Vendors include Clean Energy, Fleet Star, PG&E, Pinnacle, State Garages, the San Bernardino County direct billing system, Trillium and others. Also, direct billing to individual departments and is not readily available to DGS.
12. In the purchase of gasoline and diesel, please note that there are various grades of gasoline and diesel with varying levels of additives sold throughout California. For analysis, the added complication of obsolete (e.g. M 85) and inaccurate fuel codes required the consolidation of many of these types of fuels into the larger categories of "gasoline" and "diesel." Below is a representation of the different types of fuel displayed on a recent Voyager report:

5.7% GASOHOL	E 85	UNLD SUPER BLND 5.7%
7.7% GASOHOL	ETHANOL	UNLD SUPER BLND 7.7%
10% GASOHOL	FUEL ADDITIVES	UNLD SUPER BLND 10%
AVIATION	JET FUEL	UNLEADED
COMPR NAT GAS (CNG)	KEROSENE	UNLEADED BLEND 5.7%
DIESEL	M 85	UNLEADED BLEND 7.7%
DIESEL WITHOUT TAX	MARINE	UNLEADED BLEND 10%
DUAL PROPANE/UNLDED	METHANOL	UNLEADED PLUS
NATURAL GAS	PROPANE	UNLEADED SUPER
OTHER FUEL	SPECIAL MTR FUEL LPG	DIESEL CLEAR & RED

13. The purchase of fuel for undercover vehicles is confidential but for the purposes of this report is assumed to be included in the state's overall fuel use data.
14. An additional consideration is the 251 accounts the state has in the Voyager system. Voyager keeps all California "government" accounts in one list, including local agencies. DGS worked with Voyager to filter these accounts from the "state" list but, historically, DGS has included the California State University system and California Superior Courts, entities that are not traditionally considered part of the state's executive branch in reports of this nature.
15. State contracts are generally available to local governments, so some bulk fuel reported as purchased by the state may, in fact, be purchased by local governments.

Section 3: [Fuel Purchase Data](#) (Microsoft Excel, New Window)

DGS suggests you read Sections 1 and 2 prior to reviewing this spreadsheet