

County of Contra Costa – Public Works Department, Fleet Services Division Fleet Achievement: Clean Champion Awards 2016

Contra Costa County Fleet Services Divisions strong commitment to mitigating climate change began in May 2005, when the Board of Supervisors convened department heads in a Climate Change Working Group (CCWG) to identify existing County activities and policies that potentially reduced GHG emissions. To most effectively reduce its GHG emissions, the County focused its efforts on its largest emissions sources. The County's strategies and multipronged approach are aimed to reduce emissions across all sources utilizing the following goals:

Utilize cleaner fuels, and fuel efficient vehicles:

Switched from biodiesel to R99 renewable diesel to fuel many of its heavy-duty diesel vehicles, including more than 220 diesel-powered municipal public works trucks, heavy-duty diesel powered specialty vehicles, and equipment. In making the switch, the county expects to reduce greenhouse gas (GHG) emissions by up to 65% and an estimated 5,000 tons annually. Other benefits include a reduction of NOX and a 33% reduction of particulate matter PM 2.5.

Continuation of Benefits:

- R99 Renewable Diesel introduced June 2016, Diesel per year average 90,851.94
- CNG average per year use 6164 Therms a year
- Continue to purchase and add CNG vehicles Total 34 total. Propane 10 units
- Purchase 3 Hino Truck 195 Hybrid units utilizing *CARB Credits 23K per unit 30% fuel reduction
- Continue to purchase and add Hybrid (50 units added FY-15) units to the Fleet 184 Total
- Triple the purchase of electric vehicles from 2 to 15, 41 total electric vehicles and equipment
- Expand electric vehicle level 2 charging stations infrastructure*internal from 6 to 10
- Bay Area Air Quality Management District Grant Fund Awarded **Charge!** 3, dual level*external level 2 Public access electric vehicle charging stations
- Doubling EV infrastructure to 16 EV level 2 stations internal and public access

Employee commute: reduce vehicle miles traveled by County employees

Measured by metric tons of carbon dioxide equivalent (*1,412 MTCO_{2e} or 8%*) – In 1991, the Board of Supervisors authorized all County Departments to implement flexible work schedules, including compressed work weeks, flextime, and staggered work schedules. GHG emissions are reduced when employees work more hours per day but fewer days per week, thereby eliminating commute trips. Alternative work schedule helps to reduce overall traffic density and shorten commute times. 4/10 schedules eliminates 20% of employee commute vehicle emissions which is one of the largest components of the County's carbon footprint. These flexible work schedules continue through today.

PURCHASING POLICY:

County policy mandates the purchase of fuel-efficient mileage/alternative fueled vehicles through Admin 508.5

508.5 Mandates Fleet Services to purchase fuel efficient or alternate fueled vehicles whenever possible to replace less efficient units. F. S purchases an assortment of alternative fueled be they E-85, Compressed Natural Gas, Hybrid, Hybrid Electric, or full Electric equipped vehicles to aid in the cleaning of our air quality, environment and to reduce our dependency on fossil fuels.

FUEL SAVING POLICIES & PROCEDURES:

Policies or procedures implemented (and enforced) to reduce vehicle usage and fuel consumption.

- Anti-Idling policy.
- An anti-idling policy is in place, limiting idling to no more than 5 minutes and is monitored by F.S. personnel and the supervision of the using Departments.
- Underutilized Use Policy / Using Verizon Tele tracking to detect hard starts, excessive Idling and vehicle locations and mileage.
- This is detected by periodically performing a vehicle use report to determine if a vehicle is used less than 3000 miles per year.
- Reducing the weight of the vehicle through the removal and storage of unnecessary equipment.
- Whenever possible F.S. works with its customers to reduce the overall weight of their vehicles by using lighter weight materials such as aluminum and composites in their construction and impressing upon them the need to store rarely used items in a central location.

LOAN POOLS:

Fleet Services employs loan pools or commercial flex cars to reduce the size of the fleet and increase efficiency.

F.S. utilizes a pool of loan vehicles so that our customer's vehicles may be maintained on a regular basis to achieve optimum performance and reduce emissions. We have in place an agreement with a local rental agency for long-term use vehicles, in case of an accident, which has allowed us to reduce the number of pool vehicles kept in service. F.S. also has a number of large pool vehicles for short-term use.

CAR SHARE/RIDE SHARE

ZIP CAR/LOCAL MOTION PILOT – The Public Works Department has recently implemented a pilot of 3 internal hubs of pool cars (ZIP CAR) to be shared throughout the Public Works Department as the internal divisions work to consolidate their trips and to carpool whenever possible. Units are reserved via ID Badge RFIDs and are easily reserved with an easy "TAP and GO", sensor on the windshield, web online reservations or mobile device. Currently the pilot is being tested by the Public Works Department only, if successful the Tap and Go system will be offered to all Departments countywide.

OUTREACH PROGRAMS

Active outreach program to inform other departments within organizations of the following information/programs:

- Availability of new green fleet technologies to meet their requirements.
- Meetings are held every other month with Departments to determine their fleet needs, at these meetings they are offered the following, downsized vehicles and hybrid or CNG, EV powered vehicles based on their needs.
- Tips on saving fuel – Check tire pressure, Anti-idling policy, etc.
- In these meeting Departments are reminded of ways to reduce fuel usage, idling time and whenever possible to consolidate trips and to carpool.

Waste – Recycling reduce generation of waste and increase diversion

Paper recycling program (*520 MTCO₂e or 3%*) – The County’s paper recycling program currently operates in about 200 County facilities. The program was developed in an effort to reduce waste sent to the County’s landfills, thereby reducing the County’s impact on natural resources and also generating revenue. The early program was designed for white paper only, but the current program accepts a wider range of paper types and other materials sorts by grade to maximize return.

Other material recycled. FY-2015

- Tires2,318
- Truck Tires156
- Paint220 Gallons
- Antifreeze Gal210 Gallons
- Used Oil4,445 Gallons
- Automotive Batteries237
- Cell Phones.....250
- Used Oil Filters2,450 lbs. 1 Ton

- Bailed Office Pack1,253,626
- Loose Office Pack.....304,115
- Junk Mix.....62,483
- News Print.....224,943
- Sorted White Ledger Paper509,725
- Total Paper.....2,354,892 = 1177 Tons
- Bailed Cardboard7,819,868 = 390 Tons

- Books (Pounds)119,787 = 60 Tons
- Laser Cartridges.....5,115
- Computers Value\$11,940.85
- Batteries (Non-Automotive)20,882 = 10 Tons
- Misc. Steel.....\$34,621.93 unknown tonnage
- Wood (lbs.)96,000 = 48 Tons
- Florescent Tubes (lbs.).....6,520 = 3 Tons
- Paint400 Gallons

Buildings – reduce energy consumption and utilize renewable energy County fleet

Contra Costa County has recently installed six new bio-retention solar parking lots. The parking lot solar panels power on average about 82% of the electrical needs for several of our buildings and at our administrative facility. The six sites installed at various County facilities have a total of 1.75 mega-watts of solar capacity and will generate 2.7 million kWh's per year and will save approximately \$27,000 a year in energy costs for our administration building alone (approximately \$430,000 a year for the six sites). The power generated annually by the six sites is enough to power 386 average California homes. We will be reducing Greenhouse Gas emissions by 855 Metric Tons of Carbon Dioxide a year, which is the equivalent of about 181 cars, 97,000 gallons of gas or about 2 million miles driven.

Streetlights – reduce electricity use with energy efficient technologies

LED traffic signals (*558 MTCO_{2e} or 3%*) – LED traffic lights are 85-percent more efficient than those with incandescent lamps. Ten and 25-watt LEDs replace 69 and 150-watt incandescent lamps and last five times longer, thereby reducing replacement costs as well as maintenance labor. This project was implemented as a maintenance project funded through the maintenance program.

The mission of the County and Fleet Services is to do our part to comply and go beyond Governor Brown's Executive Order to have 1.5 million zero-emission vehicles on California's roadways by 2025. One of the ways in which we are on course to accomplish this goal is by proactively taking full advantage of any and all incentives, credits or grants such as the grants available from the Bay Area Air Quality Management District and the Transportation Fund for Clean Air Act just to name a few. The achievement of moving from fossil powered vehicles in the County fleet of over 1600 vehicles and equipment to alternative fueled vehicles whenever possible demonstrates the County's strong continued commitment to reduce greenhouse gases and lower our carbon footprint in our local communities, region and on our planet.