

Memorandum



CITY OF DALLAS

DATE September 25, 2015

TO Honorable Members of the Quality of Life & Environment Committee: Sandy Greyson (Chair),
Tiffinni A. Young (Vice Chair), Rickey D. Callahan, Mark Clayton, Philip T. Kingston, B. Adam McGough

SUBJECT **Clean Fleet Vehicle Policy**

On Monday, September 28, 2015, the Quality of Life and Environment Committee will be briefed on Clean Fleet Policy. The briefing materials are attached for your review.

Please feel free to contact me if you have questions or need additional information.



Jill A. Jordan P.E.,
Assistant City Manager

Attachment

c Honorable Mayor and Members of the City Council
A.C. Gonzalez, City Manager
Warren M.S. Ernst, City Attorney
Craig D. Kinton, City Auditor
Rosa A. Rios, City Secretary
Daniel F. Solis, Administrative Judge
Ryan S. Evans, First Assistant City Manager

Eric D. Campbell, Assistant City Manager
Mark McDaniel, Assistant City Manager
Joey Zapata, Assistant City Manager
Jeanne Chipperfield, Chief Financial Officer
Sana Syed, Public Information Officer
Elsa Cantu, Assistant to the City Manager – Mayor & Council

Clean Fleet Vehicle Policy

Quality of Life &
Environment Committee
September 28, 2015



Outline

- **Equipment and Building Services Overview**
- **Clean Fleet Policy**
 - Original Regional Policy
 - Revised Regional Policy
 - Dallas Implementation and Compliance
- **Grant Funding**
 - Recent Grant Awards
 - Current Grant Funding Opportunity
- **Recommendations**
- **Next Steps**



Equipment and Building Services Overview

*Equipment and Building Services is committed to providing effective and efficient facility and fleet services to City employees as they **Build, Innovate, and Give** to make Dallas a great place to live, work, and play.*



Equipment and Building Services Overview

Facility Management

- Building Security
- Custodial Services
 - Janitorial
 - Pest Control
 - Window Washing
- Major Maintenance and Repair
 - 750 City Facilities
 - Electrical
 - Carpentry
 - HVAC
 - Plumbing
 - Roofing
- Parking
 - City Hall
 - Oak Cliff Municipal Center

Fleet Management

- Asset Management
- Auction/Disposal
- Auto Body Collision Repair
- Maintenance and Repair
- Motor Pool Program
 - In-House Rentals
 - Outside Rentals
- Parts Inventory

Business Operations

- Energy Management
 - Citywide Electricity Program
 - Renewable Energy Credits
- Financial Management
 - Accounts Payable
 - Contract Administration
 - Procurement
- Fuel Operations
 - Bulk fuel delivery to 94 City locations
 - Infrastructure management for eight City fuel islands
- Management Systems
 - Environmental Management
 - Quality Management
 - Occupational Health & Safety Management
 - Stormwater Interceptor Program & Power Washing
- Technology





Source: epa.gov/smartway

Equipment and Building Services: Fleet Management



Fleet Management Overview

- ~5,300 units of general fleet*
- 5 repair facilities (Central, SE, SW, NE, and NW)
- 145,000 – 152,000 maintenance and repair jobs completed per year
- \$8m in parts transactions per year



**General fleet does not include:*

- *Fire emergency equipment*
- *Landfill operations equipment*
- *Other department-owned equipment (e.g., Park and Recreation grounds maintenance equipment, DPD tactical units, DWU specialty equipment, etc.)*



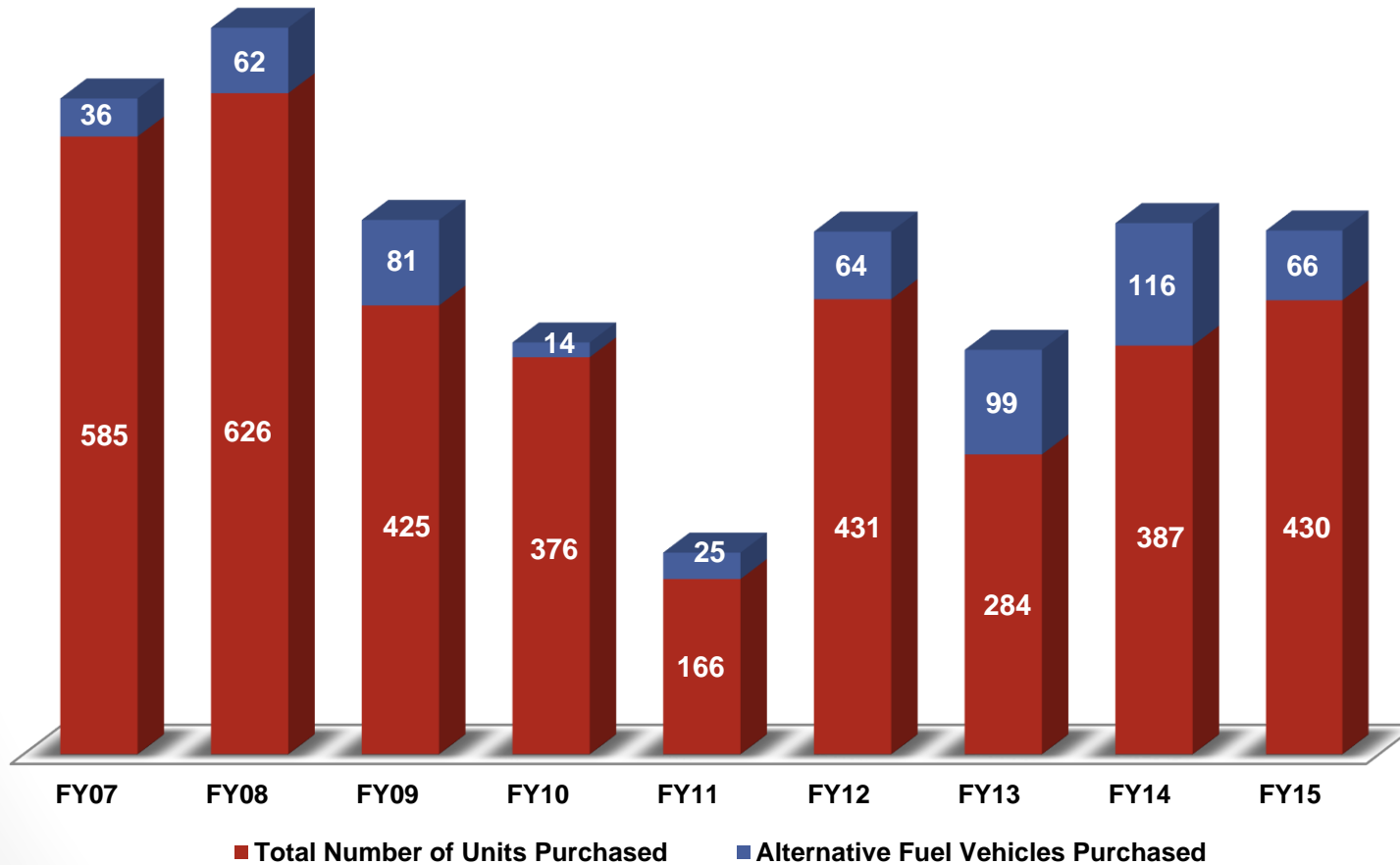
Fleet Management: Large and Diverse General Fleet

General Vehicle Type	Quantity	Alternative Fuel Vehicles (AFVs)
Marked squads	1,023	--
Refuse/Recycling	245	204
Dump Trucks	326	166
Construction Equipment/Trailers	401	116
Sedans*	911*	473*
Light Trucks/Vans	1,803	737
SUVs	137	4
Medium Duty Trucks	61	23
Other	376	226
TOTAL	5,283	1,946

**Includes non-patrol DPD sedans*



Recent General Fleet Purchases



Specification and Procurement

Make Ready Process

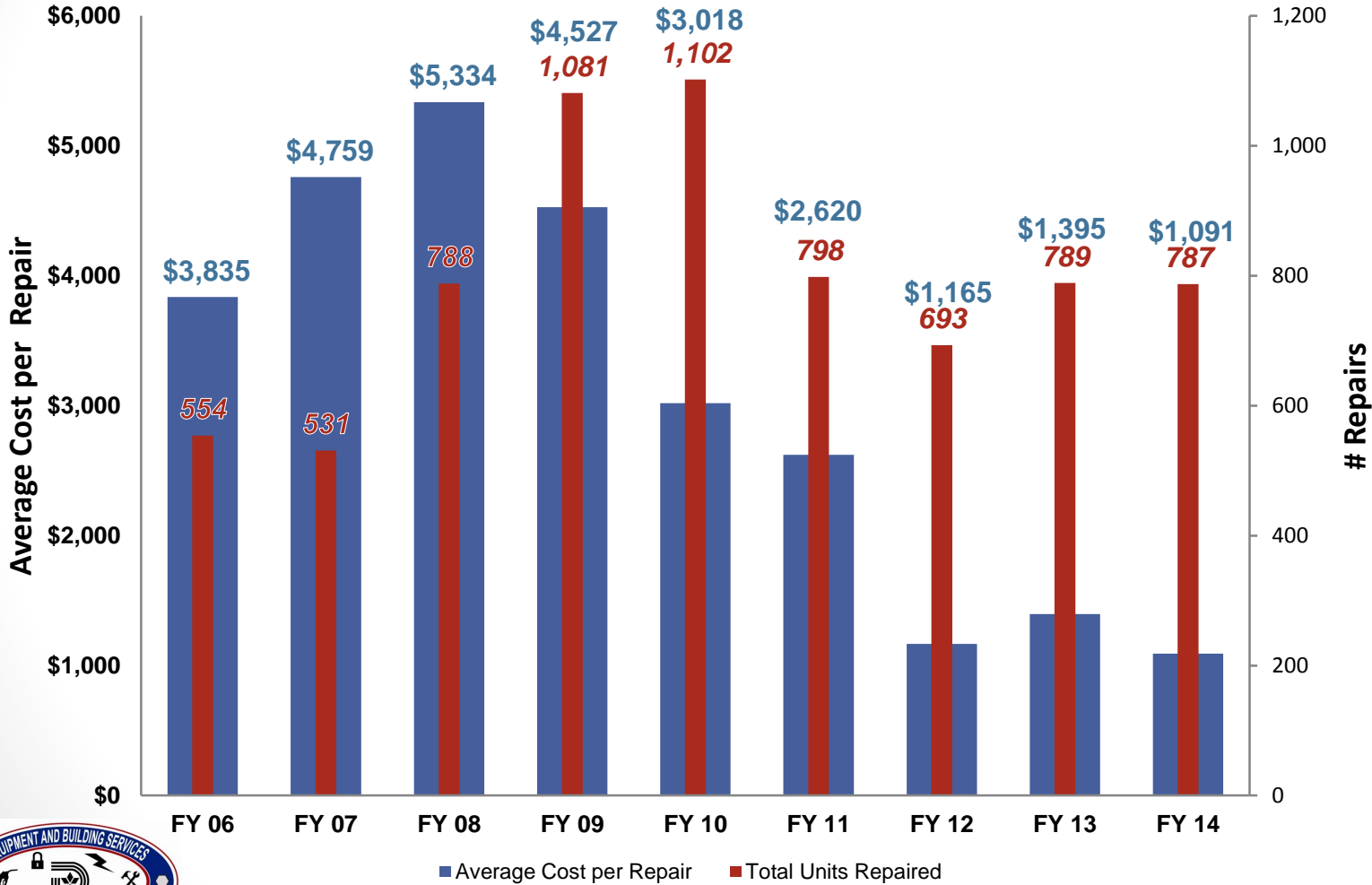
- Titles, registration, etc.
- Specialty equipment, City fueling system installation, and decals (in coordination with CIS for mobile technology equipment)



Fleet Management: Auto Body Collision

Staff manages the current three year contract for paint, body and frame damage repair

Body Shop Historical Repairs and Average Costs



Fleet Management: Motor Pool Program Overview

- Began as a pilot program for City employees in 2013 to:
 - Support downsizing the fleet by encouraging vehicle sharing
 - Reduce volume of outside rentals where appropriate
- Includes an email reservation system
- Expanded from 15 vehicles in FY13 to 24 in FY15
- Anticipate expanding to at least 43 vehicles in FY16 based on customer demand





Source: epa.gov/smartway

CLEAN FLEET POLICY



Original Regional Clean Fleet Policy: Background

- North Central Texas Council of Governments (NCTCOG) Regional Transportation Council (RTC) adopted the original Regional Clean Fleet Vehicle Policy (Policy) in October 2005
- Council adopted the Regional Policy on January 25, 2006
- Policy was air quality focused and included a recommendation to reserve future Clean Vehicle funding and support for local governments that adopted and complied with the policy



Original Regional Clean Fleet Policy: Background

Included requirements or guidance in four primary focus areas

✓ Acquisition

- Encouraged fleet expansion / replacement with newest model year vehicles available
- Encouraged replacements for 2003 and older vehicles to show at least a 25% reduction in NOx emissions
- Encouraged aftermarket technology and conversion or fleet expansion and replacement

✓ Operational Policies

- Encouraged limiting vehicle idling (safety, emergency, maintenance, warm-up only)
- Suggested refueling time of day / seasonal restrictions
- Encouraged air quality appropriate operational training

✓ Maintenance

- Emphasized annual emission and safety inspections for all vehicles
- Encouraged increased inspections for vehicles with 100k miles or more

✓ Compliance Verification

- Annual electronic update of fleet size and activity
- Ineligibility for clean vehicle funding if the policy was not adopted or reporting requirements were unmet



Revised Regional Policy

- U.S. Environmental Protection Agency (EPA) re-confirmed North Central Texas as a nonattainment area in 2012
- Four main sources of ozone-causing emissions include **on- and off-road vehicles**, point sources (e.g., industrial boilers), and area sources like agriculture
- State Implementation Plan (SIP), or air quality plan, is required demonstrate ozone level reductions
- DFW SIP includes programs to retire older model vehicles, enhance vehicle technology, and implement education programs
- NCTCOG Regional Policy revisions incorporate:
 - Advances in fleet technology and regulations
 - Updated regional air quality goals
 - Private sector fleet engagement

See appendix for additional details



Revised Regional Policy

The Fleet Representative Working Group within the RTC held meetings between October 2013 and October 2014 to update the 2005 Policy

The working group consisted of participants from:

City of Allen

City of Burleson

City of Coppell

City of Dallas

DART

City of Denton

DFW International Airport

City of Fort Worth

Frito-Lay North America

HT Bar, Inc.

City of Richardson

Southeastern Freight Lines

City of Southlake

Tarrant County

UT Southwestern Medical Center

City of Wylie



Revised Regional Policy

The following slides provide examples of how Dallas has been and is supporting the objectives of the original and revised Regional Clean Fleet Policies



Revised Regional Policy: Implementation/Compliance

- ✓ Emissions Reduction
 - ✓ Implementation of an idling-reduction/standard operating procedure
 - ✓ Enhanced Technology Options (e.g. GPS/telematics)

- Council adopted an anti-idling ordinance in November 2012



- City continues to expand the use of GPS and telematics including tracking idling

Main Report

Vehicle Usage Generated on 9/18/2015 12:02 PM C

Page 1

Group: Collection (302 Vehicles) | Vehicle: 013018 | Timeframe: Thu 9/17/2015 12:00 AM - Thu 9/17/2015 11:59 PM

Vehicle Name	Miles Traveled	Engine Time (HH:MM:SS)	Idle Time (HH:MM:SS)
Org3512			
013018	44.9	7:51:32	4:37:15



Revised Regional Policy: Implementation/Compliance

✓ Emissions Reduction (cont.)

August 14, 2002, Council authorized a ten-year contract (with two optional five year terms) to allow TranStar Energy Company (Clean Energy) to build, maintain and operate two publicly-accessible CNG stations on City property

- Dawson Street and Denton Drive
- City receives \$0.03/Gasoline Gallon Equivalent (GGE) for public sales (~\$1,200/month – used to offset fuel service costs)
- Contract renewed for first five-year option on August 8, 2012



Dawson Street location



Revised Regional Policy: Implementation/Compliance

✓ Emissions Reduction (cont.)

March 10, 2010, Council authorized a three-year, \$5.4m master agreement to purchase CNG from Clean Energy

- City vehicles can use any Clean Energy station citywide
- Pricing based on Houston Ship Channel price of natural gas plus a compression fee (changes annually based on the Consumer Price Index) plus applicable taxes
- Master Agreement extended four times with a current expiration of April 1, 2016 (procurement to begin this fall)



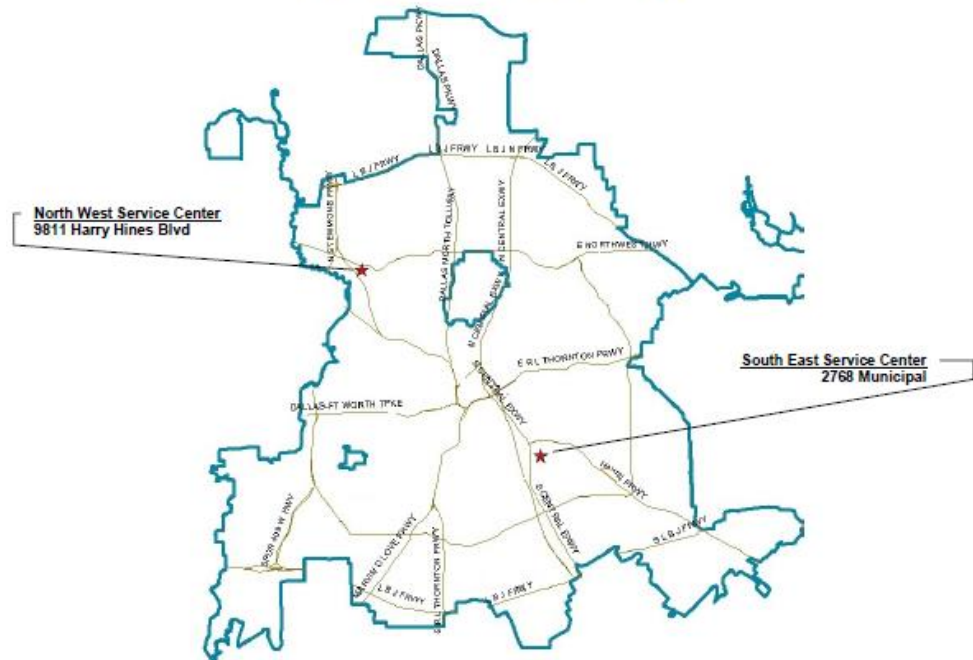
Revised Regional Policy: Implementation/Compliance

✓ Emissions Reduction (cont.)

On February 9, 2011, Council authorized a three-year \$2.6m contract with Clean Energy to construct and maintain two CNG Stations

- 67% grant-funded through an American Recovery and Reinvestment (ARRA) NCTCOG Clean Cities Petroleum Reduction Technology pass-through and Department of Energy award
- 2768 Carlton Garrett
- 9811 Harry Hines

City of Dallas CNG Stations



Revised Regional Policy: Implementation/Compliance

✓ Emissions Reduction (cont.)

Time Fill: Designed to fill up to 26 vehicles concurrently over 12 hours (average vehicle tank size of 60 GGE)



Revised Regional Policy: Implementation/Compliance

✓ Emissions Reduction (cont.)

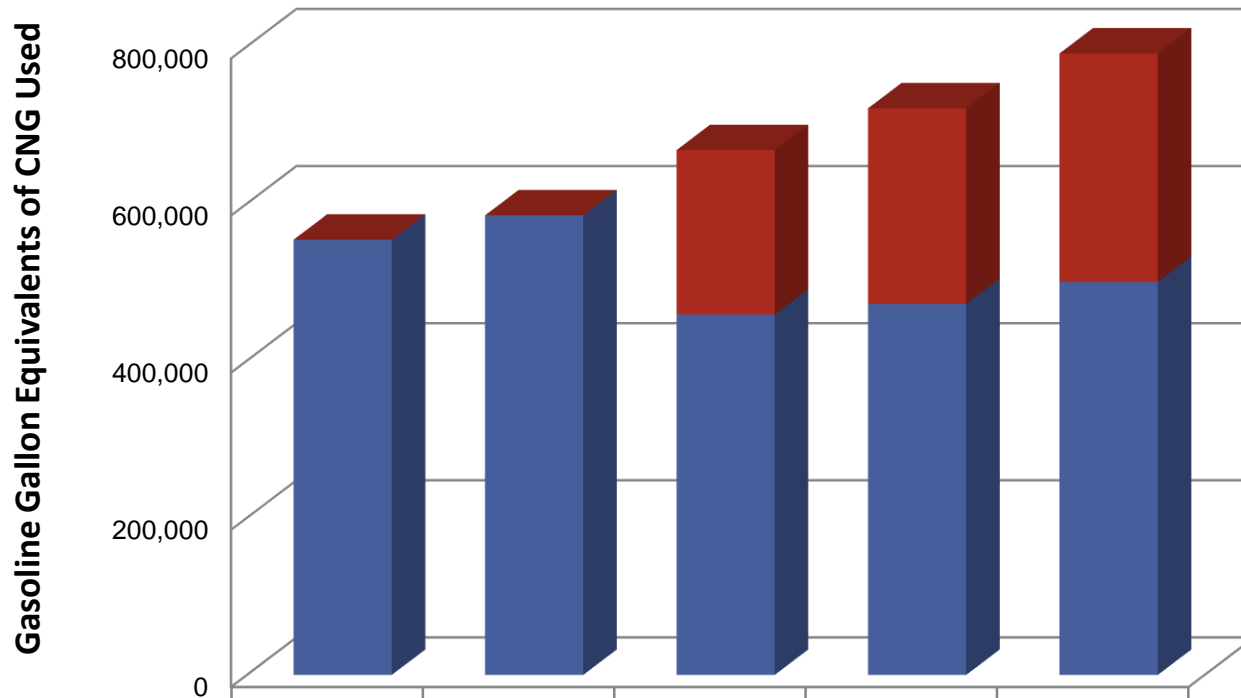
Fast Fill: Capable of filling a single 15 GGE tank in under 5 minutes (Carlton Garrett location)



Revised Regional Policy: Implementation/Compliance

✓ Emissions Reduction (cont.)

Compressed Natural Gas Use



	FY11	FY12	FY13	FY14	FY15
■ CNG from City Stations	0	0	209,293	248,884	290,651
■ CNG from Clean Energy Stations	553,945	584,951	458,709	472,279	500,353

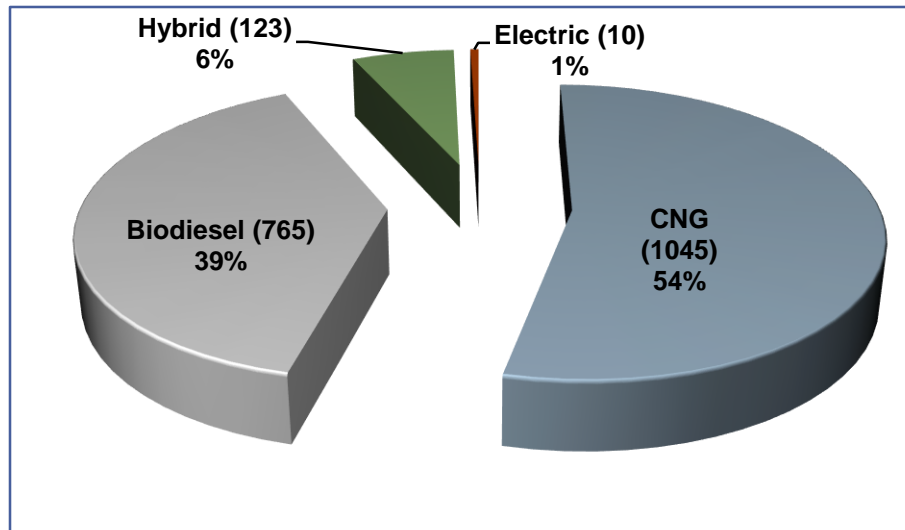


Revised Regional Policy: Implementation/Compliance

- ✓ **Fuel Consumption Reduction: Acquisition of low emission vehicles/equipment (e.g., AFVs and SmartWaySM certified)**

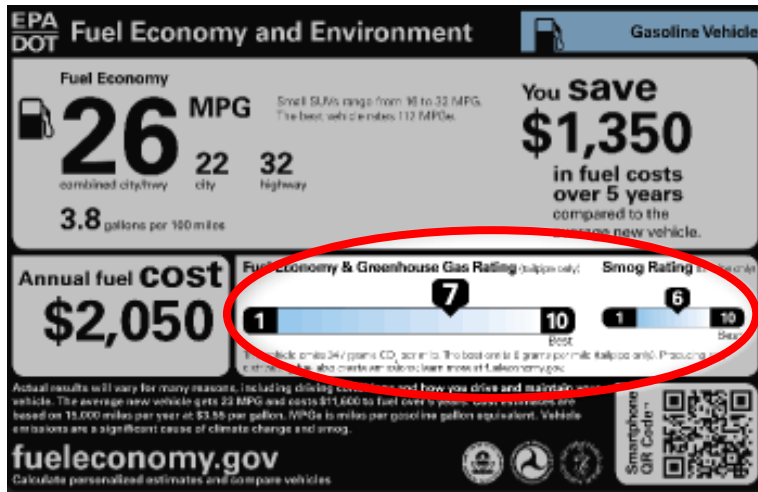
Dallas was an early adopter of AFVs and has nearly 2,000 in the general fleet

- Invested in CNG vehicles in early 1990s
- Added hybrid-electrics to the fleet in 2001
- Began using biodiesel in 2007
- Invested in full-electric vehicles in 2009



Revised Regional Policy: Implementation/Compliance

- ✓ Fuel Consumption Reduction: Acquisition of low emission vehicles/equipment (e.g., AFVs and SmartWaySM certified) (cont.)



- EBS began looking at U.S. EPA's SmartWaySM vehicle certification for light duty vehicles in 2014
- Certification is based on both greenhouse gas and smog ratings
- Program's goal is to certify the cleanest 20% of vehicles by category

- Program provides a complimentary tool to the City's tracking of AFV percentage

Recommendation: adopt the use of the SmartWaySM Vehicle Certification in addition to the AFV Percentage of Fleet objective

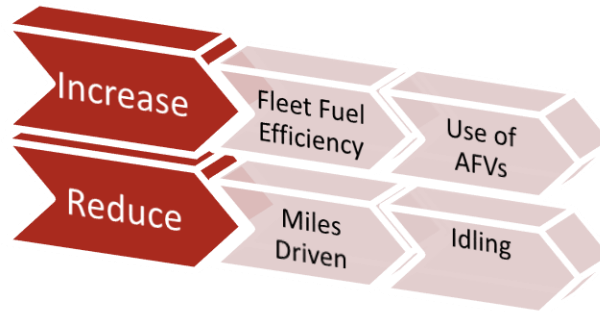


Revised Regional Policy: Implementation/Compliance

✓ Fuel Consumption Reduction (cont.)

Fuel Use Objective and Target

- Reduce consumption of traditional fuels (unleaded and diesel) by 10% by September 2017 (baseline year of FY12-13)



- FY12-13 baseline = 4.8m gallons
- Cumulative and projected reductions

<u>Year</u>	<u>Consumption Reduction</u>
FY13-14	2.29%
FY14-15	4.19% (projected)
FY15-16	5.95% (projected)



On track to meet 2017 target of 10% reduction

Revised Regional Policy: Implementation/Compliance

✓ Fuel Consumption Reduction (cont.)

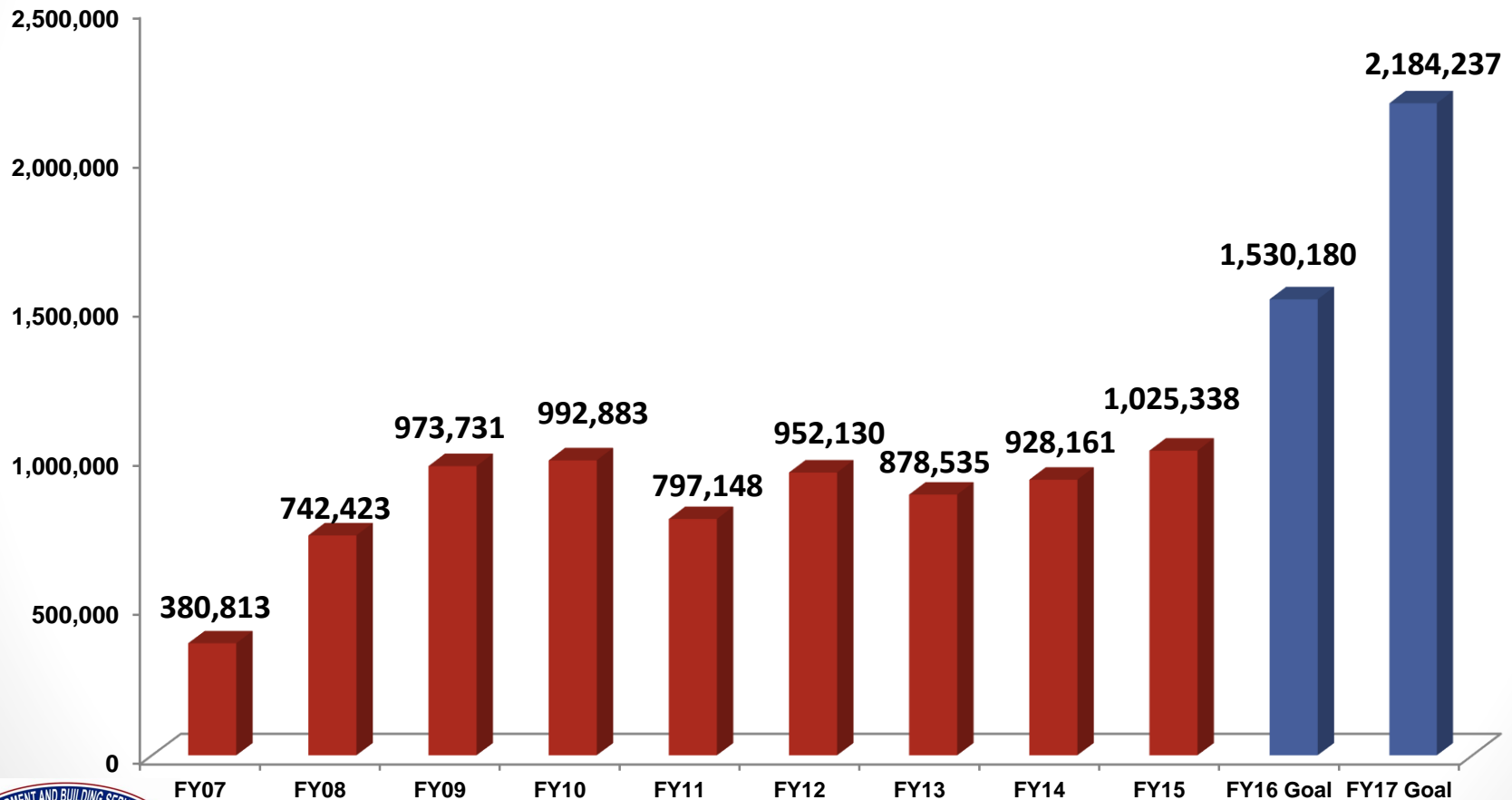
- Biodiesel is an alternative fuel formulated exclusively for diesel engines and typically produced from vegetable oil or animal fat
- The City uses a blended product of pure 100 % biodiesel (vegetable oil based) and regular diesel fuel
 - B10 – Blend of 10% pure biodiesel and 90% regular diesel (used during winter months)
 - B20 – Blend of 20% pure biodiesel and 80% regular diesel (used during summer months)



Revised Regional Policy: Implementation/Compliance

✓ Fuel Consumption Reduction (cont.)

Biodiesel Use (gallons)



Revised Regional Policy: Implementation/Compliance

✓ **Partnership: Maintain active membership in DFW Clean Cities Coalition (DFWCCC)**

- Dallas maintains active participation in the DFWCCC
- Dallas plays an important role in revising the policy through RTC membership



Dallas-Fort Worth
CLEAN CITIES

Revised Regional Policy: Implementation/Compliance

✓ Partnership: Recent Events

- National Drive Electric Week – heightens awareness of today’s availability of plug-in vehicles (sponsored by NCTCOG/Dallas Ft. Worth Clean Cities Coalition)
- Dallas Green Fest – encourages Alternative Transportation, Energy Sources, Recycling and Composting & Sustainable Living (sponsored by Earth Day Texas, Green Dallas, Dallas Farmer’s Market and Downtown Dallas, Inc.)
- ACT Annual Clean Fleet Expo – promotes key fueling, equipment, technology, and policy advancements driving the future of sustainable transportation

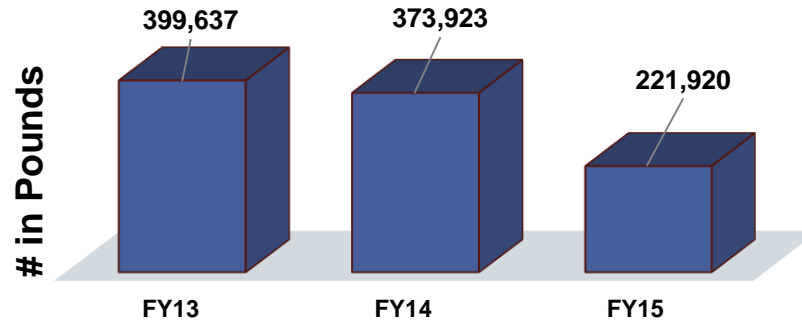


Revised Regional Policy: Implementation/Compliance

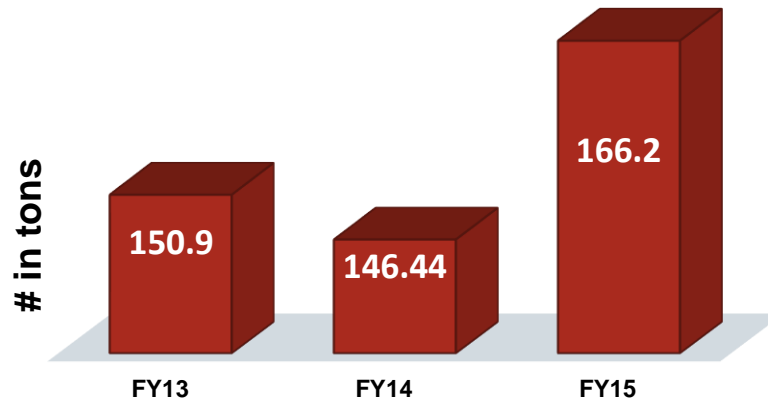
✓ Partnership: Minimizing Waste

Recycling Efforts: Fleet Management continues to partner with local recycling vendors specializing in used parts and fluids

SCRAP METAL RECYCLED

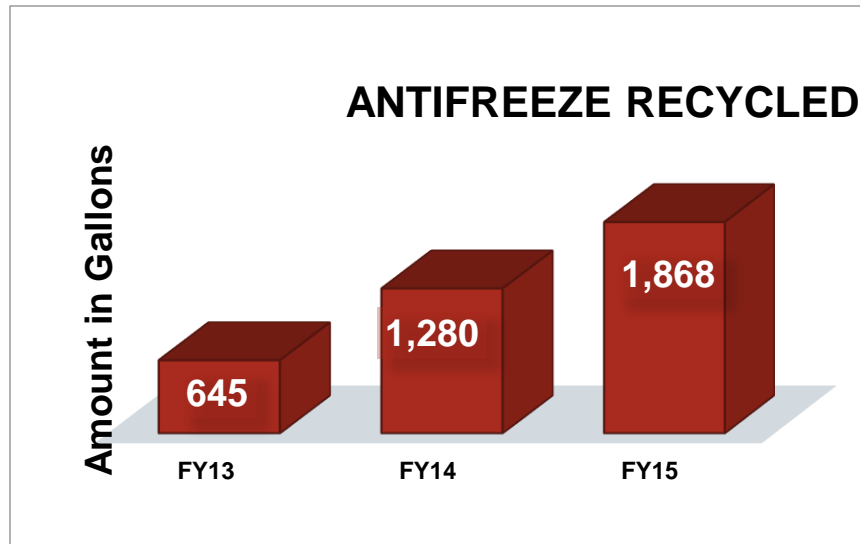
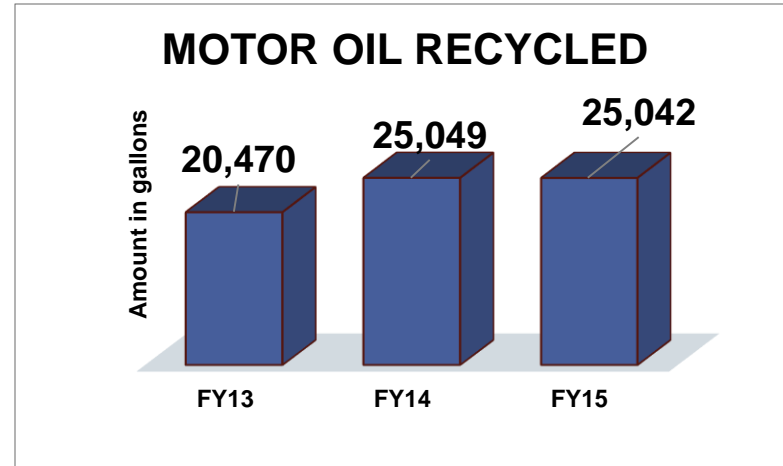
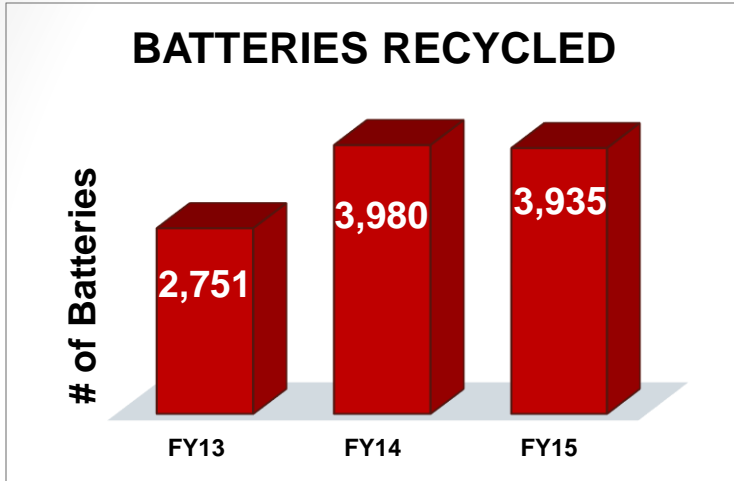


SCRAP TIRES RECYCLED



Revised Regional Policy: Implementation/Compliance

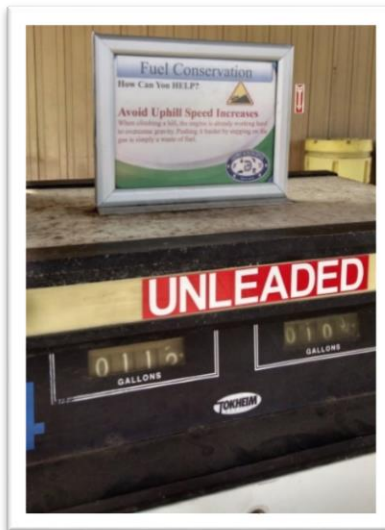
✓ Partnership: Minimizing Waste (cont.)



Revised Regional Policy: Implementation/Compliance

- ✓ Training: Provide in-house training or attend NCTCOG fleet training and increase air quality and fuel conservation awareness of fleet personnel and fuel users

- Implemented fuel conservation messaging at EBS fuel islands



- Implemented alternative fuel vehicle maintenance, repair, and safety training program for EBS mechanics



Revised Regional Policy: Implementation/Compliance

✓ Compliance Verification

- ✓ Annual electronic update of fleet size and activity
- ✓ Cities are required to adopt and meet reporting requirements of the policy to be eligible for grant funding

- EBS staff submits annual compliance reporting
- Developed an emissions inventory tool to facilitate in compiling data for DFW Clean Cities Coalition annual reporting
- Finalizing baseline of the general fleet's emissions

Staff recommends City adoption of the updated Regional Clean Fleet Policy (October 14, 2015 Council Agenda) - eligibility for future grant funding through NCTCOG is contingent on adoption





Source: epa.gov/smartway

GRANT FUNDING

Grant Funding Opportunities

- City staff actively seeks grant funding to support progress towards idle and emissions reduction objectives
- Funding applications have been submitted and approved through the Texas Emissions Reduction Plan (TERP) administered by the Texas Commission on Environmental Quality (TCEQ)
 - Texas Natural Gas Vehicle Grant Program (TNGVGP)
 - Provides grants for the replacement and repower of heavy-duty and medium-duty diesel vehicles
 - Provides grant for the replacement and repower of compressed natural gas (CNG) and liquefied natural gas (LNG) heavy-duty and medium-duty vehicles and engines
 - Texas Clean Fleet Program (TCFP)

Provides grants to replace heavy-duty and light-duty on-road diesel vehicles with alternative fuel and hybrid vehicles



Grant Funding Opportunities (cont.)

Grant Program	Vehicles Type in Application	Cost Per Unit	City of Dallas Acquisition Cost	Grant Reimbursement
Texas Natural Gas Vehicle	Eight CNG Peterbilt – Model 320	\$186,759	\$1,494,072	\$240,000
	Two CNG Peterbilt – Model 382	\$284,511	\$569,022	\$60,000
Texas Natural Gas Vehicle	13 Peterbilt – Model 382 (CNG)	\$136,837	\$1,778,888	\$ 487,500
Texas Clean Fleet	Sixty-five CNG Ford F-150s	\$ 30,872	\$2,006,680	\$ 162,500
TOTAL			\$5,848,662	\$ 950,000

The October 14, 2015 Council Agenda includes an item for accepting these three grants valued at \$950,000 from the Texas Commission on Environmental Quality



Current Grant Opportunity

- NCTCOG has \$2.5m available through the Clean Fleets North Texas Air Quality Grant Program targeting ground level ozone formation – applications are due October 23, 2015
- Cities are required to adopt the regional policy in order to be eligible for NCTCOG clean fleet grants
- Program funds up to 80% of the vehicle's incremental cost
 - 90% of the \$2.5m is being designated for light-duty electric vehicles
 - 10% is focused on pre-2004 model heavy-duty trucks
- Anticipate applying for funding for at least five heavy-duty trucks and five electric vehicles

The October 14, 2015 Council Agenda includes an item for applying for this grant program





Source: epa.gov/smartway

RECOMMENDATIONS

Recommendations

Recommend approval of the following three items on the October 14, 2015 City Council Agenda:

- Adopt the revised Clean Fleet Policy
- Approval and acceptance of \$950k in TCEQ grant reimbursements
- Approve application submission to NCTCOG for the Clean Fleets North Texas 2015 Call for Projects due October 23, 2015





Source: epa.gov/smartway

NEXT STEPS

Next Steps: Big Picture



Increase the use of biodiesel over the next two fiscal years



Establish a new EMS Objective and Target based on the SmartWaySM Vehicle Certification in addition to the AFV model



Establish additional EMS Objectives and Targets based on waste reduction / recycling efforts

APPENDIX



CLEAN FLEET POLICY

WHEREAS, the North Central Texas Council of Governments (NCTCOG) has been designated as the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth (DFW) Metropolitan Area by the Governor of Texas and in accordance with federal law; and,

WHEREAS, the Regional Transportation Council (RTC), comprised primarily of local elected officials, is the regional transportation policy body associated with NCTCOG and has been and continues to be the regional forum for cooperative decisions on transportation; and,

WHEREAS, NCTCOG has been designated as a Clean Cities Coalition for the DFW region by the US Department of Energy in accordance with federal law and the NCTCOG Executive Board authorized NCTCOG to serve as the host organization for the DFW Clean Cities (DFWCC) Coalition and its efforts; and,

WHEREAS, the U.S. Environmental Protection Agency (EPA) has designated the DFW area as a nonattainment area for the pollutant ozone, and air quality impacts the public health of the entire region; and,

WHEREAS, emissions inventories from the Texas Commission on Environmental Quality (TCEQ) indicate that in 2012, approximately 76 percent of the nitrogen oxides (NO_x) emissions and 25 percent of the volatile organic compounds (VOC) emissions in the DFW ozone nonattainment area are attributable to mobile sources; and,

WHEREAS, the RTC is responsible for transportation conformity; and the Clean Air Act Amendments of 1990 require that transportation plans and improvement programs in air quality nonattainment areas conform to the adopted State Implementation Plan (SIP); and,

WHEREAS, the RTC has adopted a resolution supporting the adoption and implementation of a Clean Fleet Policy by organizations with fleet operations in the DFW area; and reserves all future vehicle funding for entities that adopt and comply with a policy consistent with the provisions outlined below,

WHEREAS, the <adopting entity> will set goals and provide workable, cost-effective solutions to improve air quality and reduce petroleum consumption in the DFW area, and implement those measures as practicable.

NOW, THEREFORE, BE IT HEREBY RESOLVED:

Section 1. <adopting entity> **will reduce emissions from fleet activities by performing the following actions as practicable:**

- 1.1** Implement an idle-reduction policy/standard operating procedure (SOP) that applies to all of the entity's vehicles and equipment, except where exempted as determined by <adopting entity>; communicate idle-reduction expectations to staff, vendors and visitors; and utilize idle-reduction technology.
- 1.2** Maximize use of vehicles and equipment with the lowest emissions wherever possible.

- 1.3 Ensure all conversions are EPA and/or California Air Resources Board (CARB) certified; ensure that aftermarket technologies are EPA and/or CARB verified, or are listed as an emerging technology by the EPA or a state environmental agency; and both conversions and aftermarket technologies are compatible with Texas Low Emission Diesel Program (TxLED) requirements.
- 1.4 Establish a plan to modify non-essential fleet activities on high ozone days to reduce air quality impacts.
- 1.5 Implement vehicle and equipment disposal strategies which minimize negative impacts on air quality.
- 1.6 Implement vehicle and equipment emissions inspection practices which meet or surpass the standards required by statute, including prompt resolution of any illuminated malfunction indicator lamp (MIL).

Section 2.

<adopting entity> **will reduce overall fuel consumption, particularly the use of conventional petroleum fuels, by performing the following actions as practicable:**

- 2.1 Pursue low-emission vehicles and equipment for acquisition, with an emphasis on alternative fuel, advanced technology, and/or SmartwaySM certified vehicles and equipment.
- 2.2 Improve overall fleet fuel efficiency.
- 2.3 Establish practices to reduce vehicle miles traveled, passenger miles traveled, engine hours, and/or ton miles traveled, as appropriate.

Section 3.

<adopting entity> **will partner with the NCTCOG and DFWCC by performing the following actions as practicable:**

- 3.1 Maintain membership and active participation in DFWCC and submit timely Clean Fleet Policy reporting.
- 3.2 Evaluate and consider participation in programs to test/commercialize/demonstrate new technologies to improve efficiency, reduce emissions, and/or increase fuel efficiency.
- 3.3 Pursue activities which support peer fleets' efforts to implement fuel- or emissions-reducing activities by sharing and maximizing resources.
- 3.4 Encourage fleet activities which minimize water, solid waste, or other environmental impacts of fleet activities, as appropriate.

Section 4.

<adopting entity> **will ensure drivers/operators and fleet personnel are familiar with air quality and petroleum reduction goals by performing the following actions as practicable:**

- 4.1** Provide in-house training and/or attending training administered by NCTCOG for fleet personnel and other staff involved in fleet decisions to review policy elements and provide recommendations for achieving objectives.
- 4.2** Consider other mechanisms to increase understanding and awareness among fleet personnel and others.

<adopting entity> acknowledges that adoption of the Clean Fleet Policy, adoption of an idle reduction policy/SOP as outlined in section 1.1, submittal of both policies, and submittal of Clean Fleet Policy reporting is required to be eligible for future clean fleet funding from the RTC, and may be considered when determining other funding actions. The extent of Clean Fleet Policy implementation, as documented through reporting, will also be a factor in receiving DFWCC fleet recognition.

[Following additional example statement to be included as applicable for adopting entity:]
 This policy shall be in effect immediately upon its adoption and replaces the prior Clean Fleet Vehicle Policy of the adopting entity.

I hereby certify that this policy was adopted by the <adopting entity> on <date of adoption>, _____.

 Signature

 Printed Name

 Title

 Adopting Entity