OZONE IN NORTH TEXAS: OPPORTUNITIES FOR IMPROVEMENT

Leadership North Texas
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Air Quality 101

Air Quality Funding Opportunities

Opportunities for Improvement Programs
Air Quality 101
Clean Air Act (CAA) last amended in 1990

Requires Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Oxides (NO$_x$)
- **Ozone (O$_3$)**
- Particulate Matter (PM)
- Sulfur Dioxide (SO$_2$)

EPA must complete a review of NAAQS every five years
*Air Quality Index based on 2015 Eight-hour Ozone standard, ≤70 parts per billion (ppb)
Optimum conditions for the formation of ozone include high temperatures and low winds.
Sections are not to scale and are for illustrative purposes only.
EMISSION SOURCES

Oxides of Nitrogen (NO\textsubscript{X})

- On-Road (Cars & Trucks) 130.77 tpd (44%)
- Non-Road (Construction, Agriculture, etc.) 45.54 tpd (15%)
- Point, Excluding Oil & Gas (Power Plants, Cement Kilns, etc.) 38.30 tpd (13%)
- Area (Dry Cleaners, Bakeries, etc.) 26.55 tpd (9%)
- Point - Oil & Gas 16.50 tpd (6%)
- Oil & Gas (Production & Drill Rigs) 13.87 tpd (5%)

Total NO\textsubscript{X} = 296.73 tons per day (tpd)

Source: TCEQ, 2017 Dallas-Fort Worth 8-hour Ozone Attainment Demonstration State Implementation Plan
Volatile Organic Compounds (VOC)

Total VOCs = 418.74 tons per day (tpd)

Source: TCEQ, 2017 Dallas-Fort Worth 8-hour Ozone Attainment Demonstration State Implementation Plan
OZONE EXCEEDANCE DAYS

Exceedance Level indicates daily maximum eight-hour average ozone concentration. Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the adjusted ozone standard of 70 ppb.

= Additional level orange exceedance days under the revised standard that were not exceedances under the previous 75 ppb standard. (AQI level orange = 71-75 ppb)

* Data not certified by the TCEQ
^Not a full year of data, current as of 4/24/2016
Source: TCEQ, \text{http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl}

ppb = parts per billion
According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the Design Value (three-year average of the annual fourth-highest daily maximum eight-hour average ozone concentration) is equal to or less than 70 parts per billion (ppb).

*Data not certified by the Texas Commission on Environmental Quality

*Not a full year of data, current as of 4/24/2016

Source: NCTCOG TR Dept
SAMPLE OF NON-ROAD INITIATIVES
Air Quality Funding Opportunities
AIR QUALITY FUNDING OPPORTUNITIES

NCTCOG Assistance Available
Funding
Help Completing Applications

www.nctcog.org/eqfunding
Opportunities for Improvement Programs
Program Goals/Description

Provide Funding Assistance for Projects that Reduce Emissions (NOx Focus)
Various Programs Under TERP “Umbrella”
  Mobile Sources
  Refueling Infrastructure
  Point Sources
  Stationary Sources
  Energy Efficiency

NCTCOG Resources

Assessment of Project Funding Potential
Free Assistance with Grant Applications
Comments on Proposed Rulemakings

Get Involved

Subscribe to TERP E-Mail Lists
Subscribe to NCTCOG AQ Funding E-Mails
Attend TERP Meetings and Workshops

www.terpgrants.org

Major Funding Round Coming Fall 2016
Program Description
A regional clean air partnership and campaign to:
- Provide a comprehensive air quality resource and regional message.
- Leverage resources and collaborate with regional partners.
- Increase public awareness of specific opportunities for residents to make clean air choices.

NCTCOG Resources
- Comprehensive Website, Including Current Ozone Conditions
- Monthly Newsletter and Alerts for Ozone Action Days
- Outreach and Advertising Campaign
- Events – Air Quality Awareness Week, May 2-5, 2016 and Clean Air Action Day, June 24, 2016

How To Get Involved
- Sign-up to Receive Monthly Newsletters and Alerts
- Provide Messages and Alerts to your Employees
- Become an Air North Texas Partner
- Participate in Air North Texas Activities
- Promote Your Air Quality Improvements Online
  [www.airnorthtexas.org](http://www.airnorthtexas.org)
CLEAN AIR ACTION DAY

Description:

People Commit to Adopting at Least One Clean Air Strategy for the Day

When:

First Friday of Summer Every Year
June 24, 2016

How to Participate:

Organizations and Businesses Promote the Day with Contests and Events for Employees

Asking Participants to Lend a Hand to Air Quality and Post Photos of Their Commitments on Social Media Using #CAAD2016 for a Chance to Win Prizes

www.airnorthtexas.org/cleanair.asp
GO SOLAR NORTH TEXAS

Goal/Description
Streamline of Regulatory Processes
Provide Resources for Cities
Increase Awareness

NCTCOG Resources
Template Permitting Documents
Ordinance Guidance
Website Clearinghouse

How To Get Involved
Adopt Suggested Best Practices
Attend Upcoming Webinars & Trainings

Source: NTREG, 2016

Annual and Total DFW Area Solar Installations (2008 to 2015)

www.gosolarnorthtexas.org
DALLAS-FORT WORTH CLEAN CITIES COALITION

Description:
Created by the US Department of Energy, the Coalition provides information and education on alternative fuel and advanced technology vehicles, programs, and policies with a focus on petroleum reduction and air quality benefits.

NCTCOG Resources
- Comprehensive Website
- Vendor Directory
- Meetings/Trainings/Workshops
- Monthly Newsletter
- Video Success Stories
- Annual Report on Alternative Fuel Usage

How To Get Involved
- Become a Member and Participate in Annual Report
- Participate in One or More Alternative Fuel Subcommittees
- Sponsor the Coalition
- Attend Workshops and Trainings
- Sign-up for Monthly Newsletter and Informative Emails
Program Description

Created by the North Texas Commission, this program helps clean the air, promote clean vehicles, provides an incentive to those driving those vehicles, and allows buildings to earn credits toward LEED certification with free signage to designate parking space for alternative fuel vehicles (AFVs).

A smartphone app was created to support this program through the North Texas Apps Challenge in 2014.

NCTCOG Resources

- Website
- Signs and Sign Artwork
- Link to Approved Vehicles

How To Get Involved

- Place Signs at Your Business
- Promote Program Incentives to Employees and Customers
- Use Smartphone App, Juxt, and Upload Photo and Information

www.dfwcleancities.org/greenparking
ELECTRIC VEHICLES NORTH TEXAS (EVNT)

Goal/Description
Promote Adoption & Use of Electric Vehicles (EVs)
Encourage On-site Charging at Places of Employment

NCTCOG Resources
EV Fact Sheets
Guide to Claiming EV Incentives
Upcoming Workshops & Meetings

How To Get Involved
Attend EVNT & DFW Clean Cities Meetings
Sign-up to Receive Email Announcements
Attend the National Drive Electric Week Event
Install Workplace Charging

www.dfwcleancities.org/evnt
NATIONAL DRIVE ELECTRIC WEEK EVENT

Who Should Attend
Anyone Interested in Learning About EVs & Charging Stations
EV Owners

Why Should You Attend
Get a General Introduction to EVs & Charging Stations
Discover Available Resources
Talk to EV Owners
Meet Exhibitors and Participate in “Ride And Drives”

Date, Time & Location
September 17, 2016
10 am – 2 pm
Grapevine Mills Mall

www.dfwcleancities.org/evnt
CLEAN FLEET POLICY

Goal/Description
Reduce Emissions and Overall Fuel Consumption From Fleet Activities

NCTCOG Resources
Funding Eligibility
Template Policy and Guidance
Template Idle Reduction (IR) Policy and Guidance
DFW Clean Cities Recognition Program

How To Get Involved
Adopt the Clean Fleet Policy and Submit to NCTCOG
Submit IR Policy/Standard Operating Procedure to NCTCOG
Become a DFW Clean Cities Coalition Stakeholder
Submit Annual Report

www.nctcog.org/fleetpolicy
Program Goals

Encourage Regional Idle Reduction by Promoting Idling Restrictions, Anti-Idling Policies, and Development of Outreach Materials for Idle Reduction Campaigns

NCTCOG Resources

Idling Complaint Hotline: 877-NTX-IDLE
Informational Brochures
Posters and Street Signs

How To Get Involved

Create No-Idle Zone
Report Idling Vehicles
Adopt Anti-Idling Measures for Own Fleet
Partner with City/County (if in Area with Idling Restrictions)

engineoffnorthtexas.org
Program Goals

Reduce Fleet Emissions, Improve Fuel Economy, and Increase Energy Efficiency in the Freight Industry

NCTCOG Resources

Informational Factsheet
SmartWay Meetings or Webinars
Assistance with Identifying EPA Tools or Joining as a Partner

How To Get Involved

Become a SmartWay Partner
Include SmartWay Partnership in Contracts/Purchasing
Purchase EPA SmartWay Verified Technologies and SmartWay Certified Vehicles

www.nctcog.org/SmartWay
Program Goals

Reduce Emissions and Fuel Costs in the Trucking Industry by Providing Outreach and Education on Regional Initiatives that Improve Efficiency

NCTCOG Resources

- Informational Brochure
- Meetings and Outreach Events
- Individual Technology Assistance
- Driver, Fleet Manager and Vendor Information Folders
- Funding Assistance

How To Get Involved

- Purchase Smartway Verified Technologies
- Institute a Driver Training Program
- Implement Clean Fleet Policy and Join DFW Clean Cities
- Encourage Transportation Providers to Reach Out

www.nctcog.org/SMARTE
AIRCHECKTEXAS
DRIVE A CLEAN MACHINE

Program Goals

Offers Financial Assistance to Low-Moderate Income Vehicle Owners Whose Vehicles Fail Emissions Inspection Test
Helps Vehicle Owners Comply with Vehicle Emissions Standards to Reduce Ozone-Forming Pollutants Created by On-Road Motor Vehicles
Targets the Highest Polluting Vehicles and Provides an Incentive for Citizens to Contribute to the Regional Air Quality Solution

NCTCOG Resources

Program Applications, Informational Brochure, Banners

How To Get Involved

Place Applications at Businesses
Promote Program Assistance

www.nctcog.org/airchecktexas
EMPLOYER TRIP REDUCTION (ETR) PROGRAM

Overview

A Voluntary Educational Program that Targets Vehicle Trips of Employees in North Central Texas

Aimed at Reducing the Number of Vehicles on the Road and Improving Air Quality

Promotes Alternatives to Driving Alone on Commute Trips

Alternatives include carpooling, vanpooling, telecommuting, flexible work hour programs, transit pass subsidies, biking and walking

NCTCOG Staff Available for Employee Information Sessions, Lunch and Learns, Program Development and Setup, Training, and Program Maintenance

Resources

ETR Employer Manual for North Texas Available

A guide to alternative commuting, employer programs, rewards, and more

Get Involved

Contact Sonya Landrum at (817) 695-9273 or slandrum@nctcog.org for Details
Overview

Regional Commuter Tracking and Ride-Matching System for North Central Texas

Site Features

- Carpool and Vanpool Ride-Matching
- Coming Soon – Transit, Walking, and Cycling Buddy Matching
- Daily Trip-Logging Capabilities
- Personal Savings Reports (Environmental and Financial)
- Integrated Reward System and Savings Calculator
- Regional Points of Interest

Employees

- Option to Participate in Trip Logging, Ride-Matching or Both
- Registered Users can Specify Rideshare Preferences
  (i.e. commute schedule, co-workers only, non-smokers)

Registered Employers

- Designated Employer Administrator Access
- Track Employees’ Alternative Commute Activities and Savings
- Generate Company-Specific Reports (Environmental and Financial)
- Customizable Employer Portal
  - Include Company Logo and Messages for Employees
- Promote Company-Specific Incentives and Rewards
BIKE / WALK / TRANSIT TRANSPORTATION

Goal/Description

Complete the first mile/last mile pedestrian and bicycle connections around transit stations

Why Is this Important to Business?

Helps provide transportation options for workers to access places of employment and other destinations

www.nctcog.org/RoutesToRail
Goal/Description

Design and operate roadways to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

How Do Complete Streets Improve Air Quality and Benefit Business?

Provides options for non-motorized travel to major destinations including employment, education, medical, and transit stations.

Graphic Source: City of Dallas Complete Streets Initiative

www.nctcog.org/BikePed
CONNECTION ENERGY EFFICIENCY RESOURCES

Issue
Many Energy Resources and Initiatives
Disaggregated
Difficult for Stakeholders to Find and Use

Proposed Solution
Website Clearinghouse: Conserve North Texas
“One-Stop-Shop”
Organized with Audience/Purpose in Mind

Conserve North Texas

URL Coming Soon
OTHER CLEAN AIR STRATEGIES

Organizations/Businesses/Governments

Move Construction Activities to Evening Hours
Postpone Mowing to a Day with Healthy Air
Conserve Electricity and Retrofit to Efficient Lighting
Limit Testing of Emergency Generators
Coordinate On-site Employee Lunches
Use Audio and Video Conference Call Technology
Reduce Water and Use EPA’s WaterSense
Use Solar and Other Renewables for Power Needs When Possible
Use SmartScape Plants
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www.nctcog.org/trans/air