

EXAMPLE POLICIES

Clean Air Counts Energy Efficient Lighting

Participating Communities

*Addison
Chicago
Homer Glen
Palos Park*

EXAMPLE POLICIES

Clean Air Counts
177 N. State Street
Suite #500
Chicago, IL 60601

Phone: 312-201-4506
Fax: 312-553-4355

E-mail: epytel@mayorscaucus.org

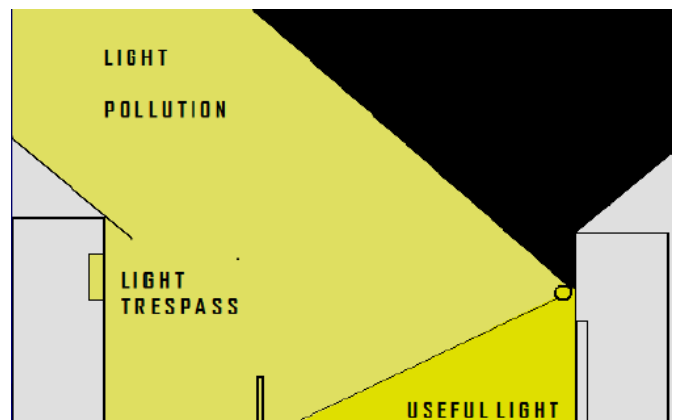
Clean Air Counts communities are able to make substantial improvements in environmental quality by using more efficient lighting.

Many communities, like the City of Chicago and Village of Addison, use LED traffic signals, which has drastically reduced energy usage. The City of Chicago was able to reduce pollution by over 211,000 pounds by using energy efficient lighting.

The Village of Wilmette has replaced incandescent light bulbs at their Water Pumping Facility and in Village Hall with higher efficiency light bulbs yielding a pollution reduction of 1,234 pounds.

In January 2008, the City of Palos Park passed a resolution to require ENERGY STAR approved lighting for exterior use around municipal facilities. By doing so, the municipality hopes to reduce energy usage.

The Village of Homer Glen has passed an ordinance that regulates light to minimize wasted energy and nuisance resulting from lighting pollution. The ordinance provides guidance for lighting in several different types of zoned areas as well as guidance for implementation regarding procedural requirements impacting the planning process. This ordinance was created by the Village of Homer Glen and passed in December 2007. In addition to reducing light pollution, the ordinance also calls for energy efficient lights as well.



This graphic has provides a visual explanation of light pollution, unnecessary light. The graphic shows a significant portion of light is not necessary or useful and in this example both trespasses on a neighboring property and above. .

EXAMPLE POLICIES

Clean Air Counts Native Landscaping

Participating Communities

Lombard Oak Park



The Village of Oak Park used native plants in median and sidewalk planters to reduce labor, gasoline, gas, oil, pesticide and water usage. The Village also piloted using native plants in planted medians and sidewalk planters.

- The results of the initiative were largely positive:
- Maintenance costs were reduced annually by \$40,000.
- Less watering is required and
- Precipitation is absorbed into soil which reduces run off.

Lessons Learned: Oak Park learned that it could use salt tolerant plants and trees and reduce watering by using native plants and dry climate plants. They also changed the design of the medians to use lower plants on the both ends of each median to improve visibility. The community also benefited by using attractive plantings in medians, business districts and at municipal facilities, which supported buy in for future native landscaping projects.

The Village of Lombard has successfully used native plants around retention ponds to curb erosion and geese. The City of Aurora recently created a Gateway and Median Beautification Program that will use native plants in the gateways.



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EXAMPLE POLICIES

Clean Air Counts Planning and Development

Municipalities can leverage green benefits for their communities by creating incentives for businesses to incorporate green amenities in their developments. Similarly, communities can also create policies that promote development that reduces air pollution. The Aurora, Chicago, and Northbrook provide examples of policies and programs that can improve air quality through planning and development.



Townhouses on Station Boulevard.

The City of Aurora has adopted planning/land use codes that support “walkable” communities and decrease vehicle use. The Planning Department is rewriting sections of the Aurora Zoning Ordinance to allow for environmental improvements to be incorporated into development more easily in the future. Aurora is also promoting new urbanist treatments in developments like Station Boulevard and promotes “walkability” in planned developments.

The City of Chicago Department of Buildings has developed an expedited permit process for projects that incorporate innovative green building strategies. Projects accepted into the Green Permit Program can receive permits in less than 30 business days or in as little as 15 business days. The number of green building elements included in the project plans and project complexity determines the length of the timeline. The more green building elements, the shorter the timeline to obtain a permit.

The Northbrook Green Building Incentive program is designed to provide rebates for building permits in amounts commensurate with the LEED Rating level system achieved. Businesses are capable of recouping 100% of their Covered Permit Fees.

Participating Communities

Aurora

Chicago

Northbrook

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EXAMPLE POLICIES

Clean Air Counts Transportation/Fleet Management Light Vehicles

Participating Communities

Aurora

Chicago

Midlothian

Oak Park

While many tasks require heavy vehicles like light trucks and cars, many tasks can be accomplished with light vehicles like bicycles, golf carts and segways. Such tasks might include posting signs for street cleaning, sidewalk inspections, meter readings and other inspections.

Aurora, Midlothian and Oak Park all keep bicycles in their Public Works Facilities that are available for staff to use for light work. The City of Chicago uses bicycles and segway transporters for police work in areas with dense pedestrian traffic such as downtown Chicago, Midway and O'Hare Airports.

Bikes and segways help eliminate car trips and reduce fuel usage. In addition to reducing fuel, light vehicles also allow municipalities to have fewer cars and trucks. Bikes and segways cost a fraction of the cost of cars and trucks. For example, the City of Chicago purchased 28 Segway Human Transporters for \$128,000 in 2005.

According to Chicago Police commander Steve Peterson, "You can't beat these things. They're the best of both worlds, with the mobility of a squad car but the personal contact with citizens of a foot patrol."



In Midlothian, bicycles are hung from the ceiling to be efficient and maximize floor space.



Chicago Police use Segway Human Transporters in areas with dense pedestrian traffic.



Oak Park Bicycle Fleet

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EXAMPLE POLICIES

Clean Air Counts Idling Reduction Programs

Several communities in the Chicago Metropolitan Region have implemented strategies to reduce idling. Idling reduction can yield substantial cost savings as well as pollution reduction experienced within the home community.

The City of Chicago's Fleet Management Department and DuPage County Forest Preserve have written policies that can be used as models for other local governments. Both policies limit idling to 5 minutes in a 60-minute period if the outside temperature is between 40 and 80°F. The City of Chicago provides exceptions for emergency service vehicles, vehicles standing in traffic and airport support equipment.

In Wood Dale Illinois, the Police Department established a program to reduce excessive idling and travel. Fuel usage is tracked on a monthly basis and compared to usage in the previous year. Regular communications to employees is used to share the results and remind them of the policy. The Wood Dale policy asks officers to shut off their vehicles when parked or running radar. Employees are frequently reminded not to add unnecessary miles on vehicles and to be logical in their random patrol efforts. Disciplinary action may be taken if vehicles are observed idling at the police station.

In addition to instituting idling reduction strategies for municipal fleets communities are creating voluntary idling reduction programs. The Village of Lombard, Illinois has implemented a practical public awareness campaign from which others can learn. In 2007 Lombard worked with its local schools to determine strategic locations, where vehicles often idle while waiting to pick-up children. Lombard also extended the program to their commuter rail station. In total, the village purchased 30 signs for approximately \$900. Interestingly, the Lombard program is paying dividends beyond its target audiences at the schools and commuter rail station. Dave Gorman, Acting Director of Public Works Department, has said that the department used less fuel in June 2008 than it did in May even though it logged in an additional 3,000 miles. Mr. Gorman believes that while hanging the signs, his department's employees internalized the idling reduction message.



Signage in the Village of Lombard

Participating Communities

***Carol Stream
Chicago
Evanston
Lombard
Northbrook
Wilmette
Wheaton
Winfield***

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EXAMPLE POLICIES

Clean Air Counts Diesel Retrofit

Participating Communities

*Aurora
Chicago
Evanston
Highland Park
Lake Zurich
Lincolnwood
Midlothian
Northbrook
Palatine
Wilmette*

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The Village of Northbrook has performed Diesel Retrofits on thirteen dump trucks. They found the diesel oxidation catalyst technology to be much like a catalytic converter on a car because it rarely requires maintenance. It is recommended that the device be cleaned about every 100,000 miles. Some of the Particulate Matter collected does not completely oxidize and inert ash remains in the filter. After about 100,000 miles this ash should be removed by blowing or vacuuming it out. Generally this process takes no more than 3 hours.

According to the EPA, this has resulted the following pollution reductions:

- 964 pounds of carbon monoxide
- 382 pounds of volatile organic compound
- 78 pounds of particulate matter.

Quote: about results and any comments about the retrofits requiring extra work?

Funding for Diesel Retrofits is made available periodically through the Illinois EPA and the US EPA..

When asked about the Diesel Retrofits, Kent Figge, Fleet Supervisor for the Village of Northbrook said, "Every part of the process was simple and effective. The vendor we used was Inland Detroit Diesel Allison, they were very helpful and delivery was prompt. The product was a generic Donaldson muffler/catalyst combination. They have several models that cover most applications of on-highway vehicles. The installations were very easy and most installations took less than six (6) hours. A couple of these were installed on the rear engine on a street sweeper. We have not experienced any problems or complications resulting in the installation of these Diesel Oxidation Catalysts."

EXAMPLE POLICIES

Clean Air Counts Energy Efficiency Water Pumping Stations

Water Pumping stations offer many opportunities for energy efficiency from using high efficiency lighting to installing variable frequency drives and tailoring intensity to meet demand. Participating communities recommended the following for reducing energy usage at Water Pumping Stations:

Tailor intensity to demand: Lower the pressure in city pumping stations during off peak usage (winter/night). This also might lead to less water main breaks and lower repair costs.

Install **Variable Frequency Drives (VFD)** – Use VFDs on any pump or fan that has a variable load like effluent pumps, sludge transfer pumps, return activated sludge pumps, supply and/or return fans on variable air volume HVAC systems. VFDs accomplish part load control by varying electric motor speed. Energy savings of 50 percent or more over other part load control strategies are common.

Premium Efficient Motors – Replace motors that have significant hours of operation and low NEMA efficiencies or failed motors with NEMA® Premium Efficiency Motors. Note: Make sure new motors are properly sized. Oversized motors will not save energy since under-loaded motors run at less than name-plate efficiencies.

Lighting – Replace or retrofit existing fixtures with new, more efficient High Performance T8 lamps and ballasts.

HVAC – Establish a maintenance log and maintenance budget for your heating, cooling and ventilation equipment. Proper maintenance can dramatically improve efficiency.

Dissolved Oxygen (DO) – Make sure that DO levels are maintained at designated set-points in the activated sludge. Excess oxygen means aeration equipment is running longer than necessary, thereby consuming more energy than needed.

Participating Communities

*Arlington Heights
Buffalo Grove
Countryside
Deerfield
Evanston
Lombard
Northbrook
Oak Park
Palatine
Park Ridge
Riverside*

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Clean Air Counts Diesel Retrofit

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For information on funding opportunities visit www.illinoisgreenfleets.org on the home page under the Illinois Clean Diesel Grant Program

www.epa.gov/cleandiesel/

epa.gov/midwestcleandiesel/