**CITY OF MARTINEZ** **CITY COUNCIL AGENDA**
**July 18, 2007**

**TO:** Mayor and City Council

**FROM:** Bart Carr, Solid Waste & Recycling Coordinator

**SUBJECT:** City of Martinez Response to Climate Change

**DATE:** July 9, 2007

## RECOMMENDATION:

A. Authorize Staff to submit application for ICLEI membership; and
B. Form Council Subcommittee for Climate Change.

## BACKGROUND:

Concerns about global Climate Change are growing, and with it, expectations that government at various levels will take steps to respond. The City of Martinez has an opportunity to join other local jurisdictions and investigate actions that can be taken to reduce Greenhouse Gas (GHG) emissions.

**The California Global Warming Solutions Act of 2006 (AB 32).** AB 32 was signed into law in late 2006 and has become landmark legislation for addressing climate change. AB 32 requires mandatory reductions in GHG emissions which include:

- **11% Reduction by 2010 (to Year 2000 levels)**
- **25% Reduction by 2020 (to Year 1990 levels)**

Unlike Integrated Waste Management/Recycling Act (AB 939) passed in 1989, the primary responsibility for managing response to AB 32 is kept at the state level, with the CA Air Resources Board (CARB) having primary responsibility for planning and response. CARB will analyze various sectors such as transportation, energy production, agriculture, waste disposal/landfill management and others to determine their contribution to GHG generation. Although it appears that individual cities and counties will not have to quantify their own emissions, local government may bear responsibilities in tracking, reporting, and reducing GHG emissions in targeted sectors.

Prior to AB 32, a number of cities and counties throughout the U.S. elected to sign onto the "U.S. Mayors Climate Protection Agreement." Started by Mayor Greg Nickels of Seattle in 2005, the agreement became the U.S. response to the "Kyoto Protocol" agreement in light of the

federal government's decision against joining the agreement that same year. The core of the mayors' agreement is a pledge to reduce GHG emissions to 7% below 1990 levels by 2012 (the same goal as Kyoto) and use of the ICLEI "Cities for Climate Protection" methodology to the quantify GHG emissions and methods to reduce them. Currently, 415 cities and counties have signed onto the mayor's agreement, including Contra Costa County and six jurisdictions within this county.

**Regional & Local Efforts**. A number of state-level, regional, and local efforts have become active to address climate change and mitigate future impacts that may result. CARB's Climate Protection Program and Climate Action Team are preparing to implement the requirements established by AB 32, coordinating efforts between different state agencies and providing informational assistance. The Institute for Local Government (ILG) is currently organizing its Climate Action Network or "CAN!" which will allow jurisdictions to network and share information. Here in the Bay Area, the Bay Area Air Quality Management District (BAAQMD) has taken the lead by organizing meetings and workshops and making meeting results and general information on climate change response available on its website. Finally, ICLEI, whose "Cities for Climate Protection Program" is the centerpiece of the U.S. Mayor's Climate Change Agreement, has become very active as an information clearing house and providing assistance in GHG footprint analysis.

Contra Costa and six local jurisdictions have initiated programs to address climate change. These include:

- Contra Costa County – Participation in the ICLEI Cities for Climate Protection Program
- City of Walnut Creek – Participation in the ICLEI Cities for Climate Protection Program & "Sustainability Summit" (Oct 20)
- City of El Cerrito - U.S. Mayor's Climate Change Agreement & Participation in the ICLEI Cities for Climate Protection Program
- City of Richmond - Participation in the ICLEI Cities for Climate Protection Program
- City of Lafayette - Participation in the ICLEI Cities for Climate Protection Program & Citywide Sustainability Plan
- Town of Moraga - U.S. Mayor's Climate Change Agreement & ICLEI Cities for Climate Protection Program
- City of Hercules – Participation in the ICLEI Cities for Climate Protection Program

**International Council for Local Environmental Initiatives** or **"ICLEI".** ICLEI is an international association of local governments with the mission to improve the global environment through local action. In the area of climate change, ICLEI provides resources, tools, peer networking, best practices, and technical assistance to help local governments measure and reduce greenhouse gas emissions. ICLEI services in the U.S are built around the Cities for Climate Protection® (CCP) program to assist government in quantifying GHG emissions and to develop strategies to reduce emissions. The CCP program offers technical assistance, reference information, GHG inventory software, and the ability to network with other members to benefit from their experience.

**Staff Recommendation.** Staff is recommending that Council take the following actions:

1. **Authorize Staff to apply for ICLEI Membership.** Martinez membership in ICLEI will provide staff with access to climate change information, CCP methodology software, technical assistance, and the peer network that will allow better understanding of how to conduct the baseline inventory and possible strategies for GHG reduction. Cost of joining ICLEI is $600.00 per year.

2. **Form Council Subcommittee for Climate Change.** Formation of a City Council Subcommittee on climate change will allow the Council to familiarize itself with AB 32 requirements, use of ICLEI's Cities for Climate Protection (CCP) methodology, documentation of existing programs that contribute to GHG reduction, new reduction strategies, and public outreach and education. The subcommittee may also choose to consider joining the U.S. Mayor's Climate Change Agreement which will send a clear message of intent to reduce GHG emissions.

**FISCAL IMPACT:**

$600 per year for ICLEI membership which can be covered through the existing budget.

**ACTION:**

Motion to authorize staff to submit application for ICLEI membership and form a Council Subcommittee for Climate Change.

Attachments:

1. Contra Costa Board of Supervisors Resolution directing Greenhouse Gas Inventory
2. ICLEI Cities in Action 2006

**APPROVED BY:** Don Blubaugh
City Manager

**APPROVED BY:** David Scola
Department Head

TO: BOARD OF SUPERVISORS

FROM: Dennis M. Barry, AICP
Community Development Director

DATE: February 27, 2007

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07 MAR -1 PM 2:25
COMMUNITY DEVELOPMENT DEPT

Contra Costa County

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**SUBJECT: CONDUCT INVENTORY OF LOCAL GREENHOUSE GAS EMISSIONS**

**SPECIFIC REQUEST(S) OR RECOMMENDATION(S) & BACKGROUND AND JUSTIFICATION**

## RECOMMENDATIONS

1. AUTHORIZE use of the Dougherty Valley Regional Enhancement Fund to pay initial annual membership fee of $5,750 for the County to join ICLEI –Local Governments for Sustainability (formerly known as International Council of Environmental Initiatives).
2. AUTHORIZE the Climate Change Working Group to conduct greenhouse gas emissions inventory using a part-time intern funded by County Health Services Department - Hazardous Materials Division with the assistance of ICLEI.

## FISCAL IMPACT

ICLEI membership fee of $5,750 would be paid from the Dougherty Valley Regional Enhancement Fund, which the Board has discretion to use for various purposes such as transit, transportation and economic development activities. Transportation and residential sectors together account for 61% of the greenhouse gas emissions in the Bay Area. Membership in ICLEI entitles the County to obtain software which the County will use to identify potential reduction of greenhouse gas emissions that could be achieved from implementing a wide range of measures related to transportation and development. Consequently, there is a potential direct benefit from the use of the Dougherty Valley Regional Enhancement Fund to cover the membership fee in ICLEI.

The Health Services Department - Hazardous Materials Division has agreed to provide funding to hire an intern to conduct the greenhouse gas emissions inventory (with the assistance of ICLEI staff and resources). The General Services Department (GSD) has agreed to provide workspace for the intern which will help maximize efficiency considering GSD staff will have the majority of data the intern will need.

**CONTINUED ON ATTACHMENT: X YES SIGNATURE** Dennis M. Barry

**X RECOMMENDATION OF COUNTY ADMINISTRATOR ___ RECOMMENDATION OF BOARD COMMITTEE**
**X APPROVE ___ OTHER**

**SIGNATURE(S):** Julie Enea

**ACTION OF BOARD ON** 2/27/2007 **APPROVED AS RECOMMENDED** X **OTHER** ___

**VOTE OF SUPERVISORS**

**X UNANIMOUS (ABSENT** none**)**
**AYES:**_____ **NOES:**_____
**ABSENT:**_____ **ABSTAIN:**_____

**I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF AN ACTION TAKEN AND ENTERED ON THE MINUTES OF THE BOARD OF SUPERVISORS ON THE DATE SHOWN.**

**ATTESTED** February 27, 2007
**JOHN CULLEN, CLERK OF THE BOARD OF SUPERVISORS AND COUNTY ADMINISTRATOR**

**BY** Jose O'Neal **, DEPUTY**

**Contact:** Deidra Dingman (925/335-1224)
**cc:** County Administrator's Office
Community Development Department (CDD)
Health Services Department - Hazardous Materials
General Services Department

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## BACKGROUND/REASONS FOR RECOMMENDATIONS

The County Board of Supervisors originally formed the Climate Change Working Group in May 2005. The County's Climate Change Working Group is comprised of the Agricultural Commissioner and the Directors of the Building Inspection Department, Community Development Department, General Services Department, Health Services Department and Public Works Department.

On November 15, 2005, the Board accepted the "Contra Costa County Climate Protection Report" dated November 2005 which lists measures that have been partially or fully implemented by the County that potentially reduce greenhouse gas (GHG) emissions. This Report also contains a listing of measures/actions the County could consider implementing or expanding upon to reduce GHG emissions generated directly as a result of County operations (including County owned or maintained buildings, vehicles and right-of-way) or generated by sources within the private sector which potentially fall within the County's authority.

On November 14, 2006, the Board authorized the Climate Change Working Group to join ICLEI - Local Governments for Sustainability (formerly known as the International Council for Local Environmental Initiatives) Cities for Climate Protection (CCP) Campaign to build upon the County's climate protection efforts. ICLEI is an international membership association of local governments dedicated to addressing environmental problems through local actions. ICLEI works with local governments to help them reduce their greenhouse gas emissions and therefore their impact on global climate change.

Conducting a local greenhouse gas emissions inventory is the first milestone for local governments participating in the CCP Campaign. Conducting the emissions inventory will enable the County to quantify emissions from the overall community (external) and municipal operations (internal). This inventory would serve as a baseline for comparison purposes to see how local emissions change over time. By using local energy and waste data, the County can establish its baseline inventory and develop a forecast of anticipated future emissions. The baseline inventory can also be helpful when setting an emissions reduction target (second CCP Milestone), prioritizing future actions to reduce emissions, and measuring future progress (fifth CCP Milestone).

As a participant in ICLEI's CCP Campaign, the County will have access to information and resources to help identify the feasibility and effectiveness of the new and expanded measures identified in the County's Climate Protection Report dated November 2005. Furthermore, by conducting the emissions inventory utilizing ICLEI's framework allows the County to:

- Utilize ICLEI's software and associated training to assist with quantifying emissions,
- Access ICLEI's technical assistance and their professional network of peers,
- Involve county departments who later become essential to creating and implementing the action plan,
- Quantify emissions reductions from the actions the county has already implemented,
- Quantify potential emissions reductions of new or expanded measures prior to committing resources/staff,
- Document emissions reduction efforts in a manner that is comparable to others which may become important as the State moves forward with efforts to mandate reduction of greenhouse gases emissions.

ICLEI provides members with notification of relevant grant opportunities, which can be very valuable. New dedicated funding will be critical to pay for the development of a climate action plan (third CCP Milestone) and implement effective long-term emission reduction strategies (fourth CCP Milestone).

The County's Climate Protection Report contains most of the elements of a local climate action plan (third CCP Milestone). The climate action plan represents the local blueprint for climate protection, which should include the set of programs and policies the jurisdiction will implement in order to achieve its chosen emissions reduction targets. The climate action plan should include existing initiatives implemented, as well as potential new policies and programs that, when fully implemented, will help meet the chosen emissions reduction targets.

Background regarding the County's climate protection efforts, including the 2005 Climate Protection Report and previous Board Orders has been posted on the County's website (to go directly to that web page visit www.cccrecycle.org/climate).

# ICLEI CITIES IN ACTION

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Local
Governments
for Sustainability

# Budget-Friendly Tips for Cutting Greenhouse Gas Emissions

By reducing greenhouse gas emissions, local governments of all sizes can cut energy costs, improve air quality, stimulate the local economy, and mitigate global warming. Below are six easy ways to get started.

## Switch to LEDs

LEDs or light emitting diodes, are 90 percent more energy efficient and last 6–10 times longer than conventional lights. Save energy and maintenance costs by switching conventional bulbs to LEDs in traffic signals and exit lights. Because these lights are functioning 24 hours a day, the energy and cost savings accrue quickly.

## Turn Out the Lights at Night

Instituting a "lights out at night" policy in city buildings is an easy and effective way to save electricity, reduce greenhouse gas emissions, and save municipal dollars. This can be accomplished through educational campaigns and through technology, such as timers and occupancy sensors.

## Buy Bikes for Law Enforcement Officials

Bicycles are inexpensive and people-powered. Downsizing some police sedans to mountain bikes in dense urban areas will significantly cut fuel costs, reduce tailpipe emissions, and in times of heavy traffic congestion, increase mobility.

## Lighten Up Rooftops

Cool roofs absorb less solar energy and quickly release any heat that they store. Simply adding a highly reflective/emissive coating to a black or metal roof can reduce the need for air conditioning and produce huge annual cost and energy savings while decreasing greenhouse gas emissions at the same time.

## Purchase Energy Efficient Equipment

Look for ENERGY STAR labeled equipment—ENERGY STAR computers use 70 percent less electricity than non-ENERGY STAR equipment. Some ENERGY STAR copy machines reduce paper costs by $60 a month and reduce energy costs at the same time, and fax machines that have earned the ENERGY STAR label can cut associated energy costs by 40 percent.

## Encourage Commuters to Ride the Bus

Providing incentives for commuters to ride a bus rather than drive a car to work is one way for cities to decrease traffic, free up downtown parking spaces, and reduce emissions too. These can include subsidized or free transit passes, parking cash-out programs, coordinated car or van pools, and programs such as a commuter challenge (for fun and prizes).

# Local Government Leadership Through Innovation

All across the US, local governments are finding innovative ways to reduce emissions while achieving a host of other benefits.

## Energy Efficiency

- ***Minneapolis's Police Precinct Renovation***

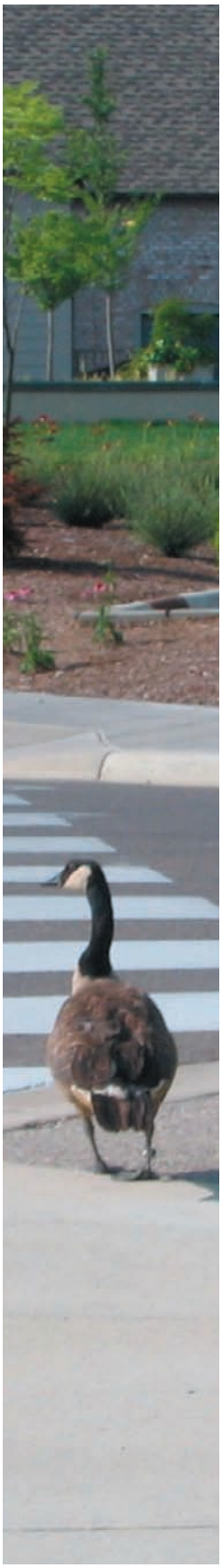
  The City of Minneapolis recently turned an overcrowded police precinct into one of the community's most innovative green buildings. The city renovated and added on to the existing structure and carried out comprehensive energy modeling to examine the energy use impacts of all new and existing systems. The resulting benefits include approximately **40 percent savings** in annual energy costs, a reduction of more than **300 tons of $CO_2$ emissions**, and an anticipated return on investment in less than seven years.

- ***Chicago's Green Bungalow Initiative***

  The City of Chicago renovated four bungalow-style homes to determine if the benefits of green building, such as improved indoor air quality and energy efficiency, could be achieved affordably while remaining true to the original spirit of each home's design. Renovation of the homes was completed in 2002 and a subsequent energy analysis showed that the four bungalows together **saved ~37,000 kWh and ~4,300 therms of natural gas** each year. The renovation also **prevented 56 tons of $CO_2$ from being released** into the atmosphere annually. Simple payback periods for the additional green features of these homes ranged between 4.6 and 8.1 years. The green bungalows were projected to yield an average **savings of more than $900 per home** for heating, cooling, and hot water use in comparison to standard rehab homes.

- ***Ann Arbor's Municipal Energy Fund***

  Since 1998 Ann Arbor's Municipal Energy Fund has provided city facilities with a source of capital for energy efficiency retrofits. The Energy Fund provides initial capital for new projects and receives 80 percent of projected annual energy savings from each installed project for five years. The five-year payment plan allows projects that have a shorter payback to help support projects with a longer payback, and all savings accrued beyond the first five years remain with the departments implementing the improvements. The Fund was seeded by the city with **five annual investments of $100,000, and quickly became self-sustaining**. Most installed measures have had payback periods of three to six years, and projects supported by the Fund have yielded a total of **685 tons of annual e$CO_2$ reductions.**



## Renewable Energy

### *Montgomery County, Maryland's Green Power Purchasing*

In 2004, Montgomery County led a group of local governments and local government agencies in a wind energy purchase that represents 5 percent of the buying group's total electricity needs. Under the two-year deal, the buying group will collectively purchase 38 million kWh of wind energy annually, translating into a **yearly reduction of 21,000 tons of $CO_2$, 95,000 pounds of nitrous oxides, and 1.4 pounds of mercury.** The County demonstrated the benefits of renewable energy in meeting the requirements of the federal Clean Air Act by including the wind energy purchase as a control measure for ozone pollution in a "State Implementation Plan" for air quality improvement. The County plans to offset the added expense of the wind power purchase by instituting employee energy efficiency programs such as turning off lights, computers, and office equipment when not is use.

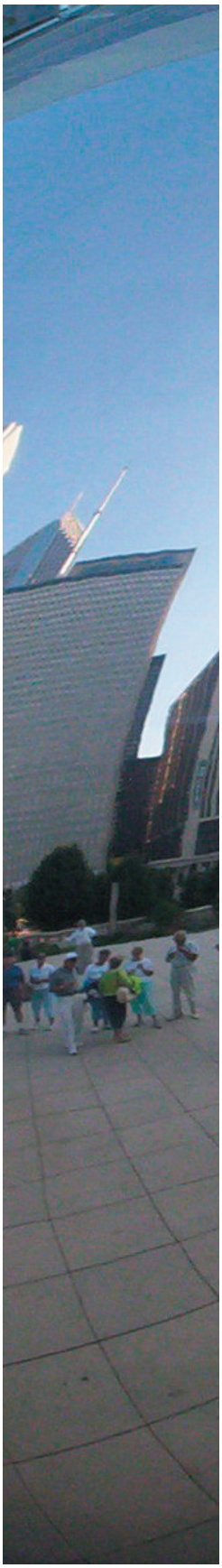
## Solid Waste

### *San Francisco's Organics Collection Program*

The City of San Francisco instituted residential curbside collection of organic material as part of its Fantastic Three program. The program provides each household with a green cart for organic waste, a blue cart for commingled recyclables, and a black cart for all remaining trash. Residents and businesses are encouraged to place all food scraps and yard trimmings into the green cart, which is collected for composting at a regional facility. By instituting curbside organics collection, San Francisco became the first large city in the nation to collect food scraps citywide. The Fantastic Three program enabled the city to reach a reported overall **67 percent garbage diversion rate in 2004.** Through outreach and other methods, the City plans to expand the Fantastic Three program and increase both the amount of organics and recyclables collected. The program's expansion is projected to achieve an **annual $eCO_2$ reduction of 70,000 tons.**

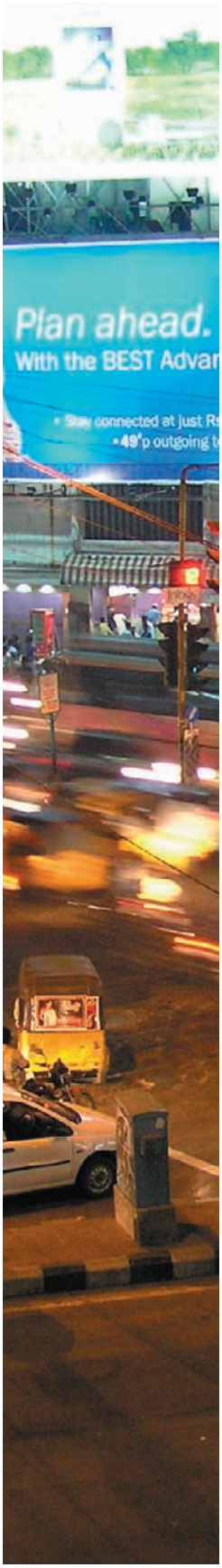
### *Seattle's Ban on Recyclables from Garbage*

Since January 2005 the City of Seattle has prohibited the disposal of certain recyclables from residential, commercial, and self-haul garbage by law. The new recycling ordinance is aimed at eliminating recyclable or compostable paper, cardboard, aluminum cans, plastic bottles, and yard debris that, until recently, have constituted approximately 25 percent of the city's garbage. The city hopes the new ordinance will **save residents and businesses as much as $2 million per year** and keep future garbage costs low, as well as help to reverse the recent decline in Seattle's recycling rates. The measure is projected to achieve an **annual reduction of 260,000 tons of $eCO_2$.**



### *Miami-Dade County's Paperless Traffic Court Voice Response System*

Miami-Dade County became a pioneer in the realm of waste reduction when it implemented the world's first "paperless" traffic court. Using technology that digitizes paper-based documents and makes them more accessible, both internally and to the public, the county has significantly increased the efficiency with which it handles traffic court cases and reduced the amount of paper used in the process. In addition to the paperless traffic court, the county also implemented an Interactive Voice Response telephone system that enables citizens to pay for traffic and parking tickets over the phone or online, make court dates, or make child support inquiries. The system reduces the need for considerable amounts of paperwork, thereby minimizing waste. It also significantly reduces transportation miles to and from court, **eliminating an estimated 1,480,000 vehicle miles traveled and 4,300 tons of $eCO_2$ since its implementation.**




## Transportation

### *Keene's Conversion to Biodiesel*

From fire engines to snowplows, all 77 of the vehicles in the City of Keene, New Hampshire's Public Works Department are running smoothly on B20 biodiesel. The fleet is fueled onsite at the department's pump. The biodiesel performs well in cold temperatures and has improved the air quality inside the fleet maintenance facility. The City has burned more than 4,400 gallons of biodiesel since 2002, which **prevents an estimated 12 tons of $CO_2$ from entering the atmosphere annually.**

### *Honolulu's Bus Rapid Transit Program*

A steady growth in passengers choosing the bus for their commute has accompanied the expansion of Honolulu's Bus Rapid Transit program. Monthly ridership has increased from about 100,000 riders since 1999, when the program began, to over 630,000 in 2005. Assuming that half of BRT ridership represents a shift from trips made in passenger vehicles to trips taken on BRT, this equated to an **annual $CO_2$ reduction of approximately 7,000 tons.**

### *Portland's Light Rail System*

The TriMet Metropolitan Area Express (MAX) light rail system, serving 64 stations over 44 miles of track in the Portland metropolitan area, sees 97,000 trips each weekday. More than $3 billion in development has occurred along MAX lines since the decision to build was made in 1978. MAX ridership now eliminates 22.2 million car trips per year, **offsetting an estimated 26,400 tons of $CO_2$ annually,** while reducing traffic, improving air quality, and preserving neighborhood livability.

## Community Outreach

- ***Burlington's 10% Challenge***

  The 10% Challenge in Burlington, VT is a voluntary program to raise public awareness about global climate change and to encourage households and businesses to reduce their greenhouse gas emissions by at least 10 percent. Enlisting innovative outreach methods such as a musical road show called "Beat the Heat," the program is achieving an estimated **annual reduction of 1,500 tons of $CO_2$ in the residential sector alone.**

## Other Initiatives

- ***Newark's Tree Planting Initiative***

  In 2004 Newark undertook a new project to create a more attractive, healthier, energy-efficient city with one simple tool: trees. Utilizing funding from a statewide urban forest energy efficiency initiative called "Cool Cities," Newark **planted 500 trees** in strategic areas to employ the tree's energy efficiency and air pollution reduction benefits. The City anticipates **each tree to reduce heating and cooling costs by up to 12 percent** for buildings that are shaded by the trees, which will in-turn reduce energy use and greenhouse gas emissions.

# Take Action! Develop A Local Action Plan

***Is your community ready to save money and increase livability while reducing greenhouse gas emissions?***

Get started by developing a Local Action Plan. The process outlined below will help identify tried-and-true, budget-friendly opportunities and innovative new custom projects that can reduce greenhouse gas emissions in your jurisdiction. Select the best combination of projects that will enable your community to achieve its emissions reduction target and include them in your Local Action Plan.

## Step 1

### Identify existing programs already reducing greenhouse gas emissions

Does your city have a curbside recycling program or provide incentives for carpooling or riding public transport? Have any city buildings been retrofitted? Often there are many existing projects and programs already running in your jurisdiction to save money, increase energy efficiency, reduce solid waste, or improve local air quality. Find out what they are and if they are also reducing greenhouse gas emissions.

## Step 2

### Quantify emissions reductions already achieved

Use ICLEI's quantification software to measure the greenhouse gas reduction benefits of your jurisdiction's existing programs. As you learn which programs are most effective at reducing emissions, you can apply this knowledge in planning future projects. Add together the reductions you have already achieved to determine how far your local government has already come toward meeting its emissions reduction target, and how far you still have to go.

## Step 3

### Identify new opportunities for further reducing emissions

Consider the results of your greenhouse gas inventory and forecast—as well as sample projects implemented by your peers across the ICLEI network—in order to identify new reduction measures that maximize cost effectiveness, minimize staffing needs, build political support, raise public awareness, and create co-benefits such as new jobs and improved public health. Use ICLEI's quantification software to measure the emissions reductions of each proposed project and compare your total planned reductions to your community's emissions reduction target.

## Step 4

### Put everything together: Create your Local Action Plan

Once the total reductions resulting from your existing and planned projects meet your community's reduction target, it's time to incorporate all of these projects into a Local Action Plan.

# A Local Action Plan Includes

**A jurisdiction's greenhouse gas emissions data:**

- Baseline emissions inventory
- Emissions forecast
- Emissions reduction target

**Greenhouse gas reduction measures:**

- Existing measures that will continue
- New or proposed measures
- Quantified emissions reductions resulting from each measure

**Implementation strategies:**

- Costs, responsibilities, schedules, and funding sources for implementing each measure
- Procedures for monitoring the progress of all reduction measures

ICLEI's website [**www.iclei.org/usa**] provides links to sample action plans created by other local governments in ICLEI's Cities for Climate Protection™ network.