



Mayors Climate Protection Center

Climate Protection

Featuring 2008 Mayors' Climate Protection Award Winning Entries



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First Place Award Winners

LARGE CITY

Seattle Mayor Greg Nickels

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Seattle Mayor Greg Nickels

Program Name: Seattle Climate Action Now

Program Description: Seattle Climate Action Now is a grassroots climate protection campaign aimed at giving Seattle residents the tools they need to start making a real difference at home, at work and on the road. Launched in September 2007, Seattle Climate Action Now is a City-led effort, but is grounded in partnerships with businesses, organizations and individuals throughout Seattle.

Why did the city identify a need for this program? Seattle has adopted climate protection goals to reduce community-wide greenhouse gas emissions to 7% below 1990 levels by 2012, but reaching their target will require that every resident, household, business and institution in Seattle do their part. Climate Action Now supports the City's overall Climate Action Plan in three principle ways: Shifting specific behaviors that result in measurable GHG reductions; Building public support for new municipal policies; and Building local support for regional, state and federal policy agendas

What were the challenges faced to implement it? Climate Action Now makes use of existing networks and organizations to "mobilize the entire community." The scale of this effort is comprehensive – it aims to reach every resident, household, business and industry in the city with the message that individual action matters, and is essential to meeting their community-wide climate protection goals. Recognizing the enormity of this task, the city has developed a number of tools to support the campaign. The campaign uses a three-pronged engagement strategy: a comprehensive web portal featuring a resource and partner directory, action planning tool and events calendar; Community Action Now engagement events; and strategic partnerships and collaborations with Seattle-based organizations and businesses.

How has the program reduced greenhouse gas emissions in the community? During the first year, Climate Action Now is focusing on transportation and home energy, Seattle's two largest sources of emissions, through a variety of outreach programs including a 'one-less car' challenge, weekend incentives to take alternative transportation and distributing thousands of home energy efficiency kits. One particularly successful program is "Twist and Save," which offers Seattle consumers Energy Star compact fluorescent light bulbs for less than \$1 each. By the end of 2008, the City will have distributed over 1 million bulbs, which will ultimately reduce Seattle emissions by over 20,000 tons of CO₂.

How is this program outstanding or innovative? The program is innovative in its comprehensive approach to engaging all Seattle residents, organizations and businesses to modify their behavior to substantially reduce GHG emissions. It is a replicable program that will offer considerable cost-savings to other municipalities by sharing the methods, products and lessons learned. They are working with partners to create an open-source toolkit, complete with readily adaptable campaign components that will further remove start-up barriers for other communities.

How was the program financed? This program is financed out of the general fund, in addition to support from utility partners. The City is also developing a new fund that makes it possible to accept charitable contributions to the program.

How has this program improved the quality of life in the community? Seattle is already an environmentally conscious community, however, it has never faced an environmental issue like climate change, which touches everyone's life and crosses all departments of government. Climate Action Now is building community, offering residents a chance to have a role in tackling the biggest environmental issue of this generation and of course, reduce climate pollution.

Carmel Mayor James Brainard

Program Name: Roundabouts

Program Description: Mayor Jim Brainard made the case for installing roundabouts in Carmel, Indiana by promoting their proven environmental friendliness, safety benefits, cost savings and ability to smooth traffic flow. The City of Carmel began installing roundabouts in 1996 and now has 40 on city thoroughfares, with over 20 more planned and funded in the next three years.

Why did the city identify the need for this program? Carmel is located in Hamilton County, Indiana, a non-attainment area designated by the U.S. Environmental Protection Agency. This designation can adversely affect aspects of federal funding and growth in the area. Poor air quality is also a detriment to citizens' health. Roundabouts can help improve overall air quality by cutting down on idling engines that occur at four-way stops and signalized intersections.

What were the challenges faced to implement it? Roundabout use is somewhat new to North America. One of the first challenges was to hire contractors experienced in creating and building roundabouts because proper design and implementation is an important factor in their success. Public education was also a challenge as well as an integral part of the public acceptance of roundabouts.

How has the program reduced greenhouse gas emissions in the community? When compared with signalized intersections, roundabouts save an average of 24,000 gallons of gas per year per roundabout with traffic counts ranging from 14,000 to 47,000 AADT (Insurance Institute of Highway Safety). This amounts to a significant reduction in greenhouse gas emissions as cars continue to move through roundabout intersections by yielding at the entry rather than having to stop and idle. The absence of signal equipment at roundabouts also reduces greenhouse gas emissions because electricity, which is produced locally from burning coal, is not required for their operation. The landscaped center island of a roundabout can also reduce greenhouse emissions because plants and trees help to absorb Carbon Dioxide.

How is this program outstanding or innovative? The City of Carmel currently has built 40 roundabouts in the past 12 years, with more than 20 planned and funded. This is the highest number of any city in North America. Carmel recently assumed control of a former state highway and is incorporating roundabout interchanges into its reconstruction.

Outstanding Achievement

LARGE CITY

Denver Mayor John W. Hickenlooper

Honolulu Mayor Mufi Hannemann

Houston Mayor Bill White

New York Mayor Michael R. Bloomberg

SMALL CITY

Chapel Hill Mayor Kevin C. Foy

Columbia, MO Mayor Darwin Hindman

Highland Park, IL Mayor Michael Belsky

Orland Park, IL Mayor Daniel J. McLaughlin



Denver Mayor John W. Hickenlooper

Program Name: FasTracks

Program Description: FasTracks is the most ambitious transit initiative in U.S. history, creating an opportunity to connect smart growth, housing choices and expanded transportation options. Voters in the eight-county Denver region approved FasTracks in 2004, authorizing a sales tax to help fund the Regional Transportation District's 12-year expansion plan that includes 119 miles of light- and commuter rail, 31 park-n-rides, 57 transit stations, expanded bus service, and redevelopment of a downtown multimodal center. This initiative provides the opportunity for Transit Oriented Development (TOD) at 51 of the system's 57 new transit stations. TOD reduces sprawl, and provides pedestrian- and bike-friendly environments that encourage residents to live, work, shop, and play in close proximity to transit, thus reducing their carbon footprint.

Why did the city identify the need for this program? There are 2.6 million people living in the Denver region, with another one million expected to move there by 2025. Carbon emissions have historically increased in almost direct proportion to population growth, with roughly a third coming from the transportation sector. Denver recognized the need for infrastructure that would support economic and population growth while protecting the environment and their quality of life.

What were the challenges faced and overcame to implement it? The challenge of passing a large transit initiative in an ideologically diverse region was met by bringing together the environmental and businesses communities and all Metro Denver Mayors in a regional bipartisan coalition. Escalating construction costs, inflation, and increasing oil prices present the greatest implementation challenge. While these trends are clearly beyond their control, they are managing them, and FasTracks is being delivered within the same general scope, timeframe and financial capacity approved by voters.

How has the program reduced greenhouse gas emissions in the community? With three rail corridors completed, ridership reached an average of 62,000 daily passenger trips in the fourth quarter of 2007, compared with 44,240 average trips for the fourth quarter of 2006. In one segment alone there were 36,000 weekday passengers, with 32 percent of these riders never having used transit before the opening of this line. 11,520 new transit trips converted from auto trips equates to approximately 60,249 less metric tons of carbon dioxide emitted in one year. The average passenger vehicle emits approximately 5.23 metric tons of CO₂ (EPA).

How is this program outstanding or innovative? FasTracks includes an unprecedented concentration of transit-oriented development opportunities. Regionwide, 51 of the 57 new stations will have TOD potential, making this initiative a national model of regional cooperation.

How was the program financed? FasTracks is a \$6.1 billion initiative funded through a combination of sources: • Voter-approved sales tax increase of 0.4 percent = \$1.976B (32.4%) • Pay-as-you-go Cash = \$1.415B (23.2%) • Federal New Start Grants = \$1.262B (20.7%) • Public-Private Partnerships = \$0.548B (9.0%) • Certificate of Participation Proceeds = \$0.380B (6.2%) • Transportation Infrastructure Finance Loan Proceeds = \$0.212B (3.5%) • Other Federal Grants = \$0.164B (2.7%) • Local Funding = \$0.126B (2.1%) • Additional Funding/Third-Party = \$0.030B (0.5%).

How has this program improved the quality of life of the local community? FasTracks is already having an impact by reducing vehicle miles traveled and traffic congestion, leading to cleaner air. Transit riders and highway drivers alike benefit from reduced commute times and are able to spend more time at work or home. As gasoline prices continue to rise, the transit options represented by FasTracks are becoming increasingly appealing to families seeking to save money at the pump.

Honolulu Mayor Mufi Hannemann

Program Name: The 21st Century Ahupua'a

Program Description: The 21st Century Ahupua'a is the "umbrella" brand for the city's sustainability and climate protection effort. By incorporating the Hawaiian cultural perspective they are able to reach a much larger and more receptive audience for this important message. "Ahupua'a" is the term Hawaiians gave to their sustainable resource management system that enabled them to live in balance with their environment for over 1,800 years. They must benefit from the wisdom of their Polynesian ancestors, combined with the technological innovations of today, to make their island home sustainable and self-sufficient for our future generations. The principals of the 21st Century Ahupua'a include: Honor Their Host Culture, Encourage Green Building & Conservation, Develop Alternative Energy & Bio Fuels, Recycle Solid Waste, Build Efficient Public Transportation, Protect the Forests & Reefs, and Restore Productive Agriculture. The city's 21st Century Ahupua'a has accomplished several major milestones: 1. Establishment of a Multi-departmental task force to set sustainability goals, conduct research and direct pilot projects. 2. Drafted the city's first formal sustainability plan. 3. Establish greenhouse gas inventory processes for city operations. 4. Authored public awareness programs and established private sector and University partnerships to further sustainability and climate protection practices.

Why did the city identify the need for this program? Mayor Hannemann feels that it is important to take a leadership position on the issue of sustainability and climate protection; and to craft the message in a way so as to reach most of their diverse constituents in a way that is appropriate for their unique culture. Mayor Hannemann was also an early signor of the Mayor's Climate Protection Agreement requiring specific goals be met regarding greenhouse gas emissions. Because of Hawaii's unique isolation and vulnerabilities (dependence on imports, especially petroleum), city leaders feel it is imperative that they treat issues of sustainability and self sufficiency with utmost urgency.

What were the challenges faced to implement it? Finding simple concepts and symbols that resonate with their community and communicate the importance and interconnectivity represented by the wide gamut of sustainability issues. In other words, getting people to see the big picture. Also, finding consensus on the priority of various projects and selection of specific technology solutions posed a challenge...one that was largely overcome by open Web access to communications and transparent operations.

How has the program reduced greenhouse gas emissions in the local community? By beginning the process of raising people's awareness of sustainability and establishing a shared vision with universal buy-in. The majority of behaviors encouraged by their sustainability plan contribute greenhouse gas reduction. They have established specific goals for green house gas reductions which have all been dramatically impacted by projects like: 1. Waste to energy operations 2. 28 mile rail transit plan 3. Biodiesel production & fleet conversion 4. Multiple alternative energy co-production & conservation strategies. 5. Green building practices (i.e. all new city facilities to be LEED Silver or better).

How is this program outstanding or innovative? The 21st Century Ahupua'a is a product of Hawaii's cultural history and unique vulnerabilities as an isolated Island community, yet it can serve as a model for the entire planet. Their islands are a living laboratory and a scale model of the issues facing the planet.

How was the program financed? The Mayor's Energy & Sustainability Task Force helps to redirect existing operational and CIP budgets within various departments to "sustainable" projects including: 1. Curbside Recycling pilot projects 2. Mayor's 21st Century Ahupua'a Youth Ambassadors - high school student programs 3. Bio-fuel projects 4. Green Parking program -

priority parking for hybrids 5. Green Roof & catchment projects. 6. Roof top wind generation tests. The task force is also able to secure private sector partners who contribute equipment and services such as: Hoku Scientific's contribution of 15 kilowatt photovoltaic array for our neighborhood sustainability center; and Media partners Clear Channel and Honolulu Advertiser to promote the city's endorsement of Earth Hour 2008.

How has this program improved the quality of life in the local community? By invoking pride in their island culture, they create a unifying theme for the advancement of specific sustainability initiatives. The 21st Century Ahupua'a has continued to gain momentum toward a shared vision and growing enthusiasm for public participation and support for sustainable practices and environmental awareness.

Houston Mayor Mayor Bill White

Program Name: The Comprehensive Renewable Energy Program

Program Description: The Comprehensive Renewable Energy Program gives the City of Houston the contractual ability to bring in up to 80 megawatts, or 700,800,000 kilowatt-hours, of renewable power, which represents 50% of the City's total power. The design of the contract includes a negotiated structure that comprises third party wholesalers, Reliant Energy, the Government Land Office, and City of Houston to transact long-term wind power. The strategy is to purchase wind power in 10-megawatt increments for 5-year terms at competitive prices. Currently the City has purchased 30-megawatts, and was recognized by the EPA as Green Power leader, ranking second in the nation in the amount of renewable energy purchased among municipal governments.

Why did the city identify the need for this program? The city spent approximately \$150 million during the last fiscal year on electricity, paying a rate of roughly \$91 per 1,000-kilowatt hours. Hurricanes Katrina and Rita drove natural gas and power prices up 3 fold, creating liabilities for the City of \$30M over budget. City officials, who have seen Houston's electricity bills nearly double since 2004, hope the new source of energy will help control those costs over the five-year contract.

What were the challenges faced and overcome to implement it? Officials from the City had to work to stabilize the City's \$150 million annual electricity bill. The strategy that City experts choose to implement focused on a diversified power portfolio including the use of renewable wind power. The City had to negotiate a contract that would allow them to purchase large amounts of renewable wind generated power, in a cost effective manner. They were able to do this by creating a complicated structure between Reliant Energy, the Government Land Office, and the City. This made it possible to purchase the energy on the wholesale market.

How has the program reduced greenhouse gas emissions in the community? Since this electricity is coming from a clean / renewable source, once the 50 Megawatt threshold is met, (of which the City is only 20-megawatts away), the City will be reducing the greenhouse gas emissions associated with their electricity usage by approximately 300,000 metric tons per year. That is the equivalent of removing 60,000 cars from the road. Once enacted, Houston will lead the nation in the percentage of renewable energy used by a City government.

How is this program outstanding or innovative? This program is an outstanding example of good government policy. The Mayor's Office was able to negotiate a renewable energy contract that allows the City to purchase the renewable energy on the

wholesale market. Because of this, the City was able to purchase the green power at a decreased cost to tax payers. Not only was the City able to save tax payer's dollars, but because they are purchasing energy from a renewable source, they also greatly decreased the amount of GHG emissions produced.

How was the program financed? Energy costs for the City are paid for through the City's general fund.

How has this program improved the quality of life in the local community? In choosing renewable wind power as a major source of the City's overall power usage, the City will not only be saving the tax payers money, but more importantly, get a power source that reduces climate-changing emissions from being emitted into the air.

New York Mayor Michael R. Bloomberg

Program Name: PlaNYC

Program Description: On Earth Day of 2007, Mayor Bloomberg outlined PlaNYC, a 127 initiative plan to help New York City meet the challenges of adding nearly one million people to the City's population between now and 2030, while at the same time reducing the City's greenhouse gas emissions by 30%. To achieve this reduction, the City took a comprehensive approach. Strategies such as transit-oriented development, hybrid taxis, congestion pricing and ambitious energy efficiency efforts all help to reduce greenhouse gas emissions. They also help achieve the City's other sustainability goals for affordable housing, access to open space, enhanced infrastructure, and improved air and water quality.

Why did the city identify the need for this program? The City identified a need for this program when investigating the challenges that New York City will face in the next 25 years, namely that they will grow by almost a million more people, their infrastructure will continue to age, and their environment will be more at risk, especially with the impending impacts of climate change.

What were the challenges you faced and overcame to implement it? During the creation of PlaNYC, the most difficult challenge was getting people to think long-term, beyond the next budget year. Since the release of PlaNYC, the City continues to deal with competing needs for limited resources in a contracting economy and the need for City Council and State Legislature approvals for certain legislative and regulatory initiatives.

How has the program reduced greenhouse gas emissions in the local community? The City of New York has begun implementing over 90% of the 127 initiatives that help reduce greenhouse gas emissions. For example, the City created regulations to make the City's taxicabs and black car fleets fuel efficient and in anticipation of these rules 800 hybrids are already on the street. They have invested \$80 million this year on 132 projects to reduce City government greenhouse gas emissions and launched a campaign to plant one-million trees, with 30,800 trees planted since its October 2007 launch.

How is this program outstanding or innovative? PlaNYC has set the bar for other municipalities, and changed the dialogue regarding climate change and sustainability planning. It is ambitious, yet achievable—using only available and economical strategies. PlaNYC is also supported by a diverse set of stakeholders, from environmentalists and labor groups to developers, corporations, and elected officials.

How was the program financed? PlaNYC is financed through the City's budget and a number of other innovative strategies, including the congestion pricing fees, revolving loan funds, a proposed increased surcharge on energy bills and other partnerships.

How has this program improved the quality of life in the local community? PlaNYC will improve quality of life for all New Yorkers by increasing access to parks and open space, improving air and water quality, reducing traffic congestion and ensuring that overall New York City is able to grow and prosper sustainably. They have already put in a place a number of initiatives that will improve New Yorkers' quality of life. For example they have retrofitted much of their public ferry fleet and began using fuel with 5% biodiesel to improve air quality. The taxicab initiative alone provides air quality improvements equal to removing 32,000 private cars from the City streets. They have also opened 69 schoolyards as playgrounds to provide recreational opportunities for children after school hours and on weekends.

Chapel Hill Mayor Kevin C. Foy

Program Type: Climate Change

Program Description: The Town of Chapel Hill, the Town of Carrboro and the university of North Carolina collaborated to offer a fare free transit system on a community wide basis. In 2001, Mayor Foy championed the fare free system in Chapel Hill and today it is the 2nd largest Transit system in North Carolina. Since that time ridership has risen from 3 million riders a year to almost 6.5 million riders annually projected for 2008. This program is unique in that many university systems provide fare free service for university students, faculty and staff. However, the commitment in this community went beyond the University to all citizens in the community in an effort to encourage greater usage of public transportation and reduction of reliance on the single occupancy automobile. The University and the Towns of Carrboro and Chapel Hill are also committed to reducing the effects of greenhouse gas emissions in the community and protecting the natural environment from air pollution.

Why did the city identify a need for this program? The Town of Chapel Hill and the University of North Carolina have long been committed to a clean environment, a sustainable community and a multi modal community. As traffic congestion grew in the community, discussions were held regarding options to deal with congestion. The university and the Town agreed that widening streets and building additional parking on the campus were not alternatives that supported a sustainable community. In response, chose to encourage a fare free transit system. The Community understood that traveling by public transportation uses less energy and produces less pollution than comparable travel in private vehicles. To make progress in reducing their dependence on foreign oil and impacting climate change, public transportation must be part of the solution. In addition to the fare free system, the service was also improved by an increased service of 20% and many pricing and other strategies were employed to encourage people not to drive.

What were the challenges faced to implement it? Funding: the transit system stood to lose approximately \$800,000 in annual operating revenues. The decision was made to forego the revenues in exchange for the trade off in higher ridership and a better quality of life. As a result, the University and the Towns have increased their annual financial contributions in order to maintain the high level of service. As ridership began to grow, additional pressures were placed on the community to improve transit service. Now, many routes in the community operate buses every five minutes in order to accommodate the outstanding success of the program.

How has the program reduced greenhouse gas emissions in the community? The projected ridership is more than double (2001: 3 million vs. 6.5 million projected for 2008) since going fare free. This has no doubt had a major impact on the amount of Private vehicles traveled throughout Chapel Hill. The Private vehicle is the largest contributor to a household's carbon footprint (approx.55%) – using public transportation reduces household carbon emissions.

How is this program outstanding or innovative? This program is innovative in that it has applied the concept of fare free service on university campuses to an entire community. The community has an entire population of 90,000 people. An examination of system performance data explains why this program is outstanding. 1. Ridership has increased by more than 100% in a four year period. 2. The performance of the system compared to its peers shows that the fare free concept and the commitment have led to usage that is significantly higher than that in other areas of comparable systems in North Carolina. The Chapel Hill community has proven its commitment to reducing greenhouse gas and its commitment to alternative forms of transportation through this innovative program.

How was the program financed? The Town of Chapel Hill, the Town of Carrboro and the University of North Carolina are funding partners for the transit system. The costs are allocated based on a formula that identifies hours of service allocated to each one of the partners. The increase was funded from the budgets of each of these partners.

How has this program improved the quality of life in the community? Public transit is an integral part of the Chapel Hill community. The significant commitment to public transit has made Chapel Hill truly a sustainable community in which people do not need to rely on the automobile. The high level of service and the attractive fare have stimulated ridership and support of the transit system to the point that the transit system is a point of pride in the community. The increase in ridership over the period of time has led to a reduction of vehicle miles traveled in the area and improved air quality. Transportation is about having options and choosing to live a life that in enables you to be comfortable and active. Chapel Hill Transit provides such comfort because it gives residents the freedom to travel around town easily and without any money out of their pocket.

Columbia, MO Mayor Darwin Hindman

Program Type: Energy Source

Program Description: Columbia, Missouri's landfill has received 2.8 million tons of trash since it opened in 1986. Biogas, or landfill gas, is created when waste decomposes. Columbia's landfill now generates sufficient quantities of gas to make it feasible to produce electricity. On December 18, 2007, Columbia dedicated the Biogas Energy Plant at the City's landfill. Thanks to the biogas plant, the trash citizens leave at the curb can now be returned to them in the form of electricity, completing the recycling loop.

Why did the city identify the need for this program? In 2004, Columbia became Missouri's first city to have a voter approved renewable energy standard, mandating the City to phase-in energy from renewable resources - 2% by 12/31/07, 5% by 12/31/12 and 15% by 12/31/22. The Biogas Energy Plant now provides 1.5% of the City's energy portfolio, and Columbia is on track to have 5% of its energy come from renewable sources by the end of the 2008.

What were the challenges faced and overcame to implement it? Decaying waste does not generate gas in a nice, neat package, so getting sufficient quantities of usable gas was difficult. An extensive network of 47 gas wells and piping within the landfill was needed to capture the gas. Since Public Works operates the landfill and Water and Light the electric utility, a unique partnership between two of the City's largest departments was needed to bring the project together.

How has the program reduced greenhouse gas emissions in the local community? Methane, a major component of landfill gas, is a potent greenhouse gas. Controlling methane (CH₄) from landfills results in decreased greenhouse gases (GHGs.) This is accomplished by a combination of flaring and combustion of methane in engines used to generate electricity. It is estimated that this voluntary project will destroy 95,205 tons of methane in calendar year 2008, and more each year thereafter. The plant has an initial output of 2.1 Megawatts, enough to provide power to 1,500 homes. As landfill gas volumes continue to grow throughout the next decade, the output is expected to supply 2.5% of the community's needs.

How is this program outstanding or innovative? In 2007, Columbia encouraged the Missouri General Assembly to pass Senate Bill 54, which included a clause to allow previously prohibited yard waste to be disposed in Columbia's landfill since it would create renewable energy utilizing bioreactor technology. Columbia's bioreactor will use water to rapidly break down

organic waste, accelerate decomposition and increase methane production. The rate gas is produced increases by 36% over a standard landfill, allowing more renewable energy to be generated.

How was the program financed? In 2006, a \$60 million electric bond issue, including \$3 million for the biogas project, passed with 86% approval by voters. The program came in under budget at \$2.85 million.

How has this program improved the quality of life in the local community? The biogas plant helps the environment by using methane gas from the landfill to create energy, instead of having it released into the air. Biogas energy also diversifies Columbia's power portfolio by displacing some of the electricity generated from fossil fuels. This type of renewable energy is somewhat more reliable than intermittent sources of power such as solar or wind. An added bonus is that biogas energy is created in Columbia, so the city saves on transmission fees to transport the energy.

Highland Park, IL Mayor Mayor Michael Belsky

Program Name: Highland Park Illinois Green Initiatives Alliance

Program Description: The Highland Park, Illinois Green Initiatives Alliance is a collaboration of the City of Highland Park; the Park District of Highland Park; School Districts 112 and 113; The Highland Park Public Library; Moraine Township and interested residents, with the commitment of working collectively on shared goals and strategic objectives designed to transform Highland Park into a more environmentally efficient and responsible community for the benefit of future generations.

Why did the city identify the need for this program? Each governmental entity is aware of the importance of careful management of local natural resources, not only through good conservation and recycling practices, but also through policies and practices that promote the conservation of ecological support systems. The City, The School Districts, Park District, Library, and Township recognized the benefits of acting together to increase awareness and to develop new policies, practices, and initiatives that promote sustainability.

What were the challenges faced and overcome to implement it? The group has entered into a Memorandum of Understanding (MOU) that outlines a list of policies promoting sustainability. The first draft of the MOU submitted was established in September 2007. The members of the Alliance had formed an agreement on how this was to be presented to the various governing boards for their approval. The major challenge faced by the alliance was reaching a consensus among the members on how to phrase each policy. After months of editing, the members of the Alliance presented the MOU to the respective governing boards for approval. As of March 10, 2008, all of the governmental bodies have approved the MOU.

How has the program reduced greenhouse gas emissions in the community? Replaced 22 Crown Victoria vehicles with hybrid vehicles, which reduced fuel usage by 3,382 gallons from June 2007 through December 2007 - Utilized green-building principles in the construction of new Police Headquarters - Replaced R-22 gas with Puron gas in City air-conditioning units to limit ozone depletion.

How is this program outstanding or innovative? Highland Park's program is unique, in that it is a collaborative effort with other local governments. Each entity involved makes an impact in many different ways on the lives of the citizens of our community, which provides for a consistent message to the public regarding the Alliance's commitment to environmental

sustainability. The creation of the Highland Park Green Initiatives Alliance has led to concrete strategic objectives for environmental sustainability.

How was the program financed? Each government contributes resources and personnel for implementing the initiatives. Most costs to date are fixed and thus are shared equally by all of the participating entities.

How has this program improved the quality of life in the local community? As each unit of government works together toward the goal of environmental sustainability in their everyday practices, the community benefits, as these initiatives improve the quality of the air, land and water. The reduction in fuel consumption as a result of switching to hybrid vehicles lessens greenhouse gas emissions, but also reduces fuel spending.

Orland Park, IL Mayor Daniel J. McLaughlin

Program Type: Fuels, Vehicles & Transit

Program description: To reduce greenhouse gas emissions and the associated environmental impacts of using diesel-fueled machinery, Orland Park utilizes B-5 biodiesel fuel for municipal operations. B-5 fuel is used for operating 51 on street diesel-fueled vehicles, 36 non-street vehicles, and equipment, including backup power generators. Through an intergovernmental agreement, the village also supplies B-5 biodiesel fuel to the local Fire Protection District. The Village has purchased approximately 55,000 gallons of B-5 fuel annually since 2003. Its use has resulted in reductions of Hydrocarbons, Carbon Monoxide, Nitrous Oxide, Sulfur Dioxide, and Carbon Dioxide emissions.

Why did the city identify the need for this program? As the Mayor and Board of Trustees became aware of the environmental benefits of using biodiesel, including reduced emissions and utilization of renewable resources, Mayor McLaughlin and the Board directed the Public Works department to explore its potential for Village operations. Though slightly more costly than traditional diesel fuel, the Mayor and Board believed that the environmental benefits offered by B-5 were in the best interest of Village residents and directed that it be used for Village operations.

What were the challenges faced to implement it? Initially B-20 fuel, consisting of 20% biodiesel fuel, was used. It was then discovered that using B-20 fuel would void vehicle warranties. The costs and liabilities associated with voiding vehicle warranties necessitated that the Village switch to using B-5 biodiesel – which would provide environmental benefits, but would not void vehicle warranties nor require costly retrofits to the vehicles. The Village intends to return to using B-20 fuel as it becomes acceptable under warranty, and continues to monitor manufacturer's specifications for this change.

How has the program reduced greenhouse gas emissions in the local community? Approximately 55,000 gallons of B-5 biodiesel is used per year. Using B-5 diesel fuel has resulted in the following emissions reductions over using the same amount of traditional diesel fuel: 3% (18.4 pounds) decrease in Particulate Matter ; 5.4% (25 pounds) decrease in Hydrocarbons; 3.23% (205 pounds) decrease in Carbon Monoxide; 0.5% (40.5 pounds) decrease in Nitrous Oxide; 5% (12 pounds) decrease in Sulfur Dioxide; and 3.92% (44,304) pounds decrease in Carbon Dioxide (Source: www.biodiesel.org)

Why this program is outstanding or innovative. B-5 diesel fuel is not widely used for municipal vehicle and equipment operations because of increased costs. The use of the fuel by the Village of Orland Park demonstrates a dedication to improving the environment for residents, visitors, and the larger global community.

How was the program financed? The increased cost of purchasing B-5 fuel over traditional diesel fuel was paid for with village funds.

How has this program improved the quality of life in the local community? The program has provided healthier air for people to breathe by reducing green house gasses and particulate matter emissions. Better air quality results in reduced impacts on asthmatics and others with respiratory disease, protects the community – including Public Works employees operation the machinery, and lessens negative effects on wildlife and the environment.

Honorable Mentions

LARGE CITY

Chattanooga, TN Mayor Ron Littlefield

Colorado Springs, CO Mayor Lionel Rivera

Oakland Mayor Ron Dellums

Phoenix Mayor Phil Gordon

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Bartlett, IL Mayor Catherine J. Melchert

Pleasanton, CA Mayor Jennifer Hosterman

Scranton, PA Mayor Christopher A. Doherty



Chattanooga Mayor Ron Littlefield

Program Type: Buildings

Program Description: Buildings in the United States account for one-third of our energy consumption, greenhouse gas emissions, use of raw materials and output of wastes. “green | spaces” is helping Chattanooga change that percentage. This is a two-part initiative: incentive funding for commercial projects to be built and certified green, as well as include high profile green features; and a resource center for commercial and residential projects, showcasing the best eco-friendly materials and methods.

Why did the city identify the need for this program? Nearly fifty years ago, the committee that later evolved into the EPA named Chattanooga as America’s most polluted city, in terms of air quality. Since that day conservationists, entrepreneurs and community groups have joined together to clean up many parts of the city: from electric buses to greenways, from the Waterfront to sustainability-minded small businesses. But construction and renovation have lagged behind in this progress, not just in Chattanooga, but also in the rest of the country and around the world. EPA estimates 136 million tons of construction waste produced a year; one of many signs that something needed to be done soon. “green | spaces” was created to change the way they build in Chattanooga.

What were the challenges faced to implement it? Chattanooga is six months into the 3 year initiative. Lack of education has been one hurdle, because builders need to know that advanced framing techniques can not only create less waste, it can save them money.

How is this program outstanding or innovative? This is a multi-disciplinary initiative that brings together people from various levels of the community.

How was the program financed? The Lyndhurst Foundation is funding the majority of what “green | spaces” is doing (around \$2 million). The Benwood Foundation has stepped up and helped them create a partnership with UTC for an internship program. The City of Chattanooga has signed on as a partner in this initiative, the mayor has agreed to a list of things to do to be involved.

How has this program improved the quality of life in the local community? As this initiative is still so new, they do not yet have quantifiable results. They anticipate that the impacts will be felt both economically, environmentally and aesthetically.

Colorado Springs, CO Mayor Lionel Rivera

Program Type: Municipal Buildings, Facilities & Operations; Air Quality; and Fuels, Vehicles & Transit

Program Description: Colorado Springs Utilities and the City of Colorado Springs are partners in providing environmentally-responsible fleet services for utilities and city employees. Fleet maintains more than 4,500 vehicles and pieces of equipment. In 2007, they passed the 1,400,000 gallon mark for life-to-date-use of B20 bio-diesel blend since December 2003. They continue to work with departments to purchase hybrid, flex-fuel vehicles and alternative-fuel vehicles when appropriate. More than 2,600 units use some sort of alternative fuels. They are always looking for ways to responsibly expand alternative fueling and engage in fuel conservation, including the purchase of hybrids (more than 50), bio-diesel, E85 (more than 80), compressed natural gas and electric vehicles. In April 2008, they will add a hybrid bucket truck for their electric crews.

Why did the city identify a need for this program? Despite passing or exceeding all air quality standards, at Colorado Springs Utilities, they know they can do more. That's why they've partnered with the city to identify all reasonable options. Their ultimate accountability is to their community and providing utility services (which includes the functions that make those services available) in a safe, reliable and environmentally-friendly manner.

How has the program reduced greenhouse gas emissions in the local community? In January 2008, their fleet program passed the 1.5-million gallon life-to-date mark with more than 2,400 pieces of equipment using bio-diesel since its inception. This is the equivalent of more than 491 vehicles not being driven for one year, or a reduction of more than 5,000,000 pounds of carbon dioxide being released into the atmosphere.

How is this program outstanding or innovative? Government Fleet Magazine ranked the City of Colorado Springs as the top municipal bio-diesel fleet in the nation. The magazine also named the City number 17 in the overall Public Sector Alternative-Fueled Fleet rankings.

How was the program financed? The fleet program is financed as part of the annual budgeting process.

How has this program improved the quality of life of the local community? Protecting the environment is a fundamental part of their operations, and living in the Rocky Mountain region only intensifies their commitment. Regional haze, greenhouse gases and other emissions are preventable when they invest the time, energy and funding to responsible fleet alternatives. By taking these steps now, they can continue to build a community that is grounded in environmentally-responsible principles.

Oakland Mayor Ron Dellums

Program Type: Climate Change

Program Description: Residential and commercial food scraps are diverted from landfills to composting through weekly collection services. Residents source-separate into their green yard trimmings recycling carts household food scraps, food-soiled paper products, and other products such as compostable restaurant take-out containers. Restaurants, commercial food service facilities, institutional kitchens, florists, cafés and other businesses also source-separate food scraps for weekly collection. Approximately 12,000 tons of rich organic material was diverted from landfills to composting in 2007, and there is high potential for growth as this young program matures.

Why did your city identify the need for this program? Food scraps composting addresses Oakland's goals of Zero Waste by 2020, and reduces GHG's fighting global climate change.

What were the challenges faced to implement it? Similar to getting people and businesses to adopt can, bottle and paper recycling in the 1990's, source-separating food scraps is an individual and institutional challenge. Strategies Oakland has employed to meet the challenge include: a public education campaign providing 95,000 households with kitchen food scraps pails and educational materials; banning polystyrene foam restaurant take-out containers and promoting compostable alternatives; and establishing preferential collection service rates for organics and recycling.

How has the program reduced greenhouse gas emissions in the community? Landfills are significant GHG emitters. Organic materials, particularly food scraps, decompose anaerobically in landfills, and contribute to fugitive emissions of methane, a GHG twenty-three times more potent than carbon dioxide. Aerobic composting not only reduces source point emissions from landfills, it has multiple, cascading climate and energy benefits. Compost sequesters carbon in soil; displaces petroleum-based fertilizers and associated runoff and pollution; and increases water retention in soil, which in turn reduces the demand for energy to process and deliver crop irrigation water.

How is this program outstanding or innovative? Large-scale food scraps collection and composting successfully expands resource recovery beyond traditional recycling and yard trimmings materials. Unlike landfilling or one-way use for combustion/energy production, composting is a "whole system" management option with multiple climate and energy benefits. Oakland leveraged existing capitalized infrastructure for yard trimmings collection (established 1995) to add residential food scraps composting in 2005, launching a significant waste-reduction program targeting the last, large recoverable material category in Oakland's waste stream. Regional use of finished compost products returns carbon to the natural carbon cycle, keeps value-added dollars in the regional economy, and creates more jobs than landfilling by a factor of 5-10.

How was the program financed? Food scraps, kitchen pails and public education and outreach materials were funded by a grant from StopWaste.Org, a regional joint powers authority. Businesses achieve monthly cost saving through discounted rates for organics collection services (typically 20% discount), as well as earning points toward Green Business Certification, a valued brand name in the community.

How has this program improved the quality of life in the community? Food scraps recycling rescues local resources from being wasted and causing pollution. The program provides residents, businesses and institutions a meaningful, every-day way to reduce their carbon footprint, improve soil quality, and add green collar jobs to the local and regional economy.

Phoenix Mayor Phil Gordon

Program Type: Municipal Buildings, Facilities & Operations

Program Description. As part of Phoenix’s Energy and Green Buildings Program, a comprehensive revision of design standards for City buildings was conducted in 2006 to include additional energy standards and sustainable features. Furthermore, all City facilities approved in the March 2006 bond election will be designed and constructed to meet Leadership in Energy and Environmental Design (LEED) “Certified” level at a minimum.

Why did the city identify the need for this program? Phoenix’s extreme summer temperatures demand keen attention to optimal energy and resource management. Major issues include urban heat island, water and energy challenges. Green building and LEED guidelines facilitate appropriate design, construction and operating standards that minimize use of scarce resources and deliver a healthier facility for staff and the visiting public.

What were the challenges faced to implement it? Revising the building standards to include the LEED requirement meant that additional funding for “green” construction needed to be identified. Based on experience with LEED projects and substantial research, staff recommended a 2% addition to each project’s construction budget to cover basic LEED design and construction costs. In 2006, Phoenicians approved a bond package that included a 2% construction cost for 16 bond funded facilities. Finally, the building standards document was expanded to be more detailed. This required dozens of staff hours to research, deliberate, and implement the new standards.

How has the program reduced greenhouse gas emissions in the community? By promoting green building construction, Phoenix is continuing its commitment to sustainability and energy management stewardship. Green buildings require less resources and minimize energy use, which in turn reduces greenhouse gas emissions.

How is this program outstanding or innovative? Revised building design standards were included for landscape and exterior design to reduce heat island effects and promote water efficient landscaping, water use reduction, optimal energy performance and construction waste management.

How was the program financed? Based on its experience with LEED projects and substantial research, staff recommended a 2% addition to each project’s construction budget to cover basic LEED design and construction costs. In 2006, Phoenicians approved a bond package that included a 2% construction cost for 2006 bond funded facilities. As a result, 2006 bond funded facilities will be built to a LEED “Certified” level at minimum.

How has this program improved the quality of life in the community? Revision of the design standards for City facilities reflects Phoenix’s commitment to energy and resource management. The City is improving the quality of its community by “leading by example” and being on the forefront of sustainability.

San Francisco Mayor Gavin Newsom

Program Name: Business Council on Climate Change (BC3)

Program Description. Mayor Newsom launched the Business Council on Climate Change (BC3), a partnership of San Francisco Bay Area businesses committed to reducing their greenhouse gas emissions, in March 2007. Members commit to 5 Principles on Climate Leadership (Internal Implementation, Community Leadership, Advocacy & Dialogue, Collective Action, Transparency & Disclosure). The project is in the second year of a three-year pilot phase, with the aim to become a long term, financially sustainable model. SF's Department of Environment (SFE), the U.N. Global Compact, and the Bay Area Council co-sponsor the BC3 - a member-driven, collaborative organization where participants identify tools, participate in educational forums, establish best practices, and dialogue on government policy. BC3 currently has 75 Member companies and 10 NGO Partners.

Why did the city identify the need for this program? "People tend to think of GHG emissions as a global issue, when actually it is a local issue all around the world". Jared Blumenfeld, Director, San Francisco Department of the Environment San Francisco's 2004 climate action plan called for reducing greenhouse gas emissions 20% below 1990 levels by 2012. 43% of emissions come from the commercial sector. BC3 is a means of reducing citywide GHG emissions by fostering a collective and collaborative effort between government, civil society, and business.

What were the challenges faced to implement it? All sectors in San Francisco have been mobilizing to reduce GHG emissions, but efforts were not coordinated. In addition, BC3 member companies are diverse (by sector and size) and at different stages of implementation.

How is this program outstanding or innovative? "Voluntary initiatives such as the Business Council on Climate Change will be crucial in bringing about progressive and robust action on the global climate crisis." Georg Kell, Executive Head, United Nations Global Compact The BC3 is the only local, principles-based organization addressing climate change. In addition to the "Principles", members develop and report on new and innovative solutions. BC3 seeks to build a globally replicable, city-based model for multi-sector climate stewardship.

How was the program financed? Contributions and In-kind donations from member companies and co-sponsors finance BC3 operations. BC3 is managed currently by SFE staff and volunteers. SFE provides support resources, staff time and office space. Member Sun Microsystems invested \$29,000 to build BC3's website (live late April 2008). To date, BC3 has additional commitments of \$30,000 from members. Voluntary dues are based on revenues and range from \$100 - \$12,000.

How has this program improved the quality of life of the local community? BC3 filled a gap between the public/private sectors and opened a dialogue on solutions to climate change. Members and Partners are finding allies within the region and are building partnerships outside of their usual experience. By being both community based (results are relevant) and international, BC3 members have the opportunity to show leadership locally and globally.

Bartlett, IL Mayor Catherine J. Melchert

Program Type: Climate Change

Program Description: Bartlett gave the “green light” to local building code amendments that encourage buildings with increased energy efficiency. With the adoption of the building code the Village mandated additional energy efficient requirements recommended by the U.S. Department of Energy Green Building Council. The specific codes adopted are: • The required use of energy efficient heating and cooling equipment with the “Energy Star” designation. • Required increased attic insulation (a minimum of R38). • Requires all windows to be approved and labeled by the National Fenestration Rating Council to be in compliance with the International Energy Conservation Code. • Architects or Engineers are required to certify that the design of all commercial and residential buildings to be constructed in the Village meet the International Energy Conservation Code and provide evidence compliance. • Adopted the International Energy Conservation Code 2006 Edition.

Why did the city identify the need for this program? The Village is increasingly concerned with the effects of development on the environment. Updating the Building Code with a focus on energy efficiency was an opportunity to address that concern.

What were the challenges faced to implement it? Educating builders and residents about new codes and environmentally friendly alternatives was a challenge. The Building Department redesigned information sheets that were distributed and posted on their website to include new code requirements. They also hosted Home Improvement Day at Home Depot highlighting Energy Star products and code changes to our residents.

How has the program reduced greenhouse gas emissions in the local community? Since the adoption of their new code on May 1, 2007, thirteen new homes were permitted with Energy Star equipment. That is the equivalent of 250,000 pounds of greenhouse gas emissions eliminated.

How was the program financed? Changes to their code resulted in no cost to the Village. The additional cost for new construction is passed on to the home buyer who recoups the cost in utility savings.

How has this program improved the quality of life in the community? A strategic approach to energy management can produce savings both economically and environmentally. Their code requirements for Energy Star equipment, window rating and insulation can result in up to 15% better energy efficiency. This increased efficiency benefits the environment and saves the homeowner \$200-\$400 annually through lower utility costs.

Pleasanton, CA Mayor Jennifer Hosterman

Program Name: City of Pleasanton's Bernal Property Master Plan

Program Description: The City of Pleasanton's Bernal property Master Plan included city-owned property reserved to construct and relocate Fire Station No. 4. This station compliments the local aesthetic, establishes a unique gateway into Pleasanton's downtown commercial core and at the time of construction, had the highest LEED rating and was the first LEED-certified emergency service building in Alameda County.

Why did the city identify the need for this program? The City Council was interested in setting an example for achievable and affordable green buildings. The fire station was due for relocation and the City Council's support of incorporating sustainable building technologies created the opportunity to design a fire station with LEED Silver Certification.

What were the faced to implement it? At the time of this project, the City, County, contractors and architects faced the challenge of constructing a new building, using new standards and unfamiliar materials. Managing the nuances of using new construction materials that react differently than the standard required flexibility, research and partnership to ensure all parties were apprised of schedule changes and the reasons behind those changes.

How has the program reduced greenhouse gas emissions in the community? The equivalent carbon-dioxide reduction of 34-tons was calculated by factoring recycled construction and debris waste, energy-efficient equipment and appliances, renewable energy/photovoltaic system, indoor and outdoor water conservation and Bay-friendly landscape strategies incorporated into the facility. This new station is equal to removing six cars from the road.

How has this program improved the quality of life in the community? This station has improved area aesthetics, employee air quality and resulted in a 34-ton carbon dioxide emissions reduction. The site was previously used for construction staging and vehicle storage for nearby residential developments. The soil was compacted, topsoil was nonexistent and the plants growing on site were non-native or invasive. Site restoration included the preservation of open space and native planting with a project design that supported the San Francisco Bay watershed. To improve air quality and reduce negative health impacts on firefighters and city staff, low-VOC adhesives, paints, carpet, composite wood and natural linoleum products were selected. These factors resulted in a citywide policy requiring the use of non-toxic cleaning supplies.

Scranton, PA Mayor Christopher A. Doherty

Program Area: Air Quality

Program Description: The City of Scranton has an extensive urban forestry program that is growing. The David Wenzel Treehouse, whose construction was cosponsored by Wal-Mart, located in Nay Aug Park. Visitors are allowed to view a panorama of the Nay Aug Park Gorge, a National Natural Landmark and has incorporated the use of standing trees in its construction. Surrounding and below the treehouse is Eastern hemlock which abounds in this area. The hemlocks have been under attack by the hemlock woolly adelgid. They are applying systemic insecticides as well as fertilization of the affected trees to rescue this population and prevent further erosion on the river bank. The City of Scranton conducted an unprecedented Arbor Day observance by distributing 12,500 evergreen seedlings to every school student in the city, public and private, from preschool through high school and sent the City Forester to the schools promoting and educating students of the ecological benefits of planting and using our resources wisely. As of autumn 2008, over 800 trees will have been planted citywide.

Why did the city identify the need for this program? In 2002 Mayor Doherty was concerned over the lack of urban forestry work over the previous forty years and the condition and care of their urban canopy in regards to safety and longevity. The Mayor identified a need for a professional forester and enlisted the help of Anthony Santoli, a Pennsylvania District Forester with the Department of Conservation and Natural Resources for thirty-seven years.

What were the challenges faced and overcome to implement it? In response to a need for ongoing work and care of our tree canopy, a Tree Care Ordinance was enacted by the city in 2002. Last year, the inclusion of approximately \$2 per capita budget recommendation allowed the forestry program to continue with ongoing planting, tree removal and our Arbor Day observance.

How is this program outstanding or innovative? This program has provided tools for community revitalization by partnerships with the neighborhood associations and local students in educational efforts as part of our tree planting program, our Arbor Day observance and student construction of birdhouses placed throughout Nay Aug Park to reintroduce bluebirds to the area. It has truly been a community-wide initiative with public participation.

How was the program financed? A dedicated line item in the City of Scranton budget in the amount of \$60,000 was enacted; in addition to grant funding from the Pennsylvania Urban Forestry Association in the amount of \$5,000 and a grant from Pennsylvania Power and Light in the amount of \$500.

How has this program improved the quality of life in the community? This program is not only beautifying the city through tree planting and maintenance, but enlists the support of our neighborhoods and volunteers, including students. The program goes further to protect and enhance our tree canopy, thereby creating an ecological link and improvement, increasing public safety, creating awareness amongst our citizens and strengthening neighborhood relations.



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