

# High Performance Cities

A Guide to Energy-Saving Policies for Urban Areas

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# Introduction

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**A**s energy and fuel costs rise, state and local governments lead the way towards energy independence in America by employing strategies ranging from using biofuels in fleet vehicles to retrofitting public buildings to meet minimum energy efficiency standards. In doing so, state and local governments not only help the environment, they also help themselves by cutting energy costs, relieving pressure on tight budgets, and demonstrating the essential value of public investment in new energy technologies.

Local governments control a remarkable amount of resources — millions of buildings, cars, buses, and dollars of tax revenue — and influence even more through building codes, zoning restrictions, and transportation/parking policies. City officials, by virtue of their leadership positions, can also exert influence on the private sector and can bring together diverse interest groups to achieve common goals. Because of their control and influence over such a wide array of resources, convincing local governments to invest in high-performance infrastructure can drastically reduce energy use in communities across America.

There is no one model for building a high-performance city. In this document, we bring together a number of different strategies that can be used individually or in concert to reduce energy use and achieve real energy savings — savings that can be reinvested to fund even more significant clean energy programs in the future.

# Included in this Document

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## **Buildings, Operations and Purchasing**

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2. Operations
3. Energy Audits
4. Green Building Standards
5. Green Building Incentives for the Private Sector
6. Updating Building Codes

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4. Energy Savings Performance Contracts
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## **About the Authors** (see back page)

For more information on all of these suggested policies and financing options, please visit the Apollo Resource Center at [www.apolloalliance.org/strategy\\_center](http://www.apolloalliance.org/strategy_center).



## 1 Purchasing

In addition to owning and regulating large amounts of real estate, buildings, and transportation infrastructure, city governments also purchase an immense number of products — everything from paper to paint, motor oil to heating, ventilating, and air-conditioning (HVAC) systems. Through their daily purchases, governments exert substantial power over the market. Therefore, by instituting green purchasing requirements, cities can instantly create a stable market for high-performance products.

### What Cities Are Doing Now

In 1993 **Santa Monica, California** implemented a Toxics Use Reduction Program, which included the trial of less-toxic or non-toxic alternative custodial products. The results of the pilot led the city to develop bid specifications for low- and non-toxic products from custodial product vendors. The U.S. Environmental Protection Agency wrote a case study detailing the city's program, which is available at [www.epa.gov/opptintr/epp/pubs/santa.pdf](http://www.epa.gov/opptintr/epp/pubs/santa.pdf).

#### For more information Contact:

- Dean Kubani, City of Santa Monica
- (310) 458.2227
  - [dean.kubani@smgov.net](mailto:dean.kubani@smgov.net)

In June 2001, the City of **Chicago, Illinois** partnered with Chicago Transit Authority, Park District, and 48 surrounding municipalities to purchase green power, beginning with 3% in the first year and climbing to 20% over the next five years. The awarded bidder was Commonwealth Edison with the Environmental Resource Trust (ERT); the utility will sell 'green tickets' that are certified by ERT. Profits from the initial sale will be used to form a trust fund that will finance the development of more renewables capacity. Phase 1 of the project cut greenhouse gas emissions by 45,530 tons and saved 116,644,000 kWh.

#### For more information Contact:

- Steven Walter, City of Chicago
- (312) 744.4106
  - [swalter@cityofchicago.org](mailto:swalter@cityofchicago.org)

## 2 Operations

Constructing buildings in a sustainable manner is just one component to building a high-performance city. Building operations — how a building is run day-to-day — often have an even greater impact on energy use and the environment. The U.S. Green Building Council is in the process of developing sustainable building-operations guidelines that capture both a building's physical systems (equipment, design, land use, etc.) and also the way the building is occupied and operated by its managers (waste management, temperature monitoring, commuting programs, etc.). For more information, visit: [www.usgbc.org/DisplayPage.aspx?CMSPageID=141](http://www.usgbc.org/DisplayPage.aspx?CMSPageID=141).

### What Counties Are Doing Now

In 2001, **King County, Washington** formed a Green Building Initiative to encourage and promote the use of green building practices in all buildings that the county constructs, remodels and renovates. King County recently partnered with the National Development Council and the U.S. Green Building Council to renovate the King Street Center, which houses 1,450 King County employees. The building is now gold certified under LEED-EB standards and energy savings are expected to be \$100,000 during the first two years of operation.

#### For more information Contact:

- Katie Spataro
- (206) 263.6037
  - [katie.spataro@metrokc.gov](mailto:katie.spataro@metrokc.gov)
  - [www.metrokc.gov/dnrp/swd/greenbuilding/builtgreen](http://www.metrokc.gov/dnrp/swd/greenbuilding/builtgreen)

# Buildings & Operations

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## 3 Energy Audits

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Cities control a large number of buildings and must pay for energy use in all of them. As energy prices rise and become less stable, a city's energy costs represent a great opportunity for local governments to save money and help the environment. Conducting an energy audit on city-controlled buildings allows cities to inventory current energy use and identify the most cost-saving and efficient retrofits available for these buildings.

### What Cities Are Doing Now

The City of **Flagstaff, Arizona** recently contracted with a company called APS Energy Services to conduct an audit of city-facility energy use.

#### For more information Contact:

Rebecca Sayers, City of Flagstaff Environmental Services Supervisor

- (928) 779.7678
- [www.flagstaff.az.gov](http://www.flagstaff.az.gov)

## 4 Green Building Standards

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While energy audits can help existing buildings become more efficient, implementing green building standards for city-funded projects ensures that future buildings will be efficient and environmentally friendly. Green buildings are certified using the LEED rating system ([www.usgbc.org/LEED](http://www.usgbc.org/LEED)) or a comparable certification system that measures the full environmental impact of a building.

### What Cities Are Doing Now

The City of **Seattle, Washington** requires all city-funded projects over a certain size to meet LEED Silver standards. To do so, the city operates an interdepartmental group of City employees, called the Green Building Team, which acts as resident experts on elements of green building.

#### For more information Contact:

Richard Gelb

- [richard.gelb@seattle.gov](mailto:richard.gelb@seattle.gov)

## 5 Green Building Incentives for the Private Sector

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Green building makes sense for both public and private buildings. Employees in green buildings are more productive and the environmental benefits of green building are shared throughout the community. For that reason, it is wise for cities to encourage private developers to adopt these principles. This can be accomplished through property tax incentives, city grants, or modifications to the city's zoning regulations.

### What Counties Are Doing Now

**Arlington County, Virginia** established a green building incentive program in 1999 to encourage the construction of more environmentally friendly office buildings. The program rewards developers and companies that construct LEED certified buildings with permission to add extra density or height — beyond what is typically allowed under the county's zoning standards — to their structures.

#### For more information Contact:

Randy Bartlett

- (703) 228.3711
- [rbartlett@arlingtonva.us](mailto:rbartlett@arlingtonva.us)
- [www.co.arlington.va.us](http://www.co.arlington.va.us)

## 6 Updating Building Codes

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In order to ensure that all new buildings constructed in an area meet a minimum level of energy efficiency, state, county or municipal governments can adopt legislation updating existing building codes and requiring new buildings to meet the most recent International Energy Conservation Codes (IECC) standards. Currently many states have no statewide building codes at all, and about half of all states use codes over five years old. Updating state or city building codes to the most recent IECC standards ensures that new construction uses less energy, contributes fewer pollutants to our environment, and improves comfort and productivity.

### What Cities Are Doing Now

On March 30, 2005 the **Phoenix, Arizona** City Council adopted a new “Phoenix Building Construction Code,” which includes the 2003 International Energy Conservation Code (IECC) and its 2004 Supplement. The new code will provide minimum health and safety standards for the construction of buildings in Phoenix. The effective date of the new building code is July 1, 2005.

#### For more information Contact:

Anne Sobczak, City of Phoenix Development Services

- (602) 534.3878
- [anne.sobczak@phoenix.gov](mailto:anne.sobczak@phoenix.gov)
- [www.phoenix.gov/DEVSERV/index.html](http://www.phoenix.gov/DEVSERV/index.html)

# Renewable Energy Development

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## 1 Solar Troughs/Small PV

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An increasing number of cities are retrofitting their buildings with renewable energy systems. Solar panels can be installed on the roof of any publicly owned building, and can be used either for heating water or adding electricity. These systems save on energy costs, help develop a market for renewable technologies, and display a visible public commitment to a sustainable energy future.

### What Cities Are Doing Now

Solar systems don't have to be located in desert-like conditions in order to succeed. In fact, the city of **Duluth, Minnesota** installed a 2.4 kWh photovoltaic array on the roof the city's main public library. This system provides electricity to the library and also acts as a teaching tool with an energy management kiosk installed on the library's main floor.

#### For more information Contact:

Sandy Sweeney, City of Duluth

- (218) 730.5182
- [ssweeney@ci.duluth.mn.us](mailto:ssweeney@ci.duluth.mn.us)

## 2 Geothermal Heat Pumps

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Another way for cities to reduce energy use and save money is to install geothermal heating systems on new construction projects or renovations. Geothermal heat pumps are designed to reduce the energy demands on buildings' HVAC systems in both hot and cold weather. The heat pump transfers heat from the soil to the house in winter and from the house to the soil in summer, using an environmentally friendly heat exchange fluid similar to antifreeze. This process is very efficient, reducing electricity consumption by 30% to 60%; moreover, operating and maintenance costs are quite low. Natural resources for geothermal heat pumps exist across the entire United States.

### What Cities Are Doing Now

Great Bridge Middle School South in **Chesapeake, Virginia** installed a geothermal system as part of a larger set of building upgrades. The system cost \$241,000 more than a conventional steam boiler system, but the savings were significant. Each year, the school avoids \$41,500 in energy costs. The improvement will pay for itself in less than 6 years, with net savings thereafter.

#### For more information Contact:

Cliff Randolph, Principal of Great Bridge Middle School South

- (804) 432.5782

## 3 Landfill Gas

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Nearly every city in America has a nearby landfill. An increasing number of cities are harnessing the methane gas these landfills produce, and using it to generate power. As of December 2004, there are approximately 380 operational LFG energy projects in the United States and more than 600 landfills that are good candidates for projects. About two-thirds of these projects generate electricity, and the other third pipe the gas to local businesses that use it for heating purposes. For more information on this technology and to find out whether there is a good candidate landfill near your city, visit the EPA's Landfill Gas Outreach Program at: [www.epa.gov/landfill/overview.htm](http://www.epa.gov/landfill/overview.htm).

### What Cities Are Doing Now

The City of **Denton, Texas** partnered with California-based Biodiesel Industries, Inc. to harness the landfill gas from a city-managed dump, and use it to power a biodiesel production facility. The new biodiesel facility has an initial production capacity of three million gallons of pure biodiesel per year.

#### For more information Contact:

Vance Kemler, Director of Solid Waste for the City of Denton

- (940) 349.8444
- [vance.kemler@cityofdenton.com](mailto:vance.kemler@cityofdenton.com)

## 1 Resizing and Greening City Fleets

City and state governments own large numbers of vehicles for use by public employees. Historically, efficiency and environmental impact have not been large considerations in these vehicles' purchase; however, some state and city governments have begun taking steps to ensure that these vehicles operate more efficiently and cleanly.

### What Cities Are Doing Now

Austin Mayor Wynn and the **Austin, Texas** City Council have adopted a resolution that commits Austin to developing a greener transportation system. Part of this plan is to replace existing city fleet vehicles with plug-in hybrids, vehicles that run solely on electric power for short trips but also contain a hybrid gasoline-powered system for trip beyond the batteries' capacity. The plug-in hybrids will use West Texas Wind for power.

#### For more information Contact:

Matt Curtis, Office of Austin Mayor Will Wynn  
• (512) 680.2509

## 2 Incentives for Efficient Car-Use

Private automobiles are, and will continue to be, a vital part of the American economy. That said, in order to cut our dependence on foreign oil, we must reduce the amount of gas consumed by automobiles. Though cities and states only have direct control over their own fleets, they can promote policies that encourage efficient cars and responsible car use in a particular region.

### What Cities Are Doing Now

#### Car Sharing Programs

The City of **Berkeley, California** contracted with a car sharing company to reduce the number of cars on the road in that congested city. The city retired 15 of its fleet vehicles and replaced them with five hybrid cars operated by the car sharing company. City employees have exclusive access to those five cars during business hours, but during the evenings and weekend any member of the car sharing organization may reserve one of the cars for their own use. The innovative partnership saves Berkeley taxpayers hundreds of thousands of dollars and provides access to an alternative to car ownership for Berkeley residents.

#### For more information Contact:

Mayor Tom Bates' Office, City of Berkeley  
• (510) 981.7100

#### Parking Meter Credit for Hybrid Cars

The City of **Austin, Texas** offers \$100 in free parking for residents who drive hybrids that meet the EPA's Green Vehicle Guide. The city issues pre-paid credit cards for any of the city's 3700 parking meters to drivers who register their clean hybrids with the city.

#### For more information Contact:

Matt Curtis, Office of Austin Mayor Will Wynn  
• (512) 680.2509

#### Location Efficient Mortgages (LEMs)

One complaint about housing near transit hubs is that it is often priced too high for the middle- and lower-income people who most benefit from the proximity to mass transit. A good way to promote affordable housing near transit is the location-efficient mortgage, or LEM. LEMs allow homebuyers to capitalize on the savings that result from living near transit service (e.g., savings from not owning and operating a car — approximately \$6500 per car per year for the average American household), by calculating these savings into the purchasing power of the homeowner. LEMs are currently offered in the Seattle, San Francisco, Los Angeles and Chicago areas.

#### For more information Contact:

The Institute for Location Efficiency (ILE)  
• (614) 237.3815

# Transportation

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## 3 Smart Growth Policy

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As city populations increase, local governments need to decide how to use existing infrastructure and land in an efficient, economically smart and environmentally friendly manner. To this end, many cities have adopted “smart growth” policies that rely on redevelopment, inner city investment, and open space preservation rather than urban sprawl. Smart growth policies can include anything from the kinds of building retrofits and transportation investments listed in this guide, to passing zoning plans that encourage infill development, to passing urban growth boundaries that explicitly limit a city’s ability to sprawl beyond a certain point. These policies are truly energy-saving, in that they ensure that residents live closer to jobs and transit hubs, and that rural areas are protected from overdevelopment.

### What Cities Are Doing Now

The best model for Smart Growth at the local level is **Portland, Oregon**. Portland’s elected regional government entity, Metro, has passed a comprehensive long-term plan (the 2040 Growth Concept) that calls for efficient land use, farm and forest land protection, a balanced transportation system, a healthy economy, and diverse housing options for the region. Metro also manages the city’s existing urban growth boundary, and has instituted a plan to develop a series of interconnected parks and open spaces within the city.

#### For more information Contact:

Metro Land-Use Planning

- (503) 797.1939
- [2040@metro-region.org](mailto:2040@metro-region.org)
- [www.metro-region.org](http://www.metro-region.org)

## 4 Improving Mass Transit

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Mass transit is at the heart of any smart growth policy, because it allows people to get from home to work in the most efficient, least environmentally-harmful way possible. In many congested inner cities using mass transit is also faster than driving a car. Cities and states can invest in mass transit by diverting federal transportation dollars to buses, light rail systems, and even inter-city rail. One public transit system, bus rapid transit, has proven to be both cost efficient and popular with riders. In these systems, buses run on a dedicated lane separated from traffic, with its own timed traffic signals. Allowing buses to bypass car traffic congestion dramatically speeds up bus travel, and makes buses highly competitive with private cars for commuters.

### What Cities Are Doing Now

The regional transit authority for **Cleveland, Ohio** is constructing exclusive bus lanes that connect the city’s center to the residential east side. The 5.2 mile line runs through a formerly grand Cleveland neighborhood which has slipped into decline. The bus rapid transit project is also expected to act as an economic catalyst, revitalizing the surrounding neighborhoods.

#### For more information Contact:

The Cleveland Regional Transit Authority Euclid Corridor Transportation Project

- (216) 771.4144
- [www.euclidtransit.org/home.asp](http://www.euclidtransit.org/home.asp)

Buses are the predominant form of mass transit in the U.S. In cities across the country, buses run almost twenty-four hours a day. Biodiesel, a renewable fuel, can be used in any diesel engine and is typically blended with traditional diesel to maintain performance while decreasing petroleum use ([www.biodiesel.org](http://www.biodiesel.org)).

### What Cities Are Doing Now

In 2000, the city of **Cincinnati, Ohio** switched 288 buses to a biodiesel blend. In doing so, the city improved air quality and reduced dependence on foreign oil.

#### For more information Contact:

Sallie Hilvers, Cincinnati Metro

- (513) 632.7681

## 5 Upgrading Traffic Signals and Street Lights

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There are literally billions of traffic signals owned and operated by state and local governments in the U.S. These run twenty-four hours a day and consume a significant amount of energy. Historically these signals have used incandescent bulbs, but recently states and cities have taken the initiative and begun replacing incandescent signals with more efficient light-emitting diode (LED) signals, which use 90% less power, last ten times longer, and appear brighter than traditional incandescent bulbs.

### What Cities Are Doing Now

The City of **Passaic, New Jersey** partnered with a private company call Public Energy Systems to replace the incandescent traffic signals at 40 city intersections. By installing LED signals at these locations, Passaic will save over \$65,000 annually in energy and maintenance costs.

#### For more information Contact:

Robert Lesch, Public Energy Solutions

- (866) 818.1900 ext. 102
- [www.publicenergysolutions.com](http://www.publicenergysolutions.com)

The City of **Saint Paul, Minnesota**, was the first local government in MN to install LED traffic signals in all colors — red, green, yellow and white. By using state joint power purchasing agreements, St. Paul kept project costs very low.

#### For more information Contact:

John Maczko, St. Paul Public Works

- (651) 487.7206

# Financing Strategies

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## 1 Bonding Initiatives

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**R**evenue bonds are public bonds that incorporate a specific payback mechanism into their design. Often they are paid off through fees or income generated through the project funded. Energy efficiency projects fit this bonding scheme particularly well because the revenue needed to repay the bonds can be recouped in long-term energy cost savings. So long as the money saved from lower energy bills is funneled back into the bond payback program, revenue bond financing of energy efficiency projects allows states or municipalities to reduce energy usage without any actual outlay of state or city funds. Federal loan guarantees can bring bond interest rates down to manageable levels.

### What Cities Are Doing Now

In 2001, **San Francisco, California** pioneered the use of revenue bonds to fund energy efficiency and renewable energy projects in public buildings. Voters in San Francisco overwhelmingly approved a \$100 million bond initiative that specifically targeted the development of solar energy, though it included other energy sources as well. Altogether, this program devoted \$50 million of funding to solar projects, \$30 million to wind energy projects, and \$3 million for energy efficiency efforts.

#### For more information Contact:

David Hochschild, Vote Solar Initiative

- (415) 874.7435
- [david@votesolar.org](mailto:david@votesolar.org)

## 2 Revolving Funds

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**B**ecause energy efficiency upgrades are typically able to pay for themselves over time, setting aside a revolving fund dedicated to efficiency investments makes good sense. These funds provide low- or no-interest loans to businesses and institutions interested in making their buildings more energy efficient. The resulting savings in energy costs allow the loans to be repaid and then reinvested in efficiency work elsewhere in the city.

### What Cities Are Doing Now

The City of **Duluth, Minnesota** maintains a revolving fund to finance local energy-efficiency improvements. 50% of savings from each project is available for future energy-efficiency improvements. The mechanism supports continuous efficiency improvements without having to compete for funding in the annual budget-setting process.

#### For more information Contact:

Sandy Sweeney, City of Duluth

- (218) 730.5182
- [ssweeney@ci.duluth.mn.us](mailto:ssweeney@ci.duluth.mn.us)

The City of **Escanaba, Michigan** partnered with a local technical college and energy efficiency business to apply for state money to form a revolving efficiency fund. The State of Michigan awarded \$2 million for a set of improvements to Delta County government buildings. One of the first projects was a set of retrofits to Delta County's courthouse, its jail, and a county office building in 2003. Annual cost savings are estimated at \$8,000, and the repayment of the loan — expected within seven years — is coming from the energy cost savings.

#### For more information Contact:

Douglas Russell, Bay College

- (906) 786.5802 ext. 1210

## 3 Pension Fund Investments

State and local governments across the U.S. employ about 7.9 million workers, around two-thirds of whom work for local governments. These employees contribute each month to pension funds administered by city and state treasurers, who are charged with investing this money to achieve asset growth. One emerging state approach is to invest this pension money into energy efficiency and renewable energy programs for government-owned infrastructure. Energy savings resulting from these upgrades are then used to repay the capital costs of the programs, and any savings above this amount are returned (along with an investment fee) to the pension funds.

### What States are Doing Now

The only model for pension fund investments into clean energy is at the state level: California's Green Wave program. The program directs California's two largest pension funds, the California Public Employees' Retirement System (CalPERS) and The California State Teachers' Retirement System (CalSTRS) to invest roughly \$1.5 billion into the clean energy industry.

#### For more information Contact:

Green Wave

- [www.treasurer.ca.gov/greenwave](http://www.treasurer.ca.gov/greenwave)

## 4 Energy Savings Performance Contracts

ESPCs enable governments, industrial firms and property managers interested in pursuing energy efficiency measures to contract with privately-run organizations specializing in energy efficiency, called Energy Service Companies (ESCO). ESCOs provide customers with detailed assessments of guaranteed energy savings and the costs needed to achieve these savings. ESCOs then perform the efficiency retrofits. Retrofit costs and the ESCOs fees are ultimately recouped through capturing the energy bill savings. Many of these efficiency measures achieve payback in several years, providing significant long-term savings.

### What Cities Are Doing Now

The City of **Redlands, California** contracted with a private company, Honeywell, to conduct upgrades on city's HVAC equipment, wastewater pumps, lighting systems, irrigation systems, and sensors. In all, the company conducted upgrades on twelve buildings that save the city over \$450,000 per year in energy costs. Honeywell fronted the capital investment for these upgrades and was repaid through the energy savings over a seven year period.

#### For more information Contact:

Ron Mutter, City of Redlands Department of Public Works

- (909) 798.7655

## 5 Point-of-Sale Energy-Efficiency Upgrades

Buildings account for 45% of worldwide energy use, 80% of potable water use, and 50% of the timber harvest in North America. For this reason, cities are engaging in a number of strategies to make buildings more efficient. One strategy for accomplishing this on privately-owned buildings is to require efficiency upgrades before a building sale.

### What Cities Are Doing Now

The City of **Berkeley, California** was the first city in the nation to require installation of residential conservation measures at the point of sale. Berkeley's Residential Energy Conservation Ordinance (RECO) requires that minimum energy conservation standards be met when residential structures are sold and, when improvements valued at \$50,000 or more are made in residential units. Cost and energy-saving measures include insulating ceilings, water heaters, and hot water pipes; sealing furnace ducts; installing fluorescent lighting and weather stripping; blocking hot-air flow out of chimneys; and conserving hot water by installing low-flow shower heads. To date, approximately 12,000 residences, or approximately 30% of the housing stock, have been certified as meeting RECO requirements.

#### For more information Contact:

Mayor Tom Bates' Office, City of Berkeley

- (510) 981.7100

# About the Authors

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## ICLEI and the Cities for Climate Protection™ Campaign

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Many of the local governments highlighted in the *High Performance Cities* document participate in ICLEI's Cities for Climate Protection™ (CCP) Campaign to meet energy efficiency and climate protection goals. CCP members listed in this publication include:

Austin TX	King County WA
Berkeley CA	Santa Monica CA
Arlington County VA	San Francisco CA
Chicago IL	Saint Paul MN
Duluth MN	Seattle WA

Across the U.S., 158 local governments are members of CCP. Members work to reduce greenhouse gas emissions by following the five milestones of the CCP campaign:

- Conduct a community-wide greenhouse gas emissions inventory
- Adopt an emissions reduction target
- Create a local climate action plan with actions that will achieve the target
- Implement action plan policies and actions
- Quantify, monitor and report benefits created

Through this process, local governments not only reduce greenhouse gas emissions but also cut traffic congestion, save tax dollars, clean the air, and improve quality of life for people and communities. Every year, actions taken CCP members cut 23 million tons of global warming pollution and reduce energy and fuel costs by \$600 million.

ICLEI provides CCPs with case studies, training workshops, publications, quantification software, and other networking opportunities. ICLEI also provides technical assistance and connects jurisdictions with state, regional and federal government and other resources to facilitate implementation of climate protection policies and practices.

For information about the Cities for Climate Protection™ Campaign please visit ICLEI-Local Governments for Sustainability USA at <http://www.iclei.org/USA>.

## The Apollo Alliance for Good Jobs and Clean Energy

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The Apollo Alliance aims to improve America's security, technological leadership, economic strength, and shared prosperity by achieving sustainable American energy independence through efforts at the national, state and local level. Named after President Kennedy's challenge in the 1960s to land a man on the moon within a decade, our new Apollo Alliance has a bold strategy to direct \$300 billion in targeted investments towards achieving sustainable energy independence within a decade.

Apollo's 10-point plan to achieve energy independence includes many of the strategies discussed in *High Performance Cities*:

- Promoting advanced technology and hybrid cars
- Encouraging high performance building
- Expanding renewable energy development
- Improving transportation options and investing in smart growth

Our plan is supported by key national leaders in the labor, environmental, and business sectors, as well as by communities of color who are traditionally most harmed by existing energy policies.

The real work of the Alliance takes place at the state and local level, where Apollo brings together labor, environmentalists, business, civil rights activists, elected officials and their constituents to implement high-performance policies. These state and local Apollo groups work on specific job-generating policies and projects to increase energy

efficiency and renewable energy use, and build the transportation, utility, and other infrastructure needed to support sustainable efficient energy practice.

Over the past year, state and local Apollo Alliances have been built in cities from Los Angeles to New York and states from Hawaii to Massachusetts. These state and local alliances pursue specific legislative and administrative reforms to increase investment in energy efficiency, renewable power, and other clean energy strategies. Investment at all levels of our economy creates high quality jobs and increased income, as well as improving the environment and public health. It also more than pays for itself, offering fiscally strapped states, cities, and for-profit investors a better than competitive real rate of return (often as high as 15-20 percent annually).

To learn more about how your city can start an Apollo project, and to find information on existing coalitions and projects, visit our State and Local Apollo Strategy Center at [http://www.apolloalliance.org/strategy\\_center/](http://www.apolloalliance.org/strategy_center/).