

## Energy Efficiency in Existing Buildings

### Policies/incentives to promote energy efficiency in existing buildings: Municipal

#### Large Cities (250,000+ people)

Boise	ID	250,000	2030 goal of 50% reduction from 2010
Madison	WI	250,000	We use Focus on Energy ( <a href="#">Click here for information</a> ) and also provide funding to improve energy eff.
Buffalo	NY	258,612	Procurement requires that the City purchase energy star rated appliances. Buffalo has performed ASHRAE Level I audits on 67 municipal facilities and 2 ASHRAE Level II audits. The City has invested in energy conservation measures for 17 municipal buildings; energy efficiency upgrades and retrofits across 56 buildings accounts for 2 million kWh savings annually; current discussions are considering purchasing streetlights from the utility to convert to energy efficient, city-operated LED systems.
Durham	NC	263,016	The City's Facilities Strategic Energy Conservation Policy specifically addresses retrofitting existing municipal buildings.  <a href="#">Click here for more information</a>  It should be noted that NC law does not allow us to create energy efficiency policies for commercial or residential buildings.
Chula Vista	CA	267,000	We have a Sustainable City Operation Plan that set a goal for a 20% reduction in energy consumption and retrofits are a main way we will reach it.
Plano	TX	277,000	The City has established a Energy Policy for its facilities and operations. The purpose is to establish the City's policy for reduction of energy consumption in city facilities through wise and cost-effective energy management and appropriate energy-efficient technology. Energy consumption and operating costs will be reduced without compromising health, comfort and safety of occupants, while demonstrating responsible use of natural resources and complying with Senate Bill 12 Article 3 Energy Efficiency.
Toledo	OH	280,000	BetterBuildings offers financing for projects that focus on conserving energy and generating savings through equipment upgrades to existing facilities. The following lists some of the energy improvements eligible for upgrades: •Lighting and Building Controls •HVAC, Boilers and Chillers •Compressor, Motors and Drives •Refrigeration •Waste Energy Recovery •Electrical Distribution •Insulation •Building Envelope (roofing, windows, etc.)  <a href="#">Click here for more information</a>
Orlando	FL	282,000	City of Orlando has been deploying \$17.5 million green bond to retrofit 55 existing buildings within our portfolio, targeting highest EUI

Anchorage	AK	296,000	The MOA is considering incentives through the Climate Action Plan.
Henderson	NV	309,000	City adopted Chapter 34 of the 2012 International Building Code, this chapter references the 2012 International Energy Conservation Code for work in existing buildings. Currently moving towards adopting the 2018 International Existing Building Code, which will require compliance with the 2018 Intl. Energy Conservation Code. Effective date of adoption is expected to be Feb 2019.
Saint Louis	MO	315,000	<a href="#">Ordinance 67803 - Energy Efficiency</a> <a href="#">Ordinance 67414 - LEED Standards</a>
Santa Ana	CA	338,000	Through the Orange County Cities Energy Efficiency partnership with SCE and SoCalGas, the City receives incentives and no-interest financing.
Arlington	TX	369,646	The City's practice is to use more energy-efficient components when a project budget allows.
New Orleans	LA	389,617	The city has a goal to reduce its energy use by 15% by 2020
Oakland	CA	424,000	The City is part of the Bay Area Regional Energy Network (BayREN), which provides incentives and assistance for energy efficiency retrofits. The City has also approved 17 companies to operate PACE financing programs for energy efficiency retrofits.
Raleigh	NC	458,880	The City adopted a policy for existing buildings stating that all existing City of Raleigh buildings and facilities should use the US Green Building Council's LEED Green Building Rating System for Existing Buildings as a guide.
Long Beach	CA	470,130	The City of Long Beach Energy Leader Partnership (LB ELP) is a local government partnership comprising Southern California Edison and multiple departments from the City of Long Beach. Partnership activities focus primarily on implementing energy efficiency in municipal facilities. The LB ELP identifies project opportunities and secures technical assistance, program opportunities, incentives, and rebates. The higher the level of accomplishment through the Partnership, the higher the incentives become. The City of Long Beach is at the beginning stages of a whole building energy efficiency retrofit for one of its existing buildings and is considering pursuing Zero Net Energy strategies.
Kansas City	MO	478,000	The City's climate protection plan calls for the City to reduce its municipal energy use by 10% by 2020 (below year 2000 levels). In the period of 2000 - 2013 the City achieved a 21% reduction in its energy use by aggressive implementation of energy efficiency improvements in its buildings, traffic signal lights, and water/wastewater operations. The City benchmarks energy use with Energy Star Portfolio Manager in 150 municipal buildings & utilizes energy efficiency rebates from local utilities to further reduce its energy use.
Mesa	AZ	496,401	International Energy Conservation Code is the adopted stand for new construction and major renovation projects ECC 2009
Atlanta	GA	500,000	All existing City-financed properties larger than 25,000 ft2 are required to gain LEED for Existing Buildings certification every 10 years.

Baton Rouge	LA	600,000	We strive for LEED Certification on all of our new construction and renovation projects. We had 2 facilities earn LEED in 2017
Baltimore	MD	621,849	Baltimore adopted the 2015 International Energy Conservation Code for new construction. Our local utility offers rebates for a range of energy conservation measures and the City has benefit from more than \$2M of rebates. And, the City receives state grant funds to upgrade buildings to be more energy efficient.
Las Vegas	NV	640,174	The City has a policy (by resolution R-32-2017) to improve and incorporate energy efficiency measures in municipal operations.
Portland	OR	650,000	The City's Green Building Policy requires major retrofits of city facilities to achieve LEED-Gold. This does not necessarily ensure energy efficiency. City buildings over 20,000 sf are subject to the Energy Performance Reporting Policy for Commercial Buildings (see below.)
Nashville	TN	667,560	We are planning to join the US DOE Better Buildings Challenge to reduce Metro's energy use by 20% over 10 years.
Boston	MA	685,094	The Building Energy Reporting and Disclosure Ordinance requires all buildings covered by it - including all municipal buildings - to complete either an energy audit or show 15% improvement in their energy efficiency every 5 years. Any building may also voluntarily report its energy, water and waste data to the City. The City has also developed an energy efficiency project finance program, called the Renew Boston Trust. The Renew Boston Trust is developing financing structures of finance energy efficiency in several sectors including municipal facilities and commercial real estate. In this model, the City allocates capital to undertake retrofits and receive utility incentives for energy savings to recoup the initial investment. The first pilot phase is fully funded in the order of approximately \$10 million, and retrofits will be carried out over 2018/2019. The second phase's funding has been authorized to the order of approximately \$35 million; buildings have not yet been selected for targeted retrofits during phase 2.
Washington	DC	693,972	The District has some policies and incentives to promote or require energy efficiency for the retrofit of existing buildings. The Department of General Services (DGS), which manages the District's portfolio of public buildings and facilities, is committed to reducing energy use by maximizing the efficiency of building operations. Since it began tracking energy consumption for all public buildings in near-real time, DGS has identified and addressed operational inefficiencies that have led to significant improvement in the efficiency and reliability of electricity consumption -- up to 27% four years post-installation of the energy information system DGS engages in retrocommissioning projects to improve the efficiency of their portfolio, and manages large capital projects including modernizations of buildings. There are currently 25 major projects are in various stages of design, construction and/or closeout, and a total of 43 school projects have been registered with the US Green Building Council for LEED certification. In 2017, 11 projects earned LEED certification, including two schools retrofitted to meet the LEED Platinum standard. As specified in the Clean Energy DC plan, DC aims

			<p>undertake a Strategic Energy Management Plan (SEMP) in 2018-2019. The plan will identify buildings to retrofit, and establish the organizational structure(s), policies, processes, and tools necessary to maintain continuous action and adequate resources and support. Between 2021 and 2024, DGS aims to implement deep energy retrofits across 9% of the portfolio, prioritizing buildings with aging systems and equipment for an average of 30% energy use reductions. In addition to the costs of the retrofits, DGS faces substantial deferred maintenance costs, and is investigating using Energy Performance Contracts to fill the funding gap between the current capital budget and the identified need. The District Housing Authority also continues efforts to improve energy and water efficiency of public housing through heating and air conditioning upgrades, window restorations/replacements, and building envelope improvements. Additionally, DCHA has implemented various outreach programs designed to help residents, staff, and engineers optimize building energy performance through training and education. The District also participates in the US Department of Energy's Better Buildings Initiative to reduce its carbon footprint 20% by 2020. Based on the most recent data from DOE, the ~200 District-owned buildings have reduced annual energy use 2.9%; projecting these numbers out to 2020, DC is on track to meet the 20% goal.</p>
Denver	CO	700,000	<p>By ordinance we require all commercial and multi-family buildings of 25,000 or more square feet to benchmark their energy usage and disclose it annually. This applies to municipal and private buildings. We require new and renovated city buildings to strive for LEED platinum and to achieve LEED gold.</p>
Seattle	WA	705,000	<p>The City of Seattle owns and maintains over 650 buildings totaling approximately 10 million square feet and each year new facilities are added or old ones remodeled. In addition, the City manages over 110,000 acres of public land. To reduce its environmental impact, the City has adopted policies and programs addressing new building construction and major renovations, as well as day-to-day operations. The Sustainable Buildings and Sites Policy (PDF; established by Resolution 31326) for municipal facilities aims to maximize the environmental quality, economic vitality, and social health of our city through the design, construction, operation, maintenance, renovation, and decommissioning of City-owned buildings and sites. Sustainable buildings and sites support overall City objectives by making efficient use of energy, water, and material resources; reducing climate change; minimizing pollution and hazardous materials; creating healthy indoor environments; reinforcing natural systems; providing habitat; creating vibrant spaces for people; and contributing to Seattle's neighborhoods. To improve resource efficiency across the City of Seattle's building portfolio, the Office of Sustainability and Environment coordinates a citywide Resource Conservation Management Initiative. In 2013, Resolution 31491 adopted the Resource Conservation Management Plan (PDF) to centralize resource use monitoring and to coordinate with capital</p>

			departments to build on their existing efforts to improve the efficiency of City facility operations.
Louisville	KY	763,623	Section 4 of the Louisville Metro Government Purchasing Policy "promotes the use of environmentally preferable products in its acquisition of goods and services in a manner that complies with all existing Federal, State and local laws." "Energy Efficient" is listed as an attribute to be considered when purchasing products, and is defined as "a product that is in the upper 25 percent of energy efficiency for all similar products, or that is at least 10 percent more efficient than the minimum level meeting US federal government standards." ENERGY STAR is listed as a recommended standard.
Columbus	OH	860,090	The City requires that all new facilities be at least LEED Certified. This means that the building will be (at a minimum) 5% better than the state approved building code.
San Francisco	CA	890,000	The Green Building Requirements for City Buildings (Environment Code Chapter 7 ) ordinance requires San Francisco's municipal new construction and major existing buildings renovation projects to achieve LEED (v4) Gold certification. San Francisco is currently studying retrofit and policy options for significantly reducing/decarbonizing the thermal load in municipal buildings by phasing out of natural gas and switching to 100% electrification of building operation.
Austin	TX	949,587	The City of Austin's Energy Disclosure Law Austin City Code 6-7's Energy Conservation Audit and Disclosure (ECAD) ordinance (Ordinance 20110421-002) was approved in 2008- and amended in April 2011 to improve the energy efficiency of existing homes and buildings that receive electricity from Austin Energy.  <a href="#">Click here for information</a>
San José	CA	1,046,079	The City is currently undertaking a stakeholder engagement process as part of the City Energy Project, a joint initiative between the Natural Resources Defense Council and the Institute for Market Transformation, funded by the Doris Duke Charitable Foundation. Through 2018, the City has been developing and implementing a number of innovative energy efficiency programs and policies primarily in the large commercial building sector, with a strong emphasis on stakeholder engagement and building partnerships. By the end of the year, the City Council will have adopted an energy and water benchmarking and transparency policy to track building energy and water consumption through the Environmental Protection Agency's free online portal, Energy Star Portfolio Manager, while considering additional policy strategies to further increase the efficiency of San José's building stock. Per California's AB 802, commercial and multifamily buildings over 50,000 square feet will be required to benchmark their energy use through Energy Star Portfolio Manager. Commercial reporting to the California Energy Commission will begin in June 2018, and multifamily reporting to the California Energy Commission will begin in June 2019. The benchmarking and transparency policy being developed, and outlined above, will set a building threshold

			below the 50,000 threshold that will consider municipal, commercial, and residential buildings.
Dallas	TX	1,281,000	Dallas Green Building Codes and 2017 Energy Conservation Codes
Phoenix	AZ	1,600,000	20% reduction in energy use by 2020 from 2010 levels. Have contracts with five ESCOs to perform energy audits on all city facilities.
Houston	TX	2,250,000	Green Building Resolution -- 6.23.2004 City Energy Efficiency Policy -- 12.31.2011
Chicago	IL	2,705,000	The city has retrofitted 60 city buildings spanning 4.9 million square feet, achieving approximately 18% energy reduction across the 60 buildings. Retrofits of additional buildings are in the planning stages.
Los Angeles	CA	4,030,904	Los Angeles's Existing Building Energy and Water Efficiency (EBEWE) ordinance (Ordinance No. 184674) was signed into law on December 15, 2016 and is the most ambitious and comprehensive local efficiency ordinance in the United States. The ordinance, the result of 2 years of inclusive stakeholder engagement, will make public the annual energy and water use of all buildings in the city over 20,000 square feet and all municipal buildings larger than 7,500 square feet. The ordinance also requires buildings to take efficiency actions at least once every 5 years, such as energy audits or retrofits to reduce energy and water use. Los Angeles is the first city to require water retro-commissioning of existing buildings. Buildings owned by the city of L.A. and smaller than 15,000 square feet, however, are not required to undergo energy and water auditing and retro-commissioning. If building owners fail to comply, there is a \$202 fee.
New York	NY	8,500,000	The City has made an unprecedented commitment to retrofit every City-owned building with significant energy use by 2025. To date, the City has retrofitted more than 1689 buildings through programs such as the Accelerated Conservation and Efficiency (ACE) program; the Expenses for Conservation and Efficiency Leadership (ExCEL) program, which provides support to City agency facility operators in their energy reduction efforts, and expense funding for energy efficiency programs; the Innovative Demonstrations for Energy Adaptability (IDEA ) program, which pilots new energy efficiency technologies on City buildings; and the Clean Energy Program. Additionally, under NYC Local Law 31 of 2016, City buildings that have substantial renovation are required to be designed to LEED gold or higher rating. All buildings undergoing major renovations are subject to the NYC Energy Conservation Code. In the City's 1.5 Climate Action Plan, accelerating deep energy retrofits to achieve a 20% deeper reduction in energy consumption in City-owned buildings by 2025 is an action commitment to begin implementing by 2020.

## Medium Cities (100,000 – 250,000 people)

Las Cruces	NM	101,000	utility offers rebates.
South Bend	IN	101,735	We will be creating a climate action plan in 2019, which may include new internal policies or incentives for EE retrofits.
Erie	PA	101,786	This is something we are willing to look into.
West Palm Beach	FL	106,000	The City's internal Climate and Resiliency Policy requires LEED Silver for new buildings and substantial modifications.
Boulder	CO	108,000	Building Performance Ordinance Requires annual bench marking of energy use, and the implementation of energy efficiency actions over time  <a href="#">Click here for information</a>
West Covina	CA	110,000	State does
Gresham	OR	111,523	Council-adopted goal of 100% renewable energy by 2030.
Lansing	MI	117,000	City is currently starting work on a sustainability plan which will include consideration of this item.
Independence	MO	117,030	
Columbia	MO	120,000	Incentivized based-budgeting prioritizes energy efficiency improvements if departments have fiscal year savings.
Elizabeth	NJ	124,969	The City of Elizabeth promotes energy efficiency for the construction of new buildings as well as projects. These efforts support the City's "Go-Green" initiatives and have included, but have not been limited to: LEED-certified designs, open space elements as well as incorporation of energy efficient appliances, rainwater catchment system, sun shades and solar paneling.
Columbia	SC	133,358	As a practice, the City is building new buildings to be energy efficient, but there are no policies or incentives to retrofit the existing building stock. Often, energy efficient upgrades are implemented as replacements are made.
Syracuse	NY	143,396	All new or substantially renovated buildings including schools must meet LEED Silver standards or better.
Bridgeport	CT	145,000	LED retrofits ongoing at local government and police and fire stations
Charleston	SC	146,000	Energy Savings Contract
Torrance	CA	147,175	BEACON award program; Build It Green certified staff for review and assistance. Cal Green Building Code trained staff. Pace Financing and promotion for Energy Upgrade California.
Alexandria	VA	150,000	This is part of the Energy Manager's mandates.
Clarksville	TN	150,287	The City promotes energy efficiency through participation in the Energy Right Solutions for Business and Industry program.
Macon	GA	159,000	Energy audits performed on buildings, lighting retrofits complete on 60%, purchasing policies to consider high efficiency on all projects and purchases
Pembroke Pines	FL	162,000	Resolution # 3432 " Green Plan"

Fort Collins	CO	167,000	Sets goals to reduce energy use and peak demand for municipal buildings, dedicates a pool of funding for high ROI efficiency projects
Tempe	AZ	170,000	Annual energy efficiency budget of \$175k. Council has also adopted to carbon neutral municipal operations goal by 2050.
Newport News	VA	181,825	1) The High Performance and Sustainable Buildings Policy, effective March 2014 is a commitment by the city to sustainable building design, construction, operation, maintenance, and renovation intended to reduce greenhouse gas emissions, minimize the use of energy, water and other natural resources, provide a healthy, productive indoor environment, and contribute to the goals of the City's Comprehensive and Sustainability Plans. 2) Energy Policy Statement, effective April 2011 states in part that it is the policy of the City of Newport News government to promote measures that will conserve and manage energy resources to the furthest extent practical while maintaining a high level of service to our citizens. 3) The Environmental Policy Statement, updated in August 2013 states in part that the City of Newport News is committed to the protection of the environment for present and future generations. All City employees are responsible for incorporating into their planning and work, the actions necessary to fulfill this commitment. The City of Newport News and its employees shall meet this responsibility by endeavoring to accomplish the following: Practice and support sustainable design, development, and operations processes.
Knoxville	TN	186,000	Better Buildings Challenge commitment - reduce energy use in City buildings 20% by 2020.
Salt Lake City	UT	192,672	Salt Lake City has a Comprehensive Energy Management Executive Order that details energy requirements for existing municipal facilities.
Richmond	VA	204,214	Resolution 2015-R8-15
Little Rock	AR	205,000	All new or replaced systems are required to meet maximum energy efficiency standards.
Des Moines	IA	210,000	New buildings required to be LEED certified, which requires certain levels of energy efficiency
Rochester	NY	210,000	The Municipal Climate Action Plan outlines operations and measures that will decrease energy use intensity in municipal buildings and reduce greenhouse gas emissions from municipal operations. Some of these measures include energy efficiency retrofits and projects implemented in municipal buildings. A copy of the Municipal Climate Action Plan can be <a href="#">found here</a> . The City has been part of the New York Power Authority's (NYPA) Five Cities Energy Program, a partnership which includes Rochester, Albany, Buffalo, Syracuse and Yonkers. With NYPA's assistance, each city created an energy master plan to reduce community and municipal energy consumption, serving as a leader and providing models for other cities to adopt. Plan goals are to reduce energy consumption; strengthen reliability and resiliency of



			cities' energy infrastructure; catalyze clean energy investment and economic development; contribute to a cleaner environment; and enhance quality of life. Rochester's Energy Plan can be <a href="#">found here</a> .
Birmingham	AL	212,157	Yes, the City does have policies in place to require energy efficiency for existing buildings. The City has contracted with Trane Company in a \$61 million dollar project to replace all lighting fixtures and HVAC units throughout the existing City owned buildings with high efficiency replacements. This will have a substantial impact in energy use over 20 years.
Fontana	CA	213,000	State Code requires all new construction to comply with energy efficiency standards this also includes the retrofit of plumbing fixtures when alterations or additions are made to an existing facility.
Tacoma	WA	214,000	Public utility incentives, target to reduce energy use by 10% by 2020
Fremont	CA	230,000	The City of Fremont has completed a comprehensive energy and water efficiency upgrade project with Opterra Energy Services, an energy services company (ESCO). The scope of work included: 1) Converting all primary roadway and residential street lighting to energy-saving LEDs. 2) Upgrading all public park and plaza lighting to energy-saving LEDs. 3) Upgrading all public facility lighting and plumbing fixtures to high-efficiency options. 4) Installing weather-based irrigation controls at city parks. 5) Installing energy-saving pool pump controls at the Aqua Adventure Water Park. Together, these measures are projected to save an annual 4.4 million kWh of electricity, 16,000 therms of natural gas, and 9.1 million gallons of water, reducing the City's greenhouse gas footprint by a total of 947 metric tons of carbon dioxide (2015 electricity emissions factor). We were able to tap into rebates, on-bill financing, and technical assistance programs offered by our utility PG&E to help facilitate these upgrades.
Reno	NV	240,000	Better Buildings Challenge will be launched in October 2017 in which the City will lead by example. City adopted the 2012 IECC in 2016, and will adopt the 2018 IECC in 2018. The City Council passed a resolution directing staff to join the DOE's Better Buildings Challenge to reduce building energy and water use 20% by 2025.

### Small Cities (< 100,000 people)

Lambertville	NJ	3,906	The city has implemented cost saving and energy efficient programming throughout our community. -changed electric heating in all buildings to gas -changed out the lighting where applicable -HVAC unit at the Justice Center -LED Street Lighting in process
Aspen	CO	6,870	Aspen is expecting the retrofitting of existing buildings, offices, and facilities to add to their overall GHG reduction

			goal. It is planned to eventually have this be written into building code
Riverbank	CA	25,000	It is encouraged to become more energy efficient during renovation. Funding is restrictive in accomplishing goals.
Laurel	MD	27,150	The Office of the Fire Marshal and Permit Services require that retrofit and new construction meets the Energy Efficiency Code.
College Park	MD	30,000	The City has completed energy audits of most city buildings and have completed many retrofits / efficiency upgrades in the buildings. We do not have incentives specifically for the retrofit and energy efficiency of other buildings.
West Hollywood	CA	35,000	The City Council adopted a resolution in March 2019 that directed staff to reach either zero net energy or be carbon neutral in existing, new, and future City facilities.
Hanover Park	IL	38,000	The State of Illinois has adopted the 2015 IECC and we enforce that code.
Hallandale Beach	FL	39,500	Green Building Ordinance 2009-20 "In addition to Sec. 32-787(j)(1), the following projects shall be required to obtain a green building certification from a recognized environmental rating agency accepted by the City's Development Services Department: Any new City owned and operated building construction project; and any new major or minor development project requesting financial assistance from the Community Redevelopment Agency."
Culver City	CA	38,883	The City has retrofitted nearly all City owned facilities to achieve a 26% reduction in energy use.
Rancho Palos Verdes	CA	43,000	Follow California
Everett	MA	43,340	Everett has adopted a City Stretch Code
Saint Louis Park	MN	49,029	We have a Environmentally Preferable Purchasing Policy that encourages energy efficiency and a Green Building Policy for major renovations that requires higher standards-including municipal projects.
Sheboygan	WI	49,203	Development incentives
Bonita Springs	FL	50,137	Through Ordinance 15-19 "Green Building Plan" provides policies and incentives for the retrofitting of existing and construction of new buildings.
Queen Creek	AZ	50,400	The Town's General Plan includes a strategy to implement programs that encourage sustainable building and development practices in new and existing development. This includes continuation of the Town's green building program; and developing programs to promote energy conservation and use of renewable energy sources in the design and construction of new projects.
East Hartford	CT	52,000	We have already completed three energy savings projects totaling \$25M
West Sacramento	CA	53,163	City Municipal Code Section 15.12.040 adopts by reference the California Green Building Standards Code that requires energy efficiency in retrofits of existing buildings.

Fairfield	CT	55,000	through performance contracting Using utility energy efficiency programs Utilizing the Connecticut Green Bank
Revere	MA	55,000	The City of Revere requires Home Energy Rating Certificates to be completed by licensed builders.
Corvallis	OR	56,000	Our Energy Conservation Policy strives for LEED Silver equivalent in new municipal construction.
Dubuque	IA	58,000	Energy Efficiency Administrative Policy
San Rafael	CA	58,000	Policies in our Greenhouse Gas Reduction Strategy to do EE, LED lighting, install solar, etc.
Burnsville	MN	61,290	The City of Burnsville has an Environmentally Preferable Purchasing Policy that requires appliances and products purchased have the EPA Energy Star certification if available.
Dublin	CA	61,656	The city engaged Chevron Energy Solutions in 2012 to conduct a comprehensive energy audit on city facilities. The audit included recommendations for energy efficiency upgrades. Many of the upgrades have been implemented. A follow-up energy audit was recently conducted by Schneider Electric. The report is under evaluation at this time.
Wellington	FL	62,000	Florida Statutes require new construction to meet LEEDs Silver. We target LEED's Gold.
Encinitas	CA	65,000	The City's Climate Action Plan includes measures that mandate energy efficiency retrofits at existing municipal buildings. In particular, City Action MBE-1 requires continued implementation of energy efficient projects in municipal facilities.
Weston	FL	66,603	The City is and has been retrofitting lights and other equipment to more energy efficient products
Walnut Creek	CA	70,018	While we do not have ordinances in place that require this, the City has used PG&E incentives to upgrade facilities and is currently conducting an energy efficiency audit of several buildings.
Gastonia	NC	72,000	Rebates
Camden	NJ	74,420	Incentives
Schaumburg	IL	74,446	Schaumburg utilizes the most recently adopted energy efficiency code, but does not require or provide incentives for going beyond code requirements.
Evanston	IL	75,000	Energy and Water Benchmarking Ordinance. In December, 2016 the Evanston City Council voted to approve the energy and water benchmarking ordinance which requires large buildings in Evanston to track and report their annual energy and water usage.
Rochester Hills	MI	75,000	Required through the Building Code
Alameda	CA	78,906	Alameda Municipal Power offers incentives for energy efficient upgrades to all non-residential buildings.
Gary	IN	79,803	The City participates in programs such as the Department of Energy's Better Buildings initiative.

Fayetteville	AR	80,000	We have \$40k per year in CIP money for energy efficiency retrofits.
Napa	CA	80,000	When retrofits of existing buildings include proposed improvements related to energy efficiency the City's Building Department reviews the improvements under the California's Building Energy Efficiency Standards and California Green Building Standards Code.
Avondale	AZ	82,881	2012 International Energy Conservation Code. Reduce City's total electricity usage 13% by 2023
Santa Fe	NM	83,000	Energy performance contract.
Bloomington	IN	85,071	The City adopted a Green Building Program Ordinance in 2009, which requires certification of municipal buildings through LEED-NC or LEED-EB: O&M as long as the improvements have a 10-year or less payback period. The Ordinance applies to major and other renovations for existing and subsequently-acquired City of Bloomington buildings.
Duluth	MN	86,000	We have building envelope best practices for our own buildings, we have energy rating system for privately owned buildings and several residential programs in partnership with nonprofits.
Nashua	NH	87,882	School retrofits and municipal (include energy efficiency measures).
Santa Barbara	CA	90,000	No formal policies other than State Green Building standards Incentives - financing through PACE and South Coast EmPower program.
San Leandro	CA	90,465	We have undertaken two major projects for energy efficiency in our municipal facilities. In 2011-2012, approximately \$400,000 of ARRA stimulus money (EECBG) was invested in energy retrofits, including LED streetlights, efficient building systems and lighting. In 2017, the city utilized invested \$5.4M in retrofitting the remaining 84% of streetlights with LEDs and advanced smart controllers on lighting and irrigation controls as well as additional building system upgrades.
Miami Beach	FL	91,562	We are partnered with EnergySage which provides resources on solar technology, cost benefits, financing, purchasing, and installation. Additionally, the City has waived all photovoltaic related building permit fees and has also waived fees related to Land Use Board Approval. (The fee for application for public hearing related only to a solar roof or a renewable energy system on an existing building shall be waived. )
Santa Monica	CA	92,000	We use utility incentives and funding to implement EE projects. We are exploring third-party financing for new projects.
New Bedford	MA	94,845	Stretch Code
Carson	CA	95,000	The City has been working hard to retrofit existing buildings with LED lighting and controls, high-efficiency boilers and pool filters, tank-less water heater, variable frequency drives, etc.

**Policies/incentives to promote energy efficiency in existing buildings:  
Commercial**

**Large Cities (250,000+ people)**

Madison	WI	250,000	<a href="#">Click here</a> for more information
Buffalo	NY	258,612	The City of Buffalo has not issued any mandatory benchmarking or challenges to the private sector. Buffalo is still trying to draw economic development to the downtown area.
Durham	NC	263,016	NC law does not allow us to create energy efficiency policies or requirements for private buildings.
Chula Vista	CA	267,000	Starting August 10th the City will start enforcing a reach code requiring any outdoor commercial lighting retrofits to meet higher energy standards designed for LED bulbs. We also provide no cost evaluations to help business owners identify energy saving upgrades and resources.
Toledo	OH	280,000	Through BetterBuildings, owners of virtually every type of building are eligible for low-cost financing to pay for high-efficiency improvements to their facilities and building systems.
Orlando	FL	282,000	<ul style="list-style-type: none"> <li>- Mandatory building benchmarking, energy audits, and transparency for public and private buildings</li> <li>- PACE program, with about \$500M in energy financing available</li> <li>- Rebates and incentives via OUC for retrofits, including hot water heaters, HVAC, weatherization, lighting, etc.</li> </ul>
Anchorage	AK	296,000	The MOA is considering energy efficiency tax incentives.
Saint Louis	MO	315,000	<p><a href="#">Click here</a> for more information</p> <p>Click each ordinance for more information</p> <p><a href="#">Ordinance 69056 - PACE Board</a></p> <p><a href="#">Ordinance 70474 - Energy Benchmarking</a></p>
Santa Ana	CA	338,000	Property Assessed Clean Energy financing is available.
New Orleans	LA	389,617	The city recently joined City Energy Project and is working on a commercial energy program. It is in development. The city has directed the local utility to provide incentives for energy savings the commercial sector.
Oakland	CA	424,000	The City is part of the Bay Area Regional Energy Network (BayREN), which provides incentives and assistance for energy efficiency retrofits. The City has also approved 17 companies to operate PACE financing programs for energy efficiency retrofits.

Raleigh	NC	458,880	The City is not able to establish or dictate building code in North Carolina.
Long Beach	CA	470,130	Through the Climate Action and Adaptation Plan, staff are developing recommendations for existing building performance standards.
Kansas City	MO	478,000	As noted in the section on electricity, the City is affiliated with two statewide PACE programs to provide access to funding sources for energy efficiency improvements to commercial buildings in the City. During 7/1/10 - 3/31/14 the City implemented EnergyWorks KC (funded by a competitive grant from US Dept of Energy) - improvements were funded for 116 commercial buildings, achieving a 21.5% average annual energy savings.
Mesa	AZ	496,401	International Energy Conservation Code is the adopted stand for new construction and major renovation projects ECC 2009
Atlanta	GA	500,000	The City's Commercial Buildings Energy Efficiency Ordinance requires that all commercial properties larger than 25,000 ft <sup>2</sup> have ASHRAE Level 2 or equivalent energy audits performed every 10 years.  <a href="#">Click here for information</a>
Baltimore	MD	621,849	Funded by a \$52 million grant from the Public Service Commission of Maryland in 2014, the Baltimore Energy Initiative supplements City efforts to grow a sustainable city by reducing our energy use, while promoting local investment. BEI assists residents and businesses in lowering their energy bills, expands and streamlines existing City energy conservation programs, education and outreach, residential energy savings equipment installation, and energy and weatherization assistance.
Las Vegas	NV	640,174	May consider a policy or goal as a part of STAR Communities assessment and new Master Plan update.
Portland	OR	650,000	Portland adopted a mandatory benchmarking and disclosure policy in 2015 (Energy Performance Reporting Policy for Commercial Buildings). The policy applies to all buildings over 20,000. These buildings are required to use Energy Star Portfolio Manager to get an Energy Star Score and Energy Use Intensity. This information is made public. Energy Trust of Oregon provides energy efficiency incentives for all ratepayers in all customer classes of the investor-owned utilities serving Portland.
Boston	MA	685,094	The Building Energy Reporting and Disclosure Ordinance requires all buildings covered by it - including commercial buildings above 35,000 sf - to complete either an energy audit or show 15% improvement in their energy efficiency every 5 years. Any building may also voluntarily report its energy, water and waste data to the City. The Renew Boston program, in partnership with Eversource and National Grid, provide Boston businesses with technical assistance and financial incentives to lower the impacts of high energy costs. Renew Boston also provides a Small Business Direct Install program that provides assessments and financial incentives to improve lighting and mechanical systems. Development Review Guidelines for commercial buildings in the Stuart Street area have a standard

			maximum height of 155 feet, but if a project is certified as LEED Gold it is eligible for a height bonus up to a maximum height of 400 feet.
Washington	DC	693,972	Sustainable DC establishes a target to retrofit 100% of existing commercial and multifamily buildings to achieve net zero energy. In order to achieve these targets, the District gives preference for projects that exceed the threshold Green Building Act requirements -- such as by pursuing Enterprise 2015 Green Communities Criteria 5.2b Advanced Certification: Nearing Net Zero, or full or petal certification under the Living Building Challenge. All project teams pursuing these extra points must incorporate solar PV in their project and maximize their rooftop generation potential to the extent allowable by District codes and regulations. The DC Sustainability Energy Utility has provided incentives and technical assistance to businesses to reduce energy use since 2011, from technical assistance and customized projects, to rebates for lighting and other building upgrades. In 2017, they began offering enhanced rebates to small and medium-sized businesses for LED lighting, parking garage lighting, variable frequency drives, and combinations of fixtures and sensors, and began a program for businesses to purchase qualified LEDs directly from distributors at reduced prices. Last year they served 200+ businesses and institutions and their work will save 66,000 MWh annually. The Clean Energy DC plan also recommends retrofitting existing building stock under a targeted, data-driven program. The modeling estimates that by retrofitting nearly 1 in 5 buildings to achieve a 30% energy reduction, the District would reduce source energy use 20% and avoid 6.6% of the greenhouse gas emissions projected in 2032 under the business-as-usual scenario. DOEE is currently studying how best to design such a program.
Denver	CO	700,000	In addition to the benchmarking ordinance referred to previously, we are revising a green roof ordinance passed by our voters to require specified types of energy efficiency upgrades for new construction, major renovations and re-roofing.
Seattle	WA	705,000	The Building Tune-Ups Ordinance was adopted in March 2016, and it authorized the Director of the Office of Sustainability & Environment (OSE) to develop Rules that further detail compliance specifications. OSE Director's Rule 2016-01 specifies requirements for the following: buildings and spaces subject to the requirement; requirements for tune-up assessments, corrective actions, and reporting; requirements for compliance extensions and exemptions; and qualifications for tune-up specialists. Seattle's Building Tune-Ups policy phases in a periodic tune-up requirement for nonresidential buildings 50,000 square feet or larger (excluding parking), beginning in 2018, with buildings 200,000 square feet or greater due first. Tune-ups aim to optimize energy and water performance by identifying no- or low-cost actions related to building operations and maintenance, focusing on actions that typically pay back within 3 years and generate 10-15% in energy savings, on average. Comprising a swath of downtown Seattle from Yesler Terrace to the south,

			South Lake Union to the north, and the waterfront to the west, the Seattle 2030 District aims to comply with the energy reduction goals of the 2030 Challenge (carbon neutral buildings by the year 2030) at a district level. Achieving this will require coordinated action between building owners, tenant firms, and City of Seattle departments.
Louisville	KY	763,623	Louisville offers a commercial PACE program (known as EPAD – Energy Project Assessment District – in KY) to help businesses finance energy efficiency in new and existing buildings. Through the Go Green Loan Program, below market-rate loans are offered to commercial building owners aiming to increase their building's energy efficiency. The Cool Roof Rebate program offers a \$1 per square foot rebate to businesses that install a white flat roof or cool steep-sloped roof on their new or existing building. Louisville Metro Government, in partnership with two local nonprofits and local businesses, provides free verification for commercial buildings seeking an ENERGY STAR rating. Bi-annual awards are also distributed for achieving ENERGY STAR certification. In addition, awards are distributed for the Kilowatt Crackdown, an annual energy savings competition.
San Francisco	CA	890,000	For more than a decade, the San Francisco Department of the Environment has implemented, in partnership with PG&E, the San Francisco Energy Watch program which provides no cost, professional technical assistance and incentives to small and medium size businesses as well as multifamily properties throughout the City. SF Energy Watch Program provides training, technical assistance and incentives for energy and water retrofits by offering energy-saving products and services and supports the Commercial Boiler Retrofit program. San Francisco is also implementer of the new BayREN commercial energy efficiency program and was an early national leader in building energy benchmarking. The BayRen program offers to improve efficiency of municipal building heating systems by developing a building heating efficiency program and guidance for equipment selection and the creation of a specific ordinance for City municipal buildings. In the long-run, the city continues its support local rebate and incentive programs (BayREN) that rewards energy retrofits. The San Francisco Public Utilities Commission's commercial customers are also eligible for a free Water-Wise Evaluation. This is a free service to provide customers with a comprehensive evaluation of their business' water usage and can help facilities conserve water and save money on utility bills.
Austin	TX	949,587	Yes, ECAD.  <a href="#">Click here for information</a>
San José	CA	1,046,079	See previous.
Phoenix	AZ	1,600,000	Have dollars set aside to provide voluntary energy efficiency and energy benchmarking program in commercial buildings. Adoption of IECC 2018 (Building Code) applies to existing building upgrades.
Houston	TX	2,250,000	



Chicago	IL	2,705,000	The City's benchmarking ordinance requires large buildings to track, report, & verify energy use.
Los Angeles	CA	4,030,904	The EBEWE ordinance will make public the annual energy and water use of all buildings in the city over 20,000 square feet – this includes commercial buildings. The ordinance also requires buildings to take efficiency actions at least once every 5 years, such as energy audits or retrofits to reduce energy and water use. Los Angeles is the first city to require water retro-commissioning of existing buildings. If building owners fail to comply, there is a \$202 fee.
New York	NY	8,500,000	The City has a number of Green Buildings Programs, which include the NYC Carbon Challenge, a voluntary greenhouse gas emissions reduction program of 30% over 10 years; and the NYC Retrofit Accelerator, a resource to help building owners make water and energy efficiency retrofits. The City also has a number of regulations for large buildings (50,000 square feet and over) to provide information to buildings owners and help promote energy efficiency upgrades. These regulations include requiring an annual benchmarking of energy and water consumption; conduct an energy audit and perform retro-commissioning every 10 years; and updating lighting in non-residential spaces to meet the energy code and provide large commercial tenants with sub-meters by 2025. The annual benchmarking requirement has been extended to owners of mid-sized buildings (larger than 25,000 ft and smaller than 50,000 feet). All buildings undergoing major renovations are subject to the NYC Energy Conservation Code.

### Medium Cities (100,000 – 250,000 people)

Las Cruces	NM	101,000	Utility offers rebates.
South Bend	IN	101,735	We will be creating a climate action plan in 2019, which may include new public policies or incentives for EE retrofits.
Erie	PA	101,786	This is something we are willing to look into.
West Palm Beach	FL	106,000	The Community Redevelopment Authority and Economic Development offer additional funding for projects that include energy efficiency measures.
Boulder	CO	108,000	Building Performance Ordinance Requires annual benchmarking of energy use, and the implementation of energy efficiency actions over time  <a href="#">Click here for information</a>
West Covina	CA	110,000	Looking at changes in state law
Gresham	OR	111,523	GREAT Business Program
Lansing	MI	117,000	City is currently starting work on a sustainability plan which will include consideration of this item.
Columbia	MO	120,000	Municipal utility has a commercial lighting incentive program that provides rebates for kW drops due to lighting retrofits.

Columbia	SC	133,358	No specific policies or incentives to promote or require energy efficiency, though we do seek to educate businesses and residents about actions they can take to do so, primarily through our Climate Protection Action Committee.
Olathe	KS	135,000	
Dayton	OH	141,000	N/A
Syracuse	NY	143,396	The City is considering offering Property Assessed Clean Energy financing.
Bridgeport	CT	145,000	Operation Fuel provided locally owned small businesses free access to energy efficiency improvements
Charleston	SC	146,000	
Torrance	CA	147,175	Same as above also PACE financing; education and promotion for Energy Upgrade California, rebates through Southern CA Edison and the South Bay Cities Council of Governments.
Alexandria	VA	150,000	City is considering this as part of its updating the City's Environmental Action Plan 2030.
Clarksville	TN	150,287	The City promotes energy efficiency through participation in the Energy Right Solutions for Business and Industry program.
Macon	GA	159,000	Energy audits performed on buildings, lighting retrofits complete on 60%, purchasing policies to consider high efficiency on all projects and purchases
Fort Collins	CO	167,000	Municipal Utility provides numerous programs to help commercial business reduce energy use of existing buildings ; ; <a href="#">Click here</a> for more information
Newport News	VA	181,825	1) The Newport News City Council enacted an ordinance to encourage commercial rehabilitation in the city by providing a five-year partial exemption of real estate taxes. The Commercial Rehabilitation Property Tax Abatement (CRPTA) provides for a reduction of the post-rehabilitation assessment of a qualifying property by fifty percent (50%) of the eligible rehabilitation costs. Eligible rehabilitation costs include sustainability/energy efficiency improvements. 2) The Newport News Facade Improvement Grant (FIG) program objective is to restore, sustain, and improve commercial properties located within the City of Newport News. The FIG program, managed by Department of Development, provides matching grant funds, up to a maximum of \$30,000, to assist with eligible facade improvements on properties citywide that are used for commercial, industrial, office or mixed-use purposes. A FIG may assist in financing the cost of eligible facade improvements such as "Green"/Sustainable exterior improvements.
Salt Lake City	UT	192,672	Elevate Buildings is an initiative that engages commercial building owners to reduce energy waste while also mandating benchmarking and disclosure of energy performance data. <a href="#">Click here</a> for more information
Shreveport	LA	197,204	Our City partners with local electric utility companies on a program that helps fund energy efficiency building audits.

Rochester	NY	210,000	<p>The community-wide City of Rochester Climate Action Plan encourages commercial and residential energy efficiency. Given the City's recent endorsement, the Climate Action Plan's on-going implementation will have a major focus on commercial and residential energy efficiency. The Climate Action Plan can <a href="#">be viewed here</a>. Rochester's Energy Master Plan described previously includes ways to engage and incentivize commercial entities to reduce energy consumption, and make energy efficiency retrofits. Rochester's Energy Master Plan <a href="#">can be found here</a>.</p> <p>The City created a Sustainable Practices for Building Owners and Occupants which provides guidance on practical solutions and informative resources for all members of the Rochester community to incorporate sustainable planning and design practices into one's home, rental unit, or development of residential, commercial, and mixed-use projects within the City. The handbook includes information about various energy efficiency technologies available, how they work, how to compare these technologies and make the best selection for a property, and how to take advantage of incentives available. The handbook is a useful resource for a number of commercial entities including developers, landlords, business owners, institutions. The handbook is one of the implementation actions of the City's Climate Action Plan to reduce greenhouse gas (GHG) emissions by 40% from 2010 levels by 2030. The community-wide City of Rochester Climate Action Plan encourages commercial and residential energy efficiency. Given the City's recent endorsement, the Climate Action Plan's on-going implementation will have a major focus on commercial and residential energy efficiency.</p> <p>The Sustainable Practices Handbook <a href="#">can be found here</a>.</p> <p>The Climate Action Plan can be <a href="#">viewed at the link below</a>.</p>
Fontana	CA	213,000	State Code requires all new construction to comply with energy efficiency standards this also includes the retrofit of plumbing fixtures when alterations or additions are made to an existing facility.
Tacoma	WA	214,000	Public utility incentives
Fremont	CA	230,000	The East Bay Energy Watch local government partnership with PG&E provides free energy audits and offers rebates to help small to medium businesses to upgrade their lighting and refrigeration systems. The City also passed and energy reach code that requires outdoor lighting retrofits to install high efficiency lighting technologies such as LEDs. With the launch of East Bay Community Energy, new energy efficiency, demand response, and distributed energy resource programs may be developed to further incentivize and promote existing facility upgrades.
Reno	NV	240,000	Reno is in the process of implementing a benchmarking and transparency policy, which will be introduced to City Council in November 2018.

## Small Cities (< 100,000 people)

Aspen	CO	6,870	Aspen is expecting the retrofitting of existing buildings, offices, and facilities to add to their overall GHG reduction goal. It is planned to eventually have this be written into building code
Riverbank	CA	25,000	It is strongly encouraged but not required.
Laurel	MD	27,150	The Office of the Fire Marshal and Permit Services require that retrofit and new construction meets the Energy Efficiency Code.
West Hollywood	CA	35,000	The City will consider how to approach this topic in its upcoming Pathways to Carbon Neutrality Plan, which will kick off later this year.
Hanover Park	IL	38,000	The State of Illinois has adopted the 2015 IECC and we enforce that code.
Hallandale Beach	FL	39,500	Green Building Ordinance 2009-20 "In addition to Sec. 32-787(j)(1), the following projects shall be required to obtain a green building certification from a recognized environmental rating agency accepted by the City's Development Services Department: New commercial building or major renovation projects greater than 50,000 gross square feet"
Rancho Palos Verdes	CA	43,000	Follow California
Everett	MA	43,340	Stretch Code
Newark	CA	44,000	NMC 15.44.70 Green Building Standards Code
Saint Louis Park	MN	49,029	We have a Green Building Policy for major renovations that requires higher performance for that building.
Bonita Springs	FL	50,137	Through Ordinance 15-19 "Green Building Plan" provides policies and incentives for the retrofitting of existing and construction of new buildings.
Queen Creek	AZ	50,400	The Private sector is encouraged to voluntarily apply green building principles in the design, construction, and operation of buildings within the Town of Queen Creek.
East Hartford	CT	52,000	Not enough staffing to handle outside needs
West Sacramento	CA	53,163	City Municipal Code Section 15.12.040 adopts by reference the California Green Building Standards Code that requires energy efficiency in retrofits of existing buildings.
Normal	IL	54,284	There are limited incentives through the Ecology Action Center, a local nonprofit that receives funding through the Town.
Fairfield	CT	55,000	Promoting CPACE
Revere	MA	55,000	All commercial buildings have Smart Designs in LEED ratings for credits to apply for greater energy efficient consumption
Dubuque	IA	58,000	The City finances the Commercial Energy Efficiency Revolving Loan Fund which can be used for commercial energy efficiency improvements, and renewable energy investments if all feasible efficiency improvements have been made. <a href="#">Click here</a> for more information

San Rafael	CA	58,000	Green building ordinances for major remodels
San Marcos	TX	58,292	The City of San Marcos Commercial Lighting Retrofit Program encourages replacement of older inefficient lighting products with newer energy-efficient technologies. Common lighting upgrades include replacing existing T12 fluorescent lighting with T8 or T5 lighting systems, replacing incandescent, fluorescent or neon lighting with LED, replacing incandescent exit signs with LED, and installing lighting controls such as occupancy sensors. The lighting rebate program is open to all City of San Marcos multi-family, commercial, institutional and industrial electric customers. For more information:
Woodland	CA	59,068	The city participates in three PACE programs to allow property owners to finance energy-efficiency retrofit projects with low upfront costs. The city's Climate Action Plan establishes several goals to encourage and promote energy-efficiency retrofits for existing buildings. The city promotes energy-efficiency retrofits and practices on the city website and at community events.
Dublin	CA	61,656	Commercial Property Assessed Clean Energy Programs are available for energy efficiency retrofits. In addition, Pacific Gas & Electric offers rebates for energy efficiency improvements.
Encinitas	CA	65,000	The Green Building Incentive Program provides financial incentive, priority plan check, and City Council recognition to projects that achieve certification with Build It Green GreenPoint Rated and US Green Building Council's Leadership in Energy and Environmental Design.
Weston	FL	66,603	Basically we follow the Florida Building Code
Walnut Creek	CA	70,018	The City has 3 PACE financing programs available in our jurisdiction. We also promote our East Bay Energy Watch local government partnership with PG&E and the BayREN energy efficiency programs.
Gastonia	NC	72,000	Energy Efficient Lighting rebates
Camden	NJ	74,420	Incentives
Schaumburg	IL	74,446	Schaumburg utilizes the most recently adopted energy efficiency code, but does not require or provide incentives for going beyond code requirements.
Evanston	IL	75,000	Same as previous.
Rochester Hills	MI	75,000	Property Assessed Clean Energy (PACE) program
Alameda	CA	78,906	Alameda Municipal Power offers incentives for energy efficient upgrades to all non-residential buildings.
Gary	IN	79,803	NIPSCO service provider has programs for retrofitting buildings.
Fayetteville	AR	80,000	Our utilities provide incentives.
Napa	CA	80,000	When retrofits of existing buildings include proposed improvements related to energy efficiency the City's Building Department reviews the improvements under the California's Building Energy Efficiency Standards and California Green

			Building Standards Code. The City promotes energy efficiency by authorizing Property Assessed Clean Energy programs.
Avondale	AZ	82,881	2012 International Energy Conservation Code City of Avondale Green Business Program provides support to assist with implementation of sustainable practices including energy conservation and efficiency.
Duluth	MN	86,000	see above - also, we are transforming downtown heating systems to district energy which comes with incentives for long term savings via contract.
Santa Barbara	CA	90,000	Same responses as above.
San Leandro	CA	90,465	The City is an active participant in the local government partnership, East Bay Energy Watch. Their small and medium business programs, EBEW, work in San Leandro to promote retrofits that include insulation, energy efficient lighting, refrigeration and other building systems upgrades.
Miami Beach	FL	91,562	We are partnered with EnergySage which provides resources on solar technology, cost benefits, financing, purchasing, and installation. Additionally, the City has waived all photovoltaic related building permit fees and has also waived fees related to Land Use Board Approval. (The fee for application for public hearing related only to a solar roof or a renewable energy system on an existing building shall be waived. )
Santa Monica	CA	92,000	In the process of developing a benchmarking and energy use reduction ordinance.
New Bedford	MA	94,845	Stretch Code
Carson	CA	95,000	Through our work in the Clean Power Alliance, we hope to be able to offer incentive in the future.

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## Policies/incentives to promote energy efficiency in existing buildings: Residential

### Large Cities (250,000+ people)

Madison	WI	250,000	<a href="#">Click here for information</a>
Buffalo	NY	258,612	97% of the residential building stock in Buffalo was constructed before the energy code existed. The City is committed to integrating energy efficiency principles into existing programs and exploring the feasibility of implementing new opportunities. The Buffalo Urban Renewal Agency's (BURA) Emergency Repair Program provides homeowners and renters with financial assistance to address emergency situations, such as utility service interruption or the repair of an individual component system that is in poor or dangerous condition. While designed to address emergency situations, BURA works to integrate energy-efficiency strategies into the repair program in its

			continued effort to support a reduction in citywide energy consumption.
Durham	NC	263,016	NC law does not allow us to create energy efficiency policies or requirements for private buildings.
Chula Vista	CA	267,000	We have provided PACE financing to help finance energy saving upgrades. We also provide no cost evaluations to help building owners identify energy saving upgrades and resources. Our CAP also calls out requiring retrofits in existing homes and we have a contractor currently working on possible policy solutions.
Orlando	FL	282,000	- Efficiency Delivered (ED) program, offering free energy audits (ASHRAE L2) for homes and up to \$2,000 for improvements that are repaid via the OUC utility bill (aka zero-interest on-bill financing). Households under \$40,000 per year are subsidized by 85%. Households under \$60,000 per year are subsidized by 50%.
Anchorage	AK	296,000	The MOA is considering energy efficiency tax incentives. The MOA also supports renewed funding for the Alaska Housing Finance Corporation's residential energy efficiency programs, which have not had funding for two years.
Santa Ana	CA	338,000	Property Assessed Clean Energy financing is available.
Oakland	CA	424,000	The City is part of the Bay Area Regional Energy Network (BayREN), which provides incentives and assistance for energy efficiency retrofits. The City has also approved 17 companies to operate PACE financing programs for energy efficiency retrofits.
Raleigh	NC	458,880	The City is not able to establish or dictate building code in North Carolina.
Long Beach	CA	470,130	Through the Climate Action and Adaptation Plan, staff are developing recommendations for existing building performance standards.
Kansas City	MO	478,000	Thru its affiliation with the MO Clean Energy District (a statewide PACE loan provider), City residents have access to residential PACE loans offered by Renovate America's HERO program to provide funding for energy efficiency improvements to their homes.
Baltimore	MD	621,849	The Baltimore Energy Challenge (BEC) is a peer to peer network outreach program teaching low to no cost ways to save energy to residents, businesses, and nonprofits through a grassroots effort in neighborhoods and schools. We ask everyone to sign a pledge committing to reducing their energy use through behavior change. The resources and education we provide has helped communities reduce their energy usage from 4-13%. The Loan Program offers low-interest loans to nonprofit and small business owned buildings to make them more energy efficient. The City's Energy Assistance Office utilizes 5 Community Action Centers across Baltimore to serve 17,000 energy assistance customers per year. Baltimore City Weatherization Services is for income-eligible families, and the Residential Energy Home Improvement program delivers federal and state EmPower Maryland weatherization services and BEI funded services for roofing, heating systems and healthy home improvements. BEI

			funds oil-to-natural gas heating system conversions for moderate income families. Loan programs are available for energy efficiency and housing rehab. The City has also been expanding tree planting opportunities, and all of the city's tree plantings are coordinated through TreeBaltimore. In partnership with city agencies and NGOs, TreeBaltimore targets planting efforts in neighborhoods with low canopy cover and high heat island effects. Trees lower air temperatures and can reduce residential energy cost by 15-35%.
Las Vegas	NV	640,174	Formerly sponsored a state Home Performance with ENERGY STAR Program; May consider a policy or goal as a part of STAR Communities assessment and new Master Plan update.
Portland	OR	650,000	In 2016, Portland adopted the Home Energy Score Ordinance, which requires sellers of single-family homes to obtain a Home Energy Score and Report. The HES and HER must be disclosed in all real estate listings or advertisements. Energy Trust offers incentives for residential customers to adopt EE measures.
Boston	MA	685,094	<p>The Building Energy Reporting and Disclosure Ordinance requires all buildings covered by it - including residences with more than 35 units - to complete either an energy audit or show 15% improvement in their energy efficiency every 5 years. Any building may also voluntarily report its energy, water and waste data to the City. The City, through the Renew Boston program, provides no-cost energy assessments for 1-4 unit residential buildings and additional financial incentives for select energy upgrade measures beyond those provided by the city's utilities and Mass Save. Renew Boston in partnership with Eversource and National Grid also provides large condo associations and co-ops with more than 4 units with technical assistance and financial incentives to lower the impacts of high energy costs. The winter of 2014-2015 saw an unprecedented number of heat emergency calls from Boston's senior citizens. To ensure that Boston's seniors were ready for the winter to come, Mayor Martin J. Walsh announced that the Boston Home Center would help income-eligible seniors replace failing or inefficient heating systems. Renew Boston Residential</p> <p><a href="#">Click here for more information</a></p> <p><a href="#">Click here for more information</a> on Seniors Save program.</p>
Washington	DC	693,972	The Green Building Act of 2006 requires that District owned or financed residential projects 10,000 square feet or larger (including properties owned by the DC Housing Authority) meet or exceed the Enterprise Green Communities certification standard or an equivalent standard. Further, for low-income residents, the Weatherization Assistance Program (WAP), funded by the U.S. Department of Energy, provides technical and financial assistance to help low-income residents reduce their energy bills by making their homes more energy efficient. WAP performs energy audits and installs audit-recommended energy efficiency measures. The DCSEU also serves residential clients to improve efficiency. In April 2017, the DCSEU was reauthorized



			with a new five-year, \$100 million contract. The contract has new performance benchmarks that charge the DCSEU with achieving: a reduction in electricity use over the 5 years equivalent to 5% of baseline citywide electricity use, a reduction in natural gas use over the 5 years equivalent to 3% of baseline citywide natural gas use, spending 20% of all money on low-income energy efficiency projects, creating 80 green jobs per year, and leveraging \$5 million in private funding. In order to meet these targets, the DCSEU operates a number of programs. For residential customers, the SEU provides rebates to District homeowners for the purchase of energy-efficient clothes washers, clothes dryers, dehumidifiers, dishwashers and refrigerators, and partners with local retailers to offer discounted energy-efficient lighting.
Denver	CO	700,000	The benchmarking and green roof ordinances referred to above apply to private residential buildings of 25,000 sq. ft. or larger.
San Francisco	CA	890,000	Through direct rebate programs, contractor training, and support of industry-wide adoption of green building labels, San Francisco has worked closely with the emerging home performance community, PG&E, and city residents to develop the practical steps for moving single family and small multifamily buildings toward zero net energy (ZNE). The City is also supporting the work of the California Public Utilities Commission in achieving the statewide goals for ZNE buildings. In addition, the Residential Home Energy Improvement Program providing residential rebates for energy efficiency improvements such as smart meters, as well as the Energy Upgrade California program that offers homeowners up to \$4,500 for home energy efficiency upgrades. The program connects homeowners with qualified contractors to help homeowners improve the comfort, safety and EE of their home. The city also passed the Residential Energy Conservation Ordinance (RECO) that would lead to 2.5% improvement in energy efficiency in the residential sector. The San Francisco Public Utilities Commission (SFPUC) also provides incentives for RE and water efficiency, including: rebates for replacing obsolete commercial and residential toilets with EPA WaterSense certified models, rebates for highly efficient urinal replacements, rebates for replacing commercial and residential washing machines with Energy Star Most Efficient models as well as grants or custom rebates for large equipment.
San José	CA	1,046,079	See above.
Phoenix	AZ	1,600,000	Will launch a free home energy audit program starting September 1, 2018 in partnership with utilities.
Los Angeles	CA	4,030,904	The EBEWE ordinance will make public the annual energy and water use of all buildings in the city over 20,000 square feet. In regards to residential buildings, this only includes multi-family residential buildings over 20,000 square feet. The ordinance also requires buildings to take efficiency actions at least once every 5 years, such as energy audits or retrofits to reduce energy and water use. Los Angeles is the first city to require water retro-commissioning of existing buildings. If building owners fail to comply, there is a \$202 fee.

New York	NY	8,500,000	NYC is committed to legislating that all large existing buildings meet energy intensity or GHG intensity requirements by 2030. See <a href="http://nyc.gov/1.5">nyc.gov/1.5</a>
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### Medium Cities (100,000 – 250,000 people)

Las Cruces	NM	101,000	Utility offers rebates.
South Bend	IN	101,735	In 2018, we are launching several home repair and low-income weatherization programs which aim to increase the energy and water efficiency of the South Bend housing stock. We will be creating a climate action plan in 2019, which may include new policies or incentives for EE retrofits.
Erie	PA	101,786	This is something we are willing to look into.
Boulder	CO	108,000	SmartRegs Rental housing efficiency requirements <a href="#">Click here for information</a>
West Covina	CA	110,000	State law
Lansing	MI	117,000	City is currently starting work on a sustainability plan which will include consideration of this item.
Columbia	MO	120,000	Home Performance with Energy Star is a popular program. We are also interested in ways to incentivize energy improvements in rental housing.
Columbia	SC	133,358	No specific policies or incentives city-wide, but our Community Development Department does have some funds available for LMI homeowners.
Syracuse	NY	143,396	None are available through the City at this time. However, a non-profit in the community already provides low-cost subsidized weatherization services for low-income homeowners.
Bridgeport	CT	145,000	Posigyn reaching out
Torrance	CA	147,175	Same as previous.
Alexandria	VA	150,000	City participates in the Solarize Nova program that incentivizes/facilitates solar installation in residential homes.
Fort Collins	CO	167,000	Municipal Utility provides numerous programs to help commercial business reduce energy use of existing buildings; <a href="#">Click here for more information</a>
Knoxville	TN	186,000	Knoxville Extreme Energy Makeover; Smarter Cities Partnership <a href="#">Click here for Keem Team Website</a> <a href="#">Click here for more</a> information on smart cities
Salt Lake City	UT	192,672	Salt Lake City has a new program launching in 2018 to promote energy efficiency in residential properties across two target geographic areas / zip codes.
Shreveport	LA	197,204	Our City partners with local electric utility companies on a program that helps fund energy efficiency building audits.
Little Rock	AR	205,000	All new houses are required to post new energy standards required by updated building codes.

Rochester	NY	210,000	<p>The City is beginning a Clean Heating &amp; Cooling (CH&amp;C) Community Campaign in partnership with PathStone Inc. to provide education &amp; outreach to promote CH&amp;C technologies for owner-occupied residential properties &amp; provide opportunities for residents to work with selected contractors to receive energy efficiency installations &amp; weatherization services. The Campaign will include community-based outreach, education, and bulk procurement opportunities for Clean Heating and Cooling (CH&amp;C) technologies that will tackle fuel-switching, which involves retrofitting homes to use electricity instead of natural gas, as it is one of the key energy strategies outlined in the City of Rochester Climate Action Plan. The CH&amp;C Community Campaign will implement several actions outlined in the Climate Action Plan and Energy Master Plan. The community-wide City of Rochester Climate Action Plan encourages residential energy efficiency, including ways to educate residents on the benefits of energy efficiency retrofits. Given the City's recent endorsement, the Climate Action Plan's on-going implementation will have a major focus on residential energy efficiency. <a href="#">The Climate Action Plan can be viewed here.</a></p> <p>Rochester's Energy Master Plan described previously includes ways to engage and incentivize residents to reduce energy consumption, and make energy efficiency retrofits. Rochester's Energy <a href="#">Master Plan can be found here.</a></p> <p>The City created a Sustainable Practices for Building Owners and Occupants which provides guidance on practical solutions and informative resources for all members of the Rochester community to incorporate sustainable planning and design practices into one's home, rental unit, or development of residential, commercial, and mixed-use projects within the City. The handbook includes information about various energy efficiency technologies available, how they work, how to compare these technologies and make the best selection for a property, and how to take advantage of incentives available. The handbook is a useful resource for residents (homeowners and tenants) as it can help homeowners through the decision-making process of investing in the best energy efficiency improvements for their property and can urge tenants to work with their landlords to improve their homes so that it is mutually beneficial. The handbook is one of the implementation actions of the City's Climate Action Plan to reduce greenhouse gas (GHG) emissions by 40% from 2010 levels by 2030. The community-wide City of Rochester Climate Action Plan encourages commercial and residential energy efficiency. Given the City's recent endorsement, the Climate Action Plan's on-going implementation will have a major focus on commercial and residential energy efficiency.</p> <p><a href="#">The Sustainable Practices Handbook can be found here:</a></p> <p><a href="#">The Climate Action Plan can be viewed here.</a></p>
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Fontana	CA	213,000	State Code requires all new construction to comply with energy efficiency standards this also includes the retrofit of plumbing fixtures when alterations or additions are made to an existing facility.
Fremont	CA	230,000	Since 2009, Fremont has partnered with the nonprofit Rising Sun Energy center to offer the California Youth Energy Services (CYES) Program. CYES trains local youth ages 15-22 and pays them over the summer to conduct "Green House Calls" for local renters and homeowners, whereby they install CFL and LED lights, faucet aerators, low-flow shower heads, hot water pipe insulation, clotheslines, and other energy and water saving measures. For whole-home upgrades, the Energy Upgrade California® Home Upgrade and the Advanced Home Upgrade programs offer incentives for single family homeowners in the Bay Area. Energy Upgrade California™ Home Upgrade provides assistance and incentives for home improvement projects that can reduce energy use and make homes more comfortable, providing rebates of up to \$3,000, plus a \$150 Combustion Safety Test Rebate, for Home Upgrade (eligible projects must complete a minimum of three upgrade measures including one base measure) and up to \$5,500, plus a \$300 Assessment Incentive, for an Advanced Home Upgrade (eligible projects must complete a whole house energy assessment demonstrating a minimum of 10% modeled savings). For multi-unit dwellings (5 units or more per building), the Bay Area Multifamily Building Enhancements program offers technical and financial support to help upgrade inefficient energy systems and water fixtures. Eligible properties earn \$750 per unit for upgrades to any of the following: windows, insulation, furnaces, water heaters, lighting, toilets, and appliances. The program also offers no-cost consulting with an energy and water expert that helps to customize improvement package and allows building owners/managers to select their own contractors.

### Small Cities (< 100,000 people)

Aspen	CO	6,870	Aspen is expecting the retrofitting of existing buildings, offices, and facilities to add to their overall GHG reduction goal. It is planned to eventually have this be written into building code
Riverbank	CA	25,000	It is strongly encouraged but not required.
Laurel	MD	27,150	The Office of the Fire Marshal and Permit Services require that retrofit and new construction meets the Energy Efficiency Code.
West Hollywood	CA	35,000	The City will consider how to approach this topic in its upcoming Pathways to Carbon Neutrality Plan, which will kick off later this year.
Rancho Palos Verdes	CA	43,000	Follow California
Everett	MA	43,340	Stretch Code

Saint Louis Park	MN	49,029	We have a Green Building Policy for major renovations that requires higher performance for that home.
East Hartford	CT	52,000	Not enough staffing to handle outside needs
Normal	IL	54,284	There are limited incentives through the Ecology Action Center, a local nonprofit that receives funding through the Town.
Fairfield	CT	55,000	Promoting the electric utility's energy audit program
Revere	MA	55,000	All construction of residential developments have HERC Indexes that must meet regulatory standards and grades
San Rafael	CA	58,000	Green building ordinances for major remodels
Woodland	CA	59,068	The city participates in three PACE programs to allow property owners to finance energy-efficiency retrofit projects with low upfront costs. The city's Climate Action Plan establishes several goals to encourage and promote energy-efficiency retrofits for existing buildings. The city promotes energy-efficiency retrofits and practices on the city website and at community events.
Dublin	CA	61,656	The city promotes home energy upgrades through the Bay Area Regional Energy Network programs.
Encinitas	CA	65,000	The City's Climate Action Plan includes measures that mandate energy efficiency retrofits at existing municipal buildings. In particular, City Action BE-1 requires energy audits of existing residential units.
Gastonia	NC	72,000	Heat pump replacement rebates Electric water heater replacement rebates
Camden	NJ	74,420	Incentives
Schaumburg	IL	74,446	Schaumburg utilizes the most recently adopted energy efficiency code, but does not require or provide incentives for going beyond code requirements.
Evanston	IL	75,000	Same as above.
Rochester Hills	MI	75,000	Required through the Building Code
Alameda	CA	78,906	Alameda Municipal Power offers incentives for energy efficient upgrades to residential buildings.
Gary	IN	79,803	Weatherization opportunities exist through Northwest Indiana Community Action.
Fayetteville	AR	80,000	Our utilities provide incentives.
Napa	CA	80,000	When retrofits of existing buildings include proposed improvements related to energy efficiency the City's Building Department reviews the improvements under the California's Building Energy Efficiency Standards and California Green Building Standards Code. The City promotes energy efficiency by authorizing Property Assessed Clean Energy programs.
Avondale	AZ	82,881	2012 International Energy Conservation Code
Duluth	MN	86,000	See above

San Leandro	CA	90,465	The City of San Leandro works with residents to promote energy efficiency and other climate actions through an energy challenge, GoGreenSL.org
Miami Beach	FL	91,562	We are partnered with EnergySage which provides resources on solar technology, cost benefits, financing, purchasing, and installation. Additionally, the City has waived all photovoltaic related building permit fees and has also waived fees related to Land Use Board Approval. (The fee for application for public hearing related only to a solar roof or a renewable energy system on an existing building shall be waived. )
Santa Monica	CA	92,000	In the process of developing an energy disclosure ordinance for time of listing.
Carson	CA	95,000	Through our work in the Clean Power Alliance, we hope to be able to offer incentive in the future.