Questions in this section address energy efficiency issues related to operations, procurement, and asset management of the local government.

Question	estions in this section address energy efficiency issues related to operations, procurement, and asset management of the local government.						
Sub- Topic	Question	City policies/actions	Policies of other jurisdictions applicable to the city (e.g. state or county)	ACEEE Data Source(s)	Corrections & Additional Information	Additional Data Source	
Enoral E	Efficiency goals/ targets						
	Has the local government formally adopted an energy efficiency target for city operations, or a related target (e.g. greenhouse gas reduction, energy productivity)? If so, what is the target? What is the timeframe (e.g. 3, 5, 10 years)? Please include plan and/or statute/resolution number. Has the target been Integrated into general plan, budget, or capital planning?	Resolution 906 - adopted community goal to reduce emissions by 7% below 1990 levels by 2012. The goal for city operations was met through an Energy Performance Contract (EPC) for both energy and water savings. Overall, the EPC reduced emissions by 24 percent from 2008 levels. Backcasting showed that city operations had to reduce emissions by 20% of 2008 levels to meet the 7% below 1990 levels. The EPC saved \$670,000 annually in utility costs out of an annual average of \$3 million. Since the energy savings were used to finance the energy improvements, it made the project budget neutral. On the fleet side, the goal was met in 2006 with alternative fuels (biodiesel, E-85, propane, and hybrid) use and a reduction in vehicle miles traveled. An internal goal was adopted to have at least 90 percent of new vehicle purchases be alternative fuel capable. That goal has been met at 100% the past 4 years.	Executive Order D0011 07 sets goal that by fiscal year 2011-2012, state government achieve at least a 20% reduction in energy consumption of state facilities below fiscal year 2005-2006 levels		https://bouldercolorado.gov/pages/energy-efficiency- upgrades-at-city-facilities-energy-performance- contract		
	plementation and management					-	
1.2	If the local government has adopted a target, is it on track toward hitting its energy efficiency target(s)? Please provide documentation.	The city organization and its operations achieved the goal of meeting Kyoto at the end of 2012.			https://www-static.bouldercolorado.gov/docs/Leading by Example _City Facilities and Operations-1-201304081318.pdf	_	
1.3	efforts to increase energy efficiency in local government operations and/or to influence city-wide adoption of energy efficiency actions? If so, please provide documentation (website, community resources, workshop or	Boulder's Energy Future (BEF) webpage developed as outreach portal to residents and businesses regarding energy decisions. Through webpage, the community can submit comments to government officials and city council; can also post ideas on "Inspire Boulder," the city's collaboration website. Additionally, upcoming events and council meetings are posted on BEF webpage. The city's efforts to increase energy efficieny in its buildings and fleet is highlighted on the Public Works webpages.			https://bouldercolorado.gov/pages/energy-efficiency-upgrades-at-city-facilities-energy-performance-contract		
1.4		City has produced annual reports for the community on GHG emissions management since 2004. It has also baselined its 2008 GHG emissions using the ICLEI Local Government Operations protocol and updated it for 2011 and will collected for 2012. Attached is the 2011 emissions inventory.			colorado.gov/pages/energy-efficiency-y-facilities-energy-performance-		
1.5		Yes, the city's EPC contractor has performed the city's baseline and is providing annual updates. See 1.4 for most recent example.			https://bouldercolorado.gov/pages/energy-efficiency- upgrades-at-city-facilities-energy-performance- contract		
1.6	Does the city have <i>dedicated</i> staff for energy management and implementation of energy efficiency goals? What number of full-time equivalent staff (FTEs) are dedicated?	No, energy management and implementation within city operations is part of staff responsibilities.					
1.7	encourage departmental efficiency actions? Please include specific examples.	The city is developing a new management structure to meet its proposed new goal of 80 percent reduction of GHC emission by 2050. To meet the the 2012 goal, the city developed an intra-departmental Energy Strategy Team which consisted of 25 representatives from nearly all city departments who's purpose was to make decision regarding meeting the 2012 goal.					

Procurement				
1.8 Does the city have a vehicle procurement policy that includes energy	The Fleet Services division has a goal that at least 90 percent of all new vehicle purchases be alternatively fueled, meaning biodiesel (B-20), E-85, propane, hybrid or electric powered. Currently, 295 of the 440 total vehicles in the city Fleet (67 percent) are classified as alternative fuel vehicles 105 biodiesel-capable, 41 hybrids, 145 ethanol/gasoline, 4 propane, and 3 all-electric vehicles.	Executive Order D 0011 07 directs agencies to reduce petroleum consumption by state fleets by 25% by 2012, compared to FY 2005-2006 levels, while increasing fleet efficiency	ces	
1.9 Has the city installed charging stations for electric vehicles? Are the stations also available for use by the public?	The city has installed 11 Level 2 (220V) charging stations with 4 available for public use. Two solar powered Level 2 stations and three electric powered level 2 stations will be installed before the end of 2013 for public use. See website link for other charging stations available in the city that have been installed by others.	http://www.afdc.energy.gov/fuels/electity_locations.html	tric	http://user.govoutreach.com/bould er/faq.php?cid=23683
	As part of city's energy performance contract, indoor and outdoor lighting was upgraded in city facilities and properties from 2010 to 2013. For example, in Phase III work to be completed in 2013, retrofits in city buildings include lighting upgrades and additional bike path lighting. Most of the building lighting systems were not LEDs due to the high costs of LEDs. The traffic signals have all been converted to LED signals. Street lighting is currently largely owned by a private utility and they have not allowed conversions to LEDs. In the past several years, the city has started to install their own street lighting initially using induction lamps, beginning this year, LEDs.		https://www-static.bouldercolorado.gov/docs/fam- master-plan-2005-1-201304081131.pdf	
1.11 Are street lights activated by light/motion sensors and/or scheduled only for the hours needed?	All existing street lights (both utility-owned and city-owned), are controlled by individual photo cells, turning on at dusk and off at dawn. A new city-owned street light system currently under construction will feature wireless remote monitoring and control. The lights will turn on at a programmed time, and will be dimmed during lower traffic activity periods.			
1.12 Are new construction or major rehab projects for government buildings and/or schools required to exceed commercial building codes? What standard/certification (e.g. ENERGY STAR, LEED, etc.) is required? Does the city require high-performance leases or "green leases" for all government leases? Does the city require that these buildings meet location efficiency requirements (e.g. Walkscore, H+T Index)? Does the city require transit/bike/pedestrian access for public buildings?	The goal for city organization's new contruction and major remodels is to achieve at least a LEED Silver Certification - see FAM Master Plan on link, page. City construction does follow local building code requirements which mandates at least 30 percent increae in energy efficiency above the IECC 2006. No requirement for green leases. Through the city's developmen review process, developments that exceed trip generation standards are required to submit TDM plans which cover improvements to bike/ped/transit access, parking management, Eco Pass participation, outreach and ECT program, program evaluation and monitoring, bicycle parking, and other TDM programs. Walkscore is not used.	SB 51and SB 147 established requirements for new and renovated state buildings to attain LEED Gold certification	https://www-static.bouldercolorado.gov/docs/fam- master-plan-2005-1-201304081131.pdf	
1.13 Does the city have requirements for energy-efficient product procurement (e.g. purchase of ENERGY STAR appliances, WaterSense fixtures, etc.)?	The city has an Environmental Purchasing Policy in place since 2002. This policy is currently being updated.	Executive Order D 0012 07 requires agencies to purchase equipment that is ENERGY STAR certified	https://bouldercolorado.gov/purchasing/environment l-purchasing-policy	a Fridament
1.14 Does the city require projects receiving public funding, for example stadiums or cultural facilities, to also meet these above building and/or procurement standards?	The city requirements do not apply to the University of Colorado, the federal laboratories or the Boulder Valley School District, but do apply to city funded projects.			,

Asset m	anagement					
	Does the city have policies to improve efficiency of public vehicles through maintenance, operations or driving behavior (e.g. tire inflation, anti-idling policies, motorpools, etc.)? What are they?	The Fleet Environmental Goals include: • Reduce vehicle miles traveled (VMT), fleet vehicle emissions and use of petroleum-based fuels • Continue membership in the Boulder County Partners for A Clean Environment (PACE) program • Purchase vehicles that are more fuel-efficient • Purchase at least 90 percent of new vehicles as alternative fuel vehicles (AFVs) • Currently, 295 of the 440 total vehicles in the city Fleet (67 percent) are classified as alternative fuel vehicles: • 105 diesel/biodiesel, 41 gasoline/electric hybrids, 145 gasoline/ethanol, four propane, and three all-electric vehicles.				
1.16	What is the total building area (square feet) of local government buildings and public schools in the city?	Local government facilities total SF: 2,095,000 sf. Public Schools - do not have that information.				
1.17	benchmarked? For what % of current local government building square	Yes, our EPC contractor has performed our baseline and is providing annual updates. See 1.4 for most recent example. It includes all electrical and gas usage by local government facilities. Benchmarks are in-place for 28 facilities that represent the highest use and over 80% of the total use.				
1.18	retrocommissioning and retrofitting as appropriate? What policy is in place?	Facilities and Asset Management (FAM) is responsible for monitoring energy use in General Fund city facilities and ensuring that new General Fund facilities and remodels are designed to minimize overall capital, maintenance and energy costs. Starting in 2009 with through an Energy Performance Contract, FAM managed the intradepartmental Energy Strategy Team to complete a number of building upgrades, including switching to energy efficient lighting and installing efficient HVAC systems. Recent efficiency improvements include installing occupancy sensors, adding insulation during remodels, installing variable speed fans in new HVAC equipment, installing reflective roofing materials on flat roofs and selecting high efficiency boilers.	The state of the s	https://www- static.bouldercolorado.gov/docs/city-2006 climate-action-plan-1-201305081127.pdf		
1.19	contracts? Has the city recently participated in one or more energy	In June 2009, Boulder partnered with the Colorado Energy Office on an energy performance contract which has enabled the city to make significant energy efficiency upgrades to 66 city facilities. The EPC is a three phase project with work still ongoing.	Executive Orders in 2001, 2003, and 2007 all explicitly call for state agencies to investigate and use ESPCs where feasible. The State also encourages the use of performance contracting for local governments as well		https://bouldercolorado.gov/pages/energy-efficiency- upgrades-at-city-facilities-energy-performance- contract	
1.20	policy, or development impact fees? If so, please describe the policy(ies).	The city's Capital Improvement Program includes 9 guiding principles which include: Capital Improvements should achieve Community Sustainability Goals - Environmental, Social and Economic; Capital Improvement Programs should sustain or improve maintenance of existing assets before investing in new assets; Capital programming should maximize efficency of investments demonstrated by measurable cost/benefit analyses and coordination of projects across departments within and across funds; and the Capital Improvement Program should provide sufficient reserves to allow for a sound fiscal foundation with benefits that include a strong bond rating and the ability to address emergencies and natural disasters.	of life-cycle costs in purchasing policies	ACEEE 2012 State Scorecard		
1.21	assets or distributed infrastructure (e.g. shade trees, transit improvements, etc.) in comparison to new infrastructure or major expansions?	In the 2014 to 2019 recommended CIP 60% of the \$239 Million in funding is going towards maintainence and enhancements of existing assets. For 2014, the recommended budget is 42.35 Million, of which 70% is for maintainence or enhancements to existing assets. This does not include regular facility maintainence or annual street resurfacing, or trees, which are included in the operating budget of the city.			Http IP	o://www.bouldercolorado.gov/G
1.22	Does the city allow/encourage tele-working and/or flexible schedules resulting in fewer commutes for its employees? What is the policy?	Yes - see attached teleworking policy.			http://intraweb.ci.boulder.co.us/files/departments/inf o_technology/policies/Telecommuting.pdf	The state of the s
1.23	transportation available to city employees (e.g. transit/bike commuter benefits, carpooling programs, parking cash out, etc.)? Please be specific.	City's GO Boulder program promotes alternative modes of transportation. Through webpage, and the GO Boulder team includes a city ETC who is responsible for outreach to city employees to encourae the use of transportation options. This program included employee orientation, pick up and use of Eco PAss, vanpool and ride sharing assistance, discounted annual memberships to Boulder B-Cycle, use of eGo Carshare vehicles, Bike to Work day cooridation, managerment of carpool parking program, analysis of employee parking supply/demand and price, and other promotions and giveaways.			http://intraweb.ci.boulder.co.us/index.php?optio n=com_content&view=article&id=578<emid=52 1 http://intraweb.ci.boulder.co.us/index.php?optio n=com_content&view=article&id=99<emid=30	,

Water se	ervices				
1.24	Does the city's water utility have water efficiency programs? What is their current annual budget? Please also provide data on program participation/spending/savings, if available.	Yes. The city has one FTE staffed Water Conservation Program which has a total annual budget of approximately \$400,000. The city had a formal rebate program from 1995-2012. In 2013, rebate funding was switched to offer more programmatic efforts (see link right) aimed at enhanced savings and tracking of savings. This included a national program to give new ultra-low 0.8 gallon per flush toilets that are EPA WaterSense approved away for free if the customer pays a low cost install fee (that includes the cost of recycling the old toilet). This has been labeled as the Toilet "Freebate" Other program include instant rebates for 50% off on drip kits and timers, xeriscaping garden seminars, low-cost xeriscaping plants called "Garden-in-a-box, free outdoor irrigation audits and free commercial water assessments. The city also has water budgets (https://bouldercolorado.gov/water/know-your-water-budget) and a 5 tier inclining rate block structure with incentives (lower rates; 3/4 the base rate) for using 60% of ones water beget and more punitive rates for using over 200% of ones water budget (5 X the base rate). The Water Conservation Program also manages \$50,000 in matching funds to support municipal water conservation efforts and analyzes city water loss information. The collective participants in any given year may be as high as 800 customers and the city saves between 15-30 acre feet each year across all it's programs and it's coordinated efforts with energy programs (https://bouldercolorado.gov/water/watts-in-the-water). The Water Conservation Program also has extensive, innovative projects with Parks and Transporation.		https://bouldercolorado.gov/water/rebat e-program-2013	https://bouldercolorado.gov/pages/water- conservation-2013
1.25	Does the water utility have water efficiency savings targets? What are they? Please provide documentation.	Yes. The city's goals are to reach an approximate a 20% reduction in water use over 2000 water use levels by buidlout (2035). This is captured in the City's 2000 Water Conservation Futures Study, 2000 Treated Water Master Plan, the 2009 Water Conservation Plan and the 2011 Water Utilities Master Plan (Vol 2; linked right).		https://bouldercolorado.gov/pages/water- utility-master-plan	=
1.26	Does the water/wastewater utility have an <i>energy</i> management initiative? Energy efficiency targets? Please provide documentation.	Yes. This was a part of the city's energy performance contract (EPC). The WWTP also has "Co-gen" (the two engine generators noted below) and a solar array. (also see below; link)		https://bouldercolorado.gov/pages/feb-4- 2013-citys-energy-performance-contract- earns-exemplary-award-for-saving-both- energy-and-water	https://bouldercolorado.gov/water/wastewater- treatment
1.27	Does the city's wastewater treatment process self-generate energy through methane capture or other means? How much energy is self-generated (e.g. percent of operational energy self-generated, net energy per liter, etc.)?	Yes. Methane and other gas byproducts from the wastewater treatment process are used to fuel two engine generators that produce both electricity and heat. (also see above; link)		https://bouldercolorado.gov/water/waste water-treatment	
1.28	Does the city have policies, rates or incentives that encourage low-impact development/ green infrastructure to manage stormwater? What are they?	Yes. The city has it's own flood and stormwater utility fund. Stormwater efforts include, as part of the city's MS4 permit, a requirement for education and outreach and public involvement in addition to inspection/enforcement. These outreach efforts extend to school education and an annual Children's water festival which has involved as many as 1200 students. Additionally, the city is involved in greenways (https://bouldercolorado.gov/water/greenways-program) improvements and participates in the regional (countywide) Keep It Clean Partnership (KICK) effort which focus on stormwater outreach and education as managed by the city.	Keep It Clean Partnership - a group of communities located along the Colorado Front Range dedicated to protecting water quality and reducing stormwater pollution. The Keep It Clean Partnership has developed programs to meet requirements established by the EPA regarding stormwater regulations	http://www.keepitcleanpartnership.org/a bout-us/	
1.29	Is there public funding in place for green stormwater infrastructure? If so, please describe.	(See above). Also, new stormwater charge/flood management fee for all multifamily housing went into effect on Jan. 1 2013		https://bouldercolorado.gov/water/storm water-bill	

Community-Wide Initiatives

Questions in this section focus on community-wide unity-wide goals and policies and programs for energy efficiency that have impacts across energy using sectors

Questions i	n this section focus on community-wide goals and	policies and programs for energy efficiency that have impacts across energy using sectors.			1	
Sub- Topic	Question	City policies	Policies of other jurisdictions applicable to the city (e.g. state or county)	ACEEE Data Source(s)	Corrections & Additional Information	Additional Data Source
Energy Effi	ciency goals/ targets					
2.1	Has your city formally adopted a long-term community-wide energy efficiency goal/target, or a related target (e.g. greenhouse gas reduction, energy productivity)? What is the goal and timeframe? Please include the statute/resolution number.	Resolution 906 - commits the community to reduce GHG emissions to target established in the Kyoto Protocol (7% below 1990 levels by 2012). The City has adopted a updated goal of 80% reduction from 1990 levels by 2050.		o.gov/docs/City Bldr Resolution 906-1- 201307081512.pdf	https://documents.bouldercolorado.gov/WebLink8/0/doc/123085/Electronic.aspx	
2.2	Is a stakeholder group with community representatives from multiple economic sectors engaged in setting sustainability goals and overseeing implementation?	In 2006, the city formed the Climate Action Plan Committee (CPAC) with community members to discuss overarching sustainability strategies and implications for achieving goals and to provide recommendations to City Council. The group reviewed, discussed and provided input on funding strategies, public process, and the draft Climate Action Plan. In 2009, the city manager appointed numerous technical teams that assisted staff with sector based strategies and initatives. The city maintains a number of Community Technical working groups focused on areas such as residential and commercial efficiency, and decarbonization (clean energy) alternatives. Additionally, the city regularly convenes ad-hoc task forces for a variety of related issues. These groups are made up of individuals with industry extertise in the topic area, along with stakeholder gorups such as commercial and industrial users, non-profits, vulnerable populations, etc.		https://www- static.bouldercolorad o.gov/docs/city-2006 climate-action-plan-1 201305081127.pdf		
2.3	If the city has set a formal target, has it been integrated into the general plan or otherwise mainstreamed across all community activities? Please provide documentation (general plan, etc.)	Resolution 906 builds on environmental policies and goals found in the Boulder Valley Comprehensive Plan (BVCP) and the City Council's Environmental Goal. Specifically, the BVCP has policies on energy conservation, encouragement of energy alternatives, city leadership in resource conservation, energy-efficient land use and energy-efficient building design and construction. In 2013, staff initiated incorporating climate action throughout city departments and policies; including master plans for transporation, facitilites, water, waste and Open Space and Parks & Recreation.		https://www- static.bouldercolorad o.gov/docs/city-2006 climate-action-plan-1 201305081127.pdf		

erforma	ance Management			
2.4	If a target is in place, does the city regularly tra- and release reports on progress toward community-wide goals and performance of	Greenhouse gas inventories have been performed yearly from 2004 through 2010. CAP progress reports have been published from 2009-2011. In 2013, the City contracted to have a new inventory system built which can provide inventory reports yearly		http://www.boulderc olorado.gov/index.ph p?option%3Dcom_co ntent%26id%3D1535 6%26Itemid%3D2150 https://bouldercolorado.gov/climate/climate
2.5	If a target is in place, is your city on track to hit its community-wide energy efficiency targets? Please be specific.	Since CAP programs formally began in 2007, the community's carbon emissions have remained stable — meaning that Boulder's emissions were 4.5 percent less in 2010 than they could have been had pre-CAP trends continued. However, the city's emissions in 2010 remained 27 percent higher than the 2012 Kyoto goal. The city is engaging a community dialogue to decide how to escalate progress toward reaching the Kyoto goal, and what the community's goal should be after 2012.	and goals	http://www.bouldercolorado.gov/docs/2010-olorado.gov/index.php?option%3Dcom_content%26id%3D1535 6%26Itemid%3D2150 https://www-static.bouldercolorado.gov/docs/2010-olorado.gov/index.phplan-1-201305081156.pdf
2.6	If a target is in place, is progress toward goals independently evaluated, monitored, and verified?	The city's inventory is not audited through a 3rd party verification every year, but Rocky Mountain Institute performed an analysis of programs and funding in 2012 for the renewed CAP tax ballot vote.		https://www-static.bouldercolorado.gov/docs/climate-action-plan-analysis-report-by-rocky-mountain-institute-1-201305081140.pdf
2.7	If a target is in place, does the city have dedicated funding for implementation of its goals?	In November 2006, Boulder voters approved the nation's first CAP tax. In 2012, voters voted to continue funding climate change initiatives through the tax.		https://bouldercolorado.gov/climate/climate https://www-static.bouldercolorado.gov/docs/Tax_At-a-Glance_v05-1-201307081503.pdf
2.8	Does your city have dedicated staff for implementation of its goals? What number of full-time equivalent staff (FTEs) are dedicated?	6.5 FTE in addition to Boulder's Energy Future staff and other organizational resources that may not have dedicated involvement but offer support.		

Energy Ba	aseline		
2.9		Inventories completed estimating GHG emissions from 1990 to 2010	https://www- static.bouldercolorado.gov/docs/community-guide-to- boulders-climate-action-plan-1-201305081129.pdf https://bouldercolorado.gov/climate/boulders-
			community-greenhouse-gas-inventory
2.10	transportation sources, what was the total energy consumed city-wide in 2012? If data is	The City of Boulder's most current inventory is for 2010 as the city's franchise agreement with Xcel Energy expired and since then Boulder has been experiencing difficulty in acquiring community-wide and programmatic utility energy use data in its absence. We do not have total energy use in comparable units with the exception of CO2e, provided below 2010: 1,896,068 MtCO2e	
2.11	What was the total energy consumption stemming from residential buildings in 2012? If data is not available for 2012, what was the total energy consumed for the most recent year in which you have data?	2010 (see above): 247,171 MWh for residential sector	https://www- static.bouldercolorado.gov/docs/community-guide-to- boulders-climate-action-plan-1-201305081129.pdf
2.12	What was the total energy consumption stemming from non-residential buildings in 2012? If data is not available for 2012, what was the total energy consumed for the most recent year in which you have data?	2010 Electricity: 1,349,489 MWh 2010 Natural Gas: 61,419,250 Therms	https://www- static.bouldercolorad o.gov/docs/2010- 2011-community- guide-to-boulders- climate-action-plan-1- 201305081156.pdf
2.13	In your city, what was the total amount of transportation fuel consumed by both on-road vehicles (including private vehicles, taxis and transit buses) and off-road transportation (including freight and passenger rail) in 2012? If data is not available for 2012, what was the fuel consumed for the most recent year in which you have data?	2010: 2,460,000 VMT daily x 365 days	https://www- static.bouldercolorad o.gov/docs/2010- 2011-community- guide-to-boulders- climate-action-plan-1- 201305081156.pdf

ents or businesses increase energy cy? If so, what programs were funded at funds were allocated by the city to the most recent year available? ms could be focused on any energy use: is, transportation, etc. Examples include	,	http://www.dis	http://www.energysmartyes.com/business/rebates-financing.html http://www.energysmartyes.com/files/ES Home Rebates 2 013.pdf http://www.energysmartyes.com/component/content/article/110-for-business/rebates-financing/345-rebate-details.html	
rur city have a district energy system(s) y(ies)? Please include the number of and the amount of building square	,	http://www.dis		
rur city have a district energy system(s) y(ies)? Please include the number of and the amount of building square	,	http://www.dic		
systems (energy output to input in %)?		nergy.org/u-s-d energy-systems map/	strict-	
any of the district energy systems include ed heat and power (a.k.a. cogeneration e energy recovery)?	4 CHP facilities located in Boulder, but none are part of district energy system			
nitigation				
e city have a heat island mitigation ? Has the strategy been implemented? describe and provide supporting entation.	· · · · · · · · · · · · · · · · · · ·	o.gov/docs/city climate-action-	2006- lan-1-	
1 6	itigation c city have a heat island mitigation? Has the strategy been implemented? escribe and provide supporting intation.	itigation e city have a heat island mitigation? Has the strategy been implemented? escribe and provide supporting intation. Benefit of Urban Forestry program is reduction in the heat island effect. Its activities include a ten-year pruning rotation, planting trees, and a public education campaign on proper tree selection and maintenance of public trees. Beyond Urban Forestry, no explicit heat island mitigation strategy exists. There are city policies that speak to reduction of urban heat island effects (see Section 2: Built Environment and specifically policy 2.33, Environmentally Sensitive Urban Design). The city is also looking into more permissive regulations to encourage or incentivize green roofs to count as open space as well as requirements for large parking lots to have pavement surfacing to reflect heat.	itigation e city have a heat island mitigation? Has the strategy been implemented? escribe and provide supporting notation, planting trees, and a public education campaign on proper tree selection and maintenance of public trees. Beyond Urban Forestry, no explicit heat island mitigation station. Benefit of Urban Forestry program is reduction in the heat island effect. Its activities include a ten-year pruning rotation, planting trees, and a public education campaign on proper tree selection and maintenance of public trees. Beyond Urban Forestry, no explicit heat island mitigation strategyexists. There are city policies that speak to reduction of urban heat island effects (see Section 2: Built Environment and specifically policy 2.33, Environmentally Sensitive Urban Design). The city is also looking into more permissive regulations to encourage or incentivize green roofs to count as open space as well as requirements for large parking lots to have pavement surfacing to reflect heat. There are no specific policies related to cool roofs or pavement in addition to those policies and regulatory	deat and power (a.k.a. cogeneration energy recovery)? Itigation Itigation

			Policies of other jurisdictions applicable to the city (e.g. state			
Sub- Topic	Question	City policies	or county)	ACEEE Data Source(s)	Corrections & Additional Information	Additional Data Source
Building en	rgy codes					
	state energy code improvements? If the city does advocate, please	The Boulder Green Building and Green Points Program (GBGP) is a mandatory residential green building program that requires specific level of sustainable building practices based on the size of the proposed structure. Similar to the US Green Building Council's LEED program, the GBGP program has mandatory requirements (for energy efficiency and waste reduction) and then allows options from a menu of sustainable building practices to satisfy the "point" requirements of the program. Renewable energy technologies are among the optional components a builder can use to earn points. New building projects must show energy efficiency compliance through the Home Energy Rating System (HERS). The GBGP program for residential remodels and additions includes tiered, abovecode energy efficiency (between 15 to 50 percent depending on the size of the addition), lighting, and air sealing requirements.	No statewide code exists to cover all construction in the state. However, as of May 2007, all jurisdictions that adopt building codes had to adopt a minimum energy code standard of the 2003 IECC or 2006 IECC by July 1, 2008	http://energycodesocean.org DSIRE Rules, Regulations, and Policies Database	https://bouldercolorado.gov/plan-develop/green-building-and green-points-program	1
	What <i>commercial</i> building energy code is in place in your city (e.g. ASHRAE 90.1-2010)? Does your city have the authority to set commercial building energy codes? If not, does the city actively advocate for state energy code improvements? If the city does advocate, please provide documentation (press releases, letters to code authorities, public comments, etc.).	IECC 2006/ASHRAE 90.1-2007 with a 30% above code requirements for energy efficiency. Yes, Colorado is a home rule state so building codes are adopted at the local government level.	No statewide code exists to cover all construction in the state. However, as of May 2007, all jurisdictions that adopt building codes had to adopt a minimum energy code standard of the 2003 IECC or 2006 IECC by July 1, 2008	http://energycodesocean.org/state- country/colorado	https://bouldercolorado.gov/plan-develop/codes-and-regulations	
	3.3 What Department/Office is responsible for building code compliance? What was the building code department budget (2012)?	Public Works Department; \$95,441,726			https://www-static.bouldercolorado.gov/docs/06_Department_Overviews-201305231618.pdf	City of Boulder budget 1 document page 173
	Does your city provide any type of upfront support to developers/owners for building energy code compliance? Examples would include education prior to permit issuance or application reviews with an eye toward energy code compliance. Please provide supporting documentation.	The city's Planning & Development Services office provides project specialist support to building permit applicants. For developers, there is pre-application conference with city planners to assist with the city planning process which includes: zoning, codes, regulations and standards for new construction and redevelopment.	Colorado Green Building Guild provides green building training. Colorado Energy Office (CGO) provides training. A statewide program funded by ARRA, called the Energy Codes Support Partnership, was developed to educate all jurisdictions on the 2009 IECC and provide assistance in its adoption. State has also partnered with BCAP to form a compliance collaborative that includes a number of government agencies and non-governmental organizations. Xcel Energy provides a design assistance program for increasing a new buildings' efficiency.	http://www.coloradogreenbuildingguild.org/ ACEEE 2012 State Scorecard	https://bouldercolorado.gov/plan-develop	

ing den	nand and energy efficiency services						
5	Does your city have above-code green building <i>requirements</i> (e.g. ENERGY STAR or LEED) for certain categories of <i>private</i> buildings? Please be specific.	Commercial: The city's mandatory above code requirement of 30% more efficient than the IECC 2006/ASHRAE 90.1 2007	Residential: The Boulder Green Building and Green Points Program is a mandatory residential green building program that requires a builder or homeowner to include a variety of sustainable building components based on the size of a proposed structure		DSIRE Rules, Regulations, and Policies Database	Commercial:	Residential:https://bouldercol orado.gov/plan-develop/green- building-and-green-points- program http://www.colocode.com/bo ulder2/chapter10-7-5.htm
5	How many square feet do these policies apply to?	Commercial: COMCheck can be used for structures smaller than 20,000 sq. ft. Energy modeling is required for commercial structures 20,000 sq. ft or more.	Residential: Green Building and Green Points is required for new construction and remodels of 500 sq ft. or more.			Commercial: https://bouldercolorado.gov/codes- and-regulations	Residential:https://bouldercol orado.gov/plan-develop/green- building-and-green-points- program http://www.colocode.com/bo ulder2/chapter10-7-5.htm
	Does your city provide <i>incentives</i> (financial or non-financial, e.g. expedited permitting, density bonuses, TIF or PACE financing, tax abatements) for green building for certain categories of private buildings? Please be specific.	variety of energy efficient technologi	 nmercial building owners and businesses for a wide es. Solar photovoltaic (PV) and other renewable e for rebates if at least 15% energy savings is	The Elevations Energy Loan can be used to finance a wide variety of efficiency and renewable energy projects in homes and businesses. Homes and businesses located in Boulder County are eligible for this low-cost financing. Loan applicant: receive assistance from an Energy Advisor through EnergySmart in Boulder County. SolarRewards Program - Xcel Energy provides incentives for customers who install grid-connected PV systems in exchange for the RECs produced by the system. Xcel also provides cash incentives to residents and business owners on a variety of energy efficient products and home retrofits SB 145 - authorizes counties and municipalities to offer property or sales tax rebates or credits to residential and commercial property owners who install renewable energy systems on their property	s e	Commercial:	Residential:
	What percentage of eligible buildings are currently participating in incentive programs?	Commercial: No data found	Residential: No data found	systems on their property		Commercial:	Residential:
	Does the city require energy benchmarking, audits, ratings, disclosures and/or retrofits for <i>commercial</i> buildings? If so, please include policy details including definitions of building sizes/types included.	No.					
	Does the city require energy benchmarking, audits, ratings, disclosures and/or retrofits for <i>residential</i> buildings? If so, please include policy details including definitions of building sizes/types included.	SmartRegs is a requirement on renta energy efficiency by 2019.	l housing units that must meet a certain level of		Residential Energy Use Disclosure: A Revie of Existing Policies (ACEEE 2013)	https://bouldercolorado.gov/pla	n-develop/smartregs
	Does your city's local real estate Multiple Listing Service include fields for energy efficiency characteristics? What is included?	MLS does allow for the inputs of gree	en home features and certifications				
12	Do households in the city have access to a Home Performance with ENERGY STAR Program?	Yes, through Xcel Energy programs		Xcel provides new ENERGY STAR Home owners with cash rebates if receive electric service from the utility. Homes purchasing natural gas from Xcel Energy can also receive free HERS Rating, Energy Star and Tax Credit Verification, and Onsite Consulting	http://www.xcelenergy.com/Save Mi ey & Energy/Find a Rebate/Home formance with ENERGY STAR - CO Dsireusa.org	<u>Per</u>	

3.13 How many ENERGY STAR New Homes Builder Partners are in the metro area?	http://www.energystar.gov/index.cfm?f useaction=new_homes_partners.showA reaResults&s_code=CO&msa_id=44
3.14 How many companies in the county have Building Performance Institute certified professionals on staff?	http://www.bpi.org/tools_locator.aspx? associateTypeID=CTR&accreditedSearch =N&splash=Y

Energy Utilities

Questions	in this section address the actions of the largest gas and ele	ectric utilities serving your city and local government in	nteractions with them.		<u>.</u>	
Sub- Topi	Question	City policies	Policies of other jurisdictions applicable to the city (e.g. state or county)	ACEEE Data Source(s)	Corrections & Additional Information	Additional Data Source
Electric ut	lity efficiency budget/spending/savings					
4.1	How much total revenue did the largest electric utility			EIA Form 861 2011		
	serving your area report for 2011?		Utility: Xcel (Public Service Co. of Colorado)			
		N/A	Revenue: 2673467 (\$ thousand)			
4.2	How much did the electric utility spend on energy		Utility: Xcel (Public Service Co. of Colorado)	EIA Form 861 2011		
	efficiency in 2011?	N/A	Spending: 45364 (\$ thousand)			
4.3	What volume of electric sales (kWh) did the largest	N/A	Speriding. 45504 (5 tribusaria)	EIA Form 861 2011		
4.5	electric utility serving your area report for 2011?		Utility: Xcel (Public Service Co. of Colorado)	LIA 1 01111 801 2011		
	circuite activity serving your area report for 2011:	N/A	Sales: 28485784 (MWh)			
4.4	How much energy savings did the electric utility report in		Suics. 20403704 (WWIII)	EIA Form 861 2011		
	2011?					
			Utility: Xcel (Public Service Co. of Colorado)			
		N/A	Incremental Savings: 279108 (MWh)			
Gas utility	efficiency budget/spending					
4.5	In 2011, how many total residential customers were	N/A	Utility: Xcel (Public Service Co. of Colorado)	EIA Form 176 (2011)		
	reported by the largest gas utility serving the city?	, i	Residential Customers: 1205204	,		
4.6	How much did the largest gas utility spend on energy efficiency in 2011?	N/A	\$17,091	2011 DSM Annual Report, Table 1b		

Utility Pol	(through state or local policy) for the electric and/or gas utilities serving your city? What are they?	Colroado requires minimum DSM savings (§40-3.2104, C.R.S.) Statutory requirements pertain to investor - owned utilities, Public Service Co. of Colorado(dba Xcel) and Black Hills These include: •Establishing minimum DSM savings goals of a 5% reduction in energy sales (MWh) and a 5% reduction in peak demand (MW), based on 2006 levels, to be achieved by 2018. •Offering programs to all classes of customers: residential, commercial, and industrial. •Clarifying that setting goals and overseeing programs is the purview of the PUC. •Requiring the Commission to submit an annual report on DSM by April 1 of each year.	Electric: PSCo and Black Hills Energy both aim for 0.9% of sales in 2011 and increase to 1.35% (1.0% for BHE) of sales in 2015 and then 1.66% (1.2%) of sales in 2019 Natural Gas: Savings targets commensurate with spending targets (at least 0.5% of prior year's revenue)	ACEEE(2012); Colorado Revised Statutes 40-3.2-101, et seq. ; COPUC Docket No. 08A-518E; Docket 10A-554EG	
4.8	In the most recent year, did your utility meets its state and/or local energy efficiency target?		PSCo reported 0.9% savings in 2011	EIA Form 861 (2011)	
4.9		Xcel Energy is piloting a small "Community Energy Planning" program to offer Colorado local government's strategic support in developing demand-side management programs.			
4.10	could include program marketing, administration or	Recommendation from 2009 update to CAP: Provide increased marketing and outreach to raise awareness of Xcel's Residential Rebate programs. The marketing materials should be strongly focused on steps Boulder residents can take toward actual implementation of the recommendations made in the Xcel audits. Marketing tools should be monitored and evaluated continuously for effectiveness. The city and county-wide EnergySmart program leverages each other's rebate incentives and the EnergySmart advisor model to enhance customer uptake.			www.energysmartyes.com
4.11	Does the city actively advocate for additional utility energy efficiency spending, higher efficiency targets or other efficiency policy from other jurisdictions (e.g. state regulatory proceedings, etc.)? If so, please note if this advocacy has been related to the electric or gas utility, or both. Please provide documentation (letters submitted, press releases, docket numbers, etc.).	Yes. The city activly participates in Dockets at the Colorado Public Utilities Comission (CPUC) related to DSM and renewables energy.			

ovision o	f Energy Use Data by Utilities				
	Does your utility have a standard automated process to provide customers with energy consumption data in a common electronic format (e.g. Green Button)?	City staff, along with local governments and other parties, have recommended that Xcel Energy move toward Green Button and other nationally recognized electronic formats at the Colorado Public Utilities Commission (PUC). Xcel Energy has installed over 20,000 smart meters as part of the Boulder SmartGridCity project. The meters allow customers to view usage in up to 15-minute increments via the My Account portal for better daily management and control over electricity use.	As part of its data privacy rules, the Colorado Public Utilities Commission (PUC) requires regulated utilities to provide customer energy datawhere customers have consented to its releasein electronic formats in accordance with nationally recognized open standards and best practices. Since the rules were established in 2012, defining this has been a matter of discussion among utilities and local governments. Xcel Energy recently proposed a tariff that will allow local governments and other third parties to request that customer energy data be provided to them in comma separated value format to enable "batching" of data from multiple customers participating in local government energy efficiency programs.	http://en.openei.org/wiki/OpenEI: Utility data access map	
4.13	Is automated building energy usage available at the building level for energy management (e.g. benchmarking in multitenant commercial and multifamily buildings?	The city of Boulder has been piloting a commercial building rating and reporting program to benchmark building energy consumption. Whole-building aggregated data is not currently available, although city staff recommended to the PUC that its rules should accommodate this. Currently, this information can only be obtained by building owners or managers obtaining individual consent forms from all tenants and aggregating consumption data themselves.	The PUC recently rejected Boulder's request to allow utilities to release whole-building aggregated data on request of a building owner or manager, on the grounds that there is an existing consent form that individual tenants can use. We are not aware of any other state policy on point.	http://en.openei.org/wiki/OpenEI: Utility data access map	
.14	Is community-wide energy usage information available at the aggregate level for community planning purposes or third party program implementation? Does the city have data sharing agreements with its utilities?	In the absence of a franchise agreement, local governments have access to communitywide electricity and natural gas usage information in the form of standard reports that are subject to the "15/15 Rule," which removes data associated with customers that comprise more than 15% of a data set. This reduces the completeness of the data that communities like Boulder now receive. It is uncertain whether Xcel Energy will be providing these reports because of pending PUC proceedings related to data.	The PUC's data privacy rules, which apply to regulated electric utilities, require energy data aggregation to be limited by the "15/15 Rule." Under that rule, data cannot be aggregated if there are fewer than 15 customers, and if a single customer makes up more than 15% of the data being aggregated that customer must be removed. We are not aware of any other state policy on point.	http://en.openei.org/wiki/OpenEI: Utility data access map	
.15	Does the city actively advocate for policy improvements in data provision by utilities? If so, please attach documentation such as regulatory or legislative filings.	Yes, the city of Boulder collaborates with other local governments to recommend that the PUC and Xcel Energy authorize whole-building aggregated data, adopt Green Button or other national data standards, and provide additional data related to energy services (such as participation in energy efficiency programs). The city has activly participated in a number of data sharing dockets at the CPUC: 1. In the Matter of the propossed rules relating to Smart Grid Data Privacy for Electric Utilities (Docket # 10R-799E) and; 2. Regulations 723-3 in the Matter of the Application of PSCo for approval of a number of strategic issues relating to its DSM plan, including long-term electric energy savings goals and incentives and the provision of providing customer data to the City of Boulder (Docket # 10A-554EG)	Boulder County and the City and County of Denver have similarly recommended policy improvements in data provision by utilities. We are not aware of any state policy outside the PUC's data privacy rules for electric utilities.		

Transportation

Questions in this section are focused on policies and programs related to energy use in transportation of people and goods in your city. Policies of other jurisdictions applicable to the city (e.g. Sub-Topic Question City policies state, county, regional planning authority, etc.) ACEEE Data Source(s) Corrections & Additional Information Additional Data Source Location efficiency – transportation/ land use Does your city have zoning or form-based codes to The city encourages mixed use and complete streets through zoning and encourage mixed land uses, street connectivity, targeted the development review process. For most of Boulder there are still transit-oriented/ compact/ infill development, etc.? Does it parking minimums. TDM plans are conducted to minimize the impact of reduce/eliminate parking requirements or building height new developments. Boulder Junction is a TOD development that has parking maximums, parking and TDM taxing districs and a trip generation limits? allowance. All of Boulder has a 55 foot height limit. Is the city a leader or partner on metropolitan combined The Transportation Master Plan (TMP) has a goal of reducing the number nttps://wwwtransportation/land use goals at the metropolitan scale? of trips made by one person driving alone in a car to 25% of all trips by static.bouldercolorado.gov/docs Does the city or metro region have VMT reduction targets, Boulder residents by 2025. /transportation-report-onmodal share targets, or similar, and plans in place to meet progress-2012-1them? Is a growth boundary in place? Does planning and The 1996 TMP update adopted a goal of holding vehicle miles traveled 201304091055.pdf policy emphasize simple connections between (VMT) steady at 1994 levels. As of 2012, the city is achieving this goal. transportation modes? Please provide documentation of policies and city leadership. Does the city have Complete Streets requirements Yes - Transportation Master Plan. HB 1147 - State Complete Streets Policy to promote the use http://www.smartgrowthameric (integration of bicycle/ walking infrastructure, including The primary coordidors for complete streets are 28th Street (still evolving of alternative transportation a.org/documents/cs/policy/cssidewalks, bike lanes, traffic calming)? On how many miles with future BRT) Broadway adjacent to campus, Pearl Street near Boulder chart-allpolicies.pdf of city streets have complete streets been installed? Junction (just underway) and many current improvements on Arapahoe. http://www.coloradodot.info/pr ograms/bikeped/documents/16 02-0BikePed.pdf ACEEE 2012 Does the city provide financial or non-financial incentives In Boulder Junction TOD, FAR bonuses are provided through (density bonuses, etc.) for location-efficient buildings (e.g. redevelopment and joining the Parking and/or TDM Districts. In CAGID, transit-oriented development)? the taxing district provides shared parking opportunites so that each individual development does not need to provide all its own parking thus allowing for greater infill development. Does the city require disclosure of information on the Not required location efficiency of buildings as a part of real estate/rental transaction (e.g. Walkscore, H+T Index)?

Leadership	Leadership & Funding					
5.6	What was the distribution by travel mode of investments in transportation (including parking) from city sources in 2010 or most recent year? From non-city funding sources?			U.S. Census Local Government Finances 2010		
5.7	What funding was made available from all sources for transit systems in the region in 2011 or most recent year? From city funding sources only?	Primarily RTD funds, but City through the GO Boulder program purchases additional service at approximately \$1m per year.	Transit Agencies: Denver Regional Transportation District Total Funding: \$1,052,555,036 Local Gov. Funding: \$635,816,692	National Transit Database RY 2011 Agency Information & Table TS1.1		
5.8	Does the region have a Clean Cities Coalition or similar public-private transportation partnership? Is city staff actively engaged (acting as coordinator or regular contributor to efforts)?	Northern Colorado Clean Cities, Denver Clean Cities. I believe Tracy Winfree, Director of Transportation is the city's representative		http://www.afdc.energy.gov/cle ancities/coalitions/coalition_sea rch.php		
5.9	Does the city have incentives for purchase or use of high- efficiency privately-owned vehicles (most efficient in class, high MPG, etc.), including high efficiency gasoline, electric, or hybrid vehicles? What are they?	No incentives provided	H.B. 1331 extends financial incentives available to purchasers of efficient motor vehicles out to 2015. Consumers can claim up to \$6,000 in tax credits for the purchase of a hybrid, plug-in hybrid or alternative fuel vehicle	ACEEE 2012 State Scorecard		
5.10	Does the city have policies or incentives supporting the installation of electric vehicle charging stations for commercial or private use? Please be specific.	Boulder Smart Grid Plug-In Electric/Hybrid Vehicles Project - Project goals • increase the use of plug-in electric and hybrid vehicles to help reduce U.S. dependence on imported petroleum, increase fuel economy and decrease emissions; • study how the smart grid can be used for charging plug-in electric vehicles; and • collect and report data so that the results can be measured and shared with other entities who are interested in providing smart grid charging solutions for plug-in electric vehicles. Total of 12 stations currently installed	The Colorado Energy Office (CEO) and the Regional Air Quality Council (RAQC) have partnered to provide an opportunity for local fleets to apply for funding to support the acquisition of electric vehicles and installation of electric vehicle charging stations. Is intended to encourage the deployment of electric vehicles across Colorado	https://www- static.bouldercolorado.gov/docs /2010-2011-community-guide- to-boulders-climate-action-plan- 1-201305081156.pdf		
5.11	Does the city have policies encouraging efficient vehicle behavior, including anti-idling policies?	Not aware of any policies				

Mode shif	ode shift					
5.12	What access to public transit and public transit service levels is available to residents of the city? (Using Transit Connectivity Index, Rides per week within walking distance from average household)	City Transit Connectivity Index: 19296.66	MSA Transit Connectivity Index: 8214.14	http://htaindex.cnt.org/map/		
5.13	Is pay-as-you-drive car insurance available in your city? If so, does the city promote these programs or provide incentives for participation? Please provide examples, including web sites, press releases, etc.		Allowed under state law	http://smartgrowthamerica.org/ documents/getting-back-on- track.pdf		
5.14	Does the city host <i>car sharing</i> programs for the public? What policies are in place (including designated on-street parking spaces or parking agreements)? Do other jurisdictions or institutions (e.g. Universities) host them within the city?	eGo Carshare: GO Boulder and Parking Services each contribute financially to the 2 current Ego Carshare dedicated parking spaces in downtown Boulder. CU also has reserved spaces for eGo Carshare.		http://www.carsharing.net/whe re.html http://carshare.org/locations		
5.15	Does the city host bicycle sharing programs for the public? What policies are in place? Do other jurisdictions or institutions (e.g. Universities) host them within the city?	Boulder B-cycle is a local non-profit, particially subsidized by the City to run the local bike share system. Though the development review process, developments can included B-cycle stations and sponsorship as part of their TDM plan to mitigate traffic impacts. B-Cycle operates mostly on the periphery of campus.		http://boulder.bcycle.com/		
5.16	Does city provide commuter incentives / transportation demand management programs or policies for all residents and workers in the city (carpooling/HOV/telework/mode shift)? Please be specific.	The Eco Pass is a discounted annual bus pass purchased by employers and universities for all full-time employees and students, with an option to include part-time employees. With a photo ID card, employees and students are entitled to unlimited rides on all regular RTD transit services GO Boulder's Transportation Demand Management (TDM) program offers customized Commute Trip Reduction programs for any Boulder business seeking to reduce vehicle trips by their employees Way to GO is a regional ridematching program that helps employers, employees, residents, and parents form carpools, vanpools, and school pools		https://www- static.bouldercolorado.gov/docs /city-2006-climate-action-plan-1- 201305081127.pdf https://www- static.bouldercolorado.gov/docs /2010-2011-community-guide- to-boulders-climate-action-plan- 1-201305081156.pdf		
Freight 5.17	How many intermodal freight facilities are located in the city? In the metro area? Percent of facilities with rail and/or port capabilities? What are the capacities and annual throughput of the facilities?	0 intermodal facilities in the city	25 intermodal facilities in the MSA, 19 with access to rail and/or port. Total MSA freight traffic (imports and exports) (in ton-miles): 103355	Freight Analysis Framework Data Tabulation Tool, 2011 preliminary		