Climate Smart Communities Certification Program

Certification Manual

PLEDGE ELEMENT 3: DECREASE COMMUNITY ENERGY USE

Adopt specific energy reduction goals that are at least as aggressive as the state's current goals. Take action to reduce energy demand in existing public facilities, infrastructure, and vehicle fleets, and to maximize energy efficiency in new public facilities. Reduce waste and increase recycling in government operations. Encourage and support action by local government employees to meet energy use reduction goals.

Action #	Action Name	Action Pathway Phase	Possible Points	Priority
Pledge Element 3: Decrease community energy use			**138**	
Building and Stationary Equipment			**55**	
3.1	Conduct energy audits of local government buildings	Assess, Plan, Govern	8	√
3.2	Upgrade interior lighting	Implement	5	
3.3	Upgrade HVAC equipment	Implement	5	
3.4	Install water-efficient fixtures	Implement	4	
3.5	Install a building energy management system (EMS)	Implement	5	
3.6	Upgrade building envelope	Implement	7	
3.7	Adopt a green building standard for local government buildings and facilities	Assess, Plan, Govern	4	
3.8	Build a new green building	Implement	10	
3.9	Upgrade water or wastewater treatment facilities and infrastructure	Implement	7	
Fleet and Vehicle Fuel			**18**	
3.10	Adopt a vehicle fleet efficiency policy	Assess, Plan, Govern	3	
3.11	Right-size the local government fleet	Implement	3	
3.12	Replace traditional vehicles with advanced vehicles	Implement	5	

Action #	Action Name	Action Pathway Phase	Possible Points	Priority
3.13	Adopt an anti-idling policy for government vehicles	Assess, Plan, Govern	3	
3.14	Implement a car-sharing program for local government staff	Implement	4	
Outdoor Lighting			**17**	
3.15	Convert streetlights to LED	Implement	5	
3.16	Convert traffic signals to LED	Implement	4	
3.17	Reduce number of outdoor lighting fixtures	Implement	4	
3.18	Upgrade outdoor lighting (other than streetlights and traffic signals) to more efficient and/or solar technology	Implement	4	
Government Solid Waste			**13**	
3.19	Adopt a waste management strategy for government hosted and permitted events	Assess, Plan, Govern	2	
3.20	Provide recycling bins next to all trash receptacles in local government buildings	Implement	3	
3.21	Provide organic waste collection and composting in local government buildings	Implement	3	
3.22	Provide e-waste collection in local government buildings	Implement	3	
3.23	Conduct a local government waste audit and track diversion rate over time	Assess, Plan, Govern	2	
Financial and Policy Mechanisms			**18**	
3.24	Adopt an environmentally preferable purchasing policy	Assess, Plan, Govern	4	
3.25	Establish a financing mechanism for energy efficiency and renewable energy projects in government-owned buildings	Implement	5	
3.26	Incorporate energy efficiency and waste handling provisions in standard specifications and government contracts	Assess, Plan, Govern	3	
3.27	Utilize a green or sustainability rating system for infrastructure improvement projects	Implement	6	
Employee/Staff Behavior			**8**	
3.28	Subsidize and incentivize employee alternative commuting	Implement	3	
3.29	Engage employees through a green pledge or competition	Implement	2	
3.30	Incorporate green principles, commitments or requirements into staff training	Implement	3	
Energy and GHG Management Policies and Systems			**9**	

Action #	Action Name	Action Pathway Phase	Possible Points	Priority
3.31	Implement an energy or GHG management system	Implement	5	
3.32	Adopt an energy benchmarking requirement for government-owned buildings	Implement	4	

Please note: The recertification requirements for each action are subject to change in future versions of the CSC Certification Manual.

Buildings and Stationary Equipment

3.1 CONDUCT ENERGY AUDITS OF LOCAL GOVERNMENT BUILDINGS

Action pathway phase: Assess, Plan, and Govern
Eligibility timeline: Within 7 years prior to the application date
Total possible points: 8
Priority action

A. Why is this action important?

Energy use in buildings is often the largest source of energy consumption and GHG emissions within government operations. Buildings contain heating, ventilation and air conditioning (HVAC) equipment, lighting, information technology equipment, appliances, motors, and pumping equipment. All of these consume energy and provide many opportunities for improved energy efficiency. Especially in communities with older building stock, energy audits are an important step in identifying building inefficiencies and developing plans for improvement.

B. How to implement this action

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)has developed a phased approach to auditing a building's energy use, starting with a walk-through or preliminary assessment, called a Level-1 audit. A Level-1 audit involves brief interviews with site operating personnel, a review of the facility's utility bills and other operating data, and an abbreviated walk-through of the building. The ASHRAE Level-1 audit is geared toward the identification of the potential for energy improvements, understanding the general building configuration, and defining the type and nature of energy systems.

The next step is an ASHRAE Level-2 audit, which evaluates the building energy systems in detail to define a variety of potential energy-efficiency improvements. This evaluation should include the building envelope; lighting; heating, ventilation, and air conditioning equipment; domestic hot water; plug loads; and compressed air and process uses (for manufacturing, service, or processing facilities).

Local governments should pursue ASHRAE Level-2 energy audits for their buildings that are more than 10 years old. Level-2 energy audits go deeper than a Level-1 walk-through audit to summarize existing conditions, recommend energy conservation measures (ECMs) and provide estimated cost

and payback information for those measures. When implemented, these ECMs can help a local government realize significant energy and cost savings while also reducing its GHG emissions. A local government may choose to audit one building at a time or to conduct an audit of several buildings. This action is focused on the critical first step of completing audits. Other actions award credit for implementation of specific measures. To implement this action, the local government should take the following steps:

1. Identify a certified energy auditor
2. Carry out the building energy audits, starting with the largest energy-consuming buildings
3. Obtain a summary audit report, complete with ECM recommendations from the auditor for each building or set of buildings audited

An energy audit may also be conducted as the first phase of an energy performance contract, which is a contract and financing mechanism that uses the savings from the contracted energy efficiency improvements to finance the improvements. If a local government is considering pursuing a performance contract, credit for this action could be achieved through the energy audits completed under that contract.

C. Time frame, project costs, and resource needs

The local government can begin to schedule energy audits at any time. Energy audits should be low cost or free to local governments through resources provided by their utilities or NYSERDA. Facilities staff should be available to guide an auditor through the building(s) and will likely be required to provide building information and utility bills to the auditor.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns and operates buildings. Some level of building auditing is required and energy audits of older buildings that have not been upgraded in many years are highly recommended. Facilities managers or the building division within a public works department would likely be responsible for implementing.

E. How to obtain points for this action

Points are obtained for this action by conducting either Level 1 or Level 2 audits at one or more local government buildings. The percentage of buildings audited can be calculated based on either the simple percentage of buildings, or the percent of square footage of the total applicable building portfolio (buildings more than 7 years old).

For Level 1 audits	Possible Points
• ASHRAE Level-1 energy audit completed at 10% of buildings more than 7 years old	1
• ASHRAE Level-1 energy audit completed for 25% of buildings more than 7 years old	3
• ASHRAE Level-1 energy audit completed for 50% of buildings more than 7 years old	4

• ASHRAE Level-1 energy audit completed for 75% of buildings more than 7 years old	5
• ASHRAE Level-1 energy audit completed for 90% or more of all buildings more than 7 years old	6

For Level 2 audits	Possible Points
• ASHRAE Level-2 energy audit completed at 10% of buildings more than 7 years old	3
• ASHRAE Level-2 energy audit completed for 25% of buildings more than 7 years old	5
• ASHRAE Level-2 energy audit completed for 50% of buildings more than 7 years old	6
• ASHRAE Level-2 energy audit completed for 75% of buildings more than 7 years old	8

F. What to submit

Provide digital copies of the energy audit report for each building (or group of buildings) where an audit was performed. Audits must have been conducted within seven years prior to the application date. If several buildings were audited, local governments may submit a summary report as long as it provides the key findings and recommendations for each facility. Local governments must be specific as to which type of audit was performed for which building.

G. Links to additional resources or best practices

- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html
- NYSERDA FlexTech Program: http://www.nyserda.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/FlexTech-Program.aspx
- NYSERDA Existing Facilities Program: http://www.nyserda.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/Existing-Facilities-Program.aspx
- "A Guide to Energy Audits," Pacific Northwest National Laboratory: http://www.pnnl.gov/main/publications/external/technical_reports/pnnl-20956.pdf
- The Difference Between ASHRAE Level 1, 2, and 3 Audits: http://www.microgrid-solar.com/2010/11/the-difference-between-ashrae-level-1-2-3-energy-audits/

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.2 UPGRADE INTERIOR LIGHTING

Action pathway phase: Implement
Eligibility timeline: Within 7 years prior to application date
Total possible points: 5

A. Why is this action important?

Lighting represents 35 percent of total commercial building electricity use.[1] Upgrading to more efficient lighting will save money and reduce indirect GHG emissions associated with electricity consumption.

B. How to implement this action

Evaluate existing lighting throughout local government buildings and identify opportunities to upgrade to more efficient, longer lasting options. Recommendations for interior lighting upgrades will be provided in an energy audit (*see Action 3.1*). If the audit is more than two years old, it is highly recommended that an energy specialist or lighting specialist provide updated recommendations based on the latest available lighting technologies. If an audit has not been done, but the local government wants to pursue lighting upgrades, the following are a sample of efficient interior lighting options:

- Compact fluorescents
- T5 or T8 linear tube fluorescents
- Light-emitting diode (LED) fixtures and bulbs
- High intensity discharge (HID), (high pressure sodium, metal halide), only applicable in certain settings

C. Time frame, project costs, and resource needs

Lighting upgrades tend to have a relatively short payback period and newer lighting options, such as fluorescents and LEDs, last longer, thus reducing replacement and maintenance costs. Costs for lighting upgrades are lower if replacement of fixtures is not necessary in addition to replacement of ballasts and lamps. A local government may have the staff and resources to do the lighting upgrade work in-house or may opt to hire a contractor. In either case, ensure that you have applied for all available rebates or incentives provided through your utility or NYSERDA.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government. Facilities managers or the building division within a public works department would likely be responsible for implementing this action and must work with procurement staff for purchase of lighting products and possibly the procurement of a lighting contractor.

E. How to obtain points for this action

Local governments can earn points for this action by upgrading lighting in government buildings to exceed the ASHRAE Energy Standard for Buildings Except Low-Rise Residential Buildings, 90.1

[1] U.S. EPA, Energy Star. http://www.energystar.gov/index.cfm?c=business.EPA_BUM_CH6_Lighting

(https://www.ashrae.org/resources--publications/bookstore/standard-90-1-document-history#2007) by at least 3 percent.

Local governments must provide information on the number of lighting fixtures or square footage of government buildings that has been upgraded. If local governments do not know the number of fixtures that were upgraded, they can use the percentage of total building portfolio square as a proxy for estimating the scope of the upgrades.

	Possible Points
• Upgrade 5% of lighting fixtures or square footage	1
• Upgrade 10% of lighting fixtures or square footage	2
• Upgrade 30% of lighting fixtures or square footage	3
• Upgrade 50% of lighting fixtures or square footage[2]	4
• Upgrade 70% of lighting fixtures or square footage	5

Local governments can also receive points for this action for newer buildings built within the last seven years that have energy efficient lighting fixtures that exceed ASHRAE 90.1 by 3%, at a minimum. Points are awarded based on the proportion of square footage of total buildings, as described above.

F. What to submit

Provide a list of the type and number of lighting units replaced with more efficient units, including the replacement type and the location of the replacements and when the replacement was made. Provide an estimate of percentage of total indoor lighting in government buildings that has been upgraded. If this specific information is not available, local governments should submit information on the square footage upgraded. The upgrades must have been performed within seven years prior to the application date.

For buildings built within the past five years, local governments should submit documentation demonstrating that the lighting in the building exceeds the specified ASHRAE 90.1standard by at least 3 percent.

G. Links to additional resources or best practices

- ASHRAE Energy Standard for Buildings Except Low-Rise Residential Buildings, 90.1: https://www.ashrae.org/resources--publications/bookstore/standard-90-1-document-history#2007
- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html
- NYSERDA FlexTech Program: http://www.nyserda.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/FlexTech-Program.aspx

[2] Fixture replacements must comply with ECCCNYS Section 101.4.3 when 50 percent or more of fixtures are replaced.

- NYSERDA Existing Facilities Program: http://www.nyserda.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/Existing-Facilities-Program.aspx
- EPA's Building Upgrade Manual, Lighting chapter: http://www.energystar.gov/index.cfm?c=business.EPA_BUM_CH6_Lighting
- List of energy efficient lighting products: http://www.energystar.gov/index.cfm?c=lighting.pr_lighting_landing http://designlights.org/solidstate.about.QualifiedProductsList_Publicv2.php

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.3 UPGRADE HVAC EQUIPMENT

Action pathway phase: Implement
Eligibility timeline: Within 10 years prior to the application date
Total possible points: 5

A. Why is this action important?

HVAC equipment represents 30 to 40 percent of commercial building energy use and provides numerous opportunities to improve efficiency and overall occupant comfort, saving money and reducing GHG emissions.

B. How to implement this action

Similar to the lighting upgrade action, HVAC upgrade recommendation would likely come out of an energy audit. Aside from those recommendations, a local government may already be aware of the must replace certain pieces of equipment and could earn points for this action by ensuring that the replacement equipment is energy-efficient. Upgrades may include, but are not limited to, the following:

- Boilers
- Chillers
- Heat pumps
- Air handling units
- Compressors
- Fans
- Water heaters

In addition to any energy audit recommendations, there are a number of resources available through NYSERDA and Energy Star related to efficient HVAC equipment, financing upgrades, finding contractors, and more. Additional resources are provided in Section G.

C. Time frame, project costs, and resource needs

HVAC upgrades should be implemented any time existing equipment is outdated or performing inefficiently. Most local governments will want to hire a contractor to evaluate the HVAC needs of a

particular space or building to determine the most energy-efficient equipment option for that space. HVAC upgrades require facilities, or operations and maintenance staff to identify opportunities for upgrades (or gleaning that information from audit reports), draft product and contractor specifications, work with procurement staff, and ensure proper installation and training on maintenance requirements of new equipment.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government. Facilities managers or the building division within a public works department would likely be responsible for implementation and would coordinate with the procurement department for purchase of equipment or hiring of a contractor.

E. How to obtain points for this action

Local governments can earn points for this action by upgrading HVAC systems in government buildings to exceed ASHRAE Energy Standard for Buildings Except Low-Rise Residential Buildings, 90.1 by 3 percent, at a minimum. Points are earned based on the percentage of total building portfolio square footage affected by the upgrades.

	Possible Points
• Upgrade HVAC equipment for 5% of square footage	1
• Upgrade HVAC equipment for 10% of square footage	2
• Upgrade HVAC equipment for 30% of square footage	3
• Upgrade HVAC equipment for 50% of square footage	4
• Upgrade HVAC equipment for 70% of square footage	5

Local governments can also receive points for this action for newer buildings built within the last ten years that have energy efficient HVAC. Points are awarded according to the proportion of total buildings area upgraded, as described above.

F. What to submit

Provide a list of the equipment items replaced, including the replacement type and location, as well as date of replacement. Include the brand and model number for new and replaced equipment, if available. The upgrade must have been performed within ten years prior to the application date.

For buildings built within the last ten years, local governments should submit documentation demonstrating that the HVAC in the building exceeds the specified ASHRAE 90.1 standard by at least 3 percent.

G. Links to additional resources or best practices

- ASHRAE Energy Standard for Buildings Except Low-Rise Residential Buildings, 90.1: https://www.ashrae.org/resources--publications/bookstore/standard-90-1-document-history#2007
- EPA's *Building Upgrade Manual*, Heating and Cooling chapter: http://www.energystar.gov/index.cfm?c=business.EPA_BUM_CH9_HVAC

- NYSERDA Existing Facilities Program: http://www.nyserda.ny.gov/BusinessAreas/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/Existing-Facilities-Program.aspx

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.4 INSTALL WATER-EFFICIENT FIXTURES

Action pathway phase: Implement
Eligibility timeline: Within 10 years prior to the application date
Total possible points: 4

A. Why is this action important?

Water efficiency is an important component of energy efficiency. While the connection is not always obvious, energy is used to treat, pump, and distribute, as well as to heat water. When less water is consumed, less energy is required for these activities. Water-efficient fixtures are recommended throughout local government buildings to save money and reduce energy use, in addition to the benefit of overall water conservation.

B. How to implement this action

Water-efficient fixtures are easy to install and generally have a short payback period. Water-efficient fixtures should be installed in bathrooms, kitchens, and any other relevant areas throughout local government buildings. Water-efficient fixtures may include low-flow or dual-flush toilets, faucet aerators, low-flow showerheads, or waterless urinals. Some recommended flow rates are as follows:

- Bathroom Faucets: 1.5 gallon per minute (GPM)
- Kitchen Faucets: (utility sinks, etc.) 1.5 GPM, though higher flow may be necessary for some purposes
- Showerheads: 2 GPM or less
- Toilets: 1.28 GPF or 1.1/1.6 for a dual-flush model

The WaterSense label from EPA is also given for many low-flow products and is typically 20 percent more water-efficient than traditional products.

C. Time frame, project costs, and resource needs

Water-efficient fixtures can be installed any time. It is not necessary to wait until existing fixtures stop working because new, low-flow fixtures will greatly reduce water consumption. Payback for such fixtures is usually very quick, often less than a year or two, though that number will be different if a local government has its own water utility. Toilet replacements require more labor time and up-front investment, as compared to placing aerators on faucets or replacing showerheads. If the local government does not have in-house capacity for these upgrades, it may have to hire a contractor.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government. Facilities managers or the building division within a public works department would likely be responsible for implementing. If the local government has a water utility, staff from that department may be involved as well.

E. How to obtain points for this action

Points are obtained based on the percentage of total fixtures upgraded to water-efficient fixtures meeting the flow rates specified in Section B. If the percentage of fixtures upgraded is not available, local governments may use the building square footage affected by the upgrades as a proxy.

	Possible Points
• Install water-efficient fixtures for 10% of total fixtures or building square footage	1
• Install water-efficient fixtures for 20% of total fixtures or building square footage	2
• Install water-efficient fixtures for 45% of total fixtures or building square footage	3
• Install water-efficient fixtures for 70% of total fixtures or building square footage	4

Local governments can also receive points for this action for newer buildings built within the last ten years that have energy efficient water fixtures. Points are awarded based on the number of fixtures, or the proportion of square footage of total buildings if the fixtures information is unavailable, as described above.

F. What to submit

Provide a list of the number of fixtures by building, flow rate of the original fixtures, and that of the replacements. Include the brand and model number for new and replaced equipment, if available.

Local governments that do not have detailed records of the number of fixtures replaced may estimate the number of fixtures based on the square footage or number of bathrooms retrofitted. The upgrade must have been performed within ten years prior to the application date.

For facilities built within the last ten years, local governments should submit documentation demonstrating that the water fixtures in the building meet the specified flow rates defined above.

G. Links to additional resources or best practices

- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html
- EPA WaterSense best management practices guide for commercial and institutional buildings: http://www.epa.gov/watersense/commercial/bmps.html
- List of EPA WaterSense water-efficient products: http://www.epa.gov/watersense/products/index.html

- Alliance for Water Efficiency Tip Sheet: http://www.allianceforwaterefficiency.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=5806

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.5 INSTALL A BUILDING ENERGY MANAGEMENT SYSTEM (EMS)

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 5

A. Why is this action important?

Energy efficiency can be achieved, in part, with proper selection of energy-efficient equipment and lighting. However, efficiency can be further optimized when systems are properly synchronized and managed, particularly through the utilization of a centralized energy management system. Energy Management Systems (EMS) are used to monitor, measure, and control energy use in buildings. Individual buildings can have their own EMS, or multiple buildings can be controlled by a central EMS which can manage the HVAC and lighting for the buildings. EMSs can also be used to provide metering, submetering, and monitoring functions to gather and manage energy use.

B. How to implement this action

An energy management system (EMS) should be installed to monitor the ongoing energy use in all buildings or a select group of buildings. Ideally, this system will have controls allowing facility managers to adjust temperatures in various buildings remotely for maximum control. Energy management systems range significantly in what they offer and how they function but ideally use sensors, direct digital controls, setbacks, resets, and other functions to optimize the efficiency of energy-consuming equipment in buildings.

C. Time frame, project costs, and resource needs

Energy management systems vary significantly in price, particularly when considering the number of buildings and equipment types to be managed. An EMS may be installed under a performance contract if that is something the local government is considering. If done separately, the facilities manager for the local government will must work closely with procurement staff to research available systems, companies, installation and ongoing management costs.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government though the benefits of such systems increase with the size of the local government's building portfolio. Facilities managers or the building division within a public works department would likely be responsible for implementation as well as procurement staff.

E. How to obtain points for this action

Points are obtained for this action by installing an EMS in one or more government buildings, and are tiered based on the proportion of the total square footage of buildings managed by the EMS. The EMS must be used for controlling both HVAC and lighting in the buildings. For more simple EMS

systems that only control HVAC or lighting, points will be awarded based on the degree of functionality of the system.

	Possible Points
• Install an EMS in 5% of buildings (by square footage)	1
• Install an EMS in 10% of buildings (by square footage)	2
• Install an EMS in 30% of buildings (by square footage)	3
• Install an EMS in 50% of buildings (by square footage)	4
• Install an EMS in 70% of buildings (by square footage)	5

F. What to submit

Provide reports from the EMS illustrating that it is in use for the number of buildings and square footage noted in the application. Local governments should demonstrate the percentage of square footage covered by the EMS. The EMS must be implemented and currently in use to receive points for this action.

G. Links to additional resources or best practices

- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html
- US DOE Solution Center Webcast, October 15, 2010, Energy Management Systems: Maximizing Energy Savings:
- http://www1.eere.energy.gov/wip/solutioncenter/pdfs/energy_management_systems_maximizing_energy_savings_slides.pdf
- Federal Energy Management Program-O&M Best Practices, A Guide to Achieving Operational Efficiency, Section 9.6 Energy Management/Building Automation Systems: http://www1.eere.energy.gov/femp/pdfs/omguide_complete.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.6 UPGRADE BUILDING ENVELOPE

Pending finalization of review procedures, documentation of this action cannot be accepted at this time.

Action pathway phase: Implement
Eligibility timeline: Within 10 years prior to the application date
Total possible points: 7

A. Why is this action important?

The building's envelope is an important element in maintaining energy efficiency, especially in the climate of the Northeast with significant heating and cooling needs in winter and summer months. The walls, roof, windows, and foundation of a building are all part of its envelope and serve as the

barrier between the indoor and outdoor environments. Thus, the envelope's thermal barrier capabilities will greatly influence the energy necessary to heat and cool the indoor space.

B. How to implement this action

Points are earned for this action by implementing building envelope improvements in government buildings. Envelope improvements could include insulation improvements, air sealing, or window replacements. Improvements must be implemented in a minimum of one building, with additional points earned for improvements made at additional buildings. Windows should be Energy Star rated, and insulation that will provide a high R-value (thermal resistance value) should be installed.

C. Time frame, project costs, and resource needs

Envelope improvements can be done at any time and the energy reduction and thermal comfort benefits will be realized immediately. Some weatherization improvements require minimal financial investment, while others, such as window replacements, can be more costly. Many of these improvements can be completed using in-house staff, though some insulation or window improvements may require specialized contractors depending on the product selected.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government and will likely be led by public works department staff and building engineers.

E. How to obtain points for this action

Local governments can earn points for this action by upgrading the building envelope for government buildings to exceed ASRHAE 90.1 by 3 percent, at a minimum.

Points will be earned for this action based on the square footage of buildings where envelope improvements have been made. For example, if the local government's entire building portfolio is 250,000 square feet, and 2 buildings totaling 50,000 square feet have had envelope improvements, that would be 20 percent of the building square footage. Building envelope improvements could include upgrades to windows, walls, insulation, and roofing.

	Possible Points
• Upgrade building envelope in 5% of buildings (by square footage)	3
• Upgrade building envelope in 10% of buildings (by square footage)	4
• Upgrade building envelope in 30% of buildings (by square footage)	5
• Upgrade building envelope in 50% of buildings (by square footage)	6
• Upgrade building envelope in 70% of buildings (by square footage)	7

Local governments can also receive points for this action for newer buildings built within the last ten years that have been designed with energy efficient building envelopes that meet or exceed the specifications in ASHRAE 90.1 by at least 3 percent. Points are awarded based on the proportion of square footage of total buildings, as described above.

F. What to submit

Provide documentation of the specific improvement made, including building identification and description, installation date, and specifications and purchase documents (receipts of purchase and specifications). In the case of windows and insulation, the local government must document the R or U value (thermal resistance value) and the improvement in that value over that replaced. The upgrade must have been performed within ten years prior to the application date.

G. Links to additional resources or best practices

- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html
- Center for Climate and Energy Solutions' Building Envelope guide: http://www.c2es.org/technology/factsheet/BuildingEnvelope
- LEED for New Construction and Major Renovations: http://www.usgbc.org/leed/rating-systems/new-construction

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.7 ADOPT A GREEN BUILDING STANDARD FOR LOCAL GOVERNMENT BUILDINGS AND FACILITIES

Action pathway phase: Assess, Plan and Govern
Eligibility timeline: Currently active
Total possible points: 4

A. Why is this action important?

Numerous local governments throughout the country have adopted green building standards for new construction of local government buildings. The construction of new buildings presents a significant opportunity to design with energy efficiency and resource conservation in mind. Adopting a green building standard for new construction will make green design consistent among all newly constructed buildings, reduce the local government's environmental impact, and demonstrate leadership by example to the rest of the community. This action is also in line with the New York State Green Building Construction Act passed in 2009 requiring all new state buildings meet green building standards. While not all local governments are constructing new buildings, all have existing properties. Green building standards can also be established for the operation and maintenance or retrofit of existing facilities. Significant energy savings and associated GHG emissions reductions can come from improvements to existing buildings.

B. How to implement this action

New Construction

Green building standards such as the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) or Green Globes are now used widely to provide guidelines for the design of new buildings. The local government should adopt a clear policy that requires new

construction be designed to a set of specific criteria or a green performance threshold. The local government may choose to reference existing standards such as LEED, Energy Star, ICC-IGCC 2012 or ASHRAE Standard 189.1 or may choose to establish its own standards, but those standards should go substantially beyond minimum code requirements. If referencing an existing standard such as LEED, it is important to note that it is not necessary to require buildings to be officially certified, as that is often cost prohibitive. Instead, the policy can reference that the guidelines be met and that official certification by a third party is optional. NYSERDA's New Construction Program may be able to help offset the cost of incorporating energy efficiency measures into new buildings and achieving LEED certification.

Existing Buildings and Facilities

For existing buildings and facilities, local governments should adopt a clear policy that requires one or more of the following:

- Proactively upgrade existing buildings to a specific set of green building standards by a certain date
- Incorporation of green building standards when facilities are to be upgraded
- Apply green building standards to existing operation and maintenance programs

As with new construction, the local government can reference existing green building design guidelines such as LEED for Existing Buildings or LEED Operations and Maintenance, or may establish its own standards. If referencing an existing standard, it is not necessary to require buildings to be certified under the referenced program, as costs for certification can be cost prohibitive. Policies can instead require that buildings be certifiable under the guidelines. It is recommended that the adopted standards or policy specify the size and age of buildings to which the standards would be applicable.

C. Time frame, project costs, and resource needs

Adoption of the policy itself can be completed in the standard time for the local government to adopt any internal policy. Staff resources required to fulfill this task will depend on in-house expertise. Consultants could assist as needed. Implementation of the existing buildings policy will require significant staff time and resources to evaluate all existing buildings and implement improvements wherever necessary to meet the adopted standards.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government. The policy would likely be developed in coordination with numerous staff involved with capital planning, facilities management, and construction of new government buildings and would require approval and official adoption by the local government's highest ranking official(s).

E. How to obtain points for this action

Points can be obtained for this action by adopting a green building standard for new and existing local government buildings and facilities.

	Possible Points
1) Adopt green building policy for new construction	2
2) Adopt green building policy for existing buildings	2

F. What to submit

Documentation of the written policy as well as signed documentation of its adoption and enactment by the government official or body authorized to enact such policies. Additionally, local governments should submit a memorandum outlining how the policy has incorporated an existing green building standard directly or incorporated aspects of the standard into the policy. The policy may have been adopted at any time prior to the application date to receive points for this action.

G. Links to additional resources or best practices

- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html
- Nassau County, N.Y. Policy: http://www.nassaucountyny.gov/agencies/Legis/LD/07/NewsRelease/2007/072607greenbuildingsJT.html
- Syracuse, N.Y. Green Building Ordinance: https://www.usgbc.org/ShowFile.aspx?DocumentID=4041
- Additional examples from New York and throughout the country: http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1852
- NYSERDA New Construction Program: http://www.nyserda.ny.gov/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/New-Construction-Program.aspx
- LEED Green Building Standard: http://www.usgbc.org/leed
- Energy Star: https://www.energystar.gov/
- ASHRAE Standard 189.1 for the Design of High-Performance, Green Buildings: https://www.ashrae.org/
- 2012 International Green Construction Code: http://www.iccsafe.org/cs/IGCC/Pages/default.aspx

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.8 BUILD A NEW GREEN BUILDING

Pending finalization of review procedures, documentation of this action cannot be accepted at this time.

Action pathway phase: Implement
Eligibility timeline: Within 10 years prior to the application date
Total possible points: 10

A. Why is this action important?

While the greenest buildings are considered to be existing buildings, local governments often must develop a building if they cannot meet local needs with existing facilities. Building a resource efficient green building provides local governments with the opportunity to lead by example and make long-term investments that will reduce energy use and operating costs of the building. Local governments should also make sure to apply smart growth principles in selection of a site or location for the building, and possibly use the development as an opportunity to promote development in a redevelopment area. Local governments may also seek to certify their building using LEED or Energy Star, to gain additional recognition.

B. How to implement this action

Local governments should first determine if it is necessary to build a new building or if existing facilities can be used to meet the needs of the government and community. If it is determined that a new building is needed, then local governments should follow the established green building policy for new construction. If a policy does not exist, local governments must work with their architects and engineers to design an energy-efficient, green building. Local governments can use a green building standard, such as LEED, Energy Star, ICC-IGCC 2012 or ASHRAE 189.1 as a reference in the design process.

Local governments must consider the following factors when designing the building:

- Site sustainability
- Indoor air quality
- Energy efficiency
- Transportation and public transit options
- Water use efficiency
- Material selection and use
- Operation and maintenance plans
- Occupant comfort
- Monetary value

C. Time frame, project costs, and resource needs

Building a green building may slightly increase the overall timeline for building a new facility to allow for additional analysis and design of the green building features. The additional incremental costs of the green building features will typically pay for themselves after a period of time through energy savings, but the payback periods can vary greatly depending on the type of energy efficiency improvement. Local governments must involve relevant staff, the community, and work with a qualified architect and engineer to design and develop the building. Additional costs would be incurred if the local government seeks to attain a green building certification.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that has built a new facility in recent years. The department of public works or facilities will typically have responsibility for this action; however, the department(s) that will use the building will also be involved in the development process.

E. How to obtain points for this action

Local governments can earn points for this action by demonstrating they have designed and built a building following a green building standard. Additional points are awarded for attaining a green building certification.

	Possible Points
• Design and build a new facility that meets a green building standard	7
• Obtain a green building certification	3

F. What to submit

Local governments should submit documentation demonstrating how the building was designed and built to a green building standard. The project must have been completed within ten years prior to the application date. To receive full points for this action, local governments must submit documentation to demonstrate that the building has received a green building certification.

G. Links to additional resources or best practices

- CSC, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html
- LEED Rating Systems: http://www.usgbc.org/leed/rating-systems
- NYSERDA New Construction Program: http://www.nyserda.ny.gov/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/CI-Programs/New-Construction-Program.aspx
- Design to Achieve Energy Star: http://www.energystar.gov/index.cfm?c=cbd_guidebook.cbd_guidebook
- ASHRAE 189.1 Standard for the Design of High Performance, Green Buildings: https://www.ashrae.org/resources--publications/bookstore/standard-189-1
- 2012 International Green Construction Code: http://www.iccsafe.org/cs/IGCC/Pages/default.aspx

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements. The building must have been built within ten years prior to the recertification application date to be eligible for points.

3.9 UPGRADE WATER OR WASTEWATER TREATMENT FACILITIES AND INFRASTRUCTURE

Action pathway phase: Implement
Eligibility timeline: Within 10 years prior to the application date
Total possible points: 7

A. Why is this action important?

Water and wastewater treatment plants can be a significant source of energy use and GHG emissions for local governments that own and operate these facilities. Energy use by water and

wastewater utilities is typically 20 to 40 percent of the energy consumed by a local government. A range of options is available for improving efficiency and reducing GHG emissions such as upgrading pumps and motors or capturing methane with an anaerobic digester. Water and wastewater utilities also provide opportunities for the installation of renewable energy and combined heat and power projects. Upgrades to water or wastewater infrastructure that feeds into and out of the treatment plants can also reduce GHG emissions associated with the water treatment. Minimizing losses in water distribution requires less water to be treated, which reduces total GHG emissions and saves energy and money.

B. How to implement this action

Points are obtained for this action by upgrading water or wastewater treatment facilities or infrastructure. Best practices include the following:

- Assessing facility energy use
- Installing variable frequency drives (VFD) for motors and pumps
- Using efficient drying technologies
- Optimizing anaerobic digester performance
- Using biogas to produce heat or energy
- Implementing renewable energy options such as wind solar or hydro-power
- Reducing leaks in water distribution systems

C. Time frame, project costs, and resource needs

Often local governments have extensive in-house experience for managing water and wastewater treatment facilities. Some upgrades could possibly be implemented by in-house staff. However, particularly for older facilities in need of numerous upgrades, it may be beneficial to hire a specialized auditor to inspect the facility and identify the most appropriate technologies and opportunities for the facility available now. Similar to the energy audits described in Action 3.1, there are several levels of audits that can be conducted for such facilities, and the cost increases as more detailed evaluation and analysis of the facility are conducted. However, the savings potential from upgrades to these facilities justifies the investment in both the audit and the efficiency improvements. NYSERDA also offers a water and wastewater facilities program that can provide useful support to the local government for this action.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns and operates water or wastewater treatment facilities and equipment. The local government's water or public works department or the department that manages these facilities would be primarily responsible for this action.

E. How to obtain points for this action

Points are earned for this action based on the GHG emissions reduced through the upgrades:

	Possible Points
• Reduce GHG emissions by 5%	1
• Reduce GHG emissions by 10%	2
• Reduce GHG emissions by 20%	3

- Reduce GHG emissions by 40% 4
- Reduce GHG emissions by 50% 5
- Reduce GHG emissions by 60% 6
- Reduce GHG emissions by 75% or more 7

F. What to submit

Provide documentation of specific equipment or infrastructure upgrades, including details on new and replaced equipment and estimated energy savings and GHG reductions. The upgrade must have been performed within ten years prior to the application date.

G. Links to additional resources or best practices

- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html
- NYSERDA, Water & Wastewater Energy Management–Best Practices Handbook: http://www.nyserda.ny.gov/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/Sectors/Municipal-Water-and-Wastewater-Facilities/MWWT-Tools-and-Materials.aspx
- NYSERDA, Municipal Water and Waste Water Treatment Facilities: http://www.nyserda.ny.gov/Energy-Efficiency-and-Renewable-Programs/Commercial-and-Industrial/Sectors/Municipal-Water-and-Wastewater-Facilities.aspx
- American Council for an Energy-Efficient Economy, Local Policy Toolkit, Local Government Lead by Example, Water and Wastewater Treatment: http://aceee.org/sector/local-policy/toolkit/water
- U.S. EPA, Evaluation of Energy Conservation Measures for Wastewater treatment Facilities: http://water.epa.gov/scitech/wastetech/upload/Evaluation-of-Energy-Conservation-Measures-for-Wastewater-Treatment-Facilities.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

Fleet and Vehicle Fuel

3.10 ADOPT A VEHICLE FLEET EFFICIENCY POLICY

Action pathway phase: Assess, Plan, Govern
Eligibility timeline: Currently active
Total Possible **points**: 3

A. Why is this action important?

To establish the political support and funding for implementation, local governments should develop and adopt a vehicle fleet efficiency policy. This provides vehicle fleet managers with the guidelines and requirements to improve the fuel efficiency, and ultimately reduce fuel costs and

GHG emissions. Local governments are encouraged to adopt a policy which requires the purchase and use of fuel efficient vehicles whenever they are commercially available and practicable.

B. How to implement this action

Local governments can develop a vehicle fleet efficiency policy by following the guidelines below:

- Complete a fleet vehicle inventory
- Establish definitions and minimum efficiency levels, and any exemptions, for different vehicle types.
- Include in the policy a plan and schedule for replacing vehicles with fuel efficient and/or alternative fuel options
- Reference http://www.fueleconomy.gov/ for information on fuel efficiency of vehicles
- Refer to New York State policies on vehicle fleet efficiency[3] and other best practices
- Include in the policy requirements for tracking mileage and fuel consumption
- Include in the policy requirements for annual review of the replacement schedule to adjust for new, more efficient, vehicle availability

As with any change in local laws and policies, please consult with the local government attorney for guidance on drafting and enacting the new legislation or policy.

C. Time frame, project costs, and resource needs

Developing a vehicle fleet efficiency policy can take approximately two to four months to draft, finalize, and adopt; however, this timeline depends on the political support for such a policy. The costs for developing the policy are primarily staff time.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns and manages a fleet of vehicles. The department with responsibility for managing the local government's vehicle fleet, typically within the public works department, often in collaboration with the chief elected official's office, would be responsible for drafting this policy.

E. How to obtain points for this action

To earn points for this action, local governments must adopt a fleet vehicle efficiency policy and vehicle replacement plan. An alternative to an independent fleet vehicle efficiency policy would be incorporation of vehicle efficiency into a larger environmentally preferable purchasing policy. The policy must clearly define fuel efficiency standards for the entire fleet and for specific vehicle types, and a replacement policy or schedule for existing vehicles. To receive full credit for this action, the policy must include the following:

[3] New York State Executive Order 111, Directing State Agencies to be More Energy Efficient and Environmentally Aware, "Green and Clean State Buildings and Vehicles" calls for all New York State agencies to purchase alternative fueled vehicles for 50% of new light duty vehicles by 2005 and 100% of all new light-duty vehicles by 2010.

	Possible Points
• Specify the purchase of a minimum percentage of fuel-efficient vehicles by a short-term deadline, or minimum fuel-efficiency standards by a short-term deadline	2
• Require the purchase of 100% of fuel-efficient vehicles by a certain year	1

F. What to submit

Provide a written policy as well as signed documentation of its adoption and enactment by the local government official or body authorized to enact such policies. Additional recommended documentation includes an inventory of existing local government vehicles with a replacement schedule. The policy may have been adopted at any time prior to the application date and the local government must be actively implementing it.

G. Links to additional resources or examples

- Climate Smart Communities, Reduce Municipal Energy Use for Transportation: http://www.dec.ny.gov/energy/56925.html
- New York State Alternative Fuel Vehicles policies: http://www.afdc.energy.gov/pdfs/37144.pdf
- Massachusetts Green Communities Green Fleet Example Policy: http://www.mass.gov/eea/docs/doer/green-communities/grant-program/gc-criterion4-guidance.pdf
- Energy Aware Planning Guide: Local Government Fleet Efficiency http://www.mass.gov/eea/docs/doer/green-communities/eap/municipal-fleet-efficiency.pdf
- City of White Plains Vehicle Fleet Policies and Programs: http://www.cityofwhiteplains.com/green/city/city8.html
- NYSERDA's Transportation Programs: http://www.nyserda.ny.gov/Energy-Innovation-and-Business-Development/Research-and-Development/Transportation.aspx

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.11 RIGHT-SIZE THE LOCAL GOVERNMENT FLEET

Action pathway phase: Implement
Eligibility timeline: Within 5 years prior to the application date
Total possible points: 3

A. Why is this action important?

Local governments often have more vehicles than needed in their local government fleets, and larger vehicles are often used for tasks that could be accomplished with smaller, more fuel-efficient vehicles. Local governments are encouraged to monitor their vehicle fleet composition and usage,

and identify opportunities to reduce fuel usage by matching the right vehicle with the right task and reducing the overall number of vehicles, if possible. Using vehicles appropriate for their tasks maximizes the fuel efficiency of the overall fleet. Reducing the size of the fleet decreases overall maintenance and insurance costs.

B. How to implement this action

Right sizing the local government fleet involves reducing the total number of vehicles and optimizing the usage of existing vehicles to ensure the most efficient vehicles are used as much as possible. Local governments can follow the guidelines below to implement this action.

Fleet Inventory

- Obtain a fleet management information system that tracks the type of usage, fuel usage, and fuel efficiency of each vehicle in the system.
- Identify vehicles that are underutilized and can either be retired or better utilized.
- Identify vehicles that are not suited to the tasks for which they are typically used.

Optimize Fleet Assignments

- Reassign vehicles to make sure the appropriate vehicles are used for the right tasks.
- Develop processes and procedures to enforce vehicle usage policies.
- Encourage car-pooling and more efficient route planning.

Reduce Fleet Size

- Retire or sell older or infrequently used vehicles.

C. Time frame, project costs, and resource needs

Right sizing the local government fleet can take about three to six months, although it depends on the quality of the information in the fleet management system. With a robust management system in place, right-sizing of the fleet should be an ongoing process. The costs associated with fleet right-sizing primarily involve staff time, as the focus of the effort is on using resources more efficiently.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns and manages a fleet of vehicles. The department with responsibility for managing the local government's vehicle fleet, typically within the public works department, would be responsible for tracking fleet composition, vehicle miles traveled and fuel consumption.

E. How to obtain points for this action

Local governments can earn points for this action by assessing their vehicle fleet usage and needs, reassigning vehicles, and reducing the total size of the government's fleet.

	Possible Points
• Reduce vehicle fleet size by 10-25%	1
• Reduce vehicle fleet size by 26-50%	2

- Reduce vehicle fleet size by >50% 3

Local governments that have not reduced the total size of their fleets but have demonstrably reduced vehicle miles travelled and/or fuel consumption through a right-sizing or optimization program may submit documentation for consideration for points for this credit.

F. What to submit

Submit documentation outlining the steps taken to reassign and better utilize the fleet and to reduce the total number vehicles. The right-sizing should be completed within five years prior to the application date.

G. Links to additional resources or examples

- Climate Smart Communities, Reduce Municipal Energy Use for Transportation: http://www.dec.ny.gov/energy/56925.html
- U.S. Department of Energy Alternative Fuels Data Center, *Rightsizing Your Fleet to Conserve Fuel* guide: http://www.afdc.energy.gov/conserve/rightsizing.html
- *11 Approaches to Right-Sizing Your Fleet*: http://www.government-fleet.com/article/print/story/2009/11/11-approaches-to-right-sizing-your-fleet.aspx
- City of White Plains, Fleet Size Management: http://www.cityofwhiteplains.com/green/city/city8.html
- NYSERDA's Transportation Programs: http://www.nyserda.ny.gov/Energy-Innovation-and-Business-Development/Research-and-Development/Transportation.aspx

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.12 REPLACE TRADITIONAL VEHICLES WITH ADVANCED VEHICLES

Action pathway phase: Implement
Eligibility timeline: Within 5 years prior to the application date
Total possible points: 5

A. Why is this action important?

Advanced vehicles are more fuel-efficient and produce less GHG emissions then their traditional counterparts. Advanced vehicles include hybrids, plug-in hybrids, electric vehicles, flex-fuel vehicles, alternative fuel vehicles, diesels, and fuel cell vehicles. Usage of these vehicles can help support the local and national market for advanced vehicles, along with the market for alternative fuels. In addition, these vehicles can help raise awareness of the local government's commitment to fuel efficiency as the vehicles are used and seen in the community.

B. How to implement this action

Local governments can implement this action by following the guidelines below.

- Develop vehicle replacement guidelines or policies to require the purchase of advanced vehicles
- Use established minimum fuel efficiency requirements for the types of vehicles in the fleet, as developed in Action 3.10 (if completed)
- Select advanced vehicles for purchase that suit local needs, available fuels, and local vehicle availability
- Consider a bulk purchase of vehicles to receive a better price, or organize a joint procurement with other neighboring jurisdictions, to maximize your buying power
- Replace vehicles as they near the end of their useful life with advanced vehicles, and/or replace the least fuel efficient vehicles prior to their end of life

C. Time frame, project costs, and resource needs

Establishing a program and guidelines to purchase advanced vehicles can take about four to six months, although this depends on the political support for such a program. The initial effort involves developing procurement guidelines and can typically be performed by local government staff. The additional cost of advanced vehicles compared to traditional varies, depending on the type of advanced vehicle. The U.S. DOE Vehicle Cost Calculator helps you compare the total cost of ownership for different vehicle makes and models: http://www.afdc.energy.gov/calc/

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns and manages a fleet of vehicles. The department with responsibility for managing the local government's vehicle fleet, typically within the public works department, would be responsible implementing this action.

E. How to obtain points for this action

Local governments can earn points for this action by increasing the number of alternative fuel vehicles in their fleets.

	Possible Points
• 10-25% of fleet is advanced vehicles	2
• 25-50% of fleet is advanced vehicles	3
• 50-75% of fleet is advanced vehicles	4
• 75-100% of fleet is advanced vehicles	5

F. What to submit

Local governments should submit documentation, such as a report from the vehicle management system, illustrating the proportion of vehicles in the fleet that are fuel efficient advanced vehicles. The advanced vehicles must have been purchased within five years prior to the application date.

G. Links to Additional Resources or Best Practices

- U.S. Department of Energy fuel economy website: http://www.fueleconomy.gov

- U.S. Department of Energy Alternative Fuels Data Center, New York Laws and Incentives: http://www.afdc.energy.gov/laws/laws/NY
- EPA Green Fleet Guide: http://ofmpub.epa.gov/greenvehicles/Index.do;jsessionid=rFtnPgyHLjjtpwydQ9sMZmmm5v5jJYdP9rLTdDqvh2Yq1MQQj6wM!788633877
- NYSERDA's Transportation Programs: http://www.nyserda.ny.gov/Energy-Innovation-and-Business-Development/Research-and-Development/Transportation.aspx

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.13 ADOPT AN ANTI-IDLING POLICY FOR GOVERNMENT VEHICLES

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 3

A. Why is this action important?

The cost of fuel and vehicle maintenance as well as air pollution and GHG emissions associated with idling are significant. Trucks that idle for about eight hours per day for about 250-300 days increase the cost of annual fuel use by $6,000. (A SmartWay Technology Program, 2013). Adopting and enforcing an anti-idling policy will save local governments money and reduce air pollution. New York State has adopted a heavy duty vehicle idling law (Title 6 NYCRR, Subpart 217-3) of five minutes of idling, but local governments may wish to adopt policies that exceed the requirements of this law for government-owned vehicles and other types of vehicles.

B. How to implement this action

Local governments can reduce air pollution, GHG emissions, and fuel use by adopting an anti-idling policy for government vehicles, following the guidance provided below.

Develop the Policy:

- Assess federal, state, regional, and neighboring anti-idling regulations, for best practices to incorporate into local regulations.
- Draft an anti-idling policy and circulate it to all relevant government departments that utilize vehicles.
- Ensure that the policy does not affect critical operational needs, such as emergency vehicles.
- Review operational guidelines with departments that are unable to comply with the policy and determine if any adjustments to standard operations are feasible.
- Incorporate feedback from government staff members into a final draft policy to be presented to the elected body.

Implement the Policy:

- Educate elected officials, local government staff, and the public on the elements of the anti-idling policy, and time frame for implementation.
- Develop an approach for enforcing the policy.

C. Time frame, project costs, and resource needs

Adopting an anti-idling policy costs no money other than staff time to draft the policy and creating educational materials for local government staff. There is a large collection of sample anti-idling policies from which local governments can draw. The time frame for developing and adopting the policy depends on the political and internal support for such a policy and could take approximately two to five months to finalize and adopt.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns and manages a fleet of vehicles. The chief elected official's office, public works or planning departments will likely draft the policy and, if necessary, present it to the legislative body for approval. In many cases, however, the chief elected official would have the authority to implement such a policy for the executive agencies on his own authority. The department responsible for managing the vehicle fleet would be responsible for enforcing and tracking compliance with this policy.

E. How to obtain points for this action

Local governments can earn points for this action by adopting an anti-idling policy for government-owned vehicles.

F. What to submit

Submit the anti-idling policy signed and dated by the chief elected official and, if necessary, approved by the legislative body, along with any communications, procedures manuals, or other documentation demonstrating that the policy has been implemented. The local government will be eligible to receive points regardless of when the policy was adopted, as long as it is in effect at the time of application.

G. Links to Additional Resources or Best Practices

- New York State Heavy Duty Vehicle Anti-Idling Law: http://www.dec.ny.gov/chemical/8585.html
- Climate Smart Communities, Transportation How-to for Municipalities: http://www.dec.ny.gov/energy/57108.html#establish
- Sample anti-idling policy: http://www.icleiusa.org/action-center/learn-from-others/2.5.%20Brattleboro%20Policy.pdf
- ATRI *Compendium of Idling Regulations*: http://www.atri-online.org/research/idling/ATRI_Idling_Compendium

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.14 IMPLEMENT A CAR-SHARING PROGRAM FOR LOCAL GOVERNMENT STAFF

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 4

A. Why is this action important?

Local governments can save money through reduced fleet size, fuel use, and fleet maintenance by registering to use car-share programs for local government staff. Using a car-share program can help to support new local car-share programs, promote alternative-fuel vehicles, and more efficiently use vehicles in existing car-share fleets.

B. How to implement this action

Local governments can implement car-sharing programs to replace or augment their existing fleets. A car-sharing program could be a more efficient approach to managing the local government's fleet entirely, or it could be a means of augmenting the existing fleet, particularly with advanced or alternative fuel vehicles. Local governments must first determine if a car-sharing program is suitable for their needs and then follow the guidelines below to implement the program.

- Develop objectives for car-sharing program: define the purpose of using a car-share program (e.g., to leverage existing infrastructure, incorporate more alternative fuel vehicles into the existing fleet, use vehicles more efficiently).
- Determine approach to deploying the program: collaborate with an existing local car-share provider or develop a new program.
- Select types of cars to be included in the program (alternative fuel vehicles only or all types of vehicles).
- Select locations for parking car-share vehicles.
- Develop system, or use an existing system, for managing reservations and usage of vehicles.
- Determine pricing and usage policies.
- Launch the program.

C. Time frame, project costs, and resource needs

The amount of time required to implement the action depends on the vehicle needs of the local government and the availability of a car sharing program in the area. If the car sharing program is intended to replace the existing vehicle fleet, then local governments will need a plan to retire the existing vehicles and transition to the new car sharing vehicles. The costs associated with a car sharing program will be calculated based on the usage of the vehicles, and there will be no upfront purchase costs or maintenance costs.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns or manages a fleet of vehicles. The department with responsibility for managing the local government's vehicle fleet, typically within the public works department, would be responsible implementing this action.

E. How to obtain points for this action

Local governments can earn points for this action by demonstrating that they have implemented a government car-sharing program. The program can be a partnership with an existing car-share provider or a government-managed program, as long as the vehicles are used by government staff. Additional points can be earned by using alternative fuel vehicles in the car-sharing fleet.

	Possible Points
• Implement a car-sharing program for government usage	2
Performance bonus points:	
• 25-50% of car-sharing fleet is alternative fuel vehicles	1
• >50% of car-sharing fleet is alternative fuel vehicles	2

F. What to submit

Local governments should submit documentation, such as a website or program materials, demonstrating that the car-sharing program is actively in use. To earn the bonus points, local governments should submit documentation specifying the percentage of the fleet that is composed of alternative fuel vehicles.

G. Links to Additional Resources or Best Practices

- City of Berkeley: Incorporating Car-sharing into Municipal Policy: Fleets, Development Planning, Parking: http://www.mayorsinnovation.org/pdf/park_june05.pdf
- Houston Municipal Electric Vehicle Car-sharing Program: http://www.icleiusa.org/news/city-of-houston-to-launch-first-municipal-electric-vehicle-car-sharing-program
- City of Aspen Car To Go Carshare Program: http://www.aspenpitkin.com/Departments/Transportation/CAR-TO-GO-Carshare-Program/

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

Outdoor Lighting

3.15 CONVERT STREETLIGHTS TO LED

Action pathway phase: Implement

Eligibility timeline: Within 5 years prior to the application date
Total possible points: 5

A. Why is this action important?

Advanced streetlight technology such as LEDs can reduce streetlight energy use by as much as 70 percent. Efficient streetlights will save money and energy, also reducing the emissions associated with electricity consumption. Installation of efficient streetlights is also a visual demonstration of the local government's commitment to resource conservation that can be seen by the community it serves.

B. How to implement this action

The following guidelines provide an outline for the process of converting streetlights to LED.

Plan for Streetlight Retrofit

- Perform an outdoor lighting inventory, if one doesn't exist
- Define the scope and objectives of the project, in terms of the quantity of streetlights to be converted, and if other changes to local street lighting are necessary, such as increasing or reducing number of streetlights based on input from local residents and businesses
- Identify streetlights for conversion; focus on the most outdated fixtures
- Consider performing a pilot of the new technology first to confirm the technology and lighting output meet local needs
- Develop project plan and financing strategy

Identify Design Concerns and Constraints

- Determine if existing light fixtures can be retrofitted or if they must be replaced
- Select appropriate technology and understand maintenance impacts
- Ensure the new technology meets the minimum design standards, such as those from the DesignLights Consortium Qualified Products List
- Consider other design factors such as glare, light pollution, safety and security, and aesthetic requirements

Implement New Lighting Technology

- Convert streetlights to LEDs found on the DesignLights Consortium Qualified Products List
- Monitor and report on performance of the new fixtures
- Develop or update ongoing maintenance plans

C. Time frame, project costs, and resource needs

Many communities carry out LED streetlight conversion in phases, in part to test the performance of the technology used, and in part because of the upfront cost. For a local government that does not have money in its budget for such a capital investment, implementing a LED streetlight conversion in

a pilot neighborhood may prove more feasible at first. The local government may want to investigate whether grants are available for funding support. Incentives may also be available through the electric utility. The project costs will depend on the scope of the project, and will include costs for design, implementation, and materials. Smaller local governments will typically want to hire a contractor to perform the upgrade; larger local governments may have the needed expertise in house to perform the upgrade.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This is applicable to local governments that own and operate streetlights but is also applicable to local governments that lease or pay fees for utility-owned streetlights. Local governments that do not own their streetlights can receive points for this if they advocate and support their local utility in updating the streetlights. The department likely to be responsible for this would be a public works, transportation, or engineering department.

E. How to obtain points for this action

Local governments can earn points for this project by successfully converting streetlights to LEDs. Points are awarded based on the proportion of streetlights converted.

	Possible Points
• Upgrade 10-25% of streetlights to LED	2
• Upgrade 25-50% of streetlights to LED	3
• Upgrade 50-75% of streetlights to LED	4
• Upgrade 75-100% of streetlights to LED	5

Local governments that use streetlights listed on the DesignLights Consortium Qualified Products List, can earn one (1) additional performance bonus point for using the highest performing commercial LED products.

F. What to submit

Provide documentation on number of streetlights upgraded, including the proportion of upgraded streetlights to total streetlights. Submit specifications for the technology used and documentation demonstrating listing on the DesignLights Consortium Qualified Products List, and if possible, any rebates, incentives, cost information or estimated or actual savings. The streetlights must have been updated within five years prior to the application date, and be actively in use.

G. Links to additional resources or best practices

- DesignLights Consortium Qualified Products List: http://www.designlights.org/QPL
- NYSERDA How-To Guide to Effective Energy , Efficient Street Lighting for Municipal Elected/Appointed Officials: http://www.rpi.edu/dept/lrc/nystreet/how-to-officials.pdf (technology information is dated, but the process guidance is useful)
- Case Study: Lewiston, N.Y., Effective Energy Efficient Street Lighting Project: http://www.rpi.edu/dept/lrc/nystreet/lewiston.pdf

- Green Light: Sustainable Street Lighting for NYC: http://www.nyc.gov/html/dot/downloads/pdf/sustainablestreetlighting.pdf
- Efficiency Vermont: *Improving Efficiency in Municipal Street and Public Space Lighting*:
- http://www.efficiencyvermont.com/docs/for_my_business/lighting_programs/EVT_MunicipalStreetLightingGuide_Rev040111.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.16 CONVERT TRAFFIC SIGNALS TO LED

Action pathway phase: Implement
Eligibility timeline: Within 10 years prior to the application date
Total possible points: 4

A. Why is this action important?

Converting incandescent traffic signal lamps to LEDs is an easy, immediate and cost-effective way to lower local government energy bills. LED traffic signal lamps use 80 to 90 percent less energy than incandescent lamps. Local governments can expect to save approximately $60-$130 in annual energy costs per signal head (red, yellow, green lamps) by switching to LEDs. Additionally, LED traffic signal lamps can reduce maintenance costs over incandescent technology by approximately 75 percent. The estimated simple payback on LED traffic signal conversions based on energy cost savings alone is as little as one year.

B. How to implement this action

Local governments can follow the guidelines below to identify opportunities to improve the efficiency of local traffic signals.

Plan for the Traffic Signal Retrofit

- Define the scope and objectives of the project, in terms of the number of traffic signals to be converted and the financing strategy. Focus on the most outdated signals first
- Consider performing a pilot of the new technology first, to confirm the selected technology meets local requirements
- Develop project plan and select a contractor to perform the conversion

Identify Design Problems and Constraints

- Determine if existing traffic signals can be retrofitted or if they must be replaced
- Select appropriate technology and understand maintenance impacts

Implement New Lighting Technology

- Convert traffic signals to LED

- Monitor and report on performance of the new signals
- Develop or update ongoing maintenance plans

C. Time frame, project costs, and resource needs

A traffic signal upgrade project can typically be completed within a year, although it depends on the number of signals to be converted. The project costs also depend on the number of signals; however, local governments can anticipate that the payback for the upgrade will be about one year. The project costs will include costs for design, implementation, and materials. Smaller local governments will typically want to hire a contractor to perform the upgrade; however, larger local governments may have the needed expertise in house to perform the upgrade. Grants or incentives may be available through the local utility.

The ongoing cost savings associated with LED traffic signals can be significant, approximately 80 to 90 percent savings over incandescent lights, along with the ongoing savings from reduced maintenance requirements.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

Applicable to any local government that owns and operates traffic signals. This type of project is typically performed by the department of public works or transportation. For communities in which the traffic signals are managed by the county, local governments can earn points for this action if their county has converted the traffic signals to LED.

E. How to obtain points for this action

Local governments can earn points for this project by successfully converting traffic signals to LEDs. Points are awarded based on the number of traffic signals converted.

	Possible Points
• Upgrade 10-25% of traffic signals to LED	1
• Upgrade 26-50% of traffic signals to LED	2
• Upgrade 51-75% of traffic signals to LED	3
• Upgrade 76-100% of traffic signals to LED	4

F. What to submit

Provide documentation on number of traffic signals upgraded, including the proportion of total traffic signals upgraded to LEDs. Submit specifications for the technology used and, if possible, any information on cost, rebates, incentives and documented savings. The traffic signals must have been updated within ten years prior to the application date and be actively in use.

G. Links to additional resources or best practices

- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html

- NYSERDA LED Traffic Signal Life Cycle Cost Analyzer Tool: http://www.lrc.rpi.edu/programs/transportation/LED/xls/led-lcc.xls
- Westchester County, *Completing LED Traffic Signal Upgrades on a Tight Budget*: http://www.lrc.rpi.edu/programs/transportation/LED/pdf/westchester.pdf
- Rensselaer Polytechnic Institute Lighting Research Center, Traffic Signal Best Practices: http://www.lrc.rpi.edu/programs/transportation/led/nystrafficsignals.asp
- Rocky Mountain Institute Guide to Energy Efficient Traffic Signals and Street Lighting: http://www.hamiltoncountyohio.gov/climate/calculator/pdfs/StudyRockyMountainStreetLights.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.17 REDUCE NUMBER OF OUTDOOR LIGHTING FIXTURES

Action pathway phase: Implement
Eligibility timeline: Within 5 years prior to the application date
Total possible points: 4

A. Why is this action important?

Local governments may have the opportunity to reduce outdoor lighting to conserve energy. This simple action involves either optimizing the lighting schedule and/or reducing the number of outdoor lighting fixtures in use, to easily reduce total energy use. However, local governments should ensure public safety is a top priority whenever any changes to lighting are considered and implemented.

B. How to implement this action

Local governments can implement this action by identifying opportunities to reduce the number of outdoor lighting fixtures or reduce the time in which the fixtures are in use. Outdoor lighting can be essential for safety and security, particularly in commercial or industrial areas; however, residents often prefer reduced outdoor lighting to decrease light pollution. The following steps outline the process for identifying opportunities to reduce outdoor lighting energy use.

1. Identify possible areas or fixtures to reduce outdoor lighting
    - Determine if the outdoor lighting schedule can be optimized, to reduce unnecessary outdoor lighting during daylight hours.
    - Identify any areas in which light pollution has been a concern. Review recent resident and business survey results to identify opportunities. If annual surveys do not include this, incorporate a question into the survey regarding lighting.
    - Review street lighting design specifications. If any minimum standards are exceeded in terms of lighting spacing or output, opportunities may exist to decommission fixtures.
2. Review any proposed changes with affected residents and/or businesses

- Gather input from residents and/or businesses to confirm that the proposed changes will not adversely affect business opportunities or a sense of safety and security

3. Implement proposed changes
   - Implemented reduced outdoor lighting plans, ensure that all minimum lighting specifications are met or exceeded
   - Monitor and report on energy savings
   - Monitor resident and business feedback to ensure changes have no negative impacts

C. Time frame, project costs, and resource needs

The time to implement this action depends on the scope of the effort and the available information to develop a plan, although this type of effort will typically take between two to four months to implement. The level of effort to reduce the lighting fixtures in use, the output of lighting fixtures, or the lighting schedule also depends on the systems and lighting technology. The costs will depend on whether the changes can be performed centrally, or if a technician must be deployed to the field to make the change to the fixture directly.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government, whether it operates its own streetlights or contracts them out to a local utility. The department of public works or transportation is most likely to lead this effort for local governments that manage their own lighting. The department responsible for managing the outdoor lighting contract and relationship will lead the effort for local governments whose outdoor lighting is provided by a local utility.

E. How to obtain points for this action

Local governments can earn points for this action by developing and implementing a strategy to reduce outdoor lighting energy use. The strategy should involve a review and identification of opportunities to reduce outdoor lighting, a review of minimum design standards, and feedback from affected residents or businesses.

	Possible Points
• Develop a strategy for reducing outdoor lighting use	1
• Implement outdoor lighting reduction strategy	3

F. What to submit

Local governments should submit a copy of their outdoor lighting reduction strategy (or similar engineering planning document) along with documentation of the number of fixtures reduced or modifications to the lighting schedule. The strategy must have been implemented within five years prior to the application date.

G. Links to additional resources or best practices

- Climate Smart Communities, Reduce Utility Bills for Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64089.html

- NYSERDA How-To Guide to Effective Energy , Efficient Street Lighting for Municipal; Elected/Appointed Officials: http://www.rpi.edu/dept/lrc/nystreet/how-to-officials.pdf (technology information is dated, but the process guidance is useful)

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.18 UPGRADE OUTDOOR LIGHTING (OTHER THAN STREETLIGHTS AND TRAFFIC SIGNALS) TO MORE EFFICIENT AND/OR SOLAR TECHNOLOGY

Action pathway phase: Implement
Eligibility timeline: Within 5 years prior to the application date
Total possible points: 4

A. Why is this action important?

Outdoor lighting in public areas and parks may represent a smaller portion of total outdoor lighting energy use as compared to streetlights, but these fixtures are often the most costly to maintain, as they are more widely distributed and sometimes in inconvenient locations, requiring more time and effort for regular maintenance. Upgrading off-street outdoor lighting not only reduces energy consumption but also decreases long-term maintenance costs.

B. How to implement this action

Local governments can follow the guidelines below to plan for and upgrade off-street outdoor lighting.

Plan for the Lighting Upgrade

- Perform an outdoor lighting inventory, if one doesn't exist
- Define the scope and objectives of the project in terms of the number and location of fixtures to be updated and the financing strategy. Focus on the most outdated fixtures first. Possible locations can include parks, recreational areas, parking lots, and walkways
- Consider performing a pilot of the new technology first, to confirm the selected technology meets local requirements
- Develop a project plan and select a contractor to perform the upgrade

Identify Design Concerns and Constraints

- Determine if existing fixtures can be retrofitted or if they must be replaced
- Select appropriate technology and understand maintenance impacts
- Ensure new technology meets minimum design standards and is suitable for the location
- Ensure the new technology meets the minimum design standards, such as those from the DesignLights Consortium Qualified Products List

- Consider other design factors such as glare, light pollution, safety and security, maintenance, and aesthetic requirements

Implement New Lighting Technology

- Convert outdoor lights to LEDs found on the DesignLights Consortium Qualified Products List or solar powered lighting
- Update or convert off-street outdoor lighting fixtures
- Monitor and report on performance of the new fixtures
- Develop ongoing maintenance plan

C. Time frame, project costs, and resource needs

The costs associated with upgrading outdoor lighting depend on scope of the project, the selected technology and the number of fixtures to upgrade and will include costs for design, implementation, and materials. Solar LED lights have a longer payback period compared to traditional LED lights, but they could be a preferred solution for more remote locations that are not connected to the grid or inconvenient to maintain. Smaller local governments will typically want to hire a contractor to perform the upgrade; however, larger local governments may have the needed expertise in house to perform the upgrade.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government that owns and operates outdoor lighting in public places. The department likely to be responsible for this would be the public works, transportation, parks or engineering department.

E. How to obtain points for this action

Local governments can earn points for this action by upgrading outdoor lighting fixtures to energy efficient fixtures that meet the DesignLights Consortium specifications or to solar technology.

	Possible Points
• Upgrade 10-25% of light fixtures (other than streetlights and traffic signals)	1
• Upgrade 26-50% of light fixtures (other than streetlights and traffic signals)	2
• Upgrade 51-75% of light fixtures (other than streetlights and traffic signals)	3
• Upgrade 76-100% of light fixtures (other than streetlights and traffic signals)	4

F. What to submit

Provide documentation on the number and location of upgraded outdoor light fixtures, including the proportion of total outdoor lights upgraded. Submit specifications for the technology used and if possible, information on the cost, rebates, incentives, and any documented savings documented.

The outdoor lights must have been updated within five years prior to the application date, and be actively in use.

G. Links to additional resources or best practices

- Climate Smart Communities, Case Studies: Energy Efficient Municipal Facilities and Operations: http://www.dec.ny.gov/energy/64095.html
- DesignLights Consortium Qualified Products List: http://www.designlights.org/QPL
- Efficiency Vermont: Improving Efficiency in Municipal Street and Public Space Lighting: http://www.efficiencyvermont.com/docs/for_my_business/lighting_programs/EVT_MunicipalStreetLightingGuide_Rev040111.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

Government Solid Waste

3.19 ADOPT A WASTE MANAGEMENT STRATEGY FOR GOVERNMENT HOSTED AND PERMITTED EVENTS

Action pathway phase: Assess, Plan and Govern
Eligibility timeline: Currently active
Total possible points: 2

A. Why is this action important?

Avoid the cost and environmental effects of hauling and processing waste produced at meetings and events by adopting an event waste management strategy. Not only will such a strategy decrease the amount of waste sent to a landfill or incinerator, it will be a demonstration to staff and the public of resource-efficient waste management.

B. How to implement this action

A waste management strategy outlines how to increase waste diversion, increase the use of products that can be reused and/or are made out of recyclable or compostable materials, and how to separate compost, recyclable materials, and non-recyclable materials. The policy should indicate product specifications for events and meetings, such as reusable, compostable, or recyclable packaging, plates, and cutlery; use of water pitchers and non-disposable glasses, etc., as well as the number and type of separate waste bins, signage to direct participants to properly dispose of their waste, and how the waste will be handled after the event. This strategy should cover government meetings, government hosted events, and events requiring a permit.

C. Time frame, project costs, and resource needs

When first implementing this action, staff time will be necessary for developing the strategy, identifying options for waste diversion, and identifying product options, cost, and availability. However, once the strategy is developed and has been implemented a few times, the process should become more streamlined and better integrated as standard procedure. Signage must also

be developed, requiring some minimal printing costs and staff time. There may be an increase in cost for events due to this strategy.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action can be implemented by any local government and would require coordination among public works, facilities, purchasing, and possibly parks and recreation staff.

E. How to obtain points for this action

Local governments can earn points for this action by adopting a policy or strategy for that will significantly reduce waste generated at government hosted and permitted events and demonstrating that the policy has been implemented.

	Possible Points
• Adopt waste management policy for government hosted events	1
• Demonstrate implementation	1

F. What to submit

Provide a copy of the written policy or strategy, documenting approval by the highest ranking official. This can be part of a broader waste management policy or plan. Photos or copies of signage or information materials provided and/or copies of any events where the strategy has been implemented should also be provided as applicable. The policy may have been adopted at any time prior to the application date and the local government must be actively implementing it to receive points.

G. Links to additional resources or best practices

- Climate Smart Communities, Climate Smart Waste Management: http://www.dec.ny.gov/energy/57186.html
- DEC, Green Meetings: http://www.dec.ny.gov/chemical/53418.html
- EPA Green Guide for Waste Management and Recycling During Special Events: http://www.epa.gov/wastes/conserve/tools/rogo/documents/parks.pdf
- NAPCOR A Comprehensive Guide to Venue and Event Recycling: http://www.napcor.com/pdf/SingleServeToolkit.pdf
- Northeast Recycling Council, Best Management Practice Guidebook for Special-Event Generated Waste in Rural Communities: http://www.nerc.org/documents/special_event_bmps_final.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.20 PROVIDE RECYCLING BINS NEXT TO TRASH RECEPTACLES IN LOCAL GOVERNMENT BUILDINGS

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 3

A. Why is this action important?

Evidence has shown that the easier it is for people to recycle the more likely they will do so. If an employee has to go out of his or her way to recycle an item, he or she is more likely to dispose of it in the trash receptacle than to go to another location to recycle it. Placing recycling bins next to all trash receptacles makes recycling easier and provides a visual reminder to recycle items when possible.

B. How to implement this action

This action is implemented by providing a recycling bin wherever there is a trash bin. This could be implemented in three areas:

- All common areas in local government buildings
- All local government-owned public property, such as parks and recreation areas
- At each employee's desk

It may be worth considering providing a recycling receptacle larger than the trash receptacle in settings where users are more likely to generate recyclable waste than trash. For example, some local governments have provided small trash cans that hook to the side of a larger recycling bin at employees' desks since the waste generated is often recyclable paper waste.

Local governments should also ensure that trash and recycling bins are clearly distinguishable, with different colors and signage.

C. Time frame, project costs, and resource needs

This action can be implemented in a short period of time. Costs and resources needed would include the purchase of recycling bins, minimal labor time to place them throughout local government buildings and spaces, signage for staff education, and some time for custodial staff to pick up and dispose of recyclables separately from the trash.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

Any local government that has recycling service can implement this action. The types of recyclables collected will vary depending on the recycling services available in each community. This will most likely be implemented by a public works department and/or a facilities department.

E. How to obtain points for this action

Local governments can earn points for this action by providing recycling bins in the areas described in Section B. Local governments must have recycling bins in every location listed below where there is a trash can.

	Possible Points
• Recycling bins in common areas	1
• Recycling bins in public spaces	1
• Recycling bins at employee desks	1

F. What to submit

Documenting the implementation of this action will require a sample of photographs be taken showing that recycling bins have been placed appropriately next to all trash receptacles. Any other written documentation, such as policies, purchasing records, or recycling program descriptions should also be provided to demonstrate that the recycling bins are provided everywhere there is a trash bin. If waste diversion has been tracked, that data should be provided as well. The recycling bins must be actively in use to receive points for this action.

G. Links to additional resources or best practices

- Climate Smart Communities, Climate Smart Waste Management: http://www.dec.ny.gov/energy/57186.html
- DEC, An Office Waste Reduction, Reuse, Recycling, Composting, and Buy Recycled Resource Book: http://www.dec.ny.gov/docs/materials_minerals_pdf/businessrecyclepam.pdf
- NYS DEC Recycling: A Planning Guide for Communities: http://www.dec.ny.gov/docs/materials_minerals_pdf/lswmplanning.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.21 PROVIDE ORGANIC WASTE COLLECTION AND COMPOSTING IN LOCAL GOVERNMENT BUILDINGS

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 3

A. Why is this action important?

Organic waste, such as food waste, becomes a significant source of methane production when it makes its way into a landfill. It can also be a significant portion of waste hauled to the landfill. Diverting this portion of waste will reduce tipping fees for local governments and reduce their contribution to GHG emissions generated from waste.

B. How to implement this action

This action can be implemented through the following steps:

1. Identify locations throughout government buildings where organic waste is being generated; this is often in kitchen settings
2. Procure collection bins for placement in these locations

3. Identify a central location for collecting organic waste on government property, if not already sited, and transfer to a composting or anaerobic digestion facility.
4. Educate employees about what can be composted and how. Provide instructional signs, including pictures of acceptable and not acceptable items next to collection bins.
5. Train custodial and maintenance staff on proper handling of collection bins, frequency of removal, and composting procedures.
6. Follow the instructions for the appropriate method to compost the materials, depending on the type of composting approach used, such as a composting mound, bin, can, or tumbler. Use the NYS DEC guide to composting, *Everything You Have Always Wanted to Know About Home Composting, But Were Afraid to Ask*.
7. Compost soil can be used for government property landscaping or provided to the community

C. Time frame, project costs, and resource needs

Implementing this action will require strategic planning, procurement of collection bins and other materials, and proper education of staff. The education piece will likely be an ongoing effort for the first year or more until it becomes standard behavioral practice for employees.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government. It will most likely be the responsibility of the facilities department in coordination with the waste or recycling division.

E. How to obtain points for this action

Local governments can earn points for this action by collecting compostable materials in government facilities. Local governments should provide the square footage of facilities with composting.

	Possible Points
• Organic waste collection in 10-25% of government facilities, by square footage	1
• Organic waste collection in 26-50% of government facilities, by square footage	2
• Organic waste collection in 51-100% of government facilities, by square footage	3

F. What to submit

Photos should be submitted documenting the current presence of organic waste collection in government facilities, along with information on the square footage of buildings with composting facilities or receptacles. Provide information on ultimate disposal of organic waste at a composting or anaerobic digestion facility. Educational materials and any communication to employees regarding composting should also be provided as well as information on what is done with the material after it leaves the buildings.

G. Links to additional resources or best practices

- Climate Smart Communities, Climate Smart Waste Management: http://www.dec.ny.gov/energy/57186.html
- DEC, Recycling: A Planning Guide for Communities: http://www.dec.ny.gov/docs/materials_minerals_pdf/lswmplanning.pdf
- DEC, An Office Waste Reduction, Reuse, Recycling, Composting, and Buy Recycled Resource Book: http://www.dec.ny.gov/docs/materials_minerals_pdf/businessrecyclepam.pdf
- DEC, Everything You Have Always Wanted to Know About Home Composting, But Were Afraid to Ask: http://www.dec.ny.gov/docs/materials_minerals_pdf/compost.pdf
- Stopwaste.org, How to Compost at Work: http://www.stopwaste.org/docs/compost_at_work.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.22 PROVIDE E-WASTE COLLECTION IN LOCAL GOVERNMENT BUILDINGS

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 3

A. Why is this action important?

Electronic waste (e-waste) can have particularly negative effects on the environment en route to and once disposed of in a landfill. Electronics, such as computers, appliances, batteries, phones, and other products contain chemicals and hazardous materials that should be handled separately from the rest of the waste stream and can often be recycled, but require specialized recycling processes. Similar to providing other recycling bins, providing e-waste collection will give staff and other building users a place to deposit e-waste and discourage them from disposing of it in the standard trash bins.

B. How to implement this action

Implement this action by providing e-waste collection in one or more highly visible locations throughout government buildings. Communication should be sent to employees about the availability of this collection, the location(s), and what types of materials can be placed in collection bins. Employees should be informed of what is done with the material post-collection and the importance of keeping electronic waste out of the trash being sent to landfills or incinerators.

C. Time frame, project costs, and resource needs

Recycling staff must determine the most appropriate way of storing and removing e-waste and must identify a location to which to haul it or someone to pick it up. There are an increasing number of private companies that can handle this waste, typically at no cost, but it will require some investigation and coordination on the part of government staff to identify the most appropriate option.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This can be implemented by any local government and will likely be the responsibility of a recycling coordinator or other waste management staff.

E. How to obtain points for this action

Local governments can earn points for this action by collecting e-waste in government facilities and providing information on the ultimate disposal of this waste.

	Possible Points
• Collect e-waste in 1 government facility	2
• Collect e-waste in more than 1 government facility	3

F. What to submit

Photos should be submitted documenting the presence of current e-waste collection in government facilities. Educational materials and any communication to employees regarding this collection should also be provided as well as information on where collected materials are taken.

G. Links to additional resources or best practices

- DEC, E-Waste Recycling: http://www.dec.ny.gov/chemical/65583.html

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.23 CONDUCT A LOCAL GOVERNMENT WASTE AUDIT AND TRACK DIVERSION RATE OVER TIME

Action pathway phase: Assess, Plan and Govern
Eligibility timeline: Within 5 years prior to the application date
Total possible points: 2

A. Why is this action important?

As with energy and GHGs, we "can't manage what we don't measure." Assessing the amount and composition of the waste generated by local government operations is an essential step in establishing a baseline from which to measure waste diversion and reduction improvements over time.

B. How to implement this action

Local governments implement this action by planning for and conducting a waste assessment (audit). The EPA provides numerous resources, including how to plan for and carry out an audit, including checklists and other resources. The common approaches to a waste audit include the following:

- Examination of waste records
- Facility walk-throughs
- Waste sorts

There are benefits and drawbacks to each of these approaches and a combination of approaches would likely provide the most comprehensive and accurate assessment of the local government waste stream and provide the most information for how and where to implement new practices.

C. Time frame, project costs, and resource needs

Depending on the approach used to conduct the waste audit, costs and resource needs will vary for this action. A local government may choose to hire someone to conduct an audit, though it is more common for local governments with limited budgets to conduct an audit using in-house staff and resources and/or volunteers or interns. Aside from the time to conduct the audit itself, a designated staff person must take time to synthesize and analyze the results.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This is applicable to any local government. The effort would likely be led by the waste management or recycling division and/or other government facilities staff.

E. How to obtain points for this action

Points will be obtained for this action through completion of a waste audit in any of the forms described in Section B.

F. What to submit

Documentation of the methods used to complete the waste audit should be provided along with information about the date and location(s) of the audit. A document or report summarizing the results of the audit should also be provided. The audit must have been completed within five years prior to the application date.

G. Links to additional resources or best practices

- Climate Smart Communities, How to: Climate Smart Waste Reduction and Materials Reuse: http://www.dec.ny.gov/energy/72962.html
- EPA, WasteWise Waste Assessment Approaches: http://www.epa.gov/smm/wastewise/approach.htm

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

Financial and Policy Mechanisms

3.24 ADOPT AN ENVIRONMENTALLY PREFERABLE PURCHASING POLICY

Action pathway phase: Assess, Plan and Govern
Eligibility timeline: Within 5 years prior to the application date
Total possible points: 4

A. Why is this action important?

A local government's commitment to climate action should extend to how it can influence climate action and efficiency outside its own operations. One important way to do this is through its purchasing. Demand for energy efficient and environmentally responsible products will improve market penetration. In addition, establishing an environmentally preferable purchasing (EPP) policy institutionalizes decisions on appliances, products, and materials.

B. How to implement this action

Environmentally preferable purchasing policies can be adopted in many forms that may include standards for some or all of the following:

- Energy efficient appliances
- Energy efficient IT equipment
- Efficient HVAC equipment
- Recycled material content
- Recyclable materials
- Forest stewardship
- Locally-produced goods
- Organic goods and foods

Because this pledge element aims to reduce energy demand in local government operations, the EPP adopted must, at a minimum, include standards for purchase of energy-efficient equipment, using standards such as Energy Star.

C. Time frame, project costs, and resource needs

This policy can be adopted in a short time. It will require coordination among various staff to determine policy scope, language, and specifications. It may require additional research to determine product specifications and identify model language, but this action is likely to require primarily administrative time and resources. Implementation of the policy may result in some cost premiums for products, though those premiums continue to diminish as demand has risen for energy efficient and environmentally preferable products.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action can be implemented by any local government. The procurement or purchasing officer or department will be primarily responsible but likely in consultation with facilities staff.

E. How to obtain points for this action

Local governments can earn points for this action by adopting a purchasing policy covering the environmental considerations outlined in Section B.

	Possible Points
• Energy efficiency standards included in policy	1
• Recycled materials standards included in policy	1
• Locally produced/organic goods standards included in policy	1
• Forest stewardship standards included in policy	1

F. What to submit

Submit documentation of the written policy as well as signed documentation of its adoption by the official or governing body authorized to enact such policies. Additionally, provide reference to and/or a copy of any definitions, specifications, and/or standards referenced in the adopted policy. The policy should have been adopted or updated within the past 5 years of the application date or include specifications that account for the availability of new, more efficient and/or more environmentally preferable products.

G. Links to additional resources or best practices

- Climate Smart Communities, Municipal Low-Energy Policies How-to: http://www.dec.ny.gov/energy/57119.html U.S. EPA, Local Government Climate and Energy Strategy Series- Energy Efficient Product Procurement: http://www.epa.gov/statelocalclimate/documents/pdf/energyefficientpurchasing.pdf
- Center for a New American Dream, Environmental Purchasing Policies: http://www.cec.org/files/pdf//NAGPI%20Policy%20Paper2e.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.25 ESTABLISH A FINANCING MECHANISM FOR ENERGY EFFICIENCY AND RENEWABLE ENERGY PROJECTS IN GOVERNMENT-OWNED BUILDINGS

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 5

A. Why is this action important?

The up-front cost for implementing energy efficiency improvements and renewable energy projects is often a deterrent to doing so. However, local governments are aware that energy savings will often pay back the up-front costs. Establishing a financing mechanism, such as a revolving energy fund, can provide that initial capital and uses the energy savings to replenish the fund, thus allowing for continuous energy improvements over time.

B. How to implement this action

Local governments can establish different types of financing strategies for energy efficiency and renewable energy projects. One approach is to dedicate a portion of the annual energy budget to energy efficiency upgrades or to use budget incentives to allow departments to keep the energy savings resulting from energy efficiency projects. Another approach is to require the audit and upgrade of buildings after a certain period of time, or when the upgrade has a payback period less than a certain number of years. A revolving energy fund is another financing mechanism that uses savings from energy efficiency or renewable energy projects to pay for future improvements.

Revolving energy funds can take two forms. They can be established strictly internally for local government improvement projects through which departments can access funds for energy improvements and replenish the fund with savings achieved. Funds can also be established by the local government to provide loans to the community, specifically to residents and businesses. While such community-scaled funds are encouraged and are the subject of action 8.12, this particular action should focus on providing a financing mechanism for local government projects as the goal of Pledge Element 3 is to decrease energy demand within local government operations.

C. Time frame, project costs, and resource needs

The initial setup of a revolving energy fund or other financing mechanism is the most challenging part. Finance managers and department heads must meet and come to an agreement about how best to set up the fund. Adoption of new budget policies may be required to allow for the fund to be established, since budgets operate in different ways and sometimes even operate differently among various departments, and also involve the use of taxpayer money,. In addition, the local government must identify seed money for the fund. ICLEI USA has developed some guidance for this: http://www.icleiusa.org/blog/identifying-seed-money-for-your-revolving-energy-fund

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government. It will require buy-in from all departments and the highest ranking official(s) but will primarily be the responsibility of the finance or budget department.

E. How to obtain points for this action

Points will be awarded for establishing a financing mechanism for energy efficiency or renewable energy projects. The financing mechanism must be in active use for the CSC to receive points.

F. What to submit

Provide documentation of the establishment of this financing mechanism, source of the seed money, any policies that were adopted to establish the dedicated financing mechanism, and a list of projects, including cost details and estimated savings that have been funded through this mechanism. For a revolving energy fund, the terms and conditions for drawing from and replenishing the fund must be submitted, and it must be capitalized and operational for the CSC to receive points for this action.

G. Links to additional resources or best practices

- U.S. DOE Solution Center, State and Municipal Revolving Loan Funds: http://www1.eere.energy.gov/wip/solutioncenter/financialproducts/revolvingloanfunds.html

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.26 INCORPORATE ENERGY EFFICIENCY AND WASTE HANDLING PROVISIONS IN STANDARD SPECIFICATIONS AND GOVERNMENT CONTRACTS

Action pathway phase: Assess, Plan and Govern
Eligibility timeline: Currently active
Total possible points: 3

A. Why is this action important?

Often products and procedures that affect a local government's energy use and waste stream are not the responsibility of the local government staff but are procured or handled by external entities through government contracts. For this reason, it is important that energy efficiency and waste handling provisions are incorporated into the standard specifications of those contracts.

B. How to implement this action

Energy efficiency standards and waste handling requirements should be adopted as standard specifications in government contracts. Types of specifications could include, but are not limited to, the following:

- Waste separation and recycling requirements for
    - Janitorial services
    - Construction and demolition
    - Events held on public property
- Energy efficiency and fuel efficiency standards for
    - Appliances and equipment used by contractors
    - Transit vehicles
    - Waste hauling vehicles
- Anti-idling policies for contractor vehicles

There are many more examples and local governments should consider the types of specifications that make sense for inclusion in their contracts, especially for those contracted goods and services that have significant effect on energy use and waste handling.

C. Time frame, project costs, and resource needs

These standard specifications can be developed over time and should be reviewed and adjusted on an ongoing basis as needed. Local government staff will benefit from investigating example specifications regarding energy efficiency and waste handling from other local governments' contracts, as provided below.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government. This may include drafting of specifications by a variety of departments, but procurement staff will be primarily responsible for implementation of this action.

E. How to obtain points for this action

Local governments can earn points for this action by incorporating energy efficiency and waste handling specifications into government contracts.

	Possible Points
• Incorporate energy efficiency specifications into government contracts	2
• Incorporate waste handling specifications into government contracts	1

F. What to submit

Submit copies of all relevant specifications included in government contracts. The contracts must be active or executed within one year prior to the application date.

G. Links to additional resources or best practices

- Climate Smart Communities, Climate Smart Waste Management: http://www.dec.ny.gov/energy/57186.html
- U.S. EPA, Energy-Efficient Product Procurement: http://www.epa.gov/statelocalclimate/documents/pdf/energyefficientpurchasing.pdf
- Center for a New American Dream, Environmental Purchasing Policies: http://www.cec.org/files/pdf//NAGPI%20Policy%20Paper2e.pdf
- New York City Department of Design and Construction, Construction and Demolition Waste Manual: http://www.nyc.gov/html/ddc/downloads/pdf/waste.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.27 UTILIZE A GREEN OR SUSTAINABILITY RATING SYSTEM FOR INFRASTRUCTURE IMPROVEMENT PROJECTS

> *Pending finalization of review procedures, documentation of this action cannot be accepted at this time.*

Action pathway phase: Implement
Eligibility timeline: Within 5 years prior to the application date
Total possible points: 6

A. Why is this action important?

Within any given year, a number of capital improvement projects from new construction to maintenance of existing infrastructure are underway within local governments. These activities can be very large sources of GHG emissions and have broader impacts on air and water quality, while also representing an opportunity to make local infrastructure more resilient to climate change. Ensuring that these projects are following specific standards to minimize overall impacts and design for the changing climate is important. A green or sustainability rating system or certification program can help guide the project to a more sustainable outcome.

B. How to implement this action

This action can be implemented by using an existing project or sector-based sustainability rating system or by using a newly created, unique sustainability standard for projects. A number of rating systems and certification programs are focused on infrastructure over which local governments often have control. The steps to implement this action include the following:

1. Identify and select an applicable rating system based on the sector that the project addresses, e.g., roads, sites, highways
2. Select appropriately qualified staff or consultants to determine that the project is following the rating system guidelines
3. Apply the rating system to the project as early as possible, ideally from the design phase
4. Certify the project (optional)

C. Time frame, project costs, and resource needs

The time frame, costs, and resource needs vary greatly depending on whether an existing system is used or a new one created and whether or not third-party certification is sought. Overall, the time also depends on the project type and schedule. Project costs will include staff time and possibly consultant time, as well as certification costs.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

Any local government can implement this action. Typically, the departments of public works, transportation, planning, or the environment would oversee an action like this.

E. How to obtain points for this action

Points are obtained for this action by completing a project using a recognized sustainability rating system. If creating a unique rating system, the rating system will have to be submitted for approval prior to application of points for this action.

	Possible Points
• Utilize a recognized and approved sustainability rating system on one project in three years	2
• Utilize a recognized and approved sustainability rating system on 2 to 4 projects in three years	4

- Utilize a recognized and approved sustainability rating system on 5 or more projects over the course of three years — 6

Performance Bonus Points:

- Seek and achieve certification from a rating system (ranges depending on level achieved) — 1-4

F. What to submit

The local government must provide the documentation associated with the certification program used, including completed checklists, reports, photos, etc. The project must have been completed within five years prior to the application date.

G. Links to Additional Resources or Best Practices

- DOT, GreenLITES: https://www.dot.ny.gov/programs/greenlites
- Institute for Sustainable Infrastructure, Envision™ Rating System: www.sustainableinfrastructure.org
- Green Roads: https://www.greenroads.org/
- Invest: https://www.sustainablehighways.org/
- Sustainable Sites: http://www.sustainablesites.org/
- LEED for Neighborhood Development: http://www.usgbc.org/neighborhoods

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

Employee/Staff Behavior

3.28 SUBSIDIZE AND INCENTIVIZE EMPLOYEE ALTERNATIVE COMMUTE

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 3

A. Why is this action important?

The transportation sector is consistently one of, if not the largest, contributor to GHG emissions on the community scale. Local governments can lead by example and encourage resource-efficient behavior among their employees by providing incentives for them to use alternative forms of transportation.

B. How to implement this action

Contribute to reducing air pollution, GHG emissions, and traffic in the community by subsidizing or incentivizing employees to make non-single occupancy vehicle commutes. Incentives may include establishing transportation reimbursement accounts whereby employees determine their contribution of pre-tax salary for mass transit fares and passes, car and vanpools, and parking (e.g., park and ride), to encourage and reduce the employee's costs of alternative commutes. Other incentives may include cash gifts for those who rideshare, free or discounted public transit passes, or parking discounts or preferential parking for carpoolers and vanpoolers. Establish a formal policy with the human resources office regarding how the program shall be administered and used, create a registration process and monitoring system, and tailor benefits to the needs and circumstances of employees (e.g., rideshare will likely be more useful to employees who live in a rural part of a community, while bus passes will likely be more useful to an employee who lives in a more developed part of a community).

C. Time frame, project costs, and resource needs

Establishing a commuter incentive program will require time and effort on the part of human resources and payroll, but there are numerous programs already established throughout the country on which a local government can model its program. A local government may also wish to pursue contracting with a third-party entity, such as WageWorks (https://www.wageworks.com/Home.aspx) that can help administer the benefit through the payroll system.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

Any local government could establish a commuter incentive program, though it will be most beneficial in communities with more alternative commuting options, such as public transit, bike paths, and existing ride-share programs. Human resources and payroll staff will be instrumental in implementing this action.

E. How to obtain points for this action

Local governments can earn points for this action by subsidizing or incentivizing employee alternative commutes.

	Possible Points
• Establish preferred parking for carpools and vanpools or a system for organizing ride-sharing	1
• Provide subsidized or pre-tax transit pass incentives	2

F. What to submit

The local government must provide documentation of the incentive program provided to employees, including level and type of incentives, and evidence that the program is communicated to new and current employees. If the program has been in place for 6 months or more, the number of employees enrolled in the program should be provided. The program must be currently active to receive points for this action.

G. Links to Additional Resources or Best Practices

- DOT, Employer Sponsored Commuter Incentive Information: http://www.511ny.org/employers.aspx#regional
- New York City Transit Benefit Program through WageWorks: http://www.nyc.gov/html/opa/html/transportation_benefits/tranportation_benefits.shtml

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.29 ENGAGE EMPLOYEES THROUGH A GREEN PLEDGE OR COMPETITION

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 2

A. Why is this action important?

One of the best ways to ensure local government operations are as resource efficient as possible is to engage employees in the green commitments of the local government. In addition to making internal operations more efficient, reducing energy use and waste, engaging employees at work also encourages them to adopt green behaviors at home and in the broader community, thus the employees are demonstrating local government leadership by example.

B. How to implement this action

Green teams and green pledges among government and company employees have become a very popular strategies in recent years, so there are numerous case studies and examples of how this has been done elsewhere. There are several ways that such programs are implemented:

- Establish green champions or ambassadors in each department to participate in this effort. The green champions will typically be members of the existing green team (see Action 1.4), or they could be other staff members appointed to participate in this effort.
- The green team will identify opportunities for improved efficiency, waste reduction, or water reduction and educate colleagues on ways to take action and the green champions (if different from the green team) will develop effective approaches for communicating this information.
- Employees are encouraged to sign a “green pledge” in which they pledge to take certain green actions. Prizes or recognition for completing the pledge actions can be provided.
- A competition can be established among employees or between departments for environmental performance, such as energy reductions, water savings, alternative commuting, or waste diversion. Competition is often a motivating factor for employees.

Whatever format the program takes it is important to recognize employees for their actions. Incentives, such as prizes or leadership awards will have a significant impact in motivating staff. Improvements should be measured and reported to employees so they can see the effect their actions have had.

C. Time frame, project costs, and resource needs

This action can be implemented at any time. It requires time and effort on the part of those employees leading the effort. If incentives are offered, additional financial resources will be required or staff time to secure donations from local sponsors. Marketing materials may also be needed to promote events or educate employees on certain initiatives.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government and should involve representatives from all departments.

E. How to obtain points for this action

Local governments can earn points for this action by establishing and maintaining a green team with green ambassadors or a green employee engagement program. Regular meetings of the green team should take place and a minimum of two challenges, events, and/or green educational campaigns should be carried out each year.

F. What to submit

Information to provide for this action will vary depending on the program. Documentation could include a list of green team members and representative departments; meeting agendas; topics, tips, or campaigns pursued; marketing and promotional materials distributed; results of pledges or challenges; numbers of participants in challenges; and when available, impacts of the program, such as energy savings, or waste reduction and diversion. To earn points, the team and/or program must have been active within one year prior to the application date.

G. Links to Additional Resources or Best Practices

- City of Cambridge, MA, GreenSense program: http://www.cambridgema.gov/theworks/greenliving/cambridgegreensense.aspx
- Town of North Castle, N.Y. Green Team: http://cleanair-coolplanet.org/north-castle-ny-forms-a-municipal-green-team/

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.30 INCORPORATE GREEN PRINCIPLES, COMMITMENTS OR REQUIREMENTS INTO STAFF TRAINING

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 3

A. Why is this action important?

Incorporating green principles and requirements into employee training ensures that the local government's commitment to resource conservation and efficiency is made clear to every employee within the organization and helps to ensure that policies are not only adopted but implemented.

B. How to implement this action

This action should be implemented through the following steps:

1. Compile all internal policies, requirements, and guiding principles relevant to resource conservation and efficiency into one guiding document
2. Ensure that the green policies document is provided to each new employee when receiving all other materials at his or her orientation
3. Create an environmental awareness, responsibility or sustainability training that must be taken periodically by all employees just as a code of ethics, safety, or harassment training would be required

C. Time frame, project costs, and resource needs

Costs and resources could be kept to a minimum for this action. The only external costs associated with this would come if the local government chose to hire an outside consultant to develop the sustainability guide or provide the sustainability training. Otherwise, the human resources department and possibly environmental or sustainability staff would be responsible for organizing resources, ensuring their delivery to new employees, and maintaining a record of training provided to current employees. The primary effort will be during the planning phases of this action, and time required maintaining the program will be minimal.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to any local government and will primarily be the responsibility of the human resources department to implement and maintain.

E. How to obtain points for this action

Local governments earn points for this action by incorporating environmental resource conservation and efficiency principles and internal requirements and responsibilities into staff policies, materials, and trainings.

F. What to submit

Copies of the documentation given to employees, including orientation materials and/or training materials should be provided, as well as reports of the number of employees receiving the materials and training over time. The submitted documents must be currently in use to receive points for this action.

G. Links to Additional Resources or Best Practices

- HR's Role in Corporate Social Responsibility and Sustainability: http://www.shrm.org/about/foundation/products/documents/csr%20exec%20briefing-%20final.pdf

- New York City Department of Education, Creating a Culture of Sustainability Through Staff and Faculty Training Programs: http://schools.nyc.gov/NR/rdonlyres/AC142198-3E95-4668-BAA5-03D027A41C4F/114026/DOESustainableOperationsJTSNov7th_rev3.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

Energy and GHG Management Policies and Systems

3.31 IMPLEMENT AN ENERGY OR GHG MANAGEMENT SYSTEM

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 5

A. Why is this action important?

To effectively manage energy use and GHG emissions, local governments need a system for tracking this data. An energy or GHG management system enables both department managers and energy managers to have up to date information on energy use, and to compare energy use from one year to the next. Some communities chose to develop their own systems for tracking energy use and GHG emissions, but a variety of software tools and applications are on the market to assist local governments in managing their government operations energy use and GHG emissions, and community GHG emissions.

An energy management system can be used for tracking building energy use, and often fuel consumption and energy use in other stationary equipment, such as lighting. A GHG management system allows for both tracking of energy use and can be used to calculate GHG emissions from buildings, vehicle fleet, waste, and other emissions sources. Local governments may use a GHG management system to develop their baseline emissions inventories, but in many cases local governments implement energy or GHG management systems after developing their baseline inventories and realizing that they need a more robust tool for managing their data. Both energy and GHG management systems can be used for gathering the data a local government would require for the benchmarking and disclosure of energy data, as described in Action 3.32.

B. How to implement this action

Local governments can implement this action through the following steps:

1. *Determine the goals and requirements for the system:* Is the focus of the tool on tracking building energy use, or do you also want to track fuel consumption, waste, and other energy sources? Do you want to use the tool to develop a GHG emissions inventory? Are you primarily interested in tracking government operations data, or do you also want to track information on community energy use and GHG emissions?
2. *Review available tools on the market:* Analyze the functionality, price, support services, customer base, and planned improvements for the energy and GHG emissions

management tools on the market. Review any white papers or reports comparing the various software packages.

3. *Develop a budget and a plan for managing the system:* Determine the initial budget for implementing the system, along with any budget or staff time needed to manage the system on an ongoing basis.
4. *Select the tool which best meets your requirements and budgetary constraints.*
5. *Implement the tool.*
6. *Migrate data from any legacy systems.*
7. *Begin collecting new data with the tool.*

C. Time frame, project costs, and resource needs

The time frame, costs, and resource needs for implementing an energy or GHG emissions management tool vary depending on the complexity of the selected tool and the provider. Tools may involve some upfront costs for implementation in addition to annual licensing fees; however, some tools can simply be downloaded with no implementation costs other than staff time. Regardless of the size of the community, local governments must invest some staff time into setting up and managing an energy or GHG emissions management system.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

An energy management system is typically implemented by an energy manager or the department of public works or buildings, but could reside in a different department. Some vehicle fleet managers have separate tools for managing vehicle fleet consumption. A GHG emissions management system is often managed by the CSC coordinator or staff member acting in this capacity, who could be in the chief elected official's office, the department of planning, public works, or environment.

E. How to obtain points for this action

Local governments should implement a system for tracking energy use and/or GHG emissions from their government operations and/or community.

F. What to submit

Local governments should submit documentation demonstrating that their energy or GHG emissions management system is operational, such as a report from the system or a screenshot of the system in use.

G. Links to Additional Resources or Best Practices

- ICLEI USA, CACP 2009: http://www.icleiusa.org/tools/cacp-2009
- The Climate Registry, Climate Registry Information System (CRIS): http://www.theclimateregistry.org/climate-registry-information-system-cris/
- Verdantix Green Quadrant Energy Management Software report: http://www.linkcycle.com/review-of-top-energy-management-software/
- Review of Top 10 Energy Management Software: http://www.linkcycle.com/review-of-top-energy-management-software/

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.

3.32 ADOPT AN ENERGY BENCHMARKING REQUIREMENT FOR GOVERNMENT-OWNED BUILDINGS

Action pathway phase: Implement
Eligibility timeline: Currently active
Total possible points: 4

A. Why is this action important?

Energy benchmarking for government-owned buildings involves tracking annual energy use, reporting and publicly disclosing the data using EPA's Energy Star Portfolio Manager tool, and comparing building performance with other comparable buildings. This promotes transparency in government operations and lays the groundwork for the local government to identify opportunities for improving energy efficiency in government-owned buildings.

B. How to implement this action

Local governments can implement this action by first adopting a policy or ordinance requiring the annual benchmarking and reporting of local government energy and water use for buildings over a certain size. Once the policy is adopted, local government staff can establish the systems necessary for tracking this information. Many energy and greenhouse gas emissions management systems, as described in Action 3.31, integrate seamlessly with EPA's Portfolio Manager, allowing local governments to track all of their energy data in one system, and then export the data to Portfolio Manager when necessary.

To implement an energy benchmarking program, local governments can use the EPA Portfolio Manager and Energy Star systems as the framework for their programs but must define building size thresholds and the type of buildings covered by the mandate.

The following types of local government buildings are currently tracked in EPA's Portfolio Manager:

- Courthouse
- Drinking Water Treatment & Distribution
- Fire Station
- Library
- Mailing Center/Post Office
- Police Station
- Prison/Incarceration
- Social/Meeting Hall
- Transportation Terminal/Station
- Wastewater Treatment Plant
- Other

C. Time frame, project costs, and resource needs

Implementing an energy benchmarking requirement can take approximately six to twelve months, to develop and adopt the legislation and establish the systems for tracking energy use. Depending on the quality and availability of data already in place, the level of effort to implement this action could be minimal, or could require further staff time if no systems are in place.

D. Which local governments implement this action? Which departments within the local government are most likely to have responsibility for this?

This action is applicable to all types of local governments, although only certain building types will be relevant for tracking in EPA's Portfolio Manager. The planning or buildings department will most likely be responsible for implementing this action.

E. How to obtain points for this action

Points are earned for this action through formal adoption and implementation of a benchmarking requirement that requires government buildings over a certain size or of a certain type to monitor and publicly disclose their energy use.

	Possible Points
• Adopt an energy benchmarking requirement for government-owned buildings	2
• Implement the energy benchmarking requirement for government-owned buildings	2

F. What to submit

Documentation of formal policy or code adoption as well as details on how it is being implemented and enforced. The benchmarking requirement may have been adopted at any time prior to the application date, but must be actively in use to receive full points for this action.

G. Links to additional resources or best practices

- EPA ENERTY STAR Portfolio Manager: http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager
- City of Seattle Energy Benchmarking and Reporting Program: http://www.seattle.gov/environment/benchmarking.htm
- District of Columbia Energy Benchmarking: http://green.dc.gov/energybenchmarking
- New York City Benchmarking: http://www.nyc.gov/html/dob/html/sustainability/benchmarking.shtml
- Minneapolis, MN Building Rating and Disclosure Policy: http://www.minneapolismn.gov/www/groups/public/@regservices/documents/webcontent/wcms1p-102210.pdf

H. Recertification requirements

The recertification requirements are the same as the initial certification requirements.