

# ACTIONS

## Local Governments Can Take to Reduce GHG Emissions

This is a sector-by-sector list of just some of the measures local governments can implement to reduce greenhouse gas emissions in their community, and in their own facilities and operations. Use this list to identify existing measures to include in your **Local Action Plan**, as well as to brainstorm on new measures that could be enacted in the future.

### Community Measures

#### Residential Energy Measures

- Distribute water saving devices, such as low flow shower heads and faucet aerators
- Distribute compact fluorescent bulbs, other home energy saving devices
- Education and promotion of "cool communities" type landscaping
- Tree planting program to maximize shading of buildings
- Building Codes
  - setting energy efficiency standards for new construction or major renovations
  - requiring light colored, high albedo rooftops and pavement
- Home insulation or weatherization program
- Ordinance for energy efficient retrofit in existing building stock at time of sale
- Green buildings design incentives, guidelines, ordinances
- Financial incentives (tax incentives, rebates, loans, etc.)
  - for installation of Photovoltaics, other renewable energy application
  - for more efficient appliances, e.g. refrigerators, lighting, water heaters
  - for improving efficiency in existing and new buildings
- Passive solar design and solar orientation incentives, guidelines, ordinances

## Commercial Energy Measures

- Lower business fees or wave permits for energy efficiency improvements and use of solar energy
- Building Energy Tax Credit
- Distribute compact fluorescent, lighting occupancy sensors, other commercial application energy saving devices
- Cooperative or aggregate purchase or buyer program for lighting, efficient equipment
- Building codes
  - raising energy efficiency standards for new construction, significant renovations, remodeling, additions
  - requiring light colored, high albedo rooftops and pavement
- Green building design incentives, guidelines, or ordinances
- Ordinance for energy efficient retrofit in existing building stock at time of sale
- Provide energy services to business, e.g. audits, assessments for energy efficiency improvements, other technical assistance

## Industrial Energy Measures

- Ordinance establishing energy efficiency requirements for new industrial permits
- Ordinance requiring industries to develop and implement energy conservation programs
- Ordinance lowering business fees or waiving permits for energy efficiency improvements and fuel switching (including use of solar energy), heat recovery/co-generation systems
- Provide energy services to industry, e.g. audits, assessments to recommend process changes, other energy efficiency improvements

## Financing Energy Efficiency

- Establish financing program for efficiency improvements in the community, e.g. revolving loan funds through bonds, energy taxes, etc.

## Transportation Measures

- Implement policy shifting funding away from roads and highways to alternative transit
- Work with local stakeholders to make transportation infrastructure in the community bicycle and pedestrian friendly
- Increase use of alternative transit - **public transit, van, carpooling, cycling, walking**- through:
  - Funding for facility, system and/or infrastructure improvements (i.e. Install secure bike racks and showers, etc.)
  - Encourage employers to provide incentives to carpool e.g. free parking or priority parking for carpoolers, free lunches, contests etc.
  - Implement free bike share program
  
  - Work with transit authority to reduce public transit fares
  - Jitney or shuttle service connecting neighborhoods to commuter lines
- Institute a guaranteed ride home in emergencies for all pedestrians and bicyclists
- Establish service center selling transit passes, providing route information, bus schedules, maps etc. and coordinates car/van pooling, ride-sharing, etc.
- Parking Policies
  - Implement program to remove public parking
  - Zoning ordinance that reduces minimum parking space requirements for new construction
  - Parking fees to fund transit use, bicycle or pedestrian improvements
- Create an alternative working schedule program for non-motorized commuters e.g. flextime, compressed work week, work from home

## Land Use Measures

- Zoning/land use policy changes to promote infill development
- Zoning ordinance that promotes high-density development
- Zoning change to reduce parking requirements and allowances

- Density bonuses and incentives for high-density, infill, and transit-oriented development
- Impact, facility, mitigation, and permit fees that discourage sprawl

## Waste Reduction

- Establish a center for reusing salvageable goods
- Conduct home composting education programs, distribute compost bins
- Collect curbside yard debris
- Implement or expand residential curbside recycling collection
- Improve or expand commercial recycling collection
- Community recycling drop-off sites
- Financial incentives to reduce waste such as:
  - Pay-as-you-throw or unit pricing
  - Special taxes and tipping fees
  - Advance disposal fees
- Implement landfill methane collection program

## Local Government or Corporate Measures

### Buildings

- Comprehensive municipal retrofit of existing buildings, parks, stadiums, swimming pools and other recreation facilities, e.g. lighting, insulation, HVAC systems
- Building-specific renewable energy applications, e.g. installing solar hot water heating for locker rooms of recreational facilities
- Lighting efficiency improvements
- Energy efficiency standards for renovations and new construction of municipal buildings
- Lighten colors of existing rooftops and street paving to reduce "heat island" effect
- Rooftop gardens, greening of buildings surroundings for cooling

- Implement co-generation/heat recovery
- Procurement policies that specify energy efficiency standards in all purchasing and bid specs for office equipment, motors, lighting, appliances, etc.

## Lighting

- Replace existing lighting with energy-efficient and low-wattage lamps and ballast
- Reduce energy use through reducing hours of operation and/or number of lights
- Solar Photovoltaic (PV) powered street and emergency lighting
- Switch traffic signals, exit signs from incandescent bulbs to Light Emitting Diodes (LED's)

## Procurement

- Modify purchasing policies to specify energy efficiency standards in all purchasing and bid specs for office and heavy equipment, motors, lighting, appliances, etc.

## Fleet

- Downsize current and future vehicles through procurement policy changes
- Reduce fleet size (i.e. total number of vehicles)
- Improve scheduling and route efficiency
- Change procurement policy to specify high fuel efficiency for each vehicle class
- Improve maintenance regime for increased efficiency e.g. check tire pressure
- Replace on-the-job driving with telecommunications, transit, bicycling, walking, and carpooling
- Provide incentives to reduce municipal employee travel, e.g. trip reduction policies like subsidized transit passes, elimination of free parking, preferred parking for carpools, vanpools

## Water

- Energy-efficient retrofit of facilities, especially pumping processes
- Energy efficient specs for new construction of sewage and waste water system

- Improve energy-efficiency of equipment
- Process changes to improve energy-efficiency of treatment of drinking water, waste water and sewage

## Waste

- Increase office recycling, e.g. paper, cardboard, cans, toner cartridges
- Recover food waste in cafeterias and kitchens of local government buildings for composting or other use
- Waste prevention in day-to-day operations: two-side copying, reduced paper requirements, etc.
- Purchasing preferences for recycled materials
- Compost park, street and other landscaping debris for reuse by Parks and Recreation
- Recover landfill methane for energy production

## Others

- Implement or participate in district energy programs i.e. district heating and cooling
- Implement public education programs, e.g., special events, PSAs, curricula
- Implement urban forestry projects
- Establish energy efficiency or climate protection information clearinghouse

Additional relevant web sites for community measures for greenhouse gas reduction:

[http://kn.fcm.ca/ev.php?URL\\_ID=2805&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201&reload=1051726406](http://kn.fcm.ca/ev.php?URL_ID=2805&URL_DO=DO_TOPIC&URL_SECTION=201&reload=1051726406)

<http://www.iclei.org/co2/index.htm>

<http://www.climatechangeconnection.org/pages/emissions.html>