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Sustainable Communities

Sustainability Best Practices Framework

About ILG's Sustainability Program

The Institute's Sustainable Communities program helps local officials and staff identify and apply policies and best practices that support sustainable communities — places that foster and maintain a high quality of life for their residents on an ongoing basis. www.ca-ilg.org/Sustainability

Sustainability Best Practices Framework: Options to Consider

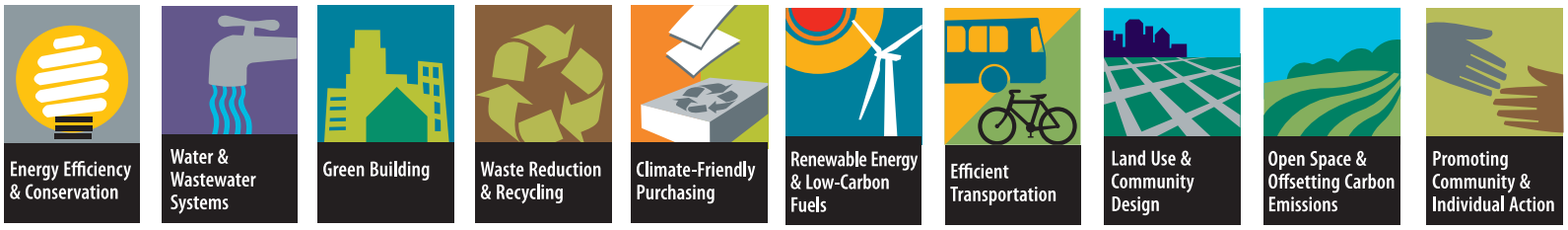
The Institute for Local Government's Sustainability Best Practices Framework offers options for local action in ten areas. They are drawn from practical experiences of cities and counties throughout California. The options vary in complexity and are adaptable to fit the unique needs and circumstances of individual communities. www.ca-ilg.org/SustainabilityBestPractices

Local officials and staff may use the framework in a variety of ways, including to:

- Generate ideas about programs and policies to pursue;
- Inform a comprehensive climate action planning process; or
- Integrate sustainability into general plan policies.

Many of the activities can lead to multiple benefits, including:

- Reduced greenhouse gas emissions;
- Energy, water, fuel and cost savings;
- Improved health; and
- Increased resilience to climate change impacts.



Feedback Welcome

The Sustainability Best Practices Framework highlights the ongoing good work at the local level to save energy and reduce greenhouse gas emissions. It is an evolving resource and new ideas are welcome, along with any materials or background information that may benefit local agencies. Please email us at **sustainability@ca-ilg.org**.

About the Institute for Local Government

The Institute for Local Government (ILG) is the nonprofit research affiliate of the League of California Cities and the California State Association of Counties. The Institute's mission is to promote good government at the local level with practical, impartial and easy-to-use resources for California communities. **www.ca-ilg.org**

The activities can also help make communities more attractive places to live, work and conduct business. Learn more about the co-benefits of sustainability strategies at **www.ca-ilg.org/SustainabilityCo-Benefits**

Three Updated Areas Now Available – More to Come

First released in 2008, the Sustainability Best Practices Framework has gone through several iterations. The Institute is updating the framework in stages in 2013. The first three updated best practice areas are:

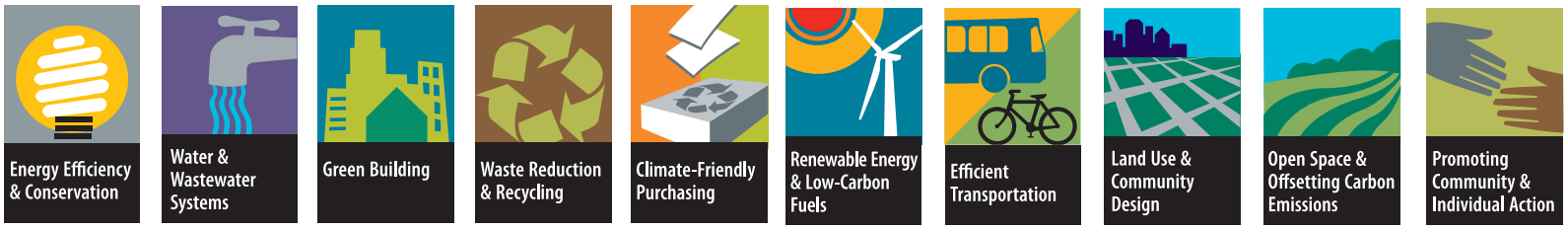
- Energy Efficiency and Conservation
- Green Building
- Renewable Energy and Low-Carbon Fuels

The updates reflect activities cities and counties participating in the Beacon recognition program have undertaken, technological advancements and policy changes at the state level. Like the original Best Practices Framework, updates have been peer-reviewed and reflect input from local and state officials, technical experts and others. The remaining seven areas will be updated and released throughout 2013.

More Information to Support Local Efforts

Visit the Institute's website (**www.ca-ilg.org/SustainabilityBestPractices**) to read stories and watch videos (**www.ca-ilg.org/BeaconAwardVideos**) about local sustainability efforts from around California and to access resources to support efforts in the ten best practice areas.

Additionally, join the Institute's Sustainable Communities Learning Network LinkedIn group (**www.ca-ilg.org/SCLNLinkedIn**) , which enables local agency sustainability practitioners to connect, exchange information, discuss best practices, and seek feedback on project ideas directly from their peers.



BEACON AWARD

Local Leadership Toward Solving Climate Change

About the Beacon Program

The Beacon program, sponsored by the Institute for Local Government and the Statewide Energy Efficiency Collaborative, recognizes and supports California cities and counties that are working to reduce greenhouse gas emissions, save energy and adopt policies and programs that promote sustainability. Learn about the Beacon program and participant accomplishments at **www.ca-ilg.org/BeaconAward**.

The program is funded by California utility ratepayers and administered by Southern California Gas Company, San Diego Gas & Electric Company, Pacific Gas and Electric Company and Southern California Edison, under the auspices of the California Public Utilities Commission.

The Statewide Energy Efficiency Collaborative (SEEC) is an alliance to help cities and counties reduce greenhouse gas emissions and save energy. SEEC is collaboration between three statewide non-profit organizations, including the Institute for Local Government, and California's four investor owned utilities. **www.californiaseec.org**

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Energy Efficiency & Conservation

Options to Consider

Energy generation is the second largest source of greenhouse gas emissions. Thus, strategies to conserve energy and use it more efficiently in agency operations and the community help reduce greenhouse gas emissions. In addition, energy efficiency and conservation measures save money and resources.

For other energy-related best practices: see Green Building and Water and Waste Water Systems Areas.

Agency

Audits and Assessment

- Audit energy use of agency buildings to identify opportunities for energy savings through efficiency and conservation measures.
- Use energy management software to monitor real-time energy use in agency buildings to identify energy usage patterns and abnormalities.
- Conduct commissioning and retro-commissioning studies of agency buildings, including equipment such as heating, ventiliation and air conditioning (HVAC) and lighting systems to ensure they are operating as designed and installed.
- Benchmark energy use of major agency buildings.

Internal Policies and Procedures

- Establish an energy efficiency and conservation policy that provides employees with behavioral guidelines for energy efficient use of the facility such as turning lights, copiers and computers off, appropriate thermostat use, etc.
- Establish energy efficiency and conservation protocols for building custodial and cleaning services and other contract employees.
- Adopt and implement a policy to reduce "plug" load in agency facilities by removing personal equipment such as desk lamps and space heaters or installing smart power strips.
- Implement a network cloud-computer system to reduce computer work station energy use.
- Incorporate energy efficiency features in agency data centers, such as through implementation of an information technology energy efficiency program.
- Adopt Energy Star purchasing standards for all new computer equipment, appliances and equipment.
- Require new agency buildings to exceed Title 24, California's energy efficiency building standard.
- Implement off-peak scheduling of pumps, motors, and other energy intensive machinery where possible.
- Implement a revolving loan fund or other mechanism to finance future energy investments in agency buildings and operations.
- Work with energy provider to access technical assistance and financial incentives, such as facility audits, rebates, on-bill financing, loans, savings-by-design and demand management programs.
- Require agency new construction to be net zero energy.

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- Train agency building inspectors to understand and enforce Title 24, California's energy efficiency building standard.
- Develop and implement shading requirements for agency buildings and other facilities.
- Require agency funded or supported affordable housing projects to incorporate energy efficiency features, equipment and appliances.
- Prepare and implement an Energy Action Plan for agency facilities.
- Participate in voluntary sustainability and climate change recognition program, The Beacon Award: Local Leadership toward Solving Climate Change to track and share agency energy savings accomplishments. **www.ca-ilg.org/BeaconAward**

Retrofits and Upgrades

- Develop and implement a schedule to address no cost/low cost energy retrofit projects.
- Develop and implement a schedule to address capital intensive energy retrofits projects.
- Reduce energy demand by capturing "day lighting" opportunities.
- Install motion sensors, photocells, and multi-level switches to control room lighting systems.
- Replace incandescent lights with more energy efficient lighting, such as compact fluorescents, overhead fluorescent lights or light-emitting diodes (LEDs).
- Upgrade exit signs with light-emitting diode (LED) lighting.
- Add vending misers to cold beverage machines.
- Upgrade pumps, motors and other energy intensive machinery where feasible.
- Replace agency appliances and equipment such as vending machines, refrigerators, and washing machines, with energy efficient models.
- Replace agency natural gas fueled appliances and equipment, such as boilers, stoves, water heaters, with high efficiency units.
- Replace and/or tint windows in agency-owned buildings to reduce heating by sunlight.
- Install cool roof systems on existing and new agency buildings.
- Install smart meters on agency buildings.

Tip: Evaluate agency electric bills to ensure each account is on the optimal rate schedule.

Outside Lighting

- Use "de-lamping" techniques to reduce lighting levels at parks, sports fields and parking lots, where appropriate for the location and use, considering security and decorative lighting issues.
- Change downtown holiday or decorative lighting to light-emitting diodes (LEDs) or other energy efficient lighting systems.
- Replace incandescent traffic and crosswalk lights with energy-efficient lighting such as light-emitting diodes (LEDs).
- Replace incandescent and mercury vapor street, parking lot, park and other outdoor lights with energy efficient alternatives, such as light-emitting diodes.

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Community

Working with Local Businesses

- Encourage community businesses to conduct energy audits and implement energy efficiency retrofits through activities such as energy efficiency workshops, energy fairs, agency websites and social media.
- Encourage businesses to install energy efficient exterior lighting that is appropriate for the location and use, considering security and decorative lighting issues.
- Collaborate with local retail businesses to encourage businesses to purchase energy efficient products.
- Promote and reward energy efficiency efforts of local retail businesses.
- Adopt an energy financing program, such as through a PACE (Property Assessed Clean Energy) financing district, to help businesses install energy efficiency retrofits in existing residential and commercial buildings.
- Require energy audits and/or retrofits for commercial properties at time of sale.
- Require new commercial buildings to exceed Title 24, California's energy efficiency standard, to the extent permitted by law.
- Require new commercial construction to be net zero energy.

Working with Homeowners and Apartment Owners

- Provide information about Energy Upgrade California to help homeowners increase energy efficiency.
- Provide rebates or other financial incentives to help residents pay for whole house retrofits.
- Sponsor a home energy makeover contest that includes energy efficient audit and improvements as prizes.
- Adopt an energy financing program, such as through a PACE (Property Assessed Clean Energy) financing district, to help homeowners install energy efficiency retrofits in existing residential buildings.
- Require energy audits and/or retrofits at time of sale for residential properties.
- Require energy audits and/or retrofits at time of residential remodeling or renovation projects.
- Require new residential buildings to exceed Title 24, California's energy efficiency standard, to the extent permitted by law.
- Require new residential construction to be net zero energy.

Working with Energy Providers

- Work with energy provider to encourage local businesses to implement energy efficiency strategies and retrofits.
- Work with energy provider to provide information to homeowners and businesses about available utility rebates for new residential and commercial buildings that exceed Title 24, California's energy code, by 15 percent or more.

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- Work with energy provider to promote use of utility financial incentives to assist residential and commercial customers improve energy efficiency, such as by using on-bill financing, loans and rebates and demand management programs, as appropriate for the customer.

Engaging the Community

- Host/support compact fluorescent light bulb, LED give-away or incandescent bulb exchange programs.
- Collaborate with schools and colleges to co-sponsor students to conduct energy audits and/or retrofits for agency buildings, businesses or homeowners.
- Upgrade foreclosed homes in the community with energy efficiency measures and solar photovoltaic or hot water systems.
- Prepare and monitor progress of implementing Energy Action Plan to reduce energy use in the community.

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Green Building

Options to Consider

Green building is the practice of designing, constructing, operating, and maintaining buildings in a way that conserves natural resources and saves energy.

Note: The California Green Building Standards Code, known as CALGreen, went into effect in 2011 for residential and non-residential new construction and major remodels. CALGreen is updated triennially with the next update going into effect January 2014. CALGreen includes options for stronger locally adopted standards. Several other green building rating systems, such as GreenPoint Rated and LEED certification programs, provide options to consider for exceeding California's Green Building Code. **www.bsc.ca.gov/Home/CALGreen.aspx**

For other green building-related best practices: see Energy Efficiency and Conservation Area.

Agency

- Adopt a policy that requires new agency buildings to exceed the minimum requirements of California's Green Building Standards Code (also known as CalGreen). Options to exceed the standard include CALGreen's built-in tiers and/or certification under Build It Green's Green Point Rated system, LEED, or alternative certification program.
- Require agency buildings to exceed Title 24, Part 6, the State's Building Standard Code which establishes energy efficiency requirements for residential and non-residential new construction and major remodels.
- Incorporate materials that are renewable, reusable, recyclable, recycled, non-toxic and those that have zero or low volatile organic compounds (VOCs).
- Explore using alternate materials such as packed gravel or permeable concrete instead of conventional concrete or asphalt to enhance replenishment of ground water.
- Develop and implement sustainable landscaping standards for public agency facilities to reduce water consumption.
- Incorporate water efficient plants, trees, green roofs and rain gardens in agency landscaping.
- Use compost and mulch in agency landscaping as a water conservation measure.
- Require agency landscaping and parks to incorporate smart irrigation technology systems that save water rand energy.
- Require verification by a certified third-party rater to ensure compliance with green building standards for all newly built agency facilities.

Community

- Establish a green building awareness program to educate and encourage homeowners and builders to use green building techniques.
- Organize a sustainable building task force that includes representation from various fields within the building industry and other groups to evaluate feasibility of incorporating green building techniques that exceed the state standards into all new building and retrofit projects in the community.
- Create a dedicated page on the agency's website to help residents find green building information and resources.
- Provide information to homeowners and businesses about available utility rebates for new residences and commercial buildings that exceed California's Title 24 energy code by 15 percent.
- Provide incentives, such as expedited review/permit processing, to encourage green building.
- Provide technical and financial assistance and other significant incentives to development projects that meet or exceed specified standards under green building programs.

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Green Building continued

- Train appropriate agency staff (such as planners, inspectors, and plan checkers) in green building standards and technologies to facilitate the permitting approval and inspection processes.
- Adopt a policy that requires new homes, buildings or remodels to exceed the minimum requirements of California's Green Building Standards Code (also known as CalGreen). Options to exceed the standard include CALGreen's built-in tiers and/or certification under Build It Green's Green Point Rated system, LEED, or alternative certification program.
- Adopt a "Solar Ready" ordinance, requiring all new residential buildings to be pre-wired and pre-plumbed for photovoltaic and solar hot water systems. (Required in the California Green Building Code January 1, 2014)
- Require new residential and commercial construction buildings to exceed Title 24 energy efficiency standards, to extent permitted by law.
- Require new and renovated commercial construction to incorporate smart irrigation technology systems that save water and energy.
- Require energy efficiency performance audits for specific types of residential and commercial remodeling projects.
- Require buildings, facilities or affordable housing developments using agency funds or other agency support to exceed minimum state green building or energy standards.
- Offer fee reductions, waivers, loans or grants to developers and contractors who commit to verifiable green building practices that exceed state or local minimum standards.
- Offer technical expertise and assistance for community members, builders and businesses undertaking green building projects.
- Work with neighboring jurisdictions, where feasible, to adopt a regional green building standard that exceeds the California Green Building Code Standard or Title 24 energy efficiency standards.
- Enact a construction and demolition debris recycling ordinance that requires a 50 percent or more diversion of project waste.

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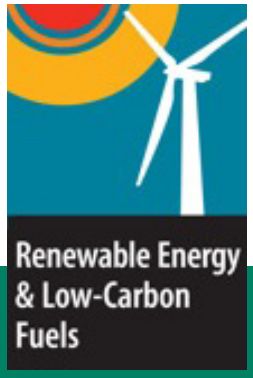

Renewable Energy and Low Carbon Fuels

Options to Consider

Energy generated from renewable sources produces less greenhouse gas emissions than energy generated from conventional sources. Low carbon fuels are those that are formulated to produce fewer greenhouse gas emissions.

For other renewable energy and low carbon fuels-related best practices: see Efficient Transportation and Waste Reduction and Recycling Areas.

Agency

Solar Projects

- Replace traditional pedestrian "walk" signals and safety lights with solar powered signals.
- Install solar powered smart parking meters in downtown areas.
- Adopt a "Solar Ready" policy requiring new agency buildings to be pre-wired and pre-plumbed for solar photovoltaic and solar hot water systems. (Required January 2014 as part of the California Green Building Code.)
- Purchase solar photovoltaic systems or enter into power purchase agreements (PPA) to meet all or part of the electrical energy requirements of buildings and facilities owned, leased or operated by the agency.

Methane Recovery Programs and Projects

- For jurisdictions that own or operate landfills, recover and use the maximum feasible amount of methane gas from the landfill to produce electricity, fuel co-generation facilities, and/or produce compressed natural gas for use in alternative fuel vehicles.
- For jurisdictions that host landfills owned by private companies or other public agencies, enter into partnerships or agreements with agencies or companies that own or operate landfills to ensure that the maximum feasible amount of methane is recovered for waste-to-energy or other renewable energy projects.
- Install digesters and other technologies at wastewater treatment facilities to produce methane and other bio-fuels.
- Install fuel cells to generate power for wastewater treatment plants.

Fuel Efficient and Alternative Fuel Vehicles

- Implement bike sharing program for agency employees traveling between agency facilities.
- Install bicycle racks, showers, and other amenities at agency facilities to promote bicycle use by agency employees and visitors.
- Establish and implement a policy to convert agency fleets, including agency owned, leased or operated vehicles, to alternative or fuel efficient vehicles.
- Establish and implement a policy to purchase new alternative or fuel efficient vehicles for agency operated transit systems.
- Use regional purchasing options or the California Department of General Services bulk purchasing program to buy green fleet vehicles from local auto dealers.
- Train agency fleet mechanics to service alternative and fuel efficient vehicles.

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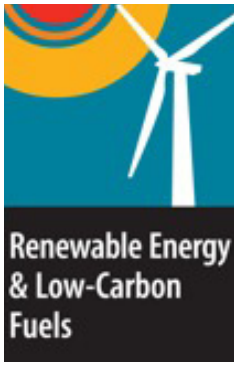

Community

Solar and Small Wind Projects

- Develop a map that residents can access online that identifies where solar projects are located in the community.
- Conduct renewable energy workshops for residential, commercial and industrial property owners.
- Offer workshops and information for residents and businesses to provide resources and permitting assistance for those interested in adding renewable energy systems to their properties.
- Provide information about the California Solar Initiative rebate and other renewable energy incentive programs on agency website.
- Work with solar photovoltaic system providers to establish a discounted bulk purchasing program for residents and businesses that wish to purchase and install solar photovoltaic systems on their buildings.
- Offer financial incentives to those who install solar photovoltaic or hot water systems on homes or businesses.
- Adopt a renewable energy financing program, such as through a PACE (Property Assessed Clean Energy) financing district, to help homeowners, multi-family dwellings and businesses install solar photovoltaic and hot water systems on existing residential and commercial buildings.
- Adopt policy or program that offers incentives, such as streamlined permitting system or fee waivers, to encourage installation of photovoltaic systems on new or existing residential and commercial buildings.
- Adopt a "Solar Ready" ordinance requiring new residential or commercial construction to be pre-wired and pre-plumbed for solar photovoltaic and solar hot water systems. (Required January 2014 as part of the California Green Building Standards Code.)
- Adopt an ordinance for small wind energy systems for residential and commercial installations.
- Adopt a solar photovoltaic system siting ordinance for systems proposed on agricultural and open space lands.

Fuel Efficient and Alternative Fuel Vehicles

- Work with electric utility to develop and implement electric vehicle charging infrastructure plan for the community.
- Develop permitting standards for installation of electric vehicle charging stations at residential and commercial buildings.
- Streamline the permitting process for installing home or business electric vehicle charging stations.
- Install electric vehicle charging stations at public facilities, such as at parking lots and airports, for community use.

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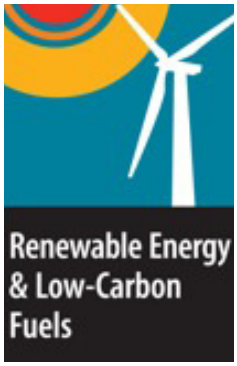

- Allow the public to use agency facilities that support use of alternate fuel vehicles, such as compressed natural gas fueling facilities and electric vehicle charging stations.
- Require new commercial developments to include electric vehicle charging stations in parking lots or garages.

Water and Wastewater Systems

Options to Consider

Using water and wastewater systems more efficiently indirectly reduces energy use. Also, since climate change can impact water availability, efforts to conserve and use water more efficiently will help local agencies adapt to the impacts of climate change.

For other water and waste water-related best practices: see Green Building Area.

Reduce Energy and Water Use in Water, Irrigation and Waste Water Systems

- Audit agency's water and wastewater pumps and motors to identify most and least efficient equipment.
- Develop and implement a motor/pump efficiency cycling schedule to use most efficient water or wastewater motors/pumps first and least efficient ones last.
- Replace least efficient water/wastewater motors and pumps with more efficient units.
- Work with agency or company that provides water and wastewater service to implement an audit, cycling and equipment replacement program for water and wastewater pumps and motors.
- Implement methane capture for energy production at wastewater treatment plants.
- Implement water conservation and reclamation programs to reduce energy use associated with water delivery.

Reduce Water Use in Agency Facilities and the Community

- Assess, maintain, and repair existing plumbing fixtures, pipes, and irrigation systems in all agency buildings and facilities to minimize water use, including building and parking lot landscaping, public rest rooms and parks, golf courses and other recreational facilities.
- Upgrade and retrofit agency plumbing and irrigation systems with state-of-the-art water conserving technology.
- Implement all feasible water efficiency strategies included in the Ahwahnee Water Principles for Resource Efficient Land Use in all agency parks, landscaping and in new developments.
- Use compost and mulch in agency landscaping as a water conservation measure.
- Adopt water efficiency principles similar to the Ahwahnee Water Principles for Resource Efficient Land Use for new and existing residential and commercial developments.
- Require water efficiency audits at point of sale for commercial and residential properties.
- Use recycled water for agency facilities and operations, including parks and medians, where appropriate.
- Require dual plumbing for use of recycled water for new commercial and/or residential developments.

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- Adopt retrofit program to encourage or require installation of water conservation measures in existing businesses and homes.
- Encourage use of compost and mulch in private landscaping as a water conservation measure.
- Partner with water provider to adopt water conservation measures.

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Waste Reduction and Recycling

Options to Consider

The largest sources of human-generated methane, a potent greenhouse gas, comes from improperly managed landfills. Thus, waste reduction and recycling activities reduce the potential to generate methane at landfills, as well as reduces pollutants generated from transporting waste to disposal sites.

Note: Existing law now requires most businesses and apartments to recycle; cities and counties are required to educate businesses about the requirements to recycle. The forthcoming update to the Waste Reduction and Recycling area will reflect these changes in law. See ILG's Commercial Recycling Resource Center for tools and stories at **www.ca-ilg.org/ CommercialRecycling**.

Enhance Waste Reduction and Recycling Activities

- Institute a comprehensive waste reduction and recycling program in agency offices and facilities.
- Institute a partnership with other public agency offices located within the jurisdiction for waste reduction and recycling at those facilities.
- Adopt a partnership with local schools for waste reduction and recycling.
- Increase opportunities for electronic waste and hazardous waste recycling by residents and businesses.
- Educate the community about "buy recycled" opportunities.
- Evaluate current community recycling infrastructure relative to future population growth and waste generation.
- Include provisions and incentives for new recycling infrastructure and facilities to accommodate growth, in land use planning and zoning.

Organic Waste

- Audit agency facilities to identify opportunities to increase material recovery and beneficial use of organic material.
- Establish an organic material recovery program for green waste from agency parks and facility landscaping.
- Establish a program to use the maximum amount as possible of organic waste generated within the jurisdiction to produce compost and/or biofuel, including use on agency parks and landscaping.
- Use compost and mulch in agency landscaping as a water conservation measure. Encourage use in private landscaping.
- Establish incentives for residents to participate in green waste recycling programs.
- Adopt a restaurant food waste collection program or ordinance.
- Approve siting of composting facility within jurisdiction.

Reduce Office and Commercial Waste and Increase Recycling

- Adopt a program or ordinance to encourage or require recycling at multi-family apartments.
- Implement a program to educate owners and residents of multi-family housing about recycling requirements and opportunities.
- Adopt a program or ordinance to require recycling in the commercial/industrial sectors.

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- Provide free bins to businesses to separate out cardboard and paper for solid waste sent to a mixed waste material recovery facility for processing.
- Provide common area recycling services and storage bins (such as through an assessment district or other means) for businesses that lack storage space or access to recycling opportunities (such as in historic districts).
- Adopt a program or ordinance to encourage or require waste audits and waste reduction plans for existing and/or new commercial developments.
- Implement a program to educate businesses, their employees, and their customers about recycling requirements and opportunities.
- Audit major waste generators and recommend strategies to reduce waste and increase recycling.
- In partnership with the waste hauler(s) serving the commercial sector, institute a comprehensive waste reduction and recycling program with financial and other incentives, such as a tiered rate system that charges less for collecting recyclable materials than for collecting solid waste, to promote waste reduction and recycling for commercial/industrial waste generators.
- Partner with the California Department of Resources, Recycling, and Recovery to encourage businesses and residents to participate in CalMax (California Materials Exchange) or a similar program.
- Require recycling at special events, such as through special event permit conditions.
- Include information about recycling opportunities on agency's website.

Construction and Demolition Waste

- Require all agency demolition projects to incorporate deconstruction, construction and demolition waste recycling or recovery practices.
- Adopt a program or ordinance to reduce, reuse, and recycle community construction and demolition waste.
- Adopt a "deconstruction" program or ordinance to salvage and reuse materials in all community remodeling projects.
- Adopt and implement a policy to require use of rubberized asphalt concrete (RAC) for streets and roads.
- Adopt and implement a policy to require use recycled asphalt pavement (RAP) for streets and roads.
- Implement a policy to use RAP for commercial and community parking lots, where feasible.
- Encourage schools and other public agencies to use RAP for parking lots, where feasible.
- Establish a program or ordinance that results in 100 percent in-place recycling of asphalt concrete.
- Establish a program or ordinance that results in recycling of 100 percent of all Portland cement and asphalt concrete.

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Decrease Carbon Footprint

- Work with solid waste and recycling collection providers to calculate carbon footprint of collection system.
- Work with solid waste and recycling collection providers to reduce collection system footprint.

Climate-Friendly Purchasing

Options to Consider

Climate-friendly purchasing is the procurement or acquisition of goods and services that are a lesser or reduced source of greenhouse gas emissions when compared with competing goods or services that serve the same purpose.

For other climate-friendly purchasing-related best practices: see Waste Reduction and Recycling and Green Building Areas.

Tip: See ILG's Sample Climate Friendly Purchasing Policy at **www.ca-ilg.org/samplepurchasingpolicy**.

Purchase Climate-Friendly Specific Products and Goods

- Adopt and implement a procurement policy that establishes standards for climate-friendly products and requires agency purchases to meet such standards as:
  - New equipment meets Energy Star or comparable energy efficiency standards.
  - Computer purchases meet the highest feasible EPEAT certification level. (EPEAT is a comprehensive environmental rating that helps identify greener computers and other electronic equipment.)
  - Office paper purchases (copy paper, printer paper, writing pads, stationery, envelopes, and business cards) contain a minimum specified percentage of post consumer recycled content.
  - Other paper purchases (paper towels, toilet paper, napkins, and similar items) contain a minimum percentage of post consumer recycled content.
  - Carpeting and other furnishings contain a minimum percentage of recycled content.
  - Plastic items (refuse and recycling receptacles, decking, parking lot barriers, furniture, etc.) contain recycled content.
  - Oil and oil-related products contain recycled content.
  - Products certified by either GreenSeal or EcoLogo, as long as they cost no more than an agency-determined percentage above the price of non-certified products.
- Create an interdepartmental team to 1) promote policy implementation, 2) track policy adherence, and 3) suggest additional items to be included in the agency's climate-friendly purchasing program., including such tasks as:
  - Reviewing and analyzing current (baseline) purchasing by major product categories.
  - Prioritizing product categories in terms of greenhouse gas emissions implications and improvement potential.
  - Reviewing policies, procedures, organization/staffing for implementation barriers.
  - Developing multi-year implementation schedule based on priorities, difficulty, upcoming solicitations.
  - Reporting achievements under the policy to policy makers and the public annually.

Purchase Climate-Friendly Services

- Require service providers to follow climate-friendly practices, or provide a preference in selecting and contracting with service providers to those that follow climate-friendly practices.

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- Provide incentives for the use of alternative fuel vehicles for agency contracts for services involving vehicles (buses, waste hauling and recycling, construction, etc.).
- Ensure that the highest feasible percentage of annual expenditures for contract services is with companies registered with the California Climate Action Registry or its successor.

Give Preference to Climate-Friendly Vendors

- Provide a price preference to product vendors that follow climate-friendly practices, including use of recycled content materials, Energy Star and EPEAT materials and equipment, as well as alternative fuel vehicles.
- Provide a price preference to product vendors that inventory and register their greenhouse gas emissions with the California Climate Action Registry or its successor and that report their verified greenhouse gas emissions within the jurisdiction.

Community Education about Climate-Friendly Procurement

- Educate the public about climate-friendly procurement opportunities.
- Work with the business community to educate them about climate-friendly procurement opportunities.

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Efficient Transportation

Options to Consider

Transportation is the largest generator of greenhouse gas emissions. Reducing the number and length of vehicle trips and engine idling reduces those emissions. Efficient transportation systems also conserve fuel and reduce travel costs and expensive road repairs.

For other efficient transportation-related best practices: see Land Use and Community Design Area.

Reduce Automobile Dependency

- Update transportation models and surveys to capture data for and accurately reflect all modes of transportation.
- Make reductions in vehicle-miles traveled (VMT) a high-priority criteria in evaluation of policy, program, and project alternatives.
- Implement transportation planning procedures that consider demand management solutions equally with strategies to increase capacity.
- Include all significant impacts (costs and benefits) in benefit-cost assessment of alternatives, including non-market or indirect impacts, such as improving mobility options or reducing air pollution and greenhouse gas emissions.
- Collaborate with other local government agencies to share transportation-related information, coordinate planning goals and processes, and take advantage of opportunities to combine and leverage scarce resources.

Improve Infrastructure and Transportation Systems Management

- Implement Intelligent Transportation Systems (ITS) for surveillance and traffic control, such as synchronized signals, transit and emergency signal priority, and other traffic flow management techniques, to improve traffic flow and reduce vehicle idling.
- Implement programs to reduce "incident-based" traffic congestion, such as expedited clearing of accidents from major traffic arteries, airport traffic mitigation, etc.
- Develop infrastructure improvements such as HOV/HOT lanes and dedicated bus rapid transit right-of-ways.

Reduce Vehicle Idling

- Adopt and implement a policy requiring limitations on idling for commercial vehicles, construction vehicles, buses and other similar vehicles, beyond state law, where feasible.

Promote Alternatives to Single-Occupant Auto Commuting

- Provide agency employees with incentives to use alternatives to single-occupant auto commuting, such as parking cash-out, flexible schedules, transit incentives, bicycle facilities, ridesharing services and subsidies, and telecommuting.
- Incorporate a guaranteed ride home program as part of agency commuter trip reduction incentive programs.
- Reduce greenhouse gas emissions from municipal fleet operations by purchasing or leasing high MPG, low carbon fuel or hybrid vehicles, or by using an external car sharing program in lieu of city/county fleet.

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- Work with major employers in the community to offer incentives and services to increase the use of alternatives to single-occupant auto commuting (voluntary commute trip reduction programs).
- Encourage and facilitate the development of car-sharing, Dial-a-Ride (or similar flexible-route transit service), and other services that reduce the need to use a personal motor vehicle.
- Develop and implement voluntary agreements for commuter trip reduction programs for new commercial developments.
- Provide parking preferences in public lots, garages, and on-street spaces for residents who rideshare or use low-carbon fuel vehicles.
- Implement variable ("congestion") pricing and other pricing mechanisms for parking facilities, to provide incentives and discourage single-occupant-vehicle and peak travel.
- Dedicate revenues from fees and tolls to promote alternative transportation modes.
- Consider public health benefits of promoting use of transit and other alternatives to single-occupant vehicle travel as a means of reducing air pollution and greenhouse gases.

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Land Use and Community Design

Options to Consider

Well-planned communities with a balance of housing, jobs, shopping, schools and recreation give people the option of walking, biking, or using transit rather than driving. This results in lower greenhouse gas emissions and also promotes physical activity and more vibrant, healthy and sustainable communities.

For other land use and community design-related best practices: see Efficient Transportation and Green Building Areas.

Create Communities and Neighborhoods that Are Attractive, Safe and Convenient for Walkers and Bicyclists

- Assess and report on pedestrian and bicycle conditions in existing communities and neighborhoods.
- Develop a community-wide pedestrian and bicycle plan and capital program that maximizes the potential for residents to walk or bicycle within and between neighborhoods.
- Require new commercial developments to install bicycle parking facilities and other cyclist amenities at a level commensurate with the number of employees or square footage.
- Adopt and implement a community-wide pedestrian and bicycle plan.
- Provide bicycle access to transit services on major transit corridors and other routes that may attract bicyclists, such as routes serving schools and colleges.
- Install traffic calming devices and other measures to reduce traffic speeds and volumes and increase the safety and feasibility of bicycling and walking.
- Implement design standards that require streets and sidewalks to be designed for multi-modal mobility and access, including walking and bicycling, to ensure that new development is designed, sited and oriented to facilitate pedestrian, bicycle and other mobility and access.

Orient New Development to Capitalize on Transit System Investments and Services

- Provide incentives and remove zoning and other barriers to mixed-use and higher intensity development at transit nodes and along transit corridors (existing and planned).
- Require new development at transit nodes and along transit corridors to meet planning and design standards to generate, attract, and facilitate transit ridership as a condition of approval.
- Integrate park-and-ride lots with multi-use facilities.

Promote Compact and Efficient Development in New and Existing Communities

- Inventory infill development sites. Plan, zone, and provide incentives for new development and renovation of existing uses in identified infill areas.
- Adopt and enforce land use ordinances and regulations that reduce greenhouse gas emissions. Examples include prioritizing mixed uses and infill development, and providing more transportation and housing choices.
- Require new housing and mixed use developments be built to the LEED for Neighborhood Development (LEED-ND) standard or its equivalent.

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- Provide expedited application processing for development projects that meet climate change response policies.

Incorporate Greenhouse Gas Emissions Considerations into the General Plan and Environmental Review Process

- Include a greenhouse gas reduction plan in the General Plan, or include within the General Plan a requirement for development and adoption of a greenhouse gas reduction plan.
- Analyze impact of greenhouse gas emissions from land use and transportation sectors in the EIR prepared in connection with general plan updates.
- Amend local CEQA guidelines to explain how to treat analysis of greenhouse gas emissions, such as including thresholds of significance. [NOTE: the California Air Pollution Control Officers Association has published recommendations at www.capcoa.org.]
- Analyze impacts of development projects on safety, availability, and use of alternative transportation in CEQA documents.

Establish Planning Processes that Encourage Reducing Greenhouse Gas Emissions

- Develop and adopt a preferred "climate-friendly" land use and transportation scenario for future development to reduce vehicle miles traveled (VMT) through software tools such as the PLACE3S system developed by the California Energy Commission.
- Incorporate land use and transportation policies in the General Plan, capital improvement program and other planning and spending documents, codes and ordinances to reflect the preferred "climate-friendly" land use and transportation scenario.
- Implement a regional blueprint or other long-range, regional planning process to assess the climate impacts of future growth and develop a preferred regional climate-friendly growth scenario.
- Involve emergency responders early and consistently in development of growth plans.
- Collaborate with other local government agencies to share land use and community design related information, coordinate planning goals and processes, and take advantage of opportunities to combine and leverage scarce resources.
- Review zoning codes and development policies to identify changes that could improve implementation of "climate-friendly" land use and transportation policies.
- Consider public health benefits of designing communities that encourage alternatives to single-occupant-vehicle travel, such as by being more bicycle and pedestrian friendly.

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Increase Transportation Choices

- Establish land use policies that support multimodal transportation systems and connection of modes to each other.
- Require sidewalks in all new developments.
- Plan and permit road networks of neighborhood-scaled streets (generally 2 or 4 lanes) with high levels of connectivity and short blocks.
- Zone for concentrated activity centers around transit service.
- Coordinate planning and project approval procedures to increase collaboration between land use and transportation planning staff.
- Cluster freight facilities near ports, airports, and rail terminals.
- Coordinate with regional efforts and neighboring jurisdictions to plan for and accommodate alternate modes.

Open Space and Offsetting Carbon Emissions

Options to Consider

Forests, parks, agricultural lands and open space serve as "carbon sinks" by storing greenhouse gas emissions that otherwise contribute to climate change.

Preserve and Enhance Forests, Parks, Street Trees, Open Space and Other Natural Systems that Act as Carbon "Sinks"

- Inventory existing trees on property owned or managed by the agency and implement a management system to preserve and enhance the existing urban forest.
- Manage parks, open space, recreational facilities, and other natural areas owned or operated by the agency to ensure the long-term health and viability of trees and other vegetation.
- Develop and implement a community-wide urban forestry management and reforestation program to significantly increase the carbon storage potential of trees and other vegetation in the community.
- Steer new development away from open space and agricultural lands that provide natural carbon storage.
- Partner with other agencies and non-profit organizations to protect natural lands in and adjacent to the community through acquisition, conservation easements, or other long-term mechanisms.
- Consider public health benefits of increasing the availability of parks and other recreational opportunities.

Promote Local Sustainable Agriculture

- Promote the purchase of local and organic produce through farmers markets and other measures.
- Enact a local food purchase policy for agency food purchases.
- Promote conservation tillage and other agricultural practices to retain carbon fixed in soils.

Reduce Greenhouse Gas Emissions

- Audit agency-sponsored events and activities to determine greenhouse gas emissions associated with the event/activity.
- Achieve carbon neutrality at agency-sponsored events and activities through conservation, efficiency, alternative transportation, and the purchase of third-party verified emission reductions to offset carbon emissions.
- Achieve carbon neutrality for major agency operations through conservation, efficiency, alternative transportation, and the purchase of third-party verified emission reductions to offset carbon emissions.

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- Create incentives for community organizations and residents to reduce their carbon use including the purchase of third-party verified emission reductions.
- Purchase and retire third-party verified emission reductions to offset community-wide carbon emissions.

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Promoting Community and Individual Action

Options to Consider

Providing reliable and objective information helps residents understand the causes, impacts and solutions to climate change. Involving the public in the development of climate change policies and programs builds community awareness and support for local actions that reduce greenhouse gas emissions, including the co-benefits of actions that reduce climate change.

Involve the Community

- Survey businesses and residents to understand attitudes and behaviors related to climate change.
- Develop and implement a community climate change education program that provides community members with basic information about climate change.
- Develop information and positive messages about activities individuals can take to reduce their own greenhouse gas emissions, such as reducing energy and water use, recycling, and using transit.
- Identify the multiple benefits from actions to reduce greenhouse gas emissions, including environmental, community and financial benefits.
- Include information on actions that individuals can take to address climate change in local agency mailings, websites, and other communications.
- Develop a community climate change outreach and education program that enlists participation from schools, museums, service groups, business organizations (such as local Chambers of Commerce), neighborhood and homeowner associations, and other community partners.
- Include climate change related projects as part of youth commission activities.
- Challenge community members to go on a "carbon diet" to promote individual action to reduce greenhouse gas emissions.
- Provide programs and/or incentives to individuals, groups, and businesses that adopt practices that reduce their carbon footprint. Incentives can be financial or non-financial, such as official recognition of an individual's, group's, or business' efforts.

Collaboration and Communication

- Collaborate with other local government agencies to share information about climate change and best practices to reduce greenhouse gases.
- Create an inter-agency local or regional climate action partnership and/or action plan with one or more sister agencies or neighboring jurisdictions.
- Initiate the regional action plan.
- Participate in the development of a regional blueprint or other long-range planning process to assess the climate impacts of future growth and develop a preferred climate-friendly growth scenario.
- Initiate a Community Climate Action Partnership with a Global Sister Agency.
- Organize and promote community dialogues that educate residents about climate change and its possible impacts on the community.

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- Include representatives of diverse communities of interest (such as renters, business owners, neighborhood leaders, immigrants, low income residents and youth) when developing climate change policies and programs.
- Develop informational material for residents about climate change and opportunities for individual action to reduce greenhouse gas emissions.
- Use public involvement processes to develop recommendations from residents and businesses about the city or county's climate change action plan and actions the agency is taking to respond to climate change, such as through green building, energy conservation, efficient transportation, and other actions.
- Provide opportunities for interested residents to stay engaged after the initial planning to help monitor and assess ongoing efforts and recommend plan adaptations as needed.
- Collaborate with local non-profit organizations to assist them in promoting activities that reduce greenhouse gas emissions.
- Provide participants in agency-sponsored public engagement activities with easy to understand information to help them participate effectively.

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