State and Local Guide to
U.S. EPA Climate and Energy
Program Resources

State and Local
Climate and Energy Program

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Introduction

In 2011, state and local governments are facing the challenge of meeting growing energy and environmental needs with dwindling budgets. Investing in clean energy (energy efficiency, renewable energy, and combined heat and power) and climate policies and programs continues to be one way for state and local governments to achieve multiple goals: improving air quality, saving money, improving public health, and decreasing greenhouse gas (GHG) emissions. The U.S. Environmental Protection Agency (EPA) has many programs and resources that can help state and local governments as they work to sustain existing programs and to create new ones.

This guide is designed to help state and local governments find EPA programs that can help them expand or develop their own clean energy and climate initiatives. The guide is an updated version of a 2009 guide geared toward helping state and local governments implement ARRA (the American Recovery and Reinvestment Act).

EPA Program Profiles are organized into seven categories: policy, planning, and energy security; buildings; industry; electric power and renewable energy; smart growth; water and adaptation; and waste.

Each program profile includes:

- Basic information and contact details
- Relevant target audiences
- Ready-to-go tools and resources
- Suggestions for actions a state or local government could take to use EPA's offerings

The Program Finder table shows which programs could be used to reach nine relevant sectors and audiences:

- Government
- Industry
- Residential
- Commercial
- Utility/Program Administrators
- Public
- Education
- Real Estate Development
- Agricultural

Getting Started

Specific project area contact information is included in each program profile. If, after reading this guide, you have any questions about getting started, please contact the State and Local Climate and Energy Program at bollerud.erica@epa.gov

Please note: This document contains Internet addresses that were current when the document was produced, but addresses may change over time. If you discover a broken link, please notify Erica Bollerud at bollerud.erica@epa.gov so EPA can post a corrected version.

Program Finder

Relevant Sectors and Audiences

EPA Program (alphabetical order)	Government	Industry	Residential	Commercial	Utility/Program Administrators	Public	Education	Real Estate Development	Agricultural
AgSTAR (p. 32)	✓	✓			✓				✓
Climate Ready Estuaries (p. 36)	✓		✓			✓	✓		
Climate Ready Water Utilities (p. 38)	✓	✓		✓	✓	✓	✓		✓
Combined Heat and Power Partnership (p. 26)	✓	✓		✓	✓		✓	✓	✓
ENERGY STAR for Commercial/Public Buildings (p. 16)	✓	✓		✓	✓		✓		
ENERGY STAR for Industry (p. 23)	✓	✓			✓	✓			
ENERGY STAR Products (p. 14)	✓	✓	✓	✓	✓	✓			✓
ENERGY STAR Residential—Existing Homes (p. 19)	✓		✓		✓			✓	
ENERGY STAR Residential—New Homes (p. 21)			✓		✓			✓	
Green Power Partnership (p. 28)	✓	✓		✓					
Heat Island Reduction Program (p. 9)	✓	✓	✓	✓	✓	✓	✓	✓	
Landfill Methane Outreach Program (p. 30)	✓	✓			✓				
Local Climate and Energy Program (p. 7)	✓								
Office of Sustainable Communities (p. 34)	✓		✓	✓	✓	✓	✓	✓	
Responsible Appliance Disposal Program (p. 44)	✓	✓	✓	✓	✓	✓			
State and Local Energy Efficiency Action Network (p. 11)	✓	✓	✓	✓	✓				
State Climate and Energy Program (p. 5)	✓								
WasteWise Communities (p. 42)	✓		✓		✓	✓	✓		
WaterSense (p. 40)	✓		✓	✓	✓	✓	✓	✓	

Program Profiles
Policy, Planning, and Energy Security

State Climate and Energy Program

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Outreach support
- ✓ Technical assistance

Relevant Sectors
- ✓ Government

Website

www.epa.gov/statelocalclimate

Contact

Denise Mulholland
(202) 343-9274
mulholland.denise@epa.gov

Description

This program helps states develop policies and programs that can reduce greenhouse gas emissions, lower energy costs, improve air quality and public health, and help achieve economic development goals. EPA provides states with and advises them on proven, cost-effective best practices, peer exchange opportunities, and analytical tools.

Services

Specific assistance provided by the program includes:

- Identifying and documenting cost-effective policies and initiatives that promote renewable energy, energy efficiency, and related clean technologies.

- Measuring, evaluating, and communicating the environmental, energy, economic, and public health benefits of clean energy initiatives.

- Offering a suite of national voluntary programs that provide partners with assistance and recognition for their clean energy actions.

- Fostering peer exchange opportunities for state officials to share information on best practices and innovative policies.

Value to Environment and Other Co-benefits

State clean energy programs can improve air quality and public health, increase cost-effective energy efficiency and renewable energy, reap economic benefits, and lower GHGs.

Possible State and Local Actions

- Identify policies and programs that can save energy and reduce GHGs using EPA's tools and resources.

- Analyze projected policy and program impacts and associated co-benefits, including air, health, energy, and economic benefits.

- Communicate the multiple benefits of clean energy policies and programs.

- Evaluate, measure, and verify results once policies or programs are in place.

- Develop an inventory of GHG emissions to establish a baseline and identify sectors or sources for targeted efforts.

Tools/Resources

Guidance

- Clean Energy-Environment Guide to Action: Policies, Best Practices, and Action Steps for States
  Presents 16 best practices that states have used to develop clean energy programs and policies

- Clean Energy Lead by Example Guide
  Provides guidance for states in establishing programs that achieve substantial energy cost savings within their own buildings and operations

- Assessing the Multiple Benefits of Clean Energy: A Resource for States
  Provides information about the energy, air, health, and economic benefits of clean energy and the methods and tools available — including their strengths, limitations, and appropriate uses — to estimate them

- State Activities
  Provides guidance, resources, and other supporting materials to assist states in developing and implementing a state climate change mitigation strategy

- State Technical Forum
  Presents analytical questions to resolve key issues surrounding state climate and clean energy efforts. Participants include state energy, environmental, and utility staff. Papers and presentations from past calls are available

Tools

- State GHG Inventory and Projection Tool

- Generates a top-down estimate of GHG emissions at the U.S. state level

- Co-Benefits Risk Assessment (COBRA) Tool
  Estimates the impact of air quality improvements on public health

- GHG Equivalency Calculator
  Converts energy savings into carbon dioxide emissions and translates this information into readily understandable terms, such as equivalent gallons of gasoline or electricity from homes

Program Profiles
Policy, Planning, and Energy Security

Local Climate and Energy Program

Services Offered
✓ Analytical tools
✓ Guidebooks/toolkits
✓ Outreach support
✓ Technical assistance

Relevant Sectors
✓ Government

Website
www.epa.gov/statelocalclimate

Contact
Andrea Denny
(202) 343-9268
denny.andrea@epa.gov

Description
This program helps local governments meet sustainability goals with cost-effective climate change and clean energy strategies.

Services
EPA coordinates among federal, state, and non-governmental programs to provide comprehensive planning, policy, technical, and analytical information resources for municipal governments. Key resources include: the Local Government Climate and Energy Strategy Series, which includes documents on energy efficiency, transportation, community planning and design, solid waste and materials management, and renewable energy; regular webcasts on topical issues; and the Climate Showcase Communities program.

Value to Environment and Other Co-benefits
By implementing clean energy strategies, local governments can reduce greenhouse gas emissions and achieve multiple community goals such as reducing air pollutants, lowering energy costs, supporting local economic development, and improving public health, quality of life, and the reliability and security of their energy systems.

Possible State and Local Actions
- Establish a baseline of energy use and emissions to identify the largest opportunities for reductions.
- Review and evaluate EPA's local best practices information and Climate Showcase Communities projects and pick options that work for your community.
- Implement cost-effective practices within government operations to lead by example.
- Engage your community through education campaigns, ordinances, and demonstration projects.

Tools/Resources

- **Climate Showcase Communities**
  This program works with 50 pilot communities to create replicable models of cost-effective and persistent greenhouse gas reductions that will catalyze broader local and tribal government actions to stabilize the climate and improve environmental, economic, health, and social conditions. Offers peer exchange, training, and technical support to pilot communities, and shares their successes and lessons learned to encourage replication across the country.

- **Local Government Climate and Energy Strategy Series**
  Documents in this series provide a comprehensive, straightforward overview of various greenhouse gas emissions reduction strategies that local governments can employ. Documents are made available online as they are completed.

Energy Efficiency

- Energy Efficiency in Local Government Operations (PDF)

- Energy Efficiency in K-12 Schools (PDF)

- Energy Efficiency in Affordable Housing (PDF)

- Energy-Efficient Product Procurement (PDF)

- Combined Heat and Power (PDF)

- *Energy Efficiency in Water and Wastewater Facilities* (in development)

Transportation

- Transportation Control Measures (PDF)

Community Planning and Design

- Smart Growth (PDF)

- *Urban Heat Island Reduction* (in development)

Solid Waste and Materials Management

- *Resource Conservation and Recovery* (in development)

Renewable Energy

- Green Power Procurement (PDF)
  On-Site Renewable Energy Generation (PDF)
  Landfill Gas to Energy (PDF)

- Local Climate and Energy Webcasts
  Webcasts discuss clean energy and climate-related topics of interest to local government officials; they are archived online for later viewing

Heat Island Reduction Program

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Professional networking
- ✓ Public recognition
- ✓ Technical assistance
- ✓ Outreach support

Relevant Sectors
- ✓ Commercial
- ✓ Government
- ✓ Industry
- ✓ Residential
- ✓ Utility/Program Administrators
- ✓ Public
- ✓ Education
- ✓ Real Estate Development

Website
www.epa.gov/heatislands

Contact
Neelam R. Patel
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patel.neelam-r@epa.gov

Description
This program helps create cooler communities and reduce the heat island effect by sharing information about heat island impacts, mitigation benefits, and policy advancements with state and local decision-makers and program implementers, the research community, industry, and the general public.

Services
This program helps communities by providing valuable information about heat island science, impacts, and mitigation strategies. The program also provides tools and resources that support community action, including regular online news updates, webcasts with leading experts in the field, and regular email announcements on heat island topics.

Value to Environment and Other Co-benefits
Elevated temperatures from urban heat islands, particularly during the summer, can affect a community's environment and quality of life. By taking action to cool summer temperatures, communities can reduce:

- Energy use,

- Energy bills,

- Greenhouse gas emissions and air pollution,

- Number of respiratory and heat-related illnesses, and

- Quantity of stormwater runoff.

Taking action to reduce the heat island effect not only helps lower temperatures, but can improve a community's resiliency by reducing health impacts during extreme heat events.

Possible State and Local Actions

- Implement heat island reduction strategies that increase the use of: trees and vegetation, green roofs, cool reflective roofs, and cool pavements, in order to reduce air and surface temperatures.

- Integrate mitigation strategies into communities through voluntary efforts such as demonstration projects, incentive programs, weatherization, urban forestry efforts, outreach, education, and awards.

- Include mitigation strategies in local and state policy and regulatory actions such as procurement, resolutions, ordinances, action plans, community design guidelines, zoning codes, building standards and codes, and regional air quality planning.

Tools/Resources

- Reducing Urban Heat Islands: Compendium of Strategies
  Describes the causes and impacts of summertime urban heat islands and promotes key strategies for lowering temperatures. The last chapter explains the range of voluntary and

policy efforts undertaken by state and local governments to mitigate urban heat islands

- Heat Island Community Action Database
  Provides examples of local and statewide initiatives to reduce heat islands and achieve related energy, air quality, human health, and water quality benefits. Each entry in the database includes a description of the activity, its current status, and a link to a website for more information

- Heat Island Webcasts
  Webcasts showcase the latest science and implementation activities, and highlight upcoming meetings related to heat island science, modeling, and mitigation strategies

- Heat Island Listserv
  Provides periodic announcements of funding opportunities, webcasts, publications, and events of interest to the heat island community

Program Profiles
Policy, Planning, and Energy Security

SEE Action
(State and Local Energy Efficiency Action Network)

Services Offered
✓ Analytical tools
✓ Guidebooks/toolkits
✓ Technical assistance

Relevant Sectors
✓ Commercial
✓ Government
✓ Industry
✓ Residential
✓ Utility/Program Administrators

Website

www.seeaction.energy.gov
www.epa.gov/eeactionplan

Contact

Stacy Angel
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angel.stacy@epa.gov

Description

The State and Local Energy Efficiency Action Network (SEE Action) is a federal-state-local effort to assist state and local governments in implementing energy efficiency policies and programs. SEE Action is currently working across eight issue-based working groups to remove barriers to and increase investment in energy efficiency. Working groups include existing commercial buildings, residential retrofits, industrial energy efficiency and combined heat and power, building energy codes, customer information and behavior, financing solutions, evaluation, and utility motivation.

U.S. EPA partners with the U.S. Department of Energy on SEE Action activities, building upon the progress of the previous National Action Plan for Energy Efficiency (Action Plan). The Action Plan was a federally facilitated private-public initiative to create a sustainable, aggressive national commitment to energy efficiency through the collaborative efforts of gas and electric utilities, state utility regulators, and other partner organizations.

Services

SEE Action and the Action Plan offer several resources that are useful to state and local governments that want to advance energy efficiency, including a comprehensive set of policy and program guidance documents, and a summary of existing state-level policies for energy efficiency.

Value to Environment and Other Co-benefits

These efforts help remove barriers to greater investment in cost-effective energy efficiency. Achieving all cost-effective energy efficiency by the year 2025

could reduce national greenhouse gas emissions by 500 million metric tons of carbon dioxide annually, equivalent to the emissions of 90 million vehicles.

Possible State and Local Actions

- Build on what is working: leverage proven, documented, cost-effective programs and program designs; establish partnerships with parties responsible for existing energy efficiency efforts; build programs that can continue after economic stimulus funding expires.

- Emphasize job creation: pursue energy efficiency programs that engage services and trades; develop and deploy the workforce training necessary to support the programs; consider the skills that will be in demand for the longer term.

- Measure results: evaluate the energy, environmental, and jobs benefits of programs; require the use of established procedures for evaluation, measurement, and verification; strive for simplicity and for transparency in assumptions and results.

- Plan for the future: see how the energy efficiency policies in your state align with the Action Plan's Vision framework for measuring progress toward all cost-effective energy efficiency.

Tools/Resources

- State Energy Efficiency Network Working Group Blueprints
Blueprints include a comprehensive summary of the barriers, best practices, and key actors across the eight issues addressed by the SEE Action Working Groups. The Blueprints guide a suite of implementation efforts, including new guidance documents and policy white papers, so the stakeholders engaged in efficiency can work together, given their roles and responsibilities, to achieve the goals

- National Action Plan for Energy Efficiency Vision for 2025
Details a policy framework for establishing long-term energy efficiency policies and programs. This Vision also captures an approach for measuring state progress toward achieving all cost-effective energy efficiency

- Rapid Deployment Energy Efficiency (RDEE) Toolkit
Provides detailed program design and implementation guides for 10 broadly applicable energy efficiency programs

- Model Energy Efficiency Program Impact Guide (PDF)
Provides guidance on evaluating the results of energy efficiency programs

- Understanding Cost-Effectiveness of Energy Efficiency Programs (PDF)
Reviews the issues and approaches involved in considering and adopting cost-effectiveness tests for energy efficiency

- Guide for Conducting Energy Efficiency Potential Studies (PDF)
Identifies three main applications for energy efficiency potential studies and provides examples of each

Utilities and Energy Efficiency

- Aligning Utility Incentives with Energy Efficiency Investment (PDF)
  Describes the financial effects on a utility of its spending on energy efficiency programs, how those effects could constitute barriers to more aggressive and sustained utility investment in energy efficiency, and how adoption of various policy mechanisms can reduce or eliminate these barriers

- Customer Incentives for Energy Efficiency Briefings (PDF)
  These two briefings summarize key policy issues and existing approaches for motivating customers to reduce the energy they consume through utility rates and administered energy efficiency programs.

- Utility Best Practices Guidance for Providing Business Customers with Energy Use and Cost Data (PDF)
  Summarizes current data practices, outlines the business and policy cases for action, and presents both basic and advanced approaches for providing consistent, standardized electronic energy consumption and cost data to business customers

- Guide to Resource Planning with Energy Efficiency (PDF)
  Describes the key issues, best practices, and main process steps for integrating energy efficiency into resource planning, including how to help ensure that energy efficiency programs provide a resource as dependable and valuable to utilities and their customers as any supply-side resource

- Clean Energy Resource Database
  Describes key resources and documents relevant to the National Action Plan for Energy Efficiency

- Energy Efficiency Benefits Calculator
  Provides a simplified tool to demonstrate the business case for energy efficiency from the perspective of the consumer, the utility, and society

Program Profiles
Buildings

ENERGY STAR Products

Services Offered
✓ Guidebooks/toolkits
✓ Technical assistance
✓ Public recognition
✓ Training

Relevant Sectors
✓ Commercial
✓ Government
✓ Industry
✓ Public
✓ Residential
✓ Utility/Program Administrators
✓ Agricultural

Website
www.energystar.gov

Contact
Energy Star Hotline
(888) STAR YES (782-7937)
hotline@energystar.gov

Description

Since 1992, the ENERGY STAR program has helped thousands of organizations across the residential, commercial, industrial, and public sectors take advantage of cost-effective opportunities to improve energy efficiency and reduce GHG emissions. ENERGY STAR qualified products allow consumers to identify the most energy efficient products on the market without having to sacrifice performance. EPA manages the ENERGY STAR program along with the Department of Energy.

Services

EPA works with stakeholders including manufacturers, trade associations, utilities, and energy and environmental advocates to develop performance specifications for ENERGY STAR qualifying products that deliver significant energy savings. Manufacturers submit products for third-party testing through an EPA-recognized laboratory. The ENERGY STAR program has grown to encompass more than 60 product categories including lighting, appliances, heating and cooling systems, home electronics, office equipment, and commercial products including food service equipment. EPA provides the ENERGY STAR logo, national campaigns, consumer education, marketing resources, and training materials.

Value to Environment and Other Co-benefits

Energy efficiency is one of the lowest-cost strategies to address global climate change by reducing the amount of emissions associated with the burning of fossil fuels to produce energy.

Possible State and Local Actions

- Purchase ENERGY STAR qualified products for government operations.

- Require energy efficient equipment purchases for all state and local agencies.

- Encourage/provide incentives to the residential, commercial, and industrial sectors to purchase select ENERGY STAR qualified products (e.g., through rebate or coupon programs).

- Offer consumers a "sales tax holiday" for the purchase of ENERGY STAR qualified products.

- Partner with local community associations to distribute ENERGY STAR qualified products, such as compact fluorescent light bulbs, at public events.

- Empower Americans to make energy efficient choices by supporting grassroots, community-based youth service projects; becoming an ENERGY STAR pledge driver; and/or sponsoring a local event during the "Change the World, Start with ENERGY STAR" campaign tour.

- Partner with local organizations to educate communities on the benefits of using ENERGY STAR qualified products in their businesses and homes.

- Promote computer power management among businesses and institutions by joining EPA's Low-Carbon IT Campaign as an ally.

Tools/Resources

- Find an ENERGY STAR Qualified Product

- ENERGY STAR Products for Common Shovel-Ready Projects
  Describes ENERGY STAR products, tools, and approaches to implementing successful home efficiency, building, and school improvement projects

- Rapid Deployment Energy Efficiency (RDEE) Toolkit
  Provides detailed program design and implementation guides for 10 broadly applicable energy efficiency programs

- ENERGY STAR Purchasing and Procurement Guidelines
  Assists procurement officials in smart purchasing decisions; online training and case studies are also available

- ENERGY STAR Partners
  Lists partners including schools, governments, home builders, home energy raters, cable providers, mortgage lenders, product manufacturers, and retailers

- Learn about the ENERGY STAR Pledge
  Describes the "Change the World, Start with ENERGY STAR" campaign

- Change the World, Start with ENERGY STAR Materials
  Includes key messages, sample press releases, sample newsletter, sample mayoral/ gubernatorial proclamations for Change a Light Day, and more

- Join the ENERGY STAR Low-Carbon IT Campaign

- Low-Carbon IT Campaign Template Materials
  Offers templates to publicize your efforts through newsletters, press releases, and on your website

- Federal Tax Credits for Energy Efficiency
  Includes updated information on economic stimulus-related tax credits

ENERGY STAR for Commercial/Public Buildings

Services Offered
- ✓ Environmental performance benchmarking
- ✓ Guidebooks/toolkits
- ✓ Public recognition
- ✓ Training

Relevant Sectors
- ✓ Commercial
- ✓ Education
- ✓ Government
- ✓ Industry
- ✓ Utility/Program Administrators

Website

www.energystar.gov/index.cfm?c=new_bldg_design.new_bldg_design

www.energystar.gov/government

Contact

Energy Star Hotline
(888) STAR YES (782-7937)
hotline@energystar.gov

Description

Since 1992, the ENERGY STAR program has helped thousands of organizations across the residential, commercial, government, and industrial sectors take advantage of cost-effective opportunities to improve their buildings' energy efficiency and reduce greenhouse gas emissions. State and local governments lead by example by improving their own buildings, and they leverage relationships with building owners in the state to motivate them to do the same.

Services

EPA provides tools and resources necessary for strategic energy management. Building owners and facility managers of all kinds of buildings can use EPA tools to benchmark their energy and water use in order to target investments on improvements—more than 80,000 buildings or 16 percent of building square footage—nationwide have already done so. Top-performing hospitals, hotels, office buildings, retailers, schools, grocery stores, warehouses, dormitories, banks, and courthouses can earn the ENERGY STAR certification using EPA's Portfolio Manager tool. EPA offers live Web conferences, and pre-recorded online trainings for general audiences, as well as those specific to particular sectors.

Value to Environment and Other Co-benefits

Energy use in commercial buildings and manufacturing plants accounts for nearly half of total U.S. GHG emissions and nearly half of energy consumption nationwide. Energy efficiency is one of the most cost-effective strategies to address global climate change by reducing the amount of emissions associated with the burning of fossil fuels to produce energy. By 2008 alone, more than 6,000

commercial buildings and manufacturing plants had earned the ENERGY STAR certification for high efficiency. These buildings typically emit 35 percent less carbon dioxide into the atmosphere than average buildings. In total, the buildings and plants earning the ENERGY STAR certification in 2010 alone prevented greenhouse gas emissions equal to the emissions from the energy use of nearly 1.3 million homes a year, protecting people's health, while saving more than $1.9 billion.

Possible State and Local Actions

- Use Portfolio Manager to determine an energy use performance baseline (similar to a miles per gallon rating for a vehicle), identify opportunities to improve energy efficiency in buildings, set energy consumption and greenhouse gas emission improvement goals, track progress, and measure results.

- Set a target to benchmark a specified number of government buildings with Portfolio Manager by a target year (e.g., 2011).

- Require state agencies (including prisons, schools, etc.) to benchmark their buildings with Portfolio Manager.

- Establish a benchmarking competition among state and local government agencies or among local businesses. Recognize those achieving highest performance or greatest improvement.

- Work with utilities in the state or locality to enable automated benchmarking.

- Require state/local staff to take Portfolio Manager online training.

- Provide technical support to public, commercial, or industrial building benchmarking staff.

- Mandate benchmarking and disclosure for

public and privately owned buildings (e.g., as in California, Nevada, and the District of Columbia).

- Require new state and local government buildings to use the ENERGY STAR New Building Design approach.

- Join the ENERGY STAR Challenge as a participant organization committed to increasing energy efficiency in buildings by 10 percent or more.

- Leverage ENERGY STAR communications resources to celebrate successes and promote energy efficiency throughout the community.

Tools/Resources

General Resources

- Portfolio Manager
  Allows users to assess and track energy and water consumption within individual buildings as well as across an entire building portfolio

- Rapid Deployment Energy Efficiency (RDEE) Toolkit
  Provides detailed program design and implementation guides for 10 broadly applicable energy efficiency programs

- Directory of Energy Efficiency Programs
  Identifies organizations in each state that sponsor energy efficiency programs and that are partnered with ENERGY STAR

- Service and Product Provider Directory
  Locates companies that can help identify, prioritize, and implement quality projects that will improve total energy management

- ENERGY STAR Qualified Products and Procurement

- Teaming Up to Save Energy

Discusses how to structure, launch, and maintain an organization's energy team so it can improve energy performance across the organization

- Financing Primer
  ENERGY STAR Web Conferences & Pre-Recorded Online Trainings

- ENERGY STAR Web Conferences & Pre-Recorded Online Trainings

Building Resources

- Benchmarking Starter Kit
- New Building Design Guidance
- Building Upgrade Manual
- Guidelines for Energy Management
- Achieving "Designed to Earn the ENERGY STAR"
- Apply for the ENERGY STAR Certification
- Building Profiles & Leaders' Stories
- ENERGY STAR for Wastewater Plants
- Showcase Dorm Rooms

Calculators

- Financial Evaluation Tools
- **Financial Value Calculator:** presents energy investment opportunities in terms of key financial metrics. Use these powerful metrics to convey the value of improved energy performance to senior financial decisionmakers, investors and other stakeholders.
- **Building Value Calculator:** estimates the financial impact of proposed investments in energy efficiency in office properties
- **Cash Flow Opportunity Calculator**: helps decisionmakers answer three critical questions about energy efficiency investments:

1. How much new energy efficiency equipment can be purchased from the anticipated savings?
2. Should this equipment purchase be financed now, or is it better to wait and use cash from a future budget?
3. Is money being lost by waiting for a lower interest rate?

- Target Finder
  Helps architects and building owners set aggressive, realistic energy targets and rate a building design's estimated energy use

Communications

- ENERGY STAR Challenge
  National call-to-action to improve the energy efficiency of America's commercial, industrial, and public buildings by 10 percent or more. More than 300 local governments and 40 states have signed up to become Challenge Participant Organizations

- ENERGY STAR Challenge Toolkit
  Provides communications materials to help spread the word on the benefits of energy efficiency, communicate commitments to energy efficiency, and promote energy efficiency throughout the community

- Bring the Challenge to Your Community
  Shows how to begin a local ENERGY STAR Challenge campaign and recruit businesses, organizations, and localities to participate

- Low Carbon IT Campaign

- Change the World, Start with ENERGY STAR Campaign

- ENERGY STAR for Kids

Program Profiles
Buildings

ENERGY STAR Residential— Existing Homes
(Home Performance with ENERGY STAR)

Services Offered
- ✓ Analytical Tools
- ✓ Environmental performance benchmarking
- ✓ Guidebooks/toolkits
- ✓ Public recognition
- ✓ Technical assistance
- ✓ Training seminars

Relevant Sectors
- ✓ Government
- ✓ Real Estate Development
- ✓ Residential
- ✓ Utility/Program Administrators

Website
www.energystar.gov/homeperformance

Contact
Energy Star Hotline
(888) STAR YES (782-7937)
homeperformance@energystar.gov

Description
Through Home Performance with ENERGY STAR (HPwES), EPA and DOE offer a comprehensive, whole-house approach to improving energy efficiency and comfort. Unlike typical energy audit programs, the goal of HPwES is to turn recommendations into improved homes. HPwES is managed by a local sponsor that recruits, trains, and provides quality assurance over home improvement contractors who deliver comprehensive home energy audits and efficiency installations.

Services
EPA and DOE can provide program start-up guidance for potential utilities or state energy offices. Once a sponsor has submitted an implementation plan and signed the partnership agreement, EPA will provide access to the Home Performance with ENERGY STAR logo, marketing resources, sales training, and sponsor outreach campaigns and through which contractors, utilities, or other program administrators can work together to increase awareness of HPwES in the local market.

Value to Environment
Energy efficiency is the lowest-cost strategy to address global climate change and air pollution by reducing the amount of emissions associated with the burning of fossil fuels to produce energy. To date, more than 110,000 homes have been served by ENERGY STAR Home Performance partners.

Many homes are candidates for this program to achieve savings of 20 percent or more through cost-effective home improvements.

Possible State and Local Actions

- Enhance current HPwES program (incentives, marketing, financing, training, etc.) if a program already exists in your state.

- Sponsor HPwES training programs for local contractors (curricula are currently available for purchase from NYSERDA and others).

- Offer incentives to reduce the cost of HPwES energy audits to residents.

- Provide incentives for energy efficiency improvements identified through HPwES assessments through any number of financial mechanisms (e.g., direct rebates, state revolving fund disbursements).

- Partner with ENERGY STAR and sponsor a HPwES program.

Tools/Resources

General Resources

- Introduction to HPwES Factsheet (PDF)
- **Rapid Deployment Energy Efficiency (RDEE) Toolkit** Provides detailed program design and implementation guides for 10 broadly applicable energy efficiency programs

Sponsor Resources

- How to Develop a Local Program Describes who can become a sponsor, the role of the program sponsor, where to start, and federal grant opportunities

- Fact Sheet: HPwES – A Cost-Effective Strategy for Improving Energy Efficiency in Existing Homes (PDF)
- Sponsor Guide (PDF)
- Program Implementation Plan Template (PDF)
- Contractor Success Stories
- Financing Guidebook (PDF)
- Marketing Resources
- HPwES Newsletters

Reduce Energy Use

- Home Performance with ENERGY STAR
- HPwES Brochure (PDF)
- Guide to Energy Efficient Heating and Cooling (PDF)
- Heat Smartly with ENERGY STAR at Home
- Home Sealing
- Duct Sealing
- ENERGY STAR Home Advisor
- Home Energy Yardstick Allows homeowners to compare household energy use with others across the country and get recommendations for improvement; can be hosted on a state or local government website
- Change the World, Take the ENERGY STAR Pledge

Find Incentives and Special Offers

- Locate Rebates and Special Offers
- ENERGY STAR Qualified Product Tax Incentives

Program Profiles
Buildings

ENERGY STAR Residential— New Homes

Services Offered
✓ Guidebooks/toolkits
✓ Professional networking
✓ Public recognition
✓ Training/seminars

Relevant Sectors
✓ Real Estate Development
✓ Residential
✓ Utility/Program Administrators

Website
www.energystar.gov/homes

Contact
Energy Star Hotline
(888) STAR YES (782-7937)
hotline@energystar.gov

Description

In the residential new construction marketplace, ENERGY STAR and its partners work together to promote the benefits and increase sales of energy efficient homes. Homes that earn the ENERGY STAR label must meet guidelines for energy efficiency set by EPA. ENERGY STAR qualified homes are at least 15 percent more energy efficient than homes built to the 2004 International Residential Code and include additional energy saving features that typically make them 20 to 30 percent more efficient than standard homes. Nationally, more than 1.2 million new homes have earned the ENERGY STAR label.

Services

EPA provides the ENERGY STAR logo mark, marketing resources, and sales training materials. EPA sponsors outreach campaigns through which builders and utilities can work together to increase awareness of ENERGY STAR qualified homes in the local market. EPA also hosts partner network meetings and offers opportunities for recognition for environmental stewardship.

Value to Environment and Other Co-benefits

Energy efficiency is one of the lowest-cost strategies to address global climate change and air pollution by reducing the amount of emissions associated with the burning of fossil fuels to produce energy.

Possible State and Local Actions

- Promote program administrator (e.g., utility, builder, other) efforts to expand the market for ENERGY STAR new homes.

- Offer training to building inspectors and code enforcement/compliance staff to help them become certified Home Energy Raters.

- Offer technical training to builders about building energy efficient homes.

- Provide incentives for or require new public housing to be ENERGY STAR qualified.

- Provide loan guarantees for ENERGY STAR qualified home mortgages.

Tools/Resources

General Resources

- Rapid Deployment Energy Efficiency (RDEE) Toolkit
  Provides detailed program design and implementation guides for 10 broadly applicable energy efficiency programs

Learn About ENERGY STAR New Homes

- Learn About the Features and Benefits of ENERGY STAR Qualified Homes

- New Homes Partner Locator

- Guidelines for ENERGY STAR Qualified New Homes

- Resources for ENERGY STAR Partners
  Includes marketing, technical, and educational resources

Communications Resources

- Marketing Toolkit
  Allows a builder to create customized promotional materials to educate consumers about the features and benefits of ENERGY STAR qualified homes

- Fact Sheets on the Features of ENERGY STAR Qualified Homes
  Provides information on many "tried-and-true" energy efficient features found in ENERGY STAR qualified homes related to home envelope, heating/cooling, lighting, appliances, and third-party verification

- Presentations
  Offers customizable presentation templates that target builders, appraisers, and real estate agents

- Free Webinars and Other Training Opportunities

- Training Resources

Program Profiles
Industry

ENERGY STAR for Industry

Services Offered
- ✓ Analytical tools
- ✓ Environmental performance benchmarking
- ✓ Guidebooks/toolkits
- ✓ Professional networking
- ✓ Public recognition
- ✓ Technical assistance
- ✓ Training

Relevant Sectors
- ✓ Government
- ✓ Industry
- ✓ Public
- ✓ Utility/Program Administrators

Website

www.energystar.gov/industry

Contact

Elizabeth Dutrow
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dutrow.elizabeth@epa.gov

Description

ENERGY STAR works with manufacturing companies to build and refine energy management programs, reduce energy costs and emissions, demonstrate environmental leadership, and improve competitiveness. ENERGY STAR offers road-tested resources, tools, benchmarks, and guidance to help companies establish energy programs that continuously improve energy efficiency. Hundreds of small, medium, and large manufacturers have adopted the ENERGY STAR approach to achieving lasting energy savings. ENERGY STAR industrial resources are recommended in the State Energy Efficiency (SEE) Action Network Blueprint for Industrial Energy Efficiency.

Services

EPA can help utilities, states, and local governments make use of ENERGY STAR resources to help manufacturing companies and plants in their area develop and refine their energy management programs, achieve GHG emission reduction goals, and define energy efficiency pathways for their operations. Specialized tools are available for 18 sectors— cement, concrete, corn refining, dairy processing, food processing, glass, laboratories, metal casting, motor vehicle, petrochemical, petroleum refining, pharmaceuticals, pulp & paper, steel, etc. — but the ENERGY STAR approach is built to accommodate manufacturers in any sector. General resources are available for industries of all types. Additionally, ENERGY STAR has energy management resources catered specifically for small and medium manufacturers.

Value to Environment and Other Co-benefits:

Energy efficiency is one of the lowest-cost strategies to address global climate change and air pollution by reducing the amount of emissions associated with the burning of fossil fuels to produce energy. Using the ENERGY STAR approach, hundreds of companies have established energy programs, set goals, established tracking systems, and are reducing their energy and GHG emissions.

Possible State and Local Actions

- Develop an industrial energy efficiency policy and program as recommended in the SEE Action Network's Blueprint for Industrial Energy Efficiency using ENERGY STAR's platform and resources.

- Use ENERGY STAR resources to help companies develop energy efficiency programs and ensure that manufacturers continue to focus on efficiency after energy projects have been completed.

- Provide industries with energy program assessment tools available from ENERGY STAR as the first step toward establishing an energy program.

- Leverage ENERGY STAR tools to help improve accountability and reporting of savings tied to state and local energy program assistance.

- Guide industry to evaluate their energy use, set a baseline and goals, and develop an energy savings program as part of conditions for receiving assistance, rebates, or grants. (ENERGY STAR offers tools to help companies track energy use and set goals.)

- Refer manufacturing companies seeking mentoring relationships or networking opportunities with other industrial companies to the ENERGY STAR Partnership.

- Encourage industry to join the ENERGY STAR Partnership to demonstrate a commitment to longstanding energy performance.

- Encourage companies with strong energy programs and that achieve significant savings to seek recognition from ENERGY STAR.

- Use the ENERGY STAR sector-specific Energy Guides to identify potential technologies and practices for greenhouse gas BACT analyses in review of CAA permits.

Tools/Resources

- Rapid Deployment Energy Efficiency (RDEE) Toolkit
  Provides detailed program design and implementation guides for 10 broadly applicable energy efficiency programs

- ENERGY STAR Focus Industries
  Provides industry-specific tools and resources, including information on trends in energy use and energy intensity in the industry, a systematic analysis and discussion of the energy efficiency opportunities in manufacturing plants, and more

- Small and Medium Manufacturer Resources
  Energy management resources scaled to meet the needs of small and medium manufacturers

- Guidelines for Energy Management
  Guidance on how to build an energy management program, based on the successful practices of ENERGY STAR partners. These guidelines informed the development of the international ISO 50001 energy management standard

- **ENERGY STAR Challenge for Industry**
  Easy-to-use and promote tool for engaging industrial sites in setting goals for energy efficiency improvement and rewarding achievement. Industrial sites commit to reduce energy use by 10 percent in 5 years or less. States and local governments and utilities can leverage ENERGY STAR through the challenge to get plants motivated to save energy

- **Plant Energy Performance Indicators**
  Manufacturing plant energy performance indicators (EPIs) are external yardsticks that assess how efficiently a plant uses energy, relative to similar plants nationwide. Plants scoring in the top quartile are eligible for ENERGY STAR certification

- **Energy Guides**
  A compilation of the energy efficiency practices and technologies that can be implemented in an industry's plants

- **Industrial Energy Management Information Center**
  Contains energy savings information tailored to industries and focused on specific plant utility and process improvements

- **Networking and Best Practice Sharing**

- **Web-Based Seminars and Conferences**

Combined Heat and Power Partnership

Services Offered
- ✓ Analytical tools
- ✓ Matching buyers and sellers
- ✓ Professional networking
- ✓ Public recognition
- ✓ Technical assistance
- ✓ Training

Relevant Sectors
- ✓ Agricultural
- ✓ Commercial
- ✓ Government
- ✓ Industry
- ✓ Utility/Program Administrators
- ✓ Education
- ✓ Real Estate Development

Website
www.epa.gov/chp

Contact
CHP Partnership Helpline
(703) 373-8108
chp@epa.gov

Description
Combined heat and power (CHP), also known as cogeneration, is an efficient, clean, and reliable approach to generating electricity and useful thermal energy (such as hot water or steam) from a single heat source. CHP can reduce energy use by up to 37 percent.

Services
EPA provides technical assistance and other resources to facility managers and others who are considering implementing CHP projects. Services include analyses of economic viability, feasibility studies, and information on technologies, vendors, and incentives. The program also provides public recognition to superior projects, training through webinars and conferences, and resources such as the Catalog of CHP technologies, the CHP Emissions Calculator, and a database of funding opportunities and financial incentives.

Value to Environment and Other Co-benefits
CHP prevents emissions of CO_2 and other pollutants by reducing the fuel combusted to produce electricity and useful thermal energy. CHP can also improve the quality and reliability of a facility's power supply, and reduce demands on often-strained electricity transmission and distribution systems.

Possible State and Local Actions

- Provide incentives/rebates for the development of CHP projects (e.g., as in Connecticut, New Jersey, and California).

- Use State Revolving Fund money to fund the installation of CHP systems at wastewater treatment systems where they can use captured biogas as free fuel.

- Remove policy barriers that impede the development of CHP projects (e.g., standby utility rates and input-based emissions regulations).

- Develop an outreach campaign to promote CHP in strategic market sectors.

- Create CHP goals and targets as part of climate and energy plans.

- Allow CHP as an eligible resource under a renewable or energy efficiency portfolio standard.

Tools/Resources

- State Policy Resources
  Helps states identify and pursue policies and programs that support the increased use of clean distributed generation, such as CHP

- Efficient Energy for Local Governments
  Describes how local governments are using CHP to reduce their operating costs, provide a hedge against volatile energy costs, increase their energy efficiency, and reduce emissions of GHGs and other pollutants from the combustion of fossil fuel

- CHP Project Development Handbook (PDF)
  Provides information, tools, and suggestions on CHP project development and CHP technologies

- Strategic Markets for CHP
  Offers information and outreach materials on CHP opportunities in key sectors including: local governments, wastewater treatment facilities, hotels and casinos, and electric utilities

- CHP Funding Database
  Lists state and federal incentives applicable to CHP projects, including financial incentives and favorable regulatory treatment

- CHP Emissions Calculator
  Compares the anticipated carbon dioxide, sulfur dioxide, and nitrogen oxide emissions from a CHP system to those of a separate heat and power system. The calculator also presents estimated emissions reductions as metric tons of carbon equivalent, acres of fir or pine trees, and emissions from passenger vehicles

Program Profiles
Electric Power and Renewable Energy

Green Power Partnership

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Matching buyers and sellers
- ✓ Professional networking
- ✓ Public recognition
- ✓ Technical assistance

Relevant Sectors
- ✓ Commercial
- ✓ Government
- ✓ Industry

Website
www.epa.gov/greenpower

Contact
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Description
This promotes the use of renewable energy by pro-viding technical assistance, networking possibilities, and public recognition to entities that choose to use green power (i.e., electricity that is generated from resources such as solar, wind, geothermal, biomass, and low-impact hydro facilities). More than 120 local and 9 state governments are already Green Power Partners. To see the Green Power Partnership Top Local Government list, visit: www.epa.gov/green-power/toplists/top20localgov.htm

Services
The Green Power Partnership promotes and recog-nizes Green Power Partners as environmental lead-ers. EPA assists Partners in promoting the concept of green power internally and externally, which often includes media coverage. EPA also provides organizations with a means to estimate the envi-ronmental benefits of switching to green power and provides technical advice on navigating the process of making a green power purchase.

Value to Environment and Other Co-benefits
Conventional electricity use is a significant source of air pollution and GHG emissions. Buying green power can make a real difference environmentally by encouraging the development of new, domestic, renewable energy capacity, which produces elec-tricity with significantly less air pollution and no net increase in GHG emissions.

Possible State and Local Actions
- Purchase green power for government opera-tions (e.g., as in Connecticut, Pennsylvania, Wisconsin).
- Encourage localities to partner with EPA to become Green Power Communities, where

local government, businesses, and residents collectively buy green power in amounts that meet or exceed EPA's Green Power Community purchase requirements.

- Encourage localities, companies, and industries to join as Green Power Partners.

- Encourage existing partners in your state or locality to recruit other companies into the program or to expand their purchases.

Tools/Resources

- Guide to Purchasing Green Power (PDF)
  Includes information about the different types of green power products, the benefits of green power purchasing, and how to capture the greatest benefit from purchases

- Green Power Locator

- Steps to Becoming a Green Power Community

- Steps to Becoming a Green Power Partner

- GHG Emissions Calculator
  Helps users communicate the value of a green power purchase by translating it from kilowatt-hours purchased into more understandable terms, such as an equivalent number of passenger vehicles, homes, or coal plants

Landfill Methane Outreach Program

Services Offered
✓ Analytical tools
✓ Guidebooks/toolkits
✓ Professional networking
✓ Public recognition
✓ Technical assistance

Relevant Sectors
✓ Government
✓ Industry
✓ Utility/Program Administrators

Website
www.epa.gov/lmop

Contact
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Description

The Landfill Methane Outreach Program (LMOP) encourages the recovery of landfill gas (LFG)—mainly carbon dioxide and methane—for use as an alternative energy source, thus reducing GHG emissions. LMOP consists of four partner programs and an endorser program designed to assist different sectors of the LFG field. Through these programs, LMOP works with landfill owners/operators, industry organizations, energy providers and marketers, state agencies, communities, end-users, and other stakeholders to help them overcome barriers to LFG energy development. The program helps partners overcome barriers to project development by helping them assess project feasibility, find financing, and market the benefits of project development to the community.

Services

LMOP offers free technical, promotional, and informational tools as well as support services to assist with the development of LFG energy projects. These resources include the LMOP Online Toolkit; software tools for estimating costs and emission reductions; a variety of technical documents; and informational brochures, fact sheets, and case studies.

Value to Environment and Other Co-benefits

LMOP has assisted in the development of approximately 500 LFG utilization projects. These projects have prevented the release of more than 43 million metric tons of carbon equivalent (MMTCE) into the atmosphere over the past 16 years. In 2010,

operational LFG energy projects in the United States prevented the release of more than 27 MMTCE. This reduction is the carbon equivalent of the annual greenhouse gas emissions from nearly 19 million passenger vehicles or the carbon sequestered annually by more than 21 million acres of pine or fir forests.

Possible State and Local Actions

- Participate in a state landfill methane outreach task force.

- Work with LMOP to hold a state-based LFG workshop to outline progress in facilitating project development in the state, and receive input on state-specific issues affecting the development of LFG energy projects.

- Become an LMOP State or Community Partner that encourages coordination among permitting and regulatory offices to lower barriers and increase opportunities for LFG recovery.

- Analyze city- or county-owned landfills for the technical and economic feasibility of an LFG energy project using LMOP tools and resources.

Tools/Resources

Learn More

- Basic Information on LMOP and LFG
Provides an overview of methane emissions from landfills and how LMOP is working collaboratively with businesses, states, energy providers, and communities to convert landfill gas to energy

- Energy Projects and Candidate Landfills
- How to Become a State or Community Partner
- LFG Energy Project Development Handbook

Toolkit

- Communicating the Benefits of LFG Energy Projects
Offers tips for beginning or expanding outreach efforts for an LFG energy project

- Promoting Your LMOP Participation
Provides ideas for promoting your LMOP involvement, which can demonstrate your commitment to improving the environment

- Sample Tools for LMOP Outreach
Provides tools that can be used or adapted, or that can serve as a springboard for new outreach ideas

Program Profiles
Electric Power and Renewable Energy

AgSTAR

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Outreach support
- ✓ Technical assistance
- ✓ Professional networking
- ✓ Public recognition
- ✓ Training
- ✓ Matching buyers and sellers

Relevant Sectors
- ✓ Government
- ✓ Industry
- ✓ Utility/Program Administrators
- ✓ Agricultural

Website
www.epa.gov/agstar

Contact
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voell.christopher@epa.gov

Description
AgSTAR is a voluntary program of EPA, jointly sponsored by the U.S. Department of Agriculture. The program encourages the profitable use of methane recovery (biogas) technologies at livestock facilities. These technologies produce renewable energy and reduce methane emissions while achieving other environmental benefits.

Services
AgSTAR offers project development resources, including a Web-based tool to assess project feasibility, provides technical assistance, publishes information and guidebooks, and sponsors events and workshops.

Value to Environment and Other Co-benefits
The AgSTAR program has successfully encouraged the development and adoption of anaerobic digestion technologies. Since 1994, the number of operational digester systems in the United States has grown to more than 160, producing significant benefits. In 2010, livestock manure digester systems in the United States reduced 80,000 tons of methane emissions and generated 275 million kWh of energy.

Possible State and Local Actions
- Use AgSTAR resources to identify livestock facilities in the state or locality that do not have digester systems and offer technical assistance to evaluate potential.
- Provide information on financial incentives for facilities to install digester systems.

- Provide grants or tax incentives to help level the playing field for digester energy generation projects versus traditional energy generation.

- Include digester biogas projects in state renewable energy or renewable portfolio standard incentive plans.

- Implement state energy policies that provide appropriate state standards for net metering, standby charges, tariffs, and interconnection to the grid for distributed biogas generators.

Tools/Resources

- AgSTAR Handbook
  Provides guidance on developing biogas technology at commercial farms

- Market Opportunities Report (PDF)
  Assesses the market potential for biogas energy projects at swine and dairy farms in the United States

- Funding On-Farm Biogas Recovery Systems: A Guide to Federal and State Resources
  Provides information about programs and strategies, such as low-interest loans, grants, and tax incentives, that can help parties interested in implementing anaerobic digestion technology

- Industry Directory for On-Farm Biogas Recovery Systems (PDF)
  Helps farm owners and others interested in on-farm biogas recovery systems identify appropriate consultants, project developers, energy services, equipment manufacturers and distributors, and commodity organizations

- A Protocol for Quantifying and Reporting the Performance of Anaerobic Digestion Systems for Livestock Manures Digester Performance Evaluations (PDF)
  Characterizes environmental and financial improvements provided by anaerobic digesters

Program Profiles
Smart Growth

Office of Sustainable Communities

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Outreach support
- ✓ Technical assistance
- ✓ Public recognition

Relevant Sectors
- ✓ Government
- ✓ Commercial
- ✓ Residential
- ✓ Utility/Program Administrators
- ✓ Public
- ✓ Education
- ✓ Real Estate Development

Website
www.epa.gov/smartgrowth

Contact
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Description

This program provides tools, research, and technical assistance to help communities grow in ways that are environmentally, economically, and socially sustainable. It encourages compact, walkable development that uses land, energy, and water efficiently and has a mix of residential, commercial, and other uses.

Services

The Office of Sustainable Communities helps communities improve their development practices and get the type of development they want. The office works with local, state, and national experts to discover and encourage successful, environmentally-sensitive development strategies. OSC also coordinates EPA's involvement in the Partnership for Sustainable Communities with HUD and DOT and works with other federal agencies to provide technical assistance on development issues to communities.

Value to Environment and Other Co-benefits

Smarter, more efficient development uses resources more efficiently and can reduce air and water pollution by making it easier for people to walk, bike, or take transit. Compact development and open space preservation can help protect water quality by reducing the amount of paved surfaces and by allowing natural lands to filter rainwater and runoff before it reaches drinking-water supplies. Smart growth strategies improve quality of life, reduce greenhouse gas emissions, save money for residents and local governments, and can encourage economic development.

Possible State and Local Actions

- Review land use ordinances to determine if they allow the community to get the type of development it wants.

- Encourage walking, bicycling, and transit use by making streets safe and comfortable for all users.

- Encourage new development in infill and cleaned-up brownfield locations rather than on the fringe.

- Build compactly and mix land uses so that homes, stores, services, and workplaces are close enough together for people to walk or bike.

Tools/Resources

Technical Assistance

- [Smart Growth Implementation Assistance](#)
  Offers assistance through an annual competitive process to state, local, regional, and tribal governments that are facing a development-related challenge. Reports from past projects are available on the website and may be helpful to communities facing similar challenges

- [Sustainable Communities Building Blocks](#)
  Provides targeted assistance awarded through an annual competitive process to help communities with specific tools that have proven effectiveness and wide applicability

- [Making Smart Growth Happen](#)
  Offers many tools and resources to help communities learn about and implement smart growth approaches

Case Studies and Examples

- [National Award for Smart Growth Achievement](#)
  Provides write-ups of award winners, who provide models for other communities

- [Smart Growth Illustrated](#)
  Offers examples of how smart growth techniques look in communities around the country

- [Essential Smart Growth Fixes for Urban and Suburban Zoning Codes](#)
  Offers 11 "essential fixes" to help local governments amend their codes and ordinances to promote more sustainable development

- [Putting Smart Growth to Work in Rural Communities](#)
  Focuses on smart growth strategies that can help guide growth in rural areas while protecting natural and working lands and preserving the rural character of existing communities

- [Getting to Smart Growth, Volumes I and II](#)
  Each volume provides 100 concrete techniques for putting smart growth principles into action, along with resources and brief case studies of communities that have applied these approaches to achieve better development. Also available in Spanish

- [Leveraging the Partnership: DOT, HUD, and EPA Programs for Sustainable Communities (PDF)](#)
  Helps communities identify federal resources that can support their efforts to promote more sustainable communities

- [Smart Growth Guidelines for Sustainable Design and Development](#)
  Provides guidelines that can serve as a checklist to ensure that programs, plans, and proposed developments incorporate the elements needed at the location, site, and building levels to result in more sustainable, affordable housing

Climate Ready Estuaries

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Outreach support
- ✓ Training

Relevant Sectors
- ✓ Government
- ✓ Residential
- ✓ Public
- ✓ Education

Website

www.epa.gov/cre

Contact

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Description

The Climate Ready Estuaries (CRE) program works with the National Estuary Programs and other coastal managers to: 1) assess climate change vulnerabilities, 2) develop and implement adaptation strategies, 3) engage and educate stakeholders, and 4) share the lessons learned with other coastal managers.

Services

The CRE program provides direct technical assistance to the 28 National Estuary Programs; however other coastal managers can benefit from the guidance/lessons learned documents that the program produces. The Climate Ready Estuaries website offers information on climate change impacts to different estuary regions, access to tools and resources to monitor changes, and information to help managers develop adaptation plans for estuaries and coastal communities.

Value to Environment and Other Co-benefits

Estuaries and coastal areas are particularly vulnerable to climate variability and change. In order to protect their ecosystems from projected impacts of sea level rise, increasing temperatures, and other effects, coastal managers may need to develop and implement adaptation measures. The CRE program works with NEPs to better understand these vulnerabilities and plan for them, thereby increasing resilience.

Possible State and Local Actions

- Identify and partner with local planners and coastal managers working on adaptation to climate change.

- Learn about efforts being undertaken around the United States. to better understand climate change vulnerabilities to coastal areas, engage stakeholders, and implement adaptation strategies.

- Engage your community through education campaigns, ordinances, and demonstration projects.

Tools/Resources

- 2010 Climate Ready Estuaries Progress Report This document focuses on the accomplishments of the existing CRE Partners. This report complements the 2009 CRE Progress Report; together they provide a summary of the design and accomplishments of CRE to date

- Synthesis of Adaptation Options for Coastal Areas This guide provides a brief introduction to key physical impacts of climate change on estuaries and a review of on-the-ground adaptation options available to coastal managers to reduce their systems' vulnerability to climate change impacts

- Adaptation Planning for the National Estuary Program This white paper developed by the Climate Ready Estuaries program describes five critical elements of adaptation planning in coastal areas and provides examples and resources for more information

Climate Ready Estuaries Water Utilities

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Outreach support
- ✓ Technical assistance
- ✓ Training

Relevant Sectors
- ✓ Government
- ✓ Commercial
- ✓ Industry
- ✓ Utility/Program Administrators
- ✓ Public
- ✓ Education
- ✓ Agricultural

Website
water.epa.gov/infrastructure/watersecurity/climate/

Contact
Curt Baranowski
(202) 564-0636
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Description
EPA's Climate Ready Water Utilities (CRWU) initiative provides resources for drinking water, wastewater and stormwater (water sector) to adapt to climate change by promoting a clear understanding of climate science, adaptation options, and the consideration of integrated water resources management planning in the water sector.

Services
CRWU coordinates with federal, state, and local water utilities and their associations to support water sector climate resilience. CRWU support includes access to relevant climate information, climate risk assessment and adaptation tools, and other outreach and technical assistance.

Value to Environment and Other Co-benefits
Climate change impacts pose challenges to water sector utilities in fulfilling their public health and environmental missions. Extreme weather events, sea level rise, shifting precipitation and runoff patterns, temperature changes, and resulting changes in water quality and availability have significant implications for the sustainability of the water sector. It is important for the water sector to be better informed of climate risks so they can take actionable steps to address these risks through no- or low-regret adaptation strategies.

Possible State and Local Actions

- Conduct an assessment to evaluate water system risks from climate change.

- Identify and evaluate utility climate adaptation and mitigation practices.

- Build local decisionmaker, interdependent sector, and general community support for planned organizational and operational climate-related changes.

- Avoid making large, long-term investments that do not consider and reflect the potential need to adapt to or minimize climate impacts.

- Improve energy management practices and implement cost-effective energy efficiency upgrades.

- Stay informed of climate science developments by establishing a relationship with local climate science researchers or participating in water sector association-led climate events.

Tools/Resources

- Climate Ready Water Utilities Website
  The CRWU website contains tools, resources, and outreach and planning materials for utilities, such as an Adaptation Strategies Guide and a program overview

- Climate Ready Water Utilities Working Group Report (including a short overview)
  The report includes 11 findings and 12 recommendations, an adaptive response framework to guide climate ready activities, and the identification of needed resources and possible incentives to support and encourage utility climate readiness

- Climate Resilience Evaluation and Assessment Tool (CREAT)
  This software tool assists drinking water and wastewater utility owners and operators in understanding potential climate change impacts and in assessing the related risks at their utilities. CREAT allows users to evaluate adaptation strategies by using both traditional risk assessment and scenario-based decisionmaking

- Climate Ready Water Utilities Toolbox - Beta
  This searchable toolbox contains resources that support all stages of the decision process, from basic climate science through integration of mitigation and adaptation into long-term planning

- Tabletop Exercise Tool for Water Systems
  The TTX Tool introduces users to the potential impacts of climate change on the water sector by providing five customizable tabletop exercise scenarios utilities can use to consider and implement long-term planning measures

- EPA's Watershed Academy December 2nd, 2010 Webcast: "Climate Adaptation Tools for Addressing Water Issues"

WaterSense

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Outreach support
- ✓ Matching buyers and sellers
- ✓ Technical assistance

Relevant Sectors
- ✓ Government
- ✓ Commercial
- ✓ Residential
- ✓ Utility/Program Administrators
- ✓ Public
- ✓ Education
- ✓ Real Estate Development

Website
www.epa.gov/watersense

Contact
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watersense@epa.gov

Description

WaterSense, a partnership program sponsored by EPA, seeks to protect the future of our nation's water supply by offering people simple ways to use less water with water-efficient products, new homes, and services. Since the program's inception in 2006, WaterSense has helped consumers save a cumulative 125 billion gallons of water and $2 billion in water and energy bills.

Services

The WaterSense Program labels products that are independently certified to meet EPA's criteria to use 20 percent less water and perform as well as conventional models. The WaterSense label is currently available on residential toilets, bathroom faucets and faucet accessories, showerheads, flushing urinals, and single-family new homes. The WaterSense label also appears on professional certification programs for landscape irrigation professionals. These WaterSense labeled programs verify professional proficiency in water-efficient irrigation system design, installation/maintenance, and auditing.

Value to Environment and Other Co-benefits

Water efficiency measures, as part of broader conservation efforts, can help communities with demand management as an adaption response. Efficiency can also reduce water treatment and infrastructure costs by reducing the need to expand capacity. Saving water also provides greenhouse gas mitigation benefits by reducing the amount of energy needed to transport, treat, and heat water.

Possible State and Local Actions

- Partner with WaterSense for free access to tools, materials, and resources to promote water efficiency.

- Recommend, install, and or provide financial incentives for use of WaterSense labeled products or water efficient practices.

- Network with water efficiency leaders to learn new ways to implement water efficiency.

- Participate in national outreach programs to help consumers save water.

- Recommend WaterSense Irrigation Partners for irrigation system installation and audits.

Tools/Resources

- Water saving tips and messages for consumers, utilities, and other organizations

- List of WaterSense labeled products and irrigation partners

- Tools to calculate water savings

Program Profiles
Waste

WasteWise Communities

Services Offered
- ✓ Analytical tools
- ✓ Guidebooks/toolkits
- ✓ Outreach support
- ✓ Technical assistance
- ✓ Professional networking
- ✓ Public recognition
- ✓ Environmental performance benchmarking
- ✓ Training

Relevant Sectors
- ✓ Government
- ✓ Residential
- ✓ Utility/Program Administrators
- ✓ Public
- ✓ Education

Website
www.epa.gov/epawaste/partnerships/wastewise

Contact
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Description
WasteWise Communities is a campaign supporting local governments in their efforts to reduce residential municipal solid waste and its impact on climate change. Efforts such as waste prevention and recycling reduce the demand for new products and conserve valuable natural resources and, from a life-cycle perspective, significantly cut greenhouse gas emissions.

Services
EPA has developed calculators, targeted programs, technical guidance, and other resources to assist municipalities seeking to reduce their waste stream and mitigate their climate impacts. To learn more about resources available to WasteWise members, visit the Benefits page on the WasteWise website.

Value to Environment and Other Co-benefits
Waste reduction saves cities money and also helps to mitigate global climate change. Every stage of a product's life cycle—extraction, manufacturing, distribution, use, and disposal—consumes energy and releases greenhouse gases (GHGs) that contribute to climate change. WasteWise works with municipalities to decrease GHG emissions by providing

tools and resources that help communities find economically viable solutions that reduce waste and help fight climate change.

Possible State and Local Actions

- Implement omposting programs.
- Practice resource management.
- Implement Pay-As-You-Throw (PAYT) programs.
- Purchase products with recycled content.

Tools/Resources

- WasteWise Communities
  Supports local governments in reducing residential municipal solid waste and its impact on climate change.
- Technical Assistance
- Success Stories (case studies)
- Resource Conservation
  Provides information on managing materials more efficiently, including reducing, reusing, and recycling.
- Pay-As-You-Throw (PAYT)
  In communities with pay-as-you-throw programs (also known as unit pricing or variable-rate pricing), residents are charged for the collection of municipal solid waste—ordinary household trash—based on the amount they throw away. This creates a direct economic incentive to recycle more and to generate less waste

- Composting
  Organic materials — yard trimmings, food scraps, wood waste, and paper and paperboard products — are the largest component of our trash and make up more than two-thirds of the solid waste stream

Responsible Appliance Disposal Program

Services Offered
✓ Analytical tools
✓ Guidebooks/toolkits
✓ Outreach support
✓ Technical assistance
✓ Public recognition

Relevant Sectors
✓ Government
✓ Commercial
✓ Industry
✓ Residential
✓ Utility/Program Administrators
✓ Public

Website

www.epa.gov/ozone/partnerships/rad

Contact

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Description

EPA's Responsible Appliance Disposal (RAD) Program is a partnership program to help protect the ozone layer and reduce emissions of greenhouse gases. The RAD Program recognizes partners that ensure the disposal of refrigerant-containing appliances using the best environmental practices available. The program invites utilities, retailers, manufacturers, state and local governments, universities, and other qualifying organizations to become partners.

Services

The RAD Program provides partners with technical assistance to develop successful recycling programs for refrigerant-containing appliances. Partners can receive public recognition and have access to program resources.

Value to Environment and Other Co-benefits

Partners reduce emissions of ozone-depleting substances (ODS) and greenhouse gases by recovering appliance foam and refrigerant. They also prevent the release of hazardous materials including oil, PCBs, and mercury, as well as saving landfill space and energy by recycling durable materials.

Possible State and Local Actions

- Promote responsible appliance disposal through strategic outreach and information discrimination.

- Encourage local utilities and retailers to join the RAD Program.

- Set up a local haul away and recycling program for refrigerant-containing appliances.

Tools/Resources

- Basic Information on the RAD Program

- Partner Resources
  Case studies, fact sheets, program evaluation reports

- Guidance Document for Partners
  Discuses best practices for appliance disposal

- How to Become a Partner

EPA 430-B-11-002
OCTOBER 2011
WWW.EPA.GOV/STATELOCALCLIMATE

State and Local
Climate and Energy Program

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