

U.S. EPA State and Local Climate and Energy Program Resources for Combined Heat and Power Projects

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State and Local Climate and Energy Program
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CHPP/Local Climate & Energy Webcast

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Communities Matter



- Local governments play a key role in climate and energy issues through their decisions and policies.
- ARRA \$ provides a tremendous opportunity for local governments to build and strengthen energy efficiency and climate protection programs in ways that will provide benefits beyond the economic recovery period.
- Administrator Lisa Jackson has made communities a top priority of for EPA and we are working to champion local interests at the federal level and support your efforts on the ground.
- EPA has numerous tools, resources, and communication channels to help local governments take advantage of the opportunities available and build robust climate and energy programs.



Local Climate and Energy Program



Informational and Peer Exchange Network

- Advance comprehensive climate and clean energy approaches in local governments and their communities
- Focus on established, cost-effective best practices: Energy efficiency first, renewable energy second
- Serve as a gateway to existing resources and programs
- Develop new tools, resources, and guidance
- Facilitate peer to peer exchange
- Showcase success stories



<http://epa.gov/cleanenergy/energy-programs/state-and-local/local.html>

Local Climate and Energy Program Goals



Assist localities (e.g., tribal governments, regional governments, municipalities and small communities) to:

- Reduce greenhouse gas emissions while achieving their sustainability goals
- Identify and work with expert partners and programs
- Understand, integrate, and maximize multiple benefits (e.g., energy savings, cost savings, public health benefits, economic growth, securing local energy) in planning and designing programs



Webcasts and Training



- Local Climate and Energy Webcast Series

- Held monthly, announced via our listserv and website
- Each call features local government case studies and speakers
- Future Topics:
 - Workforce Development (Green Jobs)
 - Transportation Control Measures
 - Smart Growth
 - Efficient Fleets
- View past webcasts at:

www.epa.gov/cleanenergy/energy-programs/state-and-local/webcast.html

- Additional Webcast Opportunities

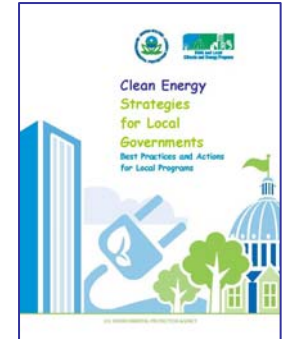
- ENERGY STAR Training Center <http://energystar.gov/training>
- State Climate and Energy Technical Forum
<http://epa.gov/cleanenergy/energy-programs/state-and-local/state-forum.html>
- DOE Technical Assistance Project for State and Local Officials
http://apps1.eere.energy.gov/wip/tap_webcasts.cfm

Local Climate and Energy Strategy Guides



- **Covers Multiple Strategies in Five Areas**

- Energy Efficiency, Renewable Energy, Transportation, Solid Waste and Materials Management, and Urban Planning and Design
- For each strategy, outlines: benefits, measures, key participants, mechanisms for implementation, costs, funding, interaction with federal, regional, and state programs, case studies, and resources/references



- **Eight Guides Currently Available**

On web as drafts; finals expected early 2010

- Energy Efficiency in Affordable Housing
- Energy Efficient Product Procurement
- **Combined Heat and Power**
- Energy Efficiency in Municipal Operations
- Green Power Procurement
- On-site Renewables
- Landfill Gas to Energy
- Energy Efficiency in K-12 Schools

- **Upcoming Guides**

- Transportation Control Measures
- Efficient Fleets
- Smart Growth
- Reducing Urban Heat Islands

Featured Local Climate and Energy Guide - Combined Heat and Power



Content Snapshot

- Key strategy for improving energy efficiency reducing GHG emissions in local government operations & communities
- Opportunity: include in local planning process – local buy in; connect to other goals, priorities & initiatives; identify & remove barriers
- CHP Benefits for local governments & communities
 - Reduce energy use and costs
 - Reduce GHG emissions and other environmental impacts
 - Increase economic benefits through job creation and market development
 - Offset capital costs
 - Hedge against financial risk
 - Energy system benefits
 - Increased electricity reliability
 - Demonstrate leadership

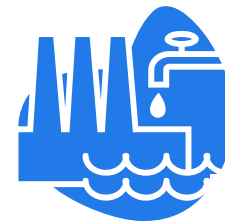
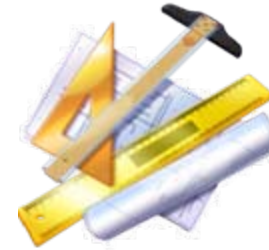


Featured Local Climate and Energy Guide - Combined Heat and Power



Content Snapshot (continued)

- Tools for assessing CHP potential
 - EPA CHP emissions calculator
<http://www.epa.gov/chp/basic/calculator.html>
 - U.S. Department of Housing & Urban Development CHP screening tool
<http://www.hud.gov/offices/cpd/library/energy/software.cfm>
- Local CHP applications
 - Wastewater treatment facilities
 - Landfill gas energy projects
 - K-12 schools
 - Multi-family housing
 - District energy systems



Featured Local Climate and Energy Guide - Combined Heat and Power



Content Snapshot (continued)

Chicago, IL – Cogeneration

- The city's 2001 Energy Plan established a goal for 1.5 billion kWh of the city's annual electricity use to be generated using CHP technologies by 2010.
- The Department of Environmental Protection works with local businesses, organizations, medical facilities, and public entities to provide technical assistance and information on CHP technologies.
- Results:
 - Since 2000, the city has assisted in the installation of eight CHP systems, which offer a combined installed capacity of 54.4 MW.

St. Paul, MN – District Energy

- In 1978, DOE and the Minnesota Energy Agency conducted a local facility study for a district hot water system, which led to the incorporation of *District Energy*.
- The installed system extends to more than 400 customers, including several downtown local government facilities.
- In 2003, a biomass-fueled CHP system was integrated into the existing system.
- Results:
 - 80% reduction in reliance on coal.
 - Stable rates that are less susceptible to fluctuations in fossil fuel prices.
 - GHG emissions reduction of 280,000 tons annually .

EPA ARRA Resources for Energy Efficiency and Renewable Energy Projects



State and Local Climate and Energy Economic Recovery Resources Website

www.epa.gov/cleanenergy/energy-programs/state-and-local/recovery.html

Funding Opportunities within ARRA 2009:

- **Document:** **American Recovery and Reinvestment Act of 2009: A Guide to Renewable Energy and Energy Efficiency Opportunities for Local and Tribal Governments**

EPA Programs and Resources:

- **Document:** ARRA 2009: State and Local Guide to U.S. EPA Climate and Energy Program Resources

Project Ideas and Implementation Support Resources:

- **Toolkits** - Rapid Deployment Energy Efficiency (RDEE)
- **Documents** – Clean Energy Funds, EECSBG drop-in text samples, Local Clean Energy Strategy Guides, Energy Star products for Shovel-ready projects
- **Webcasts** – Local climate and energy webcast series, Energy STAR building benchmarking webcasts, other Energy STAR webcasts

Content Snapshot

- This 16-page guide provides an overview of funding sources in ARRA that local and tribal governments can use to implement clean energy programs and EPA resources that can support clean energy efforts.
- The guide covers funding and resources for clean energy applications in key areas:
 - **Local government operations (including water treatment)***
 - **Affordable housing***
 - **Green schools***
 - Transportation and alternative fuels
 - Green job training



*CHP projects may be eligible

Content Snapshot (continued)

- For each funding opportunity under the key areas the following information is provided:
 - Description of the program
 - Eligibility requirements
 - Funding allocation
 - Program administration
 - Web links for more information



http://www.epa.gov/cleanenergy/documents/local_guide_to_arra.pdf

Climate Showcase Communities Grant



- \$10M competitive grant for local and tribal government GHG reduction initiatives
- Goal: showcase documentable, replicable GHG reductions
- High interest in efficiency, community outreach, social marketing
- Funding process
 - First awards to be announced January 2010
 - Round 2 will open spring/summer 2010
- Program for grantees and all communities
 - 2010:
 - Webcasts for information and peer exchange
 - Training for 1st grantees
 - 2011+
 - Webcasts for information and peer exchange
 - Conferences for training and networking



Climate Showcase Communities

Connections with ARRA Funding

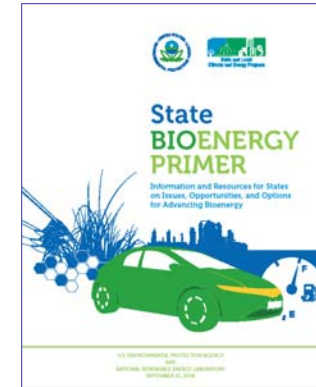


- Focus and Goals
 - ARRA: funds for energy reductions, implementation only
 - Showcase Grants: focus on GHG reductions (broader than energy), planning through implementation
- Timelines
 - ARRA: funds already being distributed, must be spent within 18 months (by ~12/2010), forces emphasis on “shovel ready”
 - Showcase Grants: funds available 1/2010, 2-3 year project periods, allows longer-term planning, assessment, education, evaluation
- Support and Peer Exchange
 - ARRA: limited direct support available (due to volume), no identified mechanisms for peer-to-peer exchange, no replicability requirement
 - Showcase Grants: hands-on technical support and training for all recipients, multiple peer-exchange venues, replicability is goal
- ARRA and Showcase Grants Serve as Complements
 - ARRA allows mass implementation, sows seeds for long-term change
 - Showcase Grants grow projects into sustainable, replicable models of success
 - Lessons learned from ARRA projects inform Showcase Communities, serve as additional source of results and best practices
 - Coordinating reporting metrics saves effort for feds and funding recipients

State Bioenergy Primer



- Available at: www.epa.gov/cleanenergy/documents/BioenergyPrimer.pdf
- Covers biopower, biofuels, and bioproducts
- Concise format useful for policy-makers
- Primer to understand the basics / determine if additional information is wanted or needed
- Every chapter includes lists of selected resources and tools for more details



Abbreviated Table of Contents:

- **Chapter 2. What Is Bioenergy?**
 - Feedstocks, Conversion Technologies
- **Chapter 3. Benefits, Challenges, and Considerations of Bioenergy**
 - Economics, Environmental Issues, Feedstock Supply, Infrastructure
- **Chapter 4. How Can States Identify Bioenergy Opportunities?**
 - Determine Feedstock Availability, Assess Markets, Identify Opportunities
- **Chapter 5. Options for States to Advance Bioenergy Goals**
 - Policies, Regulatory Development; Environmental Revenue Streams, Investments/Financing, Incentives, RD&D, Information Sharing

Local Climate and Energy Contacts



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Main Website:

www.epa.gov/cleanenergy/energy-programs/state-and-local/local.html

State and Local Climate and Energy Listserv:

www.epa.gov/cleanenergy/energy-programs/state-and-local/listserv.html