



# Connecticut Climate Change

*Connie Mendolia, CT DEP  
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## Connecticut Climate Change

### **Background**

- Governor's Steering Committee Formed (Commissioner level - Clean Energy Fund, DEP, DPUC, DAS, DOT, OPM)
  - Staff level committee carries out day-to-day planning; meet monthly

Stakeholder process – April 2003 – Jan 2004

- Approximately 30 stakeholders (industry, government, academia, non-profits), workgroups and public meetings
- Report issued: *Stakeholder Dialogue: Recommendations to the Governor's Steering Committee*



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### **2005 CT Climate Change Action Plan**

- Draft submitted to CGA 1/5/05; public hearing 1/19; final plan due in February.
- Contains 55 recommendations made by Stakeholders, some with more in-depth analysis, meets or exceeds NEG/ECP goals
- Public input



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## Summary of Recommendations by Sector

- **Transportation:**
  - Raising emission standards for new cars; reducing black carbon from diesel engines through the use of low sulfur diesel, engine improvements and tailpipe controls; investing in a hydrogen infrastructure and R&D program.
- **Residential, Commercial, Industrial:**
  - Upgrading building codes and using energy efficient materials and design concepts in the construction of new state buildings and schools (LEED standard); promoting the purchase of environmentally preferable products and services by state agencies; testing biodiesel for heating.



## Recommendations

### **Agriculture, Forestry, Waste:**

Adopting actions to increase recycling and source reductions to 40%; encouraging consumers to buy local produce; supporting landfill-gas-to-energy projects.

- **Electricity:**

- Increasing the amount of renewable energy supplied to the electricity grid; implementing a program for Connecticut ratepayers to choose to purchase electricity derived from clean energy; state government purchase of clean energy.



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# Recommendations

## **Education:**

Increasing awareness among the general public, policy-makers, community leaders, and others of climate change issues and solutions; integrating into curricula and outreach programming



# Implementation

## 2 Key Elements:

### 1. Collaboration

- CT DEP working with other state agencies and with institutions and non-profits
- ***Different missions...different cultures, but same purpose...Public Service – to serve the people of the State of Connecticut!***
- Form Partnerships
- Communication

### 2. Education



## Implementation

- **Initial First Steps**
  - Governor accepted all 55 Recommendations: 38 “go”; 17 “slow”
  - Executive Order 32 issued
  - Commits state to purchase renewable energy (20% by 2010, 50% by 2050), and reduce energy use by 20%
- **Legislation - Public Acts passed in June 2004 session:**  
An Act Concerning Climate Change (PA 04-252)
  - Requires mandatory reporting of GHG emissions, creation of a registry, ongoing planning and implementation action plan effort, development of environmentally preferable purchasing for state goods and services



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## **Legislation, cont.**

- An Act Concerning Clean Cars
  - California emissions standards adopted
- An Act Concerning Clean and Alternative Fuel Vehicles
  - Promotes hybrids through tax incentives
- An Act Concerning Energy Efficiency
  - Sets efficiency standards for products and appliances



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## **DEP P2 Office Implementation**

### **Rec 54: Public Education & Outreach:**

**Website created: [www.ctclimatechange.com](http://www.ctclimatechange.com)**

- Central hub for all documents, press releases, links to NGOs working on climate issues and cities and towns, news & events
- Used for public comments on draft plan



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For more info, visit [www.ctclimatechange.com](http://www.ctclimatechange.com)



Home | Climate Change | Connecticut Leadership | Initiatives | News & Events | About Us

**Joint Legislative Committee Public Information Hearing on Climate Change Action Plan 2005 (Draft)**  
**January 19, 1:00, Legislative Office Building, Rm 2E**

**CT Climate Change Action Plan 2005 (Draft) submitted to General Assembly on 1/5/05**  
[Click here to review the draft 2005 plan](#)  
[Click here to view Press Release](#)

**Case Study Submission**  
[\(click here for form\)](#)

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## Welcome to Connecticut's Official Climate Change Website

On behalf of the Connecticut Governor's Steering Committee on Climate Change, we are pleased to inform you that the *Connecticut Climate Change Action Plan 2005 (Draft)* has been submitted to the CT General Assembly. This draft plan contains 55 action items which will enable the state to achieve its 2010 and 2020 greenhouse gas reduction goals. [\(click here to see draft 2005 plan\)](#)



Thank you for your participation in Connecticut's climate change initiative.



Tremaine Foundation

Special thanks to the [Emily Hall Tremaine Foundation](#) for their continued support of Connecticut's Climate Change efforts.

This site is co-administered by the Connecticut Department of Environmental Protection and the Connecticut Clean Energy Fund at the direction of the Governor's Steering Committee on Climate Change.



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## **Education & Outreach, cont.**

- DEP P2 web page with links
- P2 View newsletter articles and event list
- Press releases



## Implementation

### **2. Climate Change Education Committee formed**

- Includes state agencies (DEP, OPM, CEF, CT Transit) NGOs (working on clean energy, environmental, transportation, climate issues) school educators; monthly meetings
- Assists with education and marketing on all climate change action plan recommendations
- Provides network and coordination for groups doing outreach related to climate change
- Develops clearinghouse for CT climate change info, input on development of [www.ctclimatechange.com](http://www.ctclimatechange.com)



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## **Climate Change Education Committee, cont.**

**Collaboration on Messaging** - shares polling, messaging, and marketing research

Examples:

- 1) CT League of Conservation Voters public opinion surveys on global warming and related issues
- 2) SmartPower/Clean Energy States Alliance market research on clean energy
- 3) Natural Resources Defense Council presentation on “Talking Global Warming”



## Implementation

### 3. CT Science Center Collaborative

- Goal: integrate climate change science and call to action into programs at CT science centers and museums
- Project team: Clean Air-Cool Planet, New England Science Center Collaborative, DEP
- 22 centers interviewed provide opportunities to educate over 3 million people/year
- CT science centers provide: teacher training, citizen science programs, public displays, classroom programs



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## CT Science Center Collaborative

- CT science centers need: staff training on climate science and actions, curriculum and programs that meet CT science frameworks, programs, displays, resources, funding

### **Progress:**

- “Meet the scientist events” (3 so far) – climate scientists and researchers present to science centers
- Steering committee formed – to develop strategic plan
- New England Science Center Collaborative exists in all New England states, contact Richard Polonsky 603-444-1110



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## CT Science Center Collaborative





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## **Implementation, cont.**

### **Rec 29 – Promote Voluntary Programs**

DEP actively promotes existing programs and provides assistance

#### **Focus on Municipalities**

- ICLEI Cities for Climate Protection – 16 CT towns participating
  - First step is to complete GHG Inventory
  - Then Action Plans
  - Annual meeting to share progress and information



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## **Promote Voluntary Programs, cont.**

- **Energy Resource Guide for Municipalities**  
**[http://www.dep.state.ct.us/wst/p2/energy/municipal\\_energy\\_resource\\_guide.pdf](http://www.dep.state.ct.us/wst/p2/energy/municipal_energy_resource_guide.pdf)**
    - **Includes information on a variety of programs, resources, and contact info**
  - Partner to support CT Conference of Municipalities in hosting climate/energy events for their members – Nov 2004
  - Guilford workshop on Impact on Shoreline Communities
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## **Promote Voluntary Programs, cont.**

DEP help to promote 20% by 2010 clean energy campaign

- run by NGOs and focuses on cities and towns, faith communities, colleges, universities, business
  - CT's Clean Energy Communities – towns commit to 20% clean energy, get a certain number of businesses or households to purchase clean power – GET 1 FREE kW clean energy system worth \$10,000
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## **Implementation, cont.**

### **Rec 19 & 20: High Performance Schools, State funded buildings, privately funded projects**

- CT DEP on CT Green Buildings Council (also OPM, ISE, CEF, others)
  - New website is up and running - go to [www.ctgbc.org](http://www.ctgbc.org)
  - High Performance School workshop on 10/5/04
  - "advanced" high performance school workshop on 4/14/05, at Rensselaer at Hartford.
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## **High Performance Buildings, cont.**

### **Examples of state projects:**

#### Public buildings:

- LEED registered buildings completed - Dormitories at Eastern, Western, and Southern CT State University campuses.
  - June 2005 - Western CT State University Science Lab and Classroom building
  - Under construction - Science lab building at ECSU
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## **High Performance Buildings, cont.**

### **Examples of state projects:**

#### Private buildings:

- Mark Twain Museum Visitor Center - completed Spring 2004
  - Pfizer Research Center and Lab - completed January 30 , 2005
  - Bristol Myers Squibb warehouse center - under construction
  - Hotchkiss School new Music Wing - completed Spring 2005
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## **Implementation, cont.**

### **Rec 24 - Energy Benchmarking & Tracking**

- Energy Efficiency / Benchmarking Workshops
  - being held at different locations throughout the state to provide peer mentoring and technical assistance using Portfolio Manager.
  - OPM, ISE provides technical assistance.
  - First workshop held using student interns to collect and input data on (1) municipal buildings in certain communities (Stamford, Derby, Windham, Hartford)



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## **Implementation**

### **Rec 23 –Green Campus Initiative**

#### **New England Board of Higher Education**

- In August 2003, the NEBHE and the New England Governors' Conference sent a letter to the presidents of all New England colleges & universities.
  - Presidents asked to sign a voluntary pledge to support the goals of the NEG/ECP Climate Change Action Plan.
  - 19 CT colleges have signed, 85 Colleges & Universities in New England have signed the pledge (as of April 2004).
  - 3 CT colleges joined CA-CP Campuses for Climate Action programs
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## **NEBHE Pledges in CT**

- **19 Institutions in CT have signed (as of April 2004)**

- Central Connecticut State University
- Charter Oak State College
- Connecticut College
- Eastern Connecticut State University
- Fairfield University
- Gateway Community College
- Goodwin College
- Lyme Academy College of Fine Arts
- Naugatuck Valley Community College
- Northwestern Connecticut Community College
- Saint Joseph College
- Southern Connecticut State University
- St. Vincent's College
- Trinity College
- University of Bridgeport
- University of Connecticut
- University of New Haven
- Western Connecticut State University
- Yale University



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## **Campuses for Climate Action Workshop**

- First meeting held in New Haven, CT on March 28, 2003; quarterly meetings.
- Workshop recognized by EPA for being the first statewide meeting of its kind.
- Materials are available on Clean Air - Cool Planet website:
  - [http://www.cleanair-coolplanet.org/information/ccca\\_presentations.php](http://www.cleanair-coolplanet.org/information/ccca_presentations.php)



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## Green Campus List serve

- A **CT-Green-Campus-Exchange** listserve was established in June 2003 to facilitate communication between Connecticut campuses.
- Join by sending an e-mail to **[CT-Green-Campus-Exchange@yahoogroups.com](mailto:CT-Green-Campus-Exchange@yahoogroups.com)** or by signing up at **<http://groups.yahoo.com/group/CT-Green-Campus-Exchange>**



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## Implementation

### **RA 25 – Pilot Fuel Switching**

- DEP Supplemental Environmental Project funding for pilot at ECSU to test B20 blend in heating
  - Before and After testing:
    - Emissions testing (SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub>, O<sub>2</sub>, PAH)
    - Boiler efficiency and maintenance
    - Fuel use and costs



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## **Implementation**

### **RA 27 – State Procurement of Environmentally Preferable Services and Products**

- Working with DAS
- Climate Change Showcase at CT Shops Expo – Nov 2004
  - Displays, slide show, sample products, contract info
- Hybrids in state fleet, and fleet average mpg
- Energy Star products



## Implementation

### **Other DEP efforts:**

- Air Bureau:
  - Cal LEV II legislation & regulations - Rec 1
  - Clean diesel (school buses, construction) – Rec 9
  - Low sulfur home heating oil proposed legislation - Rec 9
- Promote Bike to Work & DEP carpooling - Rec 7 Smart Growth
- Renewable Energy Projects:
  - Fuel Cell at Dinosaur State Park - Rec 6



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## Evaluating Results

- Monthly state agency Climate Change Coordinating Committee (C4) meetings
- GSC meetings
- Progress tracked on website for each recommended action
- PA 04-252 requires DEP and GSC to submit annual progress report to legislative committees
- Continue public input, comments via website
- Distribution of final plan, presentations



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## **CT Leadership – Looking Ahead**

- February 15, 2005 - GSC to submit final *CT Climate Change Action Plan 2005* to legislative committees
- December 2005 (and annually) – DEP and GSC to submit annual progress report to legislative committees
- April 2006 (and annually) – CT Title V sources to submit greenhouse gas emissions reports to regional registry
- July 2006 – voluntary reporting on greenhouse gas emissions from other sources to regional registry
- July 2006 – (and triennially) – DEP publish greenhouse gas emissions inventory
- January 2007 – work with region to develop date for long-term goals
- January 2008 – GSC amend climate change action plan to reach long-term goals



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## **ADDITIONAL DETAILS**

**List of all 55 Recommendations by Sector**





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## **Recommendations**

### **Transportation Policy**

- LEV II Standards
- Greenhouse gas (GHG) feebate program
- Fleet vehicle incentives and initiatives
- Tailpipe GHG standards
- Public education initiative
- Hydrogen infrastructure research and demonstration program
- Transit, smart growth, and vehicle miles traveled (VMT) reduction package
- Multistate intermodal freight initiative
- Clean diesel and black carbon



# Recommendations

## Residential, Commercial, Industrial Policy

- Appliance standards
- Appliance-swapping program
- Electric hot water heater replacement program
- Bulk purchasing of appliances
- Upgrade residential and commercial building energy codes
- Promote energy efficient and energy improvement mortgages
- Energy Conservation Loan Program
- Weatherization Assistance program
- Energy Star Homes program
- High-performance buildings: schools and other State-funded buildings
- High-performance buildings: privately funded projects
- Shared savings program for government agencies
- Training of building operators
- Green campus initiative



## Recommendations

### **Residential, Commercial, Industrial Policy**(continued)

- Energy benchmarking, measurement, and tracking program for municipal buildings
- Pilot fuel-switching projects
- Remove barriers to third-party load-management techniques
- State procurement of environmentally preferable services and products
- Review of New England Regional Demand Response Initiative (NEDRI) recommendations
- Promote voluntary programs and actions
- Encourage clean combined heat and power
- Restore conservation and load management fund
- Create Heating oil conservation fund
- Create Natural gas conservation fund
- Identify measures to reduce high-global warming-potential gases



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## Recommendations

### **Agriculture, Forestry, Waste Policy**

- Install centralized manure digesters
- Reduce nonfarm fertilizer use
- Buy local produce
- Forest management and forest carbon offsets
- Urban tree planting program
- Forest and agricultural land preservation
- Promote use of durable wood products over other construction materials
- Support economically viable landfill gas-to-energy projects
- Increase recycling, source reduction to 40 percent
- Voluntary carbon offset program



# Recommendations

## Electricity Generation Policy

- Renewable energy strategy (RES)
- Renewable portfolio standard (RPS)
- Government green power purchase
- Production tax credit
- Clean energy choice
- Renewable Energy Certificates
- Restore Clean Energy Fund
- Energy efficiency and combined heat and power
- Regional cap-and-trade program



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# Recommendations

## Other Recommendations

- Public Education & Outreach
- Emissions inventory and reporting