

**Electricity Generation Sector**  
**Progress on Recommended Actions 45 – 53, 55**  
**Of the *Connecticut Climate Change Action Plan 2005***

**45. Renewable Energy Strategy**

**Purpose:**

The renewable energy strategy is a group of options designed to promote renewable energy. This recommendation includes several combined strategies that were run through the Integrated Planning Model (IPM) to inform the stakeholders in its decision-making role.

**Progress:**

- See individual recommended actions for progress on the following:
  - Recommended Action 46 – Renewable Portfolio Standard
  - Recommended Action 47 – Government Clean Energy Purchase
  - Recommended Action 48 – Production Tax Credit

**RA 46. Renewable Portfolio Standard**

**Purpose:**

Increasing the required percentage for Connecticut's Class I Renewable Portfolio Standard (RPS) beyond 2010. The RPS currently requires seven percent renewable energy content by 2010. The recommendation would extend the RPS through 2020 and increase the level of renewable energy required to twenty percent by 2020.

**Progress:**

- No progress noted at this time. All attention is focused on the successful implementation of the existing RPS in the near-term.
- For 2004, the Class I and II RPS were one percent and three percent respectively.

**Lead Agency for Implementation:**

Department of Public Utility Control, Connecticut Clean Energy Fund

**47. Government Clean Energy Purchase**

**Purpose:**

To move state government toward the purchase of clean energy and to lead by example.

**Progress:**

- [Executive Order 32](#) requires State government, including the university system, to purchase 20% Class 1 renewable energy by 2010; 50% by 2020; and 100% by 2050.
- A percentage of State government energy is produced by fuel cells at the Juvenile Detention Facility in Middletown.
- In an effort to increase clean energy purchases, the Office of Policy and Management allocated Stripper Well funding to allow the Connecticut Department of Environmental Protection (DEP) to purchase CTCleanEnergyOptions for all of its facilities for at least a year. The purchase is split 50/50 between the two suppliers, Sterling Planet and Community Energy. A [public announcement](#)/press event was held at the DEP on November 2, 2005 to officially announce the purchase. To date, this is the largest purchase of clean energy by any one entity in the State of Connecticut, 7.6 million kwh per year of electricity.

**Lead Agency for Implementation:**

Office of Policy and Management

## 48. Production Tax Credit

**Purpose:**

Connecticut should explore a production tax credit (equal to \$0.018/kWh for 10 years) for new Class I renewable energy projects in Connecticut that are not fully covered by the federal renewable production tax credit (PTC). This would be a potential mechanism to achieve the RPS and promote the development of in-state renewable energy in light of future information on the availability of and competition for biomass resources.

**Progress:**

- Public Act 03-135 requires United Illuminating (UI) and Connecticut Light and Power (CL&P) to sign long-term power purchase agreements for no less than 100 MW's of clean energy. This unprecedented act requires that contracts for no less than a 10-year period (the length of the federal PTC is 10 years) be signed at a wholesale market price plus up to \$0.055 per kWh (the federal PTC is inflation adjusted at a rate of \$0.015 per kWh).
- The DPUC has conducted a proceeding that established a procedure and process guidelines to implement the statute. For projects to be considered, they must: (1) receive financial support from the Connecticut Clean Energy Fund, (2), be reviewed and evaluated by UI and CL&P, and (3) be approved by the Department of Public Utility Control.

- There will be three rounds of RFP's to solicit projects under this act:
  - Round 1 – Connecticut Clean Energy Fund will be providing financial support for 34 MW's of potential projects for evaluation and contracting by UI and CL&P. These projects involve clean energy from wind, biomass, and fuel cells resources.
  - Rounds 2 and 3 – Have not yet been initiated, but are expected to take place in 2006.
- The need to develop a Connecticut-based PTC will depend upon how this act is successfully implemented.

**Lead Agency for Implementation:**

Connecticut Clean Energy Fund, Department of Public Utility Control, Department of Revenue Services

## 49. Clean Energy Option

**Purpose:**

Allow ratepayers to choose electricity derived from renewable energy sources.

**Progress:**

- The [CTCleanEnergyOptions<sup>sm</sup>](#) program, designed through a public process overseen by the Connecticut Department of Public Utility Control as required by P.A. 03-135 – Restructuring Act, allows customers of Connecticut Light & Power and United Illuminating to buy clean energy from either Community Energy or Sterling Planet. The program became available to customers on April 1, 2005.
- The CT Clean Energy Fund and SmartPower launched the [CT Clean Energy Communities program](#). Municipalities that join commit to purchase 20% clean energy by 2010. This program provides qualified cities and towns free clean energy systems (solar photovoltaic) by encouraging local businesses and residents to also purchase clean energy for their homes. Sixteen municipalities have joined to date: Bethany, Canton, Cheshire, Fairfield, Hamden, Mansfield, Middletown, Milford, New Britain, New Haven, Orange, Portland, Stamford, Trumbull, West Hartford, Westport.
- The State of Connecticut has committed to 20% clean energy by 2010 for all state agencies. In November 2005, the [Department of Environmental Protection committed to purchase clean energy](#) for all its facilities. This is the largest purchase of clean energy by any one entity in the State of Connecticut, 7.6 million kwh per year of electricity.
- More than 6,000 Connecticut residences and businesses in Connecticut have signed up to purchase clean energy since the Connecticut Clean Energy Option became available in April 2005.

**Lead Agency for Implementation:**

Department of Public Utility Control

## 50. Renewable Energy Credits

**Purpose:** The benefits of renewable energy— zero emissions of GHG and other pollutants—can be purchased via certificates called “green tags,” which track the generation and sale of renewable energy, even when produced outside the local utility grid.

**Progress:**

- Connecticut law currently allows the state’s Renewable Portfolio Standard to be satisfied by purchasing Class I or II renewable energy sources from the New England Power Pool trading system operated by the Independent System Operator in New England or by obtaining Renewable Energy Certificates for renewable sources from New York, Pennsylvania, New Jersey, Maryland or Delaware if these states’ Renewable Portfolio Standards meet certain comparability standards.
- On November 9, 2005, the DPUC issued a decision in Docket 04-01-13: DPUC Review of RPS Standards and Trading Programs in New York, Pennsylvania, New Jersey, Maryland, and Delaware in which the DPUC provides: 1) a legal interpretation of C.G.S. § 16-245a as amended by Section 34 of Public Act 05-01, June Special Session; 2) an overview of the existing Renewable Portfolio Standards trading system in New England; and 3) an update of current Renewable Portfolio Standards in New York, Pennsylvania, New Jersey, Maryland and Delaware and their progress toward establishing renewable energy trading systems in the jurisdictions that govern these five states.
- As a result of recent statutory changes, effective July 1, 2006, C.G.S. 16-245a (a)(2) subsection (A) establishes January 1, 2010 as the earliest start date for accepting imported Class I or Class II renewable energy sources from statutory states with comparable RPS requirements. Although the DPUC is empowered to approve an alternative trading program under C.G.S. § 16-245a (a)(2) subsection (B), in the near term the DPUC has decided to await legislative clarification of this statute. The DPUC has also found that each of the statutory states have adopted a renewable portfolio standard; however, given the 2010 start date required in 16 § 245a (a)(2) subsection (A), the DPUC has not made a ruling on comparability at this time.

**Lead Agency for Implementation:**

Connecticut Clean Energy Fund, Department of Public Utility Control

## 51. Restore the Connecticut Clean Energy Fund

**Purpose:**

The [Connecticut Clean Energy Fund](#) provides incentives for new clean renewable electricity generation capacity and pilot projects. In 2004, the State of Connecticut had a budget deficit. In order to reduce that deficit, the state diverted \$8.6 million in annual

ratepayer contributions, roughly one-third of the annual contributions, to the general fund.

**Progress:**

- No progress noted at this time.
- State Comptroller Nancy Wyman reported on December 1, 2005 that the State of Connecticut has a projected end of fiscal year 2006 budget a surplus of \$306.4 million. \$23.5 million of this surplus is earmarked to cover additional energy costs as a result of higher energy prices on the overall state budget.

**Lead Agency for Implementation:**

Connecticut Clean Energy Fund, Office of Policy and Management

## **52. Energy Efficiency and Combined Heat and Power**

**Purpose:**

Energy Efficiency and Combined Heat and Power (CHP) is a group of options designed to promote energy efficiency and CHP. This recommendation includes several combined strategies that were run through the Integrated Planning Model (IPM) to inform the stakeholders in its decision-making role.

**Progress:**

- This recommendation includes all measures in the Residential, Commercial, Industrial and Agriculture, Forestry, and Waste sectors that result in electricity demand reductions: appliance standards, an appliance-swapping program, a heat pump and water heater (HPWH) replacement program, bulk purchasing of appliances, mandatory upgrades to commercial and residential building codes, energy efficiency and energy improvement mortgages, a weatherization program, an Energy Star homes program, high-performance schools and State-funded buildings, high-performance commercial buildings, a shared savings program for government buildings and benchmarking, training of building operators, a green campus initiative, a benchmarking and tracking program for municipal buildings, third-party load management, combined heat and power, restoration of the Conservation and Load Management Fund, installation of centralized manure digesters, and an urban tree-planting program. See each of these individual recommended actions for progress update.

## **53. Regional Cap-and-Trade Program**

**Purpose:**

Cap-and-trade programs set limits on industry emissions at particular levels over particular time periods within a specified geographic area. They allow flexibility by covered entities in sources and methods of reduction, as well as trading credits between

those required to comply with caps or standards and other flexibility mechanisms, such as emissions offsets.

Connecticut should work with other northeastern states through continued participation in the Regional Greenhouse Gas Initiative (RGGI) process and/or the New England Governors' Conference process to develop a regional cap-and-trade program for the electricity generation sector. These processes should use existing New England Governors/Eastern Canadian Premiers targets as applied to the electricity generation sector as a starting point for recommended cap levels and timing (1990 emission levels by 2010 and 10 percent below 1990 levels by 2020). The program should cover the broadest possible geographical region and the widest range of potential sources and develop policy mechanisms to control offsetting emissions (such as a generation performance standard, offsets, or other approaches). In addition, Connecticut should support development of an effective federal cap-and-trade program for electricity generation.

**Progress:**

- During 2005, in a cooperative effort with Northeastern and Mid-Atlantic states, Connecticut participated in the [Regional Greenhouse Gas Initiative](#) (RGGI) process to develop a regional strategy to control greenhouse gas emissions. Central to this initiative is the implementation of a multi-state cap-and-trade program with a market-based emissions trading system. The cap-and-trade program sets a cap, or a maximum limit, on emissions and allows sources to buy and sell allowances from other sources in order to meet compliance obligations in a cost-effective manner. The program will initially be designed to reduce carbon dioxide emissions from power plants in participating states, while maintaining energy affordability and reliability and accommodating, to the extent feasible, the diversity in policies and programs in individual states.
- In December 2005, the governors from seven states (Connecticut, New Hampshire, Maine, Vermont, New York, New Jersey, and Delaware) signed a RGGI Memorandum of Understanding agreeing to implement the RGGI program beginning January 1, 2009.

**Lead Agency for Implementation:**

Department of Environmental Protection, Department of Public Utility Control

## **55. Emissions Inventory and Registry**

**Purpose:**

Inventory, reporting, and registry systems are important tools for implementation of GHG plans because they provide a means of measuring and tracking success and of cooperating across sectors, programs, and jurisdictions.

Connecticut should create appropriate tools for an effective inventory, reporting system, and registry of State emissions. The system should support the State's target, action

plan, and regional leadership role - including mutual recognition by other jurisdictions. The State should explore working with regional organizations on this effort.

Development of such a system may include the following actions:

- Creating an annual statewide GHG emissions inventory and related State inventories
- Instituting mandatory reporting of GHG emissions by appropriate sources
- Developing a voluntary GHG emissions registry
- Working with other states and regions on consistent and mutually recognized approaches for inventory and reporting.

**Progress:**

- DEP is continuing to work with other northeast states and Northeast States for Coordinated Air Use Management (NESCAUM) on the [Regional Greenhouse Gas Registry](#) (RGGR) project. The goal is to develop a GHG registry that can accommodate both mandatory and voluntary reporting programs. This registry is also being designed so that it can be expanded to handle the emissions and allowance tracking needs of the Regional Greenhouse Gas Initiative (RGGI). RGGR is also coordinating with other GHG registries in the US with the goal of achieving data quality consistency between the various registries.
- Pursuant to [Public Act 04-252](#), (A.A.C. Climate Change), Connecticut sources will need to commence mandatory reporting of annual GHG emissions in April 2006 (or in April 2007 in the event that a regional registry is not yet completed). DEP staff is currently developing an in-house database that will calculate and store GHG emissions from Title V air pollution sources. It is envisioned that output from this database will be uploaded to the regional registry once RGGR is completed. DEP is currently reviewing data that typically is submitted through its annual air emissions statements to determine how much additional data is needed to calculate GHG emissions from those sources that must report GHGs pursuant to PA 04-252.

**Lead Agency for Implementation:**

Department of Environmental Protection, Department of Public Utility Control