



Ulster County  
Department of the Environment

# Ulster County Government Energy Policy & Implementation Guidebook



December 2008



# ULSTER COUNTY GOVERNMENT ENERGY POLICY

## EXECUTIVE SUMMARY

### **Purpose:**

The purpose of this policy is to introduce cost-effective, energy-efficient technologies into County facilities and promote an energy conscious culture that encourages prudent decisions with regard to energy consumption. In the bigger picture, the reduction in total energy demand that will result across all county government operations can help hedge against higher energy costs and help to drive down the need for new power plants and energy imports.

Energy conservation is the key element of this policy because of its potential to reduce overall energy demand and consumption. Energy conservation also plays an important role in addressing climate change by lowering overall greenhouse gas emissions. It is often the most economical strategy to advance climate protection efforts and provides an environmentally benign alternative to increased energy production and consumption. Moreover, by lowering energy demand, energy conservation provides for greater flexibility in choosing preferred methods of energy production, e.g., “green power” - renewable energy that is produced with no man-made greenhouse gas emissions.

### **History:**

The Ulster County Government Energy Policy was initiated by Ulster County Environmental Committee and the Global Warming Advisory Committee (a special advisory committee to the Legislature). In June 2008, the Ulster County Department of the Environment took over the effort to refine and finalize the policy. The policy was prepared with technical assistance from the US Department of Energy, National Renewable Energy Laboratory.

The Ulster County Legislature adopted the Ulster County Government Energy Policy at their December 10, 2008 meeting. Ulster County has joined a very small group of NY counties and municipalities with energy policies.

### **Implementation:**

This policy is supported by a fourteen page **Implementation Guidebook** and sets measurable energy reduction goals. The Implementation Guidebook provides a structure to realize these goals through a combination of energy conservation upgrades, enhanced operational efficiencies, and employee action. It allows for a considerable reduction in overall energy consumption without the use of capital funding. The guidebook is not a static document and may be modified in the future to reflect emerging “best practice” energy conservation and energy management strategies and initiatives. The guidebook also supports objectives that result in healthier buildings and enhanced worker comfort, both of which can contribute to greater workplace productivity.

# Ulster County Government Energy Policy

## **Purpose:**

The purpose of this policy is to ensure energy and resource efficiency are explicitly considered and examined throughout the County government and County decision-making. This policy establishes guidelines for cost-efficient and sustainable resource consumption and allows the Ulster County Department of the Environment to coordinate implementation of the policy specifics through the Ulster County Government Energy Policy Implementation Guidebook. This guidebook is not a static document and may be modified in the future to reflect emerging “best practice” energy conservation and energy management strategies and initiatives.

## **Background:**

- The efficient and conscientious use of energy by municipal government is essential to modeling good citizenship, accountability, and service.
- Local government has a responsibility to be a leader in workplace resource efficiency.
- Optimizing energy conservation and energy management can result in significant cost savings and enhanced environmental stewardship.
- The combustion of fossil fuels - through electricity generation, heating and transportation - results in carbon dioxide emissions. Increased concentrations of carbon dioxide in the atmosphere contribute to the greenhouse effect and global climate change.
- A reduction in energy consumption by Ulster County government will reduce greenhouse gas emission attributable to County operations.
- As energy costs continue to rise, energy conservation measures provide costs avoidance/cost savings as well as help to decrease domestic demand for volatile foreign oil imports.
- To effectively address energy conservation by a large municipal entity, both operational efficiency and employee usage patterns must be addressed.

## **The Ulster County Legislature hereby resolves and declares that it is the policy of Ulster County Government to:**

- Recognize the energy demand and environmental impact associated with the County’s operation and management of facilities necessary to provide services to the people of Ulster County;
- Establish efficient energy management within County government operations as a fundamental operational objective;
- Execute an implementation strategy to detail the goals and action items of this policy;
- Implement, where practicable, energy efficiency measures through a variety of mechanisms such as life cycle analysis and energy performance contracting;

- Provide for the verification and commissioning of fundamental building systems to ensure they are designed, constructed, installed, calibrated, and operating as intended, in order to achieve exemplary energy performance goals;
- Adhere to voluntary green construction and remodeling standards for buildings where appropriate, such as ENERGY STAR, and encourage various nationally supported and resource efficient standards, such as the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED), for building excellence when appropriate and/or life cycle cost effective;
- Encourage operation and planning based on the prudent use of natural resources and minimize greenhouse gas emissions from burning fossil fuels, water use, and waste generation;
- Encourage the tracking, promotion, and publication of sustainable and energy efficient practices;
- Encourage vehicle fleet efficiency and the use of alternative fuels;
- Encourage the adoption of environmentally preferable purchasing policies for products, vehicles, and service and suggest that contractors and suppliers commit to similar energy efficiency and sustainability standards;
- Encourage the expansion of renewable energy use and other distributed generation technologies throughout the County's facilities and activities.
- Provide County personnel with proper training and education in implementing this policy;
- Serve as an educational and informational resource in energy efficient practices within the workplace and foster a sense of personal responsibility for optimal energy management in employees;
- Recognize and reward individual and collective efforts that contribute to the County's energy resource conservation policy goals;
- Regularly measure the County's environmental impact, including energy use, water use, fleet emissions, recycled materials, and waste generation;
- Support continuous energy performance improvements by funding new efficiency measures with funds derived from utility savings.
- Research and consider additional cost-effective technologies as they become available;
- Utilize innovative financing and contractual mechanisms, incentive and reward systems, and shared savings programs to further the County's goals.

**Adopting County Of Ulster Energy Policy**

The Environmental Committee (Chairman Shapiro and Legislators Bischoff, R.A. Parete, Rodriguez, Fabiano, Petit and Roberts) offers the following:

WHEREAS, the purpose of this policy is to ensure energy and resource efficiency are explicitly considered and examined throughout the County government and County decision-making, and

WHEREAS, this policy establishes guidelines for cost-efficient and sustainable resource consumption and allows the Ulster County Department of the Environment to coordinate implementation of the policy specifics through the "Ulster County Government Energy Policy Implementation Guidebook", and

WHEREAS, local government has a responsibility to be a leader in workplace resource efficiency, and

WHEREAS, setting policy will ensure the proper use of public funds with regards to the County practice of efficient and conscientious use of energy by municipal government and is essential to modeling good citizenship, accountability, and service, and

WHEREAS, "County of Ulster Energy Policy" is hereby annexed, and

WHEREAS, the Environmental Committee has met and reviewed said request with a majority of the members voting approval.

RESOLVED, that the Ulster County Legislature hereby approves the annexed "County of Ulster Energy Policy," in the form as filed with the Clerk of the Ulster County Legislature or as modified by the County Attorney,

and moves its adoption.

ADOPTED BY THE FOLLOWING VOTE:

AYES: 30                      NOES: 0  
(Absent: Legislators Aiello, Felicello and Kraft)

FINANCIAL IMPACT:  
TO BE DETERMINED

**ULSTER COUNTY GOVERNMENT  
ENERGY POLICY  
IMPLEMENTATION GUIDEBOOK**

# ULSTER COUNTY GOVERNMENT ENERGY POLICY IMPLEMENTATION GUIDEBOOK

## I. MISSION STATEMENT

- A.** Ulster County Government commits to significantly improve its energy management in order to maximize use of taxpayer dollars and maximize resource efficiency. Ulster County Government further commits to continually seeking ways to realize the full potential of current energy control systems as well as new equipment and upgrades and to accelerate the implementation process of behavioral and operational resource conservation measures.

The following objectives form the basis this energy policy and can be modified to reflect current conditions over time:

- Continually and systematically improve the efficient use of all Ulster County Government energy resources to ensure a secure and sustainable energy supply by increasing energy efficiency to the maximum extent practicable in all Ulster County Government buildings and facilities.
- Ensure that new and existing Ulster County Government buildings and facilities are designed, maintained and upgraded, as required, to be as energy efficient as practicable based on life cycle cost evaluations.
- Implement clean and renewable energy systems to the maximum extent practicable in Ulster County Government buildings, facilities and operations to improve energy security, reduce costs, and meet or exceed the requirements of the NYS Renewable Portfolio Standard (25% of Retail Electricity Sales by 2013).
- Increase energy efficiency to the maximum extent practicable for all Ulster County Government vehicles, including the increased use of the most fuel efficient vehicles available and alternate-fueled vehicles in the county fleet.
- Continually and systematically reduce harmful greenhouse gas emissions generated through Ulster County Government operations by replacing conventional and more polluting sources of energy with clean and renewable energy sources in order to conserve essential energy resources and positively contribute to a healthy and stable climate future.

- B.** Ulster County Government seeks to encourage comfortable employee working conditions, introduce cost-effective, energy-efficient technologies into its facilities, and promote an energy conscious culture to encourage cost-effective decisions with regard to energy consumption.

- C.** As a consumer of products and services, Ulster County Government encourages reducing our use and cost of energy and water where appropriate by:
- 1) Purchasing best practice energy-and water-saving products and technologies, which reduce operating costs;
  - 2) Promoting energy and resource efficiency, water conservation, and the use of renewable energy products, and by helping to foster markets for emerging technologies; and

- 3) Participating in the existing local, statewide, regional, and federal energy management training efforts and encouraging internal training.

**D.** Where appropriate, Ulster County Government may encourage resource conservation as a workplace value by:

- 1) Providing training and technical assistance resources, which assist energy managers and facilities personnel in evaluating various energy-saving technologies.
- 2) Providing clear goals, performance indicators, and a measurement framework to assist managers.
- 3) Enabling facility managers and facilities personnel to implement energy efficiency projects using innovative financing strategies through public-private partnerships and utility incentive programs.
- 4) Implementing outreach and communication strategies to increase awareness among employees at all levels, not only those involved in energy or facility management.
- 5) Encouraging all employees to develop energy-efficient habits in the workplace on a daily basis.

**E.** Ulster County Government strives to serve as a good example to other local governments by demonstrating, where appropriate, the benefits of energy efficiency, water conservation, and alternative energy strategies (renewable and other distributed generation technologies).

## **II. ESTABLISH ENERGY CONSERVATION PROGRAM STRUCTURE**

### **A. Establish Team & Responsibilities**

- 1) Designation of an Energy Efficiency Team: Ulster County Government encourages the Department of the Environment to develop, implement and coordinate an Energy Efficiency Team to review issues pertaining to this Guidebook and the Energy Policy, address issues pertaining to energy laws and state and federal regulations affecting County facilities, and inform and educate County employees regarding best practices and progress in the implementation of the Energy Policy and this Implementation Guidebook.
- 2) The Energy Efficiency Team shall include Department of the Environment staff and can also include representation from the Department of Public Works, Planning Department, and Purchasing Department.
- 3) Technical Support Teams consisting of appropriate maintenance, custodial, and facilities personnel from each county building or facility can also be formed to meet the goals and requirements of this Energy Policy and Implementation Guidebook. Technical Support Teams are encouraged to be in regular contact with the Department of the Environment to implement policy goals and develop building-specific plans to reduce resource consumption wherever necessary.



## **B. Establish Accountability Framework**

- 1) To effectively achieve its energy and resource conservation goals, Ulster County Government is dedicated to tracking and measuring results. Life Cycle Assessment strategies will be utilized where appropriate.
- 2) Annual Resource Conservation Review  
The Energy Efficiency Team will meet annually to revisit goals, discuss metrics and performance tracking, and update this guidebook. Revised plans may be included in annual reports to the Ulster County Legislature and should coincide with the development of a long term / 5 year plan.
- 3) Annual Budget Submission  
The Department of Public Works, Buildings and Grounds, and/or the Department of the Environment budget submissions may specifically request funding necessary to achieve the goals of the policy and guidebook. Budget submissions may include the costs associated with: encouraging the use of, administering, and fulfilling agency responsibilities under energy savings performance contracts, utility energy-efficiency service contracts, and other contractual platforms for achieving conservation goals; encouraging implementation of life-cycle cost-effective measures; encouraging procurement of life-cycle cost-effective products; encouraging implementation of shared savings with other involved departments.
- 4) Shared savings and financial incentives  
A portion of savings potentially derived from the ongoing implementation of this Energy Policy is encouraged to be designated to Ulster County Government as a whole to be shared and to protect against budget shortfalls or for use at the discretion of Ulster County Government. Consistent with the promotion of energy efficiency, a portion of the energy savings will be budgeted through a County approved shared savings plan to encourage:
  - Purchase of new energy-efficient equipment and/or to finance energy-efficiency retrofitting projects, additional energy saving management projects, related capital improvements, initiatives, and training, invest in renewable energy systems, and purchase electricity from renewable energy sources.
  - Provision of staff, faculty and administration energy efficiency training and/or technical assistance; operation and maintenance training for building operators and maintenance staff which can have tremendous impact on energy and water use; and promote employee involvement to enhance facility comfort and/or make operations more efficient, typically resulting in reduced maintenance costs.
- 5) Innovative Financing and Contractual Mechanisms
  - In addition to available appropriations, Ulster County Government encourages maximization of its use of available alternative financing contracting mechanisms, including, but not limited to, utility demand side management programs, shared energy savings contracts, and energy savings performance contracts, to meet the goals of the policy and implementation guidebook. Energy savings performance contracts and utility energy-efficiency service contracts provide significant opportunities for making County facilities more energy efficient at no net cost to

taxpayers. In addition, the Department of the Environment is encouraged to work with the County Legislature to identify and eliminate internal regulations, procedures, or other barriers to implementation of the policy and guidebook.

- Ulster County Government will strive to procure appropriate utility rebates and/or equipment manufacturer's rebates.
- The Ulster County Purchasing Department and the Ulster County Department of the Environment shall seek additional opportunities to negotiate favorable rates for electric power and natural gas purchases, including but not limited to pursuing an aggregated and cooperative procurement of electricity supply that emphasizes increasing the amount of clean and renewable energy purchased in a competitive marketplace.
- The development, implementation and ongoing refinement of this Energy Policy is consistent with the "Develop Strategic Advantage in Green and Renewable Technologies and Products" recommendation included as part of a group of comprehensive economic development strategies advocated in Ulster Tomorrow: A Sustainable Economic Development Plan for Ulster County.
- Putting optimal energy conservation measures in place is the first priority of this Energy Policy. Part of this process can require the use of skilled local contractors to provide energy efficiency improvements to Ulster County Government buildings and facilities. This approach can help to keep more of our "energy dollars" in local circulation, creating an "economic multiplier" effect which strengthens the local economy. Moreover, financial savings accrued over the life of these initial energy efficiency improvements can be reinvested in the local economy in the form of more advanced energy conservation measures that can provide even more savings and local economic benefits. This approach provides that energy efficiency improvement projects designed to minimize the drain of energy dollars from the local economy can be leveraged to save money while helping to spur local economic growth.

### **C. Staff Development & Engagement**

- 1) Ulster County Government is encouraged to ensure that all appropriate personnel that are involved in resource conservation related decisions and operations will receive training for implementing the policy and guidebook.
- 2) Ulster County Government may provide relevant training or training materials for those programs that they deem appropriate in relating to the energy management strategies contained in the policy and guidebook.
- 3) At a minimum, every new employee that works in County facilities or with energy equipment is encouraged to be given basic instruction on the introduction to energy management, the whole building approach, lighting, HVAC, energy management systems and controls, efficient water use, and efficiency standards for other natural resources.
- 4) Ulster County Government is encouraged to incorporate into existing procurement courses, or develop for new courses, information on energy management tools, including energy savings performance contracts, utility

energy efficiency service contracts, ENERGY STAR and other energy efficient products, water and other natural resources, and life cycle cost analysis.

**D. Communications & Recognition Strategy**

- 1) Ulster County Government is encouraged to develop outreach programs that include education, training, and promotion of ENERGY STAR and other energy efficient products for all its employees.
- 2) Ulster County Government will develop a comprehensive internal and external communications strategy to showcase its resource conservation efforts and successes.
- 3) Ulster County Government is encouraged to designate exemplary new and existing facilities with significant public access and exposure as showcase facilities to highlight energy or water efficiency and renewable energy improvements.
- 4) When Ulster County Government constructs a new building or designs a new building addition, it may designate it, at the earliest stage of development, to be a showcase highlighting advanced technologies and practices for energy efficiency, water conservation, or use of solar and other renewable energy.
- 5) Ulster County Government may designate one of its major buildings to become a showcase to highlight energy or water efficiency and also may attempt to incorporate cogeneration, solar and other renewable energy technologies, and indoor air quality improvements. Selection of such buildings may be based on considerations such as the level of visitors, historic significance, and the likelihood that visitors will learn from displays and implement similar projects.

**III. FACILITIES**

<b>Goals &amp; Performance Indicator(s)</b>	Reduce energy consumption in buildings, facilities and operations by a minimum of 10%, as a county portfolio, over the next five years beginning in 2009, using 2007 energy use as a baseline.  All new buildings set to 75 in EPA’s Target Finder (See “III. D.”) Reduce water consumption in facilities by 10% as a County portfolio, by 2011.
<b>Baseline(s)</b>	Establish baseline energy (by 2009) and water (by 2010) performance for every facility.
<b>Measurement</b>	Track energy and water use monthly using EPA’s ENERGY STAR Portfolio Manager.

Ulster County Government encourages development of sustainable building principals in new and existing facilities with the Legislature having adopted the “LEED Silver” designation of the US Green Building Council as the minimum rating standard of energy efficiency that must be achieved for all new construction and major renovation of county

buildings and facilities. The Legislature has also adopted a Mid-Hudson “Energy Smart Community” designation with the expressed intent to partner with NYSERDA to promote energy efficiency throughout Ulster County.

Ulster County Government is encouraged to optimize life-cycle costs, pollution, and other environmental and energy costs associated with the construction, life-cycle operation, and decommissioning of facilities. Ulster County Government may use Energy Savings Performance Contracts, utility energy-efficiency service contracts, or other means to conduct evaluations and make improvements to buildings in order to meet the criteria.

### **A. Proposed Energy Efficiency Measures**

Energy efficiency measures shall include, but not be limited to, the following:

#### 1) Physical Plant - routine maintenance and upkeep

- Lighting
  - Turn off all unnecessary lights, especially in unused offices and conference rooms and turn down remaining lighting levels where possible.
  - Replace incandescent lighting with energy efficient low-wattage fluorescent lamps and ballasts.
  - Install energy efficient parking lot and emergency lighting; all outdoor lights are to be placed on photo cells and/or timers.
  - Install LED traffic signals and exit signs wherever possible.
  - Replace all incandescent flood lights with CFL floodlights.
  - Upgrade all electrical panels at the Ulster County Fairgrounds.
- Buildings
  - Establish air conditioning temperature set points; heat temperature set points (Both can be adjusted to maximize efficiency while continuing to provide year around comfort).
  - Install maximum temperature set back during heating season; air conditioning shut down on nights and weekends.
  - Convert existing toilets to power 1 gal /1.6 gal flush units.
  - Install automatic low flow faucet and toilet controls.
  - Place all exhaust fans on individual timers or computers.
  - Set hot water temperature at or below 120 F., or as practicable.

#### 2) Larger Projects

- Lighting
  - Place all interior lighting on timers or computer controls for low occupancy conditions; Install interior motion sensors in all county buildings to optimize lighting use.
- Buildings
  - Retrofit buildings and facilities to established high performance energy efficient standards as required, e.g., comprehensive air sealing and maximum insulation.
  - Replace existing boilers with new high efficiency boilers.

- Install specific energy savings devices, e.g., programmable thermostats, motion sensors, variable speed motors for HVAC equipment, etc., where appropriate.
- Implement the already adopted (LEED Silver) high efficiency energy standards for major renovations and for new construction.
- Install “economizers” on all HVAC equipment (Provides greater thermal efficiency by recovering low temperature energy from the flue gas before it is exhausted to the atmosphere).

**B. Reduction of Fossil Fuel Use**

- 1) Through life-cycle cost-effective energy measures, we will encourage the reduction of fossil fuels and the associated greenhouse gas emissions attributed to building and facility energy use.
- 2) We will consider renewable energy sources as an alternative to conventional fossil fuel use and as a potential means to reduce and/or eliminate unnecessary fossil fuel use through the deployment of renewable energy sources or by other appropriate methods.
- 3) Where alternative fuels and/or renewable energy sources are not practical or life-cycle cost-effective, we will encourage the improvement of the efficiency of our buildings and facilities.

**C. Life-Cycle Analysis**

- 1) Ulster County Government is encouraged to use life-cycle cost analysis in making decisions about investments in products, services, construction, and other projects to lower our costs and to reduce energy and water consumption.
- 2) Buildings that minimize life-cycle costs with efficiency measures are encouraged to be recognized. Such recognition is an assessment of the County’s progress toward implementing the Energy Policy.

**D. “ENERGY STAR”; “LEED”; “Green Globes”**

Ulster County Government will strive to meet the ENERGY STAR building criteria for energy performance and indoor environmental quality in their eligible facilities to the maximum extent possible. All county funded buildings shall be designed to achieve 75 points on the EPA national energy performance rating system as determined by EPA’s ENERGY STAR Target Finder, provided that the building is supported by EPA’s rating system. Operating buildings should be benchmarked annually using EPA’s ENERGY STAR Portfolio Manager. These ENERGY STAR tools are available. Buildings that rank in the top 25 percent in energy efficiency relative to comparable commercial and State buildings receive the ENERGY STAR building label. Ulster County Government may integrate this building rating tool into additional general facility audits that may be undertaken as part of energy performance contracts.

Ulster County Government may use voluntary standard assessment rating systems including, but not limited to, the Green Building Initiative’s Green Globes rating system and/or the U.S. Green Building Council’s LEED (Leadership in Environmental and Efficient Design) rating system.

## **E. Energy Audits**

- 1) Ulster County Government is encouraged to implement cost-effective recommendations from comprehensive audits of facilities performed within the past 5 years, for installation of energy efficiency, water conservation, and renewable energy technologies consistent with supporting the energy program goals.
- 2) Ulster County Government is encouraged to further identify high priority buildings and facilities to conduct comprehensive energy audits. After completion of a comprehensive facility audit of each targeted county building or facility, Ulster County Government is encouraged to begin implementing cost-effective recommendations for installation of energy efficiency, water conservation, and renewable energy technologies for each facility consistent with supporting the specific needs of the facilities' Technical Support Teams. Such audits may be conducted as part of energy performance contracts and should also be used to verify energy savings.

## **F. Off-Grid Energy Generation**

Ulster County Government may use off-grid generation systems, including solar hot water, solar electric, solar outdoor lighting, wind turbines, fuel cells, and other off-grid design alternatives, where such systems are life-cycle cost-effective and offer benefits including energy efficiency, pollution prevention, source energy reductions, avoided infrastructure costs, or expedited service.

## **G. Water use**

Through life cycle cost effective measures, such as increasing efficiency of water usage by installing high efficiency plumbing fixtures for all facilities and pumping processes including waste water, Ulster County Government encourages the reduction of water consumption and associated energy use in our facilities to reach the goals set under the appropriate sections of this policy. Where possible and appropriate, water cost savings and associated energy cost savings will be included in Energy Savings Performance Contracts and other financing mechanisms.

## **H. Temperature Settings**

- 1) Central heating controls and individual room thermostats shall be programmed to a specific temperature range and may have an unoccupied setback temperature setting as low as 55 degrees.
- 2) Central cooling controls and individual room thermostats shall be programmed to a specific temperature range and may have an unoccupied setback temperature setting as high as 80 degrees.
- 3) Setback temperatures may go into effect as early as deemed necessary by facilities staffs provided that as increases or decreases in temperatures do not create an unnecessarily uncomfortable working environment for employees and do not unreasonably affect the working environment during normal operating hours. Setback times may vary by building.

- 4) Specific temperature settings shall be under total Department of Public Works, Buildings and Grounds system control. Individual building occupants will not have the ability to change or override Buildings and Grounds settings. Any temperature change requests must be directed through the Lotus Notes system.
- 5) Building temperatures will remain at setback temperatures during weekends and holidays unless specific requests have been made 24 hours in advance through Lotus Notes and deemed necessary and cost effective by the appropriate facility manager.

Exception: Buildings open for normal public use on weekends shall be set to accommodate normal work day settings mentioned above in H, 1 - 4.

### I. Space Heaters

The use of electric space heaters in individual offices and departments shall be prohibited unless the staff member has been determined to have specific needs with approval obtained through the area Facility Manager, an energy endorsement by the Department of the Environment, and a safety endorsement by the Safety Department.

## IV. Purchasing

<b>Goals &amp; Performance Indicator(s)</b>	All ENERGY STAR products; top 25% energy efficient products where ENERGY STAR products are unavailable. # of products implemented vs. # of products available.
<b>Baseline(s)</b>	Create % and Goal by 2009.
<b>Measurement</b>	Audit of available ENERGY STAR products and the percentage of ENERGY STAR products purchased versus purchased in 2008.

Ulster County Government encourages the initiation of a regional purchasing approach for energy products/equipment as well as services such as electricity, natural gas, water, and any other identified measures that would further enhance energy efficiency and conservation of natural resources. Ulster County Government will strive to develop a purchasing plan that specifies products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

The Purchasing Department and the Department of the Environment shall seek additional opportunities to negotiate favorable rates for electric power and natural gas purchases, including but not limited to pursuing an aggregated and cooperative procurement of electricity supply that emphasizes increasing the amount of clean and renewable energy purchased in a competitive marketplace.

The Purchasing Department is further encouraged to increase the sourcing of county office supplies containing the highest percentage of recycled materials content to the maximum extent practicable.

**A. ENERGY STAR® and Other Energy-Efficient Products**

- 1) The Purchasing Department is encouraged to select, where life-cycle cost effective, ENERGY STAR and other energy efficient products when acquiring products that use energy, e.g., HVAC equipment, hot water heaters, computers and office equipment, appliances, etc. For product groups where ENERGY STAR labels are not yet available, the Purchasing Department is encouraged to select products that are in the upper 25 percent of energy efficiency for their respective product categories.
- 2) Ulster County Government is encouraged to incorporate energy-efficiency criteria consistent with ENERGY STAR and other designated energy efficiency levels into all guide specifications and project specifications developed for new construction and renovation, as well as into product specification language developed for all purchasing procedures.

**B. Electricity from Renewable Energy Sources**

- 1) Beginning June 15, 2005, Ulster County Government initiated a 7 year contract with Community Energy, Inc. to purchase 10% of its annual electricity demand from “Green Power” (no man-made greenhouse gas emissions) in the form of clean and renewable wind energy generated in New York State. This Energy Policy directs Ulster County Government to increase this purchase to 25%, or to the maximum extent practicable, by 2013. This increased procurement of “Green Power” is consistent with the “Renewable Portfolio Standard” adopted by the New York State Public Service Commission on September 22, 2004 that requires 25% of the state's electricity to be supplied from renewable energy sources by 2013.
- 2) Ulster County Government encourages the expansion of the use of renewable energy (passive solar, solar thermal, solar electric, wind, hydro electric, geothermal, biomass) and other distributed generation technologies within our facilities and in our activities by encouraging the implementation of alternative energy projects and by encouraging purchase of electricity from renewable energy sources.
- 3) Through life cycle cost analysis, Ulster County Government may evaluate its current use of electricity from renewable energy sources. Ulster County Government may also consider the greenhouse gas intensity of the source of the electricity and may strive to minimize the greenhouse gas intensity of purchased electricity.
- 4) Based on this review, Ulster County Government may adopt policies and pursue projects that increase the use of electricity from renewable energy sources. Ulster County Government may include provisions for the purchase of electricity from renewable energy sources as a component of their requests for bids whenever procuring electricity. Ulster County Government may use savings from energy efficiency projects to pay additional incremental costs of electricity from renewable energy sources.

**V. Transportation**

<b>Goals &amp; Performance</b>	Overall decrease in petroleum usage through various means including, but not limited to, a
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<b>Indicator(s)</b>	reduction in total # of fleet vehicles, an increase in total # of alternative fuel vehicles, ensuring vehicle type is properly matched with specific function/ task, addressing how driving behavior impacts fuel consumption, improved overall fleet mileage, etc.
<b>Baseline(s)</b>	Audits to set baseline in year 2009.
<b>Measurement</b>	Verifiable decrease in vehicular petroleum consumption; % of vehicles that exceed average or standard fuel efficiency for respective vehicle class, use combined power or alternative fuels.

Ulster County Government strives to reduce petroleum consumption through encouragement of improvements in fleet fuel efficiency and the use of alternative fuel vehicles and alternative fuels such as E85 or bio-fuels. Ulster County Government also encourages the improvement of access to alternative modes of transportation, including public transportation (e.g., buses, light rail), carpooling, bicycling, and walking. Specifically, Ulster County Government seeks to:

- Reduce the total number of fleet vehicles.
- Downsize current and future fleet vehicles.
- Require the highest fuel efficiency vehicle available be procured for each vehicle class and explicitly consider fuel costs over a projected 5 year period to more accurately reflect the total cost associated with specific vehicle purchasing.
- Require alternate-fuel vehicles to the maximum extent practicable be procured for each vehicle class, including public transit buses, explicitly considering fuel costs over a projected 5 year period to more accurately reflect the total cost associated with specific vehicle purchasing.
- Reduce and eliminate vehicle idling.
- Replace required on-the-job driving with telecommunications, mass transit, carpooling, biking or walking to the maximum extent practicable.
- Create incentives to reduce county employee driving, e.g., transit passes, preferred parking for carpools and vanpools, expand UCAT ridership to & from work (currently \$.30 one-way for county employees), alternating 4 day work week, etc.

**A. Fleet purchasing & fuel specifications**

Ulster County Government may develop a purchasing plan for E85, biofuel, or combined power vehicles.

**B. Community Advocacy**

Ulster County Government may work with vehicle-intensive businesses throughout the County to reduce greenhouse gas emissions through fleet and fuel choices.

## VI. Waste & Recycling

<b>Goals &amp; Performance Indicator(s)</b>	Establish a baseline recycling rate for all county buildings and facilities as a % reduction of overall waste; Develop increased participation benchmarks to capture additional recyclable materials. Weight (in pounds; tons) per week/month/year
<b>Baseline(s)</b>	Audits to set baseline in year 2009
<b>Measurement</b>	Increased capture rate of recyclable materials per collection, per year; % reduction in waste collection, frequency, and container size.

When we think about energy, it is important to consider more than just our direct energy consumption (e.g. lights, appliances, vehicles, heat) but all the energy required to produce the goods and materials we use everyday. All goods and materials require energy in their processing, manufacturing, distribution, and disposal. The recycling of materials decreases not only the demand for raw materials but also the amount of energy required for the processing and extraction of raw materials. Therefore, increasing the capture rate for all recyclable materials within all county offices and agencies is also an important contributor to the goals of a comprehensive Energy Policy.

As an additional energy saving measure, county recycling requirements must be met for all “regulated recyclable materials” as per the Ulster County Mandatory Source Separation and Recycling Law. These recyclable materials shall include, but not be limited to, all regulated recyclable materials in addition to construction and demolition debris, automotive and consumer batteries, computers and other electronic devices, fluorescent lamps, thermostats and other mercury-laden devices where appropriate.

Ulster County Government is encouraged to implement a program to work with local/regional waste management to ensure efficient pickup of trash and solid waste through the elimination of unnecessary pickups, accomplished through effective compacting of trash bins prior to pickup and appropriate bin sizing, pickup frequency, and recycling practices. Ulster County Government is encouraged to implement an enhanced recycling program at each facility to offer alternatives to waste collection, processing and disposal that may derive additional cost savings for the County.

## VII. Information Technology

<b>Goals &amp; Performance Indicator(s)</b>	% of Energy Star labeled computers and monitors to overall total; % of total computers and monitors enabled and using Energy Star PC Power Management low power sleep mode
<b>Baseline(s)</b>	Audits to set baseline in year 2009
<b>Measurement</b>	Audits to verify percentages annually

Ulster County Information Services is a major user of energy resources, not only to power desk top computer and printer equipment, but also to cool server rooms and maintain the uninterrupted power supply required to provide for a stable computing environment. UC Information Services is committed to ensuring that the equipment solutions proposed and ultimately provided meet the needs of County users while maintaining the highest level of energy efficiency practicable. UC Information Services will partner with the Department of the Environment, the Department of Public Works, Buildings and Grounds, and the Purchasing Department to find mutually agreeable solutions to further the County's commitment to energy conservation.

## VIII. Employee Energy Conservation

The Department of the Environment will develop an "Energy Smart Offices" program to educate and encourage county employees to reduce energy consumption and promote "ownership" of energy costs by individual departments.

Electricity used by common office equipment (including computers, monitors, copy machines, computer network equipment, telephone network, printers and fax machines) makes up a significant share of the electricity used in commercial buildings. Power monitoring is a common technique that decreases the amount of power consumed when the equipment is not in use. Other efficiency features such as double-sided printing can save money and reduce the environmental costs of producing the paper.

The Energy Smart Offices Program shall include, but not be limited to:

**Office Temperatures** - Establishing mandatory temperature set-points for heating and a/c during hours of operation.

**Lights Out** - Turning off lights in unoccupied areas; use lighting appropriate to the task – unnecessary lighting should be turned off.

**Power Down** - Fully enabling energy saving features on computers and office equipment, e.g., "energy saver" mode on copy machines; shutting down equipment that is not in use overnight or on weekends.

**More E-Mail = Less Paper** – Make greater use of e-mail for communication, reducing the need for printing and copying.

**Double-Sided Printing & Copying** - Whenever an office printer or copier must be used, make sure all defaults are set for double-sided.

**Scan vs. Copy** - Utilize the scanner feature on the copier to export documents to a computer, reducing the amount of paper used.

**Energy Conservation Captains** - Assign one or more employees in each work area to assure that lights and equipment are turned off at the end of each workday, recycling requirements are consistently met, etc.

UC GOVERNMENT ENERGY POLICY IMPLEMENTATION GUIDEBOOK - Task Distribution							
	Dept. of the Environment	DPW - Buildings and Grounds	Purchasing Dept.	Information Services	Personnel	County Executive Office	Energy Performance Contractor
Guidebook Section							
I. Mission Statement	I.C + Promoting Energy and Resource Efficiency I.D + Communication & Outreach; Employee Energy Conservation.		I.A + Fleet Vehicles I.C + Purchasing "Best Practice" Products & Technologies I.D + Financing Strategies				I.A Increasing Energy Efficiency; Clean and Renewable Energy I.C Energy Mgmt. Training I.D Tech. Asst. & Performance Indicators
II. Energy Conservation Program Structure	II.A + Energy Efficiency Team II.B + Annual Resource Conservation Review; Annual Budget Submission. II.C + Employee Energy Training II.D + Communications Strategy	II.A + Technical Support Teams II.B + Annual Budget Review	II.B + Negotiate Favorable Utility Rates; II.B + Increase 'Green Power' Procurement II.C + Incorporate info. on energy mgmt. tools		II.C Employee Energy Training	II.B Shared Savings & Financial Incentives II.D Designate 'Showcase' Facilities	II.B Local Sub-Contractor Preference
III. Facilities	III.C + Life-Cycle Analysis III.D + Energy Performance Criteria	III.A Proposed Energy Efficiency Measures III.G Water Use III.H +Temperature Settings				III.C Recognition of county bldgs. that minimize life-cycle costs through energy efficiency.	III.A Proposed Energy Efficiency Measures III.B Reduction of Fossil Fuels III.D Energy Performance Criteria III.E Energy Audits III.G Water Use
IV. Purchasing	Negotiate Favorable Utility Rates; Increase 'Green Power' Procurement.		+ Regional Purchasing for High Performance Equipment; Negotiate Favorable Utility Rates; Maximize 'Recycled Material Content' in Office Supplies. IV.A + Energy Efficient Product Procurement IV.B + Electricity from Renewable Energy Sources			IV.B Electricity from Renewable Energy Sources	
V. Transportation	+ Develop and Implement Anti-Idling Requirements for All County Vehicles.		V.A + 'Fuel Efficient' Fleet Vehicle Purchasing Plan			Reduce Petroleum Consumption through Fleet Downsizing, Increased Fleet Efficiency, Alternative Fuel Vehicles; Create Incentives to Reduce County Employee Driving.	
VI. Waste & Recycling	+ Establish Baseline Recycling Rate for All County Buildings and Facilities; Increase Capture Rate for All Designated Recyclable Materials.						
VII. Information Tech.	+ Educate All Staff to Power-Down all Plug-In Office Equipment.		+ Develop Procurement Standards to Require Purchasing the Most Energy Efficient Plug- In Office Equipment.	+ Determine # of 'Energy Star'-Rated Computers and Monitors Currently In Use; Enable All Computers and Monitors to "Power-Down" When Not In Use.			
VIII. Employee Energy Conservation	+ Develop and Implement 'Energy Smart Offices' Program to Educate, Enable and Require All County Employees to Reduce Energy Consumption.						

Notes: [Energy Performance Contractor](#) will be selected and tasked in early 2009.

+ Denotes Lead Agency for those specific tasks.