NEW YORK STATE
Adirondack
parkagency

October 16, 2009

Thomas Congdon
Deputy Secretary for Energy
c/o SEP Comments
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

Dear Mr. Congdon:

Re: Comments on 2009 Draft State Energy Plan

On September 10, Mr. Jeffrey Cohen of the Department of Public Service provided the Adirondack Park Agency (APA) Board with an overview of the draft State Energy Plan. Mr. Cohen's presentation provided valuable information and insight into the State's energy goals for reliable and affordable energy, reduction of greenhouse gas emissions, improving energy independence and fuel diversity, and reducing health and environmental risks.

The Adirondack Park Agency Act was enacted by the New York State Legislature in 1971. The Act provides a policy framework for land use and development within the Park "to insure optimum overall conservation, protection, preservation, development and use of the unique scenic, aesthetic, wildlife, recreational, open space, historic, ecological and natural resources of the Adirondack park." The APA administers the Adirondack Park Land Use and Development Plan, Adirondack Park State Land Master Plan, New York State Freshwater Wetlands Act and New York State Wild, Scenic and Recreational Rivers System Act within the Park's boundaries.

The following comments are within the context of the Agency's mission within the Adirondack Park.

In October, 2008, the Agency adopted a *Policy on Energy Supply, Conservation and Efficiency* to guide the exercise of its duties under the APA Act and SEQR as it relates to energy conservation within the Park. The policy recognizes that energy conservation and efficiency is critical to viable, sustainable communities. The wise use of energy resources offers an opportunity at the

local level to contribute to the global effort to reduce Greenhouse Gas Emissions. As part of the adopted policy, the Agency encourages developers of large-scale projects to use "green" and "sustainable" building practices, Energy Star products, and requires compliance with the NYS Energy Conservation Construction Code.

The Agency has also collaborated on energy conservation efforts with regional groups such as the Energy Smart Park Initiative, Adirondack Climate and Energy Action Plan Work Groups (ADKCAP), Community Power of New York and Community Energy Services. Coordination includes educational programs, workshops, training and dialogue about Adirondack Park needs and opportunities for reduction of the region's carbon footprint. Encouragement of alternative energy sources and positioning the region to benefit from economic opportunities related to advances in green technology have been important additional considerations.

We also acknowledge updates and improvements to the State Energy Code are a major concern for both the State's energy future and sustainable communities within the Adirondack Park. As noted in the draft Energy Plan, adoption of an up-to-date building energy code is among the most significant steps which the State can take to realize energy efficiency savings and must be one of the State's highest priorities relative to energy. Presently the cost/benefit incentive does not exist for local small contractors; building codes will drive change. Emphasis needs to be placed on both new construction and energy efficiency improvements to older buildings. Such efforts will result in fuel reduction and related costs for individual homeowners, businesses and government buildings throughout the state.

We applaud the commitment in the draft Energy Plan to implement a building energy code which achieves energy savings equivalent to or greater than the International Energy Conservation Code and ASHRAE standards. As noted in the draft Plan, adequate training and enforcement measures must be included to adequately achieve such goals. Significant state and federal funding should be provided to help communities train local code enforcement officers, and most importantly, to ensure proper implementation of the energy code by communities. Similar training needs to be provided to design professionals and the construction trades industries so that new buildings and retrofits are realized with multiple energy saving features as a key component to building design and construction.

Additional efforts are needed to ensure development initiatives for Green Energy technologies focus equally on the needs and opportunities of both rural and urban areas of New York. The Adirondack region provides major potential for the development of biomass plants using locally harvested wood supplies. Currently wood chips are being harvested in the Adirondacks and transported to the State of Vermont as an alternate fuel source for municipal co-generation and wood burning furnaces in Vermont schools. NYSERDA, Empire State Development and State Education Department programs should be structured to entice regional development and use of woody biomass facilities within the Adirondack Park and the North Country. Implementing this approach would be an important regional economic stimulus, reduce fossil fuel use and achieve long-term savings for institutions.

State-owned land in the Adirondack Park poses significant issues for inter-agency coordination for which the Park Agency has a lead role through its permitting authority and procedures under the Adirondack Park Agency Act. The Adirondack Park State Land Master Plan recognizes that the "protection and preservation of the natural resources of the state lands within the Park are paramount" and provides specific guidance to State agencies to insure the Park's resources are not degraded. The "Forever Wild" provision of Article XIV of the NYS Constitution also bars sale, exchange or timber removal for virtually all State lands without prior authorization through Constitutional amendment. This leaves little latitude for tree-cutting associated with new construction, maintenance or relocation of major power lines connecting communities.

A State energy policy should, therefore, recognize the unique policy framework, challenges and opportunities for the Park as a significant and distinctly different regional component due to the policy and regulatory context that exists. It should also be stressed that energy needs, costs, and related policies should reflect geographic differences with special attention to the distinct characteristics and settings of rural, urban and suburban areas of the State.

As examples, requirements of the APA Act and State Land Master Plan would argue for additional consideration for providing undergrounding of utility lines in highly scenic areas. This has been accomplished in the past through federal and state funding sources on highway projects which involve municipal power supplies. Often similar funding is not available for utility company projects where the cost of the project needs to be borne by the utility rate payers. Balancing protection of

the Park's scenic resources with project costs for utility line relocation continues to be a significant issue within the Park. Similarly, relocation of utility lines involving State Forest Preserve Lands can be a lengthy regulatory process due to the need for specific amendments to the State's Constitution to allow use of Forest Preserve lands. There are also regulatory protections for the Park's wild, scenic and recreational rivers as well as Constitutional limits on the creation of reservoirs and large-scale dams which could be used for hydro-power generation. Within the context of Park protection, the historical imperative and direction has been, and must continue to be for the protection of the Park's natural resources rather than their exploitation.

The Draft Energy Plan provides a framework for small-scale hydro development at existing dams on private lands. This type of sustainable economic development will require a greater emphasis on funding for alternate energy generation directed at communities and residents in rural areas. The resulting benefits will encourage micro-grid and off-grid solutions. Direct subsidies, incentives and technical assistance will be important to achieve this type of development.

Based on a state-wide assessment of wind generation potential, the interior of the Park is not conducive to large-scale wind generation. Additionally, the potential for adverse environmental impacts must always be considered. There are, however, great opportunities for individual homeowners to install various combinations of wind, solar and geothermal energy sources. These combinations will increase energy efficiency and reduce community and homeowner reliance on ever-increasing and costly fossil fuel supplies.

Additionally, energy conservation and use in rural areas must address public transportation needs and facilities. Investment in public transportation should consist of energy/fuel efficient vans and small buses to service rural areas. There is a need to improve planning to understand local transportation patterns, publicize existing routes and improve inter-municipal cooperation and planning at the county and inter-county levels.

The draft Plan's strategy to foster regional clusters of clean energy businesses and institutions is of particular interest in the Adirondack region. Academic institutions, Cornell Cooperative Extension offices and Community Energy Services should be funded to provide the necessary education for energy efficiency job skills, energy audits and technical training. It is critical that these training programs reach into our rural

areas and make it possible for our contractors to participate. Distance learning training should be explored to minimize cost and travel time for the training programs.

Our final comment recognizes the recent work highlighted in the *Adirondack Energy and Greenhouse Gas Emissions Inventory*[1] *Report* prepared for the Adirondack Climate Action Plan (ADKCAP) by Ecology & Environment, Inc. with the collaboration of the Adirondack Park Energy Smart Park Initiative and other contributors. The report follows on a major Climate Change conference held at the Wild Center in Tupper Lake in November, 2008 which was sponsored by McKinsey & Company and numerous private and public sector sponsors. The report highlights the following key findings in the Adirondack Park:

- Residential emissions represent a significant portion of the emissions in the Park and offer opportunities for mitigation;
- Mobile source emissions make up the largest emissions source in the Park;
- Park communities have relatively less electricity consumption relative to the entire United States;
- Forests provide significant sequestration and storage of Carbon in the Park;
- Adirondack residents may have lower GHG intensity per capita than the United States at large;

The report emphasizes that Forest Preserve and private forestry lands sequester approximately 600,000 carbon dioxide equivalent metric tons per year, which is 28% of the Park's total emissions. Additionally, the Park's forests store 242,600,000, approximately 113 times the annual emissions of the Park. New York's efforts to protect Forest Preserve Lands and APA Act provisions which emphasize the need to protect working forest lands should be recognized and incentive provided as part of any regional or national cap and trade program. Data collected through the efforts of ADKCAP and ongoing work on regional Climate Change efforts should be recognized and encouraged.

Regional planning grants from state and federal sources which provide communities with tools, resources and training to affect real change in energy conservation and use should be enhanced.

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[1] *Adirondack Energy & GHG Inventory: An Analysis of How Adirondack Communities Use Energy & the Impacts of that Regional Energy Use,* prepared by Ecology & Environment, Inc. for the Wild Center & ADKCAP in consultation with the Adirondack Energy Smart Park Initiative (April, 2009), Full report available at www.adkcap.org

Data from the Adirondack Park GHG Emissions Report, some of which is attached for your reference, demonstrates the clear opportunities and challenges for decreasing dependence on fossil fuels, increasing use of "green" energy sources, improving regional transportation infrastructure and recognizing the forested lands in the Adirondack Park for their contribution to offset carbon emissions from various sources.

We thank you for the chance to comment and wholeheartedly support the overall direction of the draft NYS Energy Plan. The collaborative work is greatly appreciated.

Sincerely,

Curtis F. Stiles
Chairman

CFS:dal

c: Judith Enck, Deputy Secretary for the Environment
Jennifer Kozlowski, Special Assistant for the Environment
Peter Iwanowicz, Assistant Secretary for the Environment
Alexander "Pete" Grannis, Commissioner, NYSDEC
Jeffrey Cohen, Deputy for Policy and Legal Affairs,
NYS Department of Public Service
Kate Fish, Project Director, ADKCAP
Sue Montgomery Corey, Community Power Network of NYS, Inc.
Ann Heidenreich, Executive Director, Community Energy
Services, Inc.
Agency Members and Designees
Terry Martino, Executive Director, NYSAPA
James Connolly, Deputy Director, NYSAPA

ADIRONDACK ENERGY & GHG INVENTORY

AN ANALYSIS OF HOW ADIRONDACK COMMUNITIES USE ENERGY AND THE IMPACTS OF THAT REGIONAL ENERGY USE

April 2009

Prepared for

The Wild Center & ADKCAP

In consultation with

The Adirondack Energy $mart Park Initiative (E$PI)

Funded by

ACT Adirondack Community Trust

Master Family Fund

Prepared by

Ecology and Environment, Inc.

368 Pleasant View Drive

Lancaster, New York 14086

With Key Contribution from

Dr. Colin Beier

Research Ecologist

Adirondack Ecological Center & Huntington Wildlife Forest

SUNY College of Environmental Science and Forestry

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Frances Hart, New York State Public Services Commission

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Bernard Roy, Essex County Real Property Tax Services

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Donna Wadworth, International Paper, Ticonderoga, New York

Ted Blazer, Olympic Regional Development Authority, Lake Placid, New York

Joe Martens, Olympic Regional Development Authority, Lake Placid, New York

Thomas Varelli, New York State Department of Corrections, Albany, New York

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Executive Summary

A regional energy and greenhouse gas (GHG) inventory was conducted for the Adirondack Park as part of the Adirondack Carbon Offset Project and the Adirondack Climate Action Plan in order to support efforts to assess the Park's energy use and consumption data, identify GHG mitigation opportunities and to provide a baseline so that carbon emissions reductions can be documented over time.

The inventory encompassed 6 million acres within the Park boundary (known as the Blue Line), including all or parts of 12 counties. Regional primary fuel use and emission data were generally not available, and the inventory largely relied on secondary sources, including census data, assessment data, and other data compiled by state, federal, and academic sources. The effort involved data requests and consultation with local, state, and federal governments, the support of local academic institutions, detailed information provided by a number of large emitters, and the support of members of the community at large.

Given the limitations on primary data availability, the inventory was conducted to the extent possible according to international and national accounting principles and best practices. Emission factors were obtained from The Climate Registry General Reporting Protocol (Protocol), with the exception of state-specific mobile source factors, which were obtained directly from the New York State Department of Transportation (NYSDOT). Following the Protocol, region-specific electricity use emissions factors provided by the U.S. Environmental Protection Agency (EPA) were applied. Emissions were divided into two categories:

- Scope I – Direct Emissions
- Scope II – Indirect Emissions

For the purposes of this inventory, commercial buildings were defined following conventions from the U.S. Department of Energy, Energy Information Administration (DOE EIA), and include all buildings other than agricultural, industrial, and residential structures. The inventory of Scope I and Scope II emissions are summarized on Table ES-1.

Table ES-1 Summary Adirondack GHG Emissions

Source	CO_2e Emissions (metric tons)
Scope I Emissions	
Residential Building	341,901
Commercial Building	165,639
Agricultural – Buildings	22,711
Industrial	152,924
Mobile Sources	883,158
Agricultural - Fugitive Methane	21,250
Water Treatment Fugitive Methane	27,852
Total Scope I	**1,624,446**
Scope II Emissions	
Residential	331,732
Commercial	142,046
Agricultural	2,263
Industrial	36,391
Total Scope II	**512,433**
Total Emissions	**2,136,879**
Forest sequestration	-600,000
Net Emissions (Sources and Sinks)	**1,536,879**

Key observations and conclusions drawn from the Adirondack Park GHG inventory include the following:

Limitations on primary data availability limit the inventory. During the inventory process, it became clear that much of the primary fuel use data typically used in GHG inventories were not available. Electricity and bulk fuel suppliers consider their energy delivery data to be proprietary did not provide supplied fuel and electricity data. It is concluded that political effort at the state or local level may be needed to make this data available. For bulk fuel data, local or state reporting ordinances affecting fuel suppliers may need to be enacted, given the large number of small proprietors in this category.

Mobile source emissions make up the largest emissions source in the park. As shown on Figure ES-1, mobile source emissions from cars and trucks are by far the largest emissions source in the Park. This reflects both the rural character of the region, which typically involves the use of larger-than-average vehicles and travel between relatively dispersed communities. Any attempt to attain carbon neutrality will require significant focus on mitigating emissions resulting from vehicle travel.

Residential emissions represent a significant portion of the emissions in the Park, providing opportunities for mitigation. Due to the aging housing stock

and relatively high reliance on electricity and fuel oil for heat, there are significant opportunities for mitigation. The relatively large proportion of residential emissions is due, in part, to the fact that many Park residents travel outside the Park for employment, with many commercial and industrial employers being located outside of the Park boundary. Given the high energy consumption in this community and the high proportion of economically challenged residents, there is great opportunity to tie GHG mitigation to residential building energy efficiency programs that would mitigate GHG emissions and lower costs for struggling families.

Table 2-2 Residential Fuel and Electricity Use, by End Use

Energy Type	Fuel or Electricity Consumption
Space Heating	
Electricity (kWh)	148,220,508
Fuel Oil/Kerosene (gallons)	31,344,408
LPG (gallons)	8,713,787
Wood (cords)	45,750
Water Heating	
Electricity (kWh)	158,132,989
Fuel Oil (gallons)	4,609,396
LPG (gallons)	692,804
Appliance	
Electricity – Refrigerators (kWh)	129,346,819
Electricity – Other Appliances and Lighting (kWh)	489,379,900
LPG (gallons)	730,542

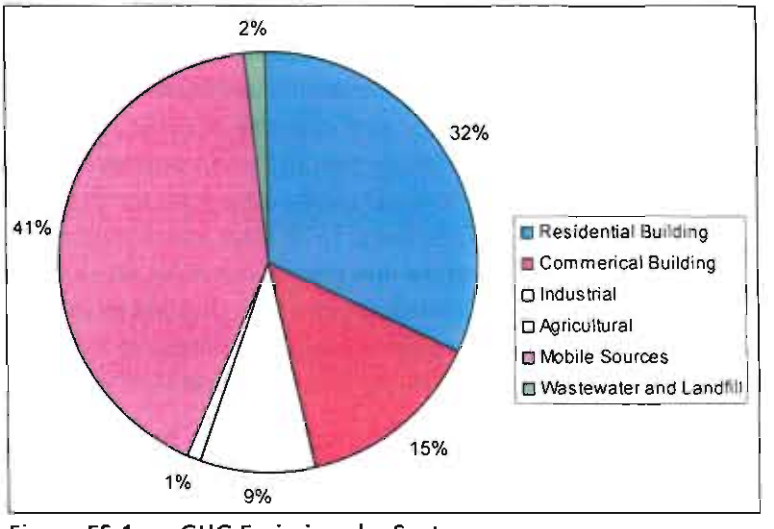

Figure ES-1 GHG Emissions by Sector

Industrial emissions are dominated by the International Paper Company's (IP's) paper mill in Ticonderoga, New York. Based on fuel use data provided by IP, it was found that the Ticonderoga mill emits about 86% of the industrial emissions in the Park, which does not include biomass burned by the mill. This is in spite of the fact that the mill combusts a large amount of relatively carbon neutral biomass. The lack of other large industrial emitters reflects the protected status of the Adirondack Park and the fact that much of the region's industry lies outside the Park boundary. Opportunities to mitigate emissions from industry are probably rather limited, as there is not a large amount of industry, and the largest emitter already has an active program of biofuels and energy efficiency initiatives.

Forests provide significant sequestration and storage of carbon in the Park. Annually, the above ground forest in the park sequesters approximately 600,000 carbon dioxide equivalent (CO2e) metric tons per year, which is 28% of the Park's total emissions. Belowground soil sequestration is also expected to be important but was not estimated. Additionally, the Park forests store approximately 242,600,000 metric tons CO2e, or approximately 113 times the annual emissions of the park (including belowground storage). There are significant data gaps and research needs to understanding carbon fluxes and storage in Adirondack forests, water bodies, and wetlands, and in particular to understanding how climatic variation can affect carbon storage and sequestration.

Wastewater and solid waste are modest sources of GHG emissions for the Park. All waste from the Park is land filled or incinerated at large regional facilities outside the park, and therefore constitutes a Scope III indirect emission source. Wastewater is a much larger source than solid waste, and occurs within the Park. Fugitive methane emissions from oil, gas and mineral extraction is not a significant source within the Park.

Adirondack residents may have lower GHG intensity per capita than the U.S. at large. Per capita GHG emissions were calculated for the Adirondack Park and are compared to the U.S. and a sample of other countries on Figure ES-2. These numbers do not include sequestration provided by the Park forests. The figure shows relatively low per capita emissions for the Park. This likely results from the tendency of residents to 1) have jobs outside the Park, 2) have lower incomes and therefore less energy intensive lifestyles, and 3) the lack of a large number of high emitting industrial emitters in the Park. If emissions from employers of Park residents whose facilities are located outside the Park were considered in this inventory, it is likely that Park per capita would be higher.

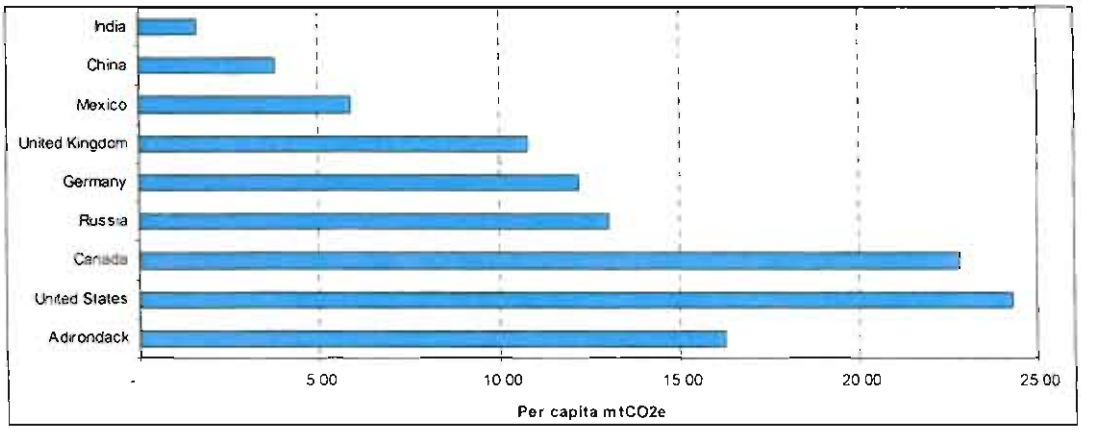

Figure ES-2 Per Capita Emissions for the Adirondacks and by Country