State University of New York
COLLEGE OF ENVIRONMENTAL SCIENCE AND FORESTRY

Office of the President

March 28, 2003

Honorable Eleanor Stein
Administrative Law Judge
New York State Department of Public Service
3 Empire State Plaza
Albany, NY 12233-1350

RE: Case 03-E-0188 - On a Motion of the Commission
Regarding a Retail Renewable Portfolio Standard

Dear Judge Stein:

In accordance with the Order Instituting Proceeding of the Secretary of the Public Service Commission ("PSC"), issued February 19, 2003, and your ruling dated February 20, 2003, the State University of New York Center for Sustainable and Renewable Energy ("the Center") at the State University of New York College of Environmental Science and Forestry (SUNY-ESF) submits this limited statement relative to its present position. The Center looks forward to actively participating in this collaborative proceeding. The Center understands the purpose of this proceeding is to develop policies to enable New York State to achieve a goal of at least 25% of the electricity used in the state being derived from renewable energy resources. Thus, one of the initial objectives of this proceeding must be to determine just what constitutes a renewable energy source.

The Center, established by SUNY Chancellor, Robert L. King has a statewide role as a clearing-house of scientific and policy information for all sixty-four SUNY-system campuses and acts as a scientific and academic policy advisor to the American Bioenergy Association, the acknowledged national bioenergy industry association and policy voice. The Center is presently conducting research and investigation into molten carbonate fuel cell fuelled by synthetic gas derived from biomass operations, photovoltaic power generation, solar-fuelled hydrogen generation, biomass energy feedstock agroforestry production, biomass feedstock production from New York's forest-products industry, biomass combined heat and power sole-firing and co-firing with fossil fuels energy production, biomass gasification for synthetic gas and hydrogen extraction and hydrogen production from biomass using biotecgnology. The Center also has an on-going interest in wind-power in support of potential wind-power production at SUNY-Oswego.

Section IX "Energy", Section 9100 "Definitions" of the Farm Security and Rural Investment Act of 2002 (Enrolled as Agreed to or Passed by Both House and Senate), the "Farm Bill, HR 2646," defines renewable energy as "a wind, solar, biomass, or geothermal source; or hydrogen derived from biomass or water using an energy source described as any organic material that is available on a renewable or recurring basis. Similar language was also included in the 107th Congress' House Resolution 4, "The Energy Bill," which was not enacted in the 107th Congress but appears ready for legislation in the 108th Congress with the self-same language intact. Thus, since the federal government intends to commit significant funding resources for FY 2004 and beyond through statutory authorizations to support of research, development and commercialization of renewable technology based on a definition of energy derived from a wind,

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solar, biomass, geothermal or hydrogen source; prudence dictates inclusion of the same in New York State's definition of what constitutes a renewable energy source.

Furthermore, the 107th Congress found:

1. "...development of fuel cell and hydrogen-based energy technologies...are critical technologies for a clean energy future."
2. "...renewable energy generation can become one of America's major 'cash crops,' improving the livelihoods of hundreds of thousands of family farmers and others and revitalizing rural communities."
3. "...greenhouse gases are contributing to global climate change;...can help in climate change mitigation by – storing carbons in soils, plants and forests; producing biofuels, chemicals and power to replace fossil fuels and petroleum-based products...."
4. "...fuel cells are highly efficient, clean, and flexible technology for generating electricity from hydrogen that promises to improve the environment, electricity reliability, and energy security;..."
5. "...because fuel cells can be made in any size, fuel cells can be used for a variety...of applications;..."
6. "...much of the initial use of fuel cells is likely to be in remote and off-grid applications in rural areas;..."
7. "...hydrogen is a clean and flexible fuel that can play a critical role in storing and transporting energy produced...from renewable sources including biomass, wind and solar energy." (Farm Security Act 2001, Section IX, Sec.901"Findings")

Additionally, the 107th Congress defined "Biomass" as:

1. IN GENERAL- the term `biomass' means any organic material that is available on a renewable or recurring basis.
2. INCLUSIONS- The term `biomass' includes--
   (a) agricultural crops;
   (b) trees grown for energy production;
   (c) wood waste and wood residues;
   (d) plants (including aquatic plants and grasses);
   (e) residues;
   (f) fibers;
   (g) animal wastes and other waste materials; and
   (h) fats, oils, and greases (including recycled fats, oils, and greases).
   (Farm Security and Rural Investment Act of 2002, Section IX, "Energy", Section 9001, "Definitions).

New York possesses a robust forest products resource encompassing over 18,000,000– acres of forest with over 15,000,000 privately held; furthermore New York's forest products/pulp and paper industry annually produce millions of tons of CO2-neutral woody biomass residue, This residue coupled with agro-forestry produced energy crops, such as the proof-of-concept "proven" SUNY-ESF SALIX (willow), provide and ample, cost effective biomass feedstock supply to support a significant share of the renewable energy requirement in New York State including feedstocks for biomass combined heat and power sole-firing and co-firing with fossil fuels energy production, biomass gasification for synthetic gas and hydrogen extraction and biotechnical hydrogen production from biomass. Finally, the Center most strongly advocates open- and

closed- loop renewable energy tax credits, as well as, tradable carbon bio-sequestration tax credits.

These comments are meant to pragmatically help determine just what constitutes a renewable energy source. The goal of an effective RPS is "energy independence," reduced reliance on petro-based and foreign energy and a more environmentally sensitive source of energy. The Center can prove that energy from wind, solar, biomass, or geothermal source; or hydrogen derived from biomass or water using an energy source described as any organic material that is available on a renewable or recurring basis meets this requirement. Thus, these remarks are intended to remind all parties that significant resources are available to enable generation of renewable energy in New York State and that New York State needs a RPS "in-step with" existing and emergent scientific and academic research, available statewide resources and not parochial interests.

For the State University of New York, Center for Sustainable and Renewable Energy;

Sincerely,

Cornelius B. Murphy Jr

Cornelius B. Murphy, PhD.
President, State University of New York,
College of Environmental Science and Forestry

Cc; Chancellor Robert L. King, State University of New York
Katherine Hamilton, Director, American Bioenergy Association
Senator Charles Schumer, United State Senator
Senator Hillary Rodham Clinton, United States Senator
Congressman James T. Walsh, 25th District
Senator Nancy Larraine Hoffmann, New York State Senate
Senator James W. Wright, Chair, NYS Senate Energy and Telecommunications Committee
Senator John DeFrancisco, New York State Senator
Assemblywoman Joan K. Christensen, New York State Assembly
Assemblyman William B. Magnarelli, New York State Assembly
Assemblyman William Barclay, New York State Assembly

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