Exhibit A

Statement of Work

Eco-Grid, Biomass-fired, District CHP/Heating and Cooling System

Agreement No. 10050

The goal of the project is to analyze the potential energy and economic benefits of a biomass-fired, district CHP/heating and cooling system for the city of Hudson, New York. Such system could enable Hudson to become a model, net-zero energy community.

According to a preliminary analysis, a sustainable-energy, 5 MW district CHP/heating and cooling system could consist of several major elements: a biomass-fired, cogeneration plant with fuel from clean wood residues and locally grown energy crops; a low-temperature, hot water, district heating network to deliver low-cost thermal energy to residential, commercial and institutional customers in the community; connections to buildings and conversions of existing heating systems to efficiently use hot water for heating and, in some cases, to power thermally-driven chillers for air-conditioning; a waste treatment facility using food and yard residuals to provide combined heat and power, reduced municipal solid waste costs, and revenue from compost sales; and, a solar-thermal generation component, such as is used in Kungalv, Sweden.

A 5 MW biomass-fired plant would require approximately 35,000 tons of wood chips annually to produce hot water for district heating and 18 million kwh of electricity. The plant would normally be operated in a thermal-following mode but could be ramped up to full electric power production if necessary.

The project shall include the following tasks:

Task 1. Management Tasks

A. Initial Briefing

Within ten days after receipt of the Agreement, the Contractor shall meet with NYSERDA's Project Manager to establish a complete understanding of this Agreement, to review all necessary information relating to the project activities, and to discuss the format and schedule for project reporting.

The initial briefing shall be conducted at a location mutually agreed upon by NYSERDA and the Contractor. The Contractor shall prepare a written agenda for the initial briefing and shall take minutes of the briefing. The Contractor shall distribute draft minutes of the initial briefing to NYSERDA within five days following the initial briefing. The Contractor shall solicit comments on the draft minutes and issue final minutes within ten days following the initial briefing.

The Contractor shall conduct project management meetings thereafter at least once every calendar quarter with NYSERDA to review and discuss the progress of the project. The Contractor shall conduct such meetings at a location mutually agreed upon by NYSERDA and the Contractor, and shall be responsible for establishing meeting dates and times. The Contractor shall be responsible for preparing written meeting agendas and for taking minutes of the meetings. The Contractor shall distribute draft minutes of project management meetings to NYSERDA within five days following each meeting. The Contractor shall solicit comments on the draft minutes from meeting participants and shall issue final minutes of project management meetings to NYSERDA within ten days following each meeting.

B. Project Management Plan

The Contractor shall submit a detailed project management plan for review and approval by NYSERDA's Project Manager. The plan shall indicate in detail the following:

1. Final allocation of financial and personnel resources;

2. Timing of principal events that are to occur during execution of the project;

3. Decision points and project milestones;

4. Technical approach; and

5. Other items of direct relevance to timely and successful accomplishment of the project objectives. This task also includes all project management, coordination and Contractor-sponsor liaison.

C. Progress Reports

Once each month during the period that Work is performed hereunder, the Contractor shall provide NYSERDA brief progress reports describing the Work performed during the reporting period. Such reports shall describe any difficulties encountered during the reporting period and shall include a statement of the Project Director setting forth the costs of the Work during the reporting period. Progress Reports shall be sent to NYSERDA's Project Manager no later than the 15th of the month. Progress Reports shall be in a letter format and shall include the following subjects in the order indicated, with appropriate explanation and discussion:

a. Title of project.
b. Agreement number.
c. Period of this report.
d. Progress of report.
e. Planned progress in the future.
f. Identification of problems.
g. Planned solutions.
h. Ability to meet schedule, reasons for slippage in schedule.
i. Schedule - percentage completed and projected percentage of completion of performance by months - could be a bar chart of milestone chart.
j. Analysis of actual cost incurred in relation to the budget.

D. Project Advisory Group

The Contractor shall provide for the advisory participation of local community leaders in the project. The Contractor shall invite such advisory group to project review meetings and shall distribute progress reports and the final report to them. The Contractor shall seek the technical and policy input of such advisory group in the conduct of the project.

Task 2. Analysis of Site Selection, Permitting, Piping Network, and Prospective CHP/District Heating and Cooling Technologies

The Contractor shall analyze site selection, permitting, piping and prospective CHP/district heating and cooling technologies for a biomass-fired, district CHP/heating and cooling system for the city of Hudson, New York.

The Contractor shall perform an energy appraisal of all main structures within the target area of the proposed district CHP/heating and cooling system.

The Contractor shall perform a site-selection analysis and permitting analysis for the system.

The Contractor shall perform an initial piping network design for the system.

The Contractor shall make a comparison of financial, engineering and economic characteristics of various distributed-generation technologies including biomass-fired CHP, solar thermal collection, and anaerobic digestion-based CHP.

The Contractor shall prepare a written task report which describes the work performed under this task. The Contractor shall submit the report to NYSERDA's Project Manager and the Project Advisory Group for review and comment. The Contractor shall meet with NYSERDA's Project Manager and the Project Advisory Group to discuss the report. The Contractor shall then revise the report based upon recommended revisions mutually agreed to by the Contractor, NYSERDA's Project Manager and the Project Advisory Group. The Contractor shall submit the revised report to NYSERDA's Project Manager and the Project Advisory Group.

Task 3. <u>Analysis of Biomass Fuel Supply</u>

The Contractor shall perform an analysis of biomass fuel supply for the proposed district CHP/heating and cooling system.

The Contractor shall analyze source-separated organic waste supply. The Contractor shall identify and evaluate supply opportunities for wood waste, agricultural residues, dedicated energy crops and other potential sources located within a 50 mile radium of the proposed system. The Contractor shall also identify and evaluate supply opportunities for fuel obtained from yard debris, wood recovery operations, and land-management activities. The fuel supply analysis shall develop a classification system that will provide the CHP/district heating and cooling system with a multiple options for fuel selection and procurement.

The fuel supply analysis shall include a description of the availability of various, biomass fuel sources, a characterization and cost analysis of the fuels, a transportation cost evaluation, and total delivered cost projections on a per-ton and per-energy content basis. The analysis shall also develop a preliminary layout for a biomass material-handling system.

The Contractor shall prepare a written task report which describes the work performed under this task. The Contractor shall submit the report to NYSERDA's Project Manager and the Project Advisory Group for review and comment. The Contractor shall meet with NYSERDA's Project Manager and the Project Advisory Group to discuss the report. The Contractor shall then revise the report based upon recommended revisions mutually agreed to by the Contractor, NYSERDA's Project Manager and the Project Advisory Group. The Contractor shall submit the revised report to NYSERDA's Project Manager and the Project Advisory Group.

Task 4. <u>Preliminary Design and Economic Analysis of Biomass-fired, CHP/District Heating and Cooling System</u>

The Contractor shall develop a preliminary design of a biomass-fired, CHP/district heating and cooling system.

The Contractor shall also develop an estimate of air emissions that would be produced by the biomass-fired, CHP/district heating and cooling system. The Contractor shall identify and evaluate technologies that could reduce such emissions.

The Contractor shall also develop a plan for maximizing the use of local and New York State labor and materials for the system. The Contractor shall identify locally-owned businesses, materials and other inputs that could be competitively priced for the project.

The Contractor shall also identify and evaluate system ownership models that would raise sufficient capitalization for the project from local investors.

The Contractor shall evaluate the current economic loss to the local economy through inefficient energy use, inefficient energy production (fossil fuels vs. renewable fuels), and loss of energy dollars to non-local businesses.

The Contractor shall evaluate the economic benefit of localizing construction, ownership, energy production and energy consumption. Such economic benefits shall be defined in terms of output, earnings and jobs using the Bureau of Economic Analysis RIMS II model.

The Contractor shall prepare a preliminary construction and operation cost estimate for the biomass fired, CHP/district heating and cooling system.

The Contractor shall analyze potential energy sales including the sale of Renewable Energy Certificates.

The Contractor shall analyze electric utility interconnection issues as would arise during the project. The Contractor shall communicate with the local utility identify and resolve such issues.

The Contractor shall prepare a written task report which describes the testing results achieved under this task. The Contractor shall submit the report to NYSERDA's Project Manager and the Project Advisory Group for review and comment. The Contractor shall meet with NYSERDA's Project Manager and the Project Advisory Group to discuss the report. The Contractor shall then revise the report based upon recommended revisions mutually agreed to by the Contractor, NYSERDA's Project Manager and the Project Advisory Group. The Contractor shall submit the revised report to NYSERDA's Project Manager and the Project Advisory Group.

Task 5. Final Report and Technology Transfer

The Contractor shall prepare a Final Report that describes the work performed and the results obtained during the project. The Final Report shall include the analysis of all project data. Subtasks to be performed in the preparation of this document shall include the following:

1. Prepare and deliver a report outline to NYSERDA's Project Manager and the Project Advisory Group for review and approval one month before delivery of the draft report;

2. Prepare and deliver draft Final Report to NYSERDA's Project Manager and the Project Advisory Group for review;

3. Revise the draft Final Report on the basis of comments from NYSERDA's Project Manager and the Project Advisory Group; and

4. Deliver Final Report to NYSERDA's Project Manager and the Project Advisory Group.

The Contractor shall also prepare two articles suitable for publication in regional and national publications which describes the work performed and results obtained under the project. The Contractor shall submit such articles and any other literature to NYSERDA's Director of Technical Communications for review and approval prior to release or publication of such article or literature. The Contractor shall then present such articles and other literature at conferences or seminars to educate the community about the energy, environmental and economic characteristics of the proposed, biomass-fired, CHP/district heating and cooling system.

The Contractor shall also prepare a brief report which describes the benefits that could be achieved in New York State with the wider spread use of the system evaluated under the project. The report shall evaluate such factors as tons of emission reductions that could be achieved through the use of such systems.

Eco-Grid, Biomass-fired, District CHP/Heating and Cooling System

SCHEDULE

Task		Month of Completion
1.	Management Tasks	1 - 12
2.	Analysis of Site Selection, Permitting, Piping Network and Prospective CHP/District Heating and Cooling Technologies	1 - 2
3.	Analysis of Biomass Fuel Supply	2 - 3
4.	Preliminary Design and Economic Analysis of Biomass-fired, CHP/District Heating and Cooling System	4 - 10
5.	Final Report and Technology Transfer	12