



**Development of a Renewable Fuels Roadmap and
Sustainable Biomass Feedstock Study for New York**
Request for Proposals (RFP): 1249

\$750,000 Available
PROPOSALS DUE: Tuesday, August 12, 2008
5:00 pm Eastern Time*

The New York State Energy Research and Development Authority (NYSERDA) Request for Proposals (RFP) 1249 seeks proposals to develop and conduct a Renewable Fuels Roadmap and Sustainable Biomass Feedstock Study for New York ("the Roadmap"). NYSERDA is issuing this RFP in coordination with the New York State Department of Environmental Conservation and the New York State Department of Agriculture & Markets.

For the purposes of the Roadmap, "renewable fuels" refers to biomass-based liquid fuels ("biofuels"). The Roadmap is intended to assess critical environmental, capacity, technology, efficiency, and economic issues for renewable fuels. This assessment will provide policy makers with a better understanding of the possible impacts that increased use of renewable fuels might have on economic development, energy supplies and diversity, the environment and public health. The Roadmap should suggest possible strategies and actions for mitigating possible negative impacts and ensure sustainable feedstock production. Furthermore, it will help identify the renewable fuels, feedstocks, pathways, and applications that would be sustainable and provide the most benefit to New York State by reducing dependence on imported fossil fuels, reducing life cycle greenhouse gases of the overall fossil fuel and renewable fuel mix, enhancing the environment, optimizing the use of available biomass, and creating economic opportunity. The Roadmap will evaluate competing uses for various feedstocks used to make renewable fuels, and consider New York State's unique land use patterns, water, biomass, and other resources. Because the renewable fuel industry is changing rapidly, the Roadmap is intended to be updated periodically to identify more economical and sustainable sources of renewable fuels progressing toward carbon neutrality. The Roadmap will address renewable fuels that are currently being used, near-term renewable fuels that are very close to contributing to the reduction in fossil fuel use in a three to ten year time horizon, and promising future renewable fuels that may make significant contributions to fossil fuel reductions in more than ten years.

NYSERDA has a total of \$750,000 available under this RFP. It is anticipated that one contract will be awarded. Cost sharing is not required. Leveraging of other funding is encouraged.

PROPOSAL SUBMISSION:

Proposers must submit one (1) original and nine (9) copies of the proposal (10 total), with a completed and signed Proposal Checklist attached to the front of each copy, one of which must contain an original signature, clearly labeled and submitted to:

Roseanne Viscusi, RFP No. 1249
NYSERDA
17 Columbia Circle
Albany, NY 12203-6399

If you have **technical questions concerning this solicitation**, contact **Judy Jarnefeld** at (518) 862-1090, ext.3293 or jj1@nyserda.org. If you have **contractual questions concerning this solicitation**, contact **Nancy Marucci** at (518) 862-1090, ext. 3335 or nsm@nyserda.org.

No communication intended to influence this procurement is permitted except by contacting Judy Jarnefeld (Designated Contact) at (518) 862-1090, ext. 3293 or jj1@nyserda.org. Contacting anyone other than this Designated Contact (either directly by the proposer or indirectly through a lobbyist or other person acting on the proposer's behalf) in an attempt to influence the procurement: (1) may result in a proposer being deemed a non-responsible offerer, and (2) may result in the proposer not being awarded a contract.

*Late proposals and proposals lacking the appropriate completed and signed Proposal Checklist will be returned. Faxed or e-mailed proposals will not be accepted. Proposals will not be accepted at any other NYSERDA location other than the address above. If changes are made to this solicitation, notification will be posted on NYSERDA's web site at www.nyserda.org.

I. INTRODUCTION

GOALS AND OBJECTIVES

In their February 2008 report, the Governor's Renewable Energy Task Force ("the Task Force") recommended that a Renewable Fuels Roadmap and Sustainable Biomass Feedstock Study for New York ("the Roadmap") be developed.

http://www.state.ny.us/governor/press/lt_RETf_Report.pdf

The Task Force report stated that New York first needs to assess critical environmental, capacity, technology, efficiency, and economic issues for renewable fuels. This assessment will provide policy makers with a better understanding of the possible impacts that increased use of renewable fuels may have on the environment and public health and should put forth a plan to mitigate potential negative impacts and ensure sustainable feedstock production. The goal of the Roadmap is to help identify the renewable fuels, feedstocks, pathways, and applications that would be sustainable and provide the most benefit to New York State by reducing dependence on imported fossil fuels, reducing life cycle greenhouse gases of the overall fossil fuel and renewable fuel mix,, enhancing the environment, optimizing the use of available biomass, and creating economic opportunity. In this way, the Roadmap will not only identify steps necessary to develop the industry in New York State, but by establishing sustainability criteria, will position environment, land-use, and health concerns in the forefront of the analysis. Sustainability criteria and indicators will be developed to assess biomass feedstocks and renewable fuel production in New York State. Though there is currently no clear consensus on specific criteria to define sustainability, for purposes of this Roadmap, the term "sustainability" refers to New York's desire to create an economically viable renewable fuels industry that: optimizes and protects New York's resources; does not create unacceptable environmental impacts; and maintains production and consumption needs while not adversely affecting the ability to do the same in the future.

The Roadmap will evaluate competing uses for various feedstocks used to make renewable fuels and consider New York State's unique land use patterns and resources. The Roadmap will address renewable fuels that are currently being used, near-term renewable fuels that are very close to significantly contributing to the reduction in fossil fuel use in a three to ten year time period, and promising future renewable fuels that may make significant contributions to fossil fuel reductions in more than ten years. Finally, it will identify technical or market barriers and suggest ways to overcome them.

The New York State Energy Research and Development Authority (NYSERDA), a member of the Task Force, was requested to work in consultation with the Governor's Office and the other agencies on the Task Force, including the New York State Department of Environmental Conservation, the New York State Department of Agriculture & Markets, and the New York State Department of Economic Development to develop the Roadmap. To meet the goals, NYSERDA seeks proposals to develop and complete a comprehensive Roadmap that: 1) addresses life-cycle environmental and public health consequences of renewable fuels compared to fossil fuels; 2) outlines sustainability criteria and best management practices to mitigate potential negative impacts; 3) analyzes New York State land use, resource condition, and feedstock supply (baseline and potential) and local, state and regional economic effects; 4) evaluates technological and economic barriers to large-scale feedstock production in New York and analyzes potential solutions; 5) compares current and future renewable fuel feedstock and process technologies to each other, current and future fossil fuels, and competing uses for biomass in terms of sustainability criteria, highest-value uses, and commercial viability in New York State.

Specific objectives, in no particular order of priority, are to explore:

- the life cycle **environmental and public health consequences** including all upstream emissions and the sources of those emissions, as well as direct land use and water use impacts of expanding the development and deployment of renewable fuels. Proposers will be expected to build upon and address gaps outlined in the draft Executive Summary of NYSERDA Report 08-07, "The Environmental Impacts of Biofuels in New York State," available at: <http://www.nyserdera.org/publications/default.asp> with emphasis on developing a better understanding of: 1) the role of renewable fuels in air quality, climate impacts, water resources and ecosystems; and, 2) methodologies, emission factors, and life-cycle greenhouse gas default values to quantify emissions and direct and indirect land use impacts of the production and use of renewable fuels;
- how varying the **scale** of renewable fuel production volumes, and varying **time frames** for implementation of specific production volumes will impact New York. (For example, at what scale does production of renewable fuel using current technology become unsustainable or uneconomical? At what scale is it unsustainable or uneconomical using future technology? How will the markets for competing uses for biomass feedstocks be affected as the scale of renewable fuel production varies? Are there specific business models to produce renewable fuels that become more effective as production volumes increase? How does New York avoid unintended negative consequences? How do those answers change if the time scale is accelerated? How do those answers change when different renewable fuels or different pathways to produce them are considered?)
- the development of **best practices** for supplying feedstocks and producing renewable fuels on a sustainable basis, including assessing available and emerging sustainability criteria and indicators; assessing how farming and forestry practices and processing techniques specific to New York could increase sustainable feedstock production and improve carbon storage; defining barriers to tracking and verifying use of best practices; defining what New York feedstocks and locations for growing feedstocks meet best practices or proposed sustainability criteria; and, defining the extent proposed sustainability criteria scenarios may constrain biomass feedstock supplies in New York. (Note: the best practices that are developed for solid biomass that is used in renewable fuels production will likely also apply to use of solid biomass in other applications such as power production);
- the current industrial and research base in New York that can participate in the renewable fuels **market**, including interaction with land management entities, government agencies, equipment manufacturers, and existing forest products and agricultural industries in New York and the Northeast Region;
- the **distribution infrastructure** to bring fuels to market, including assessing how New York can strengthen its infrastructure to ensure its distribution network is both adequate and compatible to support multiple fuel distribution needs as we transition to advanced biofuels and cellulosic feedstocks; assessing how New York can optimize infrastructure improvements to not only serve New York's needs for renewable fuels, but benefit the State in multiple ways; and, assessing the environmental and economic benefits that may result from system integration or system components (i.e. feedstocks, renewable fuel manufacturers, and distributors) being in close proximity;
- an assessment of **workforce** and training needs and identification of potential relevant assistance programs;
- the **financial resources** necessary to build a sustainable renewable fuels industry and identification of potential sources of funding;
- the economic development **benefits and impacts to rural and agricultural regions** of the

State, (including high-tech and low-tech job creation and loss related to feedstock supply, renewable fuel production, and distribution);

- the technical, economic, and social factors that could impact the **commercial viability** of renewable fuels (including the question of when future renewable fuels are likely to become available at large scale; the effect of increasing renewable fuel production and demand on the price of biomass feedstocks, renewable fuel, land, food, and feed in New York; as well as the effect on the State's energy security and fuel source diversity);
- the **highest-value uses** of sustainable biomass (i.e. is use of biomass to produce renewable fuel and its coproducts the most efficient use of biomass and the most effective pathway for reducing fossil fuel use and greenhouse gases, or are there more beneficial uses of biomass?);
- a detailed baseline and analysis of future trends for the metrics of **sustainable land management**: models and measurement tools (including geospatial) to assess land management and characteristics including soil type, slope, water resources, sensitive habitats, biodiversity and carbon storage;
- **land use inventory and resource** condition (including a detailed baseline and analysis of future trends for changes in land use), standing biomass (forests, crops, agricultural residues, and forest residues), available marginal lands, and suitability for future bioenergy crops; and,
- **feedstock supply** including a detailed baseline and analysis of future trends, identification of new and improved feedstocks; techniques for planting, harvesting, production, storage, transportation, and processing; feedstock distribution infrastructure needs; geographical variation within New York, as well as an analysis of competing uses for existing, new and improved feedstocks. Include waste feedstocks but exclude mixed municipal solid waste streams from consideration.

The Final Report for the Roadmap should explore the objectives and provide information that will help the Task Force address the following questions in order to set strategic and performance goals for renewable fuels in New York:

- *What are the policy drivers and how should they be prioritized? What are the current problems and how should we approach the solutions? What targets are needed? How do we create performance-based standards and policies that continually improve the environment and New York's economy, rather than feedstock-specific or technology-specific policies that create artificial market responses with unintended consequences?*
- *What are the performance standards and environmental safeguards needed to responsibly produce and use renewable fuels in New York? For example, is a low-carbon fuel standard a sensible approach?*
- *If the first generation of renewable fuels is represented by corn-based ethanol and soy-based biodiesel, what are the second and third generation opportunities?*
- *What role should incentives play as New York transitions to advanced renewable fuels and where are those incentives best placed? What is the role of government? How does government create policies that are not too stringent, too lax or too transient to be effective, yet are flexible enough to address future circumstances?*
- *Are there options for growing renewable fuels in New York that lead beyond sustainability to an actual enhancement of the environment and public health?*
- *What time frame should subsidies take and how should funding for the incentives be provided?*
- *What is the magnitude and time frame of the annual investment in research and development to provide a sustainable supply of feedstock to meet the projected demand?*
- *What will ensure success for a renewable fuels industry in New York?*
- *How can New York integrate our renewable fuels efforts with efforts elsewhere in the Northeast and nationally? How should New York incorporate international (e.g. Canadian) feedstock availability into our plans?*

II. PROGRAM REQUIREMENTS

WHO MAY PROPOSE

- Proposers are encouraged to form interdisciplinary teams when appropriate to meet project goals.
 - Teams may consist of a variety of **entities**: scientists; analysts; technologists; experts in specific fields; economists; commercial firms; government organizations; universities; research organizations; industry associations; or other stakeholders.
 - **Results-oriented** teams are encouraged with expertise in technical, business, analytical, operations, technical communication, financing, and administrative fields.
 - Teams may consider providing the following **technical** expertise: environmental scientists; social scientists; agronomists; public policy analysts; economists; technologists; experts in: renewable fuel processing – thermochemical and biological, forestry, agriculture, fuel production and fuel distribution; or experts in other fields, as appropriate.
- The lead proposer could be any organization responsible for successful completion of the project. If the proposal is selected for funding, the lead proposer will enter into an Agreement with NYSERDA as NYSERDA's contractor.
- Include **letters of commitment** from each team member in an appendix to the proposal.

Proposers must:

- Address **each of the specific objectives listed in Section I**. Proposers must submit comprehensive proposals that address in detail all of the objectives in Section I, but that **emphasize** gathering the following information for the Final Report:
 - Recognizing the appropriate performance standards and environmental safeguards, provide information and an analysis of the implications of existing or potential **long-term policy or investment options**, including the probability of success of specific approaches based on technical and economic criteria;
 - A similar analysis of the implications of existing or potential **near-term policy or investment options**, given the uncertainties in information available now. What policies make sense to implement now, and what should wait?
 - Identify where additional scientific inquiry is needed, including data uncertainties, specific areas of interest for future research, and research priorities.
 - Identify public outreach needs.
- Include tasks in the proposed work that define and address:
 - renewable fuels that are **currently** being used, **near-term** renewable fuels that are very close to significantly contributing to the reduction in fossil fuel use in a three to ten year time period, and promising **future** renewable fuels that may make significant contributions in more than ten years;
 - renewable fuels and their coproducts;
 - the current baseline, as well as future trends that reflect the rapidly evolving technological changes impacting renewable fuel production and feedstock availability;

- complete pathways from land use to feedstock to fuel to end use applications;
 - varying technologies to produce renewable fuels;
 - a comparison of renewable fuels with the fossil fuels they replace, including trends in the fossil fuel industry such as the changing composition of crude oil; and,
 - factors specific to **New York's** unique natural and economic resources as they relate to the Northeast region.
- Include tasks in the proposed work that describe coordination with a **Roadmap Advisory Group**, as directed. Membership in the Roadmap Advisory Group at a minimum will include the Governor's Office, NYSERDA, Department of Environmental Conservation, the Department of Agriculture & Markets, and New York State Department of Economic Development. Where appropriate, work should also include coordination with other entities the Advisory Group may identify.
 - Include tasks in the proposed work that describe how information will be gathered from **stakeholders** (e.g. landowners, loggers, farmers, state agencies, environmental groups, renewable fuel producers, biotechnology companies, petroleum companies, petroleum distributors, petroleum marketers, end-users of renewable fuels).
 - Define specific **deliverables** to be met at the completion of each task. Interim deliverables that provide frequent feedback to NYSERDA and the Roadmap Advisory Group for their use in evaluation of progress are strongly encouraged. It is anticipated that certain tasks (or chapters in the Final Report) will need to be completed earlier than others. **In particular, the Draft Preliminary Report should:** identify uncertainties, provide a detailed baseline of New York's feedstock supply, including an assessment of the availability of New York's sustainable biomass supply, and provide a detailed baseline of New York's land use.
 - Describe, briefly in the Executive Summary and in more detail in a Research Methodology Addendum, the **research methodology**, including how data will be gathered and analyzed, what models will be used and why those models were chosen. Be clear about what will not be addressed in the Roadmap.
 - Describe the **management plan**, including how the management plan has been organized, and how the team will partner with other research groups.
 - Describe how the **technical breadth** of the project team addresses the necessary balance of interdisciplinary experience for successfully completing the project.
 - Provide evidence of a **demonstrated track record** of successfully completing complex subject-relevant technical reports or publications in a timely fashion.
 - Include tasks in the proposal to develop and implement strategies to **measure success** of the project. Specify performance goals.
 - Submit a **per-task cost table**. It is anticipated that projects will be paid on a performance basis as per-task deliverables are met.
 - Address the required **timeline** for the proposed work. At a minimum, deliverables are expected on the following dates: Outline of the Preliminary Report on November 20, 2008, Draft Preliminary Report on March 16, 2009, Preliminary Report on July 15, 2009 and Final Report on September 15, 2009. Following submission of the Final Report, the successful contractor will be expected to provide annual updates to the Roadmap for two consecutive

years.

- **Cost sharing is not required.**
 - NYSERDA's share of funding will be limited to a maximum of **\$750,000**.
 - Proposals **must** provide value to NYSERDA commensurate with funding requested. The amount of funding requested will be considered for overall reasonableness with respect to meeting project objectives.
- In addition, proposers are encouraged to identify and emphasize, as appropriate, other innovative and effective approaches, strategies, and tools that support the goals and objectives of this program.

Other Considerations:

- A proposal may be considered **non-responsive** if it fails to comply with the requirements above, the Proposal Format of Section III, or the General Conditions of Section V.
- Before an award is made, potential contractors may be required to demonstrate: access to financial resources sufficient to perform the proposed work, appropriate technical experience and adequate facilities (or the ability to access them), a good performance record, and the ability to qualify for an award under applicable laws and regulations.

III. PROPOSAL REQUIREMENTS

Format - Your goal as a proposer should be to **concisely** present the information needed to fully address the objectives and evaluation criteria (see Section I and IV). Proposals that grossly exceed the page limits or fail to follow the format guidelines may be rejected as non-responsive.

Proposers must submit one original and nine copies (total of 10) of the completed proposal to the attention of Roseanne Viscusi at the address on the front of this Request for Proposals. A completed and signed Proposal Checklist must be attached as the front cover of your proposal, one of which must contain an original signature. Late proposals and proposals lacking the appropriate completed and signed Proposal Checklist will be returned. Faxed or e-mailed copies will be not be accepted.

Proposals should not be excessively long or submitted in an elaborate format that includes expensive binders or graphics. Unnecessary attachments beyond those sufficient to present a complete, comprehensive, and effective response will not influence the evaluation of the proposal. Each page of the proposal should state the name of the proposer, the RFP number, and the page number. The proposal must be in the following format:

Proposal Checklist - Complete and sign the Proposal Checklist attached to this RFP, and include it as the front cover of each copy of the proposal. Note the following:

- Indicate whether you accept the Standard Terms and Conditions as contained in the attached Sample Agreement. If you do not accept the Standard Terms and Conditions, be prepared to provide alternative terms with justification based on the risk and benefit to NYSERDA and New York State.
- Be sure the individual signing the Checklist is authorized to commit the proposer's organization to the proposal as submitted.

Procurement Lobbying Requirements – State Finance Law sections 139-j and 139-k :

Procurement lobbying requirements contained in State Finance Law sections 139-j and 139-k became effective on January 1, 2006. (The text of the laws are available at: <http://www.ogs.state.ny.us/aboutogs/regulations/advisoryCouncil/StatutoryReferences.html>). In compliance with §139-j and §139-k of the State Finance Law, for proposals submitted in response to this solicitation that could result in agreements with an annual estimated value in excess of \$15,000, additional forms must be completed and filed with proposals: (1) a signed copy of the Proposal Checklist including required certifications under the State Finance Law and (2) a completed Disclosure of Prior Findings of Non-Responsibility form. Failure to include a signed copy of the Proposal Checklist referenced in this solicitation will disqualify your proposal.

1. Executive Summary - Briefly summarize your proposal emphasizing the following:

- The problem or opportunity and its significance to New York State.
- Describe briefly the **research methodology**, including how data will be gathered and analyzed, what models will be used and why those models were chosen. (Provide more detail in the Research Methodology Addendum as described in III.6. Appendix, and fully describe research methodology in specific tasks in the Statement of Work, as appropriate.)
- Alternative approaches, and why your proposed approach was selected. Include assumptions.
- Benefits if the project is successful. Quantify the benefits to the extent possible.

The executive summary should be no more than two or three pages in length. Please put the bulk of your effort into fully describing each task in the Statement of Work.

2. Statement of Work - Provide the following:

The Statement of Work (SOW) is the primary document that outlines work activities and required performance for payment by NYSERDA. It is an action document that specifically delineates each step or procedure required to accomplish the project objectives. Therefore, each action shall be identified, indicating who will perform it, how it will be performed and its intended result. Be clear and specific; concentrate on "how" and not "why". Include quantifiable milestones as deliverables where possible.

You may use the following Statement of Work outline as the basis for your Statement of Work and expand or modify it as necessary to fit your project and provide additional information.

The Statement of Work must be structured as an ordered set of tasks as follows:

Introduction: Briefly and clearly state the overall technical and performance goals of the project.

TASK 1: PROJECT MANAGEMENT

Subtask 1.1: Project Manager

The Contractor shall assign [insert name] as project manager who will be responsible for communications with NYSERDA and coordination of all project personnel, subcontractors, schedule, budget, and reporting. [Name] shall serve as the coordinator between all project participants, including coordination of written progress reports, conference calls, project review meetings, and other developments.

Subtask 1.2: Advisory Group Meetings

At a minimum, plan a kickoff Advisory Group meeting and a wrap-up Advisory Group meeting. For each Advisory Group meeting, prepare a meeting agenda (in advance), take minutes, and describe key meeting results in the monthly and final reports. Arrange the Advisory Group kickoff meeting to present strategy and discuss project scope, objectives, and overall task prioritization, as well as interim goals. Arrange a wrap-up Advisory Group meeting towards the end of the project to present findings and discuss the Advisory Group's comments on the preliminary report. In order to allow for detailed Advisory Group comments, distribute the preliminary report to the Advisory Group at least 2 weeks in advance of the wrap-up meeting. Although the preliminary report must address all deliverables, be prepared to perform further analysis as required to address Advisory Group comments and incorporate them into the final report. (see note in Budget section)

Deliverables:

- Kick-off Presentation to Advisory Group**
- Kick-off meeting**
- Wrap-up Presentation to Advisory Group**
- Wrap-up meeting**

Subtask 1.3: Subcontractor Coordination (If applicable)

The Contractor shall... [State how activities will be coordinated between the proposer and any partners or subcontractors, and NYSERDA. A discussion of subcontracting arrangements should also be included.]

Subtask 1.4: Reporting

Monthly Reporting

The Contractor shall prepare and submit monthly reports describing the progress of the project. Copies of the monthly progress report shall be submitted to NYSERDA's Project Manager. The Monthly Progress Reports shall be in the following letter format:

- *Title of project*
- *Agreement number*
- *Period of this report*
- *Progress during reporting period*
- *Planned progress in the future*
- *Identification of problems*
- *Planned solutions*
- *Ability to meet schedule and reasons for slippage in schedule*
- *Schedule -- percent completed and projected*
- *Analysis of actual costs incurred in relation to the budget.*

Preliminary Report

The Contractor shall prepare and submit a preliminary report to the Advisory Group, documenting the results of the entire project thus far, including all deliverables identified in the tasks, and a brief description of all methods, analyses, and results. (The length of the preliminary report is targeted to be 50 pages or less.)

- 1) *At least one outline shall be given to NYSERDA for review.*
- 2) *A first draft of the preliminary report shall be given to NYSERDA for technical review, with at least 30 days allowed for review.*

Final Report

*The Contractor shall prepare and submit a first final report, consistent with Exhibit F of the Sample Agreement, documenting the results of the entire project, including all deliverables identified in the tasks, and a brief description of all methods, analyses, recommendations, and results. (The length of the final report is targeted to be 50 pages or less.) **The Final Report shall include a complete Executive Summary that succinctly summarizes findings, policy options, and future research needs. It shall identify technical or market barriers, and ways to overcome them.***

- 1) *At least one outline shall be given to NYSERDA for review.*
- 2) *A first draft of the final report shall be given to NYSERDA for technical review, with at least 30 days allowed for review.*
- 3) *A second draft of the final report shall be prepared, which conforms with the "Report Format and Style*

Guide" (the Guide contained in Exhibit C of the Agreement). The second draft shall address or incorporate questions and comments resulting from review of the first draft. The second draft shall be given to NYSERDA for technical review follow-up and for format review, with at least 30 days allowed for review.

- 4) A copy of the final report, in compliance with Exhibit C, shall be submitted to NYSERDA's Project Manager, which adequately addresses NYSERDA's comments.

The Final Report for the Roadmap should explore the objectives and provide information that will help the Task Force address the following questions in order to set strategic and performance goals for renewable fuels in New York:

- What are the policy drivers and how should they be prioritized? What are the current problems and how should we approach the solutions? What targets are needed? How do we create performance-based standards and policies that continually improve the environment and New York's economy, rather than feedstock-specific or technology-specific policies that create artificial market responses with unintended consequences?
- What are the performance standards and environmental safeguards needed to responsibly produce and use renewable fuels in New York? For example, is a low-carbon fuel standard a sensible approach?
- If the first generation of renewable fuels is represented by corn-based ethanol and soy-based biodiesel, what are the second and third generation opportunities?
- What role should incentives play as New York transitions to advanced renewable fuels and where are those incentives best placed? What is the role of government? How does government create policies that are not too stringent, too lax or too transient to be effective, yet are flexible enough to address future circumstances?
- Are there options for growing renewable fuels in New York that lead beyond sustainability to an actual enhancement of the environment and public health?
- What time frame should subsidies take and how should funding for the incentives be provided?
- What is the magnitude and time frame of the annual investment in research and development to provide a sustainable supply of feedstock to meet the projected demand?
- What will ensure success for a renewable fuels industry in New York?
- How can New York integrate our renewable fuels efforts with efforts elsewhere in the Northeast and nationally? How should New York incorporate international (e.g. Canadian) feedstock availability into our plans?

Update to Final Report – Annually for Two Years following Final Report

One year following the submission of the Final Report, the Contractor shall prepare and submit an Update Report to the Advisory Group for technical review. The Update Report shall include documentation of technical advances, policy changes and their potential economic impacts, changes to the body of literature, etc. appropriate to the rapidly changing field of renewable fuels. (The length of the Update Report is targeted to be 50 pages or less.) The Contractor shall finalize the Update Report and provide a copy that adequately addresses NYSERDA's comments. The Contractor shall repeat the update after the second year following the submission of the final report.

Deliverables:

Monthly progress reports

Meetings: arrangements, agenda, minutes

Final Report: Outline, first draft, second draft

Update Reports: Year One following Final Report, Year Two following Final Report

Task 2, 3, 4, etc: Defining methodology, Developing protocols, Researching, Surveying, et al Tasks (as appropriate)

Add as many tasks and subtasks as necessary to cover all actions needed to achieve the goals and objectives of your project. Arrange your tasks logically and elaborate on the details of each one. Be specific as to who will perform the work, when, where, and how. Begin each task description with "Task 'X': Title, The Contractor shall.. (do such and such)." Fully detail tasks such as: defining methodology, planning, developing protocols, researching literature, data collection, analysis, preparation and submittal of interim reports, or reports on specific sections, or other tasks necessary as appropriate to fulfill the research design. You **must** include one or more task deliverables for each task. Task deliverables should be specific and designed to be met at task completion. Measure benefits of the project, as appropriate. Identify and quantify performance targets. These are the means by which near-term success of the overall project will be

measured, evaluated, and verified against the project's goals and objectives. These targets should relate to specific project objectives, tasks, and deliverables, and should be measured by completion of the project.

Your specific tasks might include the following components:

- ▶ Document, synthesize and prepare a separate chapter in the Final Report for each of the renewable fuel topics outlined in the objectives.
- ▶ Review academic and private literature.
- ▶ Review current renewable fuel policies and incentives.
- ▶ Establish talking points, develop interviewee list, contact stakeholders, and conduct interviews, surveys, and workshops to define renewable fuel policy and investment priorities. It is suggested one or more workshops be held after the Preliminary Draft Report is due.
- ▶ Provide information that will help the Advisory Group implement the findings of the Roadmap.

Task 2, 3, 4, etc. deliverables:

For each task, delineate one or more specific deliverables to be met at task completion. (Required)

3. Proposed Schedule – Provide the following: *(one page is suggested)*

- Present a realistic schedule, with a starting point and duration for each task and subtask in the Statement of Work, preferably in a bar chart. Identify critical path items and timing of major milestones. At a minimum, deliverables are expected on the following dates: Outline of the Preliminary Report on November 20, 2008, Draft Preliminary Report on March 16, 2009, Preliminary Report on July 15, 2009 and Final Report on September 15, 2009. Following submission of the Final Report, the successful contractor will be expected to provide annual Update Reports to the Roadmap for two consecutive years.

4. Proposer Qualifications and Management Plan - Identify the following: *(one to five pages is suggested, depending on number of team members)*

- Proposer and any other team members and major subcontractors. Provide a chart showing key roles and responsibilities, and the relationship between team members. Describe the **management plan** for your project team, and how it meets the criteria for technical, business, analytical, operations, technical communication, financing, and administrative experience that is necessary for successfully completing the project.
- Project Manager and other key individuals.
- Qualifications of all businesses, organizations, and individuals named above, including relevant experience and references.
 - Describe the **technical breadth** of your interdisciplinary team, including environmental scientists; social scientists; agronomists; public policy analysts; economists; technologists; experts in: renewable fuel processing – thermochemical and biological, forestry, agriculture, fuel production and fuel distribution; or experts in other fields, as appropriate.
 - Provide actual examples of team members' experience, as appropriate.
 - Provide evidence of a **demonstrated track record** of successfully completing complex subject-relevant technical reports or publications in a timely fashion.
 - Describe how you will partner with other research groups during the project, as appropriate.
 - Describe how your team is qualified to address issues specific to New York State, including specific New York policies, biomass feedstocks, or trends in renewable fuels. Specify team members located in New York State, if any.

- NYSERDA contracts awarded in the past five years, if any.

5. Budget - Provide the following:

- **Contract Pricing Proposal Form (CPPF) - [The CPPF, with associated instructions, is provided as an attachment to this RFP. Each proposal must include a completed CPPF. Additional CPPF formats are available at: <http://www.nyserda.org/Funding/stdforms.asp>]**

Attach supporting documentation to outline indirect cost (overhead) rate(s) included in your proposal as follows:

1. Describe the basis for the rates proposed (i.e., based on prior period actual results; based on projections; based on federal government or other independently-approved rates).
2. If a rate is approved by an independent organization, such as the federal government, provide a copy of such approval.
3. If a rate is based on estimated costs or actual results from the prior reporting period, include calculations to support the proposed rate. Calculation should provide enough information for NYSERDA to evaluate and confirm that the rates are consistent with generally accepted accounting principles for indirect costs.

NYSERDA reserves the right to audit any indirect rate presented in the proposal and to make adjustment for any difference between the proposed and actual rate. Requests for financial statements or other needed financial information may be made if deemed necessary.

- **Per-Task Cost Table (required)** It is anticipated that projects will be paid on a performance basis as per-task deliverables and overall performance targets are met. Therefore, proposers **must** submit one table indicating both:
 - 1) the total expenditures for each task in the Statement of Work, and
 - 2) the percent of total effort for each task.

Please note: Advisory Group Meetings based in Albany, New York and two Annual Updates to the Final Report are required. The Advisory Group will review the preliminary report and may request additional analysis or clarification on certain tasks. **Allow funds for further analysis** of identified issues in between submission of the preliminary report and the draft final report. In addition, **allow funds to allow for two substantial annual updates** to the Final Report.

6. Appendix

- **Letters of Commitment or Support** - If you are relying on any other organization or business to do some of the work, provide services or equipment, or share in any non-NYSERDA cost, include a letter from that organization or business describing its commitment. Also include letters of commitment or support from businesses or organizations critical to the future commercialization, demonstration, or implementation of the project. **Absence of letters of commitment or support will be interpreted as the proposer not having commitment or support from those parties.**
- **Research Methodology Addendum (required) –**

1) Provide an outline of the structure you anticipate using to develop the Final Report (i.e. the Roadmap). Delineate chapter headings.

2) Answer each of the following questions regarding the soundness of your project methods and research design:

- How are your proposed project methods and overall research design suitable for meeting the project objectives and yielding accepted results?
 - Where will you obtain the needed data?
 - What existing publications do you plan on using? At a minimum, you should reference the following reports:
 - NYSERDA Report 08-07, "The Environmental Impacts of Biofuels in New York State," (draft Executive Summary) <http://www.nyserda.org/publications/default.asp>
 - the NYSERDA Report 07-09, "Assessing The Total Fuel Cycle Energy and Environmental Impacts Of Alternative Transportation Fuels: Development and Use of NY-GREET," <http://www.nyserda.org/publications/default.asp>
 - USDOE May 2007 "National Biofuels Action Plan Workshop Summary Report," available at <http://www.biofuelspostureplan.govtools.us/default.aspx?menu=support>
 - October 2007 "Roadmap for Bioenergy and Biobased Products in the United States," available at http://www1.eere.energy.gov/biomass/pdfs/obp_roadmapv2_web.pdf
 - What stakeholders will you contact to gather information?
 - How will you analyze the data?
 - What models will you use and why are they appropriate?
 - What definition will you use in your proposal as a starting point for the key concept of "sustainability"?
 - Which objectives do you feel are most critical to emphasize?
 - What will not be addressed in the Roadmap? (For example, you are not expected to propose new modeling that describes indirect land use impacts as part of your tasks. You will, however, be expected to cover this topic through literature review and analysis of new models and approaches currently being developed by others.)
 - What are your specific targets of success and how will you measure whether you have achieved them? For example, how will you determine whether the sustainability criteria you will identify during the project are adequate, practical and weighted correctly relative to each other?
 - How will you present your findings to various stakeholders who have differing perspectives (e.g. landowners, loggers, farmers, state agencies, environmental groups, renewable fuel producers, biotechnology companies, petroleum companies, petroleum distributors, petroleum marketers, end-users of renewable fuels)?
- **Exceptions to the Terms and Conditions** - If you do not accept the standard terms and conditions (including the recoupment provisions) as contained in the attached Sample Agreement, provide alternate terms with justification based on the risk and benefit to NYSERDA and New York State.

IV. PROPOSAL EVALUATION

Proposals will be reviewed by a Technical Evaluation Panel (TEP) and will be scored and ranked according to the following criteria.

EVALUATION CRITERIA

- **Requirements** - A **negative response** to any one of the questions identified below by a check mark (✓) **may eliminate** the proposal from further consideration. **Does the proposal:**
- ✓ Address the Program Requirements in Section II?
 - ✓ Include the required Per-Task Cost Table?
 - ✓ Include the required Research Methodology Addendum?
- **Overall**

- What is the likelihood of the proposal achieving its stated goals?
- Have the risks been identified and addressed?
- How well does the proposer understand the project?
- Is the proposed project likely to be the best approach to exploit the opportunity?
- How suitable and sound are the proposed project methods and overall research design for meeting the project objectives and yielding accepted results? Did the proposer provide an adequate explanation of research methodology, including how data will be gathered and analyzed, what models will be used and why those models were chosen? Is an adequate outline of the Final Report (i.e. the Roadmap) provided? Is there an adequate explanation of what will not be covered?
- Is the proposed work technically feasible, innovative, and superior to alternatives?

■ **Proposer or Proposing Team**

- Is the project's organizational structure appropriate and does it include a single lead proposer responsible for managing all aspects of the project and ensuring project success?
- Are roles of responsibility for individual project personnel defined and is their experience appropriate for their responsibilities?
- How qualified is the proposer or team to perform the proposed work, based on the evidence provided?
- Does the proposer or team show a balance of expertise appropriate for the work? How well has the proposer organized a management plan and a project team with the necessary technical, business, analytical, operations, technical communication, financing, and administrative experience for successfully completing the project?
- Has the proposer assembled an interdisciplinary team, including environmental scientists; social scientists; agronomists; public policy analysts; economists; technologists; experts in: renewable fuel processing – thermochemical and biological, forestry, agriculture, fuel production and fuel distribution; or experts in other fields, as appropriate?
- Does the team include partnerships with other research groups?
- Is there evidence the proposer or team is qualified to address issues specific to New York State? Is the proposer familiar with specific NYS policies, biomass feedstocks, trends in renewable fuels, and related topics? How many of the team members are located in New York State?
- Is there evidence of a good performance record on other relevant projects? Specifically, does the proposer or team have a track record of successful and timely completion of subject-relevant technical reports or publications?
- Does the work include appropriate coordination with the Roadmap Advisory Group?
- How firm are the commitments from essential team participants?

■ **Statement of Work (SOW) and Schedule**

- Is the SOW well-organized, clear, and complete?
- How comprehensive, realistic, and explicit is the Statement of Work with respect to the project objectives and proposal requirements? Is the level of detail provided sufficient to adequately describe the work to be accomplished?
- Is the SOW likely to achieve the goals of the project?
- Is the schedule provided in adequate detail?
- Are significant, appropriate, and quantifiable milestones and delivery of reports identified?

- Does each task list one or more specific and appropriate deliverable(s)?
- Did the proposer identify an effective strategy to measure project success? Did the proposer specify appropriate, specific, and measurable performance targets where applicable?
- How likely is the project to meet the significant milestones according to NYSERDA's timeline requirements?
- Will the contractor provide annual updates to the Roadmap for two consecutive years?

■ **Cost**

- Is the overall project cost justified based on the proposed work and expected benefits?
- Is the amount of funding allocated for specific tasks reasonable and sufficient? In particular, is the appropriate funding allocated for Final Report revisions and Annual Updates?

OTHER CONSIDERATIONS

Proposals will be reviewed to determine if they reflect NYSERDA's overall objectives, including: the availability and quality of public data that will come out of the project, the balance among NYSERDA projects of long-term and short-term benefits, risk/reward relationships, similar ongoing or completed projects, the general distribution of NYSERDA projects among industries and other organizations, and the distribution of projects within New York State.

V. GENERAL CONDITIONS

Proprietary Information - Careful consideration should be given before confidential information is submitted to NYSERDA as part of your proposal. Review should include whether it is critical for evaluating a proposal, and whether general, non-confidential information, may be adequate for review purposes.

The NYS Freedom of Information Law, Public Officers law, Article 6, provides for public access to information NYSERDA possesses. Public Officers Law, Section 87(d)(2) provides for exceptions to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." Information submitted to NYSERDA that the proposer wishes to have treated as proprietary, and confidential trade secret information, should be identified and labeled "Confidential" or "Proprietary" on each page at the time of disclosure. This information should include a written request to except it from disclosure, including a written statement of the reasons why the information should be excepted. See Public Officers Law, Section 89(5) and the procedures set forth in 21 NYCRR Part 501 www.nyserda.org/nyserda.regulations.pdf. However, NYSERDA cannot guarantee the confidentiality of any information submitted.

Omnibus Procurement Act of 1992 - It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority- and women-owned business enterprises, as bidders, subcontractors, and suppliers on its procurement Agreements.

Information on the availability of New York subcontractors and suppliers is available from:

Empire State Development
 Division For Small Business
 30 South Pearl Street
 Albany, NY 12245

A directory of certified minority- and women-owned business enterprises is available from:

Empire State Development
Minority and Women's Business Development Division
30 South Pearl Street
Albany, NY 12245

State Finance Law sections 139-j and 139-k - NYSERDA is required to comply with State Finance Law sections 139-j and 139-k. These provisions contain procurement lobbying requirements which can be found at

<http://www.ogs.state.ny.us/aboutogs/regulations/advisoryCouncil/StatutoryReferences.html>

The attached Proposal Checklist calls for a signature certifying that the proposer will comply with State Finance Law sections 139-j and 139-k and the Disclosure of Prior Findings of Non-responsibility form includes a disclosure statement regarding whether the proposer has been found non-responsible under section 139-j of the State Finance Law within the previous four years.

Tax Law Section 5-a - NYSERDA is required to comply with the provisions of Tax Law Section 5-a, which requires a prospective contractor, prior to entering an agreement with NYSERDA having a value in excess of \$100,000, to certify to the Department of Taxation and Finance (the "Department") whether the contractor, its affiliates, its subcontractors and the affiliates of its subcontractors have registered with the Department to collect New York State and local sales and compensating use taxes. The Department has created a form to allow a prospective contractor to readily make such certification. See, ST-220-TD (available at http://www.tax.state.ny.us/pdf/2006/fillin/st/st220td_606_fill_in.pdf). Prior to contracting with NYSERDA, the prospective contractor must also certify to NYSERDA whether it has filed such certification with the Department. The Department has created a second form that must be completed by a perspective contractor prior to contacting and filed with NYSERDA. See, ST-220-CA (available at http://www.tax.state.ny.us/pdf/2006/fillin/st/st220ca_606_fill_in.pdf). The Department has developed guidance for contractors which is available at http://www.tax.state.ny.us/pdf/publications/sales/pub223_606.pdf.

Contract Award - NYSERDA anticipates making one award under this solicitation. It may award a contract based on initial applications without discussion, or following limited discussion or negotiations. Each offer should be submitted using the most favorable cost and technical terms. NYSERDA may request additional data or material to support applications. NYSERDA will use the Sample Agreement to contract successful proposals. NYSERDA expects to notify proposers in approximately eight weeks from the proposal due date whether a given proposal has been selected to receive an award.

Limitation - This solicitation does not commit NYSERDA to award a contract, pay any costs incurred in preparing a proposal, or to procure or contract for services or supplies. NYSERDA reserves the right to accept or reject any or all proposals received, to negotiate with all qualified sources, or to cancel in part or in its entirety the solicitation when it is in NYSERDA's best interest.

Disclosure Requirement - The proposer shall disclose any indictment for any alleged felony, or any conviction for a felony within the past five years, under the laws of the United States or any state or territory of the United States, and shall describe circumstances for each. When a proposer is an association, partnership, corporation, or other organization, this disclosure requirement includes the organization and its officers, partners, and directors or members of any similarly governing body. If an indictment or conviction should come to the attention of NYSERDA after the award of a contract, NYSERDA may exercise its stop-work right pending further investigation, or terminate the agreement; the contractor may be subject to penalties for violation of any law that may apply in the particular circumstances. Proposers must also disclose if they have ever been debarred or suspended by any agency of the U.S. Government or the New York State Department of Labor.

Attachments

Attachment A - Proposal Checklist

Attachment B - Disclosure of Prior Findings of Non-responsibility

Attachment C - Contract Pricing Proposal Form (CPPF) and Instructions (This is the budget form.)

Attachment D - Sample Agreement

(If you are selected, the Sample Agreement will form the basis of the contract you would sign with NYSERDA. Do not use Exhibits E or F of the Sample Agreement to format the proposal you are submitting now. Those are intended for the Final Report you would submit upon completion of the project.)