

Flexible Technical Assistance (FlexTech) Program
Program Opportunity Notice (PON) 1746
Revised April 2016
\$30 Million Available

**Applications accepted on a first-come, first-serve basis dependent on funding availability until
December 29, 2017 by 5:00 PM Eastern Time.**

The NYSERDA Flexible Technical Assistance (FlexTech) Program seeks to deliver credible, objective information and technical assistance to help make informed clean energy investment decisions. To fulfill this goal, entities are eligible to apply for cost-shared support of site-specific technical assistance and service providers are encouraged to apply to deliver technical analysis. The three main components of the Program include:

- Cost-shared targeted clean energy technical analyses and strategic energy management assistance to existing facilities.
- Cost-shared on-site combined heat and power (CHP) feasibility studies for eligible customers.
- Opportunity for service providers to become FlexTech Consultants for NYSERDA. FlexTech Consultants will receive one-year agreements with NYSERDA to conduct technical analysis requested by eligible applicants and NYSERDA.

NYSERDA may cost-share up to \$250,000 on completion of targeted clean energy technical analyses and strategic energy management assistance for existing facilities who need additional information to:

- Investigate an advanced technology or system,
- Create a longer-term energy plan for their facility, and/or
- Achieve deep energy savings
- Address energy as a component of process efficiency improvements through Engineer-on-Demand for companies engaged in Lean, 6-Sigma, Total Quality Management (TQM) or other continuous improvement activities

How to Apply:

Study (Clean Energy Technical Analyses or CHP) cost-share requests **must** submit the following to FlexTech@nyserda.ny.gov:

- Applicant Information (Attachment A-1)
- Scope of Work; see sample template form (Section IV)
- Consolidated funding application, CFA, through <http://nyworks.ny.gov>

FlexTech Consultant Application requests **must** submit via the on-line application located at <https://cmsapps.nyserda.ny.gov/flextechConApp/> or send the following to FlexTech@nyserda.ny.gov

- FlexTech Consultant Application (Section VI)
- Required demonstration of energy efficiency experience including:
 - Examples of energy study work
 - Organization matrix of staff
 - Personnel rates

Incomplete or unsigned applications will be returned. Customers, Service Providers, or FlexTech Consultants with FlexTech Program questions should contact FlexTech@nyserda.ny.gov. All contractual questions should be directed to Venice Forbes (866- NYSERDA ext. 3507, Venice.Forbes@nyserda.ny.gov).

NYSERDA reserves the right to extend and/or add funding to the Solicitation should other program funding sources become available. If changes are made to this solicitation, notification will be posted on NYSERDA's website at www.nyserda.ny.gov.

I. INTRODUCTION

This solicitation is divided into the following components:

- Section II: Eligibility
- Section III: Program Conditions and Limitations
- Section IV: Clean Energy Technical Analyses
- Section V: CHP Studies
- Section VI: FlexTech Consultant Application
- Section VII: General Conditions
- Section VIII: Attachments

All applications will be reviewed on a first-come, first-served basis dependent on funding availability. Separate submittals are required for clean energy technical analyses and CHP studies. Energy analyses on systems or measures that are conducive to the success of load modeling CHP, i.e. absorption chilling, are allowed within the CHP submission.

II. ELIGIBILITY

ELIGIBLE STUDY PARTICIPANTS

Eligible study participants include: NYS commercial facilities which include but are not limited to: office buildings, retail, colleges and universities, health care facilities, state and local governments, not-for-profit and private institutions, and public and private K-12 schools, industrial facilities, and data centers that are a New York State electricity customer of a participating utility company who pay into the System Benefits Charge (SBC).

- Customers may select their own service provider to perform the study.
- Customers in need of a service provider may choose from NYSERDA's FlexTech Consultant list comprised of firms under NYSERDA contract. Please visit the website at: www.nyserda.ny.gov/flextech for the current listing of FlexTech Consultants.
- All projects must include cost-sharing in the form of matching cash support from the customer. An independent third-party consultant is required for all projects. In-kind contributions of any type are not allowed as matching funds. For most studies, NYSERDA will contribute fifty percent (50%) of the eligible study costs, up to the lesser of either \$250,000 or ten percent (10%) of the participating facility's annual energy costs, per year, based on an approved Scope of Work.

Farms and on-farm producers, including but not limited to: dairies, orchards, greenhouses, vegetables, vineyards, grain dryers, and poultry/egg please visit <http://www.nyserda.ny.gov/Agriculture> for information about no-cost farm energy audits. Please see the Agriculture Energy Audit Application (Attachment A-2) to apply.

- Small businesses and not-for-profits with an average electric demand of 100kW or less and 10 employees or less may be eligible for a free energy audit through a different solicitation. For more information please email SCEEPAdmin@nyserda.ny.gov.

ELIGIBLE FLEXTech CONSULTANT APPLICANTS

Firms interested in applying to becoming a NYSERDA FlexTech Consultant may include, but are not limited to: Energy Service Companies (ESCOs), energy consultants, and engineering companies. Applicants must demonstrate experience with providing clean energy efficiency services to commercial and industrial customers within New York State. Successful applicants will be awarded a FlexTech agreement with performance criteria. Failure to execute the agreement within 60 days of issuance or achieve the performance criteria will result in a loss of agreement.

III. PROGRAM CONDITIONS AND LIMITATIONS

CONDITIONS:

- FlexTech is seeking to provide objective, site-specific targeted technical assistance and analysis that results in implementation of clean energy technologies. FlexTech scopes of work are required to provide justification for the cost-share request with site-specific facility descriptions and potential solutions for investigation for every task in the scope of work.
 - Projects that are focused on compliance with mandates, laws, or orders (e.g. Local Law 87 and Executive Order 88) are not eligible.
 - If potential for energy savings and implementation is not evident in the scope of work, an application will not be accepted in to the Program
- Applicants and service providers are encouraged to commence work after NYSERDA issuance of a Purchase Order (PO). Commencement of studies prior to this is at their own risk.
- NYSERDA is not committed to cost-sharing an application until a PO is issued.
- A scope of work requesting cost-sharing for both Clean Energy Technical Analyses and CHP will only be reviewed through the CHP application process of the Program. CHP studies will under-go review by an independent panel to determine eligibility for acceptance into this solicitation. See Section V. CHP Studies for Evaluation Criteria for the proposals submitted to the program. In general, these minimum criteria must be met in order to have the project accepted into NYSERDA's Program.
- FlexTech Consultants may undergo additional review before being approved to perform certain FlexTech studies. Examples of such studies include but are not limited to CHP, energy advisor, and industrial and process efficiency analysis.

- Facilities may not receive cost-sharing for similar activities or measures more than once every three (3) years.
- New facilities, or those that have undergone substantial renovations, must be occupied for more than one year to be eligible for clean energy technical analysis funding under this solicitation.
- Inability to complete studies in a timely manner or according to project schedule may result in NYSERDA discretion to limit the number of new study applications accepted into the program.
- Unless otherwise negotiated, all work funded under this program must be completed within two (2) years of issuance of the Purchase Order.
- Travel costs are limited to 3% of the total project cost.
- NYSERDA cost-share may be prorated at NYSERDA discretion. Funds may be used for evaluation of facilities only and may not be used toward implementation or equipment purchase. At its sole discretion, NYSERDA may limit the cost share associated with a study.
- Completed FlexTech studies lacking quantified, recommended energy efficiency or process improvement opportunities may receive a reduced cost-share or may not be reimbursed by NYSERDA
- Scopes of Work seeking funding for single, multifamily, or Publicly Assisted Housing are not eligible for clean energy technical analysis funding under this program, but may be eligible under NYSERDA's Residential or Multi-family programs. Information is available by calling toll-free 1-866-NYSERDA or at www.nyserda.ny.gov.
- For those customers seeking a Preliminary CHP study, NYSERDA recommends contacting EPA's CHP Partners at <http://www.epa.gov/chp> or DOE's Northeast Clean Energy Application Center at <http://www.northeastcleanenergy.org>

LIMITATIONS:

The following items are **ineligible** for funding:

- Work completed prior to NYSERDA's receipt of the CFA, Applicant Information (Attachment A-1) and scope of work
- Scopes of work without an identified and evident energy efficiency or process improvement potential for each task or related clean energy measure or system analysis (Please refer to the template scope of work on pages 8-10 for further guidance)
- Technical assistance, studies or assessments whose need is not supported by existing site-specific conditions

as documented in the scope of work

- Studies focused solely on fuel conversion or fuel switching
- Studies focused solely on demand response/peak load management
- Studies focused solely on operations and maintenance measures and activities.
- Detailed engineering design
- Benchmarking
- Lighting only studies and analyses
- Power quality, power factor, and power conditioning studies
- Utility billing error analysis
- Retrocommissioning measures at any non-industrial facilities (Attachment B-3: NYSERDA RCx Deficiency Worksheet is required for each deficiency found at an industrial site)
- Metering equipment, software costs, and other data collection hard and soft costs at non-industrial facilities (NYSERDA cost-share for such industrial data collection needs will be capped at 25% of the total study cost.)
- Projects that are focused on compliance with mandates, laws, or orders (e.g. Local Law 87 and Executive Order 88)

IV. CLEAN ENERGY TECHNICAL ANALYSES

To submit to the **CLEAN ENERGY TECHNICAL ANALYSES** component of this solicitation:

- Send the Applicant Information (Attachment A-1) and a complete Scope of Work with an attached detailed budget to FlexTech@nyserda.ny.gov.
- Complete the CFA located at <http://nyworks.ny.gov>
- A complete application package is comprised of Applicant Information (Attachment A-1), a complete Scope of Work, and the CFA. Incomplete project application packages will be rejected

SCOPE OF WORK REQUIREMENTS:

This Program seeks to provide customers with the objective and customized site-specific information they need to implement energy efficiency projects. Studies eligible for cost-sharing in this program shall identify and quantify estimated energy savings expected as a result of recommended actions. Failure to provide required information will result in rejection of a scope of work from the Program.

The scope of work should be a stand-alone document containing existing conditions and tasks required to study the facility and make clean energy technology and system recommendations. Scopes of Work generally range from four to eight pages. The Scope of Work should clearly outline where potential energy efficiency opportunities exist and why a study or 3rd party service provider assistance is needed. **A Scope of Work template has been provided for reference.**

PARTICIPATION PROCESS:

1. Customer and Service Provider submit the Applicant Information (Attachment A-1) and a detailed scope of work to flextech@nyserda.ny.gov, and a CFA located at <http://nyworks.ny.gov>
2. NYSERDA notifies the customer and service provider of receipt within 1-2 business days.
3. NYSERDA assigns a Project Manager to review the Scope of Work to verify that it meets the requirements of this solicitation.
4. The NYSERDA Project Manager places an introductory phone call to the customer verifying Program interest and contact information
5. NYSERDA issues comments to the customer and service provider on the Scope of Work as necessary.
 - a. Comments will address missing and/or required information and will be issued within 1 week of project manager assignment.
6. Customer and Service Provider submit a revised scope of work, within 30 days of receiving comments, to the Project Manager and cc flextech@nyserda.ny.gov.
 - a. Failure to submit in this timeframe may result in application cancellation
7. NYSERDA issues a Purchase Order for the project. This step takes approximately 3-4 weeks.

Customers and their service providers may begin study execution upon NYSERDA's receipt of the CFA, Scope of Work and Applicant Information (Attachment A-1) **at their own risk. Cost-share amounts are not set-aside until a*

Purchase Order is issued.

8. Customer and Service Provider submit a Draft Report according to the schedule in the Scope of Work and as per requirements in Attachment B-1.
9. NYSERDA Reviews the draft report and will issue comments to be addressed in a revised Final Report. Comments will be issued within 2-3 weeks.
 - a. NYSERDA may assign a Technical Reviewer, under contract to NYSERDA, to assist with Draft Report review and comments.
10. Customer and Service Provider submit the revised report within 3 weeks.
11. NYSERDA issues approval of FlexTech Final Report

**Please note, scopes of work and draft reports may require more than one round of comments.*

PROJECT PAYMENTS:

For customers using their own independent service provider NYSERDA will reimburse successful customers NYSERDA's share of the actual study cost provided in the issued Purchase Order at the conclusion of the project and upon receipt of the required documentation (see below for details). Reimbursement will be based on services actually provided as defined in the Scope of Work and as documented by the approved final report, invoices and other documentation deemed necessary by NYSERDA. Unless otherwise noted, payments will be sent to the authorized Applicant (customer) listed in Attachment A-1. Progress payments are available at the discretion of the assigned NYSERDA Project Manager.

Required Documentation:

Reimbursement will be processed after receipt of an invoice from the customer to NYSERDA, a copy of the service provider's invoice(s) to the customer indicating the total study cost, and a copy of the metering equipment/software invoice(s), if applicable. The service provider's invoice(s) should be broken out by non-labor costs, individuals, titles, hourly rates, dates and hours worked on each task. In addition, if applicable, NYSERDA may also require a copy of the customer's canceled check(s) paying the total study cost to the service provider. At NYSERDA's discretion, a copy of the canceled check(s) from the customer to the service provider showing the total study cost and a copy of the lump-sum invoice may be accepted in lieu of a detailed invoice. All invoices including reimbursement documentation must be sent to invoices@nyserdera.ny.gov.

NYSERDA will reimburse the customer the percentage of the actual study cost incurred, subject to the maximum dollar amount as provided in the issued Purchase Order. Reimbursement will be based on services actually provided as defined in the Scope of Work and as documented by the approved final report, invoices and other documentation deemed necessary by NYSERDA. When appropriate, NYSERDA may issue progress payments up to the allowable percentage of the study cost, not-to-exceed 50% of NYSERDA's total financial commitment.

For customers using a NYSERDA FlexTech Consultant, NYSERDA will contribute up to 50% towards the allowable FlexTech Consultant fees, directly to the FlexTech Consultant per the approved scope of work. Successful applicants will pay the remaining balance of the FlexTech Consultant fees directly to the FlexTech Consultant under the terms and conditions to be negotiated by the Customer and FlexTech Consultant. Progress payments are available at the discretion of the assigned NYSERDA Project Manager.

Required Documentation:

The FlexTech Consultant's invoice(s) should be broken out by non-labor costs, individuals, titles, hourly rates, dates and hours worked on each task. Invoices should also indicate the amount that is being invoiced concurrently to the Customer. In addition, if applicable, NYSERDA may also require a copy of the customer's canceled check paying their study cost-share.

COMMERCIAL/INDUSTRIAL FACILITY

CLEAN ENERGY TECHNICAL ANALYSES SCOPE OF WORK –TEMPLATE

<p>PROJECT DESCRIPTION: Describe the facility or campus including building layout (tenant space), age, square footage, number of stories, operating hours, process equipment for industrial sites, and overall mission of the organization. Justify need for Program assistance.</p>	
Facility Name	
Organization Mission	
Approx. No. of employees	
Description of building(s) square footage, and process equipment for industrial sites to be evaluated.	
Identified Need or Desired Results from FlexTech Program participation.	<i>This section should include a detailed description of current energy consuming systems relevant to the FlexTech project and justifiable reasons for why the proposed study is needed and what the report will help accomplish (reasons must be site specific, i.e. based on observation from walk through or customer feedback)</i>
Task 1:	a. b. c. d.
Deliverable 1:	
Task 2:	a. b. c. d.
Deliverable 2:	

PROGRESS REPORTS (if applicable): Long-term energy management plans, energy advisor services, or other expansive studies may require progress reports to ensure project direction and results are in line with NYSERDA cost-share eligibility. Please explain the nature of the intended progress updates. Examples include:

- Monthly or quarterly emails to applicant and NYSERDA for review and approval,
- Interim task additions for review and approval,
- Scheduled in person updates with applicant and NYSERDA, and
- Interim draft reports to be reviewed, approved, and finalized with applicant and NYSERDA.

Failure to provide the specified progress report may result in project termination.

SITE VISITS: List the expected number and nature of site visits, requested staff presence, staff interviews and site access required. This should include non-data collection visits as well.

ASSUMPTIONS: Provide list of assumptions and qualifiers relevant to project completion. Note any information the customer has promised to provide the consultant for the completion of the study. Examples include:

- Access to mechanical rooms, roof, and basement will be provided
- Access to and accompaniment by facility staff to tenant spaces will be provided
- Access to building management software systems will be provided
- Minimum of 1 year of preceding utility bill rates and usage will be required and utilized
- As built or other design schematics, if available, will be provided
- Previous energy analysis performed either in-house or by 3rd party service provider will be available for use

DRAFT REPORT: NYSERDA will provide written comments to the applicant and service provider. A conference call to discuss the comments may be held at the request of any party. Responses to the comments should come in the form of a revised draft report. The revised draft report will include responses to the customer comments as well.

A draft report encompassing the tasks as outlined in the approved scope of work that follows Attachment B-1 will be provided for review and comment to the applicant and NYSERDA.

FINAL REPORT: NYSERDA will issue a final report approval letter and request invoicing.

An electronic final report will be provided to the applicant and NYSERDA.

SCHEDULE: Please provide anticipated schedule for completing tasks. This schedule should be in a “weeks from purchase order” format. The schedule should correspond to the individual tasks and budget. For example: Kick-off meeting within two weeks of purchase order; Task 1.0 completed within four weeks of purchase order, etc. An expected draft report due date should be provided. If this date changes please notify the applicant and NYSERDA as soon as possible. Example below.

	Time (in weeks from notice to proceed)
1. <i>Data Collection</i>	## - ##
2. <i>Utility Bill Analysis</i>	## - ##
3. <i>Site Visits</i>	
4. <i>Preliminary Energy Use Analysis</i>	## - ##
5. <i>Energy Efficiency Measures(EEM)</i>	## - ##
<i>EEM Task 1</i>	
<i>EEM Task 2</i>	
6. <i>Progress Report(s) and Meeting</i>	## - ##
7. <i>Draft report to NYSERDA</i>	## - ##
8. <i>Final report to NYSERDA</i>	## - ##

STUDY COST: Complete Budget Template or equivalent. Provide total study costs and applicant and NYSERDA share within the scope of work. Budget should be broken down according to potential ECMs as identified during the onsite walk-through.

For customer utilizing independent service providers:
The total cost to complete the tasks associated with this scope of work is \$_____. The Customer will contribute \$_____ and request \$_____ reimbursement from NYSERDA, as specified in the NYSERDA Purchase Order.

For customer utilizing FlexTech Consultant:
The total cost to complete the tasks associated with this scope of work is \$_____. The Customer will contribute \$_____ and NYSERDA will contribute \$_____, as specified in the NYSERDA Purchase Order.

BUDGET TEMPLATE:

PROJECT BUDGET

APPLICANT/CUSTOMER:

PROJECT:

date)

Task	Task Description (samples below)	Title Rate	Total						
									0
1	Data Collection								0
2									0
3									0
4									0
5									0
6	Draft Report Development								0
7	Final Report								0
									0
									0
									0
									0
									0
	Total Hours	0	0	0	0	0	0	0	0
	Hourly Charge-out Rate (Multiplier)								---
	Total Labor Fee	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

<u>Project Expenses</u>				
Item	Amount	Unit	Unit Cost	Total
Expenses			\$0	\$0
Mileage		mile	\$0.000	\$0
			Total	\$0

Labor Effort = \$0
 Expenses = \$0

TOTAL PROJECT BUDGET = \$0

Customer Share = \$0

NYSERDA Share = \$0

V. CHP STUDIES

To submit to the **CHP** component of this solicitation:

- Send a complete CHP specific Scope of Work and Applicant Information (Attachment A-1) to FlexTech@nyserda.ny.gov.
- Complete the CFA located at <http://nyworks.ny.gov>
- A complete application package is comprised of a CFA, Applicant Information (Attachment A-1) and a complete Scope of Work with an attached detailed budget for the study to be conducted, and a list of the service provider's relevant project experience. *Project applications containing scopes of work that do not expand upon the CHP Study Requirements, to include site and project specific issues, may be rejected.*

CHP - ELIGIBLE STUDIES:

Combined Heat and Power (CHP) Systems are considered those that simultaneously provide thermal and electrical energy at a host site. The system should intend to meet the requirement for efficient CHP, defined as an application of technology that achieves an average, annual, fuel-conversion efficiency meeting or exceeding an efficiency of 60%.

The CHP system should intend to meet the following criteria:

- Sum of all usable thermal energy products must constitute at least 20% of the technology's total usable energy output, and
- Sum of all usable power must constitute at least 15% of the technology's total usable energy output.

The following items are **ineligible** for funding:

- Proposals for studies of generation without a heat recovery component are not eligible for funding;
- Scopes of Work proposing to evaluate systems utilizing fuel sources other than natural gas;
- Scopes of Work seeking assistance with evaluating systems using highly processed or treated materials (including materials painted, or pressure treated with chromium, chlorine and arsenic bearing compounds);
- Scopes of Work seeking assistance with evaluating systems using Municipal Solid Waste;

- Scopes of Work seeking assistance with evaluating studies for which the potential CHP system would be larger in total prime mover capacity than 50 MW; and
- Scopes of Work seeking assistance with evaluating CHP systems for which less than 75% of the electricity generated would be used on-site.

Please note that other NYSERDA programs have limited installation funds available for combined heat and power projects. Solicitations are released on a periodic basis. Please visit www.nyserda.ny.gov for more information.

Please also note, all CHP projects may be subject to review by an independent panel of experts to determine acceptance into the FlexTech Program.

CHP – EVALUATION CRITERIA:

All CHP submissions must follow the scope of work requirements as outlined in Section IV and comply with the evaluation criteria listed below. Scopes of work shall expand upon the below CHP study requirements by including site and project specific information. Applications lacking the necessary detail to justify why a site may be a viable candidate for CHP may be rejected.

CHP – SCOPE OF WORK must identify the current site conditions and assumptions as well as include site specific supporting detail to:

- A description of the building including, but not limited to: location, usage, size (square footage and a size metric appropriate for the usage such as units in an apartment building).
- Methods to analyze the thermal and electric usage on an hourly profile per year. For existing buildings, modeled profiles must be based on actual hourly coincident electric and thermal measurements for a period not less than 14 continuous days during which no unusual events occur. For new construction, describe the anticipated use of building energy software for modeling purposes.
- Identify anticipated tariff impacts that would result from installation of the system and describe how such impacts will be incorporated into the energy and economic models.
- Provide a schematic of the electrical interconnection of the proposed system.
- Compare only black start capability CHP system options. Systems must be able to operate during a grid outage.
- Describe the engineering analysis that will be used to identify the match between the electric and thermal load profiles at the site. Elaborate on potential model assumptions to be used. There must be at least a potential for a 60% Fuel Conversion Efficiency.
- Also identify the generating technologies that would be used. Only reciprocating engines, turbines, microturbines and fuel cells are to be considered. Proposals evaluating fuel cells and microturbines may also need to evaluate reciprocating engines.
- Sufficient detail that will support the methodology proposed for each of the required tasks as

outlined below.

Additional Requirements:

- The Scope of Work and related estimates must demonstrate an economically justified project.
- The cost of the study must be reasonable and must contain a detailed budget broken out by task that shows hours and dollars allocated to each task of the scope of work
- Consultant staff allocations and schedule must be sufficient to meet the objectives of the scope of work cost effectively.
 - Involved consultant staff, contractors, sub-contractors, etc. must have had at least three completed and related projects.
 - CHP Scopes of Work must describe the current situation at the site and how the service provider intends to fulfill the CHP requirements.

CHP – DETAILED STUDY REQUIREMENTS:

The following information must be included in detailed CHP feasibility studies, in addition to general final report requirements in Attachment B-1.

System Information

- Energy use profiles must be reviewed in detail to accurately determine the level of temporal coincidence between thermal and electrical loads to be satisfied by the CHP system. An electronic copy of a spreadsheet-based model that describes system operation, including electricity produced and heat recovered on an hourly basis for a year must be provided in the final report. Assumptions used in the model should be clearly indicated in the final report. (i.e. planned outage, unplanned outage, part-load operation)
- Thermal usage and electricity profiles must be illustrated in a figure for variance by month for one year and by hour on a summer, winter and shoulder day.
- The type and rating of the prime mover and an energy balance around the prime mover must be shown. The energy balance must be applied to a schematic of the system showing all major components, including the uses for the recovered heat. Annual totals for each energy input/output must be shown along with maximum, minimum, and average instantaneous values. Temperatures for each waste heat transfer fluid and sink must also be indicated.
- CHP system efficiency and emissions must be described.
 - Annual thermal utilization percentage must be given (i.e., the annual amount of heat that is recovered for space and/or process heating and/or cooling divided by the annual recoverable thermal output from the prime movers).
 - Fuel conversion efficiency (FCE) for the prime movers must be provided. FCE is defined as the ratio expressed as a percentage of the total usable energy produced by a technology to the sum of all fuel or other energy inputs to the technology measured at each fuel's higher heating value (HHV).
 - The annual emissions of the proposed system must be provided.
 - Any additional emission control technology must be provided if necessary to meet emission regulations.
- The description of the proposed system must include a preliminary floor plan indicating equipment location. Construction cost estimates should include estimates for rigging, building construction (if necessary) and any anticipated structural modifications. If the proposed system is located in a flood zone, placement of the CHP system's critical components must be located above flood level.

- A description of all existing distributed generation equipment (PV, fuel cell, other CHP, etc.) and all backup generation equipment on the site which is connected to serve the same electric load as the proposed CHP system.
- A description of existing systems to be impacted by the installation of the CHP system (boilers, chillers, etc.) and whether or not this equipment will be replaced, removed, or decommissioned as part of the proposed project in the study.
- The pressure and availability of natural gas must be described in the study.
- An operational sequence must be included that specifies the control system to be used along with a discussion of its integration with other on-site control systems and who will have responsibility for system operation.
- The analysis shall review black start capability of the proposed CHP system options.
- A project schedule that includes durations for design (engineering & architectural), utility coordination and review, permitting (environmental and construction), construction, start-up, and commissioning must be provided.

Economic Evaluation

- Electricity, fuel, operation, and maintenance costs before and after the proposed installation along with a summary of project economics must be included.
- Economics must be presented in a simple payback format. Additionally, a cash flow analysis or life cycle cost analysis must be presented.
- Operational costs must include any impact to the customer's energy tariffs. The stand-by tariff analysis must include the impact of scheduled maintenance, and should include a sensitivity analysis for unplanned CHP system downtime.
- Maintenance costs can be listed in \$/kWh, but must also be annualized. This should include M&V costs.
- Capital costs must include:
 - Equipment purchase and system installation

- Structural (new building, existing building modifications, etc)
- Interconnection and Utility Connection (construction & utility fees)
- Electrical distribution system changes
- Rigging
- Permitting
- Design fees
- Commissioning

Maintenance

- In addition to inclusion in the economic analysis described above, maintenance items must be described in detail. The source of the maintenance costs must be included along with a list of what would be covered (i.e. annual major overhaul of prime mover, oil changes, etc.).
- An estimate of downtime that would occur due to routine maintenance must also be included.

Tariff Impacts and Interconnections

- In addition to inclusion in the economic analysis described above, a detailed description of the relationship between the proposed CHP facility and the Customer's existing energy tariffs must be included. Contract dates and dates of potential tariff rule must be included. In the case where such future changes would significantly impact the economics of the Project, sensitivity analysis must be presented assuming the potential tariff or contract changes occurred.
- Site-specific grid interconnection issues and costs must be discussed. A brief, clear plan for if and how the system will be properly interconnected to the grid, natural gas pipelines and/or the Con Edison steam system must be presented.

Permitting

- A brief description of the necessary environmental and building permits that the customer needs to obtain must be provided. The permit determination should be based on the annual emissions potential for the size of the unit and the emissions of any existing equipment at the facility. Anticipated time frames and durations for environmental, utility and construction permitting should be incorporated in the Project schedule.

System Reliability and Availability

- The reliability and availability of the CHP System must be quantified (e.g. number of hours the system would be available at less than full capacity). This must be compared to service and discussed in the context of the Customer's core business and tolerance for risk.

CHP STUDY PARTICIPATION PROCESS:

1. Customer and Service Provider submit a CFA, complete Scope of Work per guidelines in Section V above and Applicant Information (Attachment A-1) to FlexTech@nyserda.ny.gov. Incomplete project application packages will be rejected.
2. NYSERDA and/or outside technical experts will evaluate CHP study applications on a first-come first- served basis. The review will involve a comparative evaluation of the applicable criteria as outlined in Section V. This review may take 2-3 weeks.
3. NYSERDA notifies the customer/service provider of their proposal acceptance or rejection 1-2 business days after the review.
4. NYSERDA assigns a NYSERDA Project Manager within 1-2 business days after application acceptance.
5. NYSERDA issues comments to the customer and service provider on the Scope of Work as necessary.
 - a. Comments will address missing required information and be issued within 1 week of project manager assignment.
6. Customer and Service Provider submit a revised scope of work, within 30 days of receiving comments, to flextech@nyserda.ny.gov .
 - a. Failure to submit in this timeframe may result in application cancellation
7. NYSERDA issues a Purchase Order for the project. This step takes approximately 3-4 weeks.

Cost-share amounts are not set-aside until a Purchase Order is issued.
8. Customer and Service Provider submit a Draft Report according to the schedule in the Scope of Work and as per requirements in Section V above and Attachment B-1.
9. NYSERDA reviews the draft report and will issue comments to be addressed in a revised Final Report. Comments will be issued within 2-3 weeks.
 - a. NYSERDA may assign a Technical Reviewer, under contract to NYSERDA, to assist with Draft Report review and comments.
10. Customer and Service Provider submit the revised report within 3 weeks.
11. NYSERDA issues approval of FlexTech Final Report

**Please note, scopes of work and draft reports may require more than one round of comments.*

PROJECT PAYMENTS:

For customers using their own independent service provider NYSERDA will reimburse successful customers NYSERDA's share of the actual study cost provided in the issued Purchase Order at the conclusion of the project and upon receipt of the required documentation (see below for details). Reimbursement will be based on services actually provided as defined in the Scope of Work and as documented by the approved final report, invoices and other documentation deemed necessary by NYSERDA. Unless otherwise noted, payments will be sent to the authorized applicant (customer) listed in Attachment A-1. Progress payments are available at the discretion of the assigned NYSERDA Project Manager.

Required Documentation:

Reimbursement will be processed after receipt of an invoice from the customer to NYSERDA, a copy of the service provider's invoice(s) to the customer indicating the total study cost, a copy of the metering equipment/software invoice(s), if applicable. The service provider's invoice(s) should be broken out by non-labor costs, individuals, titles, hourly rates, dates and hours worked on each task. In addition, if applicable, NYSERDA may also require a copy of the customer's canceled check paying the total study cost to the service provider. At NYSERDA's discretion, a copy of the canceled check(s) from the customer to the service provider showing the total study cost and a copy of the lump-sum invoice may be accepted in lieu of a detailed invoice. All invoices and other reimbursement documentation must be sent to invoices@nyserda.ny.gov.

NYSERDA will reimburse the customer the percentage of the actual study cost incurred, subject to the maximum dollar amount as provided in the issued Purchase Order. When appropriate, NYSERDA may issue progress payments up to the allowable percentage of the study cost, not-to-exceed 50% of NYSERDA's total financial commitment.

For customers using a NYSERDA FlexTech Consultant, NYSERDA will contribute up to 50% towards the allowable FlexTech Consultant fees, directly to the FlexTech Consultant per the approved scope of work. Successful applicants will pay the remaining balance of the FlexTech Consultant fees directly to the FlexTech Consultant under the terms and conditions to be negotiated by the Customer and FlexTech Consultant. In addition, if applicable, NYSERDA may also require a copy of the customer's canceled check paying their study cost-share. Progress payments are available at the discretion of the assigned NYSERDA Project Manager.

VI. FLEXTECH CONSULTANT APPLICATIONS

FLEXTECH CONSULTANT APPLICATION PARTICIPATION OVERVIEW:

1. Applications to become a FlexTech Consultant will be reviewed by NYSERDA to verify that it meets the requirements set forth in Section VI. Applications missing required information will be rejected. Applicants will be notified of their acceptance or rejection 2 weeks after application receipt.
2. NYSERDA issues an Agreement to the awarded consultant up to a one-year period (Sample Agreement attached hereto as Attachment C). This Agreement does not guarantee work through FlexTech. The Agreement will be issued approximately four (4) weeks after application acceptance and NYSERDA's receipt and acceptance of all indirect rate documentation.
3. The awardees have 60 days to sign and return the FlexTech Agreement. Failure to execute the Agreement within 60 days of issuance will result in loss of Agreement.
4. Once signed and returned, the Agreement will be fully executed within 1-2 weeks.
5. FlexTech Consultants will be placed in "provisional" term until one project has been completed under their NYSERDA FlexTech Agreement. This status will be notated on the NYSERDA website.
6. All FlexTech Consultants will be assessed at the conclusion of each agreement term (1 year) to determine whether their Agreement will be renewed for an additional term. Consultants who do not sustain the minimum performance criteria will not be presented with an option to renew. Please see Section VII. General Conditions, FlexTech Consultant Performance Criteria for additional information.

APPLICATION SUBMISSION PROCESS:

To submit to the **FLEXTECH CONSULTANT** component of this solicitation:

- Visit <https://cmsapps.nysERDA.ny.gov/flextechConApp/>. A valid email address is required. After providing your email address, you'll receive an email message with instructions to start your application. Please click on the link within the body of the email and complete the following steps:
 - Step 1 of 4: Fill out the mandatory questions (marked with *). If teaming with an additional firm(s), please select the "will be using a sub-consultant" checkbox and fill out the relevant sub-consultant information.
 - Step 2 of 4: Complete the Primary Contractor certification requirement questions.

- Step 3 of 4: Upload required supplemental documentation as outlined below. Please note, you must complete and upload the FlexTech Consultant application form located on page 23.
- Step 4 of 4: Complete the certification question and click submit to finalize your application. You will receive an email confirming the application submission.

REQUIRED SUPPLEMENTAL DOCUMENTATION:

Documentation that identifies a current staff member that is a New York State Licensed Professional Engineer (P.E.) or Registered Architect (R.A.) and also a Certified Energy Manager (C.E.M.) or Certified Energy Auditor (C.E.A). The staff member with these certification requirements must be an employee of the main applicant and cannot be satisfied through a sub-consultant.

- Samples of Energy Related Work performed in New York State that are consistent with the objectives of the FlexTech Program:
 - Study sample: The study sample report must be consistent with the objectives of the FlexTech program and its associated scope of work and budget must be included. The purpose of the study sample is to demonstrate the quality of the applicant’s work, methodology and types of analyses, and reports that can be delivered. Applicants must demonstrate understanding of FlexTech eligibility requirements and are strongly encouraged to demonstrate experience via work completed with FlexTech-eligible customers.
 - The study sample must have been completed within the past two years, for an existing and occupied facility and must include the following:
 - Study scope of work and budget;
 - An executive summary (not to exceed 10 pages) that outlines the project background, results, and recommendations;
 - Adequate calculations and data to support the energy savings estimates; and
 - A list of qualified personnel who completed the study sample.
 - A minimum of two (2) sample energy analysis case studies that resulted in implementation:
 - Pertain to an area(s) of expertise in which the **majority** of technical assistance will be provided (i.e. chiller plant optimization analysis, industrial process efficiency).
 - Demonstrate the quality of the proposer’s work, methodology, and types of energy analyses performed.
 - Demonstrate the proposers understanding of FlexTech eligibility requirements and FlexTech-eligible customers.
 - Include the qualified personnel included in the organizational chart/matrix.
 - Provide the customer’s contact information for reference checks.
 - Sample case studies should be a minimum of one page each

- Organizational Chart/Matrix
 - A chart or matrix depicting the office(s) from which services will be provided, the geographic region the office(s) will serve and the personnel located in each office that will be working on FlexTech projects.

- Personnel Resumes
 - One-page resumes that highlight recent experience of the personnel who will be directly involved in providing the technical services from each office expected to provide FlexTech services. Resume(s) of the P.E. or R.A. must be included. Submission of a company-wide resume representing general services to be provided by various personnel does not meet the required documentation.

- Acceptance of Standard Agreement Terms and Conditions (per Attachment C)
 - A statement that the firm accepts all terms and conditions in the Sample Agreement, Attachment C. If certain terms and conditions are not accepted, the firm must define these exceptions within the application. Please note, NYSERDA will only consider exceptions specifically listed in the application during contract negotiations.

- Project Personnel and Billing Rates Form
 - The proposer shall use the Project Personnel and Billing Rates form to clearly indicate hourly salary rate range for each title classification proposed under the agreement with NYSERDA and other overhead multipliers you propose to use for the duration of the agreement with NYSERDA. NYSERDA FlexTech Consultants selected under this solicitation shall be awarded a one (1) year Agreement (Sample Agreement attached hereto as Attachment C).

- Please provide rates and multiplier for services to be provided from date of application. These rates shall be independent annual rates. The multiplier stated shall include all overhead, profit, and other costs. **Please do not provide fully burdened rates in the chart.**

- Attach supporting documentation to support indirect cost (overhead) rate(s) included in your proposal as follows:
 - 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).
 - If rate(s) is/are approved by an independent organization, such as the federal government, provide a copy of such approval.
 - If rate(s) is/are based on estimated costs or prior period actual results, include calculations to support proposed rate(s). Calculation should provide enough

information for NYSERDA to evaluate and confirm that the rate(s) 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 such difference. Requests for financial statements or other needed financial information may be made if deemed necessary.

FLEXTECH CONSULTANT APPLICATION:

Company		Date	
Primary Contact		Title	
Secondary Contact		Phone	Fax
		e-mail	
Federal Tax Identification #/Social Security			
Address	City	State or Province	Zip
Sub-Consultant Company (if applicable)		Title	
Sub-Consultant Contact		Phone	Fax
		e-mail	
Address	City	State or Province	Zip
<p>THE PRIME CONTRACTOR MUST SIGN THIS FORM BELOW and ANSWER THE FOLLOWING QUESTIONS:</p> <p>Is the Primary Contact listed above certified as a Professional Engineer (P.E.) or Registered Architect (R.A.)? If no, <input type="checkbox"/> Yes <input type="checkbox"/> No please list a secondary contact with one of the above certifications.</p> <p>Are the personnel to conduct FlexTech Studies certified by a professional organization (i.e. AEE, Dept of Ed., PMI, etc.) <input type="checkbox"/> Yes <input type="checkbox"/> No</p>			
CHECKLIST			
REQUIRED for Prime Consultant A. Sample of Energy Related Work (1-3 Case Studies) _____ B. Organizational Chart/Matrix _____ C. Personnel Resumes _____ D. Rate Schedule _____		REQUIRED for Sub-Consultant A. Sample of Energy Related Work (1-3 Case Studies) _____ B. Organizational Chart/Matrix _____ C. Personnel Resumes _____ D. Rate Schedule _____	
AUTHORIZED SIGNATURE & CERTIFICATION			
I certify that the above information, and all information submitted in connection with State Finance Law §139-j and §139-k, is complete, true, and accurate, and that the proposal requirements noted have been completed and are enclosed. I affirm that I understand and will comply with NYSERDA's procedures under §139-j(3) and §139-j(6)(b) of the State Finance Law. I understand that this proposal may be disqualified if the solicitation requirements are not met. I the undersigned am authorized to commit my organization to this proposal.			
Signature		Name	
Title		Company	
Phone			

PROJECT PERSONNEL AND BILLING RATES FORM

DIRECT PERSONNEL COSTS:

SAMPLE Title Classification	Not to Exceed Hourly Rate Range									
	Year 1		Year 2		Year 3		Year 4		Year 5	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Principal Investigator										
Technical Specialist										
Senior Project Manager										
Project Manager										
Senior Engineer/Architect										
Engineer										
Analyst										
Administrative Support										

MULTIPLIER:

Profit / Fixed Fee:

DIRECT NON-PERSONAL SERVICE COSTS:

Direct non-personal service costs will be allowed and reimbursed at cost for project related expenses. Items not listed but necessary to complete the work must be pre-approved by NYSERDA:

- | | | |
|----------|------------------------|--------------------------------------|
| Travel | Laboratory Tests | Overnight Mail |
| Supplies | Test Equipment Rentals | Report Reproduction/Outside Printing |
| Postage | Computer Services | Subcontracts |

VII. GENERAL CONDITIONS

PROPRIETARY INFORMATION

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(2)(d) 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 <http://www.nyserda.ny.gov/About/-/media/Files/About/Contact/NYSERDA-Regulations.ashx>. 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
625 Broadway
Albany, NY 12207

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

Empire State Development
Minority and Women's Business Development Division
625 Broadway
Albany, NY 12207

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 new procurement lobbying requirements which can be found at <http://www.ogs.ny.gov/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.ny.gov/pdf/current_forms/st/st220td_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 https://www.tax.ny.gov/pdf/current_forms/st/st220ca_fill_in.pdf). The Department has developed guidance for contractors which is available at <http://www.tax.ny.gov/pdf/publications/sales/pub223.pdf>.

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 which 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.

CONTRACT AWARDS

Contract Award for Flexible Technical Assistance Studies - NYSERDA may request additional data or material to support submissions including scope of work modifications or negotiations before issuing a Purchase Order. Each application should be submitted using the most favorable cost and technical terms. NYSERDA will use Attachment A-1 to contract successful applications. A sample Purchase Order is available on request. NYSERDA expects to notify customers in approximately three (3) weeks from the receipt of a complete project package whether the submission has been selected to receive an award.

Contract Award for FlexTech Consultants - NYSERDA anticipates making multiple awards under this solicitation. It may award a contract based on initial applications without discussion, or following limited discussion or negotiations. Each application 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, Attachment C, to contract successful applications. Applicants will be notified whether their application has been selected to receive an Agreement approximately 4 weeks after application receipt.

Successful FlexTech Consultant applicants will be awarded a FlexTech agreement with performance criteria. Failure to execute the agreement within 60 days of issuance or achieve the performance criteria will result in a loss of agreement.

FLEXTECH CONSULTANT PERFORMANCE CRITERIA

FlexTech Consultants will be responsible for creating and maintaining their workload. NYSERDA does not guarantee any amount of work to be provided to any Consultant. All Consultants will be assessed at the conclusion of each Agreement term and NYSERDA will determine whether to exercise its option to renew the Agreement for an additional term. Consultants who do not sustain the minimum performance criteria, as described below, will not be presented with an option to renew.

In order to be considered for contract renewal, one of the criteria below must be met:

- a) Two approved and encumbered scopes of work.
- b) One approved and encumbered scope of work to evaluate an annual load greater than or equal to 5,000,000 kWh.

Approved Task Work Order Plans, as per Section 3: (f) and (g), are encumbered after NYSERDA's Treasurer has issued a purchase order for the project and a notice to proceed has been issued to the Consultant. Approved Task Work Order Plans that are routing internally within NYSERDA during the contract renewal evaluation period shall be included in the assessment of whether the Consultant has met the minimum performance criteria.

Should the contract be renewed, new or additional criteria, such as a minimum number of NYSERDA approved final reports, may be added to this section for subsequent contract terms. All contract renewals are subject to available funding.

VIII. OTHER OPPORTUNITIES

NYSERDA has a number of programs available to New York State businesses and industries. These include implementation assistance programs, as well as many others. More information can be found on our website at www.nyserda.ny.gov, by e-mailing info@nyserda.ny.gov or by calling toll free 1-866-NYSERDA.

VIV. ATTACHMENTS

- Attachment A-1: Applicant Information
- Attachment A-2: Agriculture Energy Audit Application
- Attachment B-1: Final Report Requirements
- Attachment B-2: Project Summary Sheet
- Attachment B-3: NYSERDA RCx Deficiency Worksheet (Industrial Sites ONLY)
- Attachment C: Sample Agreement for Flex Tech Consultants

Attachment A-1: Applicant Information (page 2 of 2)

APPLICANT CERTIFICATION. *Please check the appropriate box*

Technical Assistance Terms for applicants:

I, the Applicant, certify that the facility or lead facility named in the scope of work is interested in technical assistance and is requesting that NYSERDA set aside funds to reimburse the facility, or FlexTech Consultant if applicable, for certain eligible costs, as outlined in the scope of work, in pursuing a project. I certify that the information provided is true to the best of my knowledge

As part of this project, NYSERDA will oversee the Service Provider or FlexTech Consultant’s progress and results in completing the scope of work, provide technical review of any applicable report, and be available to address any questions or concerns which arise during the conduct of this project.

I, the Applicant, also certify that NYSERDA does not provide any endorsement of the Consultant’s capabilities to provide services outside of the Scope of Work to be conducted pursuant to this agreement. The Customer acknowledges that neither NYSERDA nor its consultant is responsible for assuring that the design; engineering or installation of any recommendation of the technical service is proper or complies with any particular laws (including patent laws), codes, or industry standards.

Overall

NYSERDA does not make any representations of any kind regarding the results to be achieved or the adequacy or safety of any recommendation. NYSERDA does not endorse, guarantee, or warrant any particular manufacturer or product, and NYSERDA provides no warranties, expressed or implied for any product of service.

I, the Applicant, certify the number provided is my correct taxpayer identification number (or I am waiting for a number to be issued to me); I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and I am a U.S. citizen or other U.S. person (as defined in IRS Form W-9).

AUTHORIZED APPLICANT (ENTITY PAYING FOR THE STUDY)

SIGNATURE: _____

NAME AND TITLE: _____

ORGANIZATION AND PHONE: _____

FEDERAL ID¹: _____

Federal ID # should match company/organization paying for energy study services

Federal ID # not required for customers using a NYSERDA FlexTech Consultant.

Agriculture Energy Audit

APPLICANT INFORMATION

Applicant / Farm Name _____ Contact Name and Title _____

Farm Address _____

City _____ State _____ Zip _____

Primary Phone Number (include area code) _____ Secondary Phone Number (include area code) _____ Fax _____

Best time to call: Morning Afternoon Evening

Email _____

Correspondence Address (if different than Farm Address) **Check**

appropriate box:

- Dairy Orchard Poultry/eggs Greenhouse Vegetable
- Hog Vineyard Grain dryer Other _____

Farm size (For example: number of milking cows, acres of greenhouse, etc. Please label units.) _____ Annual Production (Please label units). _____ Number of employees _____

Electric Utility Company _____ Electric Account number(s) _____

Do you pay a System Benefits Charge (SBC) on your Electric utility bill? Yes No

Natural Gas Utility Company _____ Gas Account number(s) _____

If you are already working with a FlexTech Consultant, list consultant's name. (if you are not already working with a Consultant, one will be assigned)

Audit level of interest:

- Level 1:** *(Ideal for small farms)* The FlexTech Consultant will visit farm to conduct a walk thru audit and provide a limited evaluation of energy conservation measures and energy efficiency recommendations. The deliverable is a summary letter of feasible energy efficiency measures.
- Level 2:** *(Most frequently recommended)* The FlexTech Consultant will visit the farm and provide a detailed energy audit with calculated evaluations of appropriate energy conservation measures including simple payback. The deliverable is an energy audit report that meets ANSI/ASABE S612 standards.

Attachment A-2: Agricultural Energy Audit (page 2 of 2)

- Level 3:** *(Recommended for an in-depth look at a single system)* The FlexTech Consultant will conduct a site visit focused on a specific system or measure, which could include renewable energy, with a more detailed analysis. The deliverable is a system specific energy analysis report.
- I would like someone to call me to discuss what level is appropriate for my farm

For questions or assistance, please call 1-800-732-1399.

AGREEMENT TO TERMS, CONDITIONS, AND CERTIFICATION

I, the Applicant, certify that the farm named on this application is interested in receiving an energy audit and request that NYSERDA set aside funds to contribute up to 100%, or \$1,500 for Level 1; \$2,500 for Level 2; or up to \$6,000 for Level 3, towards the allowable NYSERDA Consultant fees. NYSERDA’s contribution will be paid directly to the Consultant, provided the work is acceptable to the Applicant and NYSERDA.

I, the Applicant, understand that NYSERDA does not provide any endorsement of the Consultant’s capabilities to provide services outside of the audit’s Scope of Work to be conducted pursuant to this application. The Applicant acknowledges that neither NYSERDA nor its Consultant is responsible for assuring that the design, engineering, or installation of any recommendation of the technical service is proper or complies with any particular laws (including patent laws), codes, or industry standards. NYSERDA does not make any representations of any kind regarding the results to be achieved or the adequacy or safety of any recommendation.

NYSERDA does not endorse, guarantee, or warrant any particular manufacturer or product and NYSERDA provides no warranties, expressed or implied for any product or service.

Applications will be processed in the order received until program funds are fully committed.

The Applicant certifies that this Facility is a customer of a New York State investor-owned utility and the System Benefits Charge (SBC) is paid.

I certify that I am an authorized signatory for the Applicant/Farm.

X

Authorized Applicant Signature

Date

Name and title (please print)

Please mail application to:
NYSERDA
Attn: Agriculture Energy Audit Program Administrator
17 Columbia Circle
Albany, NY 12203-6399

Attachment B-1: Final Report Requirements

Executive Summary - Concisely summarize the FlexTech project's intent, findings, recommendations, and economics of the recommendations in narrative format.

Background - Provide information about the applicant and the project, such as type of business or organization, average number of employees per location, annual energy costs by fuel type, electric and gas suppliers, and rate tariff.

Project Description - Include a description of the project intent, approach, and tasks performed as defined in the project scope. If any deviations from the scope of work occurred during the project, please provide an explanation for those changes.

Project Results/Recommendations - Describe the project findings here.

- Include reasons for recommendations on cost-effective energy efficiency measures and capital improvements.

- **Economic analysis:** Provide recommendations supported by thorough economic evaluation to include, at minimum, all parameters required for simple payback analysis. Life-cycle cost or other more detailed analyses (e.g. ROI, IRR, etc.) may also be included, if desired or if required in the scope of work. An estimate of implementation costs with the source citation or vendor quotes if applicable should be provided.

- **Additional benefits:** Final reports should strive to include information on additional potential project benefits, such as increased productivity, job creation or retention, greenhouse gas reduction, or environmental benefits. Include a qualitative description of other project benefits, such as increased knowledge or information base, comfort, competitiveness, product quality, or energy affordability.

- **For projects where computer modeling is used, reports must also include:**
 1. Brief presentation of the manipulations which the program performed (e.g. utility bill calibration and accuracy level)
 2. Input data for the building and for each EEM should be presented in a manner which allows easy identification of input parameters
 3. Output data from model with clear and precise presentation of the results in both tabular and narrative forms
 4. Verification that interaction effects were taken into account

Appendices - This section shall include supporting documentation for all recommendations not included in the previous section, along with:

- Historical energy costs (minimum 12 months)

- Calculations for all EEM's reviewed, assumptions
- Conversion factors
- Itemized project implementation costs (at minimum material and labor costs associated with each measure)
- Sources of cost estimates and/or vendor quotes as applicable
- Energy savings calculations must demonstrate clear assumptions based on anticipated changes to the system or equipment being evaluated
- Rule of thumb assumptions and percentage savings calculations are not acceptable
- Energy savings calculations must be presented as savings at the customer's utility meter(s), and not at the individual building or tenant space. *For example, self-generated steam or chilled water savings should be reported back to the source of generation (i.e. natural gas)*

Project Summary Sheet - This one-page summary outline is required for all projects (see Attachment B-2). This form provides a simple matrix of the project by summarizing the payback, costs and savings in dollars, therms, MMBtu's, and kWh and kW where appropriate.

***FlexTech Consultants: All FlexTech Consultant draft and final reports must be stamped by a New York State Licensed Professional Engineer or Registered Architect.**

Invoice Requirements

The FlexTech Consultant's invoice(s) should be broken out by non-labor costs, individuals, titles, hourly rates, dates and hours worked on each task. Invoices should also indicate the amount that is being invoiced concurrently to the Customer. In addition, if applicable, NYSERDA may also require a copy of the customer's canceled check paying their study cost-share.

Attachment B-3

NYSERDA RCx Deficiency Worksheet (Industrial sites only)

(example)

Deficiency Number:

Annual Electric Supply Savings (kWh)	Annual Electric Demand savings (kW)	Annual Fuel Savings (mmBTU)	Annual Cost Savings	Implementation Cost	Fuel Type Saved	Simple Payback (Years)	Supporting Calculations Location:
8,200	0	200	\$3,384	\$250	E & G	0.1	appendix c, page 56
System:	HVAC						
Component:	AHU #12						
Location:	East Wing over Conference Room						
Notes	Damper appears to be stuck as a result of a control wire breaking off of the control motor.						

Deficiency Description	Effect on system operation	Corrective Action	Benefit ⁽¹⁾	Recommend Corrective action?
<i>Air damper stuck in open position</i>	<i>Over ventilation and cooling of offices 8-12</i>	<i>Repair and adjust damper</i>	<i>E, C, O</i>	<i>Yes</i>

Instructions:

One worksheet is to be completed for each deficiency found in the RCx study, and included in the report. For each deficiency found, the energy saving/cost associated must be included. If the deficiency does not have any associated energy savings, zeros should be used. The complexity of the energy savings calculations should be appropriate to the size of the energy savings. Each deficiency must also be included in the required NYSERDA Project Summary Sheet (Attachment B-2).

Notes:

¹ E= Improved energy efficiency; C= Improved comfort; M= Reduced maintenance; O= Improved operation efficiency