

New York State Energy Research and Development Authority  
("NYSERDA")  
AGREEMENT

1. Agreement Number: 200591
2. Contractor: CHA Consulting Inc.
3. Project Director: Mitchell DeWein
4. Effective Date: March 15, 2023
5. Total Amount of Award: \$100,000
6. Project Period: March 15, 2023 – March 30, 2024
7. Expiration Date: September 30, 2024
8. Commitment Terms and Conditions

This Agreement consists of this form plus the following documents:

- Exhibit A, Statement of Work;
- Exhibit B, General Contract Provisions, Terms and Conditions;
- Exhibit C, Standard Terms and Conditions;
- Exhibit D, Prompt Payment Policy Statement;
- Exhibit E, NYSERDA Report Content Guide 2017; and
- Exhibit F Category A Final Report Requirements – Part 2.

9. ACCEPTANCE. THIS AGREEMENT SHALL NOT BECOME EFFECTIVE UNLESS EXECUTED BELOW BY NYSERDA.

CHA Consulting Inc.

NEW YORK STATE ENERGY RESEARCH  
AND DEVELOPMENT AUTHORITY

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Name \_\_\_\_\_

NYSERDA Authorized Signatory

Title \_\_\_\_\_

**EXHIBIT A**  
**STATEMENT OF WORK**  
**The Village of Saranac Lake Community Heat Pump**

Contractor CHA Consulting  
Project Number 200591

**BACKGROUND/OBJECTIVES**

Under this Agreement, CHA will work with the Village of Saranac Lake to conduct a feasibility study to define several potential District Heat Pump networks which could be built out to help reduce or eliminate the community's reliance on delivered fuels - primary heating being handled by fuel oil or propane for almost the entire Village. In addition, the project team is working with all stakeholders including members of the delivered fuels community to help in energy business transition to a hopeful network of Village-based Business Owners becoming the next group of geothermal well drilling and heat pump building HVAC installing contractors in support of this and hopefully many future clean energy projects in the North Country. The project will leverage several active capital improvement, DRI-funded initiatives as well as several new construction developments to financially offset some of the overall project implementation costs. The team is also backed by a very supportive and tight-knit community who are all very interested in bringing this project to reality.

**DEFINITIONS**

***District-style Heat Pump System (also called Community Heat Pump System)*** is defined as a system serving either a cluster of buildings controlled by a single-owner (such as a college campus) or serving a cluster of buildings owned by numerous unrelated owners (such as a section of a city's downtown), and consisting of:

- a centralized heat pump installation that distributes heat (e.g., hot water) via a network of connector pipes to two or more buildings (so-called Fourth Generation District Thermal – 4G), or
- multiple heat pump installations dispersed at two or more buildings, where such heat pumps are joined to a network of connector pipes for the purpose of extracting/rejecting heat to/from a common thermal source/sink resource (so-called Fifth Generation District Thermal – 5G).

***The Contractor*** is defined as:

CHA Consulting, Inc.  
Mitch DeWein  
3 Winners Circle  
Albany, NY 12205  
[mdewein@chacompanies.com](mailto:mdewein@chacompanies.com)

***The Project Site(s)*** is/are defined as (substitutions may be allowable with the prior written authorization of the NYSERDA Project Manager):

The main project site is a 31-acre site bounded by Bloomingdale Ave to the north, Church St to the east, River St to the South, and Broadway to the west.

Additional properties include Saranac Lake High School, Petrova Elementary School, Saranac Lake Waste Water Plant, and Adirondack Medical Center.

***Site Owners is/are defined as:***

Village of Saranac Lake  
Erik Stender  
39 Main Street  
Saranac Lake, NY, 12983  
[manager@saranaclakeny.gov](mailto:manager@saranaclakeny.gov)  
518-796-0402

**TASK 0 - PROJECT MANAGEMENT AND PROGRESS REPORTING**

**Responsibility**

Regardless of subcontracting arrangements, the Contractor shall be responsible for the timely completion of all the tasks in the Statement of Work per the schedule included herein. The Contractor shall provide all project management activities necessary for the performance of this Statement of Work, as per attached *milestone schedule/budget*, which shall include the following activities:

- Coordinate the work of the Contractor's employees and those of sub-contractors and equipment vendors that are undertaking tasks described in this Statement of Work;
- Ensure control over the project budget and adherence to the project schedule; and
- Provide all project reporting to NYSERDA as specified in this Statement of Work.

**Progress Reporting**

If during a particular period the Contractor has not delivered any milestones and done the associated milestone reporting, then the Contractor shall submit **periodic** progress reports, no less frequently than quarterly, to NYSERDA's Project Manager no later than the 15th of the month following each reporting period. The Progress Reports shall include information on the following subjects in the order indicated, with appropriate explanation and discussion:

- a. Name of contractor
- b. Title of the project.
- c. Agreement number.
- d. Reporting period.
- e. Project progress including a summary of progress, findings, data, analyses, results and field-test results from all tasks carried out in the covered period.
- f. Planned work for the next reporting period.
- g. Identification of problems.
- h. Planned or proposed solutions to identify problems described in (f) above.
- i. Ability to meet schedule, reasons for slippage in schedule.
- j. Schedule - percentage completed and projected percentage of completion of performance by calendar quarter - may be presented as a bar chart or milestone chart.

**Deliverables:** Written Periodic Progress Reports.

**Project Kick-off Meeting**

The Contractor shall hold a project kick-off meeting within thirty days from the contract execution date. The Contractor shall coordinate with NYSERDA's Project Manager to arrange the meeting at a mutually convenient time and place. The Contractor is encouraged to invite representatives of sub-contractors and equipment vendors. The purpose of this meeting shall be to finalize the strategies for accomplishing the objectives of this work. In a timely manner, the Contractor shall submit to NYSERDA's Project Manager a brief report summarizing the issues discussed and decisions made, if any, during this meeting.

Deliverable: A brief report regarding the project kickoff meeting.

#### Project Completion Meeting

The Contractor shall conduct a project completion meeting, it shall occur within time period covering 15 days prior to and 15 days following the submission of the draft Final Report. The Contractor shall coordinate with NYSERDA's Project Manager to arrange the meeting at a mutually convenient time and place.

Deliverable: A brief report regarding the project completion meeting.

Security. Contractor shall comply with New York State Enterprise Information Security Office (EISO), Cyber Security Policy P03-002, NYSERDA's Information Security Policy, and other New York State policies/procedures including but not limited to prevent unauthorized access to restricted areas of the Web Site and any databases or other sensitive material generated from or used in conjunction with the Web Site; and Contractor shall notify NYSERDA's Information Security Office as soon as possible of any known security breaches or holes. Questions concerning this policy may be directed to the EISO (518) 474-0865, attn: Director. Or visit EISO at <https://www.its.ny.gov/eiso>.

Accessibility. Any network-based information and applications development, or programming delivered to or by the State pursuant to this contract or procurement, will comply with Section 508 of the Rehabilitation Act of 1973, as amended, and be consistent with New York State Enterprise IT Policy NYS-P08-005, Accessibility of Information Communication Technology, as such policy may be amended, modified or superseded (the "Accessibility Policy"). The Accessibility Policy requires that State Entity Information Communication Technology shall be accessible to persons with disabilities as determined by accessibility compliance testing. Such accessibility compliance testing will be conducted by NYSERDA and any report on the results of such testing must be satisfactory to NYSERDA.

#### **Task 1. Establish Baseline Conditions**

The Contractor shall review site data and drawings provided by the Site Owner. The Contractor shall develop, and use billing and metering data as available to calibrate, an energy model for the Project Site(s) that models each individual building discretely and facilitates subsequent modeling of the aggregation of various subsets of buildings as well as the entirety of buildings. Such modeling shall address building electrical and thermal energy systems and shall be based on building drawings and equipment schedules where available (making reasonable assumptions where data is unavailable):

- The Contractor shall describe the basis for a baseline condition and the characteristics of such baseline condition.
- The Contractor shall review at least the most recent 12-months of utility bills.
- The Contractor shall review all available utility metered interval data.
- The Contractor shall develop interval profiles for electric utility use (if meter data available), such profiles shall be at hourly intervals or more-granular resolution, and shall represent at minimum an 8,760-hour continuum
- The Contractor shall use these interval profiles to estimate the baseline annual environmental footprint (at a minimum the CO<sub>2</sub>-equivalent footprint attributable to

energy consumed from all sources including grid-supplied electricity, and if feasible also the site-emitted criteria pollutants)

- The Contractor shall develop baseline modeled equipment costs
- The Contractor shall estimate construction costs for replacement of existing HVAC with code-conforming in-kind equipment (or build-out of a surrogate system)
- The Contractor shall establish baseline electricity and thermal energy utility costs using published utility tariffs and/or existing data
- The Contractor shall generate life cycle cost for baseline consisting of building (or replacing with code-conforming in-kind) the baseline energy system and operating it for a 25-year term
- The Contractor shall develop preliminary thermal model which will be used to size baseline and proposed heating/cooling plant equipment and energy source
- The Contractor shall develop preliminary electric model which will be used to forecast increases of electric load attributable to the proposed heating/cooling plant equipment
- The Contractor shall perform a sensitivity analysis regarding the assumptions used throughout this task to assess the relative magnitude of impact each assumption has on the analysis output

The Contractor shall consolidate and present summary of baseline energy use and lifecycle costs to NYSERDA.

**Deliverables:** Written summary of assumptions having meaningful influence on the modeling, baseline energy use, lifecycle costs, and environmental footprint

Go/No-Go Decision Point:

The Contractor shall not commence work on the following Tasks until-and-unless authorized to do so in writing by the NYSERDA Project Manager. Such authorization shall be at NYSERDA's sole discretion. The go/no-go decision will be based on the information presented in the Task Deliverable. If the project is found to have a fatal flaw or is deemed non-viable, as determined by NYSERDA, a no-go decision will be issued and the Agreement will be terminated pursuant to Section 12.02 of Exhibit B.

## **Task 2. Develop Energy Profile**

The Contractor shall dispatch a modeling approach to explore clean energy options for the Project Site(s) (future-looking) that models each individual building discretely and facilitates subsequent modeling of the aggregation of various subsets of buildings as well as the entirety of buildings (this is intended to enable comparison of the district-style versus the individual-building-style, as well as to enable discerning the timing and amounts when both heating and cooling are simultaneously needed). This will include development of thermal models for major building utilization/programming types. Output information from the model(s) may be scaled to estimate thermal and HVAC electrical profiles for buildings of comparable programming. Outputs from modeling shall be at hourly intervals or more-granular resolution, and shall represent at minimum an 8,760-hour continuum. The Contractor shall describe the exploration-of-options future-looking modeling approach/software.

The Contractor shall dispatch a detailed modeling approach with multiple uses and varied occupancy patterns:

- Thermal profile development and detailed modeling analysis
  - It is assumed that the Site Owner shall provide schematic/concept drawing per building that include, at minimum, dimensioned floor plates and exterior elevations
  - Create representative space-by-space and small block load models that incorporate planned building geometry, gross square footage, and space utilization. A single model will be created for each building.
  - Create aggregate thermal profiles per phase as applicable, and for the entire development at full build-out.

The Contractor shall perform a sensitivity analysis regarding the assumptions used throughout this task to assess the relative magnitude of impact each assumption has on the analysis output.

Contractor shall consolidate and present a characterization of the district summary to NYSERDA.

Deliverables: Written summary of assumptions having meaningful influence on the modeling, and characterization of the district including discussion of the extent of thermal load-flattening attributable to aggregation into a district (comparison of district coincident peak versus the sum of the individual peaks of thermal loads)

Go/No-Go Decision Point:

The Contractor shall not commence work on the following Tasks until-and-unless authorized to do so in writing by the NYSERDA Project Manager. Such authorization shall be at NYSERDA's sole discretion. The go/no-go decision will be based on the information presented in the Task Deliverable. If the project is found to have a fatal flaw or is deemed non-viable, as determined by NYSERDA, a no-go decision will be issued and the Agreement will be terminated pursuant to Section 12.02 of Exhibit B.

### **Task 3. Determine optimal energy source and develop conceptual design**

The Contractor shall explore the technical and economic viability of using clean thermal energy resources consisting of ground source vertical boreholes, surface water bodies and flowing wastewater (and wastewater effluent), whether standalone or in combination, as potential thermal sinks and/or sources (hereinafter "thermal sinks/sources").

- The Contractor shall develop an energy model to determine the optimal combination of resources available to leverage as thermal sinks/sources
  - analyze and determine the available capacity during a year of each type of resource available to leverage as thermal sinks/sources
  - assess the implications of thermal storage, either at a centralized activity or at numerous disparate locations, or both
  - assess the implications of sizing the clean thermal energy resources as first-call to meet a fraction of the overall thermal load up to an economically optimal point, and supplementing with a conventional thermal system as second-call to be able to meet the most extreme demand during a year
  - determine optimal number and site layout of the ground loop heat exchanger (GLHX)
  - identify any sub-grade infrastructure that would impact bore field design

- analyze proposed system to obtain hourly intervals or more-granular resolution representing at minimum an 8,760-hour continuum and then integrate such results for display as monthly/annual energy consumption profiles
- integrate baseline system and desired mechanical system alternatives for comparison
- determine energy impact for each system alternative
- The Contractor shall develop conceptual design of the community heat pump system, including an estimation of whether these clean energy resources could adequately meet instantaneous peak load without causing long-term thermal imbalance (i.e., year-after-year thermal accumulation, or year-after-year thermal depletion) in the ground source borehole resources, and a statement regarding considerations for redundancy/resiliency
- The Contractor shall perform a sensitivity analysis regarding the assumptions used throughout this task to assess the relative magnitude of impact each assumption has on the analysis output

Contractor shall consolidate and present information regarding systems and technologies to NYSERDA.

Deliverables: Summary of energy source analysis and conceptual design

Go/No-Go Decision Point:

The Contractor shall not commence work on the following Tasks until-and-unless authorized to do so in writing by the NYSERDA Project Manager. Such authorization shall be at NYSERDA's sole discretion. The go/no-go decision will be based on the information presented in the Task Deliverable. If the project is found to have a fatal flaw or is deemed non-viable, as determined by NYSERDA, a no-go decision will be issued and the Agreement will be terminated pursuant to Section 12.02 of Exhibit B.

#### **Task 4. Perform economic and financial analysis**

For the community heat pump system embodied in the conceptual design produced in Task 3, the Contractor shall perform an economic and financial feasibility analysis:

- The Contractor shall estimate associated annual utility costs for the community heat pump system solution
- The Contractor shall develop 25-year life cycle cost model to include the following:
  - Provide construction cost estimates for each option
  - Provide estimated equipment service life, associated maintenance costs and replacement costs of the proposed system configuration
  - Develop financial metrics including payback, return on investment, and life cycle cost utilizing projected inflation, energy escalation, and discount rates
  - Perform carbon reduction calculations based on baseline and proposed low carbon solution
- Being that this project is primarily a single user arrangement, alternative business models are not anticipated for evaluation. The only potential business case considered is for prospective utility customer off takers in the community who will be evaluated on utility billing on a cost per square foot basis.



- The Contractor shall perform a sensitivity analysis regarding the assumptions used throughout this task to assess the relative magnitude of impact each assumption has on the analysis output

The Contractor shall consolidate and present a summary of the economic analysis and evaluation of business model to NYSERDA.

Deliverables: Summary of economic analysis and business model evaluation

Go/No-Go Decision Point:

The Contractor shall not commence work on the following Tasks until-and-unless authorized to do so in writing by the NYSERDA Project Manager. Such authorization shall be at NYSERDA's sole discretion. The go/no-go decision will be based on the information presented in the Task Deliverable. If the project is found to have a fatal flaw or is deemed non-viable, as determined by NYSERDA, a no-go decision will be issued and the Agreement will be terminated pursuant to Section 12.02 of Exhibit B.

#### **Task 5. Perform Assessment of Additional Technologies to Improve Project Value and/or Mitigate New Demand on Electric Grid**

The Contractor shall discuss with the local electric utility the capacity of the local electric grid infrastructure to serve the Project Site(s) potentially-increased electric load.

The Contractor shall analyze the potential project value improvement and/or mitigating and/or exacerbating implications and technological and economic feasibility of integrating solar photovoltaic, electric vehicle charging capabilities, and electric battery technologies into a community heat pump system:

- Conceptual Solar PV Design
  - Determine available rooftop/ground-mount area for solar PV
  - Calculate optimum district solar PV capacity and electricity production
  - Evaluate regulatory requirements to interconnect solar PV system
  - Provide preliminary installation budgets for PV panels
  - Provide quantification of the potential energy and environmental benefits
- EV Charging
  - Estimate the number and type of EV chargers that are economically and technically feasible to serve the population at the Project Site
  - Evaluate the potential economic risks and benefits of using EV "charging as a service" business model
- Battery Energy Storage
  - Evaluate the technical and economic feasibility of pairing electric battery storage with solar PV installation
  - Analyze the value proposition of pairing battery energy storage with available Community Distributed Generation or Value of Distributed Energy Resource (VDER) tariffs
  - Explore the technical and economic potential of using electric batteries to provide limited duration back-up power and resiliency



Referencing the conceptual design of the community heat pump system developed under Task 3 of this Statement of Work, and accounting for any additional project value and/or mitigating and/or exacerbating attributes resulting from this Task 5 of this Statement of Work, the Contractor shall estimate the forecasted future scenario annual environmental footprint (at minimum the CO<sub>2</sub>-equivalent footprint attributable to energy consumed from all sources including grid-supplied electricity, and if feasible also the site-emitted criteria pollutants).

The Contractor shall perform a sensitivity analysis regarding the assumptions used throughout this task to assess the relative magnitude of impact each assumption has on the analysis output

Deliverables: Summary of technical, economic, and environmental footprint analysis and recommendations relating to feasibility of integrating solar PV, EV charging, and electric battery storage (including potential of associated business models) with community heat pump system

### **Task 6. Conduct Permitting & Regulatory Review**

The Contractor shall conduct an analysis of the regulatory issues that may materially impact the feasibility of the Project, including:

- Identify Authorities Having Jurisdiction (AHJs) and the associated permitting/approvals required
- Provide an estimated timeframe for permitting approval
- Identify any potential risks for additional permitting restrictions or delays where this type of project is not contemplated adequately within current rules or processes and/or there is rulemaking in progress
- Identify any additional unique regulatory obstacles to the project as they relate to the distribution of non-utility-generated electricity and thermal energy, including those related to, but not limited to, the following:
  - Utility franchise rights
  - Issues attributable to the preferred business model
  - Project phasing
  - Regulatory proceedings which are still to be determined

The Contractor shall consolidate and present a summary of the permitting and regulatory review, including hurdles and challenges, to NYSERDA. This presentation shall also summarize the range of options explored and whether a preferred option has emerged which would encourage further pursuit of a community heat pump system opportunity at the Project Site(s).

Deliverables: Summary of permitting and regulatory review, and a non-proprietary/non-confidential slide deck suitable for posting on NYSERDA's website summarizing the range of options explored and whether a preferred option has emerged which would encourage further pursuit of a community heat pump system opportunity at the Project Site(s)

### **Task 7. Produce Final Report**

The Contractor shall prepare a non-proprietary/non-confidential Final Report, in accordance with the Exhibit E Report Content Guide, covering all aspects of the work performed under this Agreement.

Such final report shall address the following questions at a minimum and shall be organized as follows:

Characterization of the Proposed Community:

- Describe the fraction of the effort that focused on studying the immediate opportunity and the fraction that focused on developing a long-range master plan, discuss any consideration for build-out in phases (i.e., initial installation, and subsequent expansion)
- Identify and describe the specific cluster of buildings assessed
- Enumerate and tally a year's representation of 8,760 hourly loads to be served
- Quantify the investment hurdle threshold of each prospective member of the community so as to understand what features of a deal would be needed in order to get them to join (e.g., how much cost savings would they require relative to their traditional expense)
- Identify site constraints and opportunities, including a discussion of accessible geography

Discussion of the Technology(ies) Assessed:

- Describe the type(s) of thermal source/sink
- Discuss adjunct thermal systems if any, such as thermal storage, solar thermal, low-carbon supplemental thermal systems, supplemental thermal systems versus redundant thermal systems
- Discuss the importance/approach to thermal resiliency and reliability
- Discuss adjunct clean distributed energy systems if any, such as on-site solar photovoltaics (PV), battery electric storage

Discussion of the Analytical Methods:

- Discuss whether an exploratory ground borehole was installed, and if so, its suitability for later repurposing
- Describe the modeling method (e.g., software system) used and sources of data
- Describe the extent to which friction caused by pumping creates additional heat load that must be rejected during cooling season and/or helps to achieve heating during heating season, and include in the analysis of peak load requirement and method of satisfaction
- Describe the engineering design basis and business planning approach
- Discuss the key assumptions, sensitivity analysis methodology and confidence bands

Results – System Design:

- Quantify, compare, and contrast the infrastructure necessary to serve such buildings either serving each building via an individual building heat pump solution (thermal island) or serving the cluster of buildings via a community configuration solution (including lateral piping runs that will bridge the various buildings into a thermal network, the seasonal implications of thermal effects of friction caused by flow of fluid within such pipes resulting in heat production, and heat loss/leakage from pipes)

- Discuss challenges and strategies to minimize disruption/costs during cut-over from old system to new system, and to minimize system disruptions caused by air pockets forming in the thermal network pipelines
- Discuss the preliminary assessment of the feasibility of the technical design and system configuration (resource options, appraisal and selection)

#### Results – Business Model:

- Describe the preliminary commercial terms/contractual relationships between project participants (project organization and operational control), and strategy for negotiating binding agreements including importance of timing relative to the sequence of project development
- Explain how the preferred ownership model unlocks value, such as desirable depreciation schedules of equipment, tax implications, etc
- Explain how the project offers a value proposition to the different various stakeholders
- Discuss regulatory/legal/environmental suitability, including permitting and franchising
- Discuss the financial viability/net project benefits (and the impact of incentives), budget, potential sources of funds and proposed uses of funds, and implication of schedule

#### Results – Impact:

- For the technology(ies) in question, discuss how the studied community configuration (one large system) in comparison to the next-best-alternative of that same technology(ies) but deployed as several individual smaller systems:
  - To what extent would aggregating the individual buildings into a community configuration create a composited load profile that achieves a meaningful amount of “load smoothing” and thereby reduces the overall peak size of equipment needing to be deployed
  - Compare and contrast total project costs versus out-of-pocket costs (as a result of incentives, tax credits, etc) for the community configuration and the individual smaller systems configuration, and highlight any awkward economic signals (for example, an awkward economic signal would be if the community configuration has lowest total costs, but due to the incentive/tax effects of cost-shifts associated with less equipment and more piping/labor, has highest out-of-pocket costs)
  - Discuss first costs, operating costs, and lifecycle costs
  - Discuss energy consumption during system operation
  - If the system will include ground thermal loops (ground source heat pumps), to what extent would the thermal extraction/rejection/dissipation achieve balance over an annual cycle such that the ground loop temperature profile will stay within tolerances throughout the presumed 25-year life of the project
- Provide quantification of the energy and environmental benefits
- Data to fulfill Exhibit F Category A Final Report Requirements – Part 2

Lessons Learned:

- Discuss observations of opportunities to improve the project value proposition to stakeholders
- Discuss improvements to methods to recruit and select additional teammates to conduct subsequent work (e.g., an RFP to expand the team for conducting the next stage, if applicable)
- If the scoping study concludes that the single-building-configuration (the non-community-scale approach, also referred to as the so-called unitary solution) is best, please explain the salient aspects

In addition, the submission of the Final Report shall include the completion of the data spreadsheet listed as Exhibit F Category A Final Report Requirements – Part 2.

Draft Version and Final Version of Final Report: A draft version of the Final Report shall be submitted to NYSERDA's Project Manager no later than the date specified in the Milestone Schedule of the NYSERDA Agreement for this task. NYSERDA will comment on the draft version within 60 working days after receipt of such draft. Within 30 working days after receipt of NYSERDA's comments, the Contractor shall prepare a final version of the report reflecting therein careful consideration of NYSERDA's comments to the satisfaction of NYSERDA and submit one (1) electronic copy of the final version of the Final Report.

Deliverables: A draft version of the Final Report.  
A final version of the Final Report.

**Milestone Schedule**

	Task	Milestones / Deliverables	Beginning Date (in weeks from Contract Execution)	Ending Date (in weeks from Contract Execution)	Milestone Payment Amount (\$)
	Project Management and Project Reporting		Beginning of week 1	End of week 28	None
		Brief report summarizing Project Kickoff Meeting	End of week 1		

	Brief report summarizing Project Completion Meeting	End of week 52		
Establish Baseline conditions		Beginning of week 2	End of week 6	\$ 10,770.00
	Written summary of baseline energy use and lifecycle costs	End of week 6		
		End of week 6		None
Develop Energy Profile		Beginning of week 6	End of week 9	\$ 34,432.00
	Written summary characterizing the community heat pump system	End of week 9		
		End of week 10		None
Determine optimal energy source		Beginning of week 10	End of week 14	\$ 16,962.00
	Summary of Energy source analysis and conceptual design	End of week 14		
		NYSERDA Go / No-Go Decision	End of week 15	
Perform economic and financial analysis		Beginning of week 16	End of week 18	\$ 12,712.00
	Summary of economic analysis and business model evaluation	End of week 18		
		NYSERDA Go / No-Go Decision	End of week 19	
Perform Assessment of Additional Technologies		Beginning of week 20	End of week 22	\$ 9,400.00
	Summary of Analysis and Recommendations relating to feasibility of Solar PV, EV Charging, and Battery	End of week 22		

	Storage and potential associated business models			
Conduct Permitting and Regulatory Review		Beginning of week 20	End of week 22	\$ 5,120.00
	Summary of permitting and regulatory review	End of week 22		
Produce Final Report		Beginning of week 20	End of week 28	\$ 10,604.00
	• A draft final version of the Final Report	End of week 24		
	• A final version of the Final Report	End of week 52		
Total to be Requested from NYSERDA				\$100,000.00

### **Budget**

The total cost to complete the tasks associated with this scope of work is \$100,000. The Contractor's team will request a total of \$100,000 reimbursement from NYSERDA, such reimbursements as specified in the above Milestone Schedule.

In response to NYSERDA receiving proper invoices, NYSERDA will pay the Contractor in accordance with the milestone payment schedule as set forth in the Milestone Schedule. Each milestone payment shall be due and payable only to the extent it is supported by the completion of the corresponding individual milestones to the satisfaction of NYSERDA. Each milestone does not necessarily represent the cost of the work included in such milestone; accordingly, the milestone payments do not necessarily represent an actual measure of the progress of the work.

## EXHIBIT B

### GENERAL CONTRACT PROVISIONS, TERMS AND CONDITIONS

#### Article I

##### Definitions

Section 1.01. Definitions. Unless the context otherwise requires, the terms defined below shall have, for all purposes of this Agreement, the respective meanings set forth below, the following definitions to be equally applicable to both the singular and plural forms of any of the terms defined.

(a) General Definitions:

Agreement: This Agreement shall consist of Page One and Exhibits noted thereon, all of which are made a part hereof as if set forth here in full.

Budget: The Budget set forth at Exhibit A hereto.

Cash-based Expenses: Those obligations of Contractor that shall be settled in cash.

Contract Administrator: NYSERDA's Director of Contract Management, Wendy M. MacPherson, or such other person who may be designated, in writing, by NYSERDA.

Contract Information: Recorded information regardless of form or characteristic first produced in the performance of this Agreement, that is specified to be compiled under this Agreement, specified to be delivered under this Agreement, or that is actually delivered in connection with this Agreement, and including the Final Report delivered by Contractor pursuant to Exhibit A, Statement of Work, if applicable.

Expiration Date: The date, located on Page One, Item No. 7, beyond which any funding balances will be disencumbered, unless NYSERDA, in its sole discretion, elects to extend. Any extensions of this date are only effective if in writing.

Proprietary Information: Recorded information regardless of form or characteristic, produced or developed outside the scope of this Agreement and without NYSERDA financial support, provided that such information is not generally known or available from other sources without obligation concerning their confidentiality; has not been made available by the owner to others without obligation concerning its confidentiality; and is not already available to NYSERDA without obligation concerning its confidentiality. Under no circumstances shall any information included in the Final Report delivered by Contractor pursuant to Exhibit A, Statement of Work, if applicable, be considered Proprietary Information.

Person: An individual, a corporation, an association or partnership, an organization, a business or a government or political subdivision thereof, or any governmental agency or instrumentality.

Responsible: Responsible or Responsibility means the financial ability, legal capacity, integrity and past performance of Contractor and as such terms have been interpreted relative to public procurements. See NYS Finance Law Section 163(1)(c).

Statement of Work: The Statement of Work attached hereto as Exhibit A.



Subcontract: An agreement for the performance of Work by a Subcontractor, including any purchase order for the procurement of permanent equipment or expendable supplies in connection with the Work.

Subcontractor: A person who performs Work directly or indirectly for or on behalf of the Contractor (and whether or not in privity of contract with the Contractor) but not including any employees of the Contractor or the Subcontractors.

Work: The Work described in the Exhibit A (including the procurement of equipment and supplies in connection therewith) and the performance of all other requirements imposed upon the Contractor under this Agreement.

## Article II

### Performance of Work

Section 2.01. Manner of Performance. Subject to the provisions of Article XII hereof, the Contractor shall perform all of the Work described in the Statement of Work, or cause such Work to be performed in an efficient and expeditious manner and in accordance with all of the terms and provisions of this Agreement. The Contractor shall perform the Work in accordance with the current professional standards and with the diligence and skill expected for the performance of work of the type described in the Statement of Work. The Contractor shall furnish such personnel and shall procure such materials, machinery, supplies, tools, equipment and other items as may reasonably be necessary or appropriate to perform the Work in accordance with this Agreement.

Section 2.02. Project Personnel. It is understood and agreed that the Project Director identified at Item 3, Page One of this Agreement shall be responsible for the overall supervision and conduct of the Work on behalf of the Contractor and that the persons described in the Statement of Work shall serve in the capacities described therein. Any change of Project Director by the Contractor shall be subject to the prior written approval of NYSERDA. Such approval shall not be unreasonably withheld, and, in the event that notice of approval or disapproval is not received by the Contractor within thirty (30) days after receipt of request for approval by NYSERDA, the requested change in Project Director shall be considered approved. In the event that NYSERDA requires additional time for considering approval, NYSERDA shall notify the Contractor within thirty (30) days of receipt of the request for approval that additional time is required and shall specify the additional amount of time necessary up to thirty (30) days.

Section 2.03. Title to Equipment. Title shall vest in the Contractor to all equipment purchased hereunder.

## Article III

### Deliverables

Section 3.01. Deliverables. All deliverables shall be provided in accordance with the Exhibit A, Statement of Work.

## Article IV

### Payment

#### Section 4.01. Payment Terms.

In consideration for this Agreement and as NYSERDA's full payment for the costs of the performance of all Work, and in respect of all other direct and indirect costs, charges or expenses incurred in connection therewith, NYSERDA shall pay to the Contractor amounts not to exceed the maximum amount set forth in Item 5, Page One of this Agreement. Subject to the provisions and restrictions contained herein, including, without limitation, the Prompt Payment Policy Statement attached hereto as Exhibit D, payment will be made according to the Milestone Billing Events set forth in Exhibit A, Statement of Work. NYSERDA is not obligated to make any payments beyond the Expiration Date of this contract. Any funding balances will be disencumbered at that time, unless NYSERDA, in its sole discretion, elects to extend the Expiration Date. Any changes to expiration dates will be effective only if in writing.

#### Section 4.02. Payments

(a) Invoicing: Subject to any applicable provisions set forth in Exhibit A, Statement of Work, at the completion of each Milestone Event, for projects not managed through NYSERDA's Salesforce application, the Contractor shall submit invoices electronically to NYSERDA's online invoice system at: <https://services.nyserdera.ny.gov/Invoices/>. For projects managed through NYSERDA's Salesforce application, the Contractor shall submit the identified deliverables, including documentation reasonably sufficient to demonstrate completion and evidence of the Contractor's cost share, if applicable, and may request payment by NYSERDA of the amounts corresponding to the amounts indicated in Exhibit A, Statement of Work. The agreement number shown as Item 1 on page 1 of this Agreement, as well as the purchase order number, which will be generated and provided to the Contractor upon contract execution, should be referenced when submitting documentation of deliverables. Documentation shall be submitted electronically via email to the assigned Project Manager along with a statement "I hereby request that upon NYSERDA's approval of these deliverable(s), payment of the corresponding milestone payment amount be made in accordance with NYSERDA's Prompt Payment Policy, as detailed in the NYSERDA agreement" or, if this project is managed through NYSERDA's Salesforce application, via NYSERDA's Salesforce Contractor Portal with the Contractor's log-in credentials.

Section 4.03. Final Payment. Upon final acceptance by NYSERDA of all deliverables contained in Exhibit A, Statement of Work, pursuant to Section 6.02 hereof, the Contractor shall submit an invoice for final payment with respect to the Work, together with such supporting information and documentation as, and in such form as, NYSERDA may require. All invoices for final payment hereunder must, under any and all circumstances, be received by NYSERDA prior to the Expiration Date of the contract. In accordance with and subject to the provisions of NYSERDA's Prompt Payment Policy Statement, attached hereto as Exhibit D, NYSERDA shall pay to the Contractor within the prescribed time after receipt of such invoice for final payment, the total amount payable pursuant to Section 4.01 hereof, less all progress payments/milestone payments previously made to the Contractor with respect thereto and subject to the maximum commitment set forth in Section 4.06 hereof.

Section 4.04. Release by the Contractor. The acceptance by the Contractor of final payment shall release NYSERDA from all claims and liability that the Contractor, its representatives and assigns might otherwise have relating to this Agreement.

Section 4.05. Maintenance of Records. The Contractor shall keep, maintain, and preserve at its principal office throughout the term of the Agreement and for a period of three years after acceptance of the Work, full and detailed books, accounts, and records pertaining to this Agreement, including without limitation, all data, bills, invoices, payrolls, time records,

expense reports, subcontracting efforts and other documentation evidencing, or in any material way related to, Contractor's performance under this Agreement.

Section 4.06. Maximum Commitment. The maximum aggregate amount payable by NYSERDA to the Contractor shall be the amount appearing at Item 5 of page one of this Agreement. NYSERDA shall not be liable for any costs or expenses in excess of such amount incurred by the Contractor in the performance and completion of the Work.

Section 4.07. Audit. NYSERDA shall have the right from time to time and at all reasonable times during the term of this Agreement and for the maintenance period set forth in Section 4.05 hereof to inspect and audit any and all books, accounts and records related to this Agreement or reasonably necessary to the performance of an audit at the office or offices of the Contractor where they are then being kept, maintained and preserved pursuant to Section 4.05 hereof. Any payment made under the Agreement shall be subject to retroactive reduction for amounts included therein which are found by NYSERDA on the basis of any audit of the Contractor by NYSERDA, the State of New York or an agency of the United States not to constitute an allowable charge or cost hereunder.

## Article V

### Assignments, Subcontracts and Performance

Section 5.01. General Restrictions. Except as specifically provided otherwise in this Article, the assignment, transfer, conveyance, subcontracting or other disposal of this Agreement or any of the Contractor's rights, obligations, interests or responsibilities hereunder, in whole or in part, without the express consent in writing of NYSERDA shall be void and of no effect as to NYSERDA.

Section 5.02. Subcontract Procedures. Without relieving it of, or in any way limiting, its obligations to NYSERDA under this Agreement, the Contractor may enter into Subcontracts for the performance of Work or for the purchase of materials or equipment. Prior to beginning any Work, Contractor shall notify the NYSERDA Project Manager of all subcontractors performing work under the Agreement, as well as all changes in subcontractors throughout the term of the Agreement. Except for a subcontractor or supplier specified in a team arrangement with the Contractor in the Contractor's original proposal, and except for any subcontract or order for equipment, supplies or materials from a single subcontractor or supplier totaling less than \$50,000, the Contractor shall select all subcontractors or suppliers through a process of competitive bidding or multi-source price review. A team arrangement is one where a subcontractor or supplier specified in the Contractor's proposal is performing a substantial portion of the Work and is making a substantial contribution to the management and/or design of the Project. In the event that a competitive bidding or multi-source price review is not feasible, the Contractor shall document an explanation for, and justification of, a sole source selection. The Contractor shall document the process by which a subcontractor or supplier is selected by making a record summarizing the nature and scope of the work, equipment, supplies or materials sought, the name of each person or organization submitting, or requested to submit, a bid or proposal, the price or fee bid, and the basis for selection of the subcontractor or supplier. An explanation for, and justification of, a sole source selection must identify why the work, equipment, supplies or materials involved are obtainable from or require a subcontractor with unique or exceptionally scarce qualifications or experience, specialized equipment, or facilities not readily available from other sources, or patents, copyrights, or proprietary data. All Subcontracts shall contain provisions comparable to those set forth in this Agreement applicable to a subcontractor or supplier, and those set forth in Exhibit C to the extent required by law, and all other provisions now or hereafter required by law to be contained therein. Each Subcontract

shall make express reference to this Agreement, and shall state that in the event of any conflict or inconsistency between any Subcontract and this Agreement, the terms and conditions of this Agreement shall control as between Subcontractor and Contractor. For each Subcontract valued at \$100,000 or more, the Contractor shall obtain and maintain, pursuant to Section 4.05, a completed Vendor Assurance of No Conflict of Interest or Detrimental Effect form from such Subcontractor prior to the execution of the Subcontract. Such form shall be made available to the Contractor by NYSERDA. Each such Subcontract shall contain a provision whereby the Subcontractor warrants and guarantees that there is and shall be no actual or potential conflict of interest that could prevent the Subcontractor's satisfactory or ethical performance of duties required to be performed pursuant to the terms of the Subcontract and that the Subcontractor shall have a duty to notify NYSERDA immediately of any actual or potential conflicts of interest. If this Agreement includes a provision requiring Contractor to make Payments to NYSERDA for the Sale or Licensing of a Product, each Subcontract shall include the provisions of Section 8.02, suitably modified to identify the parties. The Contractor shall submit to NYSERDA's Contract Administrator for review and written approval any subcontract(s) specified in the Statement of Work as requiring NYSERDA approval, including any replacements thereof.

Section 5.03. Performance. The Contractor shall promptly and diligently comply with its obligations under each Subcontract and shall take no action that would impair its rights thereunder. The Contractor shall take no action, and shall take all reasonable steps to prevent its Subcontractors from taking any action, that would impair NYSERDA's rights under this Agreement. The Contractor shall not assign, cancel or terminate any Subcontract without the prior written approval of NYSERDA's Contract Administrator as long as this Agreement remains in effect. Such approval shall not be unreasonably withheld and, in the event that notice of approval or disapproval is not received by the Contractor within thirty days after receipt of request for approval by NYSERDA, the requested assignment, cancellation, or termination of the Subcontract shall be considered approved by NYSERDA. In the event that NYSERDA requires additional time for considering approval, NYSERDA shall notify the Contractor within thirty (30) days of receipt of the request for approval that additional time is required and shall specify the additional amount of time necessary up to sixty (60) days.

## Article VI

### Schedule; Acceptance of Work

Section 6.01. Schedule. The Work shall be performed as expeditiously as possible in conformity with the schedule requirements contained herein and in the Statement of Work. The draft and final versions of all deliverables shall be submitted by the dates specified in the Exhibit A Schedule. It is understood and agreed that the delivery of the draft and final versions of such deliverables by the Contractor shall occur in a timely manner and in accordance with the requirements of the Exhibit A Schedule and Project Period noted in Item No. 7 of this Agreement.

Section 6.02. Acceptance of Work. The completion of the Work shall be subject to acceptance by NYSERDA in writing of all deliverables as defined in Exhibit A, Statement of Work. Where the specified deliverable is in the form of report, acceptance of such report is contingent on Contractor complying with all its obligations set forth in the corresponding task and that the report be complete, and sufficiently and accurately described.

## Article VII

### Force Majeure

Section 7.01. Force Majeure. Neither party hereto shall be liable for any failure or delay in the performance of its respective obligations hereunder if and to the extent that such delay or failure is due to a cause or circumstance beyond the reasonable control of such party, including, without limitation, acts of God or the public enemy, expropriation or confiscation of land or facilities, compliance with any law, order or request of any Federal, State, municipal or local governmental authority, acts of war, rebellion or sabotage or damage resulting therefrom, fires, floods, storms, explosions, accidents, riots, strikes, or the delay or failure to perform by any Subcontractor by reason of any cause or circumstance beyond the reasonable control of such Subcontractor.

## Article VIII

### Rights in Information; Confidentiality

#### Section 8.01. Rights in Contract and Proprietary Information; Confidentiality.

(a) NYSERDA shall have the right to use, duplicate, or disclose Contract Information, in whole or in part, in any manner and for any purpose whatsoever, and to permit others to do so.

(b) The Contractor shall have the right to use Contract Information for its private purposes, subject to the provisions of this Agreement.

(c) NYSERDA shall have no rights to any Proprietary Information.

(d) No information shall be treated by NYSERDA as confidential unless such information is clearly so marked by Contractor at the time it is disclosed to NYSERDA; see Exhibit C regarding NYSERDA's obligations under the Freedom of Information Law. Under no circumstances shall any information included in the Final Report delivered by Contractor pursuant to Exhibit A, Statement of Work, be considered confidential or Proprietary Information.

(e) The Contractor agrees that to the extent it receives or is given any information from NYSERDA or a NYSERDA contractor or subcontractor, the Contractor shall treat such data in accordance with any restrictive legend contained thereon or instructions given by NYSERDA, unless another use is specifically authorized by prior written approval of the NYSERDA Project Manager. Contractor acknowledges that in the performance of the Work under this Agreement, Contractor may come into possession of personal information as that term is defined in Section 92 of the New York State Public Officers Law. Contractor agrees not to disclose any such information without the consent of NYSERDA.

(f) In conjunction with Contractor's performance of the Project, NYSERDA or other entities may furnish Contractor with information concerning the Work that is collected and stored by, or on behalf of, NYSERDA (the "Information"). The Contractor must follow the policies and procedures outlined in the [New York State Information Classification Policy \(NYS-S14-002\)](https://its.ny.gov/document/information-classification-standard) (<https://its.ny.gov/document/information-classification-standard>) and the [New York State Information Security Controls Standard](https://its.ny.gov/document/information-security-controls-standard) (<https://its.ny.gov/document/information-security-controls-standard>).

Any non-public, confidential, or proprietary Information will be kept confidential and will not, without NYSERDA's prior written consent, be disclosed by Contractor, Contractor's agents, employees, contractors or professional advisors, in any manner whatsoever, in whole or in part, and will not be used by Contractor, Contractor's agents, employees, contractors or professional advisors other than in connection with the Work. Contractor agrees to transmit the Information only to Contractor's agents, employees, contractors and professional advisors who need to know

the Information for that purpose and who are informed by Contractor of the confidential nature of the Information and who will agree in writing to be bound by the terms and conditions of this Agreement.

The NYS Office of Information Technology Services (ITS) establishes and regularly updates policies, standards, and guidelines for technology and information security (collectively referred to as “ITS Security Policies”) for State Entities, including NYSERDA. Contractor shall conform to the requirements of ITS Security Policies when conducting work on behalf of NYSERDA including, but not limited to, application development, web development, hosting, or managing NYSERDA’s sensitive data are required to comply with the NYS requirements. These requirements include, but are not limited to, the NYS Information Security Policy NYS-P03-002 which sets forth the minimum requirements, responsibilities, and accepted behaviors to establish and maintain a secure environment and achieve the State's information security objectives. In addition to this umbrella policy, the following standards establish specific minimum information security requirements:

- [Vulnerability Scanning Standard \(NYS-S15-002\)](#)
- [Security Logging Standard \(NYS-S14-005\)](#)
- [Patch Management Standard \(NYS-S15-001\)](#)
- [Encryption Standard \(NYS-S14-007\)](#)

A complete list of ITS Security Policies is available at: <https://its.ny.gov/tables/technologypolicyindex>.

Contractor shall notify NYSERDA’s Information Security Officer immediately upon discovery or notification of any security breaches or vulnerabilities:

- [information.security@nyserda.ny.gov](mailto:information.security@nyserda.ny.gov)
- (518) 862-1090 x3486

Contractor will keep a record of the location of the Information. At the conclusion of the Project Period, Contractor will return to NYSERDA all the Information and/or provide proof to NYSERDA that the Information was destroyed. Contractor also agrees to submit to an audit of its data security/destruction practices by NYSERDA or its representative during the contract term and for up to two (2) years following the expiration of the Agreement.

Additional information on the above can be found on the Doing Business with NYSERDA webpage at <https://www.nyserda.ny.gov/About/Doing-Business-with-NYSERDA>, as amended and superseded.

(g) If, in the course of performance of the Agreement, Contractor or Subcontractors (if any) encounter any information in NYSERDA’s Salesforce or other database platforms that a reasonable person would identify as unrelated to the Agreement or otherwise inadvertently produced to Contractor or Subcontractors, Contractor shall notify NYSERDA immediately and neither Contractor nor Subcontractor shall use such inadvertently produced information for its own use. Any Contractor access to NYSERDA information shall be used solely for NYSERDA-related matters. This shall include, but not be limited to, access to the Salesforce CRM.

## Article IX

### Warranties and Guarantees

Section 9.01. Warranties and Guarantees. The Contractor warrants and guarantees that:

(a) all information provided and all representations made by Contractor as a part of the Proposal Checklist or application, if any, submitted to NYSERDA in order to obtain this Agreement were, to the best of Contractor's knowledge, complete, true and accurate when provided or made;

(b) as of the Effective Date, it is financially and technically qualified to perform the Work, and is qualified to do business and is in good standing in all jurisdictions necessary for Contractor to perform its obligations under this Agreement;

(c) it is familiar with and will comply with all general and special Federal, State, municipal and local laws, ordinances and regulations, and New York State Executive Orders in effect during the contract term, if any, that may in any way affect the performance of this Agreement;

(d) the design, supervision and workmanship furnished with respect to performance of the Work shall be in accordance with sound and currently accepted scientific standards and engineering practices;

(e) all materials, equipment and workmanship furnished by it and by Subcontractors in performance of the Work or any portion thereof shall be free of defects in design, material and workmanship, and all such materials and equipment shall be of first-class quality, shall conform with all applicable codes, specifications, standards and ordinances and shall have service lives and maintenance characteristics suitable for their intended purposes in accordance with sound and currently accepted scientific standards and engineering practices;

(f) neither the Contractor nor any of its employees, agents, representatives or servants has actual knowledge of any patent issued under the laws of the United States or any other matter which could constitute a basis for any claim that the performance of the Work or any part thereof infringes any patent or otherwise interferes with any other right of any Person;

(g) to the best of Contractor's knowledge, there are no existing undisclosed or threatened legal actions, claims, or encumbrances, or liabilities that may adversely affect the Work or NYSERDA's rights hereunder;

(h) it has no actual knowledge that any information or document or statement furnished by the Contractor in connection with this Agreement contains any untrue statement of a material fact or omits to state a material fact necessary to make the statement not misleading, and that all facts have been disclosed that would materially adversely affect the Work;

(i) all information provided to NYSERDA with respect to State Finance Law Sections 139-j and 139-k is complete, true and accurate;

(j) Contractor is familiar with and will comply with NYSERDA's *Code of Conduct for Contractors, Consultants, and Vendors* with respect to the performance of this Agreement, including, but not limited to, the provisions that ensure the appropriate use of public funds by requiring Contractors, Consultants and Vendors to refrain from policy advocacy on behalf of NYSERDA unless explicitly authorized, and in the manner described, under the terms of their Agreement; and to refrain from providing advocacy positions or opinions of their own that could be construed as those of NYSERDA (<http://www.nyserda.ny.gov/-/media/Files/About/Board-Governance/NYSERDA-Code-of-Conduct-Contractors.pdf>); and



(k) its rates for the indirect costs charged herein have been determined based on the Contractor's reasonably anticipated indirect costs during the term of the Agreement and calculated consistent with generally accepted accounting principles.

(l) Contractor shall at all times during the Agreement term remain Responsible, and Contractor agrees, if requested by NYSERDA, to present evidence of its continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

(m) Contractor represents that there is and shall be no actual or potential conflict of interest that could prevent the Contractor's satisfactory or ethical performance of duties required to be performed pursuant to the terms of this Agreement. The Contractor shall have a duty to notify NYSERDA immediately of any actual or potential conflicts of interest.

## Article X

### Indemnification

Section 10.01. Indemnification. The Contractor shall protect, indemnify and hold harmless NYSERDA and the State of New York from and against all liabilities, losses, claims, damages, judgments, penalties, causes of action, costs and expenses (including, without limitation, attorneys' fees and expenses) imposed upon or incurred by or asserted against NYSERDA or the State of New York resulting from, arising out of or relating to Contractor's or its Subcontractors' performance of this Agreement. The obligations of the Contractor under this Article shall survive any expiration or termination of this Agreement, and shall not be limited by any enumeration herein of required insurance coverage.

## Article XI

### Insurance

Section 11.01. Maintenance of Insurance; Policy Provisions. The Contractor, at no additional direct cost to NYSERDA, shall maintain or cause to be maintained throughout the term of this Agreement, insurance of the types and in the amounts specified in the Section hereof entitled Types of Insurance. All such insurance shall be evidenced by insurance policies, each of which shall:

(a) except policies in evidence of insurance required under Section 11.02(b), name or be endorsed to cover NYSERDA and the State of New York as additional insureds;

(b) provide that such policy may not be cancelled or modified until at least 30 days after receipt by NYSERDA of written notice thereof; and

(c) be reasonably satisfactory to NYSERDA in all other respects.

Section 11.02. Types of Insurance. The types and amounts of insurance required to be maintained under this Article are as follows:

(a) Commercial general liability insurance for bodily injury liability, including death, and property damage liability, incurred in connection with the performance of this Agreement, with minimum limits of \$1,000,000 in respect of claims arising out of personal injury or sickness or death of any one person, \$1,000,000 in respect of claims arising out of personal injury,

sickness or death in any one accident or disaster, and \$1,000,000 in respect of claims arising out of property damage in any one accident or disaster; and

(b) Workers Compensation, Employers Liability, and Disability Benefits as required by New York State.

Section 11.03. Delivery of Policies; Insurance Certificates. Prior to commencing the Work, the Contractor shall deliver to NYSERDA certificates of insurance issued by the respective insurers, indicating the Agreement number thereon, evidencing the insurance required by Article XI hereof.

In the event any policy furnished or carried pursuant to this Article will expire on a date prior to acceptance of the Work by NYSERDA pursuant to the section hereof entitled Acceptance of Work, the Contractor, not less than 15 days prior to such expiration date, shall deliver to NYSERDA certificates of insurance evidencing the renewal of such policies, and the Contractor shall promptly pay all premiums thereon due. In the event of threatened legal action, claims, encumbrances, or liabilities that may affect NYSERDA hereunder, or if deemed necessary by NYSERDA due to events rendering a review necessary, upon request the Contractor shall deliver to NYSERDA a certified copy of each policy.

## Article XII

### Stop Work Order; Termination; Non-Responsibility

#### Section 12.01. Stop Work Order.

(a) NYSERDA may at any time, by written Order to the Contractor, require the Contractor to stop all or any part of the Work called for by this Agreement for a period of up to ninety (90) days after the Stop Work Order is delivered to the Contractor, and for any further period to which the parties may agree. Any such order shall be specifically identified as a Stop Work Order issued pursuant to this Section. Upon receipt of such an Order, the Contractor shall forthwith comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the Work covered by the Order during the period of work stoppage consistent with public health and safety. Within a period of ninety (90) days after a Stop Work Order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, NYSERDA shall either:

- (i) by written notice to the Contractor, cancel the Stop Work Order, which shall be effective as provided in such cancellation notice, or if not specified therein, upon receipt by the Contractor, or
- (ii) terminate the Work covered by such order as provided in the Termination Section of this Agreement.

(b) If a Stop Work Order issued under this Section is cancelled or the period of the Order or any extension thereof expires, the Contractor shall resume Work. An equitable adjustment shall be made in the delivery schedule, the estimated cost, the fee, if any, or a combination thereof, and in any other provisions of the Agreement that may be affected, and the Agreement shall be modified in writing accordingly, if:

- (i) the Stop Work Order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this Agreement, and

(ii) the Contractor asserts a claim for such adjustments within 30 days after the end of the period of Work stoppage; provided that, if NYSERDA decides the facts justify such action, NYSERDA may receive and act upon any such claim asserted at any time prior to final payment under this Agreement.

(c) If a Stop Work Order is not cancelled and the Work covered by such Order is terminated, the reasonable costs resulting from the Stop Work Order shall be allowed by equitable adjustment or otherwise.

(d) Notwithstanding the provisions of this Section 12.01, the maximum amount payable by NYSERDA to the Contractor pursuant to this Section 12.01 shall not be increased or deemed to be increased except by specific written amendment hereto.

#### Section 12.02. Termination.

(a) This Agreement may be terminated by NYSERDA at any time during the term of this Agreement with or without cause, upon ten (10) days prior written notice to the Contractor. In such event, payment shall be paid to the Contractor for Work performed and expenses incurred prior to the effective date of termination in accordance with the provisions of the Article hereof entitled Payment and in reimbursement of any amounts required to be paid by the Contractor pursuant to Subcontracts; provided, however, that upon receipt of any such notice of termination, the Contractor shall cease the performance of Work, shall make no further commitments with respect thereto and shall reduce insofar as possible the amount of outstanding commitments (including, to the extent requested by NYSERDA, through termination of subcontracts containing provisions therefore). Articles VIII, IX, and X shall survive any termination of this Agreement, and Article XVII shall survive until the payment obligations pursuant to Article VIII have been met.

(b) NYSERDA specifically reserves the right to terminate this agreement upon its determination of excessive project schedule lapses or delays. NYSERDA also reserves the right to deny schedule extensions for project completion beyond those to which the parties agreed upon the initial execution of the agreement.

(c) NYSERDA specifically reserves the right to terminate this agreement in the event that the certification filed by the Contractor in accordance with State Finance Law Sections 139-j and 139-k is found to have been intentionally false or intentionally incomplete, or that the certification filed by the Contractor in accordance with New York State Tax Law Section 5-a is found to have been intentionally false when made. Terminations under this subsection (c) will be effective upon Notice.

(d) Nothing in this Article shall preclude the Contractor from continuing to carry out the Work called for by the Agreement after receipt of a Stop Work Order or termination notice at its own election, provided that, if the Contractor so elects: (i) any such continuing Work after receipt of the Stop Work Order or termination notice shall be deemed not to be Work pursuant to the Agreement, and (ii) NYSERDA shall have no liability to the Contractor for any costs of the Work continuing after receipt of the Stop Work Order or termination notice.

#### Section 12.03 Suspension or Termination for Non-Responsibility.

(a) Suspension. NYSERDA, in its sole discretion, reserves the right to suspend any or all activities under this Agreement, at any time, when it discovers information that calls into question the Responsibility of the Contractor. In the event of such suspension, the Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such

notice, the Contractor must comply with the terms of the suspension order. Contract activity may resume at such time as NYSERDA issues a written notice authorizing a resumption of performance under the Contract.

(b) Termination. Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate NYSERDA officials or staff, this Agreement may be terminated by NYSERDA at the Contractor's expense where the Contractor is determined by NYSERDA to be non-Responsible. In such event, NYSERDA may complete the contractual requirements in any manner it may deem advisable and pursue available legal or equitable remedies for breach.

## Article XIII

### Independent Contractor

#### Section 13.01. Independent Contractor.

(a) The status of the Contractor under this Agreement shall be that of an independent contractor and not that of an agent, and in accordance with such status, the Contractor, the Subcontractors, and their respective officers, agents, employees, representatives and servants, including the Project Director, shall at all times during the term of this Agreement conduct themselves in a manner consistent with such status and by reason of this Agreement shall neither hold themselves out as, nor claim to be acting in the capacity of, officers, employees, agents, representatives or servants of NYSERDA nor make any claim, demand or application for any right or privilege applicable to NYSERDA, including, without limitation, vicarious liability, professional liability coverage or indemnification, rights or privileges derived from workers' compensation coverage, unemployment insurance benefits, social security coverage and retirement membership or credit. It is understood and agreed that the personnel furnished by Contractor to perform the Work shall be Contractor's employee(s) or agent(s), and under no circumstances are such employee(s) to be considered NYSERDA's employee(s) or agent(s), and shall remain the employees of Contractor, except to the extent required by section 414(n) of the Internal Revenue Code.

(b) Contractor expressly acknowledges NYSERDA's need to be advised, on an immediate basis, of the existence of any claim or event that might result in a claim or claims against NYSERDA, Contractor and/or Contractor's personnel by virtue of any act or omission on the part of NYSERDA or its employees. Accordingly, Contractor expressly covenants and agrees to notify NYSERDA of any such claim or event, including but not limited to, requests for accommodation and allegations of harassment and/or discrimination, immediately upon contractor's discovery of the same, and to fully and honestly cooperate with NYSERDA in its efforts to investigate and/or address such claims or events, including but not limited to, complying with any reasonable request by NYSERDA for disclosure of information concerning such claim or event even in the event that this Agreement should terminate for any reason.

## Article XIV

### Compliance with Certain Laws

Section 14.01. Laws of the State of New York. The Contractor shall comply with all of the requirements set forth in Exhibit C hereto.

Section 14.02. All Legal Provisions Deemed Included. It is the intent and understanding of the Contractor and NYSERDA that each and every provision of law required by the laws of the

State of New York to be contained in this Agreement shall be contained herein, and if, through mistake, oversight or otherwise, any such provision is not contained herein, or is not contained herein in correct form, this Agreement shall, upon the application of either NYSERDA or the Contractor, promptly be amended so as to comply strictly with the laws of the State of New York with respect to the inclusion in this Agreement of all such provisions.

Section 14.03. Other Legal Requirements. The references to particular laws of the State of New York in this Article, in Exhibit C and elsewhere in this Agreement are not intended to be exclusive and nothing contained in such Article, Exhibit and Agreement shall be deemed to modify the obligations of the Contractor to comply with all legal requirements.

Section 14.04. Sexual Harassment Policy. The Contractor and all Subcontractors must have a written sexual harassment prevention policy addressing sexual harassment in the workplace and must provide annual sexual harassment training to all employees.

## Article XV

### Notices, Entire Agreement, Amendment, Counterparts

#### Section 15.01. Notices.

(a) All notices, requests, consents, approvals and other communications which may or are required to be given by either party to the other under this Agreement shall be in writing and shall be transmitted either:

1. via certified or registered United States mail, return receipt requested;
2. by facsimile transmission;
3. by personal delivery;
4. by expedited delivery service; or
5. by e-mail, return receipt requested.

Such notices shall be addressed as follows, or to such different addresses as the parties may from time-to-time designate as set forth in paragraph (c) below:

#### NYSERDA

Name: Wendy M. MacPherson

Title: Director of Contract Management

Address: 17 Columbia Circle, Albany, New York 12203

Facsimile Number: (518) 862-1091

E-Mail Address: Wendy.MacPherson@nyserda.ny.gov

Personal Delivery: Reception desk at the above address

#### CHA Consulting Inc.

Name: Mitchell DeWein

Title: Energy & Renewable Team Leader

Address: 3 Winners Circle, Albany, NY, 12205

Facsimile Number:

E-Mail Address: [mdewein@chacompanies.com](mailto:mdewein@chacompanies.com)

(b) Any such notice shall be deemed to have been given either at the time of personal delivery or, in the case of expedited delivery service or certified or registered United States mail, as of the date of first attempted delivery at the address and in the manner provided herein, or in the case of facsimile transmission or email, upon receipt.

(c) The parties may, from time to time, specify any new or different address in the United States as their address for purpose of receiving notice under this Agreement by giving fifteen (15) days written notice to the other party sent in accordance herewith. The parties agree to mutually designate individuals as their respective representatives for the purposes of receiving notices under this Agreement. Additional individuals may be designated in writing by the parties for purposes of implementation and administration/billing, resolving issues and problems and/or for dispute resolution.

Section 15.02. Entire Agreement; Amendment. This Agreement embodies the entire agreement and understanding between NYSERDA and the Contractor and supersedes all prior agreements and understandings relating to the subject matter hereof. Except for no-cost time extensions, which may be signed by NYSERDA and require no counter-signature by the Contractor, and except as otherwise expressly provided for herein, this Agreement may be changed, waived, discharged or terminated only by an instrument in writing, signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

Section 15.03. Counterparts. This Agreement may be executed in counterparts each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument.

## Article XVI

### Publicity

#### Section 16.01. Publicity.

(a) The Contractor shall collaborate with NYSERDA's Communications Department to prepare any press release and to plan for any news conference concerning the Work. In addition the Contractor shall notify NYSERDA's Communications Department regarding any media interview in which the Work is referred to or discussed.

(b) It is recognized that during the course of the Work under this Agreement, the Contractor or its employees may from time to time desire to publish information regarding scientific or technical developments made or conceived in the course of or under this Agreement. In any such information, the Contractor shall credit NYSERDA's funding participation in the Project, and shall state that "NYSERDA has not reviewed the information contained herein, and the opinions expressed in this report do not necessarily reflect those of NYSERDA or the State of New York." Notwithstanding anything to the contrary contained herein, the Contractor shall have the right to use and freely disseminate project results for educational purposes, if applicable, consistent with the Contractor's policies.

(c) Commercial promotional materials or advertisements produced by the Contractor shall credit NYSERDA, as stated above, and shall be submitted to NYSERDA for review and recommendations to improve their effectiveness prior to use. The wording of such credit can be approved in advance by NYSERDA, and, after initial approval, such credit may be used in subsequent promotional materials or advertisements without additional approvals for the credit, provided, however, that all such promotional materials or advertisements shall be submitted to NYSERDA prior to use for review, as stated above. Such approvals shall not be unreasonably withheld, and, in the event that notice of approval or disapproval is not received by the Contractor within thirty days after receipt of request for approval, the promotional materials or advertisement shall be considered approved. In the event that NYSERDA requires additional time for considering approval, NYSERDA shall notify the Contractor within thirty days of receipt of the request for approval that additional time is required and shall specify the additional amount of

time necessary up to 180 days. If NYSERDA and the Contractor do not agree on the wording of such credit in connection with such materials, the Contractor may use such materials, but agrees not to include such credit.



## EXHIBIT C

REVISED 12/19

### STANDARD TERMS AND CONDITIONS FOR ALL NYSERDA AGREEMENTS

(Based on Standard Clauses for New York State Contracts and Tax Law Section 5-a)

The parties to the Agreement agree to be bound by the following clauses which are hereby made a part of the Agreement to the extent applicable:

1. NON-DISCRIMINATION REQUIREMENTS. To the extent required by Article 15 of the Executive Law (also known as the Human Rights Law) and all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin, sexual orientation, age, disability, genetic predisposition or carrier status, or marital status. Furthermore, in accordance with Section 220-e of the Labor Law, if this is an Agreement for the construction, alteration or repair of any public building or public work or for the manufacture, sale or distribution of materials, equipment or supplies, and to the extent that this Agreement shall be performed within the State of New York, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, disability, sex or national origin: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this Agreement. If this is a building service Agreement as defined in Section 230 of the Labor Law, then, in accordance with Section 239 thereof, Contractor agrees that neither it nor its subcontractors shall, by reason of race, creed, color, national origin, age, sex or disability: (a) discriminate in hiring against any New York State citizen who is qualified and available to perform the work; or (b) discriminate against or intimidate any employee hired for the performance of work under this contract. Contractor is subject to fines of \$50.00 per person per day for any violation of Section 220-e or Section 239 as well as possible termination of this Agreement and forfeiture of all moneys due hereunder for a second subsequent violation.

2. WAGE AND HOURS PROVISIONS. If this is a public work Agreement covered by Article 8 of the Labor Law or a building service Agreement covered by Article 9 thereof, neither Contractor's employees nor the employees of its subcontractors may be required or permitted to work more than the number of hours or days stated in said statutes, except as otherwise provided in the Labor Law and as set forth in prevailing wage and supplement schedules issued by the State Labor Department. Furthermore, Contractor and its subcontractors must pay at least the prevailing wage rate and pay or provide the prevailing supplements, including the premium rates for overtime pay, as determined by the State Labor Department in accordance with the Labor Law. Additionally, effective April 28, 2008, if this is a public work contract covered by Article 8 of the Labor Law, the Contractor understands and agrees that the filing of payrolls in a manner consistent with Subdivision 3-a of Section 220 of the Labor Law shall be a condition precedent to payment by NYSERDA of any NYSERDA-approved sums due and owing for work done upon the project.

3. NON-COLLUSIVE BIDDING REQUIREMENT. In accordance with Section 2878 of the Public Authorities Law, if this Agreement was awarded based upon the submission of bids, Contractor warrants, under penalty of perjury, that its bid was arrived at independently and without collusion aimed at restricting competition. Contractor further warrants that, at the time Contractor submitted its bid, an authorized and responsible person executed and delivered to NYSERDA a non-collusive bidding certification on Contractor's behalf.

4. INTERNATIONAL BOYCOTT PROHIBITION. If this Agreement exceeds \$5,000, the Contractor agrees, as a material condition of the Agreement, that neither the Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. Sections 2401 et seq.) or regulations thereunder. If such Contractor, or any of the aforesaid affiliates of Contractor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to the Agreement's execution, such Agreement, amendment or modification thereto shall be rendered forfeit and void. The Contractor shall so notify NYSERDA within five (5) business days of such conviction, determination or disposition of appeal. (See and compare Section 220-f of the Labor Law, Section 139-h of the State Finance Law, and 2 NYCRR 105.4).

5. SET-OFF RIGHTS. NYSERDA shall have all of its common law and statutory rights of set-off. These rights shall include, but not be limited to, NYSERDA's option to withhold for the purposes of set-off any moneys due to the Contractor under this Agreement up to any amounts due and owing to NYSERDA with regard to this Agreement, any other Agreement, including any Agreement for a term commencing prior to the term of this Agreement, plus any amounts due and owing to NYSERDA for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto.

6. PROPRIETARY INFORMATION. Notwithstanding any provisions to the contrary in the Agreement, Contractor and NYSERDA acknowledge and agree that all information, in any format, submitted to NYSERDA shall be subject to and treated in accordance with the NYS Freedom of Information Law ("FOIL," Public Officers Law, Article 6). Pursuant to FOIL, NYSERDA is required to make available to the public, upon request, records or portions thereof which it possesses, unless that information is statutorily exempt from disclosure. Therefore, unless the Agreement specifically requires otherwise, Contractor should submit information to NYSERDA in a non-confidential, non-proprietary format. FOIL does provide that NYSERDA may deny access to 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." [See Public Officers Law, § 87(2)(d)]. Accordingly, if the Agreement specifically requires submission of information in a format Contractor considers a proprietary and/or confidential trade secret, Contractor shall fully identify and plainly label the information "confidential" or "proprietary" at the time of disclosure. By so marking such information, Contractor represents that the information has actual or potential specific commercial or competitive value to the competitors of Contractor. Without limitation, information will not be considered confidential or proprietary if it is or has been (i) generally known or available from other sources without obligation concerning its confidentiality; (ii) made available by the owner to others without obligation concerning its confidentiality; or (iii) already available to NYSERDA without obligation concerning its confidentiality. In the event of a FOIL request, it is NYSERDA's policy to consider records as marked above pursuant to the trade secret exemption procedure set forth in 21 New York Codes Rules & Regulations § 501.6 and any other applicable law or regulation. However, NYSERDA cannot guarantee the confidentiality of any information submitted. More information on FOIL, and the relevant statutory law and regulations, can be found at the website for the Committee on Open Government (<http://www.dos.ny.gov/about/foil2.html>) and NYSERDA's Regulations, Part 501 <http://www.nyserda.ny.gov/About/New-York-State-Regulations.aspx>

7. IDENTIFYING INFORMATION AND PRIVACY NOTIFICATION. (a) FEDERAL EMPLOYER IDENTIFICATION NUMBER and/or FEDERAL SOCIAL SECURITY NUMBER. As a condition to NYSERDA's obligation to pay any invoices submitted by Contractor pursuant to this Agreement, Contractor shall provide to NYSERDA its Federal employer identification number or Federal social security number, or both such numbers when the Contractor has both such numbers. Where the

Contractor does not have such number or numbers, the Contractor must give the reason or reasons why the payee does not have such number or numbers.

(b) PRIVACY NOTIFICATION. The authority to request the above personal information from a seller of goods or services or a lessor of real or personal property, and the authority to maintain such information, is found in Section 5 of the State Tax Law. Disclosure of this information by Contractor to the State is mandatory. The principal purpose for which the information is collected is to enable the State to identify individuals, businesses and others who have been delinquent in filing tax returns or may have understated their tax liabilities and to generally identify persons affected by the taxes administered by the Commissioner of Taxation and Finance. The information will be used for tax administration purposes and for any other purpose authorized by law.

8. CONFLICTING TERMS. In the event of a conflict between the terms of the Agreement (including any and all attachments thereto and amendments thereof) and the terms of this Exhibit C, the terms of this Exhibit C shall control.

9. GOVERNING LAW. This Agreement shall be governed by the laws of the State of New York except where the Federal supremacy clause requires otherwise.

10. NO ARBITRATION. Disputes involving this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration (except where statutorily required) without the NYSERDA's written consent, but must, instead, be heard in a court of competent jurisdiction of the State of New York.

11. SERVICE OF PROCESS. In addition to the methods of service allowed by the State Civil Practice Law and Rules ("CPLR"), Contractor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon Contractor's actual receipt of process or upon NYSERDA's receipt of the return thereof by the United States Postal Service as refused or undeliverable. Contractor must promptly notify NYSERDA, in writing, of each and every change of address to which service of process can be made. Service by NYSERDA to the last known address shall be sufficient. Contractor will have thirty (30) calendar days after service hereunder is complete in which to respond.

12. CRIMINAL ACTIVITY. If subsequent to the effectiveness of this Agreement, NYSERDA comes to know of any allegation previously unknown to it that the Contractor or any of its principals is under indictment for a felony, or has been, within five (5) years prior to submission of the Contractor's proposal to NYSERDA, convicted of a felony, under the laws of the United States or Territory of the United States, then NYSERDA may exercise its stop work right under this Agreement. If subsequent to the effectiveness of this Agreement, NYSERDA comes to know of the fact, previously unknown to it, that Contractor or any of its principals is under such indictment or has been so convicted, then NYSERDA may exercise its right to terminate this Agreement. If the Contractor knowingly withheld information about such an indictment or conviction, NYSERDA may declare the Agreement null and void and may seek legal remedies against the Contractor and its principals. The Contractor or its principals may also be subject to penalties for any violation of law which may apply in the particular circumstances. For a Contractor which is an association, partnership, corporation, or other organization, the provisions of this paragraph apply to any such indictment or conviction of the organization itself or any of its officers, partners, or directors or members of any similar governing body, as applicable.

13. PERMITS. It is the responsibility of the Contractor to acquire and maintain, at its own cost, any and all permits, licenses, easements, waivers and permissions of every nature necessary to perform the work.

14. PROHIBITION ON PURCHASE OF TROPICAL HARDWOODS. The Contractor certifies and warrants that all wood products to be used under this Agreement will be in accordance with, but not limited to, the specifications and provisions of State Finance Law Section 165 (Use of Tropical Hardwoods), which prohibits purchase and use of tropical hardwoods, unless specifically exempted by NYSERDA.

15. 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 contracts.

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

NYS Department of Economic Development  
Division for Small Business  
625 Broadway  
Albany, New York 12207  
Telephone: 518-292-5200  
Fax: 518-292-5884  
<http://www.esd.ny.gov>

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

NYS Department of Economic Development  
Division of Minority and Women's Business Development  
625 Broadway  
Albany, New York 12207  
Telephone: 518-292-5200  
Fax: 518-292-5803  
<http://www.empire.state.ny.us>

The Omnibus Procurement Act of 1992 requires that by signing this Agreement, Contractors certify that whenever the total amount is greater than \$1 million:

(a) The Contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and subcontractors, including certified minority and women-owned business enterprises, on this project, and has retained the documentation of these efforts to be provided upon request to the State;

(b) The Contractor has complied with the Federal Equal Opportunity Act of 1972 (P.L. 92-261), as amended;

(c) The Contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The Contractor agrees to document these efforts and to provide said documentation to the State upon request; and

(d) The Contractor acknowledges notice that the State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

16. RECIPROCITY AND SANCTIONS PROVISIONS. Bidders are hereby notified that if their principal place of business is located in a country, nation, province, state or political subdivision that penalizes New York State vendors, and if the goods or services they offer will be substantially produced

or performed outside New York State, the Omnibus Procurement Act 1994 and 2000 amendments (Chapter 684 and Chapter 383, respectively) require that they be denied contracts which they would otherwise obtain. NOTE: As of May 15, 2002, the list of discriminatory jurisdictions subject to this provision includes the states of South Carolina, Alaska, West Virginia, Wyoming, Louisiana and Hawaii. Contact NYS Department of Economic Development for a current list of jurisdictions subject to this provision.

17. COMPLIANCE WITH NEW YORK STATE INFORMATION SECURITY BREACH AND NOTIFICATION ACT. Contractor shall comply with the provisions of the New York State Information Security Breach and Notification Act (General Business Law Section 899-aa; State Technology Law Section 208).

18. PROCUREMENT LOBBYING. To the extent this Agreement is a “procurement contract” as defined by State Finance Law Sections 139-j and 139-k, by signing this Agreement the Contractor certifies and affirms that all disclosures made in accordance with State Finance Law Sections 139-j and 139-k are complete, true and accurate. In the event such certification is found to be intentionally false or intentionally incomplete, NYSERDA may terminate the agreement by providing written notification to the Contractor in accordance with the terms of the agreement.

19. COMPLIANCE WITH TAX LAW SECTION 5-a. The following provisions apply to Contractors that have entered into agreements in an amount exceeding \$100,000 for the purchase of goods and services:

- a) Before such agreement can take effect, the Contractor must have on file with the New York State Department of Taxation and Finance a Contractor Certification form (ST-220-TD).
- b) Prior to entering into such an agreement, the Contractor is required to provide NYSERDA with a completed Contractor Certification to Covered Agency form (Form ST-220-CA).
- c) Prior to any renewal period (if applicable) under the agreement, the Contractor is required to provide NYSERDA with a completed Form ST-220-CA.

Certifications referenced in paragraphs (b) and (c) above will be maintained by NYSERDA and made a part hereof and incorporated herein by reference.

NYSERDA reserves the right to terminate this agreement in the event it is found that the certification filed by the Contractor in accordance with Tax Law Section 5-a was false when made.

20. IRANIAN ENERGY SECTOR DIVESTMENT. In accordance with Section 2879-c of the Public Authorities Law, by signing this contract, each person and each person signing on behalf of any other party certifies, and in the case of a joint bid or partnership each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each person is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the State Finance Law (See <https://ogs.ny.gov/iran-divestment-act-2012>).

21. COMPLIANCE WITH NEW YORK STATE DIESEL EMISSION REDUCTION ACT (DERA) OF 2006. Contractor shall comply with and, if applicable to this Agreement, provide proof of compliance with the New York State Diesel Emission Reduction Act of 2006 (“DERA”), Environmental Conservation Law (ECL) Section 19-0323, and the NYS Department of Environmental Conservation (DEC) Law implementing regulations under 6 NYCRR Part 248, Use of Ultra Low Sulfur Diesel Fuel (ULSD) and Best Available Retrofit Technology (“BART”). Compliance includes, but is not limited to, the development of a heavy-duty diesel vehicle (HDDV), maintaining documentation associated with BART evaluations, submitting to and receiving DEC approval of a technology or useful-life waiver, and

maintaining records where BART-applicable vehicles are primarily located or garaged. DEC regulation under 6 NYCRR Part 248, Use of Ultra Low Sulfur Diesel and Best Available Technology for Heavy Duty Vehicles can be found at: <https://www.dec.ny.gov/regs/2492.html>.

22. ADMISSIBILITY OF REPRODUCTION OF CONTRACT. Notwithstanding the best evidence rule or any other legal principle or rule of evidence to the contrary, the Contractor acknowledges and agrees that it waives any and all objections to the admissibility into evidence at any court proceeding or to the use at any examination before trial of an electronic reproduction of this contract, regardless of whether the original of said contract is in existence.

## EXHIBIT D

### NYSERDA PROMPT PAYMENT POLICY STATEMENT

**504.1. Purpose and Applicability.** (a) The purpose of this Exhibit is to provide a description of Part 504 of NYSERDA's regulations, which consists of NYSERDA's policy for making payment promptly on amounts properly due and owing by NYSERDA under this Agreement. The section numbers used in this document correspond to the section numbers appearing in Part 504 of the regulations. (This is only a summary; the full text of Part 504 can be accessed at: (<http://www.nysesda.ny.gov/About/New-York-State-Regulations.aspx> ))

(b) This Exhibit applies generally to payments due and owing by the NYSERDA to the Contractor pursuant to this Agreement. However, this Exhibit does not apply to Payments due and owing when NYSERDA is exercising a Set-Off against all or part of the Payment, or if a State or Federal law, rule or regulation specifically requires otherwise.

**504.2. Definitions.** Capitalized terms not otherwise defined in this Exhibit shall have the same meaning as set forth earlier in this Agreement. In addition to said terms, the following terms shall have the following meanings, unless the context shall indicate another or different meaning or intent:

(a) "Date of Payment" means the date on which NYSERDA requisitions a check from its statutory fiscal agent, the Department of Taxation and Finance, to make a Payment.

(b) "Designated Payment Office" means the Office of NYSERDA's Controller, located at 17 Columbia Circle, Albany, New York 12203.

(c) "Payment" means payment properly due and owing to Contractor pursuant to Article IV, Exhibit B of this Agreement.

(d) "Prompt Payment" means a Payment within the time periods applicable pursuant to Sections 504.3 through 504.5 of this Exhibit in order for NYSERDA not to be liable for interest pursuant to Section 504.6.

(e) "Payment Due Date" means the date by which the Date of Payment must occur, in accordance with the provisions of Sections 504.3 through 504.5 of this Exhibit, in order for NYSERDA not to be liable for interest pursuant to Section 504.6.

(f) "Proper Invoice" means a written request for Payment that is submitted by a Contractor setting forth the description, price or cost, and quantity of goods, property or services delivered or rendered, in such form, and supported by such other substantiating documentation, as NYSERDA may reasonably require, including but not limited to any requirements set forth in Exhibits A or B to this Agreement; and addressed to NYSERDA's Controller, marked "Attention: Accounts Payable," at the Designated Payment Office.

(g)(1) "Receipt of an Invoice" means:

(i) if the Payment is one for which an invoice is required, the later of:

(a) the date on which a Proper Invoice is actually received in the Designated Payment Office during normal business hours; or

(b) the date by which, during normal business hours, NYSERDA has actually received all the purchased goods, property or services covered by a Proper Invoice



previously received in the Designated Payment Office.

(ii) if the Agreement provides that a Payment will be made on a specific date or at a predetermined interval, without having to submit a written invoice the 30th calendar day, excluding legal holidays, before the date so specified or predetermined.

(2) For purposes of this subdivision, if the Agreement requires a multifaceted, completed or working system, or delivery of no less than a specified quantity of goods, property or services and only a portion of such systems or less than the required goods, property or services are working, completed or delivered, even though the Contractor has invoiced NYSERDA for the portion working, completed or delivered, NYSERDA will not be in Receipt of an Invoice until the specified minimum amount of the systems, goods, property or services are working, completed or delivered.

(h) "Set-off" means the reduction by NYSERDA of a payment due a Contractor by an amount equal to the amount of an unpaid legally enforceable debt owed by the Contractor to NYSERDA.

**504.3. Prompt Payment Schedule.** Except as otherwise provided by law or regulation or in Sections 504.4 and 504.5 of this Exhibit, the Date of Payment by NYSERDA of an amount properly due and owing under this Agreement shall be no later than thirty (30) calendar days, excluding legal holidays, after Receipt of a Proper Invoice.

**504.4. Payment Procedures.**

(a) Unless otherwise specified in this Agreement, a Proper Invoice submitted by the Contractor to the Designated Payment Office shall be required to initiate payment for goods, property or services. As soon as any invoice is received in the Designated Payment Office during normal business hours, such invoice shall be date-stamped. The invoice shall then promptly be reviewed by NYSERDA.

(b) NYSERDA shall notify the Contractor within fifteen (15) calendar days after Receipt of an Invoice of:

- (1) any defects in the delivered goods, property or services;
- (2) any defects in the invoice; or
- (3) suspected improprieties of any kind.

(c) The existence of any defects or suspected improprieties shall prevent the commencement of the time period specified in Section 504.3 until any such defects or improprieties are corrected or otherwise resolved.

(d) If NYSERDA fails to notify a Contractor of a defect or impropriety within the fifteen (15) calendar day period specified in subdivision (b) of this section, the sole effect shall be that the number of days allowed for Payment shall be reduced by the number of days between the 15th day and the day that notification was transmitted to the Contractor. If NYSERDA fails to provide reasonable grounds for its contention that a defect or impropriety exists, the sole effect shall be that the Payment Due Date shall be calculated using the original date of Receipt of an Invoice.

(e) In the absence of any defect or suspected impropriety, or upon satisfactory correction or resolution of a defect or suspected impropriety, NYSERDA shall make Payment, consistent with any such correction or resolution and the provisions of this Exhibit.

**504.5. Exceptions and Extension of Payment Due Date.** NYSERDA has determined that, notwithstanding the provisions of Sections 504.3 and 504.4 of this Exhibit, any of the following facts or circumstances, which may occur concurrently or consecutively, reasonably justify extension of the Payment Due Date:

(a) If this Agreement provides Payment will be made on a specific date or at a predetermined interval, without having to submit a written invoice, if any documentation, supporting data, performance verification, or notice specifically required by this Agreement or other State or Federal mandate has not been submitted to NYSERDA on a timely basis, then the Payment Due Date shall be extended by the number of calendar days from the date by which all such matter was to be submitted to NYSERDA and the date when NYSERDA has actually received such matter.

(b) If an inspection or testing period, performance verification, audit or other review or documentation independent of the Contractor is specifically required by this Agreement or by other State or Federal mandate, whether to be performed by or on behalf of NYSERDA or another entity, or is specifically permitted by this Agreement or by other State or Federal provision and NYSERDA or other entity with the right to do so elects to have such activity or documentation undertaken, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when any such activity or documentation has been completed, NYSERDA has actually received the results of such activity or documentation conducted by another entity, and any deficiencies identified or issues raised as a result of such activity or documentation have been corrected or otherwise resolved.

(c) If an invoice must be examined by a State or Federal agency, or by another party contributing to the funding of the Contract, prior to Payment, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when the State or Federal agency, or other contributing party to the Contract, has completed the inspection, advised NYSERDA of the results of the inspection, and any deficiencies identified or issues raised as a result of such inspection have been corrected or otherwise resolved.

(d) If appropriated funds from which Payment is to be made have not yet been appropriated or, if appropriated, not yet been made available to NYSERDA, then the Payment Due Date shall be extended by the number of calendar days from the date of Receipt of an Invoice to the date when such funds are made available to NYSERDA.

**504.6. Interest Eligibility and Computation.** If NYSERDA fails to make Prompt Payment, NYSERDA shall pay interest to the Contractor on the Payment when such interest computed as provided herein is equal to or more than ten dollars (\$10.00). Interest shall be computed and accrue at the daily rate in effect on the Date of Payment, as set by the New York State Tax Commission for corporate taxes pursuant to Section 1096(e)(1) of the Tax Law. Interest on such a Payment shall be computed for the period beginning on the day after the Payment Due Date and ending on the Date of Payment.

**504.7. Sources of Funds to Pay Interest.** Any interest payable by NYSERDA pursuant to Exhibit shall be paid only from the same accounts, funds, or appropriations that are lawfully available to make the related Payment.

**504.8. Incorporation of Prompt Payment Policy Statement into Contracts.** The provisions of this Exhibit shall apply to all Payments as they become due and owing pursuant to the terms and conditions of this Agreement, notwithstanding that NYSERDA may subsequently amend its Prompt Payment Policy by further rulemaking.

**504.9. Notice of Objection.** Contractor may object to any action taken by NYSERDA pursuant to this Exhibit that prevents the commencement of the time in which interest will be paid by submitting

a written notice of objection to NYSERDA. Such notice shall be signed and dated and concisely and clearly set forth the basis for the objection and be addressed to the Vice President, New York State Energy Research and Development Authority, at the notice address set forth in Exhibit B to this Agreement. The Vice President of NYSERDA, or his or her designee, shall review the objection for purposes of affirming or modifying NYSERDA's action. Within fifteen (15) working days of the receipt of the objection, the Vice President, or his or her designee, shall notify the Contractor either that NYSERDA's action is affirmed or that it is modified or that, due to the complexity of the issue, additional time is needed to conduct the review; provided, however, in no event shall the extended review period exceed thirty (30) working days.

**504.10. Judicial Review.** Any determination made by NYSERDA pursuant to this Exhibit that prevents the commencement of the time in which interest will be paid is subject to judicial review in a proceeding pursuant to Article 78 of the Civil Practice Law and Rules. Such proceedings shall only be commenced upon completion of the review procedure specified in Section 504.9 of this Exhibit or any other review procedure that may be specified in this Agreement or by other law, rule, or regulation.

**504.11. Court Action or Other Legal Processes.**

(a) Notwithstanding any other law to the contrary, the liability of NYSERDA to make an interest payment to a Contractor pursuant to this Exhibit shall not extend beyond the date of a notice of intention to file a claim, the date of a notice of a claim, or the date commencing a legal action for the payment of such interest, whichever occurs first.

(b) With respect to the court action or other legal processes referred to in subdivision (a) of this section, any interest obligation incurred by NYSERDA after the date specified therein pursuant to any provision of law other than Public Authorities Law Section 2880 shall be determined as prescribed by such separate provision of law, shall be paid as directed by the court, and shall be paid from any source of funds available for that purpose.

Exhibit E  
New York State Energy Research and Development Authority (NYSERDA)

**2017 Report Content Guide**

---

**Revised 8/26/16**

(Replaces the 2016 NYSERDA Report Content Guide)

**Table of Contents**

<b>1</b>	<b>Purpose.....</b>	<b>41</b>
<b>2</b>	<b>Required Elements.....</b>	<b>41</b>
2.1	Copyright for Intellectual Property .....	44
2.2	Proprietary or Confidential Information .....	44
2.3	Americans with Disabilities Act (ADA) Accessibility Compliance .....	45
<b>3</b>	<b>Formatting .....</b>	<b>45</b>
<b>4</b>	<b>Submitting a Report to NYSERDA .....</b>	<b>46</b>
<b>5</b>	<b>Contacts .....</b>	<b>46</b>
<b>6</b>	<b>Required Elements Checklist.....</b>	<b>46</b>

This Report Content Guide should be used in conjunction with the following documents, which are available at [nyserdera.ny.gov/Doing-Business-with-NYSERDA](http://nyserdera.ny.gov/Doing-Business-with-NYSERDA):

- 2017 NYSERDA Report Formatting Guide
- 2017 NYSERDA Marketing’s Template for Reports (including example)

## 1 Purpose

---

This document explains how to prepare and submit a report to the New York State Energy Research and Development Authority (NYSERDA). It includes details on the elements of the report, specifications for formatting and accessibility, and information on electronic submission. Please follow these instructions unless your NYSERDA contract specifies otherwise.

NYSERDA will publish the finished report deliverable online and/or in print unless the NYSERDA Project Manager approves special circumstances. Please direct questions about technical content and submission deadlines to your NYSERDA Project Manager. For questions related to formatting and electronic submission of the report, contact Diane Welch in NYSERDA Marketing at 518-862-1090, ext. 3276 or [dlw@nyserdanyny.gov](mailto:dlw@nyserdanyny.gov)

## 2 Required Elements

---

Section 6 includes a checklist of the required elements. This section contains details about the items that are required in all reports (unless noted as optional). Items should appear and be paginated in the following sequence:

- Title page (no page number):
  - o Include title of report, draft or final, prepared for NYSERDA, NYSERDA Project Manager (name and title), prepared by name of organization, individuals and affiliation, report number (NYSERDA will provide during editing), contract number and date report submitted.

Notice (small Roman numerals for page numbers i.e., ii):

- o Option 1—When NYSERDA is the project’s sole sponsor, this notice must be used:

Notice

This report was prepared by [Insert Preparer's Name] in the course of performing work contracted for and sponsored by the New York State Energy Research and Development Authority (hereafter “NYSERDA”). The opinions expressed in this report do not necessarily reflect those of NYSERDA or the State of New York, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it. Further, NYSERDA, the State of New York, and the contractor make no warranties or representations, expressed or implied, as to the fitness for particular purpose or merchantability of any product, apparatus, or service, or the usefulness, completeness, or accuracy of any processes, methods, or other information contained, described, disclosed, or referred to in this report. NYSERDA, the State of New York, and the contractor make no representation that the use of any product, apparatus, process, method, or other information will not infringe privately owned rights and will assume no liability for any loss, injury, or damage resulting from, or occurring in connection with, the use of information contained, described, disclosed, or referred to in this report.

NYSERDA makes every effort to provide accurate information about copyright owners and related matters in the reports we publish. Contractors are responsible for determining and satisfying copyright or other use restrictions regarding the content of reports that they write, in compliance with NYSERDA's policies and federal law. If you are the copyright owner and believe a NYSERDA report has not properly attributed your work to you or has used it without permission, please email [print@nyserda.ny.gov](mailto:print@nyserda.ny.gov).

Information contained in this document, such as web page addresses, are current at the time of publication.

- Option 2—When there are project co-sponsors in addition to NYSERDA, use the following notice instead:

#### Notice

This report was prepared by [Insert Preparer's Name] in the course of performing work contracted for and sponsored by the New York State Energy Research and Development Authority and the [Insert Co-Sponsor's Name] (hereafter the "Sponsors"). The opinions expressed in this report do not necessarily reflect those of the Sponsors or the State of New York, and reference to any specific product, service, process, or method does not constitute an implied or expressed recommendation or endorsement of it. Further, the Sponsors, the State of New York, and the contractor make no warranties or representations, expressed or implied, as to the fitness for particular purpose or merchantability of any product, apparatus, or service, or the usefulness, completeness, or accuracy of any processes, methods, or other information contained, described, disclosed, or referred to in this report. The Sponsors, the State of New York, and the contractor make no representation that the use of any product, apparatus, process, method, or other information will not infringe privately owned rights and will assume no liability for any loss, injury, or damage resulting from, or occurring in connection with, the use of information contained, described, disclosed, or referred to in this report.

NYSERDA makes every effort to provide accurate information about copyright owners and related matters in the reports we publish. Contractors are responsible for determining and satisfying copyright or other use restrictions regarding the content of the reports that they write, in compliance with NYSERDA's policies and federal law. If you are the copyright owner and believe a NYSERDA report has not properly attributed your work to you or has used it without permission, please email [print@nyserda.ny.gov](mailto:print@nyserda.ny.gov)

Information contained in this document, such as web page addresses, are current at the time of publication.

Abstract and Keywords (optional; small Roman numerals for page numbers):

- The Abstract is a brief, approximately 200-word description of project objectives, investigative methods used, and research conclusions or applications. This information will

be used when NYSERDA registers the report with the New York State Library and the Library of Congress. A list of keywords that describe the project and identify the major research concept should be submitted with the report. Four to six precise descriptors are generally sufficient and will be used for indexing, registering and distributing the report.

Acknowledgments (optional; small Roman numerals for page numbers):

- If included, the Acknowledgments page precedes the Table of Contents and is generally no longer than two paragraphs in length.

Table of Contents (small Roman numerals for page numbers):

- The Table of Contents should list front matter material (except the Table of Contents) and titles and section numbers for heading levels one through four. Additional levels should not be used in the report. If the heading styles are applied in Word, the list can be automatically generated.

List of Figures (small Roman numerals for page numbers).

- If the report contains three or more figures, they should be listed using the style of the Table of Contents. (If the figure titles in text have the caption function applied in Word, the list can be automatically generated.)

List of Tables (small Roman numerals for page numbers).

- If the report contains three or more tables, they should be listed using the style of the Table of Contents. (If the figure titles in text have the caption function applied in Word, the list can be automatically generated.)

Acronyms and Abbreviations List (small Roman numerals for page numbers):

- All acronyms and abbreviations should be spelled out and followed by the acronym or abbreviation in parentheses on first use.
- First reference to NYSERDA in text should be “the New York State Energy Research and Development Authority (NYSERDA).” Subsequent references should read simply “NYSERDA.”
- When referring to New York State, use “New York State” on first use and abbreviate “the State” for subsequent uses.
- Use a one- or two-column layout for the list, but do not use a table.

Executive Summary or Summary (optional; ES-1 or S-1 etc. for page numbers of Executive Summary and Summary, respectively):

- An Executive Summary is two pages in length maximum. A Summary is a shorter version of the report and varies in length but less than 10 percent of the main report is a good guideline.

Main Text (sequentially numbered pages i.e., 1, 2, 3 etc. preferred, but chapter-page numbering is acceptable).

Figures and tables with sequential numbering (Figure 1, Figure 2, etc. preferred but sequential chapter-number are acceptable), callouts in text (i.e., Figure 1 shows...) and Alternative Text to comply with ADA Accessibility are required. Refer to ADA guidelines for the best way to represent data with reference to colors. Preferences for tables are listed in this document.

- Figures and tables at the back of the document are preferred for documents that NYSERDA will be formatting; figures and tables placed in-line with text near callout is acceptable. Do not use wrap text.

References Cited and Bibliography information (as needed; continue sequential page numbering):

- References Cited vs. Bibliography: References Cited has specific references called out in text to document sources of specific information, and a bibliography is a list of sources used to compile a document but does not have callouts for specific facts in the text.
- Endnote style for reference citations is preferred but footnotes are acceptable.
- Format of reference callout in text for footnote or endnote is the author-date callout in text (i.e., Wood and Stone 2010).
- Full reference citations listed alphabetically by the last name of the first author.
- Citation format is based on Chapter 15 (Documentation II: Author-Date References) of The Chicago Manual of Style (16th edition).
- Use the following format to refer to reports published by NYSERDA:

New York State Energy Research and Development Authority (NYSERDA). Year of publication. “Title of Report,” NYSERDA Report Number xx-yy. Prepared by organization, company or individual names and city/state location (optional). [nysesda.ny.gov/publications](http://nysesda.ny.gov/publications)

Appendices (optional; A-1 etc for Appendix A, B-1 etc for Appendix B page numbering):

- In NYSERDA reports, Appendices should be called appendices and not Attachments. Attachments are used to append a document to an appendix. (Attachments may have different definitions in emails and legal documents.)

Alternative text that describes figures and tables to meet Accessibility requirements. (A separate Word file is fine—see Section 2.2 for more details).

## 2.1 Copyright for Intellectual Property

All material borrowed or adapted from other sources should be properly identified (i.e., document, source, date, and page). The contractor must obtain and submit to NYSERDA the copyright owner’s written permission to use any illustrations, photographs, tables, figures, or substantial amounts of text from any other publication.

For each figure and table, the contractor must also provide a source line that gives the original source and any language stating permission to reprint that should be published with each respective table or figure.

## 2.2 Proprietary or Confidential Information

Propriety or confidential information must be clearly labeled in the report submission as “proprietary” or “confidential.” To the extent possible, the information should be contained within one section or appendix that can be easily removed prior to publishing. Consult your NYSERDA Project Manager with any questions.



## 2.3 Americans with Disabilities Act (ADA) Accessibility Compliance

As a State Authority, NYSEDA is obligated to ensure that all documents published on NYSEDA's website are accessible, pursuant to Section 508 of the Rehabilitation Act (29 U.S.C. 794d), as amended by the Workforce Investment Act of 1998 (P.L. 105-220 August 7, 1998).

To meet the needs of persons with visual or mobility disabilities, reports must be in a format that allows for conversion of written words of an electronic document into speech, thus allowing the person with a disability to hear the text. The formatting of these documents is critical to the success of the conversion from text to speech. Screen reading software will read the document as one long series of paragraphs with no differentiation for new topics unless properly formatted with Heading Styles. (Imagine reading a textbook with no difference in text from one paragraph to the next.)

Reports submitted to NYSEDA must meet the following requirements:

Use numbered headings in the document up to Level 4 (i.e., 1.1.1.1).

Pick one of the formatting options outlined in Section 3 of this document.

Provide short titles for all tables, images, and figures.

Provide Alternative Text (also known as alt-text) that describes the visual elements of each image and figure—and does not just repeat the title or caption. Include alt text for any tables that are inserted as images.

- Write out links in documents that will be printed. Write the sentence so that the URL is not at the end and followed by a period. See the last bulleted item for an example (“Visit...”).
- Avoid linking to “click here” or including extremely long URLs. For web-only documents, use contextual links, such as linking NYSEDA's website to “NYSEDA” instead of putting a long URL in text.
- Visit [nyserda.ny.gov/Doing-Business-with-NYSEDA](http://nyserda.ny.gov/Doing-Business-with-NYSEDA) for more information about how to make a document accessible.

## 3 Formatting

---

Contractors have two options for the format of a submitted document:

### **Option 1—NYSEDA does the formatting**

Contractor emails to NYSEDA Project Manager a Word file of all report components with all text in Times New Roman 10 pt font.

File should include outline level numbering with each section head (1 is Level 1 Heading, 1.1 is Level 2 Heading, 1.1.1 is Level 3 Heading, 1.1.1.1 is Level 4 Heading), not to exceed Level 4.

Each figure and table should have a call-out in the main text (i.e., Figure 1 shows... or According to Figure 1,... or (Figure 1) at the end of a sentence).

Figures and tables along with their titles and sources (and captions if necessary) should be grouped together at the back of the file or supplied in a separate file. Contractor can request inline or back-of-report placement of figures.

NYSEDA will format the document according to the 2016 NYSEDA Marketing's Template for Reports.

## Option 2—Contractor does the formatting

Visit [nyserdera.ny.gov/Doing-Business-with-NYSERDA](https://nyserdera.ny.gov/Doing-Business-with-NYSERDA) to download:

- Report template (2016 NYSEDA Marketing’s Template for Reports).
- Details about report formatting (2016 NYSEDA Report Formatting Guide).

Apply each of the Word Styles in the template to the elements of the document as appropriate, such as apply Heading 1 to all first-level headings, Body Text to all body text and References to reference materials. Place figures and captions after each respective call-out OR in order at the back of the report. Do not hyperlink websites.

## 4 Submitting a Report to NYSEDA

---

No print drafts of the report are required. An electronic Word version of the draft report should be emailed to the NYSEDA Project Manager. Contact the Project Manager regarding how to transfer large files. The contractor is responsible for satisfactorily addressing comments from NYSEDA and other stakeholders. When making corrections, the contractor must ensure that technical content is not compromised. After editorial corrections have been made, the contractor must email to the Project Manager a Word version of the final report. NYSEDA will consider high-resolution image submissions for report covers.

## 5 Contacts

---

The NYSEDA Project Manager should be the contractor’s primary point of contact. For additional questions, contact Diane Welch in NYSEDA Marketing at [dlw@nyserdera.ny.gov](mailto:dlw@nyserdera.ny.gov) or 518-862-1090 x3276. Contractors can also email [print@nyserdera.ny.gov](mailto:print@nyserdera.ny.gov) or call 518-862-1090 and ask for Marketing.

## 6 Required Elements Checklist

---

The following elements should be included in reports, unless noted as optional, along with the style of page numbers is listed in parentheses:

Title page (no page number).  
Notice (small Roman numeral page numbers, i.e., ii).  
Abstract  
Keywords (optional; small Roman numerals).  
Acknowledgments (optional; small Roman numerals).  
Table of Contents (small Roman numerals).  
List of Figures (small Roman numerals).  
List of Tables (small Roman numerals).  
Acronyms and Abbreviations List (small Roman numerals).  
Executive Summary or Summary (optional; ES-1 or S-1 etc).

Main Text (pages sequentially numbered i.e., 1, 2, 3 etc.).

Figures and tables with sequential numbering (Figure 1, Figure 2, etc.), callouts in text (i.e., Figure 1 shows...), and Alt Text for ADA Accessibility.

- Figures and tables at the back of the document are preferred for documents that NYSERDA will be formatting; figures and tables placed in-line with text after first callout are acceptable. Do not wrap text.

References Cited and Bibliography information.

Appendices (optional; page numbering is A-1 etc. for Appendix A, B-1 etc. for Appendix B).

Copyright information for intellectual property (i.e., images, figures, tables or large pieces of text that have been previously published)—include written permission from the copyright holder at the end of the document and use appropriate language in the captions of the images, figures and tables such as “Reprinted with permission from [publisher’s name].”

Alternative text that describes each image and figure (include Alt text for tables that are included as images) —and does not just repeat the title or caption. (See Section 2.3 for more information.) The text should be listed at the end of the document or provided in a separate file.

## Exhibit F – Category A Final Report Requirements

NYSERDA Solicitation:  
Program Opportunity Notice (PON) 4614  
Community Heat Pump Systems  
ATTACHMENT A.2

Category A: Site-specific scoping study

Report Stage  
(Final Report for Category A  
Instructions part 2)

### Instructions

For those who have been awarded a contract under PON 4614, completion of this data spreadsheet is required as part of the **Category A Site-Specific Scoping Study final report**. This Report-Stage spreadsheet updates the data included in the Applicant's submittal, and includes new data collected during the study.

Green shaded cells indicate data that were submitted at the Solicitation Stage. **If previously reported data were updated during the scoping study, enter only the updated responses.**

Yellow shaded cells indicate new information compiled or collected during the scoping study.

If your application is for a different Category (**Category B** - Site-Specific Design Study, or **Category C** - Site Specific Implementation Project), please download and provide information in the relevant Category spreadsheet.

Data to be provided by applicants are grouped into 3 main areas : **District Characteristics , Systems and Technology, and Business Model**. There is one worksheet tab for each sub-category. Please fill in information for all 3 worksheets

#### District Characteristics worksheet instructions

##### CA1 Location & Site Area

Provide the requested system location data.

##### CA2 Building Cluster Scale & Type

Characterize the scale of the proposed system.

##### CA3 Building Construction/Retrofit

Identify whether buildings to be served are new construction, retrofit or both. Also indicate if building heating/cooling systems will be replaced.

##### CA4 District System Construction/Retrofit

Identify whether the proposed district energy distribution system will be new construction, retrofit of an existing system, or both. Indicate distribution system type (high- or low- temp hot water, steam)

##### CA5 Building Address, Type, Size, Conditioned Area, Age

Provide information for each building to be served by the district system including address, conditioned space, new construction, major building renovation, or retrofit of heating/cooling system.

Indicate building age of existing buildings to be served by the system.

##### CA6 Estimated Building Loads

Provide information regarding building loads.

##### CA7 If Retrofit - Energy Systems of Existing Buildings

For existing buildings, identify the primary heating and cooling energy sources, annual energy consumption data from utility bills, and type of heating and cooling system.

##### CA8 If Retrofit - Building Conversion Related Information

For existing buildings, identify whether heat pumps are used and the year the heating and cooling systems were last upgraded or replaced.

##### CA9 Energy Use from Existing Facilities

Calculate the total energy use for all existing buildings to be served by the system.

##### CA10 Conditioned Space, Loads and Energy Use

Calculate the total conditioned area for heating and for cooling for all existing buildings to be served by the system.

#### Systems and Technology worksheet instructions

##### CA11 Proposed Thermal Capacity from Geothermal Resource

The data requested in this section is thermal capacity supplied from the ground heat exchanger (GHX), not supplied to the buildings.

##### CA12 Other Thermal Resources Proposed as a (% of Total Thermal Resource )

Identify renewable or waste heat thermal resources that will be used to supplement the heat provided from the GHX.

##### CA13 Ground Heat Exchanger

Identify the proposed Earth-coupling method(s).

##### CA14 Heat Pumps

Provide information on proposed heat pumps including COPs, entering water temperatures, refrigerant, and equipment information.

##### CA15 Pilot Borehole(s)

Provide information regarding test bores or wells that were installed during the scoping study.

##### CA16 Onsite Electric Generation / Storage

Identify type and capacity of other renewable power sources or energy storage proposed for the project.

##### CA17 Community Distribution Piping Proposed

Indicate whether the community distribution system will be a 2-pipe (e.g., ambient loop) or 4-pipe (e.g., separate chilled and hot water piping) system.

Provide community distribution system information including pipe size, insulation, and length for 2- and 4-pipe systems.

#### Business Model worksheet instructions

##### C18 Building Ownership

Identify the proposed entity ownership composition of the community system.

##### C19 Proposed System Ownership & Operation

Indicate who is the proposed owner and operator of the community system, whether public, private, utility PPA

##### C20 Key Assumptions used for 25 year NPV Life Cycle Cost Analysis

Indicate the discount, inflation and rate escalation rates you are using in your business model, along with life expectancy of primary system components.

Category A: Site-specific scoping study		<b>Report Stage</b> <b>(Final Report for Category A Instructions part 2)</b>			
DISTRICT CHARACTERISTICS					
Applicant:					
CA1 Location & Site Area					
District Street Address		City/Town, Zipcode			
District site area (acres)		Latitude , Longitude			
CA2 Building Cluster Scale & Type		Indicate all that apply	CA3 Building Construction/Retrofit	Indicate all that apply	CA4 District System Construction/Retrofit
a. <b>SMALL</b> e.g. a cluster of ten or more single-family houses			a. New Construction		a. New Construction
b. <b>MEDIUM</b> e.g. college campus or multifamily residential complex consisting of multiple buildings, an office or medical park, etc.			b. Major Retrofit of Existing Buildings		b. Retrofit of Existing District Energy Distribution System
c. <b>LARGE</b> e.g. an urban core consisting of one or numerous city blocks.			c. If both, provide % Mix of New and Retrofit by conditioned area		c. If both, provide % Mix of New and Retrofit by conditioned area served
OTHER - Specify			d. Replacement of Building Heating/Cooling System		Indicate present & proposed distribution system type (e.g., steam, High-temp hot water, etc.)

CA5 Building Address, Type, Size, Conditioned Area, Age							
Building Number	Street Address	Building Type <i>(select from drop down list)</i>	Building Size (square feet)	Conditioned Area to be Served - <i>COOLING</i> (square feet)	Conditioned Area to be Served - <i>HEATING</i> (square feet)	Type of Construction <i>(New Construction, Major Renovation, Retrofit of Heating and Cooling Systems)</i>	If Major Renovation or Retrofit Building Age (years)
Building 1							
Building 2							
Building 3							
Building 4							
Building 5							
Building 6							
Building 7							
Building 8							
Building 9							
Building 10							
Building 11							
Building 12							
Building 13							
Building 14							
Building 15							
Building 16							
Building 17							
Building 18							
Building 19							
Building 20							
Building 21							
Building 22							
Building 23							
Building 24							
Building 25							
Building 26							
Building 27							
Building 28							
Building 29							
Building 30							
Building 31							
Building 32							
Building 33							
Building 34							
Building 35							
Building 36							
Building 37							
Building 38							
Building 39							
Building 40							
Building 41							
Building 42							
Building 43							
Building 44							
Building 45							
Building 46							
Building 47							
Building 48							
Building 49							
Building 50							
<b>TOTALS</b>							

CA6 Estimated Building Loads	
------------------------------	--

[illegible]





**CA8 If Retrofit - Building Conversion Related Information**

Heat Pumps Currently Used? (Y/N)	Year HEATING System Last Installed or Replaced	Year COOLING System Last Installed or Replaced	Type of Fan Coil/Unit Ventilator systems in building (2-pipe or 4-pipe?)	Type of Connection to Distribution System ( <i>active with pumps or passive with only HX?</i> )

**CA9 Energy Use from Existing Facilities**

- a. Total for All Buildings - Annual Gas Consumption from Utility Bills for Heating and Cooling (MMBTU)
- b. Total for All Buildings - Annual Oil Consumption from Utility Bills for Heating (gal)
- c. Total for All Buildings - Annual Electricity Consumption from Utility Bills for Heating and Cooling (kWh)

**CA10 Conditioned Space, Loads and Energy Use**

- a. Total for All Buildings -Conditioned Area Served - *Cooling* (square feet)
- b. Total for All Buildings Conditioned Area Served - *Heating* (square feet)

Category A: Site-specific scoping study		Report Stage (Final Report for Category A Instructions part 2)					
<b>SYSTEMS AND TECHNOLOGY</b>							
Applicant:							
CA11 Proposed Thermal Capacity from Geothermal Resource							
			Summer Peak	Winter Peak	Diversified District Summer Peak	Diversified District Winter Peak	
Heating (MBtu/hour)							
Cooling (tons)							
Domestic Hot Water (GPM)							
Process Heating (MBtu/hour)							
Process Cooling (tons)							
CA12 Other Thermal Resources Proposed as a (% of Total Thermal Resource )							
Solar thermal							
Sewer waste heat recovery							
Waste heat from Data Center							
Biomass							
Other - Specify							
CA13 Ground Heat Exchanger							
Earth Coupling Method							
Closed loop (horizontal or vertical) - (bores or energy piles)							
Open loop (dedicated injection well or seasonal reversal)							
Standing column wells (specify design bleed %, if any)							
Surface water coupled (lake/pond, river/stream, or marine)							
Other - specify							
GHX Balancing							
Are seasonal GHX loads balanced?							
Antifreeze used in GHX piping?							
GHX Land Area							
Area needed for GHX							
Percentage of property area							
Closed Loop Systems - vertical							
Number of bores (closed loop - vertical)							
Depth of closed-loop borehole heat exchangers (ft)							
Closed-loop borehole heat exchanger grout thermal conductivity (W/m²K)							
Closed-loop antifreeze design temperature (°F)							
Thermal response test results - thermal conductivity (W/m²K)							
Thermal response test results - thermal diffusivity (m²/s)							
CAPEX of closed-loop boreholes (\$)							
Closed Loop Systems - horizontal							
Length of horizontal closed-loop heat exchanger trench (ft)							
Horizontal closed-loop heat exchanger depth below grade (ft)							
Horizontal closed-loop heat exchanger construction (e.g., slinky, # pipes per trench)							
CAPEX of horizontal closed-loop heat exchanger (\$)							
Open-Loop Systems							
No. of open-loop wells							
Depth of open-loop wells (ft)							
Open-loop well borehole and screen diameter (in)							
Design open-loop well extraction rate (gpm/well)							
Design open-loop well injection rate (gpm/well)							
Open-loop system configuration (ATES or dedicated injection well)							
Open-loop well drilling method							
Open-loop well screen length (ft)							
CAPEX of open-loop well system (\$)							
Standing-Column Well Systems							
No. of standing column wells							
Depth of standing column wells (ft)							
Standing column well design bleed rate (% gpm/well)							
Standing column well design thermal diffusivity (m²/s)							
CAPEX of standing column wells (\$/ft)							

[illegible]

<b>CA15 Pilot Borehole(s)</b>		
No. of pilot boreholes		
Proposed pilot well use		
Additional value / use of pilot well(s)		
Ground surface elevation (ft)		
Geophysical logging conducted?		
Thermal response testing conducted?		
Aquifer pumping test conducted?		
Groundwater sampling conducted?		
Soil or groundwater sampling conducted?		
Measured ambient ground water temperature (° F)		
Subsurface contamination potential?		
Drilling method		
Borehole Depth (ft)		
Groundwater Depth (ft)		
Borehole Diameter (in)		
Geologic conditions in target formation (bedrock, surficial/glacial, coastal plain)		
<b>CA16 Onsite Electric Generation / Storage</b>		
Solar PV		
Solar PV capacity (kW)		
Wind Turbine		
Wind turbine capacity (kW)		
Battery Storage		
Battery Storage Capacity (AH)		

Category A: Site-specific scoping study		Report Stage (Final Report for Category A Instructions part 2)	
<b>BUSINESS MODEL</b>			
Applicant:			
Ownership			
<b>C18 Building Ownership</b>			
Buildings all owned by a single entity			
Buildings having unrelated owners			
Buildings owned by a cooperative or association			
Other - Specify			
<b>C19 Proposed System Ownership &amp; Operation</b>			
System owned/operated by a private entity			
System owned/operated by a public entity (municipality)			
System owned by a public entity and operated by a private entity			
System owned/operated by a utility			
System owned by a private or public entity and operated by another private entity			
System owned/operated by a public-private partnership.			
Other - Specify			
<b>C20 Key Assumptions used for 25 year NPV Life Cycle Cost Analysis</b>			
<b>Economic Factors</b>		<i>input values here - the values are examples</i>	
Economic Discount Rate or Hurdle Rate	8.0%		
General Inflation Rate	1.0%	/year	
Electricity Escalation Rate	1.5%	/year	
Useful life of Ground Heat Exchanger Loop		years	
Useful life of GSHP		years	

<b>Building Types</b>	<b>Type of Construction</b>
Classroom	New Construction
Research Lab	Major Renovation
Data Center	Retrofit of Heating and Cooling Systems
Dormitory	
Large Office	Primary Energy Source Currently Used for Heating
Medium Office	Oil
Small Office	Gas
Residential- Single family	Propane
Residential - Multi family	ConEd Steam
Residential - Multi floor	Electricity
Warehouse	Other
Stand Alone Retail	
Strip Mall	<b>Primary Energy Source Currently Used for Cooling</b>
Primary School	Electricity
Secondary School	Gas
Supermarket	ConEd Steam
Quick Service Restaurant	Other
Full Service Restaurant	
Hospital	Yes
Outpatient Health Clinic	No
Small Hotel	
Large Hotel	<b>Drilling Method</b>
Midrise Apt	Air rotary
Other - Specify	Mud rotary
	Dual rotary
<b>Subsurface contamination potential</b>	DTH air hammer
Unknown	DTW water hammer
Known contaminated	Sonic
Known uncontaminated	Auger
Unlikely	Other
Likely	
<b>Geologic conditions in target formation</b>	
Bedrock	
Surficial / glacial deposits	
Coastal plain deposits	