

## **PON 2828 APPENDIX A: APPLICATION PACKAGE REQUIREMENTS**

Two (2) hard copies and one (1) electronic copy of all Application Package materials, and any supporting information must be sent to the following address:

Venice Forbes, PON 2828  
NYS Energy Research and Development Authority  
17 Columbia Circle  
Albany, NY 12203-6399

At least one of the hard copies must bear original signatures. Application Packages that are not signed by the Applicant will be returned.

A completed Application Package will consist of the following:

### **APPLICATION FORM**

A hard copy of the Application Form is included in Appendix B. The Application Form may also be requested from Tom Fiesinger, (518) 862-1090, ext. 3218, [twf@nyserda.ny.gov](mailto:twf@nyserda.ny.gov) or Steve Hoyt, ext. 3587, [sah@nyserda.ny.gov](mailto:sah@nyserda.ny.gov).

The Application Form contains five (5) sections; sections A through E. The Applicant is required to fill in only the yellow-colored cells of the Form. In many cases, these cells are equipped with “pull down” menus. If a cell is equipped with a “pull down” menu, the Applicant must choose an item from the menu. Cells with pull down menus are denoted by the phrase “Click cell and select:”. The Applicant is NOT required to fill in the green-colored cells. These have been programmed to be automatically populated based on the information entered by the Applicant.

Section C of the Application Form, the *Incentive Calculation Tool and Specific Incentive Requirements*, is provided to help Applicants estimate their possible Total Incentive for the project. NYSERDA will use the estimate, in addition to the other information provided in the Application Package, to develop the actual Total Contracted Project Incentive. If a proposed project does not fit into the constraints of the *Incentive Calculation Tool* (e.g., Applicants have received prior NYSERDA funding), but the project meets the requirements of the Program, NYSERDA will consider alternative methods of estimating incentives on a case by case basis. Please contact Tom Fiesinger or Steve Hoyt to discuss

### **Section A - Contact Information and Checklist**

This section: requests information about the Host Site, Applicant (if different from the Host Site) and Engineering Firm/Developer (if applicable); provides and checklist of forms and questions, and; requires and authorized signature and certification.

### **Section B – ADG-to-Electricity System Information**

This section requests information about the ADG-to-Electricity System, including:

- feedstock sources, existing (if applicable) and proposed (if applicable); feedstock quantities; estimates of biogas from the various feedstock sources; and Btu values for the associated biogas;
- digester facility(ies), existing (if applicable) and proposed (if applicable);
- uses of ADG, existing (if applicable) and proposed (if applicable); and

- ADG-fueled Electric Power Generation Equipment, existing (if applicable) and proposed (if applicable).

The following definitions apply to Section B of the Application Form:

**Equipment Status:** Whether equipment will be installed upon completion of the project as described in the Application Package; is existing and will remain in service; or is existing but will be or has been taken out of service.

**On-site/Off-site:** The location of origin of the feedstock source (e.g. Waste from a cheese manufacturing facility would be considered from “Offsite” if the Host Site for the ADG-to-Electricity System was a farm).

**Project:** The installation and operation of the new ADG-to-Electricity System or Project Enhancement Component(s) as described in Sections B and C of Appendix B of the PON application as contained or to be contained in Exhibit D of the Standard Performance Contract Agreement.

**Status:** Whether the feedstock source is currently being utilized at the Host Site (“Existing”) or if it’s planned to be utilized upon completion of the Project as described in the Application Package (“Planned Additional”).

**Total After Planned Project:** The estimated distribution of biogas (in percent) to various uses (e.g., to engine for power generation, to flare, to boiler for building heat, etc.) upon completion of the Project as described in the Application Package.

### Section C – Incentive Calculation Tool

Instructions for using the *Incentive Calculation Tool* are detailed in Appendix C *Using the Incentive Calculation Tool and Specific Incentive Requirements*.

### Section D - Site Control Letter

This form letter must be completed and signed by the Applicant and a representative of the Host Site (if different):

- To indemnify NYSERDA;
- To acknowledge NYSERDA does not warranty or make any representations regarding the qualifications of the applicant;
- To acknowledge that NYSERDA will require access to the Host Site to inspect relevant equipment and conduct QA/QC activities;
- To acknowledge that NYSERDA does not have any role in disputes between the Applicant and the Host Site;
- To acknowledge that new biogas-fueled electric generation equipment for which installation incentives are being requested in this Project application has not been delivered to the site or a staging area prior to the submittal of this application to NYSERDA
- To demonstrate that the Applicant intends to commission a Project at the Host Site, and;
- To certify that electric charges for the facility(ies) in the Application include or will include Renewable Portfolio Standard (RPS) or System Benefits Charge (SBC) payments.

### Section E - Applicant Short-Form Agreement

The Short-Form Agreement must be completed and signed by the Applicant to demonstrate to NYSERDA that they acknowledge and understand the key requirements for participating in the Program.

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

### **SYSTEM DESCRIPTION**

To support information provided in Section B of the Application Form, further description of the ADG System must be provided including (1) a preliminary Process Flow Diagram showing the projected material and energy balances, (2) a Plan View Diagram showing the locations of the major pieces of equipment (existing and new), and (3) equipment manufacturers' specifications for major pieces of equipment for which incentives are being requested. For Projects requesting incentives for Power Generation Components include in the description the manufactures specification for both the engine and generator and trenching, utility poles, and utility connection points, Information to be provided on the generation equipment shall include efficiency and rated kW output of the generator at a Power Factor of 1, engine power output and heat rate at 100% engine load, and engine emissions characteristics.

### **ECONOMIC EVALUATION**

An economic evaluation of the Project must be performed, which assesses the costs (capital, operation & maintenance) and financial benefits of the Project

- Capital costs include any costs associated with system design (i.e., engineering), procurement, or installation and commissioning; costs associated with interconnection with the utility; potential tariff impacts; costs associated with electrical distribution system changes; and costs associated with permitting.
- Operation and maintenance costs and procedures should be included for all relevant major tasks associated with efficient and effective long-term operation of the system (e.g., oil changes, annual maintenance, major overhaul of prime mover, digester equipment maintenance, digester clean-outs, etc.); all relevant personnel associated with performing each of these tasks; and capacity factors resulting from estimated downtime that may occur due to these tasks.
- Benefits include revenues, cost savings associated with reduced electricity purchases, and other avoided costs. As applicable, the evaluation must also address whether or not the Host Site participates in net metering, and if so, the implication on the economics of the project.

### **PROJECT SCHEDULE**

A project schedule that includes time frames and durations for major steps involved in Project installation such as: engineering design, procurement, utility coordination and review (that includes submitting the initial application for interconnection, installing required interconnection equipment, and receiving final interconnection approval from the utility), permitting (environmental, construction, and other as appropriate), construction, installation and commissioning must also be provided.

## **DESCRIPTION OF PERMITTING REQUIREMENTS**

A brief description of the required environmental and building permits must be provided.

If required to have a State Pollutant Discharge Elimination System (SPDES) permit by NYSDEC regulations, a Concentrated Animal Feeding Operation (CAFO) providing the manure must have and be in compliance with its current Agricultural Waste Management Plan (AWMP) developed by a duly qualified Agricultural Environmental Management (AEM) Planner and must be operating in compliance with any applicable SPDES permit. If not required to have a SPDES permit, the CAFO must be operating in compliance with the best management practices for a facility of its size set forth in the Principles and Water Quality Protection Standards specified in the Agricultural Environmental Management (AEM) Framework & Resources Guide developed by the NYS Department of Agriculture and Markets and the NYS Soil and Water Conservation Committee. Further information about the SPDES Program is available at: <http://www.dec.ny.gov/permits/6054.html>.

## **APPLICATION FOR INTERCONNECTION AND PRELIMINARY REVIEW**

Copy of application for interconnection to utility and, if made completed and made available by the utility, a copy of the utility's Preliminary / Supplemental Screening Analysis (see copy of the SIR in Appendix G) must be provided. For Projects that do not include new power generation capacity requiring electrical grid interconnection or otherwise do not require a new or modified interconnection, this requirement is not applicable.

## **ENVIRONMENTAL ASSESSMENT FORM**

NYSERDA is required under SEQRA to consider the environmental implications of all funded projects. All proposals must include a completed SEQRA environmental assessment form along with supporting documentation.

If any local governmental entity has discretionary permitting or approval authority, the Applicant must complete the appropriate SEQR Environmental Assessment Form and submit it to that local governmental entity. Attach a copy of the completed and signed Environmental Assessment Form to the Application Package.

SEQR forms are available from:  
<http://www.dec.ny.gov/permits/6191.html>

## **SUPPLEMENTAL INFORMATION**

The following supplemental information must also be provided:

- A copy of the Host Site's past 12 months of utility bills for all meter loads to be served by the new equipment;
- A copy of the latest DEC form "Appendix D Concentrated Animal Feeding Operation (CAFO) Annual Compliance Report" if the host site is a CAFO.

# Section A: Contact Information



**Instructions: Enter information in the yellow cells only.**

Project Name	
Applicant Name	

<b>Host Site</b>			
Host Site Name:		Facility Type:	<i>Click cell and select:</i>
Host Site (Legal Contractual Name):			
Contact Name:		Title:	
Contact Address:		Phone Number:	
		Fax Number:	
		E-mail Address:	

<b>Applicant</b>			
Applicant Name (Entity that will contract with NYSDERDA)			
Contact Name:		Title:	
Contact Address:		Phone Number:	
		Fax Number:	
		E-mail Address:	

<b>Engineering Firm/Developer (if applicable)</b>			
Firm Name (Legal Contractual Name):			
Contact Name:		Title:	
Contact Address:		Phone Number:	
		Fax Number:	
		E-mail Address:	

<b>PLEASE CONFIRM THE FOLLOWING FORMS ARE INCLUDED IN YOUR PROPOSAL:</b>	
<input type="checkbox"/> Application Form (Sections A-E) <input type="checkbox"/> Site Plan <input type="checkbox"/> Economic Evaluation <input type="checkbox"/> Project Schedule <input type="checkbox"/> Description of Permitting Requirements <input type="checkbox"/> If applicable, a copy of application to the utility for interconnection and <input type="checkbox"/> Copy of the Preliminary / Supplemental Screening Analysis response from the utility, if applicable and available. <input type="checkbox"/> Environmental Assessment Form <input type="checkbox"/> Supplemental Information <input type="checkbox"/> Disclosure of Prior Findings of Non-responsibility Form	

<b>THE PRIME CONTRACTOR MUST SIGN THIS FORM BELOW AND ANSWER THE FOLLOWING QUESTIONS:</b>	
<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	Do you accept all Terms & Conditions in the Sample Agreement? (If no, explain on separate page) (NYSERDA may or may not accept any of the listed exceptions; NYSDERDA reserves the right to limit any negotiations to exceptions specifically identified herein.) Do you wish to have any information submitted in your proposal package treated as proprietary or confidential trade secret information? If yes, you must identify and label on each applicable page "confidential" or "proprietary" (For additional information regarding this, please refer to the section entitled "Proprietary Information" in the solicitation document.) Have you been indicted/convicted for a felony within the past 5 years? (If yes, explain on separate page.) Are you a Minority or Women-Owned Business Enterprise? Does your proposal contain Minority or Women-Owned Business enterprises as subcontractors? Are you submitting the required number of copies? (See proposal instructions.) Is other public funding pending/awarded on this and/or very similar topic (prior and/or competing proposals)? (If yes, explain on a separate page.)

<b>AUTHORIZED SIGNATURE &amp; CERTIFICATION</b>	
I certify that the above information, and all information submitted in connection with State Finance Law §139-j and §139-k, is complete, true, and accurate, that I have read and reviewed the Standard Terms and Conditions set forth in the attached Sample Agreement and that I accept all terms unless otherwise noted herein, and that the proposal requirements noted have been completed and are enclosed. I affirm that I understand and will comply with NYSDERDA's procedures under §139-j(3) and §139-j(6)(b) of the State Finance Law. I understand that this proposal may be disqualified if the solicitation requirements are not met. I, the undersigned, am authorized to commit my organization to this proposal.	
Signature	Name
Title	Organization
Phone	



Section C: Incentive Calculation Tool		nyserda Energy. Innovation. Solutions.	
Project Name	0		
Applicant Name	0		
This tool has been developed to estimate the Total Contracted Project Incentive for New ADG-to-Electricity System and Project Enhancement projects. To estimate incentives for projects that have previously received NYSEERDA funding, contact NYSEERDA for further information. Please enter the information requested in the yellow boxes. Note that Performance Incentives are calculated first and any remaining funds, considering the \$2 million cap per project can be applied to Interconnection and Capacity Incentives.			
<b>Potential Performance Incentives</b>			
Enter proposed new ADG-fueled power generation installation capacity, if any (kW)			
Enter existing ADG-fueled power generation capacity for which incentives are being requested, if any (kW)			
Minimum annual new ADG fueled power generation (kWh/yr) (based on a capacity factor of 75%)			
0			
1. Power Generation Performance Incentive			
\$0			
2. H <sub>2</sub> S Reduction Performance Incentive - <i>If any of the H<sub>2</sub>S reduction processes shown in Appendix C will be used, select the appropriate process in the adjacent box. Other H<sub>2</sub>S reduction processes not specified in Appendix C may also be eligible - contact T. Fiesinger or S. Hoyt. (Available to new and existing ADG-to-Electricity projects.)</i>		Click cell and Select	<i>Note: Applicants intending to use a combination of eligible H<sub>2</sub>S reduction processes not specified herein, contact T. Fiesinger or S. Hoyt.</i>
\$0			
<b>Total Potential Performance Incentive (paid over a 10 year period and subject to the \$2 million cap)</b>			
<b>\$0</b>			
<b>Potential Capacity Incentives</b>			
(See Incentive Calculation Tool Instructions)		Fixed Base Incentive	Variable Incentive per kW
Total Fixed and Variable Capacity Incentives			
<b>Anaerobic Digester component - Choose one (or none) that apply for the proposed project</b>			
1. Farm-based anaerobic digester with new digester vessel or new earthen lagoon digester.		Click cell and select:	\$0
\$0			
2. Farm-based anaerobic digester made by placing gas tight cover over an existing waste storage structure.		Click cell and select:	\$50,000
\$750			
3. New or upgrade of existing anaerobic digester for municipal waste water treatment/industrial waste processing systems*.		Click cell and select:	\$100,000
\$1,500			
*See PON Appendix C for requirements			
<b>Potential Anaerobic Digester Incentive (subject to the \$2 million cap)</b>			
<b>\$0</b>			
<b>Power Generation component - Choose one (or none) that apply for the proposed project</b>			
1. New ADG-fueled power generation system.		Click cell and select:	\$50,000
\$500			
2. Reconditioned ADG fueled power generation system.		Click cell and select:	\$12,500
\$125			
<b>Potential Power Generation Incentive (subject to the \$2 million cap)</b>			
<b>\$0</b>			
<b>Project Enhancements component- Choose all that apply for the proposed project</b>			
1. H <sub>2</sub> S reduction process. (The response above from "2. H <sub>2</sub> S Reduction   Performance Incentive" is entered here automatically.)		Click cell and select:	\$0
\$0			
2. "Black Start" capability of power generation system (ability-to generate on-site power in absence of utility power).		Click cell and select:	\$3,000
\$30			
3. Anaerobic digester system designed to accept > 20% food waste. <i>Must include pretreatment equipment. See Appendix C.</i>		Click cell and select:	\$50,000
\$350			
4. New sand separation unit installed to remove sand from sand laden manure before digestion. <i>Farm projects only.</i>		Click cell and select:	\$50,000
\$120			
5. Contracts to accept food waste from institutional sources. <i>Farm projects only.</i>		Click cell and select:	\$14,000
\$35			
6. Participant in cooperative anaerobic digester management entity. <i>Farm projects only.</i>		Click cell and select:	\$30,000
\$0			
<b>Total Potential Project Enhancement Incentives (subject to the \$2 million cap)</b>			
<b>\$0</b>			
<b>Potential Total Capacity Incentives (subject to the \$2 million cap)</b>			
<b>\$0</b>			
<b>Potential Interconnection Incentives</b>			
1. Interconnection Review Incentive - 75% reimbursement of CESIR costs exceeding \$5,000 (max incentive \$50,000). <i>In the adjacent cell, enter the estimated cost of CESIR shown in the Preliminary / Supplemental Screening Analysis by the electric utility, if available. If the combined CESIR and Interconnection Implementation costs are not expected to exceed \$5,000, please provide evidence of this estimate from the electric utility.</i>		\$ 15,000.00	Potential Interconnection Review Incentive
\$ -			
2. Interconnection Implementation Incentive - 50% reimbursement of grid upgrade costs for which the applicant is responsible (max. incentive \$300,000). <i>Enter estimated Interconnection Implementation cost, provided in the completed CESIR. If a CESIR is required but has not yet been completed, enter \$600,000 in the adjacent cell.</i>		\$ 100,000.00	Potential Interconnection Implementation Incentive
\$ -			
<b>Total Potential Interconnection Incentives (subject to the \$2 million cap)</b>			
<b>\$0</b>			
<b>Percentage of Potential Incentives remaining after applying \$2 million cap</b>		<b>Budgeted Incentive Totals after applying \$2 million cap</b>	
Total Performance Incentive 0%		Total Performance Incentive \$ -	
Total Capacity Incentive 0%		Total Capacity Incentive \$ -	
Total Contingent Interconnection Incentive 0%		Total Performance and Capacity Incentives \$ -	
		Total Contingent Interconnection Incentive (contingent on actual interconnection costs) \$ -	
		<b>Total Budgeted Performance, Capacity and Contingent Interconnection Incentive \$ -</b>	
<i>Note that Interconnection Incentives may be paid first to expedite reimbursement of those costs. Remaining funds are applied per the payment distributions below.</i>			
<b>Estimated Payment Distribution</b>			<b>Estimated Totals</b>
<b>Interconnection Incentive payment distribution</b>			
1 <sup>st</sup> Interconnection payment - 100% Interconnection Review Incentive			\$ -
2 <sup>nd</sup> Interconnection payment - 75% of Interconnection Implementation Incentive			\$ -
3 <sup>rd</sup> Interconnection payment - up to 25% percent of Interconnection Implementation Incentive based on the actual final costs of the interconnection implementation			\$ -
<b>Capacity Incentive payment distribution</b>			
1 <sup>st</sup> Capacity payment - up to 15% of Total Capacity Incentive			\$ -
2 <sup>nd</sup> Capacity payment - 45% of Anaerobic Digestion component			\$ -
3 <sup>rd</sup> Capacity payment - 45% of Power Generation component			\$ -
4 <sup>th</sup> Capacity payment - 45% of total Project Enhancements component			\$ -
5 <sup>th</sup> Capacity payment - 20% of Total Capacity Incentive (successful operation)			\$ -
6 <sup>th</sup> Capacity payment - up to 100% of any remaining Total Capacity Incentive (successful commissioning)			\$ -
<b>Performance Incentive payment distribution</b>			<b>Maximum average annual payment (10 years) \$ -</b>

## Section D: Site Control letter

<b>Project Name</b>	0
<b>Applicant Name</b>	0



, the undersigned Host, certifies that the Applicant, , will be authorized to install the ADG-to-Electricity System or Project Enhancement Component at the facility located at the address indicated below, should the requested NYSERDA funding be awarded.

0
0
0

(Facility Address)

The ADG-to-Electricity project is expected to achieve the following:

<b>Performance Incentive</b>	<b>Interconnection Incentive</b>
<b>\$0</b>	<b>\$0</b>
<b>Capacity Incentive</b>	<b>Total Incentive</b>
<b>\$0</b>	<b>\$0</b>

The Host Site acknowledges that this Site Control Letter is needed by the Applicant to apply to NYSERDA for participation in the ADG-to-Electricity Program, but that NYSERDA does not guarantee a Standard Performance Contract (SPC) Agreement until the Applicant fulfills all ADG-to-Electricity Program requirements, assuming ADG-to-Electricity Program incentive funding is still available at that time. In signing this form the Host Site also agrees to the following:

- A. I hereby release NYSERDA, its officers, directors, members, agents, and employees from any and all claims, demands, losses, judgments, penalties, causes of action, damages, costs, and expenses (including, without limitation, attorneys' fees and expenses), and legal liability arising out of or in any way connected with, directly or indirectly, either the acceptance of the project for participation in the ADG-to-Electricity Program or the installation of the project, or both, including but not limited to those in any way related to or arising from: (1) injury or death of persons; (2) injury to natural resources; (3) violation of any local, State, or federal law or regulation, including, but not limited to, environmental laws or regulations; (4) strict liability imposed by any law or regulation; (5) equipment malfunctions; or (6) energy savings shortfalls arising out of, or related to, or in any way connected with the project, or any actions or omissions by the Applicant related to the project, regardless of any strict liability or negligence of NYSERDA, its officers, directors, agents, or employees, whether active or passive.

The obligations under this paragraph shall survive any expiration or termination of any SPC Agreement that may be executed in connection with this site.

- B. I understand that NYSERDA, its officers, directors, members, agents, and employees have made no warranty or representation regarding the qualifications of the Applicant. I understand that the Host Site is solely responsible for the selection of the Applicant to implement the project.

- C. I will provide project site access for inspections and oversight of QA/QC for the ADG-to-Electricity System or Project Enhancement Component to the Applicant, equipment installers, NYSERDA, and its Technical Consultant during the term of the SPC Agreement
- D. I agree that NYSERDA, its officers, directors, members, agents, and employees will have no role in resolving any disputes between the Host Site, equipment installer and the Applicant.
- E. I certify that the new biogas-fueled electric generation equipment included in this application has not been delivered to the site or a staging area.
- F. I understand that all NYSERDA incentives provided under this PON for the ADG System described in this Application will be paid to the Applicant, but must be disclosed to the Host.
- G. I guarantee that I have authority to contract and intend to contract with a vendor or Applicant, on behalf of the legal owners of the project site for installation of the ADG-to-Electricity System or Project Enhancement Component.
- H. I certify that the electricity charges for the facility(ies) in the Application include (or for new construction of a project will include) the Renewable Portfolio Standard (RPS) Surcharge or the System Benefits Charge (SBC). Copies of electric distribution bill payment of the RPS or SBC or of documentation from the distribution utility are required. I hereby grant NYSERDA permission to request, and the distribution utility and electric supplier to release, information about the account(s).
- I. Publicity: NYSERDA may publicize the Host Site's participation in the program, the results, the amount of incentives paid to the Applicant and any other information that reasonably relates to the Applicant's participation, including photographs of the funded ADG-to-Electricity System or Project Enhancement Component.

[Redacted Signature Area]

Host Site Representative Signature

[Redacted Date Area]

Date

Sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 201\_\_.

[Redacted Notary Signature Area]

Notary Public Signature

[Redacted Notary Stamp Area]

Stamp of Notary Public

## Section E: Applicant Short-Form Agreement

<b>Project Name</b>	0
<b>Applicant Name</b>	0



0, the undersigned participant in the **ADG-to-Electricity Program** administered by NYSERDA, recognizes and accepts that participation in the program, and receipt of any program incentive payments, is predicated on the Applicant following all guidelines and procedures established for the program.

These requirements include, but are not limited to:

- Following program procedures as detailed in NYSERDA's PON 2828.
- Disclosing to the Host all NYSERDA incentives received under this PON.
- Meeting all submittal progress timelines.
- Meeting all documentation requests to NYSERDA's satisfaction.
- Preparing an acceptable QA/QC plan.
- Signing a Standard Performance Contract Agreement (Please note any exceptions you may have and attach to this form).
- Meeting the terms and conditions of the Standard Performance Contract Agreement.
- Scheduling and providing access to project sites for inspections conducted by NYSERDA or its Technical Consultants.
- Being present at all inspections conducted by NYSERDA or its Technical Consultants.
- Complying with the disclosure requirements regarding indictment or conviction of a felony.

The Applicant understands that its eligibility for ADG-to-Electricity Program incentive payments is contingent on its meeting all Program requirements.

\_\_\_\_\_ ,

Applicant Representative Name, Title

\_\_\_\_\_

Applicant Representative Signature

\_\_\_\_\_

Date

## **PON 2828 APPENDIX C – USING THE INCENTIVE CALCULATION TOOL AND SPECIFIC INCENTIVE REQUIREMENTS**

The *Incentive Calculation Tool* (see Appendix B Section C) should be used by the applicant to estimate the incentives for which their project is eligible. The following is a description and explanation of how each of the incentives in the Tool is calculated.

Note: The ***bolded, italicized text*** included below indicates information to be provided by the applicant. All of the yellow-colored cells in the Tool require information, as applicable, that must be input by the applicant.

### **PERFORMANCE INCENTIVES**

Performance Incentives are provided to encourage on-going operation of ADG-to-Electricity systems and are based on the actual kWh's produced by the system or the performance of a hydrogen sulfide (H<sub>2</sub>S) reduction process.

***On the line labeled “Enter proposed new ADG-fueled power generation installation capacity, if any (kW),” the applicant must enter the intended new electrical capacity of the system.***

The capacity should be based on the lesser of the following:

- The rated power generation capacity of the generator;
- The rated output of the engine fueled by anaerobic digester gas (including any controlled power generation limits set by the supplier);
- The power output from the expected biogas production of the anaerobic digester (if NYSERDA determines biogas sources to be inadequate the overall proposed capacity may be reduced), and;
- Any power generation capacity limits due to electrical grid interconnection capacity limits.

***If the applicant intends to apply for H<sub>2</sub>S reduction incentives for existing capacity they must also enter the capacity of the existing ADG-fueled electrical capacity on the line “Enter existing ADG-fueled power generation capacity for which incentives are being requested, if any (kW).”***

Note: Once the application to the program is approved by NYSERDA, the applicant and NYSERDA will enter in to a Standard Performance Agreement. In this agreement, and likewise in this appendix, the combination of new ADG-fueled power generation capacity and existing ADG-fueled power generation capacity will be referred to as the Contract Capacity.

Once the applicant has entered the above information, the Tool calculates the minimum annual new ADG-fueled power generation using the following formula:

$$\text{Minimum annual new ADG-fueled power generation} = \text{Contract Capacity (kW)} \times 8760 \text{ hours in one year} \\ \times 75\% \text{ (capacity factor)}$$

The Tool also calculates the Power Generation Performance Incentive as follows:

$$\text{Power Generation Performance Incentive} = \text{Minimum annual new ADG-fueled power generation (kWh)} \\ \times \$0.025/\text{kWh} \times 10 \text{ years}$$

Hydrogen sulfide is a small component present in biogas that is highly corrosive to biogas engine generators, negatively affecting performance and increasing maintenance costs. Several processes have been shown to be

effective in significantly reducing H<sub>2</sub>S levels in biogas. These incentives are available for both proposed new ADG-to-Electricity installation projects as well as existing ADG-to-Electricity projects to encourage the use of H<sub>2</sub>S reduction processes.

Note that for all projects for which H<sub>2</sub>S reduction incentives are requested a gas analyzer system will be required to be installed to record (at a minimum) hourly H<sub>2</sub>S output levels from the H<sub>2</sub>S removal systems as well as daily measurements of H<sub>2</sub>S input levels (instrumentation requirements outlined in the Appendix E). This data must be uploaded to NYSERDA's CHP website. NYSERDA may direct its technical contractors to sample the biogas, determine H<sub>2</sub>S removal efficiency, and compare that efficiency to the data originally provided by the operator.

***Applicants that intend to install a system using one of the following products to reduce hydrogen sulfide (H<sub>2</sub>S) produced by their project should select the appropriate option on the line "H<sub>2</sub>S Reduction Process Performance Incentive":***

The eligible processes for H<sub>2</sub>S Removal shown below and eligibility criteria are defined at <http://nysERDA.ny.gov/PON2828> the corresponding H<sub>2</sub>S Performance Incentive Variable is used to calculate the incentive)

- Iron Chloride (H<sub>2</sub>S Performance Incentive Variable \$.004/kWh)
- Ferric Hydroxide (H<sub>2</sub>S Performance Incentive Variable \$.004/kWh)
- Biological Scrubber (H<sub>2</sub>S Performance Incentive Variable \$.0023/kWh)
- Carbon Filter (H<sub>2</sub>S Performance Incentive Variable \$.0035/kWh)
- Iron Sponge (H<sub>2</sub>S Performance Incentive Variable \$.004/kWh)
- Other (H<sub>2</sub>S Performance Incentive Variable \$.004/kWh)

Other H<sub>2</sub>S removal technologies may also be eligible for this incentive if the criteria (outlined at <http://nysERDA.ny.gov/PON2828> ) is met. Contact Tom Fiesinger or Steve Hoyt. This incentive is available for both new ADG-to-Electricity installation projects as well as existing ADG-to-electricity projects.

The total (10 year) potential for H<sub>2</sub>S Reduction Processes Performance Incentive is calculated using the following formula:

$$\text{Total potential Digester Additives and Other Technologies for H}_2\text{S Removal Performance Incentive} = \text{Contract Capacity} \times 8760 \text{ hrs/year} \times 0.75 \times \text{H}_2\text{S Perf. Inc. Variable} \times 10 \text{ years}$$

Biological Scrubber, Carbon Filter, Iron Sponge processes have been demonstrated to be effective in consistently reducing H<sub>2</sub>S levels in biogas from 2000 ppm or greater to less than 400 ppm, when properly designed and operated. But these processes also can have greater upfront installation costs than other options. Applicants installing new Biological Scrubber, Carbon Filter, Iron Sponge processes are therefore able to request Capacity Incentives and relatively greater overall incentives (as compared to other processes) but must meet stringent requirements of H<sub>2</sub>S reduction to 400 ppm in order to receive payment as described in the Payment Distribution section of this Appendix. In addition, only applicants using vendors of biological scrubbers from the Approved Vendor list at <http://nysERDA.ny.gov/PON2828> or who have provided design details for an adequately sized biological scrubber, carbon filter or iron sponge shall be eligible for the incentive levels associated with these particular processes. NYSERDA shall review design information provided and determine if the proposed biological scrubber, carbon filter or iron sponge is adequately sized given the expected biogas production.

Likewise, addition of Iron Chloride and Ferric Hydroxide to digester influent may also cost effectively reduce H<sub>2</sub>S levels in biogas from a digester from approximately 1200 – 2000 ppm to less than 800 ppm depending if the product is properly applied by the operator. Therefore incentives associated with these or other additives (or

processes not specified in this PON or at <http://nysesda.ny.gov/PON2828> but otherwise approved as eligible by NYSERDA in writing) are also available for reducing H<sub>2</sub>S levels present in the biogas. Payment of this incentive, as outlined in the Payment Distribution section of this Appendix, shall be based on the effectiveness of the process in reducing H<sub>2</sub>S to a level of 800 ppm or less.

### **Total Potential Performance Incentives**

The Total Potential Performance Incentive is calculated by adding the Power Generation Performance Incentive, and the H<sub>2</sub>S Reduction Processes Performance Incentive, if appropriate. The Total Potential Performance Incentive is subject to the \$2 million per project cap. All performance incentives are paid annually over a 10 year period. As mentioned previously, actual payments are based on actual kWh production and verified H<sub>2</sub>S removal.

### **CAPACITY INCENTIVES**

Capacity Incentives are provided to offset the capital costs associated with installing an ADG-to-Electricity project including the anaerobic digester system, the power generation system, and certain project enhancements.

*Under the cell labeled “Anaerobic Digestion Component,” the applicant may select one (or none) of the following components by entering “yes” in the appropriate cell:*

1. Farm-based anaerobic digester with new digester vessel or new earthen lagoon digester  
An applicant proposing a project at a farm where a new digester vessel is installed (e.g., a concrete, steel or plastic tank) or an earthen lagoon should make the appropriate selection in the cell associated with this option. The incentive associated with this selection is based on both a fixed base element (\$100,000 for new digester vessel, \$75,000 for new earthen lagoon) and a variable element (\$1,500 for new digester vessel, \$1,125 new earthen lagoon digester) per kW of ADG-fueled power generation capacity.
2. Farm-based anaerobic digester made by placing a gas-tight cover over an existing waste storage structure  
An applicant proposing a project at a farm where the anaerobic digester is made by placing a gas-tight cover over an existing waste storage structure (e.g., an earthen lagoon or concrete storage tank) should enter “yes” in the cell associated with this option. The incentive associated with this selection is based on both a fixed base element of \$50,000 and a variable element of \$750 per kW of proposed new ADG-fueled power generation capacity.
3. New or upgrade of existing anaerobic digester for municipal waste water treatment/industrial waste processing systems  
An applicant proposing installation of a new anaerobic digester, or significant upgrades to an existing anaerobic digester, to be located at a municipal wastewater treatment plant or an industrial facility should enter “yes” in the cell associated with this option. The incentive associated with this selection is based on both a fixed base element of \$100,000 and a variable element of \$1,500 per kW of proposed new ADG-fueled power generation capacity.

Note: Significant upgrades to an existing municipal waste water treatment/industrial waste processing anaerobic digester must include a minimum two of the following: i) a replacement anaerobic digester cover system; ii) installation of new gas handling systems to recover all of the gas produced by the anaerobic digester system; iii) installation of a new sludge thickening process; iv) installation of new heating arrays to heat all of the anaerobic digester contents or preheat the entire waste input stream; or v) installation of new anaerobic digester mixing systems to mix the entire contents of the anaerobic digester. Upgrades not included in this list may also be deemed sufficient by NYSERDA to satisfy this requirement and should be described in the Application Package.

***Under the cell labeled “Power Generation Component,” the applicant may select one (or none) of the following components by entering “yes” in the appropriate cell:***

1. New ADG-fueled power generation system installation

An applicant proposing a project where new ADG-fueled power generation equipment will be installed (i.e., equipment that has not been previously operated, other than for manufacturer testing) should enter “yes” in the cell associated with this option. The incentive associated with this selection is based both on a fixed base element of \$50,000 and a variable element of \$500 per kW of proposed new ADG-fueled power generation capacity.

2. Reconditioned ADG-fueled power generation system installation

An applicant proposing a project where reconditioned ADG-fueled power generation equipment will be installed (i.e., equipment that has been previously operated but has also been adequately reconditioned/upgraded to NYSERDA’s satisfaction) should enter “yes” in the cell associated with this option. The incentive associated with this selection is based both on a fixed base element of \$12,500 and a variable element of \$125 per kW of proposed new ADG-fueled power generation capacity.

***Under the cell labeled “Project Enhancements component,” the applicant must select the applicable project components by entering “yes” in the appropriate cell:***

1. H<sub>2</sub>S reduction process

Incentives may be provided for the installation of a H<sub>2</sub>S reduction system and/or installation of a gas analyzer to monitor H<sub>2</sub>S levels. The incentive associated with this selection is based on the following fixed base element and variable elements per kW of generator capacity:

- Iron Chloride - fixed base element \$16,400 and variable element \$0
- Ferric Hydroxide - fixed base element \$15,000 and variable element \$0
- Biological Scrubber - fixed base element \$80,000 and variable element \$45
- Carbon Filter - fixed base element \$17,500 and variable element \$34
- Iron Sponge - fixed base element \$32,500 and variable element \$39
- Other - fixed base element \$15,000 and variable element \$0

For each of the processes above, \$15,000 is included in the fixed base element to offset the cost of a gas analyzer.

Note: This cell is automatically populated when a selection has been made for the H<sub>2</sub>S Reduction Processes Performance Incentive.

2. Black start capability

Black start capability (the ability to start-up and produce electricity for on-site use in the absence of grid power) provides the host facility with a source of back-up power in the event that the electrical grid is down. To receive this incentive the Applicant must demonstrate that the system has black start capability, as part of the installation and commissioning process. The incentive associated with this selection is based on a fixed base element of \$3,000 and a variable element of \$30 per kW of proposed new ADG-fueled power generation capacity.

3. Anaerobic digester system designed to accept > 20% food waste

In NYS, a significant amount of food waste (i.e., organic materials from food products including wastes from food production, food preparation, and post-consumer food wastes) is landfilled. This may result in methane emissions to the environment, loss of nutrient value, and significant costs to food waste

generators. Anaerobic digestion is an effective means of recycling the nutrient value of food waste and reducing methane emissions, and may lower costs for food waste generators. An applicant selecting this component must design their project such that the anaerobic digester is capable of accepting a minimum of 20% of its total mass of input as food waste; and the system must also include at least one of the following pretreatment processes:

- i) pasteurization designed to treat all food waste inputs to a minimum 160° F;
- ii) separated (acid) phase digestion designed to treat all food waste inputs (with a minimum 4 day holding capacity); and/or
- iii) an equalization/holding tank designed for all food waste inputs (with a minimum 2 day holding capacity) and must include an ability to heat contents to a minimum of 100° F, an ability to mix all contents and at least one of the following: waste stream concentrating process; maceration/chopping; package removal, or; odor control capability.

Other equipment or systems required to accept food waste into the digester system that are not included in this list may also be deemed sufficient by NYSERDA to satisfy this requirement and should be described in the Application Package. The incentive associated with this selection is based on a fixed base element of \$50,000 and a variable element of \$350 per kW of proposed new ADG-fueled power generation capacity.

4. New sand separation unit installed to remove sand from sand laden manure before digestion  
Many dairy farms in NYS use sand bedding. However, sand laden manure can cause significant operational issues in an anaerobic digester due to sand accumulation. To qualify for this incentive, a sand separation unit must be designed to remove a minimum of 97% of the sand from the raw manure before the manure is added to the anaerobic digester. The incentive associated with this selection is based on a fixed base element of \$50,000 and a variable element of \$120 per kW of proposed new ADG-fueled power generation capacity; and is available only to projects digesting at least 50% manure inputs on a mass basis.
5. Contract(s) to accept food waste from institutional sources  
A project designed to accept >20% food waste, as described above, will be eligible for this additional incentive if they have one or more (minimum 3 year) contracts in place to provide a minimum of 5% of their waste inputs (on a mass basis) from institutional sources (e.g. government-operated residential facilities). The incentive associated with this selection is based on a fixed base element of \$14,000 and a variable element of \$35 per kW of proposed new ADG-fueled power generation capacity.
6. Participation in a cooperative anaerobic digester management entity  
Anaerobic digester operation and management costs can be reduced through shared management and operation services. Incentives are offered through this component to off-set the costs of forming and operating a cooperative digester management entity, for projects where at least three anaerobic digester facilities have entered in to a (minimum) 5-year shared services agreement. The incentive associated with this selection is based only on a fixed base element of \$30,000; and is available only to farm projects.

The Potential Total Capacity Incentives are calculated by adding the Potential Anaerobic Digester Incentive, the Potential Power Generation Incentive, and the Total Potential Project Enhancement incentives, if appropriate.

## **INTERCONNECTION INCENTIVES**

Interconnection Incentives are provided to offset the costs associated with the Coordinated Electric System Interconnection Review (CESIR) and the implementation of electrical grid interconnection.

The NYS Standard Interconnection Requirements (SIR - Appendix G) steps for an electrical grid interconnection for projects with an installed capacity between 50 kW and 5 MW are as follows:

- STEP 1: Initial Communication from the Potential Applicant.
- STEP 2: The Inquiry is Reviewed by the Utility to Determine the Nature of the Project
- STEP 3: The Potential Applicant Files an Application
- STEP 4: Utility Performs Preliminary / Supplemental Screening Analysis and Develops a Cost Estimate for the Coordinated Electric System Interconnection Review (CESIR)
- STEP 5: Applicant Commits to the Completion of the CESIR
- STEP 6: Utility Completes the CESIR
- STEP 7: Applicant Commits to Utility Construction of Utility's System Modifications
- STEP 8: Project Construction.
- STEP 9: The Applicant's Facility is Tested in Accordance with the Standardized Interconnection Requirements
- STEP 10: Interconnection
- STEP 11: Final Acceptance and Utility Cost Reconciliation

An application package to the ADG-to-Electricity program will not be deemed complete until the applicant completes steps 1 through 3 of the SIR and a copy of the Preliminary / Supplemental Screening Analysis (Step 4), if applicable, must be provided to NYSERDA before NYSERDA will send an Agreement for incentives out for signature. (The Preliminary / Supplemental Screening Analysis provides the applicant with an estimate for the cost of the CESIR.)

The Interconnection Review Incentive reimburses the applicant for up to 75% of the CESIR costs exceeding \$5,000, up to a maximum incentive of \$50,000. Note that many on-farm digesters may be eligible to net-meter under NYS's net-metering laws which limit the cost the utility charges for interconnection to \$5,000 as long as the capacity of the generator does not exceed 20% of the utility line capacity at the site. Applicants who are proposing a net-metered project at a farm and the utility has determined that total interconnection costs will not exceed \$5,000, will need to provide such a documented determination from the utility. ***To request the Interconnection Review Incentive, the applicant must enter the estimated cost of the CESIR on the line "Interconnection Review Incentive".***

Once the CESIR is complete and the applicant commits to installing the project, the remaining SIR steps must be completed in order to implement a grid interconnection. As part of step 7, the applicant is expected to pay the utility the entire estimated cost of the interconnection implementation (i.e., project construction) unless otherwise exempt from these expenses under net-metering law requirements. Upon completion of step 11, the costs are reconciled, as appropriate. NYSERDA reserves the right to review and if necessary, challenge reconciled costs as reported by the utility. The Interconnection Implementation Incentive has been developed to offset a portion of these interconnection implementation costs. The Incentive Calculation Tool estimates the incentive as 50% of the inputted costs for interconnection implementation; a value provided in the CESIR. ***To request the Interconnection Implementation Incentive, the applicant must enter the estimated cost of interconnection***

***implementation on the line “Interconnection Implementation Incentive”. If a CESIR is required but the cost of interconnection is not yet known (at the time of application for funding under PON 2828), enter \$600,000 as the estimated cost. Any incentive provided will ultimately be based on 50% of the final cost of the interconnection implementation or \$300,000, whichever is less.***

The Total Potential Interconnection Incentives are calculated by adding the Interconnection Review Incentive and the Interconnection Implementation Incentives.

## **TOTAL INCENTIVES**

The Total Budgeted Performance, Capacity and Contingent Interconnection Incentive is calculated by adding the Total Potential Performance Incentive, the Potential Total Capacity Incentives, and the Total Potential Interconnection Incentives. The Total Incentive may not exceed \$2 million and this limit on funds is applied sequentially to Performance, Interconnection and Capacity Incentives calculated in *Incentive Calculation Tool* as shown under “Percentage of Potential Incentive remaining after applying the \$2 million cap”. These percentages are applied to each calculated Potential Incentive to then determine the actual Total Incentive amounts. Likewise, these same percentages are applied to each respective incentive payment shown in the Estimated Payment Distribution at the bottom of the *Incentive Calculation Tool*.

## **PAYMENT DISTRIBUTIONS**

No payments will be made before an executed Standard Performance Agreement is in place between the applicant and NYSERDA. The estimated payment schedule is shown on the Incentive Calculation Tool. It is based on requirements outlined in Appendix F *Sample Standard Performance Contract Agreement* under the PAYMENTS section of ARTICLE 5.

## **EXAMPLE PROJECT INCENTIVE CALCULATIONS**

Three examples project incentive calculations are provided to illustrate how the Incentive Calculation Tool is used and how incentive levels calculated in the Tool are used to estimate the Total Contract Project Incentive amount.

As mentioned previously, once the application to the ADG-to-Electricity Program is approved by NYSERDA, the applicant and NYSERDA will enter in to a Standard Performance Agreement. The foundation of the Agreement is the Contracted Capacity, the Annual Contracted Generation, and the Total Contracted Project Incentive. These are included in the Agreement as Exhibit A. Also included on Exhibit A are the Total Performance Incentive, Total Interconnection Incentive and Total Capacity Incentive.

### **Example A**

ABC Dairy Farm is planning to install a brand new anaerobic digester system that will produce biogas to fuel a power generation system rated to produce 200 kW of electricity. The ADG system is designed to co-digest at least 20% food waste inputs by mass with 80% dairy manure inputs by mass. The system will include a separated phase digestion unit to pretreat all food waste inputs. The power generation system will use iron chloride to reduce H<sub>2</sub>S levels in the biogas and have ‘black start’ capability to provide power to the farm in the event of a loss of grid power. The farm also plans to install a sand separation unit to separate sand from the manure portion of the waste stream. The farm has applied to the utility for a net-metered interconnection of the 200 kW ADG fueled power generation system. The utility conducted a Preliminary Review and has indicated that 200 kW is less than 20% of the electrical capacity of the utility line in front of the farm and therefore the farm will only be responsible for a maximum \$5,000 for CESIR and interconnection implementation.

The Incentive Calculation Tool estimates for ADG Project A as follows:

# Section C: Incentive Calculation Tool



<b>Project Name</b>	ADG-to-Electricity Project A
<b>Applicant Name</b>	ABC Dairy Farm

This tool has been developed to estimate the Total Contracted Project Incentive for New ADG-to-Electricity System and Project Enhancement projects. To estimate incentives for projects that have previously received NYSERDA funding, contact NYSERDA for further information. Please enter the information requested in the yellow boxes. Note that Performance Incentives are calculated first and any remaining funds, considering the \$2 million cap per project can be applied to Interconnection and Capacity Incentives.

## Potential Performance Incentives

Enter proposed new ADG-fueled power generation installation capacity, if any (kW)		200
Enter existing ADG-fueled power generation capacity for which incentives are being requested, if any (kW)		
Minimum annual new ADG fueled power generation (kWh/yr) (based on a capacity factor of 75%)		1,314,000
1. Power Generation Performance Incentive		\$328,500
2. H <sub>2</sub> S Reduction Performance Incentive - <i>If any of the H<sub>2</sub>S reduction processes shown in Appendix C will be used, select the appropriate process in the adjacent box. Other H<sub>2</sub>S reduction processes not specified in Appendix C may also be eligible - contact T. Fiesinger or S. Hoyt. (Available to new and existing ADG-to-Electricity projects.)</i>	Iron Chloride	\$52,560
<i>Note: Applicants intending to use a combination of eligible H<sub>2</sub>S reduction processes not specified herein, contact T. Fiesinger or S. Hoyt.</i>		
<b>Total Potential Performance Incentive</b> (paid over a 10 year period and subject to the \$2 million cap)		<b>\$381,060</b>

## Potential Capacity Incentives

(See Incentive Calculation Tool Instructions)	Fixed Base Incentive	Variable Incentive per kW	Total Fixed and Variable Capacity Incentives
<b>Anaerobic Digester component - Choose one (or none) that apply for the proposed project</b>			
1. Farm-based anaerobic digester with new digester vessel or new earthen lagoon digester.	New Digester Vessel	\$100,000	\$1,500
2. Farm-based anaerobic digester made by placing gas tight cover over an existing waste storage structure.	Click cell and select:	\$50,000	\$750
3. New or upgrade of existing anaerobic digester for municipal waste water treatment/industrial waste processing systems*.	Click cell and select:	\$100,000	\$1,500
*See Appendix C for requirements			
<b>Potential Anaerobic Digester Incentive (subject to the \$2 million cap)</b>			<b>\$400,000</b>
<b>Power Generation component - Choose one (or none) that apply for the proposed project</b>			
1. New ADG-fueled power generation system.	Yes	\$50,000	\$500
2. Reconditioned ADG fueled power generation system.	Click cell and select:	\$12,500	\$125
<b>Potential Power Generation Incentive (subject to the \$2 million cap)</b>			<b>\$150,000</b>
<b>Project Enhancements component- Choose all that apply for the proposed project</b>			
1. H <sub>2</sub> S reduction process. <i>(The response above from "2. H<sub>2</sub>S Reduction 1 Performance Incentive" is entered here automatically.)</i>	Iron Chloride	\$16,400	\$0
2. "Black Start" capability of power generation system (ability-to generate on-site power in absence of utility power).	Yes	\$3,000	\$30
3. Anaerobic digester system designed to accept > 20% food waste. <i>Must include pretreatment equipment. See Appendix C.</i>	Yes	\$50,000	\$350
4. New sand separation unit installed to remove sand from sand laden manure before digestion. <i>Farm projects only.</i>	Yes	\$50,000	\$120
5. Contracts to accept food waste from institutional sources. <i>Farm projects only.</i>	Click cell and select:	\$14,000	\$35
6. Participant in cooperative anaerobic digester management entity. <i>Farm projects only.</i>	Click cell and select:	\$30,000	\$0
<b>Total Potential Project Enhancement Incentives (subject to the \$2 million cap)</b>			<b>\$219,400</b>
<b>Potential Total Capacity Incentives (subject to the \$2 million cap.)</b>			<b>\$769,400</b>

## Potential Interconnection Incentives

1. <b>Interconnection Review Incentive</b> - 75% reimbursement of CESIR costs exceeding \$5,000 (max incentive \$50,000). <i>In the adjacent cell, enter the estimated cost of CESIR shown in the Preliminary/Supplemental Screening Analysis by the electric utility, if available. If the combined CESIR and Interconnection Implementation costs are not expected to exceed \$5,000, please provide evidence of this estimate from the electric utility.</i>		Potential Interconnection Review Incentive	\$ -
2. <b>Interconnection Implementation Incentive</b> - 50% reimbursement of grid upgrade costs for which the applicant is responsible (max. incentive \$300,000). <i>Enter estimated Interconnection Implementation cost, provided in the completed CESIR. If a CESIR is required but has not yet been completed, enter \$600,000 in the adjacent cell.</i>		Potential Interconnection Implementation Incentive	\$ -
<b>Total Potential Interconnection Incentives (subject to the \$2 million cap)</b>			<b>\$0</b>

### Percentage of Potential Incentives remaining after applying \$2 million cap

### Budgeted Incentive Totals after applying \$2 million cap

Total Performance Incentive 100%	Total Performance Incentive	\$ 381,060
Total Capacity Incentive 100%	Total Capacity Incentive	\$ 769,400
Total Contingent Interconnection Incentive 0%	Total Performance and Capacity Incentives	\$ 1,150,460
	Total Contingent Interconnection Incentive (contingent on actual interconnection costs)	\$ -
<b>Total Budgeted Performance, Capacity and Contingent Interconnection Incentive</b>		<b>\$ 1,150,460</b>

*Note that Interconnection Incentives may be paid first to expedite reimbursement of those costs. Remaining funds are applied per the payment distributions below.*

### Estimated Payment Distribution

Estimated Totals

Interconnection Incentive payment distribution	Estimated Totals
1 <sup>st</sup> Interconnection payment - 100% Interconnection Review Incentive	\$ -
2 <sup>nd</sup> Interconnection payment - 75% of Interconnection Implementation Incentive	\$ -
3 <sup>rd</sup> Interconnection payment - up to 25% percent of Interconnection Implementation Incentive based on the actual final costs of the interconnection implementation	\$ -
<b>Capacity Incentive payment distribution</b>	
1 <sup>st</sup> Capacity payment - up to 15% of Total Capacity Incentive	\$ 115,410
2 <sup>nd</sup> Capacity payment - 45% of Anaerobic Digestion component	\$ 180,000
3 <sup>rd</sup> Capacity payment - 45% of Power Generation component	\$ 67,500
4 <sup>th</sup> Capacity payment - 45% of total Project Enhancements component	\$ 98,730
5 <sup>th</sup> Capacity payment - 20% of Total Capacity Incentive (successful operation)	\$ 153,880
6 <sup>th</sup> Capacity payment - up to 100% of any remaining Total Capacity Incentive (successful commissioning)	\$ 153,880
<b>Performance Incentive payment distribution</b>	<b>Maximum average annual payment (10 years)</b>
	<b>\$ 38,106</b>

The Exhibit A that would be included in the Standard Performance Agreement between NYSERDA and the ABC Dairy Farm is shown below:

EXHIBIT A TOTAL CONTRACTED PROJECT INCENTIVE					
Contractor Name: ABC Dairy Farm Agreement Number: 12345 Project Name: ADG Project A					
Contracted Capacity (kW)	Annual Contracted Generation (kWh/year)	Total Performance Incentive (\$)	Total Interconnection Incentive (\$)	Total Capacity Incentive (\$)	Total Contracted Project Incentive (\$)
200	1,314,000	\$381,060	\$0	\$769,400	\$1,150,460

**Example B**

The Any City municipal waste water treatment plant (WWTP) is planning to upgrade its existing anaerobic digester system to produce biogas to fuel a new power generation system rated to produce 425 kW of electricity. The ADG system is designed to co-digest at least 20% food waste inputs by mass with 80% municipal waste water inputs by mass. The project will include installation of a new digester cover and new sludge thickening equipment, as well as an equalization tank with integral mixing and odor control for the food waste inputs. The plant also plans to install a biological scrubber system selected from the approved vendor list. The utility has informed the plant that the CESIR study will cost \$15,000, and the applicant has estimated that the interconnection implementation will cost \$120,000.

The Incentive Calculation Tool estimates for ADG Project B follows:

# Section C: Incentive Calculation Tool



<b>Project Name</b>	ADG-to-Electricity Project B
<b>Applicant Name</b>	ABC Dairy Farm

This tool has been developed to estimate the Total Contracted Project Incentive for New ADG-to-Electricity System and Project Enhancement projects. To estimate incentives for projects that have previously received NYSERDA funding, contact NYSERDA for further information. Please enter the information requested in the yellow boxes. Note that Performance Incentives are calculated first and any remaining funds, considering the \$2 million cap per project can be applied to Interconnection and Capacity Incentives.

## Potential Performance Incentives

Enter proposed new ADG-fueled power generation installation capacity, if any (kW)		425
Enter existing ADG-fueled power generation capacity for which incentives are being requested, if any (kW)		
Minimum annual new ADG fueled power generation (kWh/yr) (based on a capacity factor of 75%)		2,792,250
1. Power Generation Performance Incentive		\$698,063
2. H <sub>2</sub> S Reduction Performance Incentive - <i>If any of the H<sub>2</sub>S reduction processes shown in Appendix C will be used, select the appropriate process in the adjacent box. Other H<sub>2</sub>S reduction processes not specified in Appendix C may also be eligible - contact T. Fiesinger or S. Hoyt. (Available to new and existing ADG-to-Electricity projects.)</i>	Biological Scrubber	<i>Note: Applicants intending to use a combination of eligible H<sub>2</sub>S reduction processes not specified herein, contact T. Fiesinger or S. Hoyt.</i>
		\$64,222
<b>Total Potential Performance Incentive</b> (paid over a 10 year period and subject to the \$2 million cap)		<b>\$762,284</b>

## Potential Capacity Incentives

(See Incentive Calculation Tool Instructions)	Fixed Base Incentive	Variable Incentive per kW	Total Fixed and Variable Capacity Incentives
<b>Anaerobic Digester component - Choose one (or none) that apply for the proposed project</b>			
1. Farm-based anaerobic digester with new digester vessel or new earthen lagoon digester.	Click cell and select:	\$0	\$0
2. Farm-based anaerobic digester made by placing gas tight cover over an existing waste storage structure.	Click cell and select:	\$50,000	\$750
3. New or upgrade of existing anaerobic digester for municipal waste water treatment/industrial waste processing systems*.	Yes	\$100,000	\$1,500
*See Appendix C for requirements			
<b>Potential Anaerobic Digester Incentive (subject to the \$2 million cap)</b>			<b>\$737,500</b>
<b>Power Generation component - Choose one (or none) that apply for the proposed project</b>			
1. New ADG-fueled power generation system.	Yes	\$50,000	\$500
2. Reconditioned ADG fueled power generation system.	Click cell and select:	\$12,500	\$125
<b>Potential Power Generation Incentive (subject to the \$2 million cap)</b>			<b>\$262,500</b>
<b>Project Enhancements component- Choose all that apply for the proposed project</b>			
1. H <sub>2</sub> S reduction process. (The response above from "2. H <sub>2</sub> S Reduction 1 Performance Incentive" is entered here automatically.)	Biological Scrubber	\$80,000	\$45
2. "Black Start" capability of power generation system (ability to generate on-site power in absence of utility power).	Click cell and select:	\$3,000	\$30
3. Anaerobic digester system designed to accept > 20% food waste. <i>Must include pretreatment equipment. See Appendix C.</i>	Yes	\$50,000	\$350
4. New sand separation unit installed to remove sand from sand laden manure before digestion. <i>Farm projects only.</i>	Click cell and select:	\$50,000	\$120
5. Contracts to accept food waste from institutional sources. <i>Farm projects only.</i>	Click cell and select:	\$14,000	\$35
6. Participant in cooperative anaerobic digester management entity. <i>Farm projects only.</i>	Click cell and select:	\$30,000	\$0
<b>Total Potential Project Enhancement Incentives (subject to the \$2 million cap)</b>			<b>\$297,875</b>
<b>Potential Total Capacity Incentives (subject to the \$2 million cap.)</b>			<b>\$1,297,875</b>

## Potential Interconnection Incentives

1. <b>Interconnection Review Incentive</b> - 75% reimbursement of CESIR costs exceeding \$5,000 (max incentive \$50,000). <i>In the adjacent cell, enter the estimated cost of CESIR shown in the Preliminary/Supplemental Screening Analysis by the electric utility, if available. If the combined CESIR and Interconnection Implementation costs are not expected to exceed \$5,000, please provide evidence of this estimate from the electric utility.</i>	\$ 15,000.00	Potential Interconnection Review Incentive	\$ 7,500
2. <b>Interconnection Implementation Incentive</b> - 50% reimbursement of grid upgrade costs for which the applicant is responsible (max. incentive \$300,000). <i>Enter estimated Interconnection Implementation cost, provided in the completed CESIR. If a CESIR is required but has not yet been completed, enter \$600,000 in the adjacent cell.</i>	\$ 120,000.00	Potential Interconnection Implementation Incentive	\$ 60,000
<b>Total Potential Interconnection Incentives (subject to the \$2 million cap)</b>			<b>\$67,500</b>

Percentage of Potential Incentives remaining after applying \$2 million cap	Budgeted Incentive Totals after applying \$2 million cap
Total Performance Incentive 100%	Total Performance Incentive \$ 762,284
Total Capacity Incentive 90%	Total Capacity Incentive \$ 1,170,216
Total Contingent Interconnection Incentive 100%	Total Performance and Capacity Incentives \$ 1,932,500
	Total Contingent Interconnection Incentive (contingent on actual interconnection costs) \$ 67,500
	<b>Total Budgeted Performance, Capacity and Contigent Interconnection Incentive \$ 2,000,000</b>

Note that Interconnection Incentives may be paid first to expedite reimbursement of those costs. Remaining funds are applied per the payment distributions below.

Estimated Payment Distribution	Estimated Totals
<b>Interconnection Incentive payment distribution</b>	
1 <sup>st</sup> Interconnection payment - 100% Interconnection Review Incentive	\$ 7,500
2 <sup>nd</sup> Interconnection payment - 75% of Interconnection Implementation Incentive	\$ 45,000
3 <sup>rd</sup> Interconnection payment - up to 25% percent of Interconnection Implementation Incentive based on the actual final costs of the interconnection implementation	\$ 15,000
<b>Capacity Incentive payment distribution</b>	
1 <sup>st</sup> Capacity payment - up to 15% of Total Capacity Incentive	\$ 175,532
2 <sup>nd</sup> Capacity payment - 45% of Anaerobic Digestion component	\$ 299,232
3 <sup>rd</sup> Capacity payment - 45% of Power Generation component	\$ 106,506
4 <sup>th</sup> Capacity payment - 45% of total Project Enhancements component	\$ 120,859
5 <sup>th</sup> Capacity payment - 20% of Total Capacity Incentive (successful operation)	\$ 234,043
6 <sup>th</sup> Capacity payment - up to 100% of any remaining Total Capacity Incentive (successful commissioning)	\$ 234,043
<b>Performance Incentive payment distribution</b>	Maximum average annual payment (10 years) \$ 76,228

The Exhibit A that would be included in the Standard Performance Agreement between NYSERDA and the Any City WWTP is shown below:

EXHIBIT A TOTAL CONTRACTED PROJECT INCENTIVE					
Contractor Name: Any City WWTP Agreement Number: 23456 Project Name: ADG Project B					
Contracted Capacity (kW)	Annual Contracted Generation (kWh/year)	Total Performance Incentive (\$)	Total Interconnection Incentive (\$)	Total Capacity Incentive (\$)	Total Contracted Project Incentive (\$)
425	2,792,250	\$762,284	\$67,500	\$1,170,216	\$2,000,000

**Example C**

The Any Food Processor Inc.’s is planning to install a new power generation system rated to produce 975 kW of electricity using biogas from an existing anaerobic digester system. The plant also plans to install a biological scrubber system selected from the approved vendor list. The utility has informed the plant that the CESIR study will cost \$35,000, and the applicant has estimated that the interconnection implementation will cost \$650,000.

The Incentive Calculation Tool estimates for ADG Project C follows:

# Section C: Incentive Calculation Tool



<b>Project Name</b>	ADG-to-Electricity Project C
<b>Applicant Name</b>	ABC Dairy Farm

This tool has been developed to estimate the Total Contracted Project Incentive for New ADG-to-Electricity System and Project Enhancement projects. To estimate incentives for projects that have previously received NYSERDA funding, contact NYSERDA for further information. Please enter the information requested in the yellow boxes. Note that Performance Incentives are calculated first and any remaining funds, considering the \$2 million cap per project can be applied to Interconnection and Capacity Incentives.

Potential Performance Incentives	
Enter proposed new ADG-fueled power generation installation capacity, if any (kW)	975
Enter existing ADG-fueled power generation capacity for which incentives are being requested, if any (kW)	
Minimum annual new ADG fueled power generation (kWh/yr) (based on a capacity factor of 75%)	6,405,750
1. Power Generation Performance Incentive	\$1,601,438
2. H <sub>2</sub> S Reduction Performance Incentive - <i>If any of the H<sub>2</sub>S reduction processes shown in Appendix C will be used, select the appropriate process in the adjacent box. Other H<sub>2</sub>S reduction processes not specified in Appendix C may also be eligible - contact T. Fiesinger or S. Hoyt. (Available to new and existing ADG-to-Electricity projects.)</i>	\$147,332
<b>Total Potential Performance Incentive</b> (paid over a 10 year period and subject to the \$2 million cap)	<b>\$1,748,770</b>

Potential Capacity Incentives			
(See Incentive Calculation Tool Instructions)	Fixed Base Incentive	Variable Incentive per kW	Total Fixed and Variable Capacity Incentives
<b>Anaerobic Digester component - Choose one (or none) that apply for the proposed project</b>			
1. Farm-based anaerobic digester with new digester vessel or new earthen lagoon digester.	Click cell and select:	\$0	\$0
2. Farm-based anaerobic digester made by placing gas tight cover over an existing waste storage structure.	Click cell and select:	\$50,000	\$750
3. New or upgrade of existing anaerobic digester for municipal waste water treatment/industrial waste processing systems*.	Click cell and select:	\$100,000	\$1,500
*See Appendix C for requirements			
<b>Potential Anaerobic Digester Incentive (subject to the \$2 million cap)</b>			<b>\$0</b>
<b>Power Generation component - Choose one (or none) that apply for the proposed project</b>			
1. New ADG-fueled power generation system.	Yes	\$50,000	\$500
2. Reconditioned ADG fueled power generation system.	Click cell and select:	\$12,500	\$125
<b>Potential Power Generation Incentive (subject to the \$2 million cap)</b>			<b>\$537,500</b>
<b>Project Enhancements component - Choose all that apply for the proposed project</b>			
1. H <sub>2</sub> S reduction process. <i>(The response above from "2. H<sub>2</sub>S Reduction / Performance Incentive" is entered here automatically.)</i>	Biological Scrubber	\$80,000	\$45
2. "Black Start" capability of power generation system (ability to generate on-site power in absence of utility power).	Click cell and select:	\$3,000	\$30
3. Anaerobic digester system designed to accept > 20% food waste. <i>Must include pretreatment equipment. See Appendix C.</i>	Click cell and select:	\$50,000	\$350
4. New sand separation unit installed to remove sand from sand laden manure before digestion. <i>Farm projects only.</i>	Click cell and select:	\$50,000	\$120
5. Contracts to accept food waste from institutional sources. <i>Farm projects only.</i>	Click cell and select:	\$14,000	\$35
6. Participant in cooperative anaerobic digester management entity. <i>Farm projects only.</i>	Click cell and select:	\$30,000	\$0
<b>Total Potential Project Enhancement Incentives (subject to the \$2 million cap)</b>			<b>\$123,875</b>
<b>Potential Total Capacity Incentives (subject to the \$2 million cap)</b>			<b>\$661,375</b>

Potential Interconnection Incentives			
1. <b>Interconnection Review Incentive</b> - 75% reimbursement of CESIR costs exceeding \$5,000 (max incentive \$50,000). <i>In the adjacent cell, enter the estimated cost of CESIR shown in the Preliminary /Supplemental Screening Analysis by the electric utility. If available. If the combined CESIR and Interconnection Implementation costs are not expected to exceed \$5,000, please provide evidence of this estimate from the electric utility.</i>	\$ 35,000.00	Potential Interconnection Review Incentive	\$ 22,500
2. <b>Interconnection Implementation Incentive</b> - 50% reimbursement of grid upgrade costs for which the applicant is responsible (max. incentive \$300,000). <i>Enter estimated Interconnection Implementation cost, provided in the completed CESIR. If a CESIR is required but has not yet been completed, enter \$600,000 in the adjacent cell.</i>	\$ 650,000.00	Potential Interconnection Implementation Incentive	\$ 300,000
<b>Total Potential Interconnection Incentives (subject to the \$2 million cap)</b>			<b>\$322,500</b>

Percentage of Potential Incentives remaining after applying \$2 million cap	Budgeted Incentive Totals after applying \$2 million cap
Total Performance Incentive 100%	Total Performance Incentive \$ 1,748,770
Total Capacity Incentive 0%	Total Capacity Incentive \$ -
Total Contingent Interconnection Incentive 78%	Total Performance and Capacity Incentives \$ 1,748,770
	Total Contingent Interconnection Incentive (contingent on actual interconnection costs) \$ 251,230
	<b>Total Budgeted Performance, Capacity and Contingent Interconnection Incentive \$ 2,000,000</b>

Note that Interconnection Incentives may be paid first to expedite reimbursement of those costs. Remaining funds are applied per the payment distributions below.

Estimated Payment Distribution	Estimated Totals
<b>Interconnection Incentive payment distribution</b>	
1 <sup>st</sup> Interconnection payment - 100% Interconnection Review Incentive	\$ 17,528
2 <sup>nd</sup> Interconnection payment - 75% of Interconnection Implementation Incentive	\$ 175,277
3 <sup>rd</sup> Interconnection payment - up to 25% percent of Interconnection Implementation Incentive based on the actual final costs of the interconnection implementation	\$ 58,426
<b>Capacity Incentive payment distribution</b>	
1 <sup>st</sup> Capacity payment - up to 15% of Total Capacity Incentive	\$ -
2 <sup>nd</sup> Capacity payment - 45% of Anaerobic Digestion component	\$ -
3 <sup>rd</sup> Capacity payment - 45% of Power Generation component	\$ -
4 <sup>th</sup> Capacity payment - 45% of total Project Enhancements component	\$ -
5 <sup>th</sup> Capacity payment - 20% of Total Capacity Incentive (successful operation)	\$ -
6 <sup>th</sup> Capacity payment - up to 100% of any remaining Total Capacity Incentive (successful commissioning)	\$ -
<b>Performance Incentive payment distribution</b>	Maximum average annual payment (10 years) \$ 174,877

The Exhibit A that would be included in the Standard Performance Agreement between NYSERDA and the Any Food Processor Inc. is shown below:

EXHIBIT A TOTAL CONTRACTED PROJECT INCENTIVE					
Contractor Name: Any Food Processor Inc. Agreement Number: 34567 Project Name: ADG-to-Electricity Project C					
Contracted Capacity (kW)	Annual Contracted Generation (kWh/year)	Total Performance Incentive (\$)	Total Interconnection Incentive (\$)	Total Capacity Incentive (\$)	Total Contracted Project Incentive (\$)
975	6,405,750	\$1,748,770	\$251,230	\$0	\$2,000,000

**Example D**

XYZ Dairy Farm has an existing 360 kW ADG-to-Electricity project and is planning only to install a new biological scrubber, to be provided by one of the NYSERDA approved vendors of biological scrubbers, to remove H2S from the biogas.

The Incentive Calculation Tool estimates for ADG Project D as follows:

# Section C: Incentive Calculation Tool



<b>Project Name</b>	ADG-to-Electricity Project D
<b>Applicant Name</b>	ABC Dairy Farm

This tool has been developed to estimate the Total Contracted Project Incentive for New ADG-to-Electricity System and Project Enhancement projects. To estimate incentives for projects that have previously received NYSERDA funding, contact NYSERDA for further information. Please enter the information requested in the yellow boxes. Note that Performance Incentives are calculated first and any remaining funds, considering the \$2 million cap per project can be applied to Interconnection and Capacity Incentives.

## Potential Performance Incentives

Enter proposed new ADG-fueled power generation installation capacity, if any (kW)		
Enter existing ADG-fueled power generation capacity for which incentives are being requested, if any (kW)		360
Minimum annual new ADG fueled power generation (kWh/yr) (based on a capacity factor of 75%)		0
1. Power Generation Performance Incentive		\$0
2. H <sub>2</sub> S Reduction Performance Incentive - <i>If any of the H<sub>2</sub>S reduction processes shown in Appendix C will be used, select the appropriate process in the adjacent box. Other H<sub>2</sub>S reduction processes not specified in Appendix C may also be eligible - contact T. Fiesinger or S. Hoyt. (Available to new and existing ADG-to-Electricity projects.)</i>	Biological Scrubber	Note: Applicants intending to use a combination of eligible H <sub>2</sub> S reduction processes not specified herein, contact T. Fiesinger or S. Hoyt. \$54,400
<b>Total Potential Performance Incentive</b> (paid over a 10 year period and subject to the \$2 million cap)		<b>\$54,400</b>

## Potential Capacity Incentives

(See Incentive Calculation Tool Instructions)	Fixed Base Incentive	Variable Incentive per kW	Total Fixed and Variable Capacity Incentives
<b>Anaerobic Digester component - Choose one (or none) that apply for the proposed project</b>			
1. Farm-based anaerobic digester with new digester vessel or new earthen lagoon digester.	Click cell and select:	\$0	\$0
2. Farm-based anaerobic digester made by placing gas tight cover over an existing waste storage structure.	Click cell and select:	\$50,000	\$750
3. New or upgrade of existing anaerobic digester for municipal waste water treatment/industrial waste processing systems*.	Click cell and select:	\$100,000	\$1,500
*See Appendix C for requirements			
<b>Potential Anaerobic Digester Incentive (subject to the \$2 million cap)</b>			<b>\$0</b>
<b>Power Generation component - Choose one (or none) that apply for the proposed project</b>			
1. New ADG-fueled power generation system.	Click cell and select:	\$50,000	\$500
2. Reconditioned ADG fueled power generation system.	Click cell and select:	\$12,500	\$125
<b>Potential Power Generation Incentive (subject to the \$2 million cap)</b>			<b>\$0</b>
<b>Project Enhancements component- Choose all that apply for the proposed project</b>			
1. H <sub>2</sub> S reduction process. (The response above from "2. H <sub>2</sub> S Reduction 1 Performance Incentive" is entered here automatically.)	Biological Scrubber	\$80,000	\$45
2. "Black Start" capability of power generation system (ability-to generate on-site power in absence of utility power).	Click cell and select:	\$3,000	\$30
3. Anaerobic digester system designed to accept > 20% food waste. Must include pretreatment equipment. See Appendix C.	Click cell and select:	\$50,000	\$350
4. New sand separation unit installed to remove sand from sand laden manure before digestion. Farm projects only.	Click cell and select:	\$50,000	\$120
5. Contracts to accept food waste from institutional sources. Farm projects only.	Click cell and select:	\$14,000	\$35
6. Participant in cooperative anaerobic digester management entity. Farm projects only.	Click cell and select:	\$30,000	\$0
<b>Total Potential Project Enhancement Incentives (subject to the \$2 million cap)</b>			<b>\$96,200</b>
<b>Potential Total Capacity Incentives (subject to the \$2 million cap)</b>			<b>\$96,200</b>

## Potential Interconnection Incentives

1. <b>Interconnection Review Incentive</b> - 75% reimbursement of CESIR costs exceeding \$5,000 (max incentive \$50,000). <i>In the adjacent cell, enter the estimated cost of CESIR shown in the Preliminary /Supplemental Screening Analysis by the electric utility, if available. If the combined CESIR and Interconnection Implementation costs are not expected to exceed \$5,000, please provide evidence of this estimate from the electric utility.</i>	\$ -	Potential Interconnection Review Incentive	\$ -
2. <b>Interconnection Implementation Incentive</b> - 50% reimbursement of grid upgrade costs for which the applicant is responsible (max incentive \$300,000). Enter estimated Interconnection Implementation cost, provided in the completed CESIR. If a CESIR is required but has not yet been completed, enter \$600,000 in the adjacent cell.	\$ -	Potential Interconnection Implementation Incentive	\$ -
<b>Total Potential Interconnection Incentives (subject to the \$2 million cap)</b>			<b>\$0</b>

### Percentage of Potential Incentives remaining after applying \$2 million cap

### Budgeted Incentive Totals after applying \$2 million cap

Total Performance Incentive	100%	Total Performance Incentive	\$ 54,400
Total Capacity Incentive	100%	Total Capacity Incentive	\$ 96,200
Total Contingent Interconnection Incentive	0%	Total Performance and Capacity Incentives	\$ 150,600
		Total Contingent Interconnection Incentive (contingent on actual interconnection costs)	\$ -
<b>Total Budgeted Performance, Capacity and Contigent Interconnection Incentive</b>		<b>Total Budgeted Performance, Capacity and Contigent Interconnection Incentive</b>	<b>\$ 150,600</b>

Note that Interconnection Incentives may be paid first to expedite reimbursement of those costs. Remaining funds are applied per the payment distributions below.

### Estimated Payment Distribution

### Estimated Totals

Interconnection Incentive payment distribution	Estimated Totals
1 <sup>st</sup> Interconnection payment - 100% Interconnection Review Incentive	\$ -
2 <sup>nd</sup> Interconnection payment - 75% of Interconnection Implementation Incentive	\$ -
3 <sup>rd</sup> Interconnection payment - up to 25% percent of Interconnection Implementation Incentive based on the actual final costs of the interconnection implementation	\$ -
<b>Capacity Incentive payment distribution</b>	
1 <sup>st</sup> Capacity payment - up to 15% of Total Capacity Incentive	\$ 14,430
2 <sup>nd</sup> Capacity payment - 45% of Anaerobic Digestion component	\$ -
3 <sup>rd</sup> Capacity payment - 45% of Power Generation component	\$ -
4 <sup>th</sup> Capacity payment - 45% of total Project Enhancements component	\$ 43,290
5 <sup>th</sup> Capacity payment - 20% of Total Capacity Incentive (successful operation)	\$ 19,240
6 <sup>th</sup> Capacity payment - up to 100% of any remaining Total Capacity Incentive (successful commissioning)	\$ 19,240
<b>Performance Incentive payment distribution</b>	Maximum average annual payment (10 years) \$ 5,440

The Exhibit A that would be included in the Standard Performance Agreement between NYSERDA and the ABC Dairy Farm is shown below:

EXHIBIT A TOTAL CONTRACTED PROJECT INCENTIVE					
Contractor Name: XYZ Dairy Farm Agreement Number: 45678 Project Name: Example ADG Project D					
Contracted Capacity (kW)	Annual Contracted Generation (kWh/year)	Total Performance Incentive (\$)	Total Interconnection Incentive (\$)	Total Capacity Incentive (\$)	Total Contracted Project Incentive (\$)
360	0	\$54,400	\$0	\$94,460	\$148,860

**PON 2828 Appendix D**

**Disclosure of Prior Findings of Non-responsibility Form**

**(Mandatory)**

Name of Individual or Entity seeking to enter the procurement contract:
Address:
Date:
Solicitation or Agreement Number:
Name and Title of Person Submitting this Form:

Has any Governmental Entity made a finding of non-responsibility regarding the Individual or Entity seeking to enter the Procurement Contract in the last four years? (Please indicate with an "X")	<input type="checkbox"/>	Yes
	<input type="checkbox"/>	No

Was the basis for the finding of non-responsibility due to a violation of §139-j of the State Finance Law? (Please indicate with an "X")	<input type="checkbox"/>	Yes
	<input type="checkbox"/>	No
Was the basis for the finding of non-responsibility due to the intentional provision of false or incomplete information to a Governmental Entity? (Please indicate with an "X")	<input type="checkbox"/>	Yes
	<input type="checkbox"/>	No

If you answered yes to any of the above questions, please provide details regarding the finding of non-responsibility below.
Government Agency or Authority:
Date of Finding of Non-responsibility:

Basis of Finding of Non-responsibility: (Add additional pages as necessary)

Has any Governmental Entity or other governmental agency terminated or withheld a Procurement Contract with the above-named Individual or Entity due to the intentional provision of false or incomplete information? (Please indicate with an "X")		Yes
		No

If you answered yes, please provide details below.
Government Agency or Authority:
Date of Termination or Withholding of Contract:

Basis of Termination or Withholding: (Add additional pages as necessary)

Offerer certifies that all information provided to NYSERDA with respect to State Finance Law §139-k is complete, true, and accurate.

By: \_\_\_\_\_ Date: \_\_\_\_\_  
Signature

Name: \_\_\_\_\_ Title: \_\_\_\_\_

## PON 2828 APPENDIX E: QUALITY ASSURANCE/QUALITY CONTROL AND REPORTING REQUIREMENTS

Quality Assurance/Quality Control (QA/QC) and reporting processes are required for all projects to verify that the equipment proposed in the application has been installed, to describe the installed equipment, to verify that it meets the intent of the ADG-to-Electricity Program, and to verify the quantity of biogas-generated electricity produced by the ADG-to-Electricity System. The QA/QC and Reporting Processes include the following:

- Developing a QA/QC Plan.
- Generating the Project Commissioning Report and invoices to document installation of the project components and establish the basis for applicable Interconnection and Capacity Incentive Payments
- Generating Annual Performance Reports, which form the basis of the Production Incentive Payments.

A number of individuals are involved in the QA/QC and Reporting Processes: NYSERDA, the Contractor (the entity awarding the funding), NYSERDA's Technical Consultant, and NYSERDA's CHP Website Contractor. NYSERDA's Technical Consultants are engineering firms that have been contracted by NYSERDA to provide QA/QC support for the ADG-to-Electricity Program. In consultation with the Contractor, the Technical Consultant will develop the QA/QC Plan in accordance with NYSERDA's requirements, and will help NYSERDA review the various deliverables developed by the Project Participant. NYSERDA's DG Integrated Data System Website Contractor is an engineering firm that has been contracted by NYSERDA to develop and manage NYSERDA's DG Integrated Data System Website (DG Website). The DG Website Contractor may also install the site's datalogger.

### I. SUMMARY OF PROJECT RESPONSIBILITIES

NYSERDA will:

- Assign a Technical Consultant to work with each Contractor.
- Review and approve acceptable QA/QC Plans and Reports (e.g., Project Commissioning Report and Annual Performance Reports).

The Contractor will:

- Work with the Technical Consultant to develop the QA/QC Plan. ***The QA/QC Plan must be submitted to, and approved by, NYSERDA prior to the submittal and payment of all capacity and performance incentive invoices beyond the first capacity incentive payment.***
- Provide NYSERDA, its Technical Consultant, and its DG Website Contractor with relevant information about the site, facilities and equipment installed, and operational data, and access to the installed ADG-to-Electricity System.
- Purchase the necessary QA/QC equipment (biogas meter, power output meter, communications hardware and software), as described later in this Appendix.
- Provide the necessary communication service to monitor the ADG use and kWh output of the ADG-to-Electricity System. The communication service can be provided as a phone line or broadband connection or other medium selected in agreement with NYSERDA.
- Install, commission, and maintain the biogas and power output meters, and communications hardware. This will include installation of wires, as needed, to bring the data signals from the biogas and power output meters to the datalogger. (Note: the DG Website Contractor is responsible for connecting wires at the datalogger.)

- Prepare the Annual Performance Reports and invoices for performance incentive payments, in conjunction with the Technical Consultant, for the verified, biogas-generated electricity produced by the system.
- **Ensure that all information provided to NYSERDA accurately represents the operation of the ADG-to-Electricity System.**

NYSERDA's Technical Contractor will:

- Develop the QA/QC Plan (see following section) in conjunction with the Contractor.
- Verify that facilities and equipment have been installed as specified in the Agreement Application
- Verify that the biogas and power output meters, datalogger, and communication hardware have been installed correctly.
- Assist the Contractor in preparing the Annual Performance Reports and invoices for performance incentive payments for the verified, biogas-generated electricity produced by the system.
- For systems selected for evaluation using the National Protocol for Digester Evaluation, provide for additional measurement equipment, digester input and output testing, and technical consultant services, as needed.

NYSERDA's CHP Website Contractor will:

- Connect the wires bringing the signal to the datalogger from the biogas and power output meters. (Note: The Contractor is responsible for providing a reliable connection to the signal and installing signal connection wires as needed.)
- Accept performance data from the Applicant's ADG-to-Electricity System (via the internet) and load the data to the DG Website.
- Evaluate the quality of the data transferred to the CHP website.
- Integrate relevant site information into NYSERDA's CHP website.

## **II. QA/QC PLAN**

The QA/QC plan will include the actions and procedures that will document whether requirements have been met for the payment of Interconnection, Capacity and Performance Incentives.

### Description of the ADG-to-Electricity System

At a minimum the description will include a schematic showing the as-built: locations of the major equipment and meters; specifications for the major equipment; a list of alternate fuel sources, if applicable; and the heat rate of the New Equipment engine gen-set (BTU/kWh. If the installed equipment deviates from that listed in the Application Package, an explanation of the deviation must be provided for determination by NYSERDA whether the installed equipment adequately meets the terms of the Agreement.

### Procuring and Installing Instrumentation

The QA/QC Plan will specify the monitoring, datalogging, and communications instrumentation to be installed, and the proposed installation locations. Provisional instrumentation requirements are provided in Table 1. Example instrumentation specifications are provided in Table 2.

**Table 1. Provisional Instrumentation Requirements**

<ul style="list-style-type: none"> <li>• A revenue grade power generation meter with an accuracy of at least <math>\pm 0.5\%</math> that is capable of supplying either a kWh pulse output, 4-20 mA kW output, or other output as agreed to by NYSERDA or its TC for measuring generator output.</li> <li>• A fuel meter with accuracy of at least <math>\pm 2\%</math> to measure generator fuel (ADG) consumption. The meter should be temperature and pressure compensated. Uncompensated meters may be permissible if located in conditioned space and if gas pressure is less than 1 psig.</li> <li>• For projects for which H<sub>2</sub>S reduction incentives have been requested, an automated hydrogen sulfide level measuring device with an accuracy to within <math>\pm 5\%</math> or <math>\pm 150</math> ppm (under normal operating conditions) for hydrogen sulfide levels ranging from 100 – 3000 ppm and capable of at least hourly sampling of hydrogen sulfide levels for the gas exiting the H<sub>2</sub>S removal system and daily sampling of the (raw) gas entering the H<sub>2</sub>S removal system.</li> </ul> <p>Note that NYSERDA will consider the use of alternative measurement types or techniques that meet similar standards to those indicted above.</p>
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**Table 2. Example Instrumentation Specifications**

Measurement	Example Instrument Make / Model	Accuracy	Instrument Output	Supplied by
Power generation	Electro Industries/ Gauge Tech Shark 200	$\pm 0.2\%$ for power and energy functions - meeting ANSI C12.20 accuracy requirements (Class 0.2%)	Solid state pulse output	Site
Fuel flow rate	Roots Meter 3M175	$\pm 1\%$ reading	Solid state pulse output	Site
H <sub>2</sub> S levels	Ados 401	$\pm 5\%$ or $\pm 1\%$ 150 ppm min. range of 100-3000 ppm	Solid state pulse output	Site

Verifying the Monitoring System Installation

The QA/QC Plan will document the procedures to be used by NYSERDA’s Technical Consultant to confirm that the instrumentation is installed correctly.

Transferring data to the NYSERDA DG Website

The QA/QC Plan will document how data will be transferred to the NYSERDA DG Website. In general, the procedures and monitoring requirements described in NYSERDA’s Monitoring and Data Collection Standard for DG/CHP Systems and the ASERTTI DG/CHP Long Term Monitoring Protocol will be followed. These include, but are not limited to, the following:

- The system will log or record data at 15-minute intervals, averaging or integrating readings as required providing accurate and meaningful readings.
- The system shall have on-board storage sufficient to retain a minimum of 14 days of data in the event that communications or site power is lost.
- It is anticipated that the data will be transferred daily to the NYSERDA’s DG Website.

### Evaluating the Quality of the data provided to the NYSERDA DG Website

The QA/QC Plan will document how data received by the NYSERDA DG Website will be verified as good quality data. The QA/QC Plan will specify the range and relational checks for data that will be used to measure electricity production and to compare electricity production with fuel energy input to the engine. The Website Contractor will implement the basic range and relational checks described below. The range check identifies whether the meters are reporting data in their expected ranges. The Contractor will provide the expected ranges for both meters in the QA/QC Plan. The relational check ensures that both meters always provide non-zero readings at the same time. All hourly data, those that pass the checks and those that do not, can be downloaded from the NYSERDA DG Website using the “Download (CSV file)” option. The QA/QC Plan will specify who will be responsible for performing all of the specified range and relational checks.

The QA/QC Plan will also document the procedures that will be followed to notify project team members of sensor failure or other abnormalities at the site (e.g., receipt of automated emails from the Website Contractor).

### Performing Monitoring System Maintenance

The QA/QC Plan will document the routine maintenance and quality assurance/quality control measures that the Project Participant will perform to ensure that data produced, including calibration requirements for any H<sub>2</sub>S gas monitoring equipment, from the ADG-to-Electricity System accurately describes system performance.

### Preparing Annual Performance Reports

If the Contractor agrees with the verified data posted on the DG Website, they will provide their Annual Performance Reports using the format described in Section IV.

If the Contractors disagree with the verified data posted on the Website, they will provide their Annual Performance Reports using data they consider to be verified, along with a narrative justifying why their approach is more appropriate. Acceptance of this alternate data will be at NYSERDA’s discretion, or as resolved in accordance with the procedure specified in the section labeled “Resolving Disagreements over QA/QC”.

In some cases, a sensor or monitoring system failure or other problem at the site may result in data being lost for part of the performance period. The QA/QC Plan will document the procedure that will be followed to account for loss of measured performance data. The recommended approach is as follows:

If data loss occurs, the output for the missing period may be determined by taking the average output measured from similar length periods just prior and just after the outage (or other method acceptable to NYSERDA). This procedure will be used for up to two outages for up to 36 hours each per 12 month period. If more than two outages occur per 12-month period, then the site shall be required to provide independent cumulative meter readings or other documentation to demonstrate any system power output during outages. Otherwise, the generator output will be assumed to equal zero for the outage period.

### **QA/QC INSPECTIONS**

Periodically, NYSERDA and/or its Consultant/Contractor may choose to visit a project site to verify that the information provided in the Annual Performance Report is accurate with regard to project equipment, site conditions, and monitoring configurations. These inspections may occur at any time after project installation, both prior to and after the submittal of an Annual Performance Report. If the QA/QC activities

are found to be different from those represented in the QA/QC Plan or the Annual Performance Report, NYSERDA may refuse any further Performance Incentive payments. If NYSERDA deems an inspection necessary, an Annual Performance Report that is under review will not be approved until the inspection has been completed.

### **RESOLVING DISAGREEMENTS OVER QA/QC**

The following approach will be used to resolve any disagreements between NYSERDA and a Contractor concerning the adequacy of an Annual Performance Report or the adequacy and interpretation of performance data:

1. If an Annual Performance Report is rejected by NYSERDA, NYSERDA will provide a written explanation of the rejection with suggestions for changes that would make the submittal acceptable.
2. If the Contractor disagrees with the rejection, it must provide a written explanation (with references and any required additional documentation) to NYSERDA.
3. Upon receipt of the Contractor's written explanation, the Contractor and NYSERDA representatives will meet and attempt to resolve the disagreement.
4. The Contractor must submit a new submittal in a manner that complies with any resolution agreed to concerning the original submittal's rejection.

If either party believes the disagreement cannot be resolved by the above approach, the parties will use the dispute resolution mechanism defined in their Standard Performance Contract Agreement.

### **III. PROJECT COMMISSIONING REPORT**

The Project Commissioning Report must be submitted to NYSERDA within 14 months of the Effective Date of the Agreement. If the Project Commissioning Report is not completed and submitted within 14 months of the Effective Date, the Project Participant must request an extension, in writing, from NYSERDA as per milestone requirements of ARTICLE 3 of the Standard Performance Contract Agreement.

#### Project Commissioning Report Requirements for All Projects Requesting Capacity Incentives

The following are the required elements of the Project Commissioning Report for projects requesting Capacity Incentives:

- Description of the Installation and Commissioning process, which includes the following:
  - Documentation that construction of the ADG-to-Electricity System (System) is complete;
  - Documentation that the System has been interconnected with the utility grid, where applicable;
  - Documentation that the System has satisfactorily operated for at least seven consecutive days, which is defined as operating with an average minimum 75% Capacity Factor of the Total Contracted Capacity and is not emitting or venting significant quantities of methane not combusted by a flare or other means; and
  - Documentation that the System has demonstrated the ability to upload information to NYSERDA's DG Website.
- As-Built Diagrams of the installed system; if the installed equipment deviates from that listed in the Application Package, the Project Participant must provide an explanation of the deviation in the Project Commissioning Report.

### Project Commissioning Report Requirements for Projects Requesting only Performance Incentives

The following are the required elements of the Project Commissioning Report for projects requesting only Performance Incentives:

- Documentation that the System is capable of operating satisfactorily, which is defined as operating for a minimum of seven consecutive days with an average minimum 75% Capacity Factor of the Total Contracted Capacity and is not emitting or venting significant quantities of methane not combusted by a flare or other means;
- Documentation that the System has been interconnected with the utility grid, where applicable;
- Documentation that the System has demonstrated the ability to upload information to NYSERDA's DG Website and
- As-Built Diagrams of the installed system; if the installed equipment deviates from that listed in the Application Package, the Contractor must provide an explanation of the deviation in the Project Commissioning Report.

### Post-Installation Site Inspection

NYSERDA's Technical Consultant will contact the Contractor to schedule the Post-Installation Site Inspection. The inspection must be completed before the Project Commissioning Report is submitted to NYSERDA. The Contractor or a representative must be present during the inspection.

### Project Commissioning Report Approval

NYSERDA will review the Project Commissioning Report and determine whether to approve it as submitted, approve it with minor revisions, or reject it. NYSERDA will review the Report to ensure the following:

- The project meets all of the ADG-to-Electricity Program requirements.
- A post-installation site inspection has been performed by the Technical Consultant.
- The Project Commissioning Report contains complete and accurate information.
- The equipment listed in the Application Package has been installed or the Project Participant has explained any variance.

NYSERDA will work with the Contractor on making minor revisions to the Project Commissioning Report as necessary. If NYSERDA finds the Project Commissioning Report to be complete, but the Total Incentive for the project to be incorrect based on the installed conditions, NYSERDA may make an adjustment to the Interconnection, Capacity and/or Performance Incentive payment estimates and will notify the Contractor of those changes in writing. Within 60 days after its receipt of the Project Commissioning Report, NYSERDA will notify the Contractor in writing as to whether or not the Report has been approved.

## **IV. ANNUAL PERFORMANCE REPORTING**

It is the Contractor's responsibility to demonstrate the extent to which the installed project is generating the amount of energy projected in the Standard Performance Contract Agreement. This is done through the Annual Performance Reports.

### Commencement of the First Year's Performance Period

The total performance period of the Standard Performance Contract Agreement shall be ten (10) years. The first year's (consecutive 12-month) performance period must begin no later than the 30th day after NYSERDA's approval of the Project Commissioning Report. If NYSERDA determines that data collected

prior to approval of the Project Commissioning Report is satisfactory, the first year's performance period may begin at an earlier date approved by NYSERDA.

Within 60 days from the end of the first year's performance period, the Contractor must submit an Annual Performance Report to NYSERDA, which will become the basis for the first Performance Incentive payment. Performance data may be downloaded from the NYSERDA DG Website. Annual Performance Reports must also be submitted to NYSERDA within sixty (60) days from the end of each of the remaining performance periods. The Contractor is responsible for ensuring that data provided in the Annual Performance Reports accurately represent the operation of the ADG-to-Electricity System.

#### Content of the Annual Performance Report

The Annual Performance Report will include a table summarizing the Monthly Data for the annual period. NYSERDA Performance Incentives are only paid on power generated from ADG biogas or on H<sub>2</sub>S reduction performance. In either case, electrical production must be recorded in the Annual Performance Report before Performance Payments will be made. For projects using only biogas as a fuel source, it will not be necessary to provide data regarding additional fuel sources. If an additional fuel source is used, the Contractor must calculate the proportion of power generated from ADG biogas, which will be listed under "Adjusted Electricity Production" column of the table. Equations for calculating the "Adjusted Electricity Production" and other values required in the table are also provided in the Sample QA/QC Plan which can be obtained from NYSERDA. For projects for which H<sub>2</sub>S removal incentives have been requested, compiled hourly H<sub>2</sub>S level data for the year must be presented.

The Contractor may use data downloaded from the DG Website to populate this table. If the Contractor disagrees with the verified data posted on the Website or if data loss occurred during a Reporting Period, they will provide their Annual Performance Reports using data they consider to be verified, along with a narrative justifying why their approach is more appropriate.

#### Submitting the Annual Performance Report

The Contractor must submit an Annual Performance Report for each of the ten years. Upon approval of the each year's Annual Performance Report, the Contractor may submit invoices for the Performance Incentive payment associated with that Report. The Contractor must submit their Annual Performance Reports within 60 days after the annual performance period ends.

A statement must be included with each invoice affirming whether or not the Project being installed through this specific Standard Performance Contract Agreement has or will receive funding through the Federal 1603 Treasury Grant funding, , USDA REAP, and/or NRCS/EQIP programs. .

#### Annual Performance Report Approval or Rejection

NYSERDA will notify the Contractor in writing, within 30 days after receiving an Annual Performance Report, whether or not the Report has been approved. As part of the review process, NYSERDA may request clarification or additional information and may choose to conduct an inspection of a project site. NYSERDA will review the contents of the Annual Performance Report to ensure the following criteria are met:

- The Contractor has adhered to the QA/QC Plan.
- All required monitoring data are provided.
- The verified electricity generated is properly calculated from the monitoring data.
- The installed equipment is operating as per the approved Application Package.

**APPENDIX F: SAMPLE STANDARD PERFORMANCE CONTRACT AGREEMENT**

**Anaerobic Digester (ADG)-to-Electricity Program  
(PON 2828)**

**STANDARD PERFORMANCE CONTRACT  
AGREEMENT**

**BETWEEN**

**NEW YORK STATE RESEARCH AND DEVELOPMENT  
AUTHORITY**

**AND**

**[CONTRACTOR]**

**Agreement #**

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## LIST OF ATTACHMENTS

- Exhibit A Total Contracted Project Incentive
- Exhibit B Standard Terms and Conditions for All NYSERDA Agreements
- Exhibit C Prompt Payment Policy Statement
- Exhibit D Final completed Application Form, Using the Incentive Calculation Tool and Specific Incentive Requirements  
Quality Assurance/Quality Control and Reporting Requirements (Appendices B, C and E of PON 2828)

# AGREEMENT

This Standard Performance Contract Agreement (hereinafter referred to as the "Agreement"), dated and effective as of the \_\_\_ day of \_\_\_\_\_, 201\_ ("Effective Date") by and between the New York State Energy Research and Development Authority (hereinafter referred to as "NYSERDA") with its principal office located at 17 Columbia Circle, Albany, New York, 12203-6399, and \_\_\_\_\_ [Contractor], (hereinafter "Contractor") with offices located at \_\_\_\_\_. NYSERDA and the Contractor may be individually referred herein as a "Party" and collectively as the "Parties."

In consideration of the mutual promises and agreements herein expressed, NYSERDA and the Contractor hereby agree as follows:

## ARTICLE 1: DEFINITIONS

§1.1. 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.

ADG System: Anaerobic digester equipment and procedures used for the anaerobic digestion and production of ADG from Eligible Biomass Feedstocks(s). Installation of a gas tight cover over an existing waste storage structure for the purpose of producing and collection biogas is considered an ADG System for the purposes of this PON. Landfills are not ADG Systems for the purposes of this PON.

ADG-to-Electricity System ("the System"): The ADG System and ADG-fueled electric power generation equipment and procedures associated with using ADG to produce electricity for use at a Host Site. The ADG may be produced at the Host Site or delivered to the ADG-fueled electric power generation equipment by means of a dedicated ADG pipeline. For the purposes of this Agreement, ADG-to-Electricity System shall include brand new installations, as well as incremental upgrades to existing systems.

ADG-Fueled Electric Power Generation Equipment: The equipment listed in the Application Form and included herein as a part of Exhibit D.

Agreement: This Standard Performance Contract Agreement, including Exhibits A (Total Contracted Project Incentive), B (Standard Terms and Conditions), C (Prompt Payment Policy Statement), D (Final completed Application Form and Quality Assurance/Quality Control Requirements and Reporting Requirements) and the current NYSERDA PON 2828, which is incorporated herein and made part hereof as though herein set forth in full.

Annual Contracted Generation: The number of kilowatt-hours (kWh) calculated by multiplying the Contracted Capacity by 8760 hours per year by a 75% Capacity Factor.

Anaerobic Digester Gas (ADG): Biogas produced by the anaerobic processing of manure, agricultural residues and biomass, industrial organic wastes (i.e., food wastes), and municipal wastewater.

Annual Performance Report: A report submitted annually to NYSERDA for a period of ten (10) years. The report provides data that should demonstrate clearly to NYSERDA whether or not an installed Project is generating the amount of electricity projected in this Agreement.

Applicant: The Customer or third party who is submitting the Application Package.

Application Package: The Contractor's submission to NYSERDA containing the items listed in Sections A through E of Appendix B of PON 2828 requesting incentives through a Standard Performance Contract Agreement.

As-Built Diagrams: The final site plan, comprised of process flow and plan view diagrams, showing the installed and commissioned Project. The As-Built Diagrams must be included in the Project Commissioning Report.

Capacity Factor: The ratio of the gross electricity generated, for the period of time considered, to the energy that could have been generated at continuous full-power operation at the Contracted Capacity. For the purpose of this PON a capacity factor of 75% shall be assumed.

Contracted Capacity: The real power production capacity of the new ADG power generation component of the ADG-to Electricity System as determined by the rated kW output of the generator at a power factor of 1.0, except as may be limited by (a) a lower power output of the engine at 100% load, with consideration of the generator efficiency, (b) equipment limiting generator output, and (c) any other factors, all as determined in a manner satisfactory to NYSERDA.

Contractor: The Customer or third party who is submitting the Application Package and a party to this Agreement.

Customer: The owner or tenant of a Host Site and who, generally, pays the RPS Program Surcharge or the System Benefits Charge.

Effective Date: The date appearing in the first paragraph of this Agreement.

Engine: For purposes of this Agreement, a device that converts fuel energy to mechanical work (e.g., internal combustion engine, microturbine).

Host Site: The site at which the ADG-to-Electricity System is located, ADG-fueled electricity is generated and used, and where the utility meter, which is generally interconnected with the grid, is located.

Installation and Commissioning: The completion of construction of the Project, interconnection of the System with the utility grid, if applicable, at least seven consecutive days of satisfactory operation of the System according to its design intent with an average minimum 75% Capacity Factor of the Contracted Capacity, satisfactory operation of any Project Enhancement component(s) as defined in the approved QA/QC Plan, and demonstration of the ability to upload information to NYSERDA's CHP Website.

Installation Phase: The phase of the Standard Performance Contract that includes Procurement, developing the QA/QC Plan, Installation and Commissioning, and preparation and approval of the Project Commissioning Report.

kW: One kilowatt of electrical power.

kWh: One kilowatt-hour of electrical energy (or electricity).

New Equipment: Equipment installed as part of the Project.

Performance Phase: The final phase of this Agreement that generally commences after the date upon which NYSEERDA approves the Project Commissioning Report and includes and continues through completion of the QA/QC activities required by the approved QA/QC Plan.

Post-installation Site Inspection: NYSEERDA or its designated technical consultant will conduct a Post-Installation Site Inspection to verify that the New Equipment specified in the approved Application Package has been installed properly and is operating according to its design intent.

Project: The installation and operation of the new ADG-to-Electricity System or Project Component(s) as described in Sections B and C of Appendix B of the PON application as contained or to be contained in Exhibit D of this Standard Performance Contract Agreement.

Project Component: A part of a Project as listed in Appendix B Section C which lists potential Anaerobic Digestion components, Power Generation components, and Project Enhancement components.

Procurement: Ordering and securing delivery of all major equipment associated with the Project.

Project Commissioning Report: The detailed description of the installed and commissioned ADG-to-Electricity System, including any Project Enhancement component(s). The Project Commissioning Report includes updates to the information provided in the Application Package, which subsequently were used to develop the Standard Performance Contract Agreement, to reflect the installed System, including As-built Diagrams of the ADG-fueled Electric Power Generation Equipment.

Project Term: The term of this Agreement as defined in Section 2.2 hereof.

Quality Assurance/Quality Control (QA/QC): The process of monitoring, measuring, and verifying the electrical energy generated by the New Equipment of the ADG-to-Electricity System.

Renewable Portfolio Standard (RPS) Program: A program established by the New York State Public Service Commission to increase the proportion of renewable electricity used by New York consumers to at least 30% by 2015.

RPS Surcharge and Systems Benefits Charge (SBC): Two of the delivery charges levied by National Grid, NYSEG, Rochester Gas and Electric, Orange and Rockland, Central Hudson Gas and Electric, and Consolidated Edison. These charges have permitted these companies to recover costs associated with providing financial incentives for the development of renewable resources in New York State. NYSEERDA has been the administrator of the RPS program and administers the Clean Energy Fund funded by the SBC delivery charges.

Total Contracted Project Incentive: The dollar amount listed in Exhibit A of this Agreement, representing the maximum amount payable under this Agreement.

Total Production Performance Period: The ten (10) consecutive years during which the annual kWh production is compiled for use in determining the amounts of the annual performance payments.

## ARTICLE 2: PROJECT ORGANIZATION

§2.1. Project Organization. The Project contemplated herein shall be implemented in accordance with the Agreement and in two phases: Installation and Performance. The Installation Phase shall begin with the Effective Date and will include the Procurement, Installation and Commissioning of the Project set forth in

the approved Application Package, and preparation and approval of the Project Commissioning Report. The Performance Phase shall begin upon approval by NYSERDA of the Project Installation Report and will include and continue through completion of the QA/QC activities required by the approved QA/QC Plan.

§2.2. Project Term. The Project term of this Agreement shall begin on the Effective Date and continue until the end of the Performance Phase, unless extended or terminated under the terms hereof.

§2.3. Extensions of Time. The Project Term or other milestones or deadlines for submittal of documentation to NYSERDA included in this Agreement may be extended for good cause at NYSERDA's discretion. As used herein, "good cause" means an unanticipated circumstance or event, which despite the due diligence of the Contractor, renders compliance with project term or other deadline impracticable. A request for an extension should be submitted in writing to NYSERDA no less than 30 calendar days prior to the expiration of the applicable deadline. The request for extension must describe the reasons for the delay and the expected timeframe to meet all the milestones in the Agreement. Extensions may be granted or denied at NYSERDA's sole discretion. Any such extension shall be communicated in writing by NYSERDA's Contract Administrator. NYSERDA may terminate this Agreement upon the failure of the Contractor to conform to these requirements or to complete any milestone by the listed milestone time limit.

§2.4. Modification. This Agreement may be modified to effect changes in Contracted Capacity and associated incentive amounts or in any other parts of the Agreement, when such modifications are determined to be warranted by both NYSERDA and the Contractor and are incorporated in a written modification duly executed by both parties. Any request for a modification should be submitted in writing to NYSERDA no less than 30 days prior to any deadlines proposed to be affected by such modification. Approval or denial of any modifications by NYSERDA shall be at NYSERDA's sole discretion.

§2.5. Manner of Performance. The Contractor shall perform its responsibilities under this Agreement in an efficient and expeditious manner and in accordance with all of the terms and provisions of this Agreement. The Contractor shall perform all responsibilities in accordance with the current professional standards and with the diligence and skill expected for the performance of work of the type described in this Agreement. 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 its responsibilities in accordance with this Agreement. Operation of the ADG System must conform to the eligibility requirements imposed by the RPS Program with regard to the Customer-Sited Tier.

### ARTICLE 3: MILESTONES TO PROCUREMENT AND INSTALLATION

This Article defines milestones leading to procurement and successful installation of the New Equipment. NYSERDA may terminate this Agreement for failure to complete the milestones by the listed milestone time limits. If the Contractor finds it necessary to seek an extension to any of the milestone time limits listed in this Article, a request for an extension should be submitted in writing to NYSERDA no less than 30 calendar days prior to the expiration of the applicable deadline. The provisions of Section 2.3 of Article 2 shall govern the granting or denial of extension requests.

The Contractor shall schedule project progress meetings with NYSERDA at approximately 4 months and 8 months from the Effective Date.

§3.1. Interconnection with the Utility Grid. When the Project includes incentives for power generation components, the Contractor shall provide adequate documentation of steps completed to interconnect the Project with the utility grid. Such documentation shall include, within two (2) months of

the Effective Date, evidence that a complete detailed interconnection design package has been submitted to the utility as defined in the New York State Standardized Interconnection Requirements and Application Process for New Distributed Generators 5 MW or Less Connected in Parallel with Utility Distribution Systems (SIR) “Step 5: Applicant Commits to the Completing of the CESIR” (a copy of the current SIR is included in Appendix G of PON 2828).

§3.2. Documentation of Adequacy of Biogas Supply. The Contractor shall provide adequate documentation of steps taken to secure sufficient digester feedstock for the ADG-to-Electricity System to generate adequate biogas for annual power production at least at a 75% capacity factor; such documentation shall include:

- (a) Within 3 months of the Effective Date (1) written documentation from sufficient sources of such feedstock(s) of the quantity and availability of such feedstock(s) throughout the year and the characteristics of the feedstock(s) affecting both biogas potential (e.g. volatile solids content) and disposition of digester effluent (e.g. Nitrogen and Phosphorus content) and (2) assumptions and calculations using the characteristics and quantities of sufficient feedstock streams planned for digestion to show that adequate biogas will be produced;
- (b) (For Concentrated Animal Feeding Operations) Within 4 months of the Effective Date written documentation from a Certified Agricultural Environmental Management Planner of the ability of the Host site and Contractor to provide for acceptable disposition of the effluent from the digester with the digestion of such feedstock(s); and
- (c) Within 5 months of the Effective Date, copies of required regulatory approvals or permits for accepting the feedstock(s).

§3.3. System Financing. Within four (4) months of the Effective Date, the Contractor shall provide adequate documentation of steps taken to secure the financing necessary to successfully install and commission the New Equipment; such documentation shall include:

- (a) Written documentation from funding sources of the amounts of funding available;
- (b) A statement of the Contractor that there are no substantial financial changes to the project (such as dramatically increased costs) since the original Economic Evaluation provided in the proposal. If there have been substantial changes the Contractor must demonstrate that the project still shows adequate net benefits for successful installation, operation and at least 10 years of continued operation of the Project

§3.4. Procurement. Procurement of major equipment must be completed, and sufficient documentation of Procurement must be provided to NYSERDA, within nine (9) months of the Effective Date. Major equipment includes the ADG-fueled engine, generator, engine/generator controls, biogas clean-up system, as well as major components of the anaerobic digester, if applicable. Sufficient documentation of Procurement may include but is not limited to invoices, Bills of Lading, etc.

§3.5. System Installation. Within eleven (11) months of the Effective Date, the installation of the Project including establishing or maintaining the interconnection with the utility grid as applicable, and production of electricity by the power generation equipment in accordance with the approved QA/QC Plan.

§3.6. System Commissioning. Within twelve (12) months of the Effective Date, the Contractor shall be responsible for Commissioning of the Project, which shall include documentation of satisfactory operation of the System according to its design intent with an average minimum 75% Capacity Factor of the Total Contracted Capacity for at least 7 consecutive days, satisfactory operation of any Project Enhancement component(s) as defined in the approved QA/QC Plan, and demonstration of the ability to upload information to NYSERDA’s CHP Data Integration Website (“CHP Website”).

§3.7. Project Commissioning Report. A Project Commissioning Report must be completed and submitted to NYSERDA within 14 months of the Effective Date; such Report must be prepared in accordance with the requirements of Exhibit D, and must sufficiently document that Installation and Commissioning has been completed. The Project Commissioning Report must include As-Built Diagrams of the commissioned ADG-to-Electricity System. NYSERDA's approval of the Project Commissioning Report will depend on the results of a Post-Installation Site Inspection, which will verify the information provided in the Project Commissioning Report. NYSERDA will provide notice of approval of the Project Commissioning Report or will request additional information within 60 days of receipt. NYSERDA will review the Project Commissioning Report, inspect the system and either approve the Project Commissioning Report as submitted, approve it with minor revisions, or reject it. If the Project Commissioning Report is rejected, the Contractor will be provided with a period of 60 calendar days from the date of rejection to provide necessary information and resolve all outstanding issues with NYSERDA.

Contractor shall be responsible for the acquisition and maintenance, at its own cost, of any and all permits, approvals, licenses, easements, waivers and permissions of every nature necessary to perform the Project.

#### ARTICLE 4: QUALITY ASSURANCE/QUALITY CONTROL

§4.1. Quality Assurance/Quality Control Plan. The Contractor must develop a Quality Assurance/Quality Control (QA/QC) Plan (in accordance with Exhibit D) in conjunction with NYSERDA's designated technical consultant. The QA/QC Plan must be received and approved by NYSERDA prior to submittal (or payment) of any invoices for Capacity or Performance Incentives beyond the 1<sup>st</sup> Capacity payment. The Contractor shall be responsible to provide the instrumentation (sensors and meters) and communications capability specified within the approved QA/QC Plan; all QA/QC activities shall be conducted in accordance with the approved QA/QC Plan.

§4.2. Annual Performance Reports. The total production performance period of the Standard Performance Contract Agreement shall be ten (10) years. The first year's (consecutive 12-month) performance period must begin no later than the 30th day after NYSERDA's approval of the Project Commissioning Report. If NYSERDA determines that data collected prior to approval of the Project Commissioning Report is satisfactory, the first year's performance period may begin at an earlier date approved by NYSERDA.

Within 60 days from the end of the first year's performance period, the Contractor must submit an Annual Performance Report to NYSERDA, which will become the basis for the first Performance Incentive payment. Annual performance reporting shall be in accordance with Exhibit D. Annual Performance Reports must also be submitted to NYSERDA within 60 days from the end of the second through tenth performance periods. The Contractor shall be responsible for ensuring that data provided in the Annual Performance Reports accurately represents the operation of the ADG-to-Electricity System.

§4.3. Prior Notice. NYSERDA or its designated technical consultant may choose to visit a project site to verify that the information provided in the Annual Performance Report is accurate with regard to project equipment, site conditions, and monitoring configurations. These inspections may occur at any time after project installation. Should NYSERDA decide to inspect a site, NYSERDA, or its designated technical consultant may or may not contact the Contractor to schedule the inspection. In other words, an inspection may occur without advance notice given to the Contractor. If the QA/QC activities are found to be different from those represented in either the QA/QC plan or the Annual Performance Report, NYSERDA may refuse any further incentive payments. If NYSERDA deems an inspection necessary, an Annual Performance Report that is under review will not be approved until the inspection has been completed.

## ARTICLE 5: PAYMENTS

§5.1. Invoicing. Payments may be requested by the Contractor by submitting an invoice to NYSERDA. Invoices must be accompanied by all additional required information and documentation. NYSERDA shall make payments to the Contractor in accordance with terms of this Agreement and subject to its Prompt Payment Policy Statement, which is attached hereto as Exhibit C. No invoice beyond the 1<sup>st</sup> Capacity Payment may be submitted and no payment will become payable unless and until NYSERDA has approved Contractor's QA/QC Plan. NYSERDA will not be liable for payment of any invoices if received more than 90 days after the expiration of the Project Term.

### §5.2. Interconnection Incentive Payment Distribution.

1st Interconnection payment - 100% of the Interconnection Review Incentive is payable once the Contractor provides documentation to NYSERDA that CESIR costs have been paid in full to the utility.

2nd Interconnection payment - 75% of the Interconnection Implementation Incentive is payable once the Contractor provides documentation to NYSERDA that the full estimated costs of interconnection implementation have been paid to the utility.

3rd Interconnection payment – The remaining 25% of the Interconnection Implementation Incentive is payable once the Contractor provides documentation to NYSERDA that the interconnection has been completed by the utility and the costs estimated in the CESIR have been reconciled with the actual costs of interconnection implementation. The total incentive payable is limited to 50% of the reconciled costs of interconnection implementation. If 50% of the reconciled costs are less than the initial Interconnection Implementation Incentive payment, no additional payments will be made. Additionally, any overpaid funds will be subtracted from the Total Capacity Incentive.

### §5.3. Capacity Incentive Payment Distribution.

1st Capacity payment - Up to 15% of the Total Capacity Incentive is payable once the Contractor provides evidence sufficient to demonstrate payments for major equipment (e.g., power generation system, anaerobic digester system, biogas clean-up and handling systems etc.) and/or engineering design which in total exceed the amount of the 1<sup>st</sup> Capacity payment..

2nd Capacity payment\* - Up to 45% of the Anaerobic Digester component of Total Capacity Incentive, is payable once NYSERDA's designated technical consultant has verified that construction/installation/upgrade of the ADG System has been completed.

3rd Capacity payment\* - Up to 45% of the Power Generation component of Total Capacity Incentive is payable once the Contractor has provided sufficient documentation to NYSERDA verifying that the power generation system has been delivered to the site (e.g., delivery receipt).

4th Capacity payment\* - Up to 45% of the Project Enhancement component(s) of Total Capacity Incentive is payable once NYSERDA's designated technical consultant has verified that construction/installation of the subject Project Enhancement component(s) has(have) been completed or the required documentation for the Project Enhancement(s), according to applicable sections of *Using the Incentive Calculation Tool and Specific Incentive Requirements* of Exhibit D has been submitted to NYSERDA. The Contractor may request payment at this time for any Project Enhancements that have been completed and verified. Payment for Project Enhancements completed and verified after the 4th Capacity payment request has been made may be requested with the 6th Capacity payment.

5th Capacity payment - 20% of the Total Capacity Incentive is payable once documentation has been provided to NYSERDA that sufficiently verifies successful operation of the newly installed system and completion of interconnection, if applicable (e.g., interconnection acceptance test documentation from the utility.)

6th Capacity payment - Up to 100% of the Total Capacity Incentive is payable once the newly installed system is successfully commissioned. Commissioning includes operating the ADG – to-Electricity System at a minimum of 75% average capacity factor over seven (7) consecutive days, and demonstrating the ability to upload data generated by the system to NYSERDA’s DG Website, if applicable. A Project Commissioning Report must also be completed detailing the installation and commissioning activities and include design updates and as-built diagrams. Any Project Enhancements payments that were not made with the 4th Capacity payment may be requested with this payment.

\* The QA/QC Plan must also be completed before requesting these payments. The 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> Capacity payments need not be requested in the order presented above.

#### §5.4. Performance Incentive Payment Distribution.

There are normally 10 Performance Incentive payments. Each payment shall be based on the verified electricity generated and verified H2S levels that satisfy requirements for the particular H2S reduction process as specified in Exhibit D (containing Appendix C of PON 2828) during each of the 10 consecutive years during which Performance Incentives are offered, known as the Performance Periods.

The first year’s (consecutive 12-month) Performance Period must begin after commissioning no later than the 30th day after NYSERDA’s approval of the Project Commissioning Report. If NYSERDA determines that data collected prior to approval of the Project Commissioning Report is satisfactory, the first year’s performance period may begin at an earlier date if approved by NYSERDA.

Performance Incentive payments shall be made after the following:

- The Annual Performance Report, prepared by the designated technical consultant, has been approved by NYSERDA. The Contractor is responsible for ensuring that data provided in the Annual Performance Reports accurately represent the operation of the ADG-to-Electricity System in accordance with the QA/QC plan.
- An invoice has been submitted to NYSERDA for the previous year’s Performance Incentives.
- A statement has been submitted to NYSERDA stating whether or not a Federal grant via 1603 Treasury Grant, USDA REAP and/or NRCS/EQIP digester funding has been received for one or more components of the project. Contractor may be required and hereby agrees to provide NYSERDA with any necessary authority for NYSERDA to independently verify the existence and amount of any federal grant and to execute any documents necessary for NYSERDA to do so.

In general, 10% of the Power Generation component of the Total Performance Incentive (based on the kWh production times \$.025 per kWh) will be paid by NYSERDA in each year, not to exceed a cumulative total of 100% of the Power Generation component of the Total Performance Incentive. The percentage paid in a given year will be calculated based on the ratio of the actual verified electricity produced compared to the anticipated total electrical generation over the 10-year period (the Annual Contracted Generation listed in Exhibit A times 10 years). If, in a given year, the Contractor is unable to produce 10% of the total electrical generation expected over the 10 year period, that production deficit can be made up in subsequent years provided the cumulative percentage of the total Performance Incentives paid by that year does not exceed the cumulative percentage of years that the system had been in production. For example, a maximum of only 80% of the total Performance Incentives can be paid for production at the end of the 8th year of the Performance Period.

Additionally, the H2S Reduction Processes component of the annual Performance Incentives payments is based on the hourly outlet H2S readings (up to a max. of 90% of the hours in a year) that are below the minimum H2S threshold of 800 ppm (for Iron Chloride, Ferric Hydroxide or Other H2S reduction processes) or 400 ppm (for Biological Scrubber, Carbon Filter or Iron sponge). Therefore the H2S Reduction component of annual Performance Incentive payment is determined by multiplying the Contract Capacity, times the factor .83333, times the verified hourly samples below the min. H2S threshold, times the H2S Performance Incentive variable (shown for each respective H2S additive or technology on page 2 of this Appendix). NYSERDA may direct its designated technical consultant to sample the biogas, determine H2S removal efficiency, and compare the actual efficiency to the data originally provided by the operator.

#### ARTICLE 6: FORCE MAJEURE

§6.1. 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, or 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. Failure by Contractor to obtain or secure any permit or approval or delay in obtaining any permit or approval of any sort with regard to Contractor's performance under the Agreement shall not constitute a force majeure event.

#### ARTICLE 7: TERMINATION

§7.1. This Agreement shall remain in effect for the Project Term defined in Section 2.2, unless there is an event of default and the Agreement is terminated in accordance with this Article. Events of default include either Party's breach of any provision of this Agreement, including provisions incorporated by reference, and including, but not limited to, the following:

- a. failure of the Contractor to perform its responsibilities in a timely manner, including, but not limited to, failure to provide the required submittals within the required time frames, including responses to requests for clarification or additional information, or failure complete the required inspections within the time limits and manner set forth in PON 2828;
- b. failure of the Contractor to provide NYSERDA or its contractors sufficient access to the Host Site's facility for inspection and/or observation of the Contractor's field QA/QC activities;
- c. failure of the Contractor to cure any deficiency in a material term or cure any material breach of this Agreement within 30 calendar days after written notice;
- d. failure of the Contractor to acquire or maintain any necessary permit, license or failure to maintain Insurance as required under this Agreement;
- e. assignment or subcontracting of all or part of the Contractor's obligations required under this Agreement without NYSERDA's prior written permission, except that the Contractor shall not be required to obtain NYSERDA approval to subcontract all or part of the work;

- f. failure of the Contractor to achieve any Milestone listed under Article 3;
- g. submittal by the Contractor of false, misleading or incorrect information; and
- h. failure by NYSERDA to make payments due pursuant to the terms of this Agreement to the Contractor within the time limits set forth in this Agreement.

§7.2. Once an event of default occurs, and at any time thereafter so long as the default continues, the non-defaulting Party may, by written notice to the defaulting Party, specify the nature of such default, and declare this Agreement to be in default. The defaulting Party must remedy the default within the time specified in the written notice of default, or 30 calendar days from the date such written notice was given if no time is specified, or within any further period to which the parties may agree. In no event, however, will the defaulting Party be required to remedy a default in less than 30 calendar days from the date the written notice of default was given.

§7.3. Notwithstanding the provisions of this Article, NYSERDA may terminate this Agreement on notice, and without providing an opportunity for cure, for Contractor's failure to fulfill, adhere to, or comply with the provisions of Article 3.

§7.4. If the defaulting party fails to cure its default within the appropriate time period, the non-defaulting party may terminate this Agreement at any time thereafter and, without a waiver of any other remedies which exist in law or equity, exercise at its election, any other rights or remedies it may have under this Agreement, at law or in equity, or institute other proceedings including but not limited to bringing an action or actions from time to time for specific performance, for the recovery of amounts due and unpaid, and for damages.

#### ARTICLE 8: ENVIRONMENTAL ATTRIBUTES ASSESSMENT AND REPORTING

§8.1. NYSERDA will register all ADG-to-Electricity projects funded through this PON in the New York Generation Attribute Tracking System (NYGATS) and will route any certificates created by the NYGATS for the project into a NYSERDA account. The renewable energy certificate retirement rules associated with the operation of the NYGATS are based on the Public Service Commission's reporting requirements under the Renewable Portfolio Standard (03-E-0188) and CEF programs (14-M-0094) for projects that have received a financial incentive by participating in those programs

#### ARTICLE 9: INDEMNIFICATION

§9.1. 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 the Contractor's performance of this Agreement. The Contractor agrees that such obligations under this Article shall survive any expiration or termination of this Agreement and shall not be limited by any insurance coverage required under this Agreement.

#### ARTICLE 10: INSURANCE.

§10.1. Maintenance of Insurance; Policy Provisions. The Contractor, at no additional 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. name or be endorsed to cover NYSERDA and the State of New York as additional insured;
- b. provide that such policy may not be canceled or modified until at least thirty (30) calendar days after receipt by NYSERDA of written notice thereof; and
- c. be reasonably satisfactory to NYSERDA in all other respects.

§10.2. 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.
- b. Workers Compensation, Employers Liability, and Disability Benefits as required by New York State.

§10.3. Delivery of Policies; Insurance Certificates. Prior to commencing the Work, the Contractor shall deliver to NYSERDA certificates of insurance issued by the respective insurers, evidencing the insurance required by this Article. In the event any policy furnished or carried pursuant to this Article will expire on a date prior to the termination date established under Article 2 hereof, the Contractor, not less than thirty (30) calendar 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, the Contractor shall, upon request, deliver to NYSERDA a certified copy of each policy.

## ARTICLE 11: WARRANTIES AND GUARANTEES

§11.1. Each Party warrants and guarantees to the other that:

- a. it has all requisite power, authority, licenses, permits and franchises, corporate or otherwise, to execute and deliver this Agreement and perform its obligations hereunder;
- b. its execution, delivery and performance of this Agreement have been duly authorized by, or is in accordance with, its organizing instrument, and this Agreement has been duly executed and delivered for it by the signatories authorized, and it constitutes its legal, valid and binding obligation;
- c. its execution, delivery and performance of this Agreement shall not result in a breach or violation of, or constitute a default under, any agreement, lease, or instrument to which it is a party or by which it or its properties may be bound or affected; and

- d. it has not received any notice, nor to the best of its knowledge is there pending or threatened any notice of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially and adversely affect its ability to perform hereunder.

§11.2. The Contractor also warrants and guarantees that:

- a. it is financially and technically qualified to perform the Project;
- b. it is familiar with and will comply with all general and special federal, State, municipal and local laws, ordinances and regulations, if any, that may in any way affect the performance of this Agreement;
- c. the design, supervision and workmanship furnished with respect to performance of the Project shall be in accordance with sound and currently accepted engineering practices;
- d. neither the Contractor nor any of its employees, agents, representatives or servants has actual knowledge of any patent, copyright or trademark 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 Project or any part thereof infringes any patent, copyright, or trademark or otherwise interferes with any other right of any individual, corporation, association or partnership, organization, business or a government or political subdivision thereof, or any governmental agency or instrumentality;
- e. it has no actual knowledge that there are existing undisclosed or threatened legal actions, claims, or encumbrances, or liabilities that may adversely affect the Project or NYSERDA's rights hereunder;
- f. 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 Project;
- g. it has no, and shall not obtain during the course of this Agreement any, interest, financial or otherwise, direct or indirect, nor is it engaged in any business or transaction or professional activity, nor has it incurred any obligation of any nature, which is in substantial conflict with the rendering of services under this Agreement; and
- h. it shall exercise reasonable care to achieve commercial standards of fitness for the Customer's use of the equipment that is installed in connection with the Project.

## ARTICLE 12: COMPLIANCE WITH CERTAIN LAWS

§12.1. Governing Law/Venue. This Agreement shall be interpreted according to the laws of the State of New York without regard to its conflicts of laws principles. The Contractor, its subcontractors and consultants will comply with all laws, rules, orders, regulations and requirements of federal, state and municipal governments applicable thereto, including provisions set forth in Exhibit B hereto. The parties irrevocably acknowledge and accept that all actions arising under or relating to this Agreement, and the transactions contemplated hereby and thereby shall be brought exclusively in the United States District Court or New York State Court located in Albany, New York having subject matter jurisdiction over such matters, and each of the Parties hereby consents to and accepts such personal jurisdiction of, and waives any objection as to the laying of venue in, such courts for purposes of such action.

§12.2. 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.

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

§12.4. Equipment Requirements. All Equipment required for the ADG-to-Electricity system described in the Project Application and subsequent As-built Diagrams shall be consistent with the New York State Uniform Fire Prevention and Building Code, or the applicable local, State or Federal codes.

§12.5. State Environmental Quality Review Act (SEQRA). NYSERDA is subject to the provisions of SEQRA, implementing regulations of the New York State Department of Environmental Conservation, and implementing regulations of NYSERDA. Funding will not be released for a Project that has not complied with SEQRA.

§12.6. Permits and Approvals. The Contractor shall be responsible to obtain all applicable permits and regulatory approvals that may be required in order to develop and/or operate the Project during the Project Term. Neither the RPS Program, nor Clean Energy Fund Program, nor entry into this Agreement in any way replaces or modifies the necessity or applicability of any permit or approval process by any jurisdiction. NYSERDA's obligations to make payments to Contractor will be conditional on the acquisition of all such permits and approvals. Upon request by NYSERDA Contractor must demonstrate such acquisition and/or provide copies of all permits and approvals acquired. Contractor shall provide prompt Notice to NYSERDA of the initiation of any criminal or regulatory investigation, hearing, proceeding, or review process ("Process") by any federal or State entity regarding any actual or alleged violation of any permit or approval obtained or applied for with respect to the Project, as well as of any modification, penalty and/or fine that may be imposed or occur as a result of such a Process or violation.

## ARTICLE 13: PUBLICITY

§13.1. The Contractor shall collaborate with NYSERDA's Manager of Communications to prepare any press release and to plan for any news conference concerning the Project. In addition, the Contractor shall notify NYSERDA's Manager of Communications regarding any media interview in which the Project is referred to or discussed.

§13.2. It is recognized that during the course of the Project 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 funding participation in the Project to the **New York State Renewable Portfolio Standard Customer-Sited Tier or Clean Energy Funds** program as appropriate, 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."

§13.3. The Contractor shall not use NYSERDA's corporate name, logo, identity, or any affiliation, without NYSERDA's prior written consent.

#### ARTICLE 14: MISCELLANEOUS

§14.1. 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 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.

§14.2. Record Retention. The Contractor and subcontractors shall keep, maintain, and preserve at its principal office throughout the term of the Agreement and for a period of five (5) years after the expiration or early termination of this Agreement, accurate records of the Project work which is performed hereunder. NYSERDA or its designated representative shall at reasonable times have access to inspect such records.

§14.3. NYSERDA'S Right to Inspect. NYSERDA, and its designated representatives, may observe and inspect all Project work in any of the Customer's facilities.

§14.4. No Waiver. The failure of either Party to insist upon strict adherence to any term of this Agreement on any occasion shall not be considered a waiver nor deprive that Party of the right thereafter to insist upon strict adherence to that term or any other term of this Agreement.

§14.5. Rights and Remedies. No right or remedy conferred upon or reserved to the Parties by this Agreement excludes any other rights or remedies provided by law or equity nor restricts the Parties' rights to exercise any other right or remedy.

§14.6. Disputes. Where any matters related to this Agreement are in dispute, the SPCA Program Manager and the Contractor contact person, or their designated representatives shall promptly but in any case, within twenty (20) calendar days of written notice by either party to the other, meet at a mutually acceptable time and place, and thereafter as often as they reasonably deem necessary to exchange information and attempt in good faith to resolve the dispute.

§14.7. Assignment. The assignment, transfer, conveyance, 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.

§14.8. Notices. 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 deemed to have been sufficiently given for all purposes hereunder when delivered or mailed by registered or certified mail, postage prepaid, return receipt requested, (i) if to NYSERDA, at 17 Columbia Circle, Albany, New York 12203-6399, or at such other address as NYSERDA shall have furnished to the Contractor in writing, and (ii) if to the Contractor, at the address noted in the first paragraph of Page 1 of this Agreement, or such other address as the Contractor shall have furnished to it in writing.

§14.9. Executory Clause. NYSERDA shall have no liability under this Agreement to the Contractor or to anyone else beyond RPS Surcharge or System Benefits Charge funds actually paid to NYSERDA by third parties which would fund this Agreement.

§14.10. 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 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.

§14.11. Audit. NYSERDA shall have the right from time to time and at all reasonable times during the term of the Agreement and such period thereafter to inspect and audit any and all books, accounts and records pertaining to Contractor's performance under this Agreement, at the office or offices of the Contractor where they are then being kept, maintained and preserved. If such books, accounts and records are not kept at an office within the State of New York, within a reasonable time of a request by NYSERDA, Contractor shall make such books, accounts and records available to NYSERDA at NYSERDA's offices or at an agreed upon location within the State of New York. Any payment made under this Agreement shall be subject to retroactive adjustment (reduction or increase) regarding amounts included therein which are found by NYSERDA on the basis of any audit of the Contractor by an agency of the United States, the State of New York or NYSERDA not to constitute a properly invoiced amount.

§14.12. Review and Disclaimer. NYSERDA's execution of this Agreement with the Contractor and any NYSERDA review of the design, construction, operation, or maintenance of the Project shall not constitute any representation as to the economic or technical feasibility, operational capability, or reliability of the Project or Facility. The Contractor shall in no way represent to any third party that NYSERDA's execution of this Agreement or any reviews by NYSERDA, including, but not limited to, NYSERDA's review of the design, construction, operation, or maintenance of the Project is a representation by NYSERDA as to the economic or technical feasibility, operational capability, or reliability of the Facility or Project.

§14.13. Requirement to Pay the RPS or SBC. The Host Site must be paying the RPS Surcharge (for applications submitted on or before February 29, 2016) or System Benefits Charge surcharge (for any applications submitted after that date) at the time of application submittal to NYSERDA or for new construction will pay the Systems Benefits Charge surcharge on the electric bill for the utility meter to which the ADG-to-Electricity System will be connected.

§14.14. Annual Metrics Reports. If required by NYSERDA, in addition to the data required by the QA/QC Plan, on an annual basis, the Contractor shall submit, to NYSERDA's Project Manager, a prepared analysis and summary of metrics addressing the anticipated energy, environmental and economic benefits that are realized by the project. All estimates shall reference credible sources and estimating procedures, and all assumptions shall be documented. Reporting shall commence the first calendar year after the contract was executed. Reports shall be submitted by January 31<sup>st</sup> for the previous calendar years activities (i.e. metrics reporting period).

**ARTICLE 15: FREEDOM OF INFORMATION**

§15.1. Freedom of Information Law. Contractor acknowledges that NYSERDA is subject to and must comply with the requirements of New York's Freedom of Information Law ("FOIL;" see Public Officers' Law Article 6).

§15.2. Claim of Confidentiality. Information of any tangible form including any document that Contractor wishes to be protected from disclosure to third parties must be marked "Confidential" or "Proprietary" at the time such information is provided to NYSERDA.

§15.3. Trade Secrets/Commercial Information. The FOIL Law (Public Officers Law § 87(d)(2)) provides an exception to disclosure for records or portions thereof that "are trade secrets or are submitted to an agency by a commercial enterprise or derived from information obtained from a commercial enterprise and which if disclosed would cause substantial injury to the competitive position of the subject enterprise." If NYSERDA receives a request from a third party for information or a document received from Contractor and which has been marked "Confidential" or "Proprietary," NYSERDA will process such request under the procedures provided by NYSERDA's FOIL regulations (see [www.nysesda.org/About/NYSERDA.Regulations.pdf](http://www.nysesda.org/About/NYSERDA.Regulations.pdf)).

**IN WITNESS WHEREOF**, the Parties hereto do indicate their acceptance of and agreement to the foregoing by causing their duly authorized representatives to execute this Agreement as of the day, month and year first above written.

**[Contractor]**

**NEW YORK STATE ENERGY RESEARCH  
AND DEVELOPMENT AUTHORITY**

By \_\_\_\_\_

By

John B. Rhodes

Name \_\_\_\_\_

President

Title \_\_\_\_\_

STATE OF            )  
                          ) SS.:  
COUNTY OF        )

On this \_\_\_\_\_ day of \_\_\_\_\_, 201\_ before me personally came to me known, who, by me duly sworn, did depose and say that deponent resides in \_\_\_\_\_; that deponent is the \_\_\_\_\_ of \_\_\_\_\_, the corporation described in and which executed the foregoing instrument; and that (s)he executed the same by the authority of the Board of Directors or By-Laws of said corporation.

Notary Public

EXHIBIT A  
TOTAL CONTRACTED PROJECT INCENTIVE

Contractor Name:  
Agreement Number:  
Project Name:

Contracted Capacity (kW)	Annual Contracted Generation (kWh/year)	Total Performance Incentive (\$)	Total Interconnection Incentive (\$)	Total Capacity Incentive (\$)	Total Contracted Project Incentive (\$)
-	-	\$	\$	\$	\$

## EXHIBIT B

REVISED 5/12

### 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:

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.state.ny.us/coog/foil2.html>) and NYSERDA’s Regulations, Part 501 (<http://www.nyserda.ny.gov/en/About/~media/Files/About/Contact/NYSERDARegulations.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  
30 South Pearl St -- 7th Floor  
Albany, New York 12245  
Telephone: 518-292-5220  
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  
30 South Pearl St -- 2nd Floor  
Albany, New York 12245  
Telephone: 518-292-5250  
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. 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 [www.ogs.ny.gov/about/reg/ida.asp](http://www.ogs.ny.gov/about/reg/ida.asp)).

## EXHIBIT C

### 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.<sup>1</sup>

(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.

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<sup>1</sup> This is only a summary; the full text of Part 504 can be accessed at:  
<http://www.nyserda.ny.gov/en/About/~media/Files/About/Contact/NYSERDARegulations.ashx>

(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 D

FINAL COMPLETED APPLICATION FORM,  
USING THE INCENTIVE CALCULATION TOOL  
AND SPECIFIC INCENTIVE REQUIREMENTS,  
QUALITY ASSURANCE/QUALITY CONTROL AND REPORTING REQUIREMENTS  
(Appendices B, C, and E of PON 2828)

PON 2828 APPENDIX G:

**New York State  
Standardized Interconnection Requirements and Application Process  
For New Distributed Generators 5 MW or Less Connected in Parallel with Utility  
Distribution Systems**

**New York State  
Public Service Commission**

**March 2016**

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## **Section I. Application Process**

### **New York State Standardized Interconnection Requirements and Application Process for New Distributed Generators 5 MW or Less Connected in Parallel with Utility Distribution Systems (“SIR”)**

#### **A. Introduction**

This section provides a framework for processing applications to:

- interconnect new distributed generation (“DG”) facilities with a generator nameplate rating of 5 MW or less [aggregated on the customer side of the point of common coupling (“PCC”)], and
- review any modifications affecting the interface at the PCC to existing DG facilities with a nameplate rating of 5 MW or less (aggregated on the customer side of the PCC) that have been interconnected to the utility distribution system and where an existing contract between the applicant and the utility is in place.

Generation neither designed to operate, nor operating, in parallel with the utility’s electrical system is not subject to these requirements. This section will ensure that applicants are aware of the technical interconnection requirements and utility interconnection policies and practices. This section will also provide applicants with an understanding of the process and information required to allow utilities to review and accept the applicants’ equipment for interconnection in a reasonable and expeditious manner.

The time required to complete the process will reflect the complexity of the proposed project. Projects using previously submitted designs certified per the requirements of Section II.H will move through the process more quickly, and several steps may be satisfied with an initial application depending on the detail and completeness of the application and supporting documentation submitted by the applicant. Applicants submitting systems utilizing certified equipment however, are not exempt from providing utilities with complete design packages necessary for the utilities to verify the electrical characteristics of the generator systems, the interconnecting facilities, and the impacts of the applicants’ equipment on the utilities’ systems.

The application process and the attendant services must be offered on a non-discriminatory basis. The utilities must clearly identify their costs related to the applicants’ interconnections, specifically those costs the utilities would not have incurred but for the applicants’ interconnections. The utilities will keep a log of all applications, milestones met, and justifications for application-specific requirements. The applicants are to be responsible for payment of the utilities’ costs, as provided for herein.

All application timelines shall commence the next Business Day following receipt of information from the applicant.

Staff of the Department of Public Service (“DPS Staff”) will monitor the application process to ensure that applications are addressed in a timely manner. To perform this monitoring function, DPS Staff will meet periodically with utility and applicant representatives.

A glossary of terms used herein is provided in Section III.

#### **B. Application Process Steps for Systems 50 kW or Less**

**Exception 1:** For inverter based systems above 50 kW up to 300 kW, applicants may follow the expedited application process outlined in this section provided that the inverter based system has been certified and tested in accordance with the most recent revision of UL 1741 and the utility has approved the project accordingly. The utility has ten (10) Business Days upon receipt of the original application submittal to determine if the application is complete, project is eligible for the expedited process, and whether it is approved for interconnection if eligible for expedited process. The utility shall notify the applicant in writing of its findings upon review of the application. If the utility determines that the inverter based system is not eligible for the expedited application process, the applicant can:

- 1) Proceed with the remaining steps of Section I.C of the SIR (Systems above 50 kW up to 5 MW); or
- 2) Request a review by DPS Staff.

**Exception 2:** For non-inverter based system 50 kW or less, the applicant should be aware that additional information and review time may be required by the utility (refer to Step 3). The applicant must include the items required in Step 5 of the Application Process Steps for Systems above 50 kW up to 5 MW in its original application. This exception should not be considered the rule, but used by the utility only in justified situations. Utilities are encouraged to use the expedited process whenever possible. The utility has ten (10) Business Days upon receipt of the original application submittal to determine if the application is complete, project is eligible for expedited process, and whether it is approved for interconnection if eligible for expedited process. The utility shall notify the applicant in writing of its findings upon review of the application. If the utility determines that the non-inverter based system is not eligible for the expedited application process, the applicant can:

- 1) Proceed with the remaining steps of Section I.C of the SIR (Systems above 50 kW up to 5 MW); or
- 2) Request a review by DPS Staff.

**Exception 3:** For all systems 50 kW or less, that are proposed to be installed in underground secondary network areas, the applicant should be aware that additional information and review time may be required by the utility (refer to Step 3). In some cases, interconnection may not be allowed or approved. DG systems interconnected to underground secondary network systems can cause unique design issues and overall reliability problems for the utilities. For this reason, additional review and analysis may be needed on a case by case basis. The utility has ten (10)

Business Days upon receipt of the original application submittal to determine if the application is complete, project is eligible for the expedited process, and whether it is approved for interconnection if eligible for expedited process. The utility shall notify the applicant in writing of its findings upon review of the application. If the utility determines that the DG system cannot be interconnected, the applicant can request a review by DPS Staff.

**STEP 1: Initial Communication from the Potential Applicant**

Communication could range from a general inquiry to a completed application.

**STEP 2: The Inquiry is Reviewed by the Utility to Determine the Nature of the Project**

Technical staff from the utility may discuss the scope of the interconnection with the potential applicant (either by phone or in person) and provide a copy of the SIR document and any utility specific technical specifications that may apply. A utility representative shall be designated to serve as the single point of contact for the applicant in coordinating the potential applicant's project with the utility.

**STEP 3: Potential Applicant Files an Application**

The potential applicant submits an application package in the name of the customer<sup>1</sup> to the utility. No application fee is required of the applicant for systems 50 kW or less. A complete application package will consist of all items detailed in Appendix F. Electronic submission of all documents is acceptable, inclusive of electronic signature. Electronic signatures must meet the requirements for filing documents electronically with the Secretary of the Commission. The utility has ten (10) Business Days upon receipt of the original application submittal to determine if the application is complete, meets the SIR technical requirements in Section II, and/or approved for interconnection if all other requirements are met. The utility shall notify the applicant by email, fax, or other form of written communication. If the application is deemed not complete by the utility, the utility shall provide a detailed explanation of the deficiencies identified and a list of the additional information required from the applicant. Once it has received the required information, the utility shall notify the applicant of the acceptance or rejection of the application within ten (10) Business days. If the applicant fails to submit the additional information to the utility within thirty (30) Business Days following the date of the utility's written notification, the application shall be deemed withdrawn and no further action on the part of the utility is required.

The utility's notification of acceptance to the applicant shall include an executed New York State

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<sup>1</sup> All Net Metering project applications shall be submitted in the customer's name. Per the Community Distributed Generation program Order (15-E-0082), the project sponsor shall submit the interconnection application to the electric utility for approval. The sponsor may be any single entity, including the generation facility developer, an energy service company (ESCO), a municipal entity such as a town or village, a business or not for-profit corporation, a limited liability company, a partnership, or other form of business or civic association.

Standardized Interconnection Contract and the applicant may proceed with the proposed installation. The utility shall also indicate in its response to the applicant whether or not it plans to witness the testing and verification process in person.

An accepted application will be placed in each utility's interconnection inventory upon the utility's receipt of the New York State Standardized Contract executed by the applicant. If the final acceptance as set out in Step 6 below is not completed within twelve (12) months of receipt of such executed copy of the New York State Standardized Contract as a result of applicant inactivity, the utility has the right to notify the applicant by U.S. first class mail with delivery receipt confirmation that the applicant's project will be removed from the utility's interconnection inventory if the applicant does not respond within thirty (30) Business Days of the issue of such notification and provide a project status update and/or justification as to why the project should remain in the utility's interconnection inventory for an additional period of time.

'With respect to an applicant proposing to install a system rated 25 kW or less, that is to be net-metered, if the utility determines that it is necessary to install a dedicated transformer(s) or other equipment to protect the safety and adequacy of electric service provided to other customers, the applicant shall be informed of its responsibility for the actual costs for installing the dedicated transformer(s) and other safety equipment. Appendix E sets forth the responsibility each applicant shall have with respect to the actual cost of the dedicated transformer(s) and other safety equipment.

#### **STEP 4: System Installation**

The applicant will install the DG system according to the utility accepted design and the equipment manufacturer's requirements. If there are substantive design variations from the originally accepted system diagram, a revised system diagram (and other drawings for non-inverter based systems) shall be submitted by the applicant for the utility's review and acceptance. All inverter based systems will be allowed to interconnect to the utility system for a period not to exceed two hours, for the sole purpose of assuring proper operation of the installed equipment.

For net metered systems as defined in Section II.A.6, any modifications related to existing metering configurations to allow for net metering shall be completed by the utility within ten (10) Business Days of either notification to the utility that the installation has been completed or request for a verification test, whichever comes first.

#### **STEP 5: The Applicant's Facility is Tested in Accordance with the Standardized Interconnection Requirements**

Verification testing will be performed by the applicant in accordance with the written verification test procedure provided by the equipment manufacturer. If the utility requested to witness the testing and verification process in person as required in Step 3, the verification testing will be performed within ten (10) Business Days of the system installation completion date, at a mutually agreeable time. If the utility has opted not to witness the test, the applicant

will send the utility within five (5) Business Days of completion of such tests a written notification certifying that the system has been installed and tested in compliance with the SIR, the utility-accepted design and the equipment manufacturer's instructions. The applicant's facility will be allowed to commence parallel operation upon satisfactory completion of the tests in Step 5. The applicant must have complied with, and must continue to comply with, all contractual and technical requirements.

#### **STEP 6: Final Acceptance**

Within five (5) Business Days of receiving the written notification of successful test completion from Step 5, the utility will issue to the applicant a formal letter of acceptance for interconnection. Within five (5) Business Days of the completion of the on-site verification, the utility will issue to the applicant either a formal letter of acceptance for interconnection or a detailed explanation of the deficiencies in the system.

#### **C. Application Process Steps for Systems above 50 kW up to 5 MW**

For inverter based systems above 50 kW up to 300 kW, certified and tested in accordance with the most recent revision of UL 1741, applicants and utilities are encouraged, but not required, to use the expedited application process (Section I.B).

**Exception 1:** For all systems 50 kW up to 5 MW that are proposed to be installed in underground secondary network areas, the applicant should be aware that a CESIR may be required by the utility, based on each utility's specific technical requirements and design considerations on a case-by-case basis. In some cases, interconnection may not be allowed or approved. DG systems interconnected to underground secondary network systems can cause unique design issues and overall reliability problems for the utilities. The utility has ten (10) Business Days upon receipt of the original application submittal to determine if the application is complete and whether it is eligible for interconnection. The utility shall notify the applicant in writing of its findings upon review of the application. If the utility determines that the DG system cannot be interconnected or requires additional information be submitted and/or additional review time is needed, the applicant can:

- (1) Work with the utility on an appropriate timeframe and approval schedule agreeable to both parties; or
- (2) Request a review by DPS Staff.

#### **STEP 1: Initial Communication from the Potential Applicant.**

Communication could range from a general inquiry to a completed application.

**STEP 2: The Inquiry is Reviewed by the Utility to Determine the Nature of the Project.**

Technical staff from the utility may discuss the scope of the interconnection with the potential applicant (either by phone or in person) and shall provide a copy of the SIR and any utility specific technical specifications that may apply. A utility representative shall be designated to serve as the single point of contact for the applicant in coordinating the potential applicant's project with the utility. At this time the applicant may also request that a Pre-Application Report (see Appendix D herein) be provided by the utility. The applicant shall provide a non-refundable fee of \$750 with its request for completion of the Pre-Application Report. The Pre-Application Report shall be provided to the applicant within ten (10) Business Days of receipt of the form and payment of the fee. The Pre-Application Report will be non-binding and shall only provide the electrical system data and information requested that is readily available to the utility. Should the applicant formally apply to interconnect their proposed DG project within fifteen (15) Business Days of receipt of the utility's Pre-Application Report, the \$750 will be applied towards the application fee in Step 3.

**STEP 3: Potential Applicant Files an Application**

The potential applicant submits an application to the utility in the name of the customer<sup>2</sup>. A complete application package will consist of all items detailed in Appendix F. Electronic submission of all documents is acceptable, inclusive of electronic signature. Electronic signatures must meet the requirements for filing documents electronically with the Secretary of the Commission. If a Pre-Application Report has been provided to the customer, and an application is received by the utility within fifteen (15) Business Days of the date of issue of the Pre-Application Report, a \$750 credit will be applied towards the application fee. Otherwise, payment of a non-refundable \$750 application fee is required except that the application fee shall be refunded to net metering customer-generators unless applied toward the cost of installing a dedicated transformer (s) or other safety equipment. If the applicant proceeds with the project to completion, the application fee will be applied as a payment to the utility's total cost for interconnection, including the cost of processing the application.

The utility shall review the application to determine whether it is complete in accordance with Appendix F, and whether any additional information is required from the applicant. The utility shall notify the applicant in writing within ten (10) Business Days following receipt of the

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<sup>2</sup> All Net Metering project applications shall be submitted in the customer's name. Per the Community Distributed Generation program Order (15-E-0082), the project sponsor shall submit the interconnection application to the electric utility for approval. The sponsor may be any single entity, including the generation facility developer, an energy service company (ESCO), a municipal entity such as a town or village, a business or not for-profit corporation, a limited liability company, a partnership, or other form of business or civic association.

application. If the application is not complete, the utility's notification shall specify what is missing from the application and provide a list of additional information needed. The utility shall notify the applicant by email, fax, or other form of written communication.

If the applicant fails to submit all items required by Appendix F, or to provide additional information identified by the utility within thirty (30) Business Days following the date of the utility's notification, the application shall be deemed withdrawn and no further action on the part of the utility is required.

If the required documentation is presented in this step, it will allow the utility to move to Step 4 and perform the required reviews and allow the process to proceed as expeditiously as possible.

An accepted application will be placed in each utility's interconnection inventory upon the utility's receipt of the New York State Standardized Contract executed by the applicant. If the final acceptance as set out in Step 6 below is not completed within twelve (12) months of receipt of such executed copy of the New York State Standardized Contract as a result of applicant inactivity, the utility has the right to notify the applicant by U.S. first class mail with delivery receipt confirmation that the applicant's project will be removed from the utility's interconnection inventory if the applicant does not respond within thirty (30) Business Days of the issue of such notification and provide a project status update and/or justification as to why the project should remain in the utility's interconnection inventory for an additional period of time.

The utility will refund any advance payments for services or construction not yet completed should the applicant be removed from the utility's interconnection inventory. If the costs incurred by the utility exceed the advance payments made by the applicant prior to removal from the interconnection inventory, the applicant will receive a bill for any balance due to the utility.

**STEP 4: Utility Performs Preliminary / Supplemental Screening Analysis and Develops a Cost Estimate for the Coordinated Electric System Interconnection Review (CESIR) if required**

The utility shall perform a Preliminary Screening Analysis of the proposed system interconnection utilizing the technical screens A through F detailed in Appendix G. The Preliminary Analysis shall be completed and a written response detailing the results of each screen and the overall outcome of the Preliminary Analysis shall be sent to the applicant within fifteen (15) Business Days of the completion of Step 3. Depending on the results of the Preliminary Analysis and the subsequent choices of the applicant, the following process(es) will apply:

- a. If the Preliminary Analysis finds that the applicant's proposed system passes all of the relevant technical screens (i.e. screens A through F) and is in compliance with the Interconnection Requirements outlined in Section II, there are no requirements for Interconnection Facilities or Distribution Upgrades. As such the utility will return a signed and executed New York State Standardized Interconnection Contract to the applicant and the applicant may proceed with the interconnection process.

If the Preliminary Analysis finds that the applicant's proposed system cannot pass all of the relevant technical screens (i.e. screens A through F), the utility shall provide the technical reasons, data and analysis supporting the Preliminary Analysis results in writing. The applicant shall notify the utility within ten (10) Business Days following such notification whether to (i) proceed to a Preliminary Analysis results meeting, (ii) proceed to Supplemental Review, (iii) proceed to a full CESIR, or (iv) withdraw the Interconnection Request. If the applicant fails to notify the utility of their decision within thirty (30) Business Days of notification of the Preliminary Analysis results, the Interconnection Request shall be removed from the queue and no further action on the part of the utility is required.

i. If the applicant chooses to proceed to a Preliminary Analysis results meeting and modifications that obviate the need for Supplemental Analysis are identified, and the applicant and the utility agree to such modifications, the utility shall return a signed and executed New York State Standardized Interconnection Contract within fifteen (15) Business Days of the Preliminary Analysis results meeting if no Interconnection Facilities or Distribution Upgrades are required. If Interconnection Facilities or Distribution Upgrades are required and agreed to, the utility shall provide the applicant with a non-binding cost estimate of any Interconnection Facilities or Distribution Upgrades within fifteen (15) Business Days of the Preliminary Analysis results meeting. The applicant shall notify the utility within fifteen (15) Business Days following such notification indicating the intention of the applicant to revise its application as requested and proceed with the interconnection process or withdraw its application. The applicant may request one extension of no more than fifteen (15) Business Days to respond. If the applicant fails to notify the utility of their decision within fifteen (15) Business Days of notification of the Preliminary Analysis results, or at the end of the extension, if one was requested, the Interconnection Request shall be removed from the queue and no further action on the part of the utility is required. If the applicant does notify the utility of its intention to accept the proposed upgrades and proceed with interconnection, the utility will return a signed and executed New York State Standardized Interconnection Contract to the applicant within fifteen (15) Business Days of receiving the notification.

If the applicant chooses to proceed to a Preliminary Analysis results meeting and modifications that obviate the need for Supplemental Analysis are not identified and agreed to, the applicant shall notify the utility within ten (10) business days of the meeting of their intention to (i) proceed to Supplemental Analysis, (ii) proceed to a full CESIR, or (iii) withdraw the Interconnection Request. If the applicant fails to notify the utility of their decision within thirty (30) business days, the Interconnection Request shall be removed from the queue and no further action on the part of the utility is required.

ii. Applicants that elect to proceed to Supplemental Analysis shall provide a nonrefundable fee of \$2,500 with their response. The utility shall complete the Supplemental Analysis within twenty (20) Business Days, absent extraordinary circumstances, following authorization and receipt of the fee. If the Supplemental Analysis finds that the applicant's proposed system passes all of the relevant technical screens (i.e. screens G through I) and is in compliance with the Interconnection Requirements outlined in Section II, then there are no requirements for Interconnection

Facilities or Distribution Upgrades. Thus, the utility will return a signed and executed New York State Standardized Interconnection Contract to the applicant within fifteen (15) Business Days of providing the applicant the results of the Supplemental Review and the applicant may proceed with the interconnection process.

If the Supplemental Analysis finds that the applicant's proposed system cannot pass all of the relevant technical screens (i.e. screens G through I), the utility shall provide the technical reasons, data, and analysis supporting the Supplemental Analysis results in writing. The applicant shall notify the utility within ten (10) Business Days following such notification whether to (i) proceed to a Supplemental Analysis results meeting, (ii) proceed to a full CESIR, or (iii) withdraw the Interconnection Request. If the applicant fails to notify the utility of their decision within thirty (30) Business Days of notification of the Preliminary Analysis results, the Interconnection Request shall be removed from the queue and no further action on the part of the utility is required.

i. If the applicant chooses to proceed to a Supplemental Analysis results meeting and modifications that obviate the need for a CESIR are identified, and the applicant and the utility agree to such modifications, the utility shall return a signed and executed New York State Standardized Interconnection Contract within fifteen (15) Business Days of the Preliminary Analysis results meeting if no Interconnection Facilities or Distribution Upgrades are required. If Interconnection Facilities or Distribution Upgrades are required and agreed to, the utility shall provide the applicant with a non-binding cost estimate of any Interconnection Facilities or Distribution Upgrades within fifteen (15) Business Days of the Supplemental Analysis results meeting. The applicant shall notify the utility within fifteen (15) Business Days following such notification indicating the intention of the applicant to accept the upgrades and proceed with the interconnection process or withdraw its application. The applicant may request one extension of no more than fifteen (15) Business Days to respond. If the applicant fails to notify the utility of their decision within fifteen (15) Business Days of notification of the Preliminary Analysis results, or at the end of the extension, if one was requested, the Interconnection Request shall be deemed inactive and no further action on the part of the utility will be required until positive confirmation is received. If the applicant does notify the utility of its intention to accept the upgrades and proceed with interconnection, the utility will return a signed and executed New York State Standardized Interconnection Contract to the applicant within fifteen (15) Business Days of receiving the notification.

ii. If the applicant chooses to proceed to a Supplemental Review results meeting and modifications that obviate the need for Supplemental analysis are not identified and agreed to, the applicant shall notify the utility, within ten (10) business days of the meeting, of their intention to proceed to a full CESIR or withdraw the Interconnection Request. If the applicant fails to notify the utility of their decision within thirty (30) business days, the Interconnection Request shall be removed from the queue and no further action on the part of the utility is required.

iii. If the applicant and the utility are unable to identify or agree to modifications that enable the applicant to pass either the Initial or Supplemental Analysis or if the applicant

chooses at any time in the above process to proceed directly to a CESIR, the utility shall provide the applicant with an estimate of costs associated with the completion of the CESIR within five (5) Business Days of the final notification to/from the applicant. The applicant shall notify the utility within ten (10) business days of receiving this cost estimate of their intention to proceed to a full CESIR and move on to Step 5 or to withdraw their application.”

An accepted application will be placed in each utility’s interconnection inventory upon the utility’s receipt of the New York State Standardized Contract executed by the applicant. If the final acceptance as set out in Step 11 below is not completed within twelve (12) months of receipt of such executed copy of the New York State Standardized Contract as a result of applicant inactivity, the utility has the right to notify the applicant by U.S. first class mail with delivery receipt confirmation that the applicant’s project will be removed from the utility’s interconnection inventory if the applicant does not respond within thirty (30) Business Days of the issue of such notification and provide a project status update and/or justification as to why the project should remain in the utility’s interconnection inventory for an additional period of time.

#### **STEP 5: Applicant Commits to the Completion of the CESIR**

Prior to commencement of the CESIR, the applicant shall provide the following information to the utility:

- a complete, detailed interconnection design package
- the name, phone number, and agent letter of authorization (if appropriate) of the individual(s) responsible for addressing technical and contractual questions regarding the proposed system, and
- if applicable, advance payment of the costs associated with the completion of the CESIR.

The complete detailed interconnection design package shall include:

- (1) Electrical schematic drawing(s), including a site plan, reflecting the complete proposed system design which are easily interpreted and of a quality necessary for full interconnection. The drawings shall show all electrical components proposed for the installation and their connections to the existing on-site electrical system from that point to the PCC, and shall be clearly marked to distinguish between new and existing equipment. For those systems proposed to be interconnected at a system voltage of 1000 volts or greater, the drawings shall be sealed by a NYS licensed Professional Engineer.
- (2) A complete listing of all interconnection devices proposed for use at the PCC. A set of specifications for this equipment shall be provided by the applicant upon request from the utility.
- (3) The written verification test procedure provided by the equipment manufacturer, if such procedure is required by this document. For non-inverter based systems, testing equipment must be capable of measuring that protection settings operate within the appropriate times and thresholds set forth in Section II.

(4) Three (3) copies of the following information:

- Proposed three line diagram of the generation system showing the interconnection of major electrical components within the system. Single line diagrams shall be acceptable for single phase installations. Proposed equipment ratings clearly need to indicate:
  - 1) Number, individual ratings, and type of units comprising the above rating;
  - 2) General high voltage bus configuration and relay functions; and
  - 3) Proposed generator step-up transformer MVA ratings, impedances, tap settings and winding voltage ratings;
- Electrical studies as requested by the utility to demonstrate that the design is within acceptable limits, inclusive and not limited to the following: system fault, relay coordination, flicker, voltage drop, and harmonics. This shall include all relay, communication, and controller set points.

If the utility determines that the detailed interconnection design package provided by the applicant is incomplete or otherwise deficient, the utility shall notify the applicant within ten (10) Business Days and provide a detailed explanation of the deficiencies identified and a list of what is required by the applicant. Unless otherwise notified by the utility, the CESIR review period begins upon confirmed receipt and acceptance of the applicants interconnection design package and associated fees.

#### **STEP 6: Utility Completes the CESIR**

The CESIR will consist of two parts:

- (1) a detailed review and explanation of the impacts to the utility system associated with the interconnection of the proposed system, and
- (2) a detailed review and explanation of the proposed system's compliance with the applicable criteria set forth below.

A CESIR will be performed by the utility to determine if the proposed generation on the circuit results in any protective coordination, fault current, thermal, voltage, power quality, or equipment stress concerns.

The CESIR shall be completed within sixty (60) Business Days of receipt of the information set forth in Step 5. For systems utilizing type-tested equipment, the time required to complete the CESIR may be reduced. The utility shall complete the CESIR within sixty (60) Business Days, absent extraordinary circumstances, following authorization, receipt of the CESIR fee, and complete information set forth in Step 5. If the applicant fails to provide the utility authorization to proceed, CESIR fee and information requested within thirty (30) Business Days, the interconnection request shall be removed from the queue and no further action on the part of the utility is required.

For systems above 2 MW up to 5 MW, additional studies may often be required. A mutually agreed-upon schedule for a CESIR for these systems will not exceed an additional twenty (20) Business Days, or eighty (80) Business Days in total.

Upon completion of the CESIR, the utility will provide the following, in writing, to the applicant:

- (1) notification of whether the proposed system meets the applicable criteria considered in the CESIR process;
- (2) utility system impacts, if any;
- (3) a description of where the proposed system is not in compliance with these requirements;
- (4) detailed description of reasoning and justification for any system upgrades and associated equipment deemed necessary for interconnection of the project;
- (5) a good faith, detailed estimate of the total cost of completion of the interconnection of the proposed system and/or a statement of cost responsibility for a dedicated transformer(s) or other required interconnection equipment, which is valid for sixty (60) Business Days. This estimate must meet the following requirements:
  - (a) with respect to an applicant that is not to be net- metered, an estimate shall be provided and shall include the costs associated with any required modifications to the utility system, administration, metering, and on-site verification testing;
  - (b) with respect to an applicant that is to be net-metered and that is a Farm Wind, Farm Waste, Non-Residential Wind, Non-Residential Micro-hydroelectric, Non-Residential Fuel Cell or Non- Residential Solar applicant intending to install electric generating equipment with a rated capacity of more than 25 kW, an estimate shall be provided and shall include the applicant's responsibility for the actual cost of installing any dedicated transformer(s) and other safety equipment up to the maximum set forth in subsection (c) below;
  - (c) with respect to an applicant that is to be net- metered, if the utility determines that it is necessary to install a dedicated transformer(s) or other equipment to protect the safety and adequacy of electric service provided to other customers, the applicant shall be informed of its responsibility for the actual costs for installing the dedicated transformer(s) and other safety equipment. The table in Appendix F reflects the maximum responsibility each designated applicant shall have with respect to the actual cost of the dedicated transformer(s) and other safety equipment;

Appendix E sets forth the responsibility each applicant shall have with respect to the actual cost of the dedicated transformer(s) and other safety equipment.

Utility cost estimates provided in the CESIR shall be detailed and broken down by specific equipment requirements, material needs, labor, overhead, and any other categories or efforts incorporated in the estimate. Contingencies associated with the cost estimates shall not exceed +/- 25%.

**STEP 7: Applicant Commits to Utility Construction of Utility's System Modifications**

The applicant and utility will execute the New York Standardized Interconnection Contract for interconnection and the applicant will provide the utility with an advance payment of 25% of the utility's estimated costs as identified in Step 6 within sixty (60) Business Days. .

The utility is not required to procure any equipment or materials associated with the project or begin construction until full payment has been received. The applicant has a total of one hundred twenty (120) Business Days to provide full payment to the utility from the time of the executed contract. Utility retains the right to re-assess the project's inventory position if the applicant exceeds either of these timeframes.

**STEP 8: Project Construction**

The applicant shall build the facility in accordance with the utility-accepted design. The utility shall commence construction/installation of system modifications and metering requirements as identified in Step 6. Utility system modifications will vary in construction time depending on the extent of work and equipment required; the schedule for this work is to be discussed and agreed upon with the applicant in Step 6.

**STEP 9: The Applicant's Facility is Tested in Accordance with the Standardized Interconnection Requirements**

The verification testing shall be performed by the applicant in accordance with the written test procedure(s) provided by the applicant in Step 5 and any site-specific requirements identified by the utility in Step 6. The final verification testing shall be conducted within ten (10) Business Days of notification to the utility by the applicant of complete installation at a mutually agreeable time, and the utility shall be given the opportunity to witness the tests. If the utility opts not to witness the tests, the applicant shall send the utility within five (5) Business Days of completion of such testing a written notification certifying that the system has been installed and tested in compliance with the SIR, the utility-accepted design, and the equipment manufacturer's instructions.

**STEP 10: Interconnection**

The applicant's facility will be allowed to commence parallel operation upon satisfactory completion of the tests in Step 9. In addition, the applicant must have complied with and must continue to comply with the contractual and technical requirements.

## **STEP 11: Final Acceptance and Utility Cost Reconciliation**

If the utility witnessed the verification testing, then, within ten (10) Business Days of the completion of such testing, the utility will issue to the applicant either a formal letter of acceptance for interconnection or a detailed explanation of the deficiencies in the system. If the utility did not witness the verification testing, then, within ten (10) Business Days of receiving the written test notification from Step 9, the utility will either issue to the applicant a formal letter of acceptance for interconnection, or will request that the applicant and utility set a date and time to witness operation of the DG system. This witnessed verification testing must be completed within twenty (20) Business Days after being requested. Within ten (10) Business Days of the completion of any such witnessed testing, the utility will issue to the applicant either a formal letter of acceptance for interconnection or a detailed explanation of the deficiencies in the DG system. At this time, the utility shall prepare and submit to the applicant a final reconciliation invoice of its actual costs minus the application fee and advance payments made by the applicant. The invoice shall be submitted within thirty (30) days of the later of the completion of the accepted installation or the submission of final “as builts” by the applicant. The applicant will receive either a bill for any balance due or a reimbursement for overpayment as determined by the utility’s reconciliation, except that a net metering applicant may not be charged in excess of the cost of installing the dedicated transformer(s) or other safety equipment described above in Step 6. The applicant may contest the reconciliation with the utility. If the utility’s final reconciliation invoice states a balance due from the applicant, unless it is challenged by a formal complaint interposed by the applicant, it shall be paid to the utility within thirty (30) business days or the utility reserves the right to lock the generating system offline. If the utility’s final reconciliation invoice states a reimbursement for overpayment to be paid by the utility, unless the reimbursement amount is challenged by a formal complaint interposed by the applicant, it shall be paid to the applicant within thirty (30) business days. If the applicant is not satisfied, a formal complaint may be filed with the Commission.

### **D. Web-Based Standard Interconnection Requirements**

Each utility shall maintain a web-based system to provide customers and contractors current information regarding the status of their SIR application process. The system shall be customer specific and post the current status of the SIR process. At a minimum the following content shall be provided:

1. The applicant’s name and project/application identification number.
2. Description of the project, including at a minimum, the project’s type (energy source), size, metering, and location.
3. SIR project application status, including all the steps completed and to be completed, along with corresponding completion/deadline dates associated with each step.
  - If the next action is to be taken by the utility, the expected date that action will be completed,
  - If the next action is to be taken by the applicant, what exactly is required and a contact for more information,
4. Information regarding any outstanding information request made by the utility of the applicant, and

5. The status of all amounts paid and/or due to the utility by the applicant.

Access shall be available for the customer and their authorized agent(s), such that both can access the information. The web site must be, however, secure and private from unauthorized access.

The utility web site shall also provide the ability for applicants with systems 25 kW and less to submit their application for interconnection via the web. The web-based application process must be consistent with Appendix B of the SIR and include the ability to attach associated documentation or drawings associated with each project. Electronic signatures shall be accepted and approved by utilities on associated documentation for this process.

## Section II. Interconnection Requirements

### A. Design Requirements

#### 1. Common

The generator-owner shall provide appropriate protection and control equipment, including a protective device that utilizes an automatic disconnect device that will disconnect the generation in the event that the portion of the utility system that serves the generator is de-energized for any reason or for a fault in the generator-owner's system. The generator-owner's protection and control equipment shall be capable of automatically disconnecting the generation upon detection of an islanding condition and upon detection of a utility system fault.

The type and size of the generation facility is based on electrical generator nameplate data (AC output).

The generator-owner's protection and control scheme shall be designed to ensure that the generation remains in operation when the frequency and voltage of the utility system is within the limits specified by the required operating ranges. Upon request from the utility, the generator-owner shall provide documentation detailing compliance with the requirements set forth in this document.

The specific design of the protection, control, and grounding schemes will depend on the size and characteristics of the generator-owner's generation, as well the generator-owner's load level, in addition to the characteristics of the particular portion of the utility's system where the generator-owner is interconnecting.

The generator-owner shall have, as a minimum, an automatic disconnect device(s) sized to meet all applicable local, state, and federal codes and operated by over and under voltage and over and under frequency protection. For three-phase installations, the over and under voltage function should be included for each phase and the over and under frequency protection on at least one phase. All phases of a generator or inverter interface shall disconnect for voltage or frequency trip conditions sensed by the protective devices. Voltage protection shall be wired phase to ground for single phase installations and for applications using wye grounded-wye grounded service transformers.

The settings below are listed for single-phase and three-phase applications using wye grounded-wye grounded service transformers or wye grounded-wye grounded isolation transformers. For applications using other transformer connections, a site-specific review will be conducted by the utility and the revised settings identified in Step 6 of the Application Process.

The requirements set forth in this document are intended to be consistent with those contained in the most current version of IEEE Std 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems. The requirements in IEEE Std 1547 above and beyond those contained in this document shall be followed and any other Standards included in or referenced

to in IEEE Std 1547 shall be adhered to.

### **Voltage Response**

The required operating range for the generators shall be from 88% to 110% of nominal voltage magnitude. In addition, the generator shall not cause the system voltage at the PCC to deviate from a range of 95% to 105% of the utility system voltage. For excursions outside these limits the protective device shall automatically initiate a disconnect sequence from the utility system as detailed in the most current version of IEEE Std 1547. Clearing time is defined as the time the range is initially exceeded until the generator-owner's equipment ceases to energize the PCC and includes detection and intentional time delay. Other static or dynamic voltage functionalities shall be permitted as agreed upon by the utility and generator-owner

### **Frequency Response**

The required operating range for the generators shall be from 59.3 Hz to 60.5 Hz If deemed necessary due to abnormal system conditions the utility may request that the generator operate at frequency ranges below 59.3 Hz in coordination with the load shedding schemes of the utility system . For excursions outside these limits the protective device shall automatically initiate a disconnect sequence from the utility system as detailed in the most current version of IEEE Std 1547. Clearing time is defined as the time the range is initially exceeded until the generator-owner's equipment ceases to energize the PCC and includes detection and intentional time delay. Other static or dynamic frequency functionalities shall be permitted as agreed upon by the utility and generator-owner

### **Reconnection to the Utility System**

If the generation facility is disconnected as a result of the operation of a protective device, the generator-owner's equipment shall remain disconnected until the utility's service voltage and frequency have recovered to acceptable voltage and frequency limits as defined in the most current version of IEEE Std 1547 for a minimum of five (5) minutes. Systems greater than 25 kW that do not utilize inverter based interface equipment shall not have automatic recloser capability unless otherwise approved by the utility. If the utility determines that a facility must receive permission to reconnect, then any automatic reclosing functions must be disabled and verified to be disabled during verification testing.

## **2. Synchronous Generators**

Synchronous generation shall require synchronizing facilities. These shall include automatic synchronizing equipment or manual synchronizing with relay supervision, voltage regulator, and power factor control.

For all synchronous generators sufficient reactive power capability shall be provided by the generator-owner to withstand normal voltage changes on the utility's system. The generator voltage VAR schedule, voltage regulator, and transformer ratio settings shall be jointly determined by the utility and the generator-owner to ensure proper coordination of voltages and

regulator action. Generator-owners shall have synchronous generator reactive power capability to withstand voltage changes up to 5% of the base voltage levels.

A voltage regulator must be provided and be capable of maintaining the generator voltage under steady state conditions within plus or minus 1.5% of any set point and within an operating range of plus or minus 5% of the rated voltage of the generator.

Generator-owners shall adopt one of the following grounding methods for synchronous generators:

- a) Solid grounding
- b) High- or low-resistance grounding
- c) High- or low-reactance grounding
- d) Ground fault neutralizer grounding

Synchronous generators shall not be permitted to connect to utility secondary network systems without the acceptance of the utility.

### **3. Induction Generators**

Induction generation may be connected and brought up to synchronous speed (as an induction motor) if it can be demonstrated that the initial voltage drop measured at the PCC is acceptable based on current inrush limits. The same requirements also apply to induction generation connected at or near synchronous speed because a voltage dip is present due to an inrush of magnetizing current. The generator-owner shall submit the expected number of starts per specific time period and maximum starting kVA draw data to the utility.

Starting or rapid load fluctuations on induction generators can adversely impact the utility's system voltage. Corrective step-switched capacitors or other techniques may be necessary. These measures can, in turn, cause ferroresonance. If these measures are installed on the customer's side of the PCC, the utility will review these measures and may require the customer to install additional equipment.

### **4. Inverters**

Direct current generation can only be installed in parallel with the utility's system using a synchronous inverter. The design shall be such as to disconnect this synchronous inverter upon a utility system event. Inverters intended to provide local grid support during system events that result in voltage and/or frequency excursions as described in Section II.A.1 shall be provided with the required onboard functionality to allow for the equipment to remain online for the duration of the event.

It is recommended that equipment be selected from the Department of Public Service "Certified Interconnection Equipment list" maintained on the Commission's website. Interconnected DG systems utilizing equipment not found in such list must meet all functional requirements of the current version of IEEE Std 1547 and be protected by utility grade relays (as defined in these

requirements) using settings approved by the utility and verified in the field. The field verification test must demonstrate that the equipment meets the voltage and frequency requirements detailed in this section.

Synchronization or re-synchronization of an inverter to the utility system shall not result in a voltage deviation that exceeds the requirements contained in Section II.E, Power Quality. Only inverters designed to operate in parallel with the utility system shall be utilized for that purpose.

### 5. Minimum Protective Function Requirements

Protective system requirements for distributed generation facilities result from an assessment of many factors, including but not limited to:

- Type and size of the distributed generation facility
- Voltage level of the interconnection
- Location of the distributed generation facility on the circuit
- Distribution transformer
- Distribution system configuration
- Available fault current
- Load that can remain connected to the distributed generation facility under isolated conditions
- Amount of existing distributed generation on the local distribution system.

As a result, protection requirements cannot be standardized according to any single criteria. Minimum protective function requirements shall be as detailed in the table below. Function numbers, as detailed in the latest version of ANSI C37.2, are listed with each function. All voltage, frequency, and clearing time set points shall be field adjustable.

Synchronous Generators	Induction Generators	Inverters
Over/Under Voltage (Function 27/59)	Over/Under Voltage (Function 27/59)	Over/Under Voltage (Function 27/59)
Over/Under Frequency (Function 81O/81U)	Over/Under Frequency (Function 81O/81U)	Over/Under Frequency (Function 81O/81U)
Anti-Islanding Protection	Anti-Islanding Protection	Anti-Islanding Protection
Overcurrent (Function 50P/50G/51P/51G)	Overcurrent (Function 50P/50G/51P/51G)	Overcurrent (Function 50P/50G/51P/51G)

The need for additional protective functions shall be determined by the utility on a case- by-case basis. If the utility determines a need for additional functions, it shall notify the generator-owner in writing of the requirements. The notice shall include a description of the specific aspects of the utility system that necessitate the addition, and an explicit justification for the necessity of the

enhanced capability. The utility shall specify and provide settings for those functions that the utility designates as being required to satisfy protection practices. Any protective equipment or setting specified by the utility shall not be changed or modified at any time by the generator-owner without written consent from the utility.

The generator-owner shall be responsible for ongoing compliance with all applicable local, state, and federal codes and standardized interconnection requirements as they pertain to the interconnection of the generating equipment. Protective devices shall utilize their own current transformers and potential transformers and not share electrical equipment associated with utility revenue metering.

A failure of the generator-owner's protective devices, including loss of control power, shall open the automatic disconnect device, thus disconnecting the generation from the utility system. A generator-owner's protection equipment shall utilize a non-volatile memory design such that a loss of internal or external control power, including batteries, will not cause a loss of interconnection protection functions or loss of protection set points.

All interface protection and control equipment shall operate as specified independent of the calendar date.

## **6. Metering**

The need for additional revenue metering or modifications to existing metering will be reviewed on a case-by-case basis and shall be consistent with metering requirements adopted by the Commission.

Any incremental metering costs are included in interconnection costs that may be required of an applicant.

The following tables summarize the New York Net Metering Rules:

### New York (PSL §66-j) - Net Metering\*

Incentive Type:	Net Metering Rules								
Eligible Renewable/Other Technologies:	Solar			Micro-hydroelectric		Biogas	Micro CHP	Fuel Cell	
Applicable Sectors:	Residential	Non-Residential	Farm Service Solar	Residential	Non-Residential	Farm-Waste & Non-Residential	Residential	Residential	Non-Residential
Limit on System Size:	25 kW	Up to 2 MW	Up to 100 kW	25 kW	Up to 2 MW	1 MW	10 kW	10 kW	Up to 2 MW
Remote Net Metering:	No**	Yes	Yes	No**	Yes	Yes	No	No**	Yes
Limit on Overall Enrollment:	6% of 2005 Electric Demand per IOU for Solar, Biogas, Micro CHP, Micro-hydroelectric and Fuel Cells combined.								

<b>New York (PSL §66-1) - Net Metering*</b>			
<b>Incentive Type:</b>	Net Metering Rules		
<b>Eligible Renewable/Other Technologies:</b>	Wind		
<b>Applicable Sectors:</b>	Residential	Non-Residential	Farm-Service Wind
<b>Limit on System Size:</b>	25 kW	Up to 2 MW	500 kW
<b>Remote Net Metering</b>	No**	Yes	Yes
<b>Limit on Overall Enrollment:</b>	.3% of 2005 Demand per IOU		

\* Refer to specific utility tariff leaves for more detailed rules and regulations applicable to net metering.

\*\* Residential customers who own or operate a farm operation as defined by Agriculture and Markets Law §301(11) and locate solar photovoltaic, micro-hydroelectric, wind, or fuel cells on property owned or leased by the customer are also eligible for remote net metering.

## **B. Operating Requirements**

The generator-owner shall provide a 24-hour telephone contact. This contact will be used by the utility to arrange access for repairs, inspection, or emergencies. The utility will make such arrangements (except for emergencies) during normal business hours.

Voltage and frequency trip set point adjustments shall be accessible to service personnel only.

Any changes to these settings must be reviewed and approved by the utility.

The generator-owner shall not supply power to the utility during any outages of the utility system that serves the PCC. The generator-owner's generation may be operated during such outages only with an open tie to the utility. Islanding will not be permitted. The generator-owner shall not energize a de-energized utility circuit for any reason.

The disconnect switch specified for system size larger than 25 kW and non-inverter based systems of 25 kW or less in Section II.D, Disconnect Switch, may be opened by the utility at any time for any of the following reasons:

- a. to eliminate conditions that constitute a potential hazard to utility personnel or the general public;
- b. pre-emergency or emergency conditions on the utility system;
- c. a hazardous condition is revealed by a utility inspection;

- d. protective device tampering;
- e. parallel operation prior to utility approval to interconnect.

The disconnect switch may be opened by the utility for the following reasons, after notice to the responsible party has been delivered and a reasonable time to correct (consistent with the conditions) has elapsed:

- a. A generator-owner has failed to make available records of verification tests and maintenance of its protective devices;
- b. A generator-owner's system adversely impacts the operation of utility equipment or equipment belonging to other utility customers;
- c. A generator-owner's system is found to adversely affect the quality of service to adjoining customers.

The utility will provide a name and telephone number so that the generator-owner can obtain information about the utility lock-out.

The generator-owner shall be allowed to disconnect from the utility without prior notice in order to self-generate.

If a generator-owner proposes any modification to the system that has an impact on the interface at the PCC after it has been installed and a contract between the utility and the generator-owner has already been executed, then any such modifications must be reviewed and approved by the utility before the modifications are made.

### **C. Dedicated Transformer**

The utility reserves the right to require a power-producing facility to connect to the utility system through a dedicated transformer. The transformer shall either be provided by the connecting utility at the generator-owner's expense, purchased from the utility, or conform to the connecting utility's specifications. The transformer that is part of the normal electrical service connection of a generator-owner's facility may meet this requirement if there are no other customers supplied from it. A dedicated transformer is not required if the installation is designed and coordinated with the utility to protect the utility system and its customers adequately from potential detrimental net effects caused by the operation of the generator.

If the utility determines a need for a dedicated transformer, it shall notify the generator-owner in writing of the requirements. The notice shall include a description of the specific aspects of the utility system that necessitate the addition, the conditions under which the dedicated transformer is expected to enhance safety or prevent detrimental effects, and the expected response of a normal, shared transformer installation to such conditions.

#### **D. Disconnect Switch**

Generating equipment with system size larger than 25 kW and non-inverter based systems of 25 kW or less shall be capable of being isolated from the utility system by means of an external, manual, visible, gang-operated, load break disconnecting switch. The disconnect switch shall be installed, owned, and maintained by the customer- generator, and located between the generating equipment and its interconnection point with the utility system.

The disconnect switch must be rated for the voltage and current requirements of the installation.

The basic insulation level (BIL) of the disconnect switch shall be such that it will coordinate with that of the utility's equipment. Disconnect devices shall meet applicable requirements of the most current revision of UL, ANSI, and IEEE standards, and shall be installed to meet all applicable local, state, and federal codes. (New York City Building Code may require additional certification.)

The disconnect switch shall be clearly marked, "Generator Disconnect Switch," with permanent 3/8 inch or larger letters.

The customer-generator will propose, and the utility will approve, the location of the disconnect switch. The location and nature of the disconnect switch shall be indicated in the immediate proximity of the electric service entrance. The disconnect switch shall be readily accessible for operation and locking by utility personnel in accordance with Section II.B, Operating Requirements. The disconnect switch must be lockable in the open position with a 3/8" shank utility padlock.

For installations above 600V or with a full load output of greater than 960A, a draw-out type circuit breaker with the provision for padlocking at the draw-out position will not be an acceptable disconnect switch for the purposes of this requirement unless the use of such a circuit breaker is specifically granted by the utility, based on site-specific technical requirements. If the utility grants such use, the generator-owner will be required, upon the utility's request, to provide qualified operating personnel to open the draw-out circuit breaker and ensure isolation of the DG system, with such operation to be witnessed by the utility followed immediately by the utility locking the device to prevent re-energization. In an emergency or outage situation, where there is no access to the draw- out breaker or no qualified personnel, utilities may disconnect the electric service to the premise in order to isolate the DG system.

#### **E. Power Quality**

The maximum harmonic limits for electrical equipment shall be in accordance with the latest version of IEEE Std 519 IEEE Recommended Practices and Requirements for Harmonic Control in Electric Power Systems to limit the maximum individual frequency voltage harmonic to 3% of the fundamental frequency and the total harmonic distortion (THD) to 5% on the utility side of the PCC. Mitigation measures necessary to comply with these requirements shall at the generator-owner's expense.

## **F. Power Factor**

If the average power factor, as measured at the PCC, is less than 0.9 (leading or lagging), the method of power factor correction necessitated by the installation of the generator will be negotiated with the utility as a commercial item. If the average power factor of the generator is proven to be above the minimum of 0.9 (leading or lagging) by the customer and accepted by the utility, that power factor value shall be used for any further utility design calculations and requirements.

Induction power generators may be provided VAR capacity from the utility system at the generator-owner's expense. The installation of VAR correction equipment by the generator-owner on the generator-owner's side of the PCC must be reviewed and approved by the utility prior to installation.

## **G. Islanding**

Systems must be designed and operated so that islanding is not sustained on utility distribution circuits or on substation bus and transmission systems. The requirements listed in this document are designed and intended to prevent islanding. Special protection schemes and system modifications may be necessary based on the capacity of the proposed system and the configuration and existing loading on the subject circuit.

The need for zero sequence voltage (3Vo) and direct transfer trip (DTT) protection schemes shall be evaluated based on minimum loads on the associated feeder and substation bus, including certain fault conditions resulting from system installation to protect for an islanded condition.

## **H. Equipment Certification**

In order for the equipment to be acceptable for interconnection to the utility system without additional protective devices, the interface equipment must be equipped with the minimum protective function requirements listed in the table in Section II.A.5 and be tested by a Nationally Recognized Testing Laboratory (NRTL) recognized by the United States Occupational Safety and Health Administration (OSHA) in compliance with the most current revision of UL 1741.

For each interconnection application, documentation including the proposed equipment certification, stating compliance with UL 1741 by an NRTL, shall be provided by the applicant to the utility. Supporting information from an NRTL website or UL's website stating compliance is acceptable for documentation.

If an equipment manufacturer, vendor, or any other party desires, documentation indicating compliance as stated above may be submitted to the Department of Public Service for listing under the "Certified Interconnection Equipment (Certified Equipment)" list on the Commission's website (<http://www.dps.ny.gov/distgen.htm>).

Certification information for equipment tested and certified to the most current revision of UL 1741 by a non-NRTL shall be provided by the manufacturer, or vendor to the contacts listed on

the Public Service Commission's website (<http://www.dps.ny.gov/distgen.htm>) for review before final acceptance and posting under the Certified Equipment list. Utilities are not responsible for reviewing and approving equipment tested and certified by a non-NRTL.

If equipment is UL 1741 certified by an NRTL and compliance documentation is submitted to the utility, the utility shall accept such equipment for interconnection in New York State. All equipment certified to the most current revision of UL 1741 by an NRTL shall be deemed 'certified equipment' even if it does not appear on the Commission's website under the Certified Equipment list.

Utility grade relays need not be certified per the requirements of this section.

For DG systems that are already interconnected with the utility's electrical system and seek to use the New York State Standardized Interconnection Requirements and Application Process in order to qualify for net metering, no DG system will be required to obtain recertification the latest equipment certification standards, as long as the DG system met the equipment certification requirements by the utility in effect at the time of the DG unit's interconnection.

## **I. Verification Testing**

All interface equipment must include a verification test procedure as part of the documentation presented to the utility. Except for the case of small single-phase inverters as discussed later, the verification test must establish that the protection settings meet the SIR requirements. The verification testing may be site-specific and is conducted periodically to assure continued acceptable performance.

Upon initial parallel operation of a generating system, or any time interface hardware or software is changed, the verification test must be performed. A qualified individual must perform verification testing in accordance with the manufacturer's published test procedure. Qualified individuals include professional engineers, factory-trained and certified technicians, and licensed electricians with experience in testing protective equipment. The utility reserves the right to witness verification testing or require written certification that the testing was successfully performed.

Verification testing shall be performed at least once every four years. All verification tests prescribed by the manufacturer shall be performed. If wires must be removed to perform certain tests, each wire and each terminal must be clearly and permanently marked. The generator-owner shall maintain verification test reports for inspection by the utility.

Single-phase inverters and inverter systems rated 25 kW and below shall be verified upon initial parallel operation and once every four years as follows: the generator-owner shall interrupt the utility source and verify that the equipment automatically disconnects and does not reconnect for at least five minutes after the utility source is reconnected. The owner shall maintain a log of these operations for inspection by the connecting utility. Any system that depends upon a battery for trip power shall be checked and logged at least annually for proper voltage. Once every four (4) years the battery must be either replaced or a discharge test performed.

## **J. Interconnection Inventory**

The utilities will manage the queue of interconnection applications in their inventories in the order in which they are received and according to the timelines set forth in this document.

To ensure applications are addressed in a timely manner and monitor the overall interconnection activities, utilities shall submit an SIR inventory of projects monthly to the Public Service Commission by the 15th day of the following month. Therefore, 12 interconnection inventory submissions shall be provided each year by each of the electric utilities. Utilities shall provide DPS Staff with redacted and unredacted versions of its interconnection inventory, including the current queue, for the associated time period in Excel format. At a minimum the following information shall be provided in the inventory:

1. Utility Name
2. Applicant Name
3. System Type
4. System Capacity
5. Net Metered (Yes/No)
6. Protective Equipment
7. Application Review Start and End date
8. Preliminary Screening Analysis Start and End date
9. CESIR Start and End date
10. CESIR Costs
11. Utility Interconnection Costs
12. Customer Interconnection Costs
13. Utility System Upgrade Costs
14. Customer System Upgrade Costs
15. Verification Testing date
16. Final Letter of Acceptance date
17. Total percentage of SIR connected demand

Monthly Interconnection Inventory submissions should also be accompanied by the Net Metering Cap summary information tracked by each utility.

### Section III. Glossary of Terms

**Automatic Disconnect Device:** An electronic or mechanical switch used to isolate a circuit or piece of equipment from a source of power without the need for human intervention.

**Business Day:** Monday through Friday, excluding utility holidays.

**Cease to Energize:** Cessation of energy flow capability

**Coordinated Electric System Interconnection Review:** Any studies performed by utilities to ensure that the safety and reliability of the electric grid with respect to the interconnection of distributed generation as discussed in this document.

**Customer-Generator:** A utility customer who owns or operates electric generating equipment located and used at the customer's premises, and/or the utility customer's agent.

**Dedicated Transformer:** A transformer installed by the utility to isolate a DG system.

**Direct Transfer Trip:** Remote operation of a circuit breaker by means of a communication channel.

**Disconnect (verb):** To isolate a circuit or equipment from a source of power. If isolation is accomplished with a solid-state device, "Disconnect" shall mean to cease the transfer of power.

**Disconnect Switch:** A mechanical device used for isolating a circuit or equipment from a source of power.

**Draw-out Type Circuit Breaker:** Circuit breakers that are disconnected by physically separating, or racking, the breaker assembly away from the switchgear bus.

**Farm Waste, Net Meter, Farm Applicant:** A farm applicant who is proposing to install a farm waste anaerobic digester generating system, not to exceed 1 MW, at a farm, per the requirements of New York State Public Service Law §66-j.

**Fuel Cell, Net Meter, Residential Applicant:** A residential applicant who is proposing to install a fuel cell electric generating system located and used at the applicant's premises, not to exceed a combined rated capacity of not more than 10 kW, per the requirements of New York State Public Service Law §66-j.

**Fuel Cell, Net Meter, Non-Residential Applicant:** A non-residential applicant who is proposing to install a fuel cell electric generating system located and used at the applicant's premises, not to exceed a combined rated capacity of not more than 2 MW, per the requirements of New York State Public Service Law §66-j.

**Generator-Owner:** An applicant to operate on-site power generation equipment in parallel with the utility grid per the requirements of this document.

**Islanding:** A condition in which a portion of the utility system that contains both load and distributed generation is isolated from the remainder of the utility system. (Adopted from IEEE Std 929.)

**Micro-Combined Heat and Power, Net Meter, Residential Applicant:** A residential applicant who is proposing to install a micro-combined heat and power (Micro-CHP) generating system located and used at the applicant's premises, not to exceed 10 kW, per the requirements of New York State Public Service Law §66-j.

**Micro-Hydroelectric, Net Meter, Residential Applicant:** A residential applicant who is proposing to install a micro-hydroelectric generating equipment located and used at the applicant's premises, not to exceed 25 kW, per the requirement of New York State Public Service Law §66-j.

**Micro-Hydroelectric, Net Meter, Non-Residential Applicant:** A non-residential applicant who is proposing to install a micro-hydroelectric generating equipment located and used at the applicant's premises, not to exceed 2 MW, per the requirement of New York State Public Service Law §66-j.

**Point of Common Coupling (PCC):** The point at which the interconnection between the electric utility and the customer interface occurs. Typically, this is the customer side of the utility revenue meter.

**Preliminary Review:** A review of the generator-owner's proposed system capacity, location on the utility system, system characteristics, and general system regulation to determine if the interconnection is viable.

**Protective Device:** A device that continuously monitors a designated parameter related to the operation of the generation system that operates if preset limits are exceeded

**Remote Net Metering:** Per the Public Service Law (PSL) §66-j & §66-l Remote Net Metering allows certain types of customers and/or distributed generation technology (see tables in Section II) the option to apply excess generation credits from the customer's generator to certain other meters on property that is owned or leased by the same customer and located within the service territory of the same utility to which the customer-generator's net energy meters are interconnected and within the same load zone.

**Required Operating Range:** The range of magnitudes of the utility system voltage or frequency where the generator-owner's equipment, if operating, is required to remain in operation for the purposes of compliance with UL 1741. Excursions outside these ranges must result in the automatic disconnection of the generation within the prescribed time limits

**Safety Equipment:** Includes dedicated transformers or equipment and facilities to protect the safety and adequacy of electric service provided to other customers.

**Solar, Net Meter, Residential Applicant:** A residential applicant who is proposing to install a photovoltaic generating system, not to exceed 25 kW, in an owner occupied residence per the requirements of New York State Public Service Law §66-j.

**Solar, Net Meter, Non-Residential Applicant:** A non-residential applicant who is proposing to install a solar generating system located and used at the applicant's premises, not to exceed 2 MW, pursuant to New York State Public Service Law §66-j.

**Utility Grade Relay:** A relay that is constructed to comply with, as a minimum, the most current version of the following standards for non-nuclear facilities:

<u>Standard</u>	<u>Conditions Covered</u>
ANSI/IEEE C37.90	Usual Service Condition Ratings - <ul style="list-style-type: none"> <li>• Current and Voltage Maximum design for all relay AC and DC auxiliary relays</li> <li>• Make and carry ratings for tripping contacts Tripping contacts duty cycle</li> <li>• Dielectric tests by manufacturer</li> <li>• Dielectric tests by user</li> </ul>
ANSI/IEEE C37.90.1	Surge Withstand Capability (SWC) Fast Transient Test
IEEE C37.90.2	Radio Frequency Interference
ANSI C37.2	Electric Power System Device Function Numbers
IEC 255-21-1	Vibration
IEC 255-22-2	Electrostatic Discharge
IEC 255-5	Insulation (Impulse Voltage Withstand)

**Verification Test:** A test performed upon initial installation and repeated periodically to determine that there is continued acceptable performance.

**Wind, Net Meter, Residential Applicant:** A residential applicant who is proposing to install a wind electric generating system, not to exceed a combined rated capacity of 25 kW, located and used at the applicant's primary residence, per the requirements of New York State Public Service Law §66-1.

**Wind, Net Meter, Non-Residential Applicant:** A non-residential applicant who is proposing to install a wind electric generating system located and used at the applicant's premises, not to exceed 2 MW, pursuant to New York State Public Service Law §66-1.

**Wind, Net Meter, Farm Applicant:** A farm applicant who is proposing to install a wind electric generating system, not to exceed a combined rated capacity of 500 kW, located and used at the applicant's primary residence, per the requirements of New York State Public Service Law §66-1.

**APPENDIX A**

**NEW YORK STATE STANDARDIZED CONTRACT  
FOR INTERCONNECTION OF NEW DISTRIBUTED GENERATION UNITS WITH  
CAPACITY OF 5 MW OR LESS CONNECTED IN PARALLEL WITH  
UTILITY DISTRIBUTION SYSTEMS**

**Customer Information:**

**Utility Information:**

Name:

Name:

Address:

Address:

Telephone:

Telephone:

Fax:

Fax:

Email:

Email:

Unit Application/File No.:

Utility Account Number:

## DEFINITIONS

**Dedicated Facilities** means the equipment and facilities on the Utility's system necessary to permit operation of the Unit in parallel with the Utility's system.

**Delivery Service** means the services the Utility may provide to deliver capacity or energy generated by Customer to a buyer to a delivery point(s), including related ancillary services.

**"Net energy metering"** means the use of a net energy meter to measure, during the billing period applicable to a customer-generator, the net amount of electricity supplied by an electric corporation and provided to the corporation by a customer-generator.

**"SIR"** means the New York State Standardized Interconnection Requirements for new distributed generation units with a nameplate capacity of 5 MW or less connected in parallel with the Utility's distribution system

**"Unit"** means the distributed generation unit with a nameplate capacity of 5 MW or less located on the Customer's premises at the time the Utility approves such Unit for operation in parallel with the Utility's system. This Agreement relates only to such Unit, but a new agreement shall not be required if the Customer makes physical alterations to the Unit that do not result in an increase in its nameplate generating capacity. The nameplate generating capacity of the Unit shall not exceed 5 MW, except for fuel cell electric generating units which shall not exceed 1.5 MW and farm waste generating units shall not exceed 1.0 MW.

## **I. TERM AND TERMINATION**

**1.1 Term:** This Agreement shall become effective when executed by both Parties and shall continue in effect until terminated.

**1.2 Termination:** This Agreement may be terminated as follows:

- a. The Customer may terminate this Agreement at any time, by giving the Utility sixty (60) days' written notice.
- b. Failure by the Customer to seek final acceptance by the Utility within twelve (12) months after completion of the utility construction process described in the SIR shall automatically terminate this Agreement.
- c. Either Party may, by giving the other Party at least sixty (60) days' prior written notice, terminate this Agreement in the event that the other Party is in default of any of the material terms and conditions of this Agreement. The terminating Party shall specify in the notice the basis for the termination and shall provide a reasonable opportunity to cure the default.
- d. The Utility may, by giving the customer at least sixty (60) days' prior written notice, terminate this Agreement for cause. The Customer's non-compliance with an upgrade to the SIR, unless the Customer's installation is "grandfathered," shall constitute good cause.

**1.3 Disconnection and Survival of Obligations:** Upon termination of this Agreement the Unit will be disconnected from the Utility's electric system. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

**1.4 Suspension:** This Agreement will be suspended during any period in which the Customer is not eligible for delivery service from the Utility

## **II. SCOPE OF AGREEMENT**

**2.1 Scope of Agreement:** This Agreement relates solely to the conditions under which the Utility and the Customer agree that the Unit may be interconnected to and operated in parallel with the Utility's system.

**2.2 Electricity Not Covered:** The Utility shall have no duty under this Agreement to account for, pay for, deliver, or return in kind any electricity produced by the Facility and delivered into the Utility's System unless the system is net metered as described in Public Service Law Sections 66-j or 66-l.

### **III. INSTALLATION, OPERATION AND MAINTENANCE OF UNIT**

**3.1 Compliance with SIR:** Subject to the provisions of this Agreement, the Utility shall be required to interconnect the Unit to the Utility's system, for purposes of parallel operation, if the Utility accepts the Unit as in compliance with the SIR. The Customer shall have a continuing obligation to maintain and operate the Unit in compliance with the SIR.

**3.2 Observation of the Unit - Construction Phase:** The Utility may, in its discretion and upon reasonable notice, conduct reasonable on-site verifications during the construction of the Unit. Whenever the Utility chooses to exercise its right to conduct observations herein it shall specify to the Customer its reasons for its decision to conduct the observation. For purposes of this paragraph and paragraphs 3.3 through 3.5, the term "on-site verification" shall not include testing of the Unit, and verification tests shall not be required except as provided in paragraphs 3.3 and 3.4.

**3.3 Observation of the Unit - Ten-day Period:** The Utility may conduct on-site verifications of the Unit and observe the execution of verification testing within a reasonable period of time, not exceeding ten (10) business days after system installation. The applicant's facility will be allowed to commence parallel operation upon satisfactory completion of the verification test. The applicant must have complied with and must continue to comply with all contractual and technical requirements.

**3.4 Observation of the Unit - Post-Ten-day Period:** If the Utility does not perform an on-site verification of the Unit and observe the execution of verification testing within the ten-day period, the Customer will send the Utility within five (5) days of the verification testing a written notification certifying that the Unit has been installed and tested in compliance with the SIR, the utility-accepted design and the equipment manufacturer's instructions. The Customer may begin to produce energy upon satisfactory completion of the verification test. After receiving the verification test notification, the Utility will either issue to the Customer a formal letter of acceptance for interconnection, or may request that the applicant and utility set a date and time to conduct an on-site verification of the Unit and make reasonable inquiries of the Customer, but only for purposes of determining whether the verification tests were properly performed. The Customer shall not be required to perform the verification tests a second time, unless irregularities appear in the verification test report or there are other objective indications that the tests were not properly performed in the first instance.

**3.5 Observation of the Unit - Operations:** The Utility may conduct on-site verification of the operations of the Unit after it commences operations if the Utility has a reasonable basis for doing so based on its responsibility to provide continuous and reliable utility service or as authorized by the provisions of the Utility's Retail Electric Tariff relating to the verification of customer installations generally.

**3.6 Costs of Dedicated Facilities:** During the term of this Agreement, the Utility shall design, construct and install the Dedicated Facilities. The Customer shall be responsible for paying the incremental capital cost of such Dedicated Facilities attributable to the Customer's Unit. All costs associated with the operation and maintenance of the Dedicated Facilities after the Unit

first produces energy shall be the responsibility of the Utility.

#### **IV. DISCONNECTION OF THE UNIT**

**4.1 Emergency Disconnection:** The Utility may disconnect the Unit, without prior notice to the Customer (a) to eliminate conditions that constitute a potential hazard to Utility personnel or the general public; (b) if pre-emergency or emergency conditions exist on the Utility system; (c) if a hazardous condition relating to the Unit is observed by a Utility inspection; or (d) if the Customer has tampered with any protective device. The Utility shall notify the Customer of the emergency if circumstances permit.

**4.2 Non-Emergency Disconnection:** The Utility may disconnect the Unit, after notice to the responsible party has been provided and a reasonable time to correct, consistent with the conditions, has elapsed, if (a) the Customer has failed to make available records of verification tests and maintenance of his protective devices; (b) the Unit system interferes with Utility equipment or equipment belonging to other customers of the Utility; (c) the Unit adversely affects the quality of service of adjoining customers.

**4.3 Disconnection by Customer:** The Customer may disconnect the Unit at any time.

**4.4 Utility Obligation to Cure Adverse Effect:** If, after the Customer meets all interconnection requirements, the operations of the Utility are adversely affecting the performance of the Unit or the Customer's premises, the Utility shall immediately take appropriate action to eliminate the adverse effect. If the Utility determines that it needs to upgrade or reconfigure its system the Customer will not be responsible for the cost of new or additional equipment beyond the point of common coupling between the Customer and the Utility.

#### **V. ACCESS**

**5.1 Access to Premises:** The Utility shall have access to the disconnect switch of the Unit at all times. At reasonable hours and upon reasonable notice consistent with Section III of this Agreement, or at any time without notice in the event of an emergency (as defined in paragraph 4.1), the Utility shall have access to the Premises.

**5.2 Utility and Customer Representatives:** The Utility shall designate, and shall provide to the Customer, the name and telephone number of a representative or representatives who can be reached at all times to allow the Customer to report an emergency and obtain the assistance of the Utility. For the purpose of allowing access to the premises, the Customer shall provide the Utility with the name and telephone number of a person who is responsible for providing access to the Premises.

**5.3 Utility Right to Access Utility-Owned Facilities and Equipment:** If necessary for the purposes of this Agreement, the Customer shall allow the Utility access to the Utility's equipment and facilities located on the Premises. To the extent that the Customer does not own all or any part of the property on which the Utility is required to locate its equipment or facilities

to serve the Customer under this Agreement, the Customer shall secure and provide in favor of the Utility the necessary rights to obtain access to such equipment or facilities, including easements if the circumstances so require.

## **VI. DISPUTE RESOLUTION**

**6.1 Good Faith Resolution of Disputes:** Each Party agrees to attempt to resolve all disputes arising hereunder promptly, equitably and in a good faith manner.

**6.2 Mediation:** If a dispute arises under this Agreement, and if it cannot be resolved by the Parties within ten (10) business days after written notice of the dispute, the parties agree to submit the dispute to mediation by a mutually acceptable mediator, in a mutually convenient location in New York State, in accordance with the then current CPR Institute for Dispute Resolution Mediation Procedure, or to mediation by a mediator provided by the New York Public Service Commission. The Parties agree to participate in good faith in the mediation for a period of up to 90 days. If the Parties are not successful in resolving their disputes through mediation, then the parties may refer the dispute for resolution to the New York Public Service Commission, which shall maintain continuing jurisdiction over this Agreement.

**6.3 Escrow:** If there are amounts in dispute of more than two thousand dollars (\$2,000), the Customer shall either place such disputed amounts into an independent escrow account pending final resolution of the dispute in question, or provide to the Utility an appropriate irrevocable standby letter of credit in lieu thereof.

## **VII. INSURANCE**

**7.1** The Customer is not required to provide general liability insurance coverage as part of this Agreement, the SIR, or any other Utility requirement. Due to the risk of incurring damages however, the Public Service Commission recommends that every distributed generation customer protect itself with insurance.

**7.2 Effect:** The inability of the Utility to require the Customer to provide general liability insurance coverage for operation of the Unit is not a waiver of any rights the Utility may have to pursue remedies at law against the Customer to recover damages.

## **VIII. MISCELLANEOUS PROVISIONS**

**8.1 Beneficiaries:** This Agreement is intended solely for the benefit of the Parties hereto, and if a Party is an agent, its principal. Nothing in this Agreement shall be construed to create any duty to, or standard of care with reference to, or any liability to, any other person.

**8.2 Severability:** If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction, such portion or provision shall be deemed separate and independent, and the remainder of this Agreement shall remain in full force and effect.

**8.3 Entire Agreement:** This Agreement constitutes the entire Agreement between the Parties and supersedes all prior agreements or understandings, whether verbal or written.

**8.4 Waiver:** No delay or omission in the exercise of any right under this Agreement shall impair any such right or shall be taken, construed or considered as a waiver or relinquishment thereof, but any such right may be exercised from time to time and as often as may be deemed expedient. In the event that any agreement or covenant herein shall be breached and thereafter waived, such waiver shall be limited to the particular breach so waived and shall not be deemed to waive any other breach hereunder.

**8.5 Applicable Law:** This Agreement shall be governed by and construed in accordance with the law of the State of New York.

**8.6 Amendments:** This Agreement shall not be amended unless the amendment is in writing and signed by the Utility and the Customer.

**8.7 Force Majeure:** For purposes of this Agreement, "Force Majeure Event" means any event: (a) that is beyond the reasonable control of the affected Party; and (b) that the affected Party is unable to prevent or provide against by exercising reasonable diligence, including the following events or circumstances, but only to the extent they satisfy the preceding requirements: acts of war, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; explosions or fires; strikes, work stoppages, or labor disputes; embargoes; and sabotage. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing, and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party will specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party will be entitled to suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of reasonable efforts. The affected Party will use reasonable efforts to resume its performance as soon as possible.

**8.8 Assignment to Corporate Party:** At any time during the term, the Customer may assign this Agreement to a corporation or other entity with limited liability, provided that the Customer obtains the consent of the Utility. Such consent will not be withheld unless the Utility can demonstrate that the corporate entity is not reasonably capable of performing the obligations of the assigning Customer under this Agreement.

**8.9 Assignment to Individuals:** At any time during the term, the Customer may assign this Agreement to another person, other than a corporation or other entity with limited liability, provided that the assignee is the owner, lessee, or is otherwise responsible for the Unit.

**8.10 Permits and Approvals:** Customer shall obtain all environmental and other permits lawfully required by governmental authorities prior to the construction and for the operation of the Unit during the term of this Agreement.

**8.11 Limitation of Liability:** Neither by inspection, if any, or non-rejection, nor in any other way, does the Utility give any warranty, express or implied, as to the adequacy, safety, or other characteristics of any structures, equipment, wires, appliances or devices owned, installed or maintained by the Customer or leased by the Customer from third parties, including without limitation the Unit and any structures, equipment, wires, appliances or devices appurtenant thereto.

**ACCEPTED AND AGREED:**

**Customer Signature:**

**Printed Name:**

**Title:**

**Date:**

**Utility Signature:**

**Printed Name:**

**Title:**

**Date:**

**APPENDIX B**

**NEW YORK STATE STANDARDIZED APPLICATION FOR  
INTERCONNECTION OF INVERTER BASED PARALLEL  
GENERATION EQUIPMENT TO THE ELECTRIC SYSTEM OF**

**Utility:**

**Customer:**

Name: Phone: ( )

Address: Fax: ( )

Email:

Municipality:

Utility Account No.:

Utility Meter No.:

**Agent (if any):**

Name: Phone: ( )

Address: Fax: ( )

Email:

**Consulting Engineer or Contractor:**

Name: Phone: ( )

Address: Fax: ( )

Email:

**Existing Electric Service:**

Capacity: \_\_\_\_\_ Amperes

Voltage: \_\_\_\_\_ Volts

Service Character: ( ) Single Phase ( ) Three Phase

**Location of Protective Interface Equipment on Property:**

*(Include address if different from customer address.)*

**Energy Producing Inverter Information:**

Total AC Nameplate Rating of All Inverters:

Inverter

Inverter or System Tested to UL 1741 (most current version):

Yes  No *If no, attach product literature.*

Manufacturer:

Model:

Quantity:

Rating per inverter: \_\_\_\_\_ kW

Type:  Forced Commutated  Line Commutated  
 Utility Interactive  Stand Alone

Rated Output: \_\_\_\_\_ Amperes \_\_\_\_\_ Volts

Ramp Rate:

Method of Grounding:  Grounded  Ungrounded

Quantity of Inverters:

*If there is more than one inverter of different types of manufacturers, please provide information on a separate sheet.*

If applicable:

Step Up Transformer Winding Configuration:

Wye-Wye  Wye-Delta  Delta-Wye

Other existing DG such as emergency generators, other renewable technologies, microturbines, hydro, fuel cells, battery storage, etc:

Yes  No

*If yes, provide information about existing generation on separate sheet and include detail on one-line diagram.*

**Signature:**

\_\_\_\_\_  
CUSTOMER/AGENT SIGNATURE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
DATE

**APPENDIX C**

**NEW YORK STATE STANDARDIZED APPLICATION  
FOR INTERCONNECTION OF NON-INVERTER BASED PARALLEL GENERATION  
EQUIPMENT TO THE ELECTRIC SYSTEM OF**

**Utility:**

**Customer:**

Name: Phone: (     )     )

Address: Fax: (     )     )

Email:

Municipality:

Utility Account No.:

Utility Meter No.:

**Agent (if any):**

Name: Phone: (     )     )

Address: Fax: (     )     )

Email:

**Consulting Engineer or Contractor:**

Name: Phone: (     )     )

Address: Fax: (     )     )

Email:

**Estimated In-Service Date:**

**Existing Electric Service:**

Capacity:           \_\_\_\_\_ Amperes

Voltage:            \_\_\_\_\_ Volts

Service Character:   ( ) Single Phase      ( ) Three Phase

Secondary 3 Phase Transformer Connection:   ( ) Wye      ( ) Delta

**Location of Protective Interface Equipment on Property:**

*(Include address if different from customer address.)*

**Energy Producing Inverter Information:**

Manufacturer:

Model No.:

Version No.:

Synchronous  Induction  Other

Rating: \_\_\_\_\_ kW

Rating: \_\_\_\_\_ kVA

Rated Output: \_\_\_\_\_ VA

Rated Voltage: \_\_\_\_\_ Volts

Rated Frequency: \_\_\_\_\_ Hz

Rated Speed: \_\_\_\_\_ RPM

Efficiency: \_\_\_\_\_ %

Power Factor: \_\_\_\_\_ %

Rated Current: \_\_\_\_\_ Amps

Locked Rotor Current: \_\_\_\_\_ Amps

Synchronous Speed: \_\_\_\_\_ RPM

Winding Connection:

Min. Operating Freq./Time:

Generator Connection:  Delta  Wye  Wye Grounded

System Tested to UL 1741 (most current version) (Total System):  
 Yes  No *If no, attach product literature.*

Equipment Tested to UL 1741 (most current version) (i.e., Protection System):  
 Yes  No *If no, attach product literature.*

Three Line Diagram attached:  Yes

Verification Test Plan attached:  Yes

If applicable, Certification to UL 1741 attached:  Yes



**For Induction Machines:**

Rotor Resistance ( $R_r$ ): \_\_\_\_\_ ohms      Exciting Current: \_\_\_\_\_ Amps

Rotor Reactance ( $X_r$ ): \_\_\_\_\_ ohms      Reactive Power Required:

Magnetizing Reactance ( $X_m$ ): \_\_\_\_\_ ohms, \_\_\_\_\_ VARs (No Load)

Stator Resistance ( $R_s$ ): \_\_\_\_\_ ohms, \_\_\_\_\_ VARs (Full Load)

Stator Reactance ( $X_s$ ): \_\_\_\_\_ ohms

Short Circuit Reactance ( $X'_d$ ): \_\_\_\_\_ ohms,

Phases:    ( ) Single Phase    ( ) Three Phase

Frame Size: \_\_\_\_\_      Design Letter: \_\_\_\_\_

Temp. Rise: \_\_\_\_\_ °C

Step Up Transformer Winding Configuration:  
( ) Wye-Wye      ( ) Wye-Delta      ( ) Delta-Wye

**Signature:**

\_\_\_\_\_  
CUSTOMER/AGENT SIGNATURE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
DATE

**APPENDIX D**

**PRE-APPLICATION REPORT FOR THE CONNECTION OF PARALLEL GENERATION EQUIPMENT TO THE UTILITY DISTRIBUTION SYSTEM**

Utility:

<b>DG Project Information: (Provided to Utility by Applicant)</b>
Customer name
Location of Project: (Address and/or GPS Coordinates)
DG technology type
DG fuel source / configuration
Proposed project size in kW (AC)
Date of Pre-Application Request
<b>Pre-Application Report: (Provided to Applicant by Utility – 10 Business Days)</b>
Operating voltage of closest distribution line
Phasing at site
Approximate distance to 3-Phase (if only 1 or 2 phases nearby)
Circuit capacity (MW)
Fault current availability, if readily obtained
Circuit peak load for the previous calendar year
Circuit minimum load for the previous calendar year
Approximate distance (miles) between serving substation and project site
Number of substation banks
Total substation bank capacity (MW)
Total substation peak load (MW)
Aggregate existing distributed generation on the circuit (kW)
Aggregate queued distributed generation on the circuit (kW)

## APPENDIX E

### COST RESPONSIBILITY FOR DEDICATED TRANSFORMER(S) AND OTHER SAFETY EQUIPMENT FOR NET METERED CUSTOMERS

Generator Type	Generator Size	Equipment Cost to Residential Net Metered Customers	Equipment Cost to Non-Residential Net Metered Customers
Micro-CHP	Less than or equal to 10 kW	\$350 maximum	N/A
Fuel Cell	Less than or equal to 10 kW	\$350 maximum	As determined by Utility*
Fuel Cell	Over 10 kW up to 2MW	N/A	As determined by Utility*
Solar	Less than or equal to 25 kW	\$350 maximum	\$350 maximum
Solar	Over 25 kW up to 2 MW	N/A	As determined by Utility*
Micro-hydroelectric	Less than or equal to 25 kW	\$350 maximum	As determined by Utility*
Micro-hydroelectric	Over 25 kW up to 2 MW	N/A	As determined by Utility*
Wind **	Less than or equal to 25 kW	\$750 maximum	\$750 maximum
Wind	Over 25 kW up to 2 MW	N/A	As determined by Utility*
Farm Wind ***	Over 25 kW up to 500 kW	N/A	\$5,000 maximum***
Farm Waste ***	Up to 1 MW	N/A	\$5,000 maximum***

\* Subject to review by the Commission at the request of the Customer. Such costs can include the total costs for upgrades to ensure the adequacy of the distribution system which would not have been necessary but for the interconnection of the net metered DG resource (as per PSL §66-j(3)(c)(iii) or PSL §66-l(3)(c)(iii)).

\*\* Residential and Non-Residential Wind Customers with a total rated capacity up to 25 kW, Farm Wind and Farm Waste Customers may be required to also pay for feeder line upgrades that would not be required but for the interconnection of the net metered DG resource. Residential and Non-Residential Wind, Farm Wind and Farm Waste Customers are responsible for all feeder line upgrade costs if the total nameplate rating of the generating equipment exceeds 20% of the rated capacity of the feeder line (as per PSL §66-l(5)(c)(ii) and PSL §66-j(5)(b)(iii)). Farm Wind Customers are responsible for 50% of feeder line upgrade costs if the total nameplate rating of the generating equipment does not exceed 20% of the rated capacity of the feeder line(as per PSL §66-l(2)).

\*\*\* For Farm Waste projects with a total nameplate rating of the generation equipment that does not exceed 20% of the rated capacity of the local feeder line to which the project will connect, the CESIR costs are included in the \$5,000 limitation. For Farm Wind projects with a total nameplate rating of the generation equipment that does not exceed 20% of the rated capacity of the local feeder line to which the project will connect, that portion of the CESIR costs related to transformers or other equipment installed at the customer's site is included in the \$5,000 limitation; however, the customer is also responsible for 50% of the CESIR costs related to feeder line upgrades. For Farm Waste and Farm Wind projects with a total nameplate rating of the generation equipment that does exceed 20% of the rated

capacity of the local feeder line to which the project will connect, CESIR costs related to transformers or other equipment installed at the customer's site is included in the \$5,000 limitation; however, Farm Wind and Farm Waste customer are responsible for the CESIR costs related to feeder line upgrades. For farm waste electric generation at a Non-farm location, the interconnection cost for installing dedicated transformers or other equipment for farm waste generating equipment rated over 25kW will be determined by the utility.

**APPENDIX F****APPLICATION PACKAGE CHECKLIST**

Completed standard application form	✓
Signed copy of the standard contract	✓
Letter of authorization, signed by the Customer, to provide for the contractor to act as the customer's agent, if necessary	✓
If requesting a new service, a site plan with the proposed interconnection point identified by a Google Earth, Bing Maps or similar satellite image. For those projects on existing services, account and meter numbers shall be provided	✓
Description / Narrative of the project and site proposed. If multiple DG systems are being proposed at the same site/location, this information needs to be identified and	✓
DG technology type	✓
DG fuel source / configuration	✓
Proposed project size in AC kW	✓
Project is net metered, remote, or community net metered	✓
Metering configuration	✓
Copy of the certificate of compliance referencing UL 1741	✓
Copy of the manufacturer's data sheet for the interface	✓
Copy of the manufacturer's verification test procedures, if	✓
System Diagram - A three line diagram for designs proposed on three phase systems, including detailed information on the wiring configuration at the PCC and an exact representation of existing utility service. One line diagrams shall be acceptable for single phase installations	✓

**APPENDIX G****PRELIMINARY SCREENING ANALYSIS****Screen A: Is the PCC on a Networked Secondary System?**

Does the proposed system connect to a secondary network system?

- If yes (fail),
- If no (pass), continue to Screen B.

**Screen B: Is Certified Equipment Used?**

Does the Interconnection Request propose to use equipment that has been listed to meet UL1741 (Inverters, Converters and Charge Controllers for Use in Independent Power Systems) by a nationally recognized testing laboratory?

- If yes (pass), continue to Screen C.
- If no (fail)

**Screen C: Is the Electric Power System (EPS) Rating Exceeded?**

Do the maximum aggregated Gross Ratings for all the Generating Facilities connected to an EPS exceed any EPS rating, modified per established Distribution Provider practice, absent any Generating Facilities?

- If yes (fail),
- If no (pass), continue to Screen D.

**Screen D: Is the Line Configuration Compatible with the Interconnection Type?**

Line Configuration Screen: Identify primary distribution line configuration that will serve the Generating Facility. Based on the type of Interconnection to be used for the Generating Facility, determine from the table below if the proposed Generating Facility passes the Screen.

- If yes (pass), continue to Screen E.
- If no (fail)

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result / Criteria
Three-phase, three wire, > 5 kV	3-phase	Pass
Three-phase, four wire, >5 kV	Effectively-grounded 3 phase	Pass
All	Single phase, phase-phase, or ineffectively grounded sources or transformers	Fail

**Screen E: Simplified Penetration Test**

Is the aggregate Generating facility capacity on the Line Section less than 15% of the annual peak load for all Line Sections bounded by automatic sectionalizing devices?

- If yes (pass), continue to Screen F.
- If no (fail), Supplemental Review is required, continue to Screen F.

**Screen F: Simplified Voltage Fluctuation Test**

In aggregate with existing generation on the Line Section

- a. Can the Generating Facility parallel with the Distribution Provider’s Distribution System without causing a voltage fluctuation at the PCC greater than 5% of the prevailing voltage level of the Distribution System at the PCC?

- If yes (pass), Preliminary Screening Analysis is complete.
- If no (fail), Supplemental Review is required

## SUPPLEMENTAL SCREENING ANALYSIS

### Screen G: Supplemental Penetration Test

Where 12 months of line section minimum load data is available, can be calculated, can be estimated from existing data, or determined from a power flow model, is the aggregate Generating Facility capacity on the Line Section less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the Generating Facility?

- If yes (pass), continue to Screen H.
- If no (fail), a quick review of the failure may determine the requirements to address the failure; otherwise the Interconnecting Customer may be required go on to the Coordinated Electric System Interconnection Review (CESIR) process. Continue to Screen H.

### Screen H: Power Quality and Voltage Tests

In aggregate with existing generation on the Line Section,

- a. Can it be determined within the Supplemental Review that the voltage regulation on the line section can be maintained in compliance with current voltage regulation requirements under all system conditions?
- b. Can it be determined within the Supplemental Review that the voltage fluctuation is within acceptable limits as defined by IEEE 1453 or utility practice similar to IEEE1453?
- c. Can it be determined within the Supplemental Review that the harmonic levels meet IEEE519 limits at the Point of Common Coupling (PCC)?

- If yes to all of the above (pass), continue to Screen I.
- If no to any of the above (fail), a quick review of the failure may determine the requirements to address the failure; otherwise the Interconnecting Customer may be required go on to the Coordinated Electric System Interconnection Review (CESIR) process. Continue to Screen I.

### Screen I: Safety and Reliability Tests

Does the location of the proposed Generating Facility or the aggregate generation capacity on the Line Section create specific impacts to safety or reliability that cannot be adequately addressed without a detailed study?

- If yes (fail), a quick review of the failure may determine the requirements to address the failure; otherwise the Interconnecting Customer will be provided with information on the specific points of failure in the supplemental review results and may go to the Coordinated Electric System Interconnection Review (CESIR) process.
- If no (pass), Supplemental Review is complete.