



2012 COMBINED HEAT AND POWER APPLICATION PACKAGE

Before completing the forms and the related technical worksheets, please carefully read all of the information associated with 'Eligibility Requirements', 'Instructions', and 'Important Terms and Conditions' below.

Eligibility Requirements

1. CHP system may be of any size to apply, but incentives are limited to the first megawatt of installed capacity. The Board of Public Utilities has proposed a solicitation for large scale CHP and fuel cell projects. For systems greater than 1 MW and seeking larger incentives, please refer to BPU grants.
2. The CHP system must be installed in New Jersey.
3. The applicant must be a contributor to the Societal Benefits Charge fund.
4. Only stationary CHP equipment installed on the customer side of the meter is eligible.
5. Equipment must be sized to serve all or a portion of the electrical load at the customer site. The proposed generating system is sized to meet the customer's electrical loads (a) for demand-metered customers – no more than 100% of historical annual consumption or peak demand; b) for non-demand metered customers – no more than 125% of historical annual consumption. Historical annual consumption is for the most recent twelve (12) month period.
6. Equipment must be new, commercially available and permanently installed. The following are not eligible for incentives: renewable source-fueled systems*; portable and emergency backup power systems; used, refurbished, temporary, pilot, or demonstration equipment; systems that use diesel fuel, other types of oil or coal for continuous operation. **Renewable fueled projects must be submitted to the Renewable Energy Market Manager through the REIP Program under the NJCEP.*
7. Expansion of an existing facility with new equipment is also eligible for incentives, however only the incremental expansion would be eligible for the incentive. The combined capacity of the proposed expansion and existing generators are held to sizing requirements listed in item 5 above.
8. CHP systems with waste heat utilization must achieve annual system efficiency of at least 60%, based on total energy input and total utilized energy output. Mechanically-developed energy may be included in the efficiency evaluation.
9. CHP system warranty must be all-inclusive for at least five years. The warranty must cover the major components of the system eligible for the incentive, to protect against breakdown or degradation in electrical output of more than ten percent from the originally rated electrical output. The warranty shall cover the full cost of repair or replacement of defective components or systems, including coverage for labor costs to remove and reinstall defective components or systems. In the event the system warranty does not meet program requirement, customer must purchase an extended warranty or a five year maintenance/service contract. The cost of the five year warranty or service contract may be considered as part of the cost of the project.
10. Projects meeting the minimum qualification requirements described above will be evaluated for funding according to the following criteria:
 - System efficiency
 - Environmental performance
 - Economic viability

- Projected system startup date
- Annual system utilization
- General programmatic goals
- Project clarity

Also considered:

- Local marginal pricing, as determined by the PJM interchange for the electric service area in which the project is located
- Islanding capability
- Smart Growth
- Emergency Management Center

Application Instructions

1. Complete all sections of the Application Form.
2. Read Sections A ('Installation Requirements') and B ('Code Requirements').
3. Develop a detailed feasibility analysis in the form of a report and include, at minimum, the required information listed in Section C ('Feasibility Analysis')
4. Complete all sections of Technical Worksheets: Form 1, Form 2, Form 3, Form 3a, and Form 4, and fill out signature page.
5. Submit completed Application Form, Technical Worksheets, a detailed feasibility analysis, and a copy of the customer/developer contract to the Commercial/Industrial Market Manager. Retain a copy for your files. All information is necessary for processing applications and incentives. Illegible or incomplete Application Forms, Technical Worksheets, and/or Feasibility Analysis will be returned to the Applicant.

E-mail all completed forms and questions to CHP@trcsolutions.com

Mail to:

**New Jersey's Clean Energy Program c/o TRC Energy Services
900 Route 9 North, Suite 404
Woodbridge, NJ 07095**

6. Once the Application package has been reviewed and approved, the Market Manager will forward Applicant an Approval Letter with the committed incentive amount. To be eligible to receive a program incentive, Applicant must receive an Approval Letter from the Market Manager prior to equipment installation. A pre-inspection will be conducted prior to issuance of the approval letter.
7. Applicant must purchase a qualifying system and have it installed according to Program Requirements within 18 months of the date listed on the Approval Letter. Any changes between the initially proposed system and the installed system must be fully documented and are subject to Office of Clean Energy approval. Requests for extensions may be granted by the Market Manager for up to twelve (12) months so long as applicant can demonstrate proof of significant project advancement.
8. Incentives will be processed by the Market Manager and paid as follows: Twenty percent (20%) of the incentive upon proof of equipment purchase; Sixty percent (60%) upon project completion and verification of installation by Market Manager; Remainder twenty percent (20%) one year after project inspection and acceptance and confirmation the project is achieving the proposed and/or minimum efficiency threshold.
9. In order to receive the first installment of the incentive, the Applicant (or Contractor) must submit the following to the Market Manager: a) proof of purchase (invoice); b) and tax clearance certificate.
10. In order to receive the second installment of the incentive, the Applicant (or Contractor) must submit the following to the Market Manager: a) an updated Application Form with post-installation data; b) proof of additional purchases (invoice); c) proof of warranty; d) a copy of the Electrical Code Inspection Certificate; e)

completed Interconnection Application approved by the utility company; f) and updated tax clearance certificate. A post-inspection will be conducted at this time.

11. In order to receive the final installment of the incentive, Applicant must provide to the Market Manager: a) 12 months of operational data demonstrating proposed and/or minimum efficiency was achieved. This shall be done by implementing appropriate metering as part of the system installation. Data collected should include, but is not limited to, fuel input (MMBtu), electrical output (kWh, MMBtu), recoverable and utilized thermal output (MMBtu). A detailed metering plan shall be included within the feasibility analysis; b) an updated tax clearance certificate. Requests for extensions may be granted by the Market Manager for up to twelve (12) months.

Important Terms and Conditions

1. To receive an incentive, Applicant must agree to an inspection by the Market Manager, or its representatives.
2. The New Jersey Board of Public Utilities reserves the right to modify or withdraw this program. Program procedures and incentive levels are subject to change or cancel without notice. Approved projects will be honored under the terms stated in the Approval Letter.
3. The Market Manager and Administrator do not warrant the performance of installed equipment, and/or services rendered as part of this program, either expressly or implicitly. No warranties or representations of any kind, whether statutory, expressed, or implied, including, without limitations, warranties of merchantability or fitness for a particular purpose regarding equipment or services provided by a manufacturer or vendor. Contact your vendor/services provided for details regarding performance and warranties.
4. The Program Manager and Administrator do not endorse, support or recommend any particular manufacturer, product or system design in promoting this Program.
5. The Market Manager will not be responsible for any tax liability that may be imposed on any Participating Customer as a result of the payment of Program Incentives. All Participating Customers must supply their Federal Tax Identification number or social security number on the application form in addition to providing a copy of their W-9 form as part of the application package in order to receive a Program Incentive.
6. By virtue of participating in this Program, Participating Customers agree to waive any and all claims or damages against the Program Manager or the Administrator, except the receipt of the Program Incentive. Participating Customers agree that the Program Manager's and Administrator's liability, in connection with this Program, is limited to paying the Program Incentive specified. Under no circumstances shall the Program Manager, its representatives, or subcontractors, or the Administrator, be liable for any lost profits, special, punitive, consequential or incidental damages or for any other damages or claims connected with or resulting from participation in this Program. Further, any liability attributed to the Program Manager under this Program shall be individual, and not joint and/or several.
7. Third party ownership (or leased CHP equipment), such as those procured under Power Purchase Agreements, are permitted with the following provisions:
 - In order to ensure the equipment remains on site and is in operation for the term of the agreement, a binding agreement (or lease) with a duration of at least 15 years is required between the parties. A copy of this agreement shall be provided to the Market Manager prior to commitment of incentives. The agreement should state that the equipment could be transferred to new owners should the property be sold or otherwise have a buyout provision so the equipment remains on site and stays operational so the projected energy savings can accrue. The intent is to provide incentives for generating equipment, which is installed and functioning for the duration of its useful life. Under the Program, only permanently installed equipment is eligible for incentives and this must be physically demonstrable to the Market Manager, upon inspection, prior to receiving an incentive. This can be demonstrated by electrical, thermal and fuel connections in accordance with industry practices for permanently installed equipment and be secured to a permanent surface (e.g. foundation). Any indication of portability, including but not limited to temporary structures, quick disconnects, unsecured equipment, wheels, carrying handles, dolly, trailer or platform will deem the system ineligible.
 - The customer/applicant will be allowed to sign over the CHP incentive to the third party owner.
 - All other Pay for Performance Program rules apply.

CHP APPLICATION FORM

Customer Information			
Electric Utility: <input type="checkbox"/> Atlantic City Electric <input type="checkbox"/> JCP&L <input type="checkbox"/> PSE&G <input type="checkbox"/> Rockland Electric Company <input type="checkbox"/> Other_____			
Gas Utility: <input type="checkbox"/> Elizabethtown Gas <input type="checkbox"/> New Jersey Natural Gas <input type="checkbox"/> PSE&G <input type="checkbox"/> South Jersey Gas <input type="checkbox"/> Other_____			
Electric Utility Account Number	Gas Utility Account Number	Federal ID/SSN	
First Name	Last Name	Company	
Phone Number		Email	
Installation Address	City	State	Zip
Mailing Address (if different from above)	City	State	Zip
Will the generating system be used as an Emergency Management Facility? (please check one, if YES please provide appropriate documentation): <input type="checkbox"/> YES <input type="checkbox"/> NO			

Incentive Recipient (if incentive check is to be issued to a company other than above, mail check to)*			
First Name	Last Name	Company	
Phone Number		Email	
Mailing Address	City	State	Zip
Federal ID/SSN			
Customers Signature			

*Submit W9 form for this entity.

Contractor/Installer/Design Professional			
First Name	Last Name	Company	
Phone Number		Email	
Mailing Address	City	State	Zip
Federal ID/SSN			

Equipment Information		
CHP Type: <input type="checkbox"/> Gas Engines <input type="checkbox"/> Gas Turbines <input type="checkbox"/> Heat Recovery Equipment <input type="checkbox"/> Other_____		
Manufacturer	Model	Installed Capacity (kW)

CHP TECHNICAL WORKSHEETS

Form 1: Proposed CHP System Performance

Proposed System Overview (annual)		
Prime Mover Type		
Energy Input	(MMBtu)	
Electric Output	(kWh)	
	(MMBtu)	
Recoverable Thermal Output	(MMBtu)	
Utilized Thermal Output ⁽¹⁾	(MMBtu)	
Annual System Efficiency ⁽²⁾	(%)	

Rated System Information		
Prime Mover Model		
Energy Input	(MMBtu/h)	
Rated Electric Output	(kW)	
	(MMBtu/h)	
Total Thermal Output	(MMBtu/h)	
Recoverable Thermal Output	(MMBtu/h)	
Fuel Conversion Efficiency ⁽³⁾	(%)	

- (1) – Heat used from the CHP systems for the purpose of heating and cooling 1kWh = 0.003412 MMBtu
- (2) – Annual System Efficiency = (Electric output (MMBtu) + Utilized Thermal Output)/Energy Input
- (3) – Fuel Conversion Efficiency (FCE) = (Rated Electric Output (MMBtu/h) + Recoverable Thermal Output)/Energy Input
 FCE is defined as the ratio (expressed as a percentage) of the total usable energy produced by a technology to the sum of all fuel or other energy inputs to the technology measured at each fuel's higher heating value.

Proposed System Overview								
Month	Anticipated Operating Hours	Input Fuel (MMBtu)	Output Electricity (MMBtu)	Recoverable Thermal Output (MMBtu)	Utilized Thermal Output (MMBtu)	Electricity Efficiency (%)	Thermal Efficiency (%)	Annual Efficiency (%)
Jan								
Feb								
Mar								
Apr								
May								
Jun								
Jul								
Aug								
Sep								
Oct								
Nov								
Dec								
Total								

Breakdown of Recovered Thermal Output							
(Indicate in the detailed feasibility analysis the fuels that are being displaced and the respective equipment efficiency)							
Month	Process Heating (MMBtu)	Process Cooling (MMBtu)	Space Heating (MMBtu)	Space Cooling (MMBtu)	Domestic Hot Water (MMBtu)	Other (MMBtu)	Total (MMBtu)
Jan							
Feb							
Mar							
Apr							
May							
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
Total							

Unit Cost of Gas		
Unit Cost of Electricity		
Rate Schedule	Electricity	
	Gas	

CHP TECHNICAL WORKSHEETS

Form 2: Air Emissions Data

This form reports anticipated annual emissions of the six (6) pollutants that may be due to the CHP System. The first table should include vendor supplied data on the emissions from the prime mover to be installed. The second two tables should show what fraction of those new emissions is displacing current system emissions.

Yearly Grid Supplied Electricity (Pre-Installation) (MWh/year)	
Yearly CHP System Supplied Electricity (MWh/year)	
Yearly Grid Supplied Electricity (Post-Installation) (MWh/year)	

Vendor Supplied CHP System Emissions		
NOx		lbs/MWh
SOx		lbs/MWh
PM-10		lbs/MWh
CO2		lbs/MWh
CO		lbs/MWh
VOC		lbs/MWh

Estimates of Displaced Emissions

The following two tables should be completed if data or information exists. By reporting on the emissions of the facility both before and after installation of the CHP system, the net impact of the new system can be estimated. If insufficient data exists, leave the tables blank. For systems greater than 2 MW, both tables must be completed prior to the release of the committed incentive.

Calculated Annual Boiler/Furnace Emissions (lbs)			
	Pre-CHP Installation	Post Installation	Difference
NOx			
SOx			
PM-10			
CO2			
CO			
VOC			

Annual Site Emissions (lbs)			
	Pre-CHP Installation	Post Installation	Difference
NOx			
SOx			
PM-10			
CO2			
CO			
VOC			

CHP TECHNICAL WORKSHEETS

Form 3: CHP System Cost Table

Please enter all CHP system capital costs in the table below. Break out costs should add up to total system turnkey cost. Turnkey line item costs should include any administrative and markup costs. Where a component or construction cost is not included in the CHP project design enter "N/A." Where a component or construction cost is provided within another line item, please enter "included."

CHP System Component Cost (\$)	
Prime Mover	
Fuel Compressor	
Black Start Capability	
Generator	
Heat Recovery	
Cooling Tower or other Heat Dump	
Absorption Chiller	
Desiccant	
Controls	
Sound Attenuation	
Inlet Air Handling	
Vibration Isolation	
Emission Controls	
Other _____	

Design/Construction/Labor and Materials Cost (\$)	
Engineering	
Site Preparation	
Buildings	
Construction Labor	
Materials	
Exhaust Stack	
Electrical Tie-in	
Mechanical Tie-in	
Grid Interconnection Devices	
Permitting Fees	
Contingency	
Other _____	

Total System Turnkey Cost	
----------------------------------	--

CHP TECHNICAL WORKSHEETS

Form 3A: CHP System Service and Maintenance Costs

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Prime Mover /Heat Recovery										
Thermal Equipment										
Emissions Controls										
Remote Monitoring/Control										
Warranty/Service Contracts										
Other _____										
Total Service Maintenance Costs										

CHP TECHNICAL WORKSHEETS

Form 4: Incentive Request Calculation

- (1) Enter total system rated net continuous output (from Form 1) or 1 Megawatt, whichever is less, in AC Watts
- (2) Requested NJCEP Incentive (Enter the appropriate value using table below, e.g. Line 1 x \$1.00/Watt)..... \$
- (3) Requested NJCEP Pay for Performance Bonus Incentive (Enter the appropriate value using table below or enter "0" if not applicable, e.g. Line 1 x \$0.25/Watt)..... \$
- (4) Requested Utility Match (Enter the appropriate value using table below, e.g. Line 1 x \$1.00/Watt)..... \$
- (5) Total Installed CHP System Turnkey Cost (from Form 3) including applicable interconnection costs, before New Jersey's Clean Energy Program incentive, less any other direct incentives.....\$
- (6) Maximum allowable incentive (Multiply Line 5 by 'Maximum % of Project Cost')..... \$
- (7) **Final incentive amount** (Input the lesser of: sum of Lines 2+3+4, or Line 6, or \$2,000,000 [\$2,250,000 if Pay for Performance bonus is included])..... \$

Eligible Technology	NJCEP Incentive (\$/Watt) (Up to \$1.0 Million)		NJCEP Pay for Performance Bonus (up to additional \$250,000) ⁽¹⁾	Utility Match (1:1 \$/Watt match up to an additional \$1.0 Million) ⁽²⁾		Maximum % of Project Cost
	System Size (kW)	Rebate (per Watt)		System Size (kW)	Rebate (per Watt)	
CHP Powered by Non-Renewable Fuel Source <ul style="list-style-type: none"> • Microturbines • Internal Combustion Engines • Combustion Turbines 	≤ 500 501-1,000	\$1.00 \$0.50	\$0.25/Watt	≤ 500 501-1,000	\$1.00 \$0.50	30% or 40% ⁽³⁾
CHP Powered by Class 1 Renewable Fuel Source ⁽⁴⁾ <ul style="list-style-type: none"> • Microturbines • Internal Combustion Engines • Combustion Turbines 	≤ 500 501-1,000	\$3.00 \$2.00	N/A			40% ⁽⁶⁾
Heat Recovery or Other Mechanical Recovery from Existing Equipment Utilizing New Electric Generation Equipment		\$0.50/Watt	\$0.25/Watt		\$0.50	30%

- (1) Any facility that successfully participated in Pay for Performance (i.e. received an Energy Reduction Plan approval letter, and has begun or completed installation of recommended measures) prior to applying for CHP incentives will be eligible for an additional \$0.25 per Watt from NJCEP, not to exceed —% of project cost caps listed in the table above, or a combined utility plus NJCEP incentive of \$2.25 million, whichever is less.
- (2) The incentives shown above represent a maximum \$/Watt utility incentive match. Actual \$/Watt paid will vary depending on which gas utility territory the CHP system is installed. NJCEP will true-up its incentive to ensure consistent incentive matches across all gas utilities, up to the maximum amount of \$2,000,000, not to exceed —% of project cost caps as listed in the table above. Subject to funding availability.
- (3) The maximum percentage of project cost will go to 40% where a cooling application is use or included with the CHP system.
- (4) New Jersey's Renewable Energy Portfolio Standard N.J.A.C. 14:8 2.5 clearly defines what materials are considered to be Class 1 biomass materials; those materials which are not deemed Class 1 must go through sustainability determination by New Jersey Department of Environmental Protection (NJDEP) to qualify. All renewable fueled projects must be submitted to the Renewable Energy (RE) Market Manager through the REIP Program under the NJCEP. Please contact RE Market Manager for latest incentives and additional program forms.
- (5) Rebates are tiered; for example for a 1,000 kW project the first 500 kW is paid at \$3.00 per watt, and the second 500 kW at \$2.00 per watt. Maximum rebate is \$2.5 million or 40% of total project cost.
- (6) Includes all capital equipment costs associated with: producing and refining biomass feedstock, generating electricity and heat recovery.

Section A. Feasibility Analysis

In addition to completing Forms 1 through 4 in their entirety, a detailed feasibility analysis must be completed. The feasibility analysis must be in report format, with cover and table of contents, and should include (but is not limited to) the following:

Executive Summary:

1. Site and project description.
2. Summary of energy savings/generation, cost savings, total project cost, implementation schedule, and any other pertinent information.

Project Team:

1. Include an organizational chart listing all team members, including the project manager and any subcontractors and other sponsors involved in the CHP Project, showing their roles and responsibilities.
2. Describe the qualifications of the Applicant and/or contractor's individual and combined expertise that will enable successful completion of the CHP Project.
3. Describe the proposing team's experience in developing and operating conventional or renewable energy plants, marketing power, and other relevant areas. List related projects that have been undertaken and successfully completed by the Applicant and/or contractors.

System Type and Mode of Operation:

Discuss proposed system type and mode of operation, such as:

1. Grid-connected operating mode (parallel/capable of synchronizing with the electric grid; capable of automatically reducing load to prevent backfeeding the meter).
2. Grid-connected/grid-independent operating mode (parallel/capable of synchronizing with the electric grid and capable of switching automatically to independent, load-following operation when the grid is unavailable; automatic operation and synchronization of multiple power plants connected in parallel).
3. Stand-alone load-following operation (system confined to an independent circuit, no utility backup).
4. Battery interactive capabilities, if applicable.

The on-site power system should have the ability to automatically island/disconnect from the utility in the event of substantial grid congestion or failure.

System Information:

1. Include the type and rating of the prime mover and an energy balance around the prime mover. The energy balance must be applied to a schematic of the system showing all major components, including the uses for the recovered heat. Annual totals for each energy input/output must be shown along with maximum, minimum, and average instantaneous values. Temperatures for each waste heat transfer fluid and sink must also be indicated.
2. Fuel conversion efficiency (FCE) for the prime movers must be provided. FCE is defined as the ratio (expressed as a percentage) of the total usable energy produced by a technology to the sum of all fuel or other energy inputs to the technology measured at each fuel's higher heating value.
3. The description of the proposed system must include a floor plan indicating equipment location and tie-in to existing building systems. Any structural modifications must be included in the capital cost of the system. This

document must indicate the location of the system, batteries (if any), lockable disconnect switch (unless otherwise approved by the electric utility, the disconnect switch shall be installed at the electric utility meter location), and point of connection with the utility system. The installation address, current account number at that address (gas and electric), and the installer's name and telephone number must also be included on the site map.

4. The pressure and availability of gas must be described in the study.
5. An operational sequence must be included that specifies the control system to be used along with a discussion of its integration with other on-site controls systems and who will have the responsibility for system operation.
6. A construction schedule that includes engineering, permitting, construction, start-up and commissioning must be provided.

Economic Evaluation:

1. CHP System Economic Evaluation Requirements: Simple payback, 10 year cash flow analyses, and IRR analysis are required for purposes of this application. Although the format of these analyses is at the discretion of the applicant, the following inputs must be considered and shown within these analyses:
 - Total CHP system capital cost (from Form 3)
 - CHP system operating hours, load factor, and availability factor
 - Total service and maintenance costs (from Form 3a)
 - CHP system heat rate/ fuel consumption
 - Efficiency of current boiler plant, chiller plant, etc. for which recovered waste heat will supplement (if applicable)
 - Clearly state energy savings or increased use of energy; and the demand savings. The savings, or the increase, should be stated in terms of KW, kWh and in MMBtu
 - Fuel cost – commodity and delivery
 - Cost of additional water consumption required by the system
 - Offset electricity quantity and value – customer charge, demand charge, commodity charge, Time-of-Use where applicable, any unavoidable charges
 - Offset thermal energy quantity and value – commodity and delivery (if applicable)
 - Changes to tariffs due to CHP, including supplemental electricity tariffs, standby rates and exit fees
 - Fuel and electricity escalation rates for cash flow analysis
 - Financing options and assumptions, such as the discount rate and interest rate for cash flow analysis
 - Any additional costs or credits, including incentives (utility matches, state funding, Federal funding, etc.), the value of reliability, emission credits, HVAC equipment offsets, etc.

Tariff Impacts and Interconnections:

1. In addition to inclusion in the economic analysis described above, a detailed description of the relationship between the proposed CHP system and the customer's existing energy tariffs must be included. Contract dates and dates of potential tariff rule changes must be included. In the case where such future changes would

significantly impact the economics of the project, sensitivity analysis must be presented assuming the potential tariff or contract changes occurred.

2. Site-specific grid interconnection issues and costs must be discussed. A brief, clear plan for if and how the system will be properly interconnected to the grid and/or natural gas pipelines must be presented.

Permitting:

1. A brief description of the necessary environmental and building permits or certificates that the customer needs to obtain must be provided. The permit determination should be based on a detailed emissions inventory developed from the hourly spreadsheet based model. A schedule of realistic permit receipt dates must be included in the construction schedule described above.

System Reliability and Availability:

1. The reliability and availability of the CHP system must be quantified (e.g. number of hours the system would be available at less than full capacity).

Metering Plan

1. A detailed metering plan shall be included within the feasibility analysis outlining the steps that will be taken to measure system performance post-installation. After system is installed, applicant must provide 12 months of operational data demonstrating proposed and/or minimum efficiency was achieved. This shall be done by implementing appropriate metering as part of the system installation. Data collected should include, but is not limited to, fuel input (MMBtu), electrical output (kWh, MMBtu), recoverable and utilized thermal output (MMBtu).

Supporting Documentation:

1. Generation and waste heat recovery equipment specifications.
2. New and existing facility equipment (both thermal and electric) annual operating schedules.
3. At least twelve months of the most recent electric bill(s) for the facility served by the CHP system.
4. At least twelve months of the most recent bills for natural gas, fuel oil and/or other fuels used in the facility served by the CHP system.

If you plan to use an absorption chiller to offset cooling load, provide cooling load calculations.

Section B. Installation Requirements

In addition to the Eligibility Requirements listed at the beginning of this application package, the following Installation Requirements apply:

1. The applicant must provide an expected completion date. Due to program funding limitations, the expected completion date will be used as an award criterion. The Applicant should submit documentation from manufacturers and contractors which state the expected equipment delivery and installation dates.
2. Incentives are intended to enhance the affordability of clean energy generation systems. Systems should be installed according to manufacturer's instructions. For systems installed inconsistent with such requirements, the Rated System Output may be de-rated.
3. Installation must comply with the host utility's interconnection and protection requirements, which are available from the respective electric utility. These include Operation/Disconnection Procedures, Liability/Indemnity and

Insurance Requirements according to the size of the project. For information on Net Metering, please contact your electric utility.

4. The installation must comply with provisions of these standards, as appropriate: NFPA 853 – Stationary Fuel Cell, and all codes governing the installation of Combined Heat and Power equipment; Power Plants, IEEE 519 – Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems; ANSI Z21.83-1998 Fuel Cell Power Plants, and input and output protection functions should be in compliance with ANSI C37.2 Device Function Number specifications.
5. All drawing should be stamped and sealed by a New Jersey licensed professional engineer.
6. The system should be equipped with the following capabilities, indicators and/or controls:
 - On/off control on site
 - Operating mode setting indication - parallel vs. stand-alone
 - AC & DC overcurrent protection or equivalent
 - Operating status indication
 - Remote control and data acquisition capable
 - Electric load-following capable
7. Warning labels must be posted on the control panels and junction boxes indicating that the circuits are energized by an alternate power source independent of utility-provided power.
8. All interconnecting wires must be copper. (Some provisions may be made for aluminum wiring; approval must be received from electric utility engineering departments prior to acceptance.)
9. All wiring splices must be contained in UL-approved workboxes.
10. Operating instructions must be posted on or near the system, or on file with the facility's operation and maintenance documents.

Proposed changes to the requirements will be considered, but they must be documented by the Applicant or Installation Contractor and approved by the Office of Clean Energy. These requirements are not all-encompassing and are intended only to address certain minimum safety and efficiency standards.

Section C. Code Requirements

1. The installation must comply with the provisions of the National Electrical Code (NEC) and all other applicable local, state, and federal codes or practices.
2. All required permits must be properly obtained and posted.
3. All required inspections must be performed (i.e., Electrical/NEC, Local Building Codes Enforcement Office, etc.).

In order to ensure compliance with provisions of the NEC, an inspection by a state-licensed electrical inspector is mandatory.

- Application has been filled out in its entirety and signed by both customer and contractor.
- Technical Worksheets (Forms 1 through 4) have been filled out in their entirety.
- Detailed feasibility analysis for the Fuel Cell system, per required information listed in Section A ('Feasibility Analysis'), has been completed and attached to the application.
- Section B ('Installation Requirements') and Section C ('Code Requirements') have been read and acknowledged by both customer and contractor.
- Copy of Customer-Developer contract has been attached to this application.
- W-9 form for the payee is included.

ACKNOWLEDGEMENT – The undersigned warrants, certifies and represents that as part of the design study requirement; 1) the information provided in this entire application is true and correct to the best of my knowledge; 2) the Contractor/ Installer will explain and provide manuals related to the system operation and maintenance to the customer (Applicant); and 3) the installation will meet all of New Jersey's Clean Energy Program requirements.

I have read, understood and am in compliance with all rules and regulations concerning this incentive program. I certify that all information provided is correct to the best of my knowledge, and I give the Market Manager permission to share my records with the New Jersey Board of Public Utilities, and contractors it selects to manage, coordinate or evaluate the Combined Heat and Power Program, including the release of electric and natural gas utility billing information, as well as make available to the public non-sensitive information. I allow reasonable access to my property to inspect the installation and performance of the technologies and installations that are eligible for incentives under the guidelines of New Jersey's Clean Energy Program. This arrangement supersedes all other communications and representations.

Customer (Applicant)

Signature _____

Print Name _____

Date _____

Contractor/Installer

Signature _____

Print Name _____

Date _____

Please e-mail all completed forms and questions to CHP@trcsolutions.com or mail to the address below.

New Jersey's Clean Energy Program
c/o TRC Energy Services – CHP-FC
900 Route 9 North, Suite 404 • Woodbridge, NJ 07095
Phone: 866-657-6278 • Fax: 732-855-0422

Visit our website: NJCleanEnergy.com/CHP

