

**Solicitation for Applications to  
Develop Combined Heat and Power Energy  
Facilities Serving New Jersey Commercial  
and Industrial Customers**

**Responses Due by 5:00 P.M. September 14, 2009**

Issued by the New Jersey Board of Public Utilities in  
consultation with its Business Energy Ombudsman

July 6, 2009

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## **1.0 PROGRAM INFORMATION**

### **1.1 PROGRAM SUMMARY**

Pursuant to P.L. 2009, c. 34, as amended (the "Act"), the New Jersey Board of Public Utilities ("Board" or "BPU") in consultation with its Business Energy Ombudsman issues this Solicitation to announce a performance incentive program (the "CHP Program" or the "Program") to encourage the development of Combined Heat and Power and Combined Cooling Heat and Power (collectively referred to as "CHP") electrical and thermal energy generation projects (each, a "Project" or "CHP Project") serving the Commercial and Industrial Energy Pricing ("CIEP") class customers in New Jersey. Funding for the CHP Program will come from the Retail Margin Fund established as a nonlapsing, revolving account in the State's General Fund pursuant to the Act (N.J.S.A. 48:3-51a(2)). The Program will advance the goals of the New Jersey Energy Master Plan ("EMP") released by Governor Jon S. Corzine in October 2008. Specifically, the EMP calls for the development of 1,500 megawatts ("MW") of CHP Projects in New Jersey by 2020. In furtherance of this objective, the Act appropriates \$60,000,000 for the Program to provide performance based incentives for the development of CHP Projects.

The Board, pursuant to the Act, has established the CHP Program to provide a total of \$60,000,000 for incentive grants (each, a "Grant") for the installation of an aggregate CHP electricity generating capacity up to 133 MW at new or existing sites serving New Jersey's CIEP electric consumers. Each Grant is a performance based incentive and thus payment of the Grant will be made only after the CHP Project is permitted, constructed, and operational. The amount of the Grant will be based on the actual electric and thermal energy production on an annual basis which shall begin upon the commencement of operations of the CHP Project. The Grant amount will be calculated based on a 75% capacity factor over four (4) years. In the event that the CHP Project meets the required efficiency metrics and operates at less than 75% capacity, The BPU, in its sole discretion, may decide to extend the grant disbursement period up to two additional years.

The objective of the CHP Program is to provide incentives for the construction and operation of efficient CHP Facilities in the State of New Jersey (the "State"). In order to qualify to receive a Grant under the CHP Program, the Applicant must, among other things, demonstrate the ability of the proposed team to construct or develop a CHP Project which will operate over a long period of time and facilitate private investment in high efficiency distributed electric generation projects. Applications for Grants under the CHP Program are expected to include CHP generation using mature and emerging technologies that maximize energy production during peak demand periods with the least impact on the environment. Applications that provide clean energy generation, or that address load pocket or congestion problems within the PJM Interconnection

LLC (“PJM”) transmission system, will benefit from higher displaced local marginal priced electricity. Increased energy security, increased reliability, and maximized environmental benefits will also result from the development of these CHP Projects.

The Board is working in cooperation with the New Jersey Economic Development Authority (“EDA”) which is developing programs to provide long-term low-interest financing to renewable energy projects which may also include renewable fueled CHP. Thus, this solicitation is intended to complement the EDA programs being developed pursuant to P.L. 2007, c. 340 (the “RGGI Act”),<sup>1</sup> which allocated sixty percent (60%) of the money from the Global Warming Solutions Fund, after payment of administrative costs, to the EDA to provide grants and other forms of financial assistance for commercial, institutional, and industrial entities to develop CHP facilities, among other things (the “EDA Program”). An Applicant who receives a Grant under the CHP Program may be restricted in the amount of financial assistance it may receive from the EDA Program.

Applicants must demonstrate an ability to finance construction through market sources, which may include taxable or tax exempt bond financing. Applicants seeking low-interest, tax exempt bond financing may be required to qualify under the standards set forth in the Internal Revenue Code (IRC) in addition to the general credit, underwriting, public purpose, and programmatic parameters discussed in this solicitation. There are several qualifying categories under the IRC for financing using tax-exempt debt in whole or in part that may be relevant to the types of projects contemplated under the CHP Program. Applicants may contact the EDA which can provide assistance in determining qualifications for tax-exempt financing and in placing the tax exempt financing. CHP Projects that do not qualify for tax exempt bond financing under the IRC may still qualify for taxable bond financing or other loan products available from the EDA.

The Board encourages entities to team when necessary or desirable to submit an application (each, “an Application”). Teams may consist of commercial firms, government organizations, universities, or other organizations. Proposed teams should include members who have CHP energy plant development and operational experience.

The Board will accept Applications up to and including 5:00 P.M. on September 14, 2009. Grants will be awarded to Applicants who meet the criteria specified for the CHP Program as described below in Section 3.0 and will be awarded on a first come, first served basis until the earlier of the allocation of the entire \$60 million or three (3) years from the date of this Solicitation.

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<sup>1</sup> Codified at N.J.S.A. 26:2C-45 to -57, and N.J.S.A. 48:3-98.1, and in amendment to N.J.S.A. 48:3-87.

EDA is assisting the Board in this Solicitation and will be responsible for receiving the Applications, reviewing Applications for completeness and evaluating Applications for financial capacity to undertake the CHP Project.

Applications are not limited to any geographic area within the State.

The approval and payment of the Grant are contingent upon the successful Applicant obtaining all required local, State, and/or federal permits and/or approvals. Failure to do so will result in the Grant award being rescinded without any further obligation, financial or otherwise, on the part of the State or the Board. The Grants are incentive based only and are not to fund the costs of development, design and construction of the CHP Projects.

## **1.2 PURPOSE AND INTENT**

The New Jersey EMP released in October 2008 calls for the development of 1,500 MW of CHP by 2020. In furtherance of this goal, the Act appropriates \$60 million for the CHP Program. By Order dated June 8, 2009, the Board approved the \$60,000,000 funding levels.

Through this Solicitation, the Board seeks Applications to develop cost effective CHP Projects capable of supplying electricity and thermal energy within the existing electrical distribution system serving New Jersey. CHP Projects must conform to the on-site generation provisions found in the Act. A CHP Project is expected to supply electricity and thermal energy to a CIEP customer in the State; however, electric power may be supplied to the electric grid through PJM. Grant recipients are intended to diversify the portfolio of distributed energy and provide power and environmental benefits to New Jersey by accelerating the deployment of CHP onsite generation power plants. To further these goals, the CHP technologies which may not be able to compete as yet on a first-cost basis, will be provided with financial incentives to prove themselves as viable alternatives to traditional electricity supply. Environmental impacts to net greenhouse gas (GHG) emissions, as well as total project grant related costs and benefits, will be compiled over the term of the Grant by the project proposal evaluation team specified in the Application. Data must be supplied on the environmental attributes of each of the various CHP technologies proposed in coordination with the New Jersey Department of Environmental Protection Green House Gas program ("NJDEP GHG").

The CHP Project shall comply with all pertinent environmental monitoring and data collection prior to, during, and following construction of the CHP Project. In addition to regulated pollutants, the CHP Project will be required to provide information relative to site specific carbon emissions from the CHP Project and any displaced emissions from offsite energy production which would have occurred absent the CHP Project. The goal of this effort is to quantify the net impact on carbon emissions achieved by the operation of the CHP Projects. This

data collection will complement and supplement data collected by the NJDEP GHG baseline analysis. Recipients of Grants will be required to confer with the NJDEP Office of Climate and Energy when compiling the data collection.

The CHP Program encourages the development of CHP Projects which can be constructed rapidly and are likely to be accepted by the surrounding community. For this reason, the Board seeks Applications that conform to all local zoning and use requirements. The CHP Project will be carefully monitored during and after the term of the Grant because reliable long-term operation of the CHP Project is also very important to the Board and the ratepayers of New Jersey. Demonstration of an operations and maintenance plan is required and must be submitted as part of the Application.

The Grants made under the CHP Program are performance based incentives and are not made to fund the actual costs of development, design and construction of the CHP Project. Therefore, the potential for significant energy production should be demonstrated in the Application. Payment of the Grant will commence only after the CHP Project is permitted, constructed and operational. The proposed CHP Project should produce electricity efficiently to assist in helping the State meet its growing demand for electric power with minimum GHG emissions. In addition, each CHP Project will need to produce and utilize a significant amount of thermal energy. As required under the Act, CHP Projects must meet a combined electrical and thermal efficiency of at least 65% for facilities with up to 20 MW electric output and at least 70% for projects over 20 MW electric. At a minimum, the thermal energy must meet the necessary quantity to contribute to this required overall efficiency standard. The production of useful thermal energy must be addressed by the Applicant and will be considered during the review process. The CHP technology should be demonstrated as viable, cost competitive, and suitable for use in New Jersey's energy and economic environment under varying financial conditions.

The Board, in consultation with its Business Energy Ombudsman, issues this Solicitation to advertise the availability of funding for the installation or expansion of CHP facilities at new or existing facilities of CIEP class customers in New Jersey.

Applicants of CHP Projects which are approved for Grants shall be required to comply with NJ Treasury Circular Letter 07-05 OMB found at <http://www.state.nj.us/infobank/circular/cir0705b.pdf> and to enter into a grant agreement with the BPU.

### **1.3 DETERMINATION OF GRANT AMOUNT**

Each Grant shall be a function of the kilowatt hours of electricity and the Btu of thermal energy that the CHP Project generates. The amount of the Grant per kilowatt hour and per Btu shall be calculated so that, if a CHP Project receiving a Grant were to have an electric capacity factor of 75 percent and a thermal capacity factor of 75 percent, then the present value of the Grant over the four-year period would equal \$450 per kilowatt of installed electric generation capacity.

The CHP Program is a performance based incentive grant program. Grants shall be made only for performance on a per kilowatt hour and per Btu delivered basis. Grants shall not be awarded for feasibility studies, to conduct research or to develop, design and construct CHP Projects. If approved for funding, the grant agreement shall specify the amount of the Grant as a not to exceed amount which may be earned if the CHP Facility meets the performance requirements.

### **1.4 Key Events**

This Solicitation is issued on July 6, 2009. Awards of Grants shall be made on a first-come, first-served basis to the Applicants whose Applications are complete, responsive and meet the criteria set forth below subject to the availability of funds (each, a "Successful Applicant"). The Board reserves the right not to make an award if the Application is incomplete or does not fully meet the requirements set forth in this Solicitation. Applicants are responsible for reviewing the Board's website for any addenda to the Solicitation. The Board and the State are not responsible for an Applicant's failure to do so.

- Applications will be made available July 22, 2009 by the Economic Development Authority (EDA). Please visit web site for information: [http://www.njeda.com/web/Aspx\\_pg/Templates/Pic\\_Text.aspx?Doc\\_Id=1080&topid=722&midid=1357](http://www.njeda.com/web/Aspx_pg/Templates/Pic_Text.aspx?Doc_Id=1080&topid=722&midid=1357)
- A question and answer conference will be held on July 28, 2009 in the 8<sup>th</sup> floor Board Hearing Room at Two Gateway Center in Newark from 1 PM to 3 PM. Attendance at such conference is optional.
- Additional questions may be submitted to the BPU at [chp@bpu.state.nj.us](mailto:chp@bpu.state.nj.us) through 12:00 P.M., August 3, 2009. All questions and answers will be summarized and any addenda to this Solicitation will be posted to the Board's website at [www.nj.gov/bpu](http://www.nj.gov/bpu) by August 15, 2009.

- Applications will be accepted for this Solicitation up to and including 5:00 P.M. on September 14, 2009. If additional funds are remaining after the award of Grants to Applicants under this Solicitation, the Board may authorize additional solicitations for a period up to three (3) years after the issuance of this Solicitation, pursuant to the Act or until all funds available are committed. Applications received after available funds are committed will have to reapply for subsequent solicitation(s), if any, but will be given priority based on their time stamped place in line from this Solicitation.
- Evaluations and awards will be made on ongoing basis.

## **2.0 DEFINITIONS**

Unless otherwise defined herein, the following terms shall have their meaning as set forth below:

"Board" means the New Jersey Board of Public Utilities or any successor agency;

"British thermal unit" or "Btu" means the amount of heat required to increase the temperature of one pound of water by one degree Fahrenheit (mmbtu means 1,000,000 Btu)

"Class I renewable energy" means electric energy produced from solar technologies, photovoltaic technologies, wind energy, fuel cells, geothermal technologies, wave or tidal action, and methane gas from landfills or a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner;

"Class II renewable energy" means electric energy produced at a resource recovery facility or hydropower facility, provided that such facility is located where retail competition is permitted and provided further that the Commissioner of the Department of Environmental Protection has determined that such facility meets the highest environmental standards and minimizes any impacts to the environment and local communities;

"Combined heat and power facility" means a facility which produces electric energy, steam or other forms of useful energy such as heat, which are used for industrial, commercial, heating or cooling purposes;

"Competitive service" means any service offered by an electric public utility or a gas public utility that the Board determines to be competitive pursuant to section 8 or section 10 of P.L.1999, c.23 (C.48:3-56 or C.48:3-58) or that is not regulated by the Board;

"Commercial and industrial energy pricing class customer" or "CIEP class customer" means that group of non-residential customers with high peak demand, as determined by periodic Board order, which either is eligible or which would be eligible, as determined by periodic Board order, to receive funds from the Retail Margin Fund established pursuant to the Act and for which basic generation service is hourly-priced;

"Customer" means any person that is an end user and is connected to any part of the transmission and distribution system within an electric public utility's service territory or a gas public utility's service territory within the State of New Jersey;

"Customer account service" means metering, billing, or such other administrative activity associated with maintaining a customer account;

"Demand side management" means the management of customer demand for energy service through the implementation of cost-effective energy efficiency technologies, including, but not limited to, installed conservation, load management and energy efficiency measures on and in the residential, commercial, industrial, institutional and governmental premises and facilities in the State;

"Electric Discount and Energy Competition Act" or the "Act" means P.L. 1999, c. 23, as amended, including by P.L. 2009, c. 34 and codified at N.J.S.A. 48:3-49 et seq.

"Electric Capacity" means the electric generation peak output of a CHP generator at actual site conditions accounting for ambient temperature, elevation and inlet and outlet static pressure losses. For the purposes of this solicitation, unless otherwise documented, New Jersey conditions will be considered at average annual temperature 55 degrees F. For combustion turbine systems with nominal static losses the Electric Capacity will be considered to be 93% of International Standards Organization (ISO) rating. For internal combustion engine systems with nominal static losses the Electric Capacity will be considered to be 96% of the continuous duty rating.

"Electric generation service" means the provision of retail electric energy and capacity which is generated off-site from the location at which the consumption of such electric energy and capacity is metered for retail billing purposes, including agreements and arrangements related thereto;

"Electric power generator" means an entity that proposes to construct, own, lease or operate, or currently owns, leases or operates, an electric power production facility that will sell or does sell at least 90 percent of its output, either directly or through a marketer, to a customer or customers located at sites that are not on or contiguous to the site on which the facility will be located or is

located. The designation of an entity as an electric power generator for the purposes of the Act shall not, in and of itself, affect the entity's status as an exempt wholesale generator under the Public Utility Holding Company Act of 1935, 15 U.S.C.s.79 et seq.;

"Electric power supplier" means a person or entity that is duly licensed pursuant to the provisions of the Act to offer and to assume the contractual and legal responsibility to provide electric generation service to retail customers, and includes load serving entities, marketers and brokers that offer or provide electric generation service to retail customers. The term excludes an electric public utility that provides electric generation service only as a basic generation service pursuant to section 9 of P.L. 1999, c. 23 (N.J.S.A. 48:3-57);

"Electric public utility" means a public utility, as that term is defined in N.J.S.A. 48:2-13, that transmits and distributes electricity to end users within the State;

"Energy consumer" means a business or residential consumer of electric generation service or gas supply service located within the territorial jurisdiction of a government aggregator;

"Emission Tradable Credits" means a discrete emissions reduction credit based on reductions of a greenhouse gas as specified by NJDEP.

"Financing entity" means an electric public utility, a special purpose entity, or any other assignee of bondable transition property, which issues transition bonds. Except as specifically provided in the Act, a financing entity which is not itself an electric public utility shall not be subject to the public utility requirements of Title 48 or any rules or regulations adopted pursuant thereto;

"Gas public utility" means a public utility, as that term is defined in N.J.S.A...48:2-13, that distributes gas to end users within the State;

"Grid Connected" means, for the limited purpose of this Solicitation, any project which is either directly connected to the transmission or distribution system.

"ISO Conditions" means International Standards Organization conditions. For combustion turbines (CT's) this is a reference state of 288 degrees K ambient temperature, 60 percent relative humidity and 101.3 kilopascals barometric pressure. This is equal to atmospheric pressure sea level 14.7 psia, 59 degrees Fahrenheit and 60 percent RH.

"On-site generation facility" means a generation facility, and equipment and services appurtenant to electric sales by such facility to the end use customer located on the property or on property contiguous to the property on which the end user is located. An on-site generation facility shall not be considered a

public utility. The property of the end use customer and the property on which the on-site generation facility is located shall be considered contiguous if they are geographically located next to each other, but may be otherwise separated by an easement, public thoroughfare, transportation or utility-owned right-of-way;

"PJM Interconnection, L.L.C." or "PJM ISO" means the Independent System Operator. PJM Interconnection coordinates the movement of electricity through all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia

"Retail Margin" means an amount, reflecting differences in prices that electric power suppliers and electric public utilities may charge in providing electric generation service and basic generation service, respectively, to retail customers, excluding residential customers, which the Board may authorize to be charged to categories of basic generation service customers of electric public utilities in the State, other than residential customers, under the Board's continuing regulation of basic generation service pursuant to sections 3 and 9 of P.L.1999, c.23 (C.48:3-51 and 48:3-57), for the purpose of promoting a competitive retail market for the supply of electricity;

"State" means the State of New Jersey;

"Tax-Exempt Bonds" and "Tax-Exempt Bond Financing" means a form of long-term financing that is subject to the terms and conditions of the Internal Revenue Tax Code ("IRC"). The interest income earned by the holders of these bonds is exempt from Federal and State Gross Income Tax. Because of these exemptions, an Applicant may be able to borrow money at more favorable interest rates than those offered through conventional bank financing. Applicants should consult with a tax advisor.

"Taxable Bonds" and "Taxable Bond Financing" means a form of long-term financing. There are fewer restrictions regarding qualified costs using Taxable Bonds than using Tax-Exempt Bonds; however, the interest rate on Taxable Bonds is typically higher than that on a Tax-Exempt Bond. However, Taxable Bonds typically provide interest rates that are comparable or better than those offered through conventional bank financing.

"Thermal Capacity" means the amount or quantity of thermal energy recovered at a given electrical output of a CHP generator measured in million British thermal units.

"Thermal efficiency" means the useful electric energy output of a facility, plus the useful thermal energy output of the facility, expressed as a percentage of the total energy input to the facility;

"Transmission and distribution system" means, with respect to an electric public utility, any facility or equipment that is used for the transmission, distribution or delivery of electricity to the customers of the electric public utility including, but not limited to, the land, structures, meters, lines, switches and all other appurtenances thereof and thereto, owned or controlled by the electric public utility within the State;

### **3.0 GRANTS**

**3.1 Eligibility.** Grants will be awarded on a first-come, first-served basis for CHP Projects that satisfy **all** of the following eligibility criteria. Applications which do not satisfy **all** of these criteria shall not be eligible to receive a Grant under the CHP Program.

A. The CHP Project shall serve a commercial, institutional, or industrial electricity customer in this State with electric demand of at least 750 kilowatts or such level of demand as subjects the customer to payment of a Retail Margin.

B. The CHP Project shall establish by contract or other arrangement that the electric output generated at a CHP Project shall, to the maximum extent feasible, be consumed at the project site by a facility located at the site and that any surplus power produced that is not needed by that facility may be sold into the interstate PJM grid.

C. The CHP Project shall have an electric generating capacity of greater than one MW.

D. The CHP Project shall be designed to achieve thermal efficiency levels of at least 65 percent for facilities with up to 20 MW of electric generating capacity, and at least 70 percent for facilities with electric generating capacity greater than 20 MW. An existing facility that does not currently achieve the applicable thermal efficiency level shall be eligible to receive a Grant pursuant to this paragraph if CHP Project will result in achieving thermal efficiency levels of at least 65 percent for facilities with up to 20 MW of electric generating capacity, and at least 70 percent for facilities with electric generating capacity greater than 20 MW.

### **3.2 AGGREGATE STATE FUNDING.**

A Successful Applicant will not be able to receive funding under another State funded program which, together with the estimated amount of the Grant, exceeds fifty percent (50%) of the total cost of the CHP Project.

### **3.3 TERM OF GRANT**

The term of the Grant shall commence upon signing of the Grant Agreement. The Grant Agreement shall specify the amount of time for the completion of the CHP Project based on factors including the size and complexity of the CHP Project. The CHP Project Completion Date, as set forth in the project-related milestones pursuant to section 4.2.5 herein, may be extended in the sole discretion of the BPU in certain circumstances with the appropriate justification. Payment of amounts under the Grant shall commence upon completion of the CHP Project and achievement of the various milestones required, but shall in no event be made after six (6) years from the CHP Project Completion Date.

### **3.4 Changes in CHP Project from Application**

The CHP Project is expected to be designed and proposed as a feasible, viable project that can be permitted by all relevant jurisdictions. The Board, however, recognizes that some changes in the CHP Project may be required. Board staff must be notified in advance in writing of any proposed change during the term of the Grant. Changes that have been determined by the Board staff to have no material bearing upon the purposes or process of the Program, or on the amount of the Grant and other financing received by the CHP Project, will receive a letter of notification from Board staff that the proposed change will not affect the Grant. If the changes are determined to have a material adverse effect on the purpose or process of the CHP Program, the Board, based on recommendations by Board staff, may take action to terminate the Grant in whole or in part, depending upon the nature and impact of such changes.

### **3.5 TERMINATION OF GRANT; CHANGE IN AMOUNT OF GRANT**

A. The Grant is intended to be based upon performance. The amount of the Grant shall be estimated at the time of the award and will be based upon expectations and assurances set forth in the Application and in the Grant Agreement. In the event that there are changes in such expectations and/or assurances from the date of Application or from the date of the Grant Agreement, or changes in the CHP Project after completion, the Grant may be terminated in whole or in part, the amount of the payments under the Grant may be reduced or the timing of the payments under the Grant may change.

B. The CHP Project described in the Application is expected to come on-line by the date specified in the Application. In the event that the CHP Project fails to come on-line by the date specified in the Application and Grant Agreement, the amount of the Grant may be reduced or the Grant

may be terminated by the Board, and thereupon, the Applicant shall not be entitled to receive any amounts under the Grant.

C. The CHP Project must operate and provide the amount of electric power that the Successful Applicant committed to in the Application to receive the Grant. In the event that the CHP Project does not provide such amount of electric power, the Successful Applicant shall take such actions as necessary in order to ensure that the CHP Project meets or exceeds the performance goals set forth in the Application. Any CHP Project that still fails to provide the amount of electrical power that the Applicant committed to after such optimization will only receive performance payments up to four (4) years unless the Board, in its sole discretion, decides to extend the grant disbursement period for up to two additional years, following the CHP Project Completion milestone date set forth in response to section 4.2.5 herein. If the full value of the Grant is not realized during this four year term, or during any aforementioned extension approved by the Board, as applicable, the award and financing commitment will be terminated by the Board.

D. The Grant is based upon production. If a CHP Project consistently generates less than estimated in the Application or estimates approved by the Board after the Application as described above, the Grant amount may be reduced accordingly or terminated. The Board will have the final determination as to the qualifying energy production at the CHP Project.

#### **4.0 APPLICATION**

##### **4.1 INSTRUCTIONS FOR SUBMITTAL**

A. Applications may be hand-delivered or delivered via US Mail or Overnight to:

Clean Energy Solutions CHP Application  
New Jersey Economic Development Authority  
36 West State Street  
P.O. Box 990  
Trenton, NJ 08625

B. All applications for this solicitation are due by 5:00 pm on September 14, 2009. Proposals that are received by the EDA will be logged and time-stamped. Proposals must be delivered to the EDA's office in Trenton as described above. Applicants must deliver or mail (5) copies of the proposal with required attachments via CD ROM. Please direct email inquiries to [chp@bpu.state.nj.us](mailto:chp@bpu.state.nj.us)

C. Applications received shall be open for inspection and be considered public records after they are received and evaluated as being complete. If the Applicant believes that information contained in its Application merits confidential treatment pursuant to the Open Public Records Law, N.J.S.A. 47:1A-1 et seq, any such purportedly confidential information submitted to the Board shall be specifically identified and marked by the Applicant and submitted to Board Staff in compliance with the Board's regulations at N.J.A.C. 14:1-12 et seq.

D. The Board reserves the right to reject any Application which it deems incomplete.

#### **4.2 CONTENTS OF APPLICATION**

Every Application must include the required information as set forth within this Solicitation. This section of the Solicitation is designed to guide Applicants in organizing their Applications in a consistent fashion to facilitate review. The technical section and engineering economic analysis of the Application must be signed and sealed by a New Jersey licensed Professional Engineer. Each Application must follow the organization as set forth below:

1. Cover Sheet (limit 1 page)
2. Abstract (limit 1 page)
3. Eligibility Requirements
4. Project Description
5. Timeline of Project Related Milestones
6. Statement of Work
7. Project Team
8. Completed Retail Margin Combined Heat and Power Performance Grant Application Package
9. Completed EDA Online Application for Financial Assistance  
<http://application.njeda.com/account.asp>

#### 4.2.1 COVER SHEET

**All Applications must include a cover sheet that includes all of the following information:**

- Name of Application (assigned by the project team to be used for reference purposes)
- Name of Primary Contact
- Name of Primary Applicant's Organization
- Mailing Address, Phone Number, Fax Number, Email Address, and Web Address of the Primary Applicant
- Specific location of the proposed facilities including point(s) of interconnection with the electric distribution system
- Number and type of proposed prime movers and generators with associated capacity of each expressed in megawatts
- Expected annual electricity production in megawatt hours
- Expected annual thermal energy production expressed in mmbtu
- Total amount of grant requested
- The expected timeframe for the performance grant payment which shall be no longer than six (6) years from the CHP Project Completion Date
- Contact Person and Affiliation of all partnering organizations
- An Executive Summary of the project not to exceed 50 words which includes the CHP technologies including waste heat utilization to be funded and the specific location(s)

Applications that do not include the material information above will be disqualified from further consideration. Further descriptions of these items are also required in the subsections below.

#### 4.2.2 ABSTRACT – (limit – 1 page) Summary of the CHP Project.

This should include: the name of the Applicant, the proposed status of project development, proposed operation date, specific location, number of CHP units proposed including aggregate project megawatt capacity and

location of all points of interconnection with the electric distribution system, and a general site description.

#### **4.2.3 ELIGIBILITY REQUIREMENTS**

Applicants must demonstrate how their proposed CHP Project will meet or exceed the criteria set forth in Section 3.0 above by providing the following information:

- A. Total installed capacity in megawatts for the entire CHP Project, total thermal energy capacity, expected annual energy production in megawatt hours and mmbtu for the CHP Project is required to be fully documented to enable adequate review of the project size in relation to the amount of the Grant requested. The total amount of energy being generated over the term of the Grant and the life of the CHP Project should also be provided.
- B. Applicants should demonstrate applicable experience in projects of the size and scope proposed. Applications must include a comprehensive business plan with fully documented estimates of all associated and relied upon revenue and expense projections expressly and explicitly defined.
- C. The Application must list all team members and include a description of the experience of the team in construction and operation of power plants of similar size and scope.
- D. Applications must demonstrate that the CHP Project capacity will have an aggregate capacity of not less than one megawatt.
- E. The Application must specify the expected project time requirements in the aggregate from start to finish, as well as the time required to accomplish each specific activity related to project design, permitting, construction, and commissioning activities with associated milestones delineated for each category of activity.
- F. Applications must estimate an expected useful economic life of the CHP Project, including engines, generators and heat recovery equipment. The Application must demonstrate that cogeneration equipment will have a useful service life of twenty (20) years subject to necessary major maintenance including engine core change out and rebuild.
- G. Applications must include a calculation of the maximum amount of the Grant which the Applicant will be entitled to receive for the CHP Project, assuming that the CHP Project meets the requirements as specified in Section 3.0 above and in the Act.

H. The Board encourages the development and production of goods and services in the State. To that end, the Application should include the extent to which the technology and project proposed will be manufactured or supported in the State and constructed by New Jersey-based businesses. The Application must also contain the number of construction jobs and permanent jobs which the development and operation of the CHP Project will create.

#### **4.2.4 PROJECT DESCRIPTION**

In the body of the Application titled “Project Description,” Applicants must provide the following information with the associated descriptive headings in bold below:

A. **Previous Experience.** The Applicant must describe the work done to date by the project team members in developing projects of similar scope. If the work described was not performed by the entire team, delineate the experience or work performed by team member. Please note that because this is a multi-year project and construction is not likely to begin until well after Board approval, in order to address the time gap between Board approval and construction, the Board will require that Applicants not reallocate the personnel/resources they listed in the Application without the prior approval of the Board.

B. **Site Location and Description** – The Application must indicate the site for project development and the basis for site selection including, the location of transmission lines and all points of interconnection to the distribution system serving New Jersey. The Application must also indicate the location and connection point to any regulated natural gas utility or interstate pipeline. Applications must include a map with the location of the site(s) clearly marked with the location of the CHP Project and must include a description of the current uses, conflicts, or characteristics of the site location under consideration. The Application should define the attributes which make the site attractive and list any potential problems, constraints or limitations with siting an energy facility at that location, including but not limited to environmental, economic, or energy production characteristics.

C. **Site Ownership or Control** – The Application must identify the nature of land ownership or lease arrangements for all aspects of the CHP Project including all required interconnection areas. The Application should describe progress in securing leases, easements and land required for the CHP Project and proposes a plan for accomplishing remaining steps toward acquiring leases or land ownership. The Application must indicate that the Applicant will have site control at the time of the

Application, or demonstrate the ability to have site control within 90 days after the date of the executed Grant Agreement.

**D. Environmental, Energy and Economic Impacts and Benefits.** The Application must include a description of potential impacts including, but not limited to, air emissions, waste water discharges, noise, aesthetics, during construction and post-constructional operations. Applicants should address in the Application all anticipated or likely environmental, energy or economic issues.

**E. Permits.** The Application must identify all local, State and/or federal permits and/or approvals required for building and operating the CHP Project and the expected time to obtain such permits and/or approvals. Information on all NJDEP permits is available from the Office of Permit Coordination and Environmental Review through the One Stop program which can be accessed from the NJDEP website at <http://www.nj.gov/dep/opppc/permitcoor.htm>

**F. Schedule.** The Application must identify the expected duration of the permitting, design and construction phases of the CHP Project.

**G. Electric Interconnection.** The Application must document tasks required and discuss issues associated with electrical interconnection, including reverse power protection and, if utilized, export power requirements. This section should include a description of each proposed point of interconnection.

**H. Equipment.** To the fullest extent possible, the Application must indicate the major types of equipment that will be installed. If not yet selected, indicate the candidate equipment suppliers and the characteristics specified. Indicate whether the project team plans to own or lease equipment. Describe the equipment, the specifications, warranties, how long it has been commercially available, approximately how many are currently in service, and where they are installed. For actual construction of the CHP Project if approved for a Grant, equipment which is identified in the Application may be replaced or updated with more technologically advanced equipment that is equal to or better than the equipment identified in the Application.

**I. Project Capacity and Energy Production.** The Application must indicate the proposed nameplate capacity for the entire CHP Project and the anticipated number of individual generating and heat recovery units. The total nameplate capacity that is being proposed for the site must be included. Based on each CHP technology proposed, there must also be an estimate of the net yearly energy output for the CHP Project, accounting for parasitic losses, and any assumptions that are the basis for

the estimate. The Application must account, to the fullest extent possible, the coincidence between time of generation for the CHP Project and peak electricity demand. An estimate of the amount of energy being generated over the term of the Grant and over the life of the CHP Project must be included.

The Application must also include an estimate, to the best of the Applicant's ability, the level of generation that the CHP Project will be able to provide over the life of the equipment, assuming the CHP Project runs for the equipment's full life.

**J. Operation and Maintenance.** The Application must include a complete operation and maintenance plan for the term of the Grant, including any estimated increases resulting from additional fuel costs.

**H. Application Information and Signatures.** The Application must include the full business address of the Applicant or lead team member and the names and phone numbers of authoritative and technical contact persons. A principal of the lead firm must sign the attached statement of Verification of Application Information (Appendix A) and of the Applicant's intent to abide by the protocols of the Application and the structure of the Grant as described. The name and title (if any) of the person that signs the Application shall be typed or printed below their signature and the signature shall be witnessed. Satisfactory evidence of authority of each person signing the Application shall be furnished to Board upon request.

#### **4.2.5 TIMELINE OF PROJECT RELATED MILESTONES**

The Application must include a timeline of all the project-related milestones including dates for anticipated events and deliverables from the date of submission of the Application through commissioning and operation of the CHP Project and the payment period of the Grant. These will include, but not be limited to, all the necessary State and municipal code requirements. Minimum milestones shall include:

- Air Emissions Permit Application
- 150 Day Go/No Go Decision Point
- Project Financing
- Equipment Procurement
- Construction Permits
- Equipment Delivered to site
- System Installation Complete
- Installed System Shakedown Complete
- Full Scale System Verification (commercial operation) minimum 160 continuous hours
- CHP Project Complete

#### **4.2.6 STATEMENT OF WORK**

The Statement of Work outlines work activities and required performance for payment and financing. It specifically delineates each step or procedure required to accomplish the objectives of the CHP Project. Therefore, each action shall be identified, indicating who will perform it, how it will be performed and its intended result. Be clear and specific; concentrate on “how” and not “why.” Use the following guidelines as the basis for the Statement of Work; modify it as necessary to fit the CHP Project. Additional information should be provided if deemed necessary. This section should clearly identify what has been done and present the results to date, and what still needs to be done and how it will be done.

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

##### **Introduction:**

Briefly and clearly state the overall technical goals of the CHP Project.

##### **Task 1: Project Management**

Subcontractor Coordination – State how activities will be coordinated between the Applicant and any partners, any subcontractors, and the BPU. A discussion of subcontracting arrangements should also be included.

Project Management Meetings – Plan a kickoff meeting, an acceptance meeting, and a wrap-up meeting. Identify parties to participate at each meeting. Identify parties responsible for scheduling the meeting, providing the agenda (in advance), and issuing minutes.

##### **Task 2: Reporting**

If awarded a Grant, the Successful Applicant shall submit semi annual reports by the 15th of the month following the reporting period. Semi annual reports shall summarize progress, difficulties, and planned solutions associated with developing and installing the CHP Project. After construction, semi annual reports shall summarize the CHP Project’s performance and identify all reported energy production which will form the basis for payments under the Grant. The PJM Generator Attribute Tracking System (PJMGATS) will be utilized to report the electrical production of the CHP units and onsite metering will be utilized for the purpose of reporting thermal energy production. All reports which are utilized for the purpose of submitting invoices for payment under the Grant

will be auditable. An invoice will be submitted along with the semi annual reports clearly stating the kilowatt hours of production, mmbtu's of thermal energy produced and used, and the Grant rate in \$/kWh and \$/mmbtu being invoiced. Any operational problems and actions taken to fix any problems which might affect the term of the Grant should be addressed.

#### **4.2.7 PROJECT ECONOMICS AND OPERATING COST.**

The following must be included in the Application:

A. An estimate of all costs and revenues including plans for selling or using energy from the CHP Project and the production incentive in \$/kWh and \$/mmbtu being requested.

B. The plans for utilizing or marketing energy from the CHP Project and the status of negotiations with potential purchasers or users of the energy. If applicable, include Applicant's production of renewable electricity generation to fulfill the Board's Renewable Portfolio Standards ("RPS") requirements and other green power pricing options.

For information on New Jersey's Independent System Operator, visit the PJM website at [www.pjm.com](http://www.pjm.com).

C. A cash flow analysis over the lifetime of the CHP Project. Included should be any private, venture or existing project financing, the total amount of tax-exempt bond financing or taxable bond financing required for the CHP Project and any other incentives, subsidies or other funding associated with the CHP Project and projected internal rate of return or other measure of return compared to industry averages.

D. A discussion of the proposed treatment of all "secondary environmental attributes" associated with the onsite generation, such as SO<sub>2</sub>, NO<sub>x</sub>, CO<sub>2</sub> emission credit allowances and renewable energy certificates.

E. A business plan, which must include a description of the CHP Project, estimated construction schedule, ownership structure, and management team, including annual financial projections with detailed assumptions for at least (3) three years, all sources and uses of funds including grants, private investment, loans and any public financing. If the Applicant is a special purpose and/or newly created entity, provide the (3) three most recent years of financial statements for each sponsor and/or owner with ownership greater than or equal to ten percent (10%).

#### **4.2.8 PROJECT TEAM**

A. Organizational Chart. 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.

B. Qualifications. Describe the qualifications of the Applicant's individual and combined expertise that will enable successful completion of the CHP Project. Describe sources of private financing that will be used by the Applicant to perform the proposed work. Submit resumes of all key project team members, including those of proposed subcontractors. Include education and experience that are relevant to the proposed work.

C. Previous CHP Development Experience. 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 subcontractors. For each project, provide a brief project summary and the name and phone number of a client contact. The Board reserves the right to contact any reference listed.

#### **4.2.9 EDA ONLINE APPLICATION FOR FINANCIAL ASSISTANCE**

Applicants must complete and submit EDA's application for financial assistance. This application can be found online at <http://application.njeda.com/account.asp>. Applicants will be required to set up an account before completing the application. This is EDA's standard application, which will be used to evaluate Applicants for the CHP Program. This form is also used for the EDA Clean Energy Solutions Capital Investment Loan/Grant RGGI program, as well as other EDA financing programs.

### **5.0 APPLICATION REVIEW AND AWARD OF GRANTS**

#### **5.1 REVIEW**

The Board will establish a committee to review the Applications on a first come, first served basis. Applications that meet the eligibility requirements after review will be presented to the Board for approval.

#### **5.2 AWARD OF GRANT**

The review committee will recommend funding commitment decisions, as described above, to the Board. The Board may reject or accept in part or in whole the recommendations for funding award made by the review committee.

Grants will be awarded by the Board to each CHP Project or Projects deemed to meet the requirements of this Solicitation based, on the Applications in relation to the criteria contained herein. The Board reserves the right to make no funding commitments if, in its sole discretion, no acceptable proposals are received.

The decisions of the Board will be communicated to Applicants by the Board. Applicants shall designate a Project Manager in the Application who shall become the point of contact with the Board. The Project Manager shall be responsible for monitoring and ensuring progress of all tasks, maintaining communication with all project personnel, and fulfilling the reporting requirements described in Section 4.7 Task 2 and Section 5.4, infra.

### **5.3 GRANT AGREEMENT**

After Board approval and funding commitment, a Grant Agreement will be entered into by the BPU with the Successful Applicant. Successful Applicants will be required to comply with Treasury Circular Letter (07-05-OMB), which provides some, but not all the terms and conditions that will be made part of the Grant Agreement. To download a copy of Circular Letter 07-05-OMB go to <http://www.state.nj.us/infobank/circular/cir0705b.pdf>

### **5.4 REPORTING REQUIREMENTS**

A. A Successful Applicant will be expected to submit quarterly reports documenting progress throughout the process from notice of award of the Grant through the permitting, construction and energy production phases, including any barriers or expected disruptions to project milestone completion. In order to be eligible for a Grant, the Applicant must show that it has adequate reporting/accounting processes to make periodic reports and to submit invoices for payments of the Grant.

B. Upon commencement of commercial operation, the Successful Applicant shall submit invoices for payment along with semi-annual reports on a timely basis documenting energy production. These semi annual reports will be the basis for payment of the performance grant to the Applicant.

### **6.0 ATTACHMENTS**

Appendix A - - Verification and Application Information

Appendix B - - Certifications

Appendix C - - Project Summary



**APPENDIX A - - VERIFICATION OF APPLICATION INFORMATION**

1. "I certify under penalty of law that I have personally examined and am familiar with the Information submitted in this document and all attachments and that, based on my Inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I understand that, in addition to criminal penalties, I may be liable for a civil administrative penalties and that submitting false information may be grounds for denial, revocation or termination of any electric power supplier's license for which I may be seeking approval or now hold."

2. The certification in 1 above shall be signed by the Applicant as follows:

- i. For a corporation, by a principal executive officer of at least the level of vice President;
- ii. For a partnership of sole proprietorship, by a general partner or the proprietor, respectively; or
- iii. For a municipality, county, state, federal or other public agency, by either a principal executive officer or ranking elected official.

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(Signature and Title)

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(Name, please print)

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(Date)

**APPENDIX B - - CERTIFICATIONS**

I. Certification Regarding Debarment, Suspension or Ineligibility for Award

The Applicant certifies, to the best of its knowledge and belief, that:

(1) The Applicant and/or any of its principals \_\_\_ are, \_\_\_ are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any federal or state agency, and

(2) The Applicant and/or any of its principals \_\_\_\_ have, \_\_\_ have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a federal, state, or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and \_\_\_ are, \_\_\_ are not presently indicted for, or otherwise criminally or civilly charged by a government entity with commission of any of those offenses.

II. Clean Air and Water Certification

The Applicant certifies that:

(1) Any facility to be used in the performance of this proposed project is \_\_\_ is not \_\_\_ listed on the Environmental Protection Agency (EPA) List of Violating Facilities;

(2) The Applicant will immediately notify the BPU, before award, of the receipt of any communication indicating that the site the Applicant plans to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities;

(3) The Applicant will include a certification substantially the same as the certification, including this paragraph, in every nonexempt subcontract.

(4) The Applicant will notify the BPU if the site is in violation of any NJDEP regulations.

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Name, please print)

\_\_\_\_\_  
(Date)

## **Appendix C Project Summary**

Project Type (Technology or technologies)

Project Capacity, Total Project Size (MW)

Capacity by technology type (if multiple types)

Annual Generation

Annual Generation (by technology if more than one)

Project Operating Fuel

Location or Locations (geographic coordinates)

Proposed location of transmission interconnection

Annual Production Incentive Requested (\$/kwh)

Total Performance Incentive Requested

Total Incentive as a Share of Total Project Cost (%)

Project Cost (\$)

Estimated Rate of Return, IRR (%)