REQUEST FOR APPLICATIONS

For Program Year 2014-2015

PUBLIC SECTOR COMBINED HEAT AND POWER PILOT PROGRAM

APPLICATIONS DUE November 21, 2014

Pat Quinn, Governor • Adam Pollet, Director

ILLINOIS DEPARTMENT OF COMMERCE AND ECONOMIC OPPORTUNITY
Illinois Energy & Recycling Office
500 East Monroe Street, Springfield, Illinois, 62701
Enclosed you will find a Request for Applications (RFA) for the Public Sector Combined Heat and Power (CHP) Pilot Program (Pilot Program). The Illinois Energy and Recycling Office at the Illinois Department of Commerce and Economic Opportunity (DCEO) administers the Public Sector Energy Efficiency Program and with the assistance of the Energy Resources Center (ERC) located at the University of Illinois at Chicago is offering this pilot program to encourage investment in high efficiency, cost effective Conventional CHP and Waste Heat-to-Power (WHP) CHP.

During Program Year 2014-2015, the pilot program will be initiated through this competitive RFA, with the successful projects proceeding through the design, construction and implementation phases, resulting in 12 months of operation measuring the energy savings from the successful projects. It is encouraged that all successfully selected projects be completed as soon as possible, but no later than May 31, 2017, to be eligible for the incentives.

Each applicant must adhere to the requirements specified in Sections 1 through 9 and complete the forms in the appendices. Instructions on properly filling out all sections are included at the end of the RFA. Instructions for the additional information required in Section 8 are provided within Section 8.

Your detailed application may be submitted by mail to the following address:

Energy Resources Center
University of Illinois at Chicago
1309 South Halsted Street (MC 156)
Chicago, Illinois 60607

Attention: Combined Heat and Power Pilot Program

If sending by email, state “CHP RFA” in the subject line and address to Patrick Brown at prbrown@uic.edu

All Applications are due at the DCEO office by 4:30 pm (CDT) Friday, November 21, 2014.

If you have any questions regarding the RFA application package, please contact Patrick Brown at 312-996-5055 or prbrown@uic.edu.
# SECTION 1: APPLICANT INFORMATION

## 1.1 Legal Name of Applicant:
(Attach copy of W-9)

## 1.2 Address of Applicant:
(Include your extended 9-digit zip code):

## 1.4 Chief Officer:
(If more than one, attach a list with all Officers)

<table>
<thead>
<tr>
<th>Name:</th>
<th>Title:</th>
<th>Address:</th>
<th>Phone:</th>
<th>Fax:</th>
<th>E-Mail:</th>
</tr>
</thead>
</table>

## 1.5 Description of Applicant:
(200 Character maximum)

## 1.6 Applicant Website:

## 1.7 Applicant FEIN:

## 1.8 Applicant SSN:
(Enter only if applicant is individual and does not have a FEIN)

## 1.9 Applicant’s DUNS Number:

## 1.10 Applicant Fiscal Year:
From: | To: |

## 1.11 If applicable, indicate the following.

- Female-Owned
- Minority-Owned

If minority-owned, then check the appropriate race/ethnic group box.

<table>
<thead>
<tr>
<th>Race/Ethnic Group</th>
<th># People Served by Grant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black / African Americans</td>
<td></td>
</tr>
<tr>
<td>Hispanic Americans</td>
<td></td>
</tr>
<tr>
<td>Native Americans</td>
<td></td>
</tr>
<tr>
<td>Asian-Pacific Americans</td>
<td></td>
</tr>
<tr>
<td>Asian-Indian Americans</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

## 1.12 Indicate the number of people expected to be served by the grant in the appropriate race/ethnic group box below.
### SECTION 2: APPLICANT HISTORY

#### 2.1 Have you received a grant from the State of Illinois within the last 4 years?  
- [ ] Yes  
- [ ] No  

Provide total number of grants received from the State of Illinois within the last 4 years.  

If yes, provide the following for each grant received in last 4 years:  

<table>
<thead>
<tr>
<th>Agency:</th>
<th>Grant #:</th>
<th>Grant Amount:</th>
<th>Grant Term:</th>
<th>General Description:</th>
<th>Issues:</th>
</tr>
</thead>
</table>

#### 2.2 If applicable, list all Names and FEINs that are registered to your organization or have been registered during the past 4 years.  

<table>
<thead>
<tr>
<th>Name</th>
<th>FEIN</th>
</tr>
</thead>
</table>

#### 2.4 In the past twelve months, have there been any changes in the following key staff? Check all that apply.  
Provide detail for any boxes checked including names of the person who left the position and the name of their replacement. Indicate the number of months the position has been vacant if the position is currently vacant.  

- [ ] CEO/Executive Director/Chief Elected Official  
- [ ] CFO/Controller  
- [ ] Grant Administrator  
- [ ] Grant Administrative Support Staff (i.e. Reporting, correspondence, document control)  
- [ ] Bookkeeper/Accountant for Grant  
- [ ] No Changes  

Provide detail for any checked boxes:  

#### 2.5 Has the applicant or any principal formed a business that existed for less than two years?  
- [ ] Yes  
- [ ] No  

If yes, provide name(s) of the business and reason(s) that it existed for less than two years.  

#### 2.6 Has the applicant or any principal experienced foreclosure, repossession, civil judgment or criminal penalty (or been a party to a consent decree) within the past seven years as a result of any violation of federal, state or local law applicable to its business?  
- [ ] Yes  
- [ ] No  

If yes, identify the nature (including case number and venue) of the action and the disposition. If the action/proceeding is still pending or unresolved, provide a status identifying the unresolved issues.  

#### 2.7 Is the applicant or any principal the subject of any proceedings that are pending, or to the best of applicant’s knowledge, threatened against applicant and/or any principal that may result in any adverse change in applicant’s financial condition or materially and adversely affect applicant’s operations?  
- [ ] Yes  
- [ ] No  

If yes, provide requested information.  

#### 2.8 Does the applicant or any principal owe any debt to the State?  
- [ ] Yes  
- [ ] No  


| If yes, list reason and amount: |  |
### SECTION 3: PROPOSAL INFORMATION

<table>
<thead>
<tr>
<th>4.1</th>
<th>Submittal Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2</td>
<td>Project Title:</td>
</tr>
<tr>
<td>4.4</td>
<td><strong>Brief Project Description:</strong> (Complete attached Scope of Work) <em>(550 Character maximum)</em></td>
</tr>
<tr>
<td>4.5</td>
<td><strong>Project Location:</strong></td>
</tr>
<tr>
<td></td>
<td>Street Address:</td>
</tr>
<tr>
<td></td>
<td>City: County:</td>
</tr>
<tr>
<td>4.5</td>
<td><strong>Areas Served:</strong></td>
</tr>
<tr>
<td>4.6</td>
<td><strong>Project Contact:</strong> Name:</td>
</tr>
<tr>
<td></td>
<td>Title:</td>
</tr>
<tr>
<td></td>
<td>Address:</td>
</tr>
<tr>
<td></td>
<td>Phone:</td>
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<tr>
<td></td>
<td>Fax:</td>
</tr>
<tr>
<td></td>
<td>E-Mail:</td>
</tr>
<tr>
<td>4.7</td>
<td><strong>Project Period:</strong></td>
</tr>
<tr>
<td></td>
<td>Start Date: End Date:</td>
</tr>
<tr>
<td>4.8</td>
<td><strong>Project Costs:</strong> <em>(Complete attached Budget)</em> Funding provided by the applicant: Secured funding from other sources: Funding requested from DCEO:</td>
</tr>
</tbody>
</table>

| Total Project Cost | $0.00 |

### SECTION 4: SCOPE OF WORK

*Project Title*

**Description of project:**

Grantee will complete the following tasks:

<table>
<thead>
<tr>
<th>DESCRIPTION OF TASKS</th>
<th>ESTIMATED COMPLETION DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1.</td>
<td></td>
</tr>
<tr>
<td>Task 2.</td>
<td></td>
</tr>
<tr>
<td>Task 4.</td>
<td></td>
</tr>
<tr>
<td>Task 5.</td>
<td></td>
</tr>
<tr>
<td>Task 6.</td>
<td></td>
</tr>
<tr>
<td>Task 7.</td>
<td></td>
</tr>
<tr>
<td>Task 8.</td>
<td></td>
</tr>
</tbody>
</table>
**SECTION 5: PERFORMANCE MEASURES**

<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 6A: CURRENT EMPLOYMENT LEVEL**

<table>
<thead>
<tr>
<th>Number of permanent full-time individuals currently employed by applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of permanent part-time individuals currently employed by applicant</td>
</tr>
</tbody>
</table>
### Section 6B: Projected Employment Impact (FTE Value Table)

<table>
<thead>
<tr>
<th>Created Positions in FTE Categories:</th>
<th>Retained Positions in FTE Categories:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column A</td>
<td>Column B</td>
</tr>
<tr>
<td>Permanent Full Time</td>
<td>Permanent Part Time</td>
</tr>
</tbody>
</table>

**Row 1** (To be completed by applicant)
- **# of positions in each FTE category (A - H)**

**Row 2**
- **Auto calculation of FTE subtotals**
  - Column A: 0.00
  - Column B: 0.00
  - Column C: 0.00
  - Column D: 0.00
  - Column E: 0.00
  - Column F: 0.00
  - Column G: 0.00
  - Column H: 0.00

**Row 4**
- **Auto Calculation: Created FTEs:** 0.00

**Row 5**
- **Auto Calculation: Retained FTEs:** 0.00

**Row 6**
- **Auto Calculation: Permanent Full Time Jobs Retained:** 0.00

**Row 7 (cell to be completed by applicant)**
- **Manual Calculation: Average of Annualized Salaries for Permanent Full Time Jobs Created:** $

**Row 8 (cell to be completed by applicant)**
- **Manual Calculation: Average of Annualized Salaries for Permanent Full Time Jobs Retained:** $

**Row 9 (cell to be completed by applicant)**
- **Other anticipated employment impacts of DCEO grant:**

### SECTION 6C: PROJECTED CONSTRUCTION JOBS IMPACT

<table>
<thead>
<tr>
<th>Projected number of construction labor hours for project</th>
<th>Projected number of construction FTE’s for project (FTE’s = total hours in row above divided by 2,080 hours)</th>
</tr>
</thead>
</table>
Please note that Section 8 of this application provides program specific information, but also requires specific documents be completed and submitted as part of the application. These documents are defined in this section under Application Process – Additional Information and include:

- Feasibility Analysis (20 page max)
- Downloadable workbook organizing output of Feasibility Analysis and TRC Calculator data (http://www.erc.uic.edu/energy-efficiency/illinois-energy-now-programs/white-papers/)
- (Optional) Letter of Intent to Apply

GENERAL INFORMATION

The Illinois Department of Commerce and Economic Opportunity (DCEO) administers the Illinois Energy Now portfolio of programs to implement cost-effective energy efficiency measures that help meet annual energy savings targets. Implementing such measures will also enhance economic development in the State of Illinois through job creation and business development.

The Public Sector Combined Heat and Power (CHP) Pilot Program (“Pilot Program”) will provide electric and natural gas savings under the Illinois Energy Now Program by incentivizing the development and operation of CHP projects in public sector applications. The Pilot Program is a performance based program requiring both estimated performance at the time an application is submitted and measured performance over the first twelve (12) months of operation after the commissioning of the system. The Pilot Program is established to encourage investment in Conventional CHP systems as well as Waste Heat-to-Power (WHP) CHP systems in the public sector.

Project applications under this pilot program must be submitted by 4:30pm Central Time on Friday, November 21, 2014. The intent of this RFA is to have contracts awarded by the DCEO to the successful applicants by February or March, 2015. All successful applicants are encouraged to complete the design and installation of the CHP system, complete the commissioning of the CHP

<table>
<thead>
<tr>
<th>Line Item or Cost Category Description</th>
<th>Requested Grant Budget Amount</th>
<th>Proposed Match Budget Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Cost</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>
SECTION 8: PROGRAM SPECIFIC INFORMATION

system, and successfully complete the 12 months of operation required to receive the full rebates as expeditiously as possible. The 12 months of operation of the CHP system must be completed by the conclusion of the 2014 – 2017 three year approved program plan (May 31, 2017). Project applications submitted under this Pilot Program will be evaluated based upon the evaluation criteria defined later in this section of these guidelines under paragraph marked Application Process. Project approvals are subject to availability of funds and all other program provisions and limitations apply.

Table 1 - Planned Program Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>June 2014</td>
<td>RFP Released</td>
</tr>
<tr>
<td>August 15, 2014</td>
<td>Deadline for Letter of Intent to Apply (Optional)</td>
</tr>
<tr>
<td>November 21, 2014</td>
<td>Deadline for Project Applications</td>
</tr>
<tr>
<td>December, 2014</td>
<td>Project Awards Announced</td>
</tr>
<tr>
<td>February/March, 2015</td>
<td>DCEO Contracts Awarded</td>
</tr>
<tr>
<td>May, 2016</td>
<td>Deadline for Project Commissioning</td>
</tr>
<tr>
<td>May, 2017</td>
<td>Deadline for 12 Months of CHP Operation</td>
</tr>
</tbody>
</table>

Authority and Funding. The Department is authorized by 20 ILCS 1105/3 to administer for the State any energy programs and activities under federal law, regulation or guidelines. The Department is authorized by the Energy Efficiency Sections of the Public Utilities Act (220 ILCS 5/8-103 and 5/8-104) to administer a portion of the Illinois Energy Efficiency Portfolio (“EEP”). The statute provides funding for the EEP and sets certain statutory requirements to meet incremental annual energy savings goals, procure a minimum percent of the portfolio from local government, schools, and community colleges, and target low income households proportionate to their share of annual utility revenues. The Pilot Program is one component of the Department’s total portfolio of measures (known as Illinois Energy Now) designed to meet its obligations under the Act. Funding levels are determined each year by the Department under a plan submitted to the Illinois Commerce Commission. The Department is authorized by the Provisions Relating to Energy Efficiency Procurement Section of the Public Utilities Act (220 ILCS 5/16-111.5B) to administer a portion of any additional programs established under this section. The Department reserves the right to limit the total amount of funding for this program in any given fiscal year.

Definitions. The terms used in this document have the meanings set forth below. Words and terms not defined here, if defined in the Environmental Protection Act (515 ILCS 5 et seq.) will have the meanings as defined therein.

“Act” means the Public Utilities Act

“Annual Fuel Use Efficiency (AFUE)” for conventional CHP systems is the sum of the annual Useful Electricity Output and the annual Useful Thermal Energy Output of the CHP system in similar units (Btus) divided by the annual fuel used by the CHP system (in Btus). All annual fuel use efficiencies used in this RFA are designated in Higher Heating Value (HHV). Some CHP documents might refer to annual fuel use efficiency of CHP systems in Lower Heating Value (LHV). To convert CHP efficiencies from LHV to HHV (for natural gas fueled systems) the conversion is Eff(HHV) = Eff(LHV) ÷ 1.105
“Applicant” means a public sector facility or third party developer or owner applying with a public sector facility that applies under this RFA.

“Application” means a request for program funds by submitting the required information, on the Department’s approved forms and attachments as prescribed in this RFA.

“Boiler Efficiency” is the thermal efficiency of the boiler. This takes into account the heat loss through the boiler jacket during boiler firing. Therefore, the boiler efficiency is the thermal output divided by the fuel input.

“Conventional CHP” (or Topping Cycle CHP) is defined as an integrated system that is located at or near the building or facility (on-site, on the customer side of the electric meter) that utilizes a prime mover (reciprocating engine, gas turbine, micro-turbine, or fuel cell) for the purpose of generating useful electricity and useful thermal energy where the primary function of the facility where the CHP is located is not to generate electricity for use on the grid. To be eligible under this pilot program these type systems must demonstrate a minimum annual fuel use efficiency of 60% (HHV) with at least 20% of the system’s total useful energy output in the form of useful thermal energy. These systems will have a net zero annual export of power to the grid unless otherwise allowed by exception by the DCEO. Biogas applications fall under this category.

“Energy Efficiency Measures” include those measures that reduce the overall Btus consumed by a facility in providing needed energy services (electricity and thermal energy).

“Entity” means any applicant submitting an application to the Department.

“F grid” is defined as the fuel in Btus that would have been used to generate the useful electricity output of the CHP system if that useful electricity output was provided by the local utility grid.

“F thermal CHP” is defined as the fuel in Btus that would have been used on-site by a boiler or heater to provide the useful thermal energy output of the CHP system.

“F total CHP” is defined as the total fuel in Btus consumed by the CHP system.

“Grant Beginning Date” means the date a Grantee may begin to incur project costs.

"Grantee" means an entity that has been awarded a grant under this Pilot Program.

“Gross Electricity Output” is the electricity produced by the CHP system. This is calculated by multiplying the prime mover capacity by the hours of operation.

“H eff CHP” is the effective heat rate of the CHP system, in Btu/kWh.

“H grid” is the heat rate of the grid based on the average fossil heat rate for the EPA eGrid subregion, in Btu/kWh.

“Incentive” is defined as a rebate issued under this Pilot Program. The maximum incentive/rebate allowed for any single project under this program is $2,000,000 or 50% of the CHP project cost.
“Parasitic power” is the electricity required to operate the CHP system that would otherwise not be required by the facility/process.

“Performance Period” means the length of time the Grantee is required to operate the project and submit information/data to the Department.

“Prime mover” is the reciprocating engine, gas turbine, micro turbine or fuel cell utilized to generate electricity on-site.

“Project” is defined as an eligible CHP project that the DCEO agrees to fund through this Pilot Program.

“Project Completion Date” means the date that all project tasks are completed and deliverables submitted.

“Project Owner” means the unit of government/municipal corporation, community college, or public school that has undertaken an approved energy efficiency project.

“Program Year” means Program Year 2014-2015, which begins June 1, 2014, and ends May 15, 2015.

“S fuel CHP” means the annual fuel savings (Btus) associated with the use of a Conventional or Waste Heat-to-Power CHP system’s useful electricity output (kWhs) and useful thermal energy output (Btus) versus the use of the equivalent electricity generated and delivered by the local grid and the equivalent thermal energy provided by an on-site boiler or heater.

“Total Useful Energy” is the sum of the total useful electricity output of the CHP system plus the useful thermal energy output of the CHP system.

“TRC” is the Total Resource Cost test as defined by the Public Utilities Act and is a cost benefit calculation that must be applied to all projects within the Pilot Program.

“Useful Electricity Output” is defined as the electric energy output of the CHP system (kWhs) that is actually utilized to replace purchased electricity (kWhs) required to meet the requirements of the facility/process. Useful Electricity Output = Gross Electricity Output produced by the CHP system minus (-) any parasitic power.

“Useful Thermal Energy Output” is defined as the thermal energy output of the CHP system that is actually recovered and utilized in the facility/process.

“Waste Heat-to-Power (WHP)” (or Bottoming Cycle) CHP is defined as an integrated system that is located at or near the building or facility (on-site, on the customer side of the meter) that:

- Utilizes exhaust heat from an industrial/commercial process and converts that heat to generate electricity (except for exhaust heat from a facility whose primary purpose is the generation of electricity for use on the grid).
- Utilizes the pressure drop in an industrial/commercial facility to generate electricity
through a backpressure steam turbine where the facility normally uses a pressure reducing valve (PRV) to reduce the pressure in their facility.

- Utilizes the pressure reduction in natural gas pipelines (located at natural gas compressor stations) before the gas is distributed through the pipeline to generate electricity, provided that the conversion of energy to electricity is achieved without using additional fossil fuels.

**SECTION 8: PROGRAM SPECIFIC INFORMATION**

**ELIGIBILITY CRITERIA**

**Project Location:** Eligibility is limited to projects physically located in the State of Illinois

**Eligible Customers:**

**Conventional CHP Projects:**

- All project locations must receive electric delivery services from either Ameren Illinois (Ameren) or ComEd to receive the portion of the incentive payment from the participating electric company. Applicants will be required to submit documentation that the project is located in the Ameren or ComEd electric service territory, in the form of a current utility bill or letter from their utility.

- To receive a portion of the incentive payment from the participating natural gas company, the project must also receive natural gas delivery service from Ameren, Nicor, Peoples, or North Shore. In addition, the Conventional CHP system must be operated utilizing natural gas and the waste heat used to replace heat generated from a natural gas fueled boiler/furnace. If applicable, applicants will be required to submit documentation that the project is located in the Ameren, Nicor, Peoples, or North Shore gas service territory, in the form of a current utility bill or letter from their utility.

**Waste Heat-to-Power CHP Projects:**

- All project locations must receive electric delivery services from either Ameren or ComEd to receive the portion of the incentive payment from the participating electric company. Applicants will be required to submit documentation that the project is located in the Ameren or ComEd electric service territory, in the form of a current utility bill or letter from their utility.

- To receive a portion of the incentive payment from the participating natural gas company, the project must displace natural gas delivered by Ameren, Nicor, Peoples, or North Shore. Applicants will be required to submit documentation that the project is located in these service territories, in the form of a current utility bill or letter from their utility.

**Eligible Projects:**

- Public sector facilities such as (but not limited to) K-12 schools, community colleges, public universities, correctional facilities, municipally owned water and waste water treatment facilities, city/county/state/federal government facilities and campuses, and publicly owned health care.

- Newly designed and constructed Conventional CHP systems with annual fuel use efficiencies of at least 60% (HHV) with at least 20% of the system’s total useful energy output in the form of useful thermal energy. These systems will have a net zero annual export of power to the grid unless otherwise allowed by exception by the DCEO.

- Newly designed and constructed Waste Heat-to-Power CHP systems. Since these type of systems utilize waste heat as their fuel, they do not have to meet any specific system...
SECTION 8: PROGRAM SPECIFIC INFORMATION

efficiency level (assuming they use no additional fossil fuel in their operation). These systems can export power to the grid.

- Existing systems (Conventional or Waste Heat-to-Power CHP) that have not operated for at least three (3) years and are in need of repair and/or upgrade to function with the requirements set above may be eligible provided the simple payback on the investment is greater than two (2) years (without incentives) and the project meets all other requirements of the pilot program.

- Existing engine or combustion turbine systems that are not presently outfitted with heat recovery capability that can be converted to a CHP system may be eligible provided the simple payback on the investment is greater than two (2) years (without incentives) and the project meets all other requirements of the pilot program.

- The Director reserves the right and may elect to waive the maximum grant limitation and other Program parameters upon finding such a waiver is appropriate to accomplish the purpose of the Program.

Ineligible Projects:

- Projects that simply repair or upgrade existing equipment (unless existing equipment has been inoperable for a minimum of three (3) years and the simple payback on the project is greater than two (2) years, without incentives).

- Projects receiving funding for the same equipment through any other Energy Efficiency Portfolio (EEP) programs offered by the DCEO, Ameren, ComEd, Nicor, Peoples, or North Shore Gas.

- Conventional CHP projects with annual fuel use efficiencies less than 60% (HHV) or with less than 20% of the system’s total useful energy output in the form of useful thermal energy.

Specific Program Information/Requirements by CHP Type:

   i)  **Conventional CHP Systems:**

System Design and Operation:
In order to maximize the energy savings with the most cost effective Conventional CHP systems, the program is seeking applications with system design and operation that are sized to:

- Utilize all the electricity “on-site” with no net export of electricity to the grid.

- Maximize the useful thermal energy output produced from the CHP system. This will maximize the annual operating efficiency of the CHP system which results in the maximum savings per kWh produced by the CHP system.

- Maximize the hours of operation of the CHP unit while maintaining the high annual system efficiency. High operating hours at high efficiency produces higher annual savings and better project economics.

- Meet the TRC with a score of 1 or greater. Individual projects that score slightly less than 1 on the TRC may be approved by exception at the discretion of the DCEO.

Incentive Structure:
The Pilot Program is offering a performance based production incentive structure for systems that meet a minimum annual fuel use efficiency requirement of 60% (HHV) with at least 20% of the system’s total useful energy output in the form of useful thermal energy. The incentive structure is designed to provide assistance during the various stages of a project:

- Design and Engineering Phase;
SECTION 8: PROGRAM SPECIFIC INFORMATION

- Construction Phase; and
- Energy Production Phase.

The incentive structure is also designed to ensure that approximately 2/3 of the total incentive package is based on actual performance of the system (metered data during the energy production phase) over the first twelve (12) months of operation.

In order to encourage the system developers and operators to maximize the energy savings of the CHP system by maximizing both the operating hours and annual energy efficiency of the system, the production incentive has been tiered, providing $0.08/kWh of useful electricity output produced for systems with measured annual fuel use efficiencies equal to or greater than 70% (HHV) and $0.06/kWh of useful electricity output produced for systems with measured annual fuel use efficiencies between the minimum 60% (HHV) and less than 70% (HHV).

Incentives will be capped at $2 million per project or 50% of the total cost of the CHP project (whichever is less). The following table provides the breakout of incentive structure:

Table 2 - Conventional CHP Incentives

<table>
<thead>
<tr>
<th>Type</th>
<th>Incentive Value</th>
<th>Issue Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Incentive</td>
<td>$75/kW capacity</td>
<td>Issued at the completion of the design phase</td>
</tr>
<tr>
<td>Construction Incentive</td>
<td>$175/kW capacity</td>
<td>Issued at the successful commissioning of the system</td>
</tr>
<tr>
<td>Production Incentive</td>
<td>$0.08/kWh (η ≥ 70% HHV) OR $0.06/kWh (60% ≤ η &lt; 70% HHV) of “useful electric energy” produced</td>
<td>Issued at the end of 12 months of operation based on meeting the measured operating requirements of the system (metered data)</td>
</tr>
</tbody>
</table>

1. Total Incentive (Design + Construction + Production) capped at $2M or 50% of project cost, whichever is less
2. Design incentive is capped at $195,000 or 50% of design cost, whichever is less
3. Construction total capped at 50% of construction cost or $650,000 minus Design incentive, whichever is less

Any project that is not commissioned is subject to disqualification and the applicant is required to return design incentives and forfeit any incentive claims for the project. Projects that are commissioned but do not achieve an annual efficiency of 60% (HHV) are deemed ineligible to receive performance payments.

Measuring and Calculating CHP Annual Fuel Use Efficiency:

Since the production incentive is based on the actual performance of the CHP system (measured system annual fuel use efficiency), it is important to specify how the system efficiency is to be calculated:

\[
CHP\ AFUE\ (HHV) = \frac{Useful\ thermal\ \left(\frac{kBtu}{yr}\right) +\ Useful\ electric\ \left(\frac{kWh}{yr}\right) \times 3.412\ \left(\frac{kBtu}{kWh}\right)}{F\ total\ CHP\ \left(\frac{kBtu}{yr}\right)}
\]
At the time of the application, the applicant is required to provide the estimated CHP annual fuel use efficiency along with all assumptions and the basis for those assumptions. The applicant is also required to provide one line drawings to show how the required metered data will be collected during the first 12 months of operation to actually measure the annual efficiency of the system. Please be advised that placement of the meters is crucial to ensure that the useful thermal energy output and the useful electricity output are accurately measured. It is required that the applicant make available (at their expense):

- Electric (kWh) meter(s) to measure the useful electricity output including accounting for parasitic loads. Meter should have an accuracy of ±0.5% and should measure the generator output, facility power consumption, and parasitic loads.
- Fuel meter (Btu or therm) meter to measure the fuel input to the CHP system. Meter should have an accuracy of ±1% (if the CHP system uses a fuel other than natural gas, the appropriate fuel meter will be required ie: biogas, propane etc).
- Appropriate set of meters (referred to as BTU meter) to accurately measure the “useful thermal energy”. This set of meters will vary depending on the form of the useful thermal energy (steam, hot water). Meters should have an accuracy of ±1%. Temperature, flow, and other parameters as needed must be measured.

Calculating TRC and Energy Savings:
The TRC is a cost benefit calculation that all projects within the Pilot Program must pass. The downloadable workbook ([http://www.erc.uic.edu/energy-efficiency/illinois-energy-now-programs/white-papers/](http://www.erc.uic.edu/energy-efficiency/illinois-energy-now-programs/white-papers/)) provides a TRC calculator that all applicants must use to calculate the TRC value for their project.

All projects must score 1 or greater utilizing the TRC calculator in order for their application to be accepted for further review. Should a project not score 1 or greater utilizing the TRC calculator, the applicant can request the designated administrator for this pilot program (ERC) to review with the applicant why the project does not score a 1 or greater. Should an individual project score slightly less than 1 on the TRC, the DCEO has the authority to approve the project (by exception).

So the applicants have an understanding of what the TRC includes, it uses the following general formula:

\[
TRC = \frac{NPV \sum Benefits}{NPV \sum Costs}
\]

<table>
<thead>
<tr>
<th>Benefits</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy-related costs avoided by the utility</td>
<td>Program overhead costs</td>
</tr>
<tr>
<td>Capacity-related costs avoided by the utility, including generation, transmission, and distribution</td>
<td>Program installation costs</td>
</tr>
<tr>
<td>Additional resources savings (ie: gas and water if utility is electric)</td>
<td>Incremental measure costs (whether paid by customer or utility)</td>
</tr>
<tr>
<td>Monetized environmental and non-energy benefits</td>
<td>Maintenance costs</td>
</tr>
<tr>
<td></td>
<td>Cost of extra fuel used by the CHP system for its operation</td>
</tr>
</tbody>
</table>
SECTION 8: PROGRAM SPECIFIC INFORMATION

The annual energy savings attributed to the project are of utmost importance to the DCEO. Again these savings are to be estimated at the time of the application and then verified through metered data after twelve (12) months of operation. The TRC calculator will provide annual energy savings as an output of the calculator based on the following set of formulas.

**Step 1:** Calculate the annual fuel savings (Btus) and designated as \( S_{\text{fuel CHP}} \) associated with the use of the Conventional CHP system to generate the useful electricity output (kWhs) and useful thermal energy output (Btus) versus the use of the equivalent electricity generated and delivered by the local grid and the equivalent thermal energy provided by the on-site boiler.

\[
S_{\text{fuel CHP}} = (F_{\text{grid}} + F_{\text{thermal CHP}}) - F_{\text{total CHP}}
\]

\( F_{\text{grid}} \) is defined as the fuel in Btus that would have been used to generate the useful electricity output of the CHP system if that useful electricity output was provided by the local utility grid.

\[
F_{\text{grid}} = \text{Useful electricity output of the CHP system} \times H_{\text{grid}}
\]

\( H_{\text{grid}} \) is the heat rate of the grid and should be based on the average fossil heat rate for the state or for the EPA eGrid subregion and include a factor that takes into account T&D loses. The TRC utilizes an \( H_{\text{grid}} \) of 10,622 Btu/kWh for ComEd territory and 10,967 Btu/kWh for Ameren territory (this includes line losses) for systems operating more than 6,500 hrs per year. For systems operating less than 6,500 hrs per year, the non-baseload heat rate values are utilized.

\( F_{\text{thermal CHP}} \) is defined as the fuel in Btus that would have been used on-site by a boiler or heater to provide the useful thermal energy output of the CHP system. If the efficiency of the existing boiler/heater to be replaced is unknown, assume 75%.

\[
F_{\text{thermal CHP}} = \frac{\text{Useful thermal energy output from the CHP system}}{\text{efficiency of the on-site boiler/heater that is displaced by the CHP system}}
\]

\( F_{\text{total CHP}} \) is defined as the total fuel in Btus consumed by the CHP system.

Note: Depending on the application, the energy savings in Btus can be allocated or split between the electric and gas program. DCEO has elected for those applications where the facility is located in both a participating electric and gas utility territory and the useful thermal energy is utilized to replace heat generated by a natural gas boiler/heater for the split in savings to be 75% electric and 25% natural gas (unless otherwise decided by the DCEO). All applications not displacing natural gas will allocate 100% of the savings to electric.

**Step 2:** Converting the \( S_{\text{fuel CHP}} \) in Btus to equivalent kWhs for electric and equivalent therms for natural gas:

- First, calculate \( H_{\text{eff CHP}} \), the effective heat rate of the CHP system:
SECTION 8: PROGRAM SPECIFIC INFORMATION

\[ H_{\text{eff CHP}} = \frac{F_{\text{total CHP}} - F_{\text{thermal CHP}}}{\text{useful electricity output produced by the CHP system}} \]

- Next, divide the “S fuel CHP” by the effective heat rate of the CHP system

\[ S_{\text{CHP Elec}} (\text{kWh}) = 75\% \times S_{\text{fuel CHP}} (\text{Btus}) \div H_{\text{eff CHP}} (\text{Btus/kWh}) \]

Converting the Btus saved to Therms saved:
- Simply divide the Btus saved by 100,000 Btus/therm

\[ S_{\text{CHP Gas}} (\text{therms}) = 25\% \times S_{\text{fuel CHP}} (\text{Btus}) \div 100,000 (\text{Btu/therm}) \]

ii) Waste Heat-to-Power (WHP) CHP:
System Design and Operation:
It is less likely that there will be many applications for WHP CHP systems in the public sector markets. However, if there are such applications, the Pilot Program will seek those applications with system design and operation that will:

- Maximize the use of the waste heat to generate “useful electric energy” and any “useful thermal energy”. To maximize the use of waste heat available to the WHP system, these systems should be sized to produce the maximum electricity possible and not be restrained by the “no net export” provision required in the Conventional CHP projects.
- The energy savings associated with a WHP system will most times be applied to the electric side of the program and as such the applicant must get delivery of their electricity from either Ameren or ComEd. If the WHP system is displacing any natural gas used for heating, both electric and natural gas savings will be applied and the applicant must get natural gas delivery from Ameren, Nicor, Peoples, or North Shore. The energy savings will equal the total “useful electric energy” generated by the WHP system (kWhs) provided no additional fossil fuels are required to operate the system. Should additional fossil fuels be required to operate the WHP system, those added Btus must be accounted for (backed out) in the calculation of energy savings, TRC, and incentive payments.
- Meet the TRC with a score of 1 or greater. Individual projects that score slightly lower than 1 on the TRC may be approved by exception at the discretion of the DCEO.

Incentive Structure:
The Pilot Program is offering a performance based production incentive structure for WHP CHP systems that meet the above requirements (TRC of 1 or greater, and utilize no additional fossil fuels to operate the CHP system). The incentive structure is designed to provide assistance during the various stages of a project:

- Design and Engineering Phase;
- Construction Phase; and
- Energy Production Phase.

The incentive structure is also designed to ensure that approximately 2/3 of the total incentive package is based on actual performance of the system (metered data during the energy production phase) over the first twelve (12) months of operation.
Incentives will be capped at $2 million per project or 50% of the total cost of the project (whichever is less). The following table provides the breakout of incentive structure:

Table 4 - WHP CHP Incentives

<table>
<thead>
<tr>
<th>Type</th>
<th>Incentive Value</th>
<th>Issue Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Incentive</td>
<td>$75/kW capacity</td>
<td>Issued at the completion of the design phase</td>
</tr>
<tr>
<td>Construction Incentive</td>
<td>$175/kW capacity</td>
<td>Issued at the successful commissioning of the system</td>
</tr>
<tr>
<td>Production Incentive</td>
<td>$0.08/kWh for all “useful electric energy” produced by the WHP system</td>
<td>Issued at the end of 12 months of operation based on meeting the measured operating requirements of the system (metered data)</td>
</tr>
</tbody>
</table>

1. Total Incentive (Design + Construction + Production) capped at $2M or 50% of project cost, whichever is less.
2. Design incentive is capped at $195,000 or 50% of design cost, whichever is less.
3. Construction total capped at 50% of construction cost or $650,000 minus Design incentive, whichever is less.

Any project that is not commissioned is subject to disqualification. The applicant is required to return design incentives and forfeit any incentive claims for the project.

**PROGRAM INFORMATION**

**Payment Schedule.** The grant agreement will specify the conditions of payment and the payment schedule. The Department reserves the right to determine the appropriate payment structure on a project-specific basis.

**Reporting Requirements/Project Monitoring.** Grantees will be required to submit a progress/financial report on a quarterly basis. The Department reserves the right to structure reporting requirements on a project-specific basis. The Department project manager will monitor the Grantee’s compliance with the terms of the grant agreement.

**Freedom of Information Act/Confidential Information.** Applications are subject to disclosure, in response to requests received under provisions of the Freedom of Information Act (5 ILCS 140/1 et seq.). Information that could reasonably be considered to be proprietary, privileged or confidential commercial or financial information should be identified as such in the application. The Department will maintain the confidentiality of that information only to the extent permitted by law.

**Dissemination of Information/Technology Transfer.** Grantees will be contractually required to allow the Department access to all project sites and the ability to obtain, publish, disseminate or distribute any and all information obtained from the projects (except any data or information that has been negotiated as being confidential or proprietary), without restriction and without payment or compensation by the Department.

**Grant Duration/Performance Period.** The grant term/performance period will be determined
on a project specific basis, targeted at 12 months.

**Marketing & Promotion.** DCEO and the Grantee will acknowledge the participation of the other Party as well as ComEd, Ameren Illinois, Nicor Gas, Peoples Gas, and North Shore Gas, as appropriate, in all press releases, publications and promotional materials presented to the media, or otherwise disseminated or published concerning the project.

**Compliance.** Any applicant that is a current or previous grantee of the Department and was/is delinquent in its compliance with grant provisions shall have such delinquency included as one of the application evaluation criteria for this current application.

**Ownership/Use of Equipment.** The grant agreement will specifically prohibit the sale, lease, transfer, assignment, or encumbrance of any equipment or material purchased with grant funds, without the express written approval of the Department for the duration of the grant term and may require conditional retention for a specified period after completion of the grant. In the event of a Grantee’s failure to comply with this requirement, the grant agreement will provide that the Department may, at its discretion, require the Grantee to return all grant funds provided by the Department, require the Grantee to transfer to the state ownership of equipment and material purchased with grant funds and bar the Grantee from consideration for future funding. The Department reserves the right to require the Grantee to give it a purchase money security interest in equipment purchased with grant funds for the duration of the grant term.

**APPLICATION PROCESS**

**Application.** Each application submitted in response to this RFA must complete all the data requirements of Sections 1 through 9 located within this application template. Please note that this includes the “additional information” described in this Section. Instructions on properly filling out the sections are included at the end of the RFA and in the “additional information” section of Section 8.

Applications under this program will be **DUE NO LATER THAN November 21, 2014.**

Note: Applicants may contact Patrick Brown at 312-996-5055 or prbrown@uic.edu with questions.

Your detailed application may be submitted by mail to the following address:

Energy Resources Center  
University of Illinois at Chicago  
1309 South Halsted Street (MC 156)  
Chicago, Illinois 60607  
Attention: Combined Heat and Power Pilot Program

If sending by e-mail, state “CHP RFA” in the subject line and address to Patrick Brown at prbrown@uic.edu

If submitting a “Letter of Intent to Apply”, please submit by e-mail before 4:30 pm (CDT) Friday, August 15th, 2014 to prbrown@uic.edu stating “CHP Letter of Intent to Apply” in the subject line.
**SECTION 8: PROGRAM SPECIFIC INFORMATION**

**General Review and Evaluation.** Applications will first be reviewed to determine eligibility and completeness as specified under Eligibility Criteria and for compliance with the EEP statutory requirements. Ineligible or otherwise incomplete applications will be immediately rejected.

**Evaluation Criteria.** Evaluation criteria have been developed to assist the Department in identifying those projects that display the most potential for achieving the goals and objectives of the Pilot Program. Applications satisfying the general review will be evaluated competitively on the basis of the following criteria:

Applications will be evaluated against the following criteria:

- **Criteria 1: Technical Completeness;** weight 40%
  - Project’s ability to reduce Btu source energy;
  - System efficiency and use of thermal;
  - Metering plan completeness;
  - Knowledge of interconnect process;
  - Maintenance contract; and
  - Completeness of the information in the feasibility analysis (including all assumptions).

- **Criteria 2: Financial Completeness** weight 30%
  - Cost benefit test (TRC);
  - Project economics (completeness of the information in the feasibility analysis including all assumptions); and
  - Degree to which the incentive affects project economics.

- **Criteria 3: Applicant Qualifications** weight 20%
  - Background of participants;
  - Experience in similar projects; and
  - Number of systems designed and installed.

- **Criteria 4: Energy Efficiency of the Site** weight 10%
  - Degree to which the application shows the energy efficiency of the existing building.

**Rejection of Applications.** The Department reserves the right to reject any application. The submission of an application under these guidelines confers no right upon any applicant. The Department is not obligated to award any grants under this program, to pay any costs incurred by the applicant in the preparation and submission of an application, or pay any grant related costs incurred prior to the grant beginning date.

**Additional Information**

**Please fill out the information below**

**Energy Provider(s):**

- [ ] ComEd
- [ ] Ameren Illinois (electric)
## SECTION 8: PROGRAM SPECIFIC INFORMATION

<table>
<thead>
<tr>
<th>Ameren Illinois (natural gas)</th>
<th>Nicor Gas</th>
<th>Peoples Gas</th>
<th>North Shore Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ Other ________________________</td>
<td></td>
<td></td>
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</tbody>
</table>

All applicants shall include the following information and documentation. Each of the following documents should be clearly marked (ie: Project Description, etc), include the title of the proposal, the applicants name, and be limited to the number of pages specified. The format will include a font size no smaller than 11 point and margins no less than 1” (top, bottom, and sides).

- **Feasibility Analysis (20 page maximum):**
  Each applicant will submit, as part of the application process, a document entitled “Feasibility Analysis.” The purpose of the feasibility analysis is to provide the DCEO and/or its designated Program Administrator (the ERC) as much technical and financial detail regarding the proposed project as possible. The information submitted in the feasibility analysis document will be used as part of the evaluation process to determine which of the proposed projects are selected for participation in the program. Please include all assumptions used in the feasibility analysis.

The following is a suggested outline for the feasibility analysis document.

### Outline:

1. **Table of Contents:**
2. **Site Description:**
   - Primary business and operating schedule
   - Existing energy suppliers, terms, and applicable rates
   - The pressure and availability of natural gas (or other fuel to be utilized in the CHP system)
   - Reasons for the CHP consideration from a host customer perspective (why are you interested in CHP)
   - Facility energy use profile: a 12 to 24 month profile of electricity and fuel use, thermal loads, and costs (at a minimum please include the last 12 months of gas, electric, and steam (if applicable) bills as an appendix – not part of the 20 page limit).
   - Other site description info as deemed appropriate by applicant
3. **Energy Efficiency Status of the Site:** (part of the evaluation criteria is to provide credit to those applicants that can show that the proposed site is already an energy efficient building/facility)
   - Provide any data showing steps taken to improve the energy efficiency of the building/facility within the last 5 years. These might include but are not limited to upgrades in lighting/HVAC/thermal integrity; installation and operation of control systems/automated energy management systems; boiler or furnace tune-ups, steam trap maintenance/repair; or any other investments in energy efficiency.
4. **Project Description:**
   - Narrative of CHP rationale, subsequent technology selection process
SECTION 8: PROGRAM SPECIFIC INFORMATION

- List major equipment
  - Prime mover – capacity, electrical efficiency, vendor cut sheets can be submitted as an appendix (not part of the 20 page limit), estimated part load performance
  - Heat recovery equipment
  - Duct burners (if applicable)
  - Absorption chillers and/or desiccant dehumidifiers or other thermal recovery/use equipment being proposed as part of the project (if applicable).
  - Gas clean up equipment if required as part of the project
- Estimated facility load profiles subsequent to CHP installation on a monthly basis
  - CHP useful electricity production (note any parasitic power requirements)
  - CHP provided heating/cooling (useful thermal energy production)
  - Grid supplied supplemental electricity requirements
  - Thermal loads supplied by on-site equipment (e.g., boiler and/or chiller)
- Estimated CHP AFUE (HHV) and related calculations on an annual basis – should use the calculation method provided in the guidelines
- Any interactions with the local electric utility regarding interconnection of the CHP system with the local grid.
  - Include the type of grid being connected to (Radial or Network)
  - Define any estimated issues and how they will be resolved
  - Explain any financial impacts associated with interconnection (if applicable)
  - One line diagrams of interconnection requirements are recommended. Any one line diagrams can be submitted as an appendix (not part of the 20 page limit).
- Any required interactions with the local gas utility regarding gas pressure and/or distribution lines (issues, costs, status)
- Environmental Requirements
  - Define requirements and costs

5. Project Financials:
- CHP installed cost estimates – detailed breakdown
  - Major equipment
  - Engineering
  - Design
  - Construction
  - Permitting
  - Interconnection
  - Other
- Maintenance
  - Estimated fixed and variable costs for O&M (All projects will be required to have a 5 year maintenance contract on the prime mover (at a minimum) unless otherwise waived by the DCEO. The applicant will provide justification for such waiver to be granted.
  - An estimate of downtime that would occur due to routine maintenance must be included
- Electricity and fuel price assumptions
  - Electric supplier and rates before and after CHP (what specific tariffs, standby rates)
  - Fuel supplier and price
  - Price escalation factors for grid electricity and fuel
SECTION 8: PROGRAM SPECIFIC INFORMATION

- Expected customer month by month savings and simple payback with and without incentives (show the effect of the project incentives on the simple payback)
- Financing mechanism narrative (explain how the project will be financed)
- 10 year cash flow analysis
  - Annual fuel and purchased power costs
  - Annual O&M costs
  - Annual operating savings
  - Assumed unit gas and electric costs & pertinent escalations
  - IRR and NPV
- Sensitivity Analysis on simple payback based on varying
  - Electric prices
  - Fuel prices

6. Permitting Plan – a brief description of the necessary environmental and building permits or certificates that the customer needs to obtain must be provided. A schedule of realistic permit receipt dates are to be included

7. Metering Plan – A detailed metering plan shall be included outlining the steps that will be taken to measure system performance post-installation. After the system is installed, applicant must provide 12 months of hourly operational data demonstrating that minimum CHP AFUE 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 (kBtu), useful electric energy output (kWh), useful thermal energy output (kBtu). All applicants are responsible for the monthly electronic delivery of requisite data.

8. Project Team – include an organizational chart listing all team members, including the project manager and any subcontractors and others involved in the CHP Project, showing their roles and responsibilities. Describe the qualifications of the Applicant and/or contractor’s individual and combined expertise that will enable successful completion of the CHP Project. List related projects that have been undertaken and successfully completed by the Applicant and/or contractors.

9. Anticipated schedule – A detailed project schedule that includes design, engineering, permitting, interconnection, construction, start-up, commissioning and 12 month data collection must be provided.

- Downloadable Workbook with Summary of Feasibility Analysis Data and TRC Calculator:
  In addition to the 20 page (maximum) feasibility analysis document, each applicant is required to fill out the downloadable workbook ([http://www.erc.uic.edu/energy-efficiency/illinois-energy-now-programs/white-papers/](http://www.erc.uic.edu/energy-efficiency/illinois-energy-now-programs/white-papers/)) which organizes much of the output of the feasibility analysis document. The workbook also contains the TRC Calculator which must be completed. The completed excel document (Feasibility tables and TRC Calculator) should be submitted with the application.

- Letter of Intent to Apply (Optional):
  Please submit a Letter of Intent to Apply containing the information below to Patrick Brown at prbrown@uic.edu by August 15, 2014 at 4:30 pm (CDT) if you are intending to submit a full
SECTION 8: PROGRAM SPECIFIC INFORMATION

application. This is optional and not a firm requirement for submission of a final application. Note that the final application is due November 21, 2014 by 4:30 pm (CDT).

- Preliminary Site Overview:
  - Type of facility
  - Primary function of the facility
  - Location of the facility

- Preliminary CHP System Overview:
  - Type of CHP system (expected prime mover type)
  - Expected size range of the CHP system
  - Type of fuel source for the CHP system
  - Expected annual hours of operation of the CHP system

SECTION 9: APPLICANT CERTIFICATION

Under penalty of perjury, I certify that I have examined this application and the document(s), schedule(s), and statement(s) submitted in conjunction herewith, and that, to the best of my knowledge and belief, the information submitted herewith is true, correct, and complete. I represent that I am the person authorized to submit this application on behalf of the applicant, and that I am authorized to execute a legally binding grant agreement on behalf of the applicant if this application is approved for funding.

I hereby release to DCEO the rights to and use of photographs and/or any written statements or information, regardless of format (whether they are direct quotes or paraphrased by DCEO), contained in or provided after the grant application for the purpose of publication on DCEO's website. I hereby also release any and all claims against DCEO, its officers, agents, employees and/or affiliates arising out of, or in connection with, the usage of photographs and/or written statements or information, regardless of format (whether they are direct quotes or paraphrased by DCEO), for the purpose of publication on DCEO's website.

<table>
<thead>
<tr>
<th>Signature</th>
<th>Name &amp; Title</th>
<th>Date</th>
</tr>
</thead>
</table>


INSTRUCTIONS

All questions in the following sections must be completed by the applicant. Additional documentation should be attached as necessary to adequately respond to the question or to provide the detail requested.

SECTION 1: APPLICANT INFORMATION - INSTRUCTIONS

**Question #1.1:** Provide the applicant’s legal name which is reflected on its Federal W-9 form. If the applicant is a Limited Liability Company with a tax classification of “C” - the IRS acceptance letter needs to be submitted along with the W-9 in order for the vendor to be certified.

**Question #1.2:** Provide the applicant's business address, including the 9-digit zip code.

**Question #1.4:** Complete this section by indicating the Chief Officer of the applicant. If the applicant organization has more than one chief officer, please attach additional documentation providing all names and appropriate contact information.

**Question #1.5:** Provide a brief explicit description of the applicant indicating the type of business, business history, typical clientele, etc. The applicant description should not exceed 200 characters.

**Question #1.5:** Provide the applicant’s North American Industry Classification System (NAICS) Code. The NAICS (pronounced Nakes) was developed as the standard for use by Federal statistical agencies in classifying business establishments for the collection, analysis, and publication of statistical data related to the business economy of the U.S. If you do not know your NAICS Code, you may look it up at: [http://www.naics.com/index.html](http://www.naics.com/index.html).

**Question #1.6:** If applicable, provide the applicant’s website address.

**Question #1.7:** Provide the applicant’s Federal Employer Identification Number (FEIN). The FEIN is also known as a Federal Tax Identification Number, and is used to identify a business entity. Generally, businesses need a FEIN. If your business does not have a FEIN, you may apply for it at [http://www.irs.gov/](http://www.irs.gov/). You are required to have a FEIN in order to be eligible for a DCEO award.

**Question #1.8:** If the applicant is an individual with no FEIN, provide the applicant’s Social Security Number (SSN). Do not provide a Social Security Number if you are also providing a FEIN for Question #7.

**Question #1.9:** A DUNS Number is a unique nine-digit sequence recognized as the universal standard for identifying and keeping track of over 100 million businesses worldwide. Provide the applicant’s DUNS number. If your business does not have a DUNS number, you may request one at: [http://www.dnb.com/us/duns_update/](http://www.dnb.com/us/duns_update/).

**Question #1.10** Indicate the start date and end date of the applicant’s fiscal year (accounting year) with month and day.

**Question #1.11:** Check the appropriate box if the applicant's business is a female or minority-owned business. A female or minority-owned business is defined as a business at least 51 percent owned and controlled by persons who are female or minority-owned. Minority is defined as the following race/ethnic groups: Black / African Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans and Asian-Indian Americans. If minority-owned, then check the appropriate race/ethnic group box that applies.

**Question #1.12:** Indicate the number of people that you expect will be served by the grant by each race/ethnic group that is listed.

SECTION 2: APPLICANT HISTORY - INSTRUCTIONS

**Question #2.1:** Complete this section with information on any grants received from the state of Illinois by the applicant within the last 4 years from the date of this application. Applicant must provide the information detailed below for each grant received. However, if applicant received more than 10 grants within the last 4 years the information below is only required for any grants that have or had programmatic and/or financial issues.

- **Agency:** List the name of the agency from which the grant was received.
- **Grant #:** List the number related to the grant.
- **Grant Amount:** List the total amount of the grant.
- **Grant Term:** List the term to include the beginning and end date of the grant.
General description of grant:  Provide a brief description of the grant project.
Issues:  Provide a description of any financial or programmatic issues that were identified with this grant by either the grantor agency and/or grantee.  State whether the issues are resolved or unresolved.  If the issues are unresolved, state the reason why and provide a current status.

Question #2.2: If the applicant’s organization has operated under any other names or FEIN numbers during the past 4 years from the date of this application, this information must be provided in this section.

Question #2.4: Indicate which key staff positions have changed within the past twelve months from the date of this application.  Provide additional documentation for the requested information for any vacancies, new hires, layoffs, and terminations.  Also provide the same information for any changes relating to key staff positions that may become involved with the administration and/or management of potential grants.

Question #2.5: Indicate in the list provided the type of documentation that the applicant’s organization will maintain to support and allocate staff costs to the DCEO grant.  Any staff costs incurred need to be adequately supported to ensure appropriate allocation to the DCEO grant.

Question #2.6: Indicate whether a previous business existed for less than two years.  Principal is defined as any officer or member of the governing board of the applicant, as well as any individual in the organization who exerts significant control over the activities of the applicant or who has the authority to make decisions on behalf of the applicant.

- If yes, provide name(s) of each business and reason(s) supporting why the business is no longer in existence.  Be as descriptive as possible for reason(s) why the business is no longer in existence.  Attach additional supporting documentation to support your response to this question.

Question #2.7: Indicate yes or no and provide additional information in subsequent question.  Principal is defined as any officer or member of the governing board of the applicant, as well as any individual in the organization who exerts significant control over the activities of the applicant or who has the authority to make decisions on behalf of the applicant.

- If yes, describe the proceedings and provide the current status.  Be as descriptive as possible and attach additional supporting documentation to support the response to this question.

Question #2.8: Indicate any debt owed to the state by listing the specific reason(s) and amount(s).  Attach additional documentation to explain the debt owed to the state.  Principal is defined as any officer or member of the governing board of the applicant, as well as any individual in the organization who exerts significant control over the activities of the applicant or who has the authority to make decisions on behalf of the applicant.

SECTION 3: PROPOSAL INFORMATION – INSTRUCTIONS

Question #3.1: Indicate the date on which the applicant is submitting this proposal.

Question #3.2: Provide a short title that accurately describes the proposal.  The title should be limited to approximately 50 characters.

Question #3.4: Provide a brief description of the proposed project that summarizes the use of the grant award.  The description should not exceed 550 characters.  The brief project description should be consistent with the information provided in the attached Scope of Work.  The description provided here may be used on DCEO’s website.

Question #3.5: Complete this section with the address of the proposed project location.

Question #3.6: Identify the area(s) served if the project location serves more than one location or if it serves a geographical region.  Identify these areas by cities, towns, villages, counties or other defined programmatic or geographical regions.

Question #3.6: Complete this section by providing the name, business address and other required business contact information of the individual that will serve as the primary project contact.  This person will serve as
DCEO’s primary contact from application intake through closure of the grant, if awarded by DCEO. Please note that DCEO may publish copies of applications on its public website so it is preferable that you submit your business contact information. If the applicant does not have a business to use for contact information, then please provide personal information (home address, personal cell phone number, personal email address) as an attachment to the application.

**Question #3.7:** Indicate the projected project time period with a start and end date.

**Question #3.8:** Identify the funding sources for the proposed project. The applicant must identify the amount of funding the applicant is proposing to provide to the project, any secured funding from other sources, and the amount of funding being requested from DCEO. The total project cost should be the sum of all three sources of funds. The project costs in this section should be consistent with the information provided in the attached Budget.

### SECTION 4: SCOPE OF WORK - INSTRUCTIONS

- Provide the Project Title, it needs to be the same as or consistent with the title provided in the Proposal Information above.

- Provide a detailed description of the proposed project and the intended use of grant funds. Unlike Line 4 of the Proposal Information Section, the applicant is not restricted in their description of the proposed project. The information provided in this description will assist DCEO in developing the Scope of Work for the grant agreement if the grant is awarded. It will also facilitate the periodic reporting that will be required to update DCEO on the status of the project’s major milestones if the grant is awarded.

- Briefly describe each task in the Description of Tasks column. These tasks will be used to develop the grant agreement. The applicant should assign an estimated completion date for each task. If a grant is awarded, the applicant will have the opportunity to modify these dates prior to the execution of the grant.

### SECTION 5: PERFORMANCE MEASURES - INSTRUCTIONS

- If the applicant is aware of any performance measures required by the program, the measure(s) should be listed in this section. If known, the applicant should provide the target numbers for each measure.

### SECTION 6A: CURRENT EMPLOYMENT LEVEL - INSTRUCTIONS

- Provide the number of full time and part time individuals, respectively, employed by the applicant. Please see definitions of Employee, Permanent, Full-Time, and Part-time in the Key Definitions in Section 6B below.

### SECTION 6B: PROJECTED EMPLOYMENT IMPACT - INSTRUCTIONS

1. **Purpose of the FTE Value Table**

DCEO uses Section 6, Projected Employment Impact of the standard grant application form to document the estimated economic benefits of a proposed grant project based on the projected employment impact. The FTE (Full Time Equivalent) Value Table in Section 6 standardizes the DCEO process for collecting and reporting job count data for projected (estimated) jobs at the grant level. This promotes consistency and integrity in the reporting of DCEO job count statistics.

Section 6 of the application form requires applicant organizations to provide projected jobs data that estimates a grant's impact on employment levels, in the following manner:

a) identify the estimated number of projected positions to be created and/or retained,

b) assign each projected position to one of four Full Time Equivalent (FTE) categories, and

c) complete an average annualized wage calculation for permanent full time positions for both jobs created and jobs retained.

For DCEO purposes, an FTE is a measurement unit for assigning a numerical value to an individual employment position (both
projected and/or certified jobs; both created and/or retained jobs). For example, while DCEO assigns an FTE value of 1.0 to a permanent full time position, other categories of positions that are estimated to involve a fewer number of hours to be worked over the course of a year will be assigned a lower FTE value of either .5 or .25. DCEO uses this approach so that a job count that includes various categories of jobs is more accurate and is not inflated or overstated.

Applicants should be realistic when estimating the number of projected FTEs that may result directly from a grant. For example, when projecting FTEs, the applicant must consider that if approved for funding the grantee will be required at a later date to certify FTE data for all created and retained positions, using the DCEO Job Count FTE Certification Form. Please remember that the FTE count includes only positions that are a direct result of a DCEO grant, meaning the positions would not be created or retained but for the DCEO grant provided.

2. Forms and/or Data Needed to Complete this Table

The applicant must identify the total estimated number of projected positions that will be a direct result of the DCEO grant during the term of the grant. Within this total number, the applicant must identify the estimated number of created positions. Within the number of created positions, the applicant must identify the FTE category (ies) that the positions most closely match. Also, within the total number of projected positions, the applicant must identify the estimated number of retained positions. Within the number of retained positions, the applicant must identify the FTE category (ies) that the positions most closely match. These estimated position numbers for projected positions must be then entered into the FTE Value Table, per the specific instructions, below.

4. Specific Instructions for Entering Data into the FTE Value Table

The FTE Value Table produces job count data for projected positions that includes: created FTEs, retained FTEs, number of permanent full time FTEs for jobs created, number of permanent full time FTEs for jobs retained, an average of the annualized salaries of permanent full time FTEs for jobs created, an average of the annualized salaries of permanent full time FTEs for jobs retained, and other related employment impacts.

The FTE Value Table was designed in Word format. An applicant is required to enter data in the cells in Row 1, Row 7 and Row 8, only (note that Row 8 is optional). However, the Table will perform automatic calculations for Rows 2 through 6. Therefore, do not attempt to enter or edit data in Rows 2 through 6.

To enter data into the form, place the cursor in the blue box within the cell and enter the relevant number key(s) -- do not use the Enter key. To move from one cell to another in the Table, use the keyboard's Tab key or the right or left arrow keys.

**Row 1: Number of positions in defined FTE category:** The applicant must assign the estimated number of projected positions to each of the optional FTE categories. For example, applicants must assign the estimated number of projected positions to be created into the proper FTE category (Columns A, B, C or D) in the Created Position Box. Likewise, the applicant must assign the estimated number of projected positions to be retained into the proper FTE category (Columns E, F, G, or H) in the Retained Position Box. Note that a count of an individual projected position must be placed into either the Created Position box, or the Retained Position box -- an individual FTE position count cannot be placed in both boxes. If no jobs are projected in an FTE category, the applicant should place a zero (0) in that cell.

For each projected position, select the FTE category closest to the expectations for the position:

- **Permanent Full Time Position:** approximately 52 weeks/year X 50 hrs. per week = 2,080 hrs.
- **Permanent Part Time Position:** approximately 52 weeks/year X 20 hrs. per week = 1,050 hrs.
- **Temporary Full Time Position:** approximately 26 weeks/year X 50 hrs. per week = 1,050 hrs.
- **Temporary Part Time Position***: approximately 26 weeks/year X 20 hrs. per week = 520 hrs.

*Only include Temporary Part Time Positions that have a minimum of 200 hours of work expected for the position.

**Key Definitions**

**Employee:** An individual that agrees to participate in an employer/employee business relationship and provide services for the employer in return for a defined salary or wage. Contingency workers, or workers on contract status with the grantee, may also be included in a grantee's FTE count, if the grantee can certify the FTE data for these positions, as required on the Job Count FTE Certification Form. The site of employment must be located in the state of Illinois.
**Projected Job:** A planned or forecasted position to be filled at a future point in time, during the term of the grant agreement, as a direct result of a DCEO grant.

**Certified Job:** A position that was proven to be created or retained and was a direct result of a DCEO grant; the position must be confirmed by the employer and certified by the DCEO grantee on the Job Count FTE Certification Form by identifying: the name of the employer, the position title, either the name of the employee or a payroll identification number, the start date of the position, the annualized salary or wage rate, and the FTE category designation.

**Created Job:** A new position, not in existence prior to the DCEO grant, to be developed and filled, or an existing unfilled position to be filled; the position could not be filled but for the DCEO grant provided.

**Retained job:** An existing position projected to be maintained that otherwise would be eliminated by the grantee but for the DCEO grant provided. **Note:** a job previously reported as retained during the course of a previous DCEO grant cannot be projected again as retained in the current DCEO grant application if the end date of the previous DCEO grant is less than 25 months prior to the current application date. However, a job reported as retained during the course of a previous DCEO grant can be reported as retained in the current DCEO grant application, if the end date of the previous DCEO grant occurred more than 25 months prior to the date of the current DCEO application.

**FTE Category Definitions for Reported Positions:** Applicants must use the definitions below to understand the typical differences in positions, including: a) the level of anticipated permanency -- an estimated time duration for the position category, and b) the degree of full time status -- the estimated average amount of work hours expected in a standard work week for the position category, in the respective organization or industry.

- **Permanent:** A position that is typically intended to last indefinitely in duration and does not have a finite ending date; for DCEO purposes, a position with an estimated duration of at least 12 months.
- **Temporary:** A position that is typically short-term in duration and will last only for a specified period of time; for DCEO purposes, a position with an estimated average duration of significantly less than 12 months (example: a seasonal job).
- **Full time:** A position typically expected to work the full number of hours in a standard work week, as defined by the employer or industry; for DCEO purposes, a full time position typically involves approximately 50 hours per week.
- **Part time:** A position typically expected to work significantly fewer hours per week than the hours required in a full time position; for example, 20 hours per week could be a typical part time work schedule.

**Row 2: Automatic Calculation of FTE Subtotals:** The Table automatically calculates these values based on the numbers entered above, and do not attempt to edit the cells in this row. The Table will automatically convert projected position counts into an FTE count according to the type of position. For example, the Table assigns a value of 1.0 to each permanent full time position that is expected to offer approximately 2,080 hours of work per year. However, for the other three categories that typically do not involve permanent work hours of a standard 2,080 hour work year, the table will assign a value for each projected position that is a lesser pro-rated portion, or fraction, of an FTE (example: the Table assigns a .5 value for each Permanent Part time, and Temporary Full time position; while assigning a value of .25 for each Temporary Part time position).

**Rows 4 - 6: Automatic calculations for FTEs created, FTEs retained, permanent full time jobs created, and permanent full time jobs retained:** The Table automatically calculates these values based on the numbers entered above, and do not attempt to edit the cells in these rows.

**Row 7-8:** Average Annualized Salaries for Permanent Full Time Jobs Created and Permanent Full Time Jobs Retained:
The applicant must complete a manual calculation for rows 7 and 8, and place the calculated value(s) into the Table. The average annualized wage or salary amount must be calculated by adding the estimated annualized wages for all positions reported to yield a total salary amount, and then dividing the total salary amount by the number of estimated positions (not the number of FTEs). Average wages for created jobs and retained jobs should be calculated separately. Wages for part time or temporary jobs should be disregarded for purposes of this calculation. For this calculation, all hourly wage values for full time jobs must be converted to an annualized value (for example, multiply the hourly wage by the estimated number of hours per week, multiplied by 52 weeks in a year).
(5 X $20,000 + 5 X $50,000). The number of positions is 10. Thus, to calculate the average salary, divide $400,000 by 10, yielding the average salary amount of $40,000.

**Row 9: Other Employment Impacts:** This is an optional text field where you can identify other significant employment impacts that are not reported as an FTE value. These impacts may include a positive impact on non-certified jobs, or other positive economic impacts with the applicant organization or elsewhere in the Illinois economy. This area can also be used to identify the number of Temporary Part time Positions that do not meet the minimum requirement of 200 hours of work per position.

**SECTION 6C: PROJECTED CONSTRUCTION JOBS IMPACT- INSTRUCTIONS**

- Provide the number of projected hours of construction labor that will result if the project is funded by the DCEO grant. Include all construction jobs for the entire project even if the DCEO grant leverages or is combined with other funding needed for the project.
- Provide the number of projected construction FTE’s for the project. This number is calculated by taking the total number of construction labor hours divided by 2,080.

**SECTION 7: BUDGET - INSTRUCTIONS**

- This section will be used to establish the cost categories of the grant agreement. List each budget line item for which the grant funds are proposed to be expended.
- Indicate the requested grant amount for each budget line item.
- Provide the proposed match amount for each budget line item.
- Provide the total of each column.

**SECTION 8: PROGRAM SPECIFIC INFORMATION - INSTRUCTIONS**

Program guidelines are included in this section. The additional information portion of the section must be completed including the Feasibility Analysis, downloadable workbook organizing output of Feasibility Analysis and TRC Calculator data, and (optional) Letter of Intent to Apply.

**SECTION 9: APPLICANT CERTIFICATION - INSTRUCTIONS**

The applicant should read and understand the certification statement provided in this section. The individual that signs this section should be the individual that is authorized to sign the grant agreement if grant funds are awarded. The authorized individual should sign their name, print their name and title and date of certification. Please note the certification authorizes DCEO to publish a copy of the completed application on DCEO’s website.

**SUBMISSION OF APPLICATION**

The Department will accept applications at the following address:

Energy Resources Center  
University of Illinois at Chicago  
1309 South Halsted Street (MC 156)  
Chicago, Illinois 60607  
Attention: Combined Heat and Power Pilot Program

If sending by email, state “CHP RFA” in the subject line and address to Patrick Brown at prbrown@uic.edu.

**All Applications are due at the DCEO office by 4:30 pm (CDT) Friday, November 21, 2014.**
IDENTITY PROTECTION ACT (5 ILCS/179)
PERSONAL INFORMATION PROTECTION ACT (815 ILCS 540)

The Department of Commerce and Economic Opportunity (DCEO) is committed to protecting the privacy of its vendors, grantees and beneficiaries of programs and services. At times, DCEO will request social security numbers (SSNs) or other personal identifying information. Federal and state laws, rules and regulations require the collection of this information for certain purposes relating to employment and/or payments for goods and services, including, but not limited to, grants. DCEO also collects confidential information for oversight and monitoring purposes.

Furnishing personal identity information, such as a social security number, is voluntary; however, failure to provide required personal identity information may prevent an individual or organization from using the services/benefits provided by DCEO as a result of state or federal laws, rules and regulations.