ENERGY INITIATIVE

nationalgrid

Custom - *Energy Efficiency Projects*

R E T R O F I T

2012 Project Information Form for Upstate New York

This Project Information Form provides a template to collect project systems and equipment information and specifications. In addition, this form serves as a general overview of eligibility criteria for incentives as well as a guide to Custom Energy Efficient Projects and products. This form is intended for use by individuals experienced with National Grid's Custom Program. Contact your National Grid representative for complete details on this program and to submit an application. Prior to the start of any installation of equipment or systems, please contact your National Grid representative to arrange a convenient time to perform an inspection of existing equipment and systems. This pre-inspection is required for all applications.

CUSTOMER FACILITY INFORMATION

CUSTOMER FACILITY NAME: _____ **DATE OF APPLICATION:** _____

_____ **SQ. FT. COVERED BY APPLICATION:** _____

CONTACT PERSON: _____ **FEDERAL ID NUMBER:** _____

STREET ADDRESS: _____ **COMPANY TYPE:**

❑ INCORPORATED ❑ EXEMPT ❑ NOT INCORPORATED

CITY: _____ **STATE:** _____ **ZIP:** _____

E-MAIL ADDRESS: _____ **PHONE NUMBER:** _____

CLASSIFICATION TYPE: ≥ 2MW ❑ (LARGE)
< 2MW ❑ (MID-SIZE) ❑ INDUSTRIAL ❑ COMMERCIAL **FAX NUMBER:** _____

* ≥ 2MW LARGE COMMERCIAL CUSTOMER USE THE < 2MW CLASSIFICATION TYPE

Customer of Record Information: Billing Account Number: _____ *Internal Use only*

BUILDING TYPE *(SELECT ONE)*

❑ Assembly	❑ Full Service Restaurant	❑ Light Industrial	❑ Small Office
❑ Auto Repair	❑ Grocery	❑ Motel	❑ Small Retail
❑ Big Box	❑ High School	❑ Multifamily high-rise	❑ University
❑ College Dormitory	❑ Hospital	❑ Multifamily low-rise	❑ Warehouse
❑ Community College	❑ Hotel	❑ Refrigerated Warehouse	❑ Other _____
❑ Elementary School	❑ Large Office	❑ Religious	
❑ Fast Food	❑ Large Retail	❑ Single Family Residence	

HVAC SYSTEM TYPE *(FOR CUSTOM LIGHTING APPS ONLY - SELECT ONE)*

❑ AC with Electric Heat	❑ CV No Econ	❑ Gas Heat Only	❑ Steam Heat Only
❑ AC with Gas Heat	❑ Electric Heat Only	❑ Heat Pump	❑ VAV Econ
❑ CV Econ	❑ Fan Coil with Chiller and Hot H2O	❑ H2O Cooled Ammonia Screw Compressor	❑ Other _____

Is this an exterior/non-conditioned space installation? ❑ YES ❑ NO

INSTALLATION CONTRACTOR INFORMATION

Installation Performed By:* ❑ Customer ❑ Installation Contractor (Vendor) **If contractor has not been selected, select* ***Customer***

Complete this section if installation is not by the customer

INSTALLATION COMPANY: _____ **STREET ADDRESS:** _____

CONTACT PERSON: _____ **CITY:** _____ **STATE:** _____ **ZIP** _____

E-MAIL ADDRESS: _____ **PHONE NUMBER:** _____

APPLICATION INFORMATION

EXPECTED COMPLETION DATE: _____

PROPOSED INCENTIVE RECIPIENT: ❑ Customer *(Account Credit or Check)* ❑ Installation Contractor**

** *Complete this section if Installation Contractor has been selected*

FEDERAL ID NUMBER: _____ **COMPANY TYPE:** ❑ INCORPORATED ❑ EXEMPT ❑ NOT INCORPORATED

1-800-787-1706 Efficiency@us.ngrid.com / www.nationalgridus.com

CUSTOM MEASURE APPLICATION PROCESS

1. All applications for incentives under the Custom program require sound documentation of the proposed cost, projected electricity savings and the related non electric savings.
2. Before commencing the application process, check with your National Grid representative to determine eligibility of the proposed project and to establish requirement for detailed savings projections and cost estimates.
3. This information will be submitted to National Grid's Technical Representative for review and evaluation of potential incentives.
4. The Technical Representative will develop a Minimum Requirements Document which describes the minimum equipment specifications and operational requirements of the proposed system. Customer will be required to sign this document.
5. For projects requiring Commissioning (Cx), a preliminary Cx plan and schedule will be a required as part of the MRD.
6. After successful review and project approval, the National Grid representative will notify customer in writing of the project approval, the incentive value and the terms and conditions required to receive final incentive payment.
7. The following is a guide to the level of technical information and documentation that is typically required.

PROJECT DESCRIPTION

- General description of facility and the facility's use and typical operation (include occupancy schedules)
- Overall project description including operating schedules and parameters

EXISTING MATERIALS AND EQUIPMENT

- Detailed description of equipment and operations
- Cut sheets with equipment performance ratings (BHP, CFM, kW, etc.) *(Provide nameplate data if cut sheets unavailable)*
- Part load performance data where applicable
- Description of controls & sequence of operations

PROPOSED MATERIALS AND EQUIPMENT

- Detailed description of equipment and operations
- Cuts sheets for the materials or performance ratings for equipment being installed (BHP, CFM, PSI, Efficiency rating, U-value, Lumens, etc)
- Description of controls & sequence of operations

LOAD PROFILE

- Equipment hours of operation (operating schedule per day, week, year)
- Provide operating load profiles showing how equipment load and operating parameters vary over time due to changes in: occupancy, weather, production, etc.
- Where there are existing systems involved, metering kW and kWh of major equipment loads is recommended. If metered information is not available, provide other documentation used to estimate loads and operating hours.

SAVINGS CALCULATIONS

- Show calculations used to determine electricity savings including:
  - Existing Consumption (kWh)
  - Proposed Consumption (kWh)
  - kWh Savings shall be broken down into the appropriate electric time-of-day rate categories to determine average $/kWh saved.
  - Existing Summer Demand (kW) (typical 24 hour load profile(s) for July and August)
  - Proposed Equipment Summer Demand (kW) (typical 24 hour profile(s)
  - Document customer's actual billed kW savings if different from equipment kW savings
- The calculations should clearly show all the details of how the energy savings were estimated. This includes all engineering formulas and documentation of all the factors, values and assumptions used in the formulas
- Spreadsheets (Excel preferred) must be submitted showing all energy and demand savings calculations
- In cases where energy modeling is used to determine savings, approved modeling software must be used. Input and output data from the model must be provided.

See Table 1 below for the specific details on the Demand data required.

The following form may be filled out for preliminary project submittal and review, but a final Custom Project information package must also be submitted in electronic format. Contact a National Grid Technical Support Consultant for details.

PROPOSED EQUIPMENT SPECIFICATION (FACILITY DETAIL)

BUILDING, ROOM AND EQUIPMENT IDENTIFICATION *(INSTALLATION SITE)*: _____

DESCRIPTION OF PROJECT: _____

_____

_____

_____

EXISTING SYSTEM

MEASURE DESCRIPTION

PROPOSED SYSTEM

MEASURE DESCRIPTION

Manufacturer Incentives, Manufacturer Discounts, Taxes, and/or Salvage Values

Internal Use Only: **MEASURE CODE:** _____ **MEASURE DESCRIPTION:** _____

DOES THIS PROJECT INCLUDE A VARIABLE FREQUENCY DRIVE (VFD)? ❑ YES ❑ NO *(if yes – see information below)*

To help increase operating reliability and eligibility for incentives, each VFD must include a series reactor (*inductor, choke*) in its AC input connections. Your Minimum requirement is a 3% impedance reactor, based on the horsepower of the VFD to be installed. In some instances it may be necessary to install 5% reactors or additional filtering devices to meet acceptable current and voltage harmonic distortion requirements.

If your power factor is less than 0.8 (80%), we recommend that you consider power factor correction concurrent with the installation of drives.

The use of VFDs which incorporate pulse width modulation (PWM) may produce overvoltages which may cause premature failure of AC induction motors not rated for use with an inverter. We recommend that when installing PWM drives, you consider utilizing inverter rated motors.

TABLE 1: ENERGY AND DEMAND REDUCTION

Please provide the Demand (kW) Reduction that occurs during the time periods listed below and the Annual kWh savings:

TIME PERIOD	AVERAGE REDUCTION
June - 4 pm – 5 pm	kW
July - 4 pm – 5 pm	kW
August - 4 pm – 5 pm	kW
Annual kWh Savings	kWh

- Average Demand reduction is for the summer Peak kW savings that occurs during summer peak load conditions. It is calculated as the demand savings during the hottest weekday non-holiday hour between 4 pm and 5 pm in the months of June through August. For buildings which may only be partially occupied during this peak hour, the kW savings should be reduced in relation to the % reduction during that operating periods (i.e.: if the lights are only on 50% of the time during that hot summer day, kW savings would be reduced by ~50%). Some measures may provide little or no peak demand savings i.e. if a manufacturer turns off his lighting at 3 pm on all days during the summer then the peak demand savings for a lighting measure during the peak period is zero.
- The kW savings is the average load reduction during the high cooling period.

TABLE 2: COST ESTIMATES

Please provide back-up documentation for all material and labor costs, broken down by major pieces of equipment and project components. Sales tax may not be included. Adjust for salvage/resale value of equipment being replaced. Enter summarized costs in the table below.

MEASURE	COST ($$$)
Estimated Material Cost	
Estimated Labor Cost	
Estimated Total Cost	

TABLE 3: NON ELECTRIC BENEFITS AND EFFECTS

Installing the proposed measure may result in significant savings or possibly increased costs for the owner beyond electric savings. Examples include water, sewer, fossil fuel and labor costs. These costs are to be assessed and quantified in the support documentation. These Effects are to be combined and reported in the categories laid out in Table 3.

NON-ELECTRIC BENEFITS	
Gas - Space Heating (MMBTU)	_____ Therms
Gas – Non Heating (MMBTU)	_____ Therms
Oil (MMBTU)	_____ Gallons
Water	_____ Gallons
Wastewater (Sewer)	_____ Gallons
O & M ($/yr) (Labor & Materials)	$ _____
Site Environmental	$ _____
Other _____	$ _____

THIS FORM WAS COMPLETED BY:

NAME: _____

PHONE NUMBER: _____ **E-MAIL ADDRESS:** _____

MINIMUM REQUIREMENTS DOCUMENT

Customer Name		EI or D2 (TOR)	
Location		Application #:	
ECM:			

This document is to be completed by a National Grid Technical Support Consultant or designated Technical Assistance Contractor to specify herein minimum equipment specifications and operational requirements of the proposed system. These requirements shall address the criteria necessary to be met to achieve the demand and energy savings estimated in the engineering analysis for this project. Testing and submittals may be required as further verification of system compliance. (Use additional sheets if necessary). These requirements must be met before the Company's incentives are paid.

Post Inspection	**EQUIPMENT DESCRIPTION:** Provide a list of equipment or materials installed as part of this project. Include mfr, model, HP, kW, efficiency ratings, etc..
YES ☐ NO ☐	
Post Inspection	**SEQUENCE OF OPERATION:** Provide a description of equipment operating sequences, set points, operating schedules, balancing requirements (flow, velocity, head, etc) or any other required operating parameters.
YES ☐ NO ☐	
Post Inspection	**DOCUMENTATION:** List written documentation required to train, verify, operate, or maintain the equipment being installed or controlled. This may include specification sheets, test reports, construction drawings, etc.
YES ☐ NO ☐	
Post Inspection	**POST INSTALLATION M&V or COMMISSIONING:** Provide a list of Trending Requirements required to verify proper system operation. Trends should document operational sequences, setpoints and scheduling of equipment as described in TA Study
YES ☐ NO ☐	
Post Inspection	**OTHER REQUIRMENTS:** Describe any requirements for demolition, removal, etc of existing equipment.
YES ☐ NO ☐	

The pre-approved incentive is subject to National Grid's post installation inspection of final specifications, drawings and operation of the proposed equipment. In the event the proposed system is altered from the above description, notify the Company of the change prior to the equipment purchase and installation as the change in design and operation may impact the available incentive.

NG Technical Support Consultant	**Date**	**Customer Signature**	**Date**