

# Incentive Application

## About the Program

The **National Grid Telecom Network Program** offers incentives, technical services and whole-building solutions to help telecommunications facilities use energy more efficiently. Eligible Telecom Network Program customers will receive support from dedicated Energy Advisors, who are telecommunications industry experts that work closely with customers to qualify projects and help complete all incentive application documents. Qualifying customers must be providers of wired or wireless telephone, internet, cable, broadcasting, or telecom data services within the National Grid service areas of Massachusetts or Rhode Island. All customer facility types are eligible to participate, provided they are a National Grid electric service ratepayer within Massachusetts or Rhode Island.

## Types of Incentives

Three types of incentives are available through the **National Grid Telecom Network Program**: custom incentives (page 4), expedited custom incentives (page 8) and prescriptive incentives (page 20). The best way to ensure your facility makes the most of available program offerings is to begin with a free facility assessment. Your Telecom Network Program Energy Advisor will outline which projects best fit your facility and its needs, and clearly outline your best opportunities for saving energy, improving processes and earning incentives.

## Application Instructions

### Project Eligibility

Schedule a free facility assessment with a Telecom Network Program Energy Advisor to learn about energy-saving opportunities for which your facilities are eligible. If you already have a project in mind, contact a Telecom Network Program Energy Advisor to discuss program measures and eligibility. All installed equipment must be new.

### Pre-Approval Requirements

- Contact a Telecom Network Program Energy Advisor before purchasing and installing the equipment.
- Your Energy Advisor will work with you to see if the energy efficient measure (EEM) qualifies for an incentive by:
  1. Reviewing the Terms and Conditions governing the program.
  2. Helping to review and submit a copy of the manufacturer's technical specification sheets ("cut sheets") for each type of eligible equipment to be purchased.
  3. Helping to complete and submit a pre-approval application form and Minimum Requirements Document with an authorized signature.
    - Once pre-approved, a Pre-Approval Letter will be issued by the Program.

### Installation and Incentive Requirements

- Once pre-approved, purchase and install the qualifying equipment by the date specified on the Pre-Approval Letter.
- Return the required information to your Telecom Network Program Energy Advisor within 30 days of the completed installation:
  1. A final copy of the completed and signed application
  2. New manufacturer's technical specification sheet(s) – only if there are changes in equipment
  3. A copy of your invoice indicating proof of purchase, including equipment type, size, make, and model number, as well as the dates of purchase and installation
    - The final application will require Program staff to visit your facility and perform a post-installation verification.

# Incentive Application

## Incentive Application

All fields on this page are required to complete your application.

PROJECT TYPE	<input type="checkbox"/> Retrofit	<input type="checkbox"/> New Construction
INCENTIVE TYPE(S)	<input type="checkbox"/> Custom	<input type="checkbox"/> Custom Expedited <input type="checkbox"/> Prescriptive

### CUSTOMER/ACCOUNT HOLDER INFORMATION

CUSTOMER COMPANY NAME			
CUSTOMER STREET ADDRESS	CITY	STATE	ZIP
CUSTOMER CONTACT NAME	CUSTOMER CONTACT PHONE NUMBER	CUSTOMER CONTACT E-MAIL	

### PROJECT INFORMATION

PROJECT COMPANY NAME			
PROJECT STREET ADDRESS	CITY	STATE	ZIP
PROJECT CONTACT NAME	PROJECT CONTACT PHONE NUMBER	PROJECT CONTACT E-MAIL	
FACILITY DESCRIPTION (EX: CENTRAL OFFICE, HEAD END, DATA CENTER, CALL CENTER, OFFICE SPACE, WAREHOUSE, RETAIL, ETC.)			
PROJECT TYPE (NEW CONSTRUCTION ONLY)			
<input type="checkbox"/> CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE	<input type="checkbox"/> NEW BUILDING	<input type="checkbox"/> EXPANSION OF AN EXISTING BUILDING	<input type="checkbox"/> PLANNED REPLACEMENT OF EQUIPMENT
<input type="checkbox"/> NEW EQUIPMENT FOR NEW PROCESS OR EXPANDED OPERATION	<input type="checkbox"/> RENOVATION OF EXISTING EQUIPMENT	<input type="checkbox"/> NEW CONTROLS FOR IMPROVED OPERATION	<input type="checkbox"/> REPLACEMENT OF FAILED EQUIPMENT
ELECTRIC UTILITY PROVIDER	ELECTRIC UTILITY ACCOUNT NUMBER	WAS THIS PROJECT IDENTIFIED DURING A TELECOM NETWORK PROGRAM FACILITY ASSESSMENT? YES / NO IF YES, PLEASE PROVIDE ASSESSMENT DATE:	
GAS UTILITY PROVIDER	GAS UTILITY ACCOUNT NUMBER		

### PAYMENT METHOD (PAYEE MUST SUBMIT A W-9 FORM)

PAYMENT TO: <input type="checkbox"/> CUSTOMER <input type="checkbox"/> VENDOR/INSTALLER	CUSTOMER TAX ID (REQUIRED):	VENDOR/INSTALLER TAX ID (REQUIRED IF RECEIVING INCENTIVE):
MAIL 'ATTENTION TO' (OPTIONAL):	CUSTOMER COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT	VENDOR/INSTALLER COMPANY TYPE: <input type="checkbox"/> INC. <input type="checkbox"/> NOT INCORP. <input type="checkbox"/> EXEMPT

# Incentive Application

## VENDOR INFORMATION

VENDOR/INSTALLER COMPANY NAME				
VENDOR/INSTALLER STREET ADDRESS		CITY	STATE	ZIP
VENDOR/INSTALLER CONTACT NAME	VENDOR/INSTALLER CONTACT PHONE NUMBER	VENDOR/INSTALLER CONTACT E-MAIL		
VENDOR/INSTALLER AUTHORIZED SIGNATURE (NOT APPLICABLE IF CUSTOMER IS PAYEE)				

## CUSTOMER ACCEPTANCE OF TERMS

### PRE-APPROVAL APPLICATION

<input type="checkbox"/> I CERTIFY THAT ALL STATEMENTS MADE IN THIS APPLICATION ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT I HAVE READ AND AGREE TO THE TERMS AND CONDITIONS OF THIS FORM.			
DATE:	PRINT NAME:	SIGNATURE:	
ESTIMATED PROJECT COST:	ESTIMATED START DATE:	TOTAL REQUESTED INCENTIVE:	

### FINAL APPLICATION

<input type="checkbox"/> I CERTIFY THAT I HAVE SEEN THE ENERGY EFFICIENCY MEASURES THAT HAVE BEEN INSTALLED AND I AM SATISFIED WITH THEIR INSTALLATION.			
DATE:	PRINT NAME:	SIGNATURE:	
FINAL PROJECT COST:	PRE-APPROVED INCENTIVE:	TOTAL REQUESTED INCENTIVE:	ACTUAL COMPLETION DATE:

# Incentive Application

## Custom Measure Incentives

### Completing the Proposed Equipment Specifications Worksheet

The following is a guide outlining the level of technical information and documentation that is required as you complete the Proposed Equipment Specifications worksheet (page 5).

#### DESCRIPTION OF PROJECT SCOPE

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

#### EXISTING EQUIPMENT AND CONDITIONS (PROJECT BASELINE)

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

#### PROPOSED EQUIPMENT AND CONDITIONS

- 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 and sequence of operations

#### LOAD PROFILE

- Equipment hours and operation (operating schedule per day, week, year)
- Provide operating load profiles showing how equipment load and operating parameters vary over time due to change in: occupancy, weather, production, etc.
- Where there are existing systems involved, metering kW and kWh or 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.
- 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 (spreadsheet preferred)
- 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.

### Proposed Equipment Specifications Worksheet (Facility Detail)

All fields on this page are required to complete your application. For more guidance on the level of technical information and documents that are required, please see page 1.

#### PROPOSED EQUIPMENT SPECIFICATIONS (FACILITY DETAIL)

PROJECT NAME (IF APPLICABLE):

I HAVE INCLUDED ALL DOCUMENTATION FOR THE METHOD USED TO CALCULATE ENERGY SAVINGS ALONG WITH THIS APPLICATION (INCLUDING ALL SPREADSHEETS AND APPLICABLE DATA SHEETS AS NEEDED).

# Incentive Application

## DESCRIPTION OF PROJECT SCOPE

Please describe the work you plan to complete for this project, including all affected equipment, energy-using systems, and how energy-savings will be achieved. Include the scope of work document for this project if applicable.

# Incentive Application

## EXISTING EQUIPMENT AND CONDITIONS (PROJECT BASELINE)

Please provide a detailed overview of the existing equipment and current conditions.

# Incentive Application

## PROPOSED EQUIPMENT AND CONDITIONS

Please provide a detailed overview of the proposed equipment and conditions.

<b>Custom measure cost</b>	<b>\$</b>
<b>Peak demand reduction (kW)</b>	
<b>Annual electric energy savings (kWh)</b>	
<b>Annual electric cost savings (annual kWh savings x \$0.16)</b>	<b>\$</b>
<b>Requested incentive (annual kWh savings x \$0.11/kWh)</b>	<b>\$</b>
<b>Simple payback period (Years)</b>	

# Incentive Application

## Expedited Custom Measure Incentives

To apply for an Expedited Custom measure, provide all fields of the associated measure worksheet and then contact your Telecom Network Program Energy Advisor to confirm eligibility, determine energy-savings and incentive amounts, and complete a pre-approval application.

### AIRFLOW OPTIMIZATION

This measure is for reducing the average fan speed on supply fans in a communications service provider (telecommunications, internet, or data center) or other similar, critical facility which operates continuously. Supply fans are an integral component to mechanical equipment and provide the continuous airflow necessary to maintain optimal server and other critical equipment conditions. Fans are often run at speeds higher than necessary in a critical environment. When fans are equipped with a variable speed drive, it is possible to modify the fan speed. Reducing the average speed of the supply fans to an acceptable limit will provide the necessary airflow while significantly reducing energy consumption.

#### Requirements

- Supply fan(s) must be a component of a critical load, as described above.
- Supply fan(s) with a rated power greater than 5 HP will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **Airflow Optimization Measure Worksheet** table detailed below:
  - Under the **Current Airflow per Fan (CFM)** column, indicate the current airflow per fan.
  - Under the **Proposed Airflow per Fan (CFM)** column, indicate the proposed reduced airflow per fan.
  - Under the **Motor HP per Fan** column, indicate the motor horsepower per supply fan.
  - Under the **Fans per Unit** column, indicate the number of fans per mechanical unit. Supply fan are often integral to mechanical units such as CRACs, CRAH, AHUs, and RTUs.
  - Under the **Unit Quantity** column, indicate the quantity of mechanical units.
  - The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

#### Airflow Optimization Measure Worksheet

	Current Airflow per Fan (CFM)	Proposed Airflow per Fan (CFM)	Motor HP per Fan	Fans per Unit	Unit Quantity	PROGRAM ADMINISTRATOR
						Electric Savings (kWh)
EX	10,000	8,000	5	2	1	-----
1						
2						
3						
4						
5						
<b>Electric Energy Savings Subtotal (kWh)</b>						
<b>Estimated Electric-Cost Savings</b>						\$
<b>Measure Cost</b>						\$
<b>Incentive Subtotal</b>						\$
<b>Simple Payback Period (Years)</b>						



# Incentive Application

## COMPUTER ROOM AIR CONDITIONER (CRAC) UNIT UPGRADE

This measure is for replacing an inefficient CRAC unit with an efficient CRAC unit in a communications service provider (telecommunications, internet, or data center) or other similar, critical load facility which operates continuously. CRAC units utilize direct expansion (DX) to cool critical server racks. More efficient CRAC models save energy by requiring less operating power to the compressors during normal operation.

### Requirements

- CRAC unit(s) must be a component of a critical load, as described above.
- CRAC unit(s) with a nominal capacity greater than 20 tons will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **CRAC Unit Upgrade Measure Worksheet** table detailed below:
  - Under the **Current CRAC Capacity (tons)** column, indicate the current CRAC unit nominal capacity.
  - Under the **Current CRAC Efficiency** column, indicate the current efficiency for the overall CRAC unit including compressors, supply fans and condenser fans.
  - Under the **New CRAC Capacity (tons)** column, indicate the proposed CRAC unit nominal capacity.
  - Under the **New CRAC Efficiency** column, indicate the proposed efficiency for the overall CRAC unit including compressors, supply fans and condenser fans.
  - Under the **Unit Quantity** column, indicate the quantity of CRAC units.
  - The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### CRAC Unit Upgrade Measure Worksheet

	Current CRAC Capacity (tons)	Current CRAC Efficiency (kW/ton)	New CRAC Capacity (tons)	New CRAC Efficiency (kW/ton)	PROGRAM ADMINISTRATOR
					Electric Savings (kWh)
EX	10	1.35	10	1.20	-----
1					
2					
3					
4					
5					
<b>Electric Energy Savings Subtotal (kWh)</b>					
<b>Estimated Electric-Cost Savings</b>					<b>\$</b>
<b>Measure Cost</b>					<b>\$</b>
<b>Incentive Subtotal</b>					<b>\$</b>
<b>Simple Payback Period (Years)</b>					

# Incentive Application

## COMPUTER ROOM AIR CONDITIONER (CRAC) UNIT STANDBY MODIFICATION

This measure applies when there is more cooling load than necessary to meet the critical load in a communications service provider (telecommunications, internet, or data center) or other similar, critical load facility which operates continuously. Under this condition, when there is more cooling than needed, CRAC units can be shut off entirely. Since CRAC units in a critical environment operate continuously under large load, significant energy savings can be achieved with this measure.

### Requirements

- CRAC unit(s) must be a component of a critical load, as described above.
- CRAC unit(s) serving a common space must maintain the same capacity per each unit.
- CRAC unit(s) with a nominal capacity greater than 20 tons will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **CRAC Unit Standby Modification Measure Worksheet** table detailed below:
  - Under the **Current IT Equipment Load (kW)** column, indicate the current critical load for the space.
  - Under the **CRAC Unit Capacity (tons)** column, indicate the current nominal tonnage for the CRAC units.
  - Under the **Current Operating CRAC Units** column, indicate the number of CRAC units that are currently running in the space.
  - Under the **Proposed Standby CRAC Units** column, indicate the number of CRAC units that can be brought offline while still maintaining critical load.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### CRAC Unit Standby Modification Measure Worksheet

	IT Equipment Load (kW)	CRAC Unit Capacity (tons)	Current Operating CRAC Units	Proposed Standby CRAC Units	PROGRAM ADMINISTRATOR
					Electric Savings (kWh)
EX	100	20	4	2	-----
1					
2					
3					
4					
5					
<b>Electric Energy Savings Subtotal (kWh)</b>					
<b>Estimated Electric-Cost Savings</b>					<b>\$</b>
<b>Measure Cost</b>					<b>\$</b>
<b>Incentive Subtotal</b>					<b>\$</b>
<b>Simple Payback Period (Years)</b>					

# Incentive Application

## ELECTRONICALLY COMMUTATED (EC) PLUG FAN UPGRADE

This measure is for replacing continuously operating supply fans with EC Plug fans in a communications service provider (telecommunications, internet, or data center) or other similar, critical facility which operates continuously. EC Plug fans are both very efficient and allow for integral control and functionality to modify the fan speeds as needed. EC plug fans are an integral component to mechanical equipment and provide the continuous airflow necessary to maintain optimal server and other critical equipment conditions. Fans are often run at speeds higher than necessary in a critical environment. Replacing a continuously operating supply fans with EC plug fans will provide the necessary airflow while significantly reducing energy consumption.

### Requirements

- EC Plug fan(s) must be a component of a critical load, as described above.
- EC Plug fan(s) with a rated power greater than 5 HP will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **EC Plug Fan Upgrade Measure Worksheet** table detailed below:
  - Under the **Motor HP per Fan** column, indicate the motor horsepower per supply fan.
  - Under the **Fans per Unit** column, indicate the number of fans per mechanical unit. EC Plug fans are often integral to mechanical units such as CRACs, CRAH, AHUs, and RTUs.
  - Under the **Unit Quantity** column, indicate the quantity of mechanical units.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### EC Plug Fan Upgrade Measure Worksheet

	Motor HP per Fan	Fans per Unit	Unit Quantity	PROGRAM ADMINISTRATOR
				Electric Savings (kWh)
EX	5	2	1	-----
1				
2				
3				
4				
5				
<b>Electric Energy Savings Subtotal (kWh)</b>				
<b>Estimated Electric-Cost Savings</b>				<b>\$</b>
<b>Measure Cost</b>				<b>\$</b>
<b>Incentive Subtotal</b>				<b>\$</b>
<b>Simple Payback Period (Years)</b>				

# Incentive Application

## ELECTRIC HEAT OPTIMIZATION

This measure is for modifying the controls on electric heating equipment to reduce or eliminate simultaneous heating and cooling in spaces. Under certain conditions, when the ambient outside air temperature maintains both the cooling equipment enable setpoint and the heating equipment enable setpoint, both heating and cooling will be provided to an area. By modifying the controls on the heating equipment, it is possible to reduce or eliminate simultaneous heating and cooling.

### Requirements

- This measure must analyze spaces that are provided with both heating and cooling.
- Mechanical heating equipment with a nominal capacity greater than 60 MBH (~17.5 kW) will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **Electric Heat Optimization Measure Worksheet** table detailed below:
  - Under the **Heat Capacity per Unit (kW)** column, indicate the nominal capacity of the heating equipment.
  - Under the **Current Annual Operating Hours** column, indicate the number of annual hours that the heating equipment runs.
  - Under the **Proposed Annual Operating Hours** column, indicate the proposed number of hours the heating equipment should be running.
  - Under the **Unit Quantity** column, indicate the quantity of heating equipment for the measure.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### Electric Heat Optimization Measure Worksheet

	Heat Capacity per Unit (kW)	Current Annual Operating Hours	Proposed Annual Operating Hours	Unit Quantity	PROGRAM ADMINISTRATOR
					Electric Savings (kWh)
EX	5	3,000	2,000	3	-----
1					
2					
3					
4					
5					
<b>Electric Energy Savings Subtotal (kWh)</b>					
<b>Estimated Electric-Cost Savings</b>					<b>\$</b>
<b>Measure Cost</b>					<b>\$</b>
<b>Incentive Subtotal</b>					<b>\$</b>
<b>Simple Payback Period (Years)</b>					

# Incentive Application

## UNIT HEATER(S) IN EXTERNAL GENERATOR ENCLOSURE

This measure is for modifying the controls on any unit heater(s) within an external generator enclosure, to reduce the number of annual operating hours for the heater(s). The unit heaters must be in an external generator enclosure, and the generator itself must serve a communications service provider (telecommunications, internet, or data center) or other similar, critical facility which operates continuously. These unit heaters are being used to maintain a certain temperature range inside an external generator’s enclosure. The intent of these devices is to maintain above-freezing temperatures within the enclosure. The enable temperature for this equipment is often set much higher than needed to maintain above freezing conditions. By modifying the unit heater enable temperature, it is possible to maintain above freezing conditions while reducing the total number of annual operating hours for any unit heater(s).

### Requirements

- The generator associated with the unit heater(s) must be a component of a critical load, as described above.
- Generator unit heater(s) with a nominal capacity greater than 30 MBH will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **Unit Heater(s) in External Generator Enclosure Measure Worksheet** table detailed below:
  - Under the **Heat Capacity per Unit (kW)** column, indicate the nominal capacity of the heating equipment.
  - Under the **Current Unit Quantity** column, indicate the number of generator unit heaters analyzed for the measure.
  - Under the **Current Annual Operating Hours** column, indicate the number of annual hours the generator unit heaters are running.
  - Under the **New Unit Quantity** column, indicate the proposed number of unit heaters for the measure.
  - Under the **New Annual Operating Hours** column, indicate the number of proposed annual operating hours that the unit heaters are expected to run.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### Unit Heater(s) in External Generator Enclosure Measure Worksheet

	Heat Capacity per Unit (kW)	Current Unit Quantity	Current Annual Operating Hours	New Unit Quantity	New Annual Operating Hours	PROGRAM ADMINISTRATOR
						Electric Savings (kWh)
EX	5	1	3,000	1	2,000	-----
1						
2						
3						
4						
5						
<b>Electric Energy Savings Subtotal (kWh)</b>						
<b>Estimated Electric-Cost Savings</b>						\$
<b>Measure Cost</b>						\$
<b>Incentive Subtotal</b>						\$
<b>Simple Payback Period (Years)</b>						

# Incentive Application

## VARIABLE FREQUENCY DRIVE (VFD) CHILLED WATER DISTRIBUTION PUMP ≥ 7.5 HP

This measure is for retrofitting a VFD onto an existing chilled water distribution pump in a communications service provider (telecommunications, internet, or data center) or other similar, critical facility which operates continuously. Variable frequency drives control the motor speed and torque by varying the motor input frequency and voltage. Distribution pumps in these types of facilities often demand extensive electrical consumption. Incorporating a VFD onto an existing pump will allow for more pump modulation, control and energy savings.

### Requirements

- The distribution pump(s) associated with the VFD for the measure must be associated with a critical load, as described above.
- The distribution pump(s) associated with the VFD for the measure must be greater than 7.5 HP.
- Distribution pump(s) associated with the VFD for the measure with a rated power greater than 25 HP will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **VFD Chilled Water Distribution Pump ≥ 7.5 HP Measure Worksheet** table detailed below:
  - Under the **Pump HP** column, indicate the distribution pump(s) power.
  - Under the **Annual Hour of Operation** column, indicate the total number of hours per year the pump is running.
  - Under the **Unit Quantity** column, indicate number of distribution pump(s) for the measure.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### VFD Chilled Water Distribution Pump ≥ 7.5 HP Measure Worksheet

	Pump HP	Annual Hours of Operation	Unit Quantity	PROGRAM ADMINISTRATOR
				Electric Savings (kWh)
EX	20	8,760	1	-----
1				
2				
3				
4				
5				
<b>Electric Energy Savings Subtotal (kWh)</b>				
<b>Estimated Electric-Cost Savings</b>				\$
<b>Measure Cost</b>				\$
<b>Incentive Subtotal</b>				\$
<b>Simple Payback Period (Years)</b>				

# Incentive Application

## VARIABLE FREQUENCY DRIVE (VFD) CONDENSER WATER DISTRIBUTION PUMP ≥ 15 HP

This measure is for retrofitting a VFD onto an existing condenser water distribution pump in a communications service provider (telecommunications, internet, or data center) or other similar, critical facility which operates continuously. Variable frequency drives control the motor speed and torque by varying the motor input frequency and voltage. Distribution pumps in these types of facilities often demand extensive electrical consumption. Incorporating a VFD onto an existing pump will allow for more pump modulation, control and energy savings.

### Requirements

- The distribution pump(s) associated with the VFD for the measure must be associated with a critical load, as described above.
- The distribution pump(s) associated with the VFD for the measure must be greater than 15 HP.
- Distribution pump(s) associated with the VFD for the measure with a rated power greater than 25 HP will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the VFD Condenser Water Distribution Pump ≥ 15 HP Measure Worksheet table detailed below:
  - Under the **Pump HP** column, indicate the distribution pump(s) power.
  - Under the **Annual Hour of Operation** column, indicate the total number of hours per year the pump is running.
  - Under the **Unit Quantity** column, indicate number of distribution pump(s) for the measure.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### VFD Condenser Water Distribution Pump ≥ 15 HP Measure Worksheet

	Pump HP	Annual Hours of Operation	Unit Quantity	PROGRAM ADMINISTRATOR
				Electric Savings (kWh)
EX	20	8,760	1	-----
1				
2				
3				
4				
5				
<b>Electric Energy Savings Subtotal (kWh)</b>				
<b>Estimated Electric-Cost Savings</b>				\$
<b>Measure Cost</b>				\$
<b>Incentive Subtotal</b>				\$
<b>Simple Payback Period (Years)</b>				

# Incentive Application

## TRANSFORMER UPGRADE

This measure is for replacing an inefficient transformer with an efficient ENERGY STAR® certified transformer. A transformer is an apparatus used to convert alternating current from one voltage to another. It can be used to either “step down” the voltage or “step up” the voltage depending on which is needed. Since electrical equipment servicing a data center is provided in a variety of voltages, a transformer is a crucial element to any mission critical facility. More efficient transformer models save energy by requiring less operating power to provide filtering, conversion, and processing of power to the system, especially when equipment being served power by the transformer units operate continuously. The avoided heat load from this equipment consolidation also results in cooling energy savings.

### Requirements

- The transformer(s) must be a component of a critical load, as described above.
- Transformer(s) with a rated output capacity greater than 75 kVA will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **Transformer Upgrade Measure Worksheet** table detailed below:
  - Under the **Current Efficiency** column, indicate the efficiency of the existing transformer.
  - Under the **New Efficiency** column, indicate the efficiency of the proposed transformer.
  - Under the **Rated Output** column, indicate the rated power output of the transformer in kW.
  - Under the **Unit Quantity** column, indicate the number of transformers affected by the measure.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.
- Provide make and model number along with a specification sheet, to confirm efficiencies and ENERGY STAR certification status for both old and new transformers.
  - The old transformer(s) must not be ENERGY STAR certified.
  - The new transformer(s) must be ENERGY STAR certified.

### Transformer Upgrade Measure Worksheet

	Current Efficiency	New Efficiency	Rated Output (kW)	Unit Quantity	PROGRAM ADMINISTRATOR
					Electric Savings (kWh)
EX	85%	98.6%	10	1	-----
1					
2					
3					
4					
5					
<b>Electric Energy Savings Subtotal (kWh)</b>					
<b>Estimated Electric-Cost Savings</b>					<b>\$</b>
<b>Measure Cost</b>					<b>\$</b>
<b>Incentive Subtotal</b>					<b>\$</b>
<b>Simple Payback Period (Years)</b>					



# Incentive Application

## ENERGY EFFICIENT UNINTERRUPTIBLE POWER SUPPLY (UPS) UPGRADE

This measure is for replacing an inefficient UPS with an efficient ENERGY STAR certified UPS in a communications service provider (telecommunications, internet, or data center) or other similar, critical load facility which operates continuously. UPS units provide backup power to critical loads and draw power constantly to keep their batteries charged. UPS units are utilized in many organizations to protect themselves from downtime with power distribution and to avoid data processing errors due to downtimes. More efficient UPS models save energy by requiring less operating power to provide filtering, conversion, and processing of power to the system, especially when equipment being served power by the UPS units operate continuously. The avoided heat load from this equipment consolidation also results in cooling energy savings.

### Requirements

- The UPS system must be a component of a critical load, as described above
- UPS units for individual desktop computers or critical manufacturing loads are not eligible for this measure.
- UPS systems with a rated output capacity greater than 100 kW will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Provide make and model number along with a specification sheet, to confirm efficiencies and ENERGY STAR certification status for both old and new UPS units.
  - The old UPS unit(s) must not be ENERGY STAR certified.
  - The new UPS unit(s) must be ENERGY STAR certified. For single-normal mode UPS units, the installed system must meet or exceed the average loading-adjusted efficiency values required by the ENERGY STAR program.
- Applicants must complete all fields of the **Energy Efficient UPS Upgrade Measure Worksheet** table detailed below:
  - Under the **UPS Product Class** column, indicate the UPS product class which best describes the operation of the UPS:
    - Voltage and Frequency Dependent (VFD), Voltage Independent (VI), Voltage and Frequency Independent (VFI)
  - Under the **Current Efficiency** column, indicate the efficiency of the existing UPS system.
  - Under the **New Efficiency** column, indicate the efficiency of the proposed UPS system.
  - Under the **Rated Output** column, indicate the rated power output of the UPS system in kW.
  - Under the **Unit Quantity** column, indicate the number of UPS systems affected by the measure.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### Energy Efficient UPS Upgrade Measure Worksheet

	UPS Product Class	Current Efficiency	New Efficiency	Rated Output (kW)	Unit Quantity	PROGRAM ADMINISTRATOR
						Electric Savings (kWh)
EX	VFD	86%	97.7%	100	1	-----
1						
2						
3						
4						
5						
<b>Electric Energy Savings Subtotal (kWh)</b>						
<b>Estimated Electric-Cost Savings</b>						<b>\$</b>
<b>Measure Cost</b>						<b>\$</b>
<b>Incentive Subtotal</b>						<b>\$</b>
<b>Simple Payback Period (Years)</b>						

# Incentive Application

## ENERGY EFFICIENT RECTIFIER UPGRADE

This measure is for replacing an inefficient rectifier with an efficient rectifier in a communications service provider (telecommunications, internet, or data center) or other similar, critical load facility which operates continuously. A rectifier converts alternating current (AC) to direct current (DC) to power critical equipment. More efficient models perform the power conversion with reduced loss, saving energy. The energy savings can be substantial when the rectifier services power to equipment which operates continuously. The avoided heat load from this equipment consolidation also results in cooling energy savings.

### Requirements

- Rectifiers must be a component of a critical load, as described above
- Rectifiers serving critical manufacturing loads are not eligible for this measure.
- Rectifier modules with a rated output capacity greater than 100 kW will require measurement and verification of energy savings and must be submitted through the Custom Application process.
- Provide a specification sheet, metered data, and/or pictures of the rectifier display to confirm rectifier efficiencies.
  - The current rectifier(s) efficiency in normal mode (not in energy saver mode) must be equal to or less than 90% at full load.
  - The new rectifier(s) efficiency in normal mode (not in energy saver mode) must be at least 94% at full load.
- Applicants must complete all fields of the **Energy Efficient Rectifier Upgrade Measure Worksheet** table detailed below:
  - Under the **Current Efficiency** column, indicate the efficiency of the existing Rectifier system.
  - Under the **New Efficiency** column, indicate the efficiency of the proposed Rectifier system.
  - Under the **Rated Output** column, indicate the rated power output of the Rectifier system in kW.
  - Under the **Unit Quantity** column, indicate the number of Rectifier systems affected by the measure.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### Energy Efficient Rectifier Upgrade Measure Worksheet

	Current Efficiency	New Efficiency	Rated Output (kW)	Unit Quantity	PROGRAM ADMINISTRATOR
					Electric Savings (kWh)
EX	89%	96%	100	1	-----
1					
2					
3					
4					
5					
<b>Electric Energy Savings Subtotal (kWh)</b>					
<b>Estimated Electric-Cost Savings</b>					<b>\$</b>
<b>Measure Cost</b>					<b>\$</b>
<b>Incentive Subtotal</b>					<b>\$</b>
<b>Simple Payback Period (Years)</b>					

# Incentive Application

## SWITCH PERIPHERAL EQUIPMENT CONSOLIDATION (SPEC)

This measure requires no new equipment but is for the consolidation of partially loaded telecommunications line and trunk equipment. This consolidation is performed to eliminate underutilized switch peripheral equipment and reduce power draw from the rectifier. The avoided heat load from this equipment consolidation also results in cooling energy savings.

### Requirements

- Qualifying switch peripheral equipment (SPE) is defined as any switch module or controller hardware facilitating the interconnection of lines, trunks, or circuits to establish a connection between subscribers.
- Consolidated switch peripheral equipment (SPE) must be fully powered down and retired from operation.
- This measure is only applicable to consolidation events which eliminate 40 pieces of switch peripheral equipment or less from a single switch. The elimination of greater than 40 pieces of switch peripheral equipment per switch will require measurement and verification of energy savings, including on-site amp reduction verification during equipment power-down, and must be submitted through the Custom Application process.
- Applicants must complete all fields of the **SPEC Measure Worksheet** table detailed below.
  - Under the **Cooling Equipment Type** column, indicate the type of cooling equipment serving the SPE:
    - Air Cooled, Water Cooled, Water Cooled with Fluid Economizer, Glycol Cooled, or Glycol Cooled with Fluid Economizer.
  - Under the **Cooling Equipment Capacity** column, indicate the capacity of the cooling equipment serving the SPE:
    - < 5 Tons, ≥ 5 and < 20 Tons, or ≥ 20 Tons.
  - Under the **Airflow Direction** column, indicate the airflow direction of the cooling equipment serving the SPE:
    - Downflow, Upflow Ducted, Upflow Unducted, Horizontal Flow.
  - Under the **SPE Quantity** column, indicate the quantity of switch peripheral equipment pieces consolidated.
- The Program Administrator will complete the **Electric Savings** column and all the measure details below that, based on the other project details provided.

### SPEC Measure Worksheet

	Cooling Equipment Type	Cooling Equipment Capacity	Airflow Direction	SPE Quantity	PROGRAM ADMINISTRATOR
					Electric Savings (kWh)
EX	Air Cooled	≥ 5 and < 20 Tons	Horizontal Flow	22	-----
1					
2					
3					
4					
5					
<b>Electric Energy Savings Subtotal (kWh)</b>					
<b>Estimated Electric-Cost Savings</b>					\$
<b>Measure Cost</b>					\$
<b>Incentive Subtotal</b>					\$
<b>Simple Payback Period (Years)</b>					

Please identify all pieces of switch peripheral equipment removed, including quantity:

Ex: 22 pieces removed total; 2 line group controller, 16 line control module, 4 digital trunk controller

# Incentive Application

## Prescriptive Incentives

### Lighting Systems and Sensors

#### Eligibility Requirements and Incentive Details

Facility lighting must average a minimum of 2,000 hours per year.

- Equipment that has received an incentive at the distributor level through the “Bright Opportunities” Upstream Lighting Program or through any other offering of the Massachusetts or Rhode Island Program Administrators is not eligible for the incentives on this application.
- All LED fixtures must meet Design Lights Consortium (DLC) Technical Requirements Table V5.0 and appear on the DLC Qualified Product List (QPL) under an eligible Category, as indicated per Product Code. For information on technical requirements visit [www.designlights.org](http://www.designlights.org).
- Some lighting may require verified specifications and a certification by ENERGY STAR®, as indicated per Product Code. For more information on ENERGY STAR certified lighting, visit [www.energystar.gov](http://www.energystar.gov).

Fixture Types that are not defined by the categories below or not included in the current Design Lights Consortium – Technical Requirements Table V5.0 may be eligible for incentives under a Custom application. Contact an Energy Advisor for more details.

### LIGHTING SYSTEMS ELIGIBILITY AND INCENTIVE LEVELS

(Complete Retrofit Lighting Systems Inventory Worksheet)

Product Code	Product Description	Per Fixture Incentive	Eligibility Criteria	Min Watts Saved
Linear Lamp/Ballast Replacement Options				
81AT8	T8 Linear Replacement Lamps: 2', 3', 4' & 8' T8 UL Type A, B, or AB Lamps	\$8	DLC listed Linear Replacement Lamps	10
81AT5	T5 Linear Replacement Lamps: 4' T5 & 4' T5HO UL Type A, B, or AB Lamps	\$16		
81ATB	U-Bend Linear Replacement Lamps: UL Type A, B, or AB Lamps	\$16		
81	T8 LED Linear Retrofit Tube Kits: UL Type C LED tubes that use the existing bi-pin fluorescent sockets are not eligible	\$10 (per lamp incentive within a qualifying kit)	DLC listed T8 LED Linear Retrofit Tube Kits and Driver	10
81D	T5 LED Linear & U-Bend Retrofit Tube Kits: UL Type C LED tubes that use the existing bi-pin fluorescent sockets are not eligible	\$18 (per lamp incentive within a qualifying kit)	DLC listed T5 LED Linear & U-Bend Retrofit Tube Kits and Driver	20

# Incentive Application

Product Code	Product Description	Per Fixture Incentive	Eligibility Criteria	Min Watts Saved
Screw & Plug Base Lamps				
81A60	A-Line, 40/60W Equivalent	\$6	ENERGY STAR qualified or DLC equivalent	10
81A75	A-Line, 75/100W Equivalent	\$10		
81A16	PAR16 or MR16 (pin or GU10 base type)	\$12		
81A20	PAR20/R20	\$12		
81A30	PAR30 or BR30 or R30	\$18		
81A38	PAR38 or BR40 or R40	\$20		
81G23	G23 and 2G11 Base	\$12		
81G24	G24 Base	\$14		
81AD	Decoratives (Globe, Candle, B-Shapes)	\$8		
80A	Down Light Kit/Fixture – Hard Wired, Screw-Base or GU-24 base (250-3,500 lumens)	\$25	Hardwired, GU-24, or screw base fixtures with 250 - 3,500 lumens and listed as a Commercial LED product by ENERGY STAR	20
81M	Mogul Screw-Base (E39/E40) Replacements for HID Lamps: Indoor Low Bay, Outdoor Low Output & Mid Output Lamps	\$60	DLC listed LED Mogul Screw-Base (E39/E40) Replacement for HID Lamps	100
81MH	Mogul Screw-Base (E39/E40) Replacements for HID Lamps: Indoor High Bay, Outdoor High Output & Very High Output Lamps	\$80		200
Indoor Luminaires & Retrofit Kits				
88A	LED Indoor Retrofit Kits: 1x4, 2x2, and 2x4 Troffers	\$50	DLC listed LED Indoor Retrofit Kits: 1x4, 2x2 and 2x4 Troffers	23
88B	LED Indoor Troffers: 1x4, 2x2, and 2x4	\$60	DLC listed LED Indoor Luminaires: 1x4, 2x2 and 2x4 Troffers	23
89	LED Linear Ambient	\$40	DLC listed LED Indoor Luminaires or Indoor Retrofit Kits: Linear Ambient (Direct or with Indirect Component), with greater than 375 lumens per foot	23
91	LED Interior Directional: Wall Wash, Track, or Mono-Point Directional Luminaires	\$40	DLC listed LED Indoor Luminaires: Interior Directional Luminaires – Wall Wash, Track, or Mono-Point Directional Luminaires either surface or recessed mounted	23
82A	LED Display Case: Retail, Cooler, Freezer Case, or Refrigerated Shelving Fixtures	\$40	DLC listed LED Indoor Luminaires: Case Lighting, with greater than 50 lumens per foot	20
80A	Down Light Kits/Fixtures – Hard Wired, Screw-Base or GU-24 base (250-3,500 lumens)	\$25	Hardwired, GU-24, or screw base fixtures with 250 - 3,500 lumens and listed as a Commercial LED product by ENERGY STAR	20
80B	Down Light Kits/Fixtures – Hard Wired, Screw-base or GU-24 base (>3,500-7,000 lumens)	\$75	Hardwired, GU-24, or screw base fixtures with greater than 3,500 to 7,000 lumens and listed as a Commercial LED product by ENERGY STAR	40
80C	Down Light Kits/Fixtures – Hard Wired, Screw-base or GU-24 (>7,000 Lumens)	\$150	Hardwired, GU-24, or screw base fixtures with greater than 7,000 lumens and listed as a Commercial LED product by ENERGY STAR	60

# Incentive Application

Product Code	Product Description	Per Fixture Incentive	Eligibility Criteria	Min Watts Saved
86A	Low Bay: Mid Output (5,000-10,000 lumens)	\$100	DLC listed LED Indoor Luminaires or Indoor Retrofit Kits: Low Bay, with 5,000-10,000 lumen minimum light output	75
86B	High Bay: High Output (>10,000-30,000 Lumens)	\$150	DLC listed LED Indoor Luminaires or Indoor Retrofit Kits: High Bay, with greater than 10,000 lumen minimum light output	100
86C	High Bay: Very High Output (>30,000 Lumens)	\$200	DLC listed LED Indoor Luminaires or Indoor Retrofit Kits: High Bay, with greater than 30,000 lumen minimum light output	150
Outdoor Luminaires & Retrofit Kits				
85A	Low Output (250-5,000 lumens)	\$100	DLC listed LED Outdoor Luminaires or Outdoor Retrofit Kits: Low Output, with 250-5,000 lumen minimum light output	75
85B	Mid Output (>5,000-10,000 lumens)	\$150	DLC listed LED Outdoor Luminaires or Outdoor Retrofit Kits: Mid Output, with 5,000-10,000 lumen minimum light output	100
85C	High Output (>10,000-30,000 Lumens)	\$200	DLC listed LED Outdoor Luminaires or Outdoor Retrofit Kits: High Output, with 10,000-30,000 lumen minimum light output	150
85D	Very High Output (>30,000 Lumens)	\$250	DLC listed LED Outdoor Luminaires or Outdoor Retrofit Kits: Very High Output, with greater than 30,000 lumen minimum light output	200

# Incentive Application

## Retrofit Lighting Systems Inventory Worksheet

Building and room identification (installation site):

		Existing Fixtures (Required for Replacements Only)				Proposed Fixtures						
	Location	Qty	Lamp/Ballast Description	Device Code	Existing Watts per fixture/device	Product Code	Qty	Manufacturer & Model	Proposed Watts per fixture/device	Annual Operating Hours*	Unit Incentive	Total Incentive
Ex.	Lobby-East Entrance	4	4' 3-lamp T12 Magnetic	3F40SEM	110 watts	88A	4	ABC Corp -- Model #123	35 watts	3,200 hours	\$50	\$200
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
<b>Total Requested Lighting System Incentives (this page)</b>												

\*Facility lighting must average a minimum of 2,000 hours per year, except Municipal Facilities who must contact their Program Administrator for more information on eligibility requirements.

# Incentive Application

As an alternative to the prescriptive incentives below, consider the Mass Save Performance Lighting Controls Program which offers potential to achieve over 50% energy savings. Contact your Energy Advisor for more information or visit: <https://www.masssave.com/en/saving/business-rebates/lighting-and-lighting-control-upgrades/>.

## LIGHTING SENSOR ELIGIBILITY AND INCENTIVE LEVELS

(Complete Retrofit Lighting Sensor Inventory Worksheet)

Product Code	Product Description	Per Fixture Incentive	Eligibility Criteria	Min Watts Saved
Sensors & Control Systems				
61	Remote Mounted Occupancy Sensor	\$30	Comply with manufacturer's coverage recommendations. Ceiling mounted control. No manual "ON" overrides permitted.	40
62	Daylight Dimming System and/or Occupancy Controlled Dimming System	\$15 (per fixture)	LED drivers must be automatically controlled based on occupancy or daylight levels.	20 (per fixture)
63	Interior Integral Fixture Mounted Dual Sensors	\$20 (per fixture)	Integral fixture mounted dual sensors with motion and photocell/ambient light sensors. System to control motion response and illumination levels. Only one incentive per fixture.	20 (per fixture)
63A	Integral Fixture Mounted Dual Sensors and Network-Capable Controls	\$30 (per fixture)	Integral, fixture-mounted, addressable sensors with motion and photocell/ambient light-sensing capabilities along with embedded programming that can be configured and networked. System to control motion response, illumination levels, and scheduling. Must document that the fixtures have been tuned and commissioned after installation. Only one incentive per fixture. See the Specification and QPL for specific requirements: <a href="https://www.designlights.org/lighting-controls/">https://www.designlights.org/lighting-controls/</a>	50 (total wattage of networked group)
64	Wall Mounted Occupancy Sensors	\$20	Occupancy Sensors must operate as Automatic On and Off. Sensors are wall mounted devices only. Vacancy Sensors with Manual ON/OFF options are allowed, however, manual "ON" overrides are not permitted.	20
65	Outdoor Sensor with Integral Dual Sensors (outdoor lighting systems on 24/7)	\$25	Integral fixture mounted dual sensors with motion and photocell/ambient light sensors. System to control motion response and illumination levels. Only one incentive per fixture. Photocell Sensor or Hard-Wired Astronomical Timer controlled for lighting systems that operate on 24 hours a day, 7 days a week (8,760 hours annually)	50
65A	Outdoor Integral Fixture Mounted Programmable Controller	\$50 (per fixture)	Outdoor integral controller (may be NEMA mounted). Controller to be programmable and able to report, monitor, schedule, and control lamp/driver illumination levels. Communication capable between fixtures and a centralized network. System would allow network communication to receive and transmit data for configuring groups, addressability, reporting and advanced scheduling. Only one incentive per networked fixture.	100 (total wattage of networked group)
68	Integral Occupancy Sensor for High Bay Fixtures	\$25 (per fixture)	Fluorescent ballasts or LED drivers must be automatically controlled based on occupancy. Systems with manual "ON" or override switches are not eligible. Occupancy sensors must be integral to (built into) or permanently attached to each fixture.	50 (per fixture)



# Incentive Application

## Retrofit Lighting Sensor Inventory Worksheet

Building and room identification (installation site):											
Ex.	Location of Sensor	Product Code	Manufacturer & Model	Qty of Sensors	# of Fixtures Controlled by Sensors	Fixture Description	Total Watts per Sensor	Annual Operating Hours	Unit Incentive	Total Incentive	
	Lobby-East Entrance	61	ABC Corp – Model #123	1	4	(4) 26-watt LED downlights	104 watts	2,500 hours	\$30	\$30	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
<b>Total Requested Lighting Sensor Incentives (this page)</b>											

# Incentive Application

## HVAC Measures

### Motors & VSDs

Please review the eligibility requirements in the Important VSD Information section below. Attach invoices, product specifications sheets, and other relevant documentation to this application. VSDs installed as process applications, wastewater or municipal supply applications must use the Custom Application process, which requires detailed energy savings calculations.

**Table 1: Select VSD Installation Type**

BDF	Boiler Draft Fan	FWP	Boiler Feed Water Pump	PE	Process Exhaust and Make-Up Fan
BEF	Building Exhaust Fan	HWP	Hot Water Circ Pump	RFA	HVAC Return Air Fan
CTF	Cooling Tower Fan (Single Speed Only)	MAF	Make-Up Air Fan	SFA	HVAC Supply Air Fan
CWP	Chilled / Cond Water Pump	PCP	Process Cooling Pump	WHP	WS Heat Pump Circ Loop

**Table 2: Select VSD Size**

Horsepower	Incentive	Horsepower	Incentive	Horsepower	Incentive	Horsepower	Incentive
1 - 3	\$ 1,250	15	\$ 2,750	30	\$ 4,800	60	\$ 8,250
5 - 7.5	\$ 1,750	20	\$ 3,300	40	\$ 5,850	75	\$ 9,450
10	\$ 2,250	25	\$ 4,050	50	\$ 6,750	100-150	\$ 10,950

**Table 3: Controlling Parameters**

DP	Pressure Differential	DT	Temperature Differential	OTH	Other Specify:
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### Retrofit VSD Inventory Worksheet

Installation Type (Table 1)	VSD & Motor HP (Table 2)	Controlling Parameter (Table 3)	Motor Type (ODP, TEFC)	Motor Speed (RPM)	NEMA Nominal Efficiency	Annual Hours of Operation*	Alternate or Backup?	Location / Designation	Requested Incentive per VSD (Table 2)
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
							<input type="checkbox"/> Yes		
<b>Total Requested VSD Incentives</b>									

\*Motors must operate a minimum of 2,000 hours annually to qualify for incentives.

# Incentive Application

## Important VSD Information

VSDs can be sensitive to over-voltages that occur when power-factor correcting capacitor banks on the utility power system are switched on. A minimum 3% series reactor (inductor, choke) is strongly recommended on the drive AC input connections based on the horsepower of the VSD to be installed. In some instances, your supplier may find it necessary to install 5% reactors and, rarely, 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 VSDs which incorporate pulse width modulation (PWM) may produce over-voltages 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.

Prescriptive Incentives will be provided for the installation of VSDs from 1-150 HP for ONLY the installation types outlined in Table 1:

- |  |  |
|--|--|
| a. Supply Fan on constant volume supply air handler and VAV packaged HVAC unit [SFA] | f. Boiler Feed Water Pump [FWP]                          |
| b. Return Fan on constant volume return air handler and VAV packaged HVAC unit [RFA] | g. Water Source Heat Pump Circulation Pump [WHP]         |
| c. Boiler Draft Fan [BDF]  | h. Heating Hot Water Pump [HWP]                          |
| d. Cooling Tower Fan [CTF]   | i. Process Cooling Pump [PCP]                            |
| e. Chilled and Condenser Water Distribution Pump [CWP]                               | j. Process Exhaust and Make-Up Fan [PE] (non VAV system) |

All other VSD applications MUST file through the Custom Application process.

**VSDs must be controlled by an automatic signal in response to modulating air/water flows. The VSD speed must be automatically controlled by differential pressure, flow, or temperature.** Applicants must demonstrate significant load diversity that will result in savings through motor speed variation.

**NOTE:** The following VSD applications are NOT eligible for prescriptive incentives under this measure:

- |   |  |
|---|--|
| a. Forward curve fans with inlet guide vanes,                   | f. VSD used as two-speed control of fan or pump,   |
| b. Variable pitch vane-axial fans,                              | g. VSD used to mitigate over-sized motor installation,   |
| c. Planned replacement or replacement of previously failed VSD, | h. VFDs on pumps in municipal or private water supply or wastewater facilities, used for applications other than HVAC circulating systems, must apply for incentives through the Custom Application process. |
| d. VSD used for balancing,                                      |  |
| e. Two-speed cooling tower fans,                                |  |

# Incentive Application

Motors must be new NEMA-Premium, inverter-duty rated, 3 phase, 1-150 HP, open drip proof (ODP) or totally enclosed fan cooled (TEFC), 1200, 1800, or 3600 RPM motors. Motors must operate a minimum of 2,000 hours annually and meet/exceed the minimum efficiency levels listed in the tables below.

Minimum Efficiency Levels – Open Drip-Proof (ODP) Motors																		
NEMA Nominal Efficiency																		
Size (HP)	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	125	150
<b>1200 RPM</b>	82.5%	86.5%	87.5%	88.5%	89.5%	90.2%	91.7%	91.7%	92.4%	93.0%	93.6%	94.1%	94.1%	94.5%	94.5%	95.0%	95.0%	95.4%
<b>1800 RPM</b>	85.5%	86.5%	86.5%	86.5%	89.5%	91.0%	91.7%	93.0%	93.0%	93.6%	94.1%	94.1%	94.5%	95.0%	95.0%	95.4%	95.4%	95.8%
<b>3600 RPM</b>	77.0%	84.0%	85.5%	85.5%	86.5%	88.5%	89.5%	90.2%	91.0%	91.7%	91.7%	92.4%	93.0%	93.6%	93.6%	93.6%	94.1%	94.1%

Minimum Efficiency Levels – Totally Enclosed Fan-Cooled (TEFC) Motors																		
NEMA Nominal Efficiency																		
Size (HP)	1	1.5	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100	125	150
<b>1200 RPM</b>	82.5%	87.5%	88.5%	89.5%	89.5%	91.0%	91.0%	91.7%	91.7%	93.0%	93.0%	94.1%	94.1%	94.5%	94.5%	95.0%	95.0%	95.8%
<b>1800 RPM</b>	85.5%	86.5%	86.5%	89.5%	89.5%	91.7%	91.7%	92.4%	93.0%	93.6%	93.6%	94.1%	94.5%	95.0%	95.4%	95.4%	95.4%	95.8%
<b>3600 RPM</b>	77.0%	84.0%	85.5%	86.5%	88.5%	89.5%	90.2%	91.0%	91.0%	91.7%	91.7%	92.4%	93.0%	93.6%	93.6%	94.1%	95.0%	95.0%

ECM Motors						
	Quantity	CFM Rating	Annual Hours of Operation	Location	Dollars	Requested Incentives
Electronically Commutated Motors (ECM) for Fan Powered Boxes & Fan Coils or HVAC Supply Fans Only					\$ 100.00	
					\$ 100.00	
					\$ 100.00	
					\$ 100.00	
					\$ 100.00	
					\$ 100.00	
					\$ 100.00	
					\$ 100.00	
					\$ 100.00	
					\$ 100.00	
<b>Total Requested ECM Incentives</b>						<b>\$</b>

# Incentive Application

## Chillers

Please review the eligibility requirements outlined below. Submit with invoices, product specification sheets, and other relevant documentation.

### STEP 1: Select Eligible Chiller Installation Type:

- New Construction:** Chiller installation in a new single chiller system (excluding back-up systems).
- Equipment Replacement:** Chiller replacement in an existing single chiller system. Complete Chiller Plant Inventory in Step 3 below.
- Primary Chiller Replacement:** Replacement of the primary/lead chiller in an existing multiple chiller plant.

### STEP 2: Verify Eligibility and Calculate Incentive:

Eligible Equipment			Proposed Equipment		Incentives				
Type*	Unit Size – AHRI Net Tons	Minimum Efficiency: FL or IPLV	AHRI Ratings		Base Unit Incentive (per ton)	Base Total	Performance Incentive <sup>1</sup>	Performance Total <sup>***</sup>	Requested Incentive Dollars
			Net Tons	Unit Efficiency**					
<b>Water Chillers @ AHRI 550/590</b>									
<b>A</b>	Air cooled w/condenser, electrically operated/ remote condenser (split system). Must be equipped with matching condensers.								
	< 150 Tons	FL: 10.61 EER IPLV: 16.59 EER		FL: _____ EER	\$30		\$2.20		
	≥ 150 Tons	FL: 10.61 EER IPLV: 16.91 EER		IPLV: _____ EER	\$32		\$4.00		
<b>B</b>	Water cooled, electrically operated, positive displacement.								
	≥ 75 and < 150 Tons	FL: 0.684 kW/Ton IPLV: 0.466 kW/Ton		FL: _____ kW/Ton IPLV: _____ kW/Ton	\$25		\$5.00		
	≥ 150 and < 300 Tons	FL: 0.627 kW/Ton IPLV: 0.418 kW/Ton			\$22		\$4.50		
	≥ 300 and < 600 Tons	FL: 0.580 kW/Ton IPLV: 0.390 kW/Ton			\$22		\$4.50		
<b>C</b>	Water cooled, electrically operated, centrifugal.								
	< 150 Tons	FL: 0.580 kW/Ton IPLV: 0.418 kW/Ton		FL: _____ kW/Ton IPLV: _____ kW/Ton	\$25		\$4.50		
	≥ 150 and < 300 Tons	FL: 0.580 kW/Ton IPLV: 0.380 kW/Ton			\$30		\$5.50		
	≥ 300 and < 400 Tons	FL: 0.532 kW/Ton IPLV: 0.371 kW/Ton			\$25		\$5.50		
	≥ 400 Tons	FL: 0.532 kW/Ton IPLV: 0.361 kW/Ton			\$20		\$4.00		

<sup>1</sup> For each 0.1 EER point above or each 0.01 kW/ton point below minimum criteria relative to IPLV

\*Air cooled oil free compressors are classified here as air cooled, and water cooled oil free compressors are classified here as centrifugal.

\*\* Unit must meet or exceed either the FL or IPLV minimum qualifying efficiency.

\*\*\* Performance Incentive is limited to a maximum of three (3) times the Base Incentive.

# Incentive Application

Please complete the following form in the typical sequencing order:

### STEP 3: Complete Chiller Plant Inventory

Chiller ID#	Tons	Evaporator			Condenser			Peak kW/Ton	IPLV kW/Ton
		GPM	EWT	LWT	GPM	EWT	LWT		
EX: CH-1	1000	1500	56°F	40°F	3000	76°F	85.22°F	0.545	0.498
<b>Total Plant Load</b>	Tons								

### Requirements

- Prescriptive Incentives will be provided for the installation of electrically operated comfort cooling air-cooled water chillers and water-cooled water chillers with a maximum capacity of 1000 Tons.
- Chillers shall comply with the minimum requirements outlined in the applicable section of the current MA or RI State Building Code.
- Efficiency criteria are based on AHRI Standards 550/590 as appropriate.
- Chillers selected off-AHRI conditions must provide both the AHRI rated performance and the design duty performance.
- Attach a copy of the manufacturers' performance sheet where the AHRI standard FL and IPLV and/or design duty FL and IPLV are clearly stated. Air-Cooled chillers shall be rated in EER and water-cooled chillers shall be rated in kW/Ton.
- New replacement chillers must be a one-to-one replacement in kind for tonnage and condenser type.
- All new water-cooled chillers must be equipped with condenser water reset strategy.
- Chiller with VFD recommended to have a minimum 3% impedance reactor in its AC power input connection.
- Educational facilities with summer breaks shall have at least 300 hours of operation. All other facility types shall operate at least 800 EFLH annually or 1500 annual run hours.
- The above Chiller Plant Inventory must be completed, and the total estimated plant load must be stated.

For chillers that do not meet the above eligibility requirements, customers may choose the Custom Application process. Customers should contact their Energy Advisor and consider the Custom Application process:

- For all chillers greater than 1000 Tons.
- For applications for more than one chiller.
- For chillers used for process cooling or a critical load facility which operates continuously (data center and IT loads).
- For chillers that are under consideration of the Comprehensive retrofit in an existing facility or Comprehensive lost opportunities in a new construction project.

# Incentive Application

## Small Commercial Heat Pumps

The small commercial heat pump measures on this page are subject to the following eligibility requirements. If your facility or equipment doesn't meet these requirements, then talk to your Energy Advisor about applying for incentives through the Custom Application process.

- Total conditioned business space must be less than 10,000 square feet.
- Installed heat pumps must be rated at less than 5.4 tons of cooling capacity per outdoor unit.
- Actual tons are calculated based on AHRI cooling capacity in Btus, divided by 12,000 Btus per ton.
  - Rounding of SEER and HSPF ratings is not acceptable.
  - Incentives will be based on tonnage rating up to two decimal places.
- National Grid does not recommend fully replacing existing central heating systems with heat pump equipment. Customers that choose to do so may apply for the Energy Optimization incentive levels without the installation of an integrated control.

## STANDARD HEAT PUMP INCENTIVES

Equipment Type	Efficiency Requirements	Incentive Amount
Central Ducted Heat Pump < 5.4 Tons	Refer to Heat Pump Qualified Product List at: <a href="http://MassSave.com/HPQPL">MassSave.com/HPQPL</a>	\$250 per ton
Ductless Mini or Multi-Split		

## ENERGY OPTIMIZATION HEAT PUMP INCENTIVES

Equipment Type	Efficiency Requirements	Primary Fuel Type	Additional Requirements	Incentive Amount
Central Ducted Heat Pump < 5.4 Tons	Refer to Heat Pump Qualified Product List at: <a href="http://MassSave.com/HPQPL">MassSave.com/HPQPL</a>	Oil, Propane, or Electric Resistance Heat	Integrated controls required (for oil or propane heat) unless central heating system is removed. Refer to Integrated Controls Qualified Product List at: <a href="http://MassSave.com/ICQPL">MassSave.com/ICQPL</a>	\$1,250 per ton
Ductless Mini or Multi-Split				

## New Equipment Installed (must complete all fields)

Pre-Existing Heating Fuel Type:	<input type="checkbox"/> Electric Resistance Heat <input type="checkbox"/> Oil <input type="checkbox"/> Propane <input type="checkbox"/> Natural Gas				
Pre-Existing Heating System Type:	<input type="checkbox"/> Forced Hot Water or Steam System <input type="checkbox"/> Forced Hot Air System <input type="checkbox"/> Electric Baseboard				
Pre-Existing Cooling System Type:	<input type="checkbox"/> Central AC <input type="checkbox"/> Window AC <input type="checkbox"/> None				
Zone Space Type:	<input type="checkbox"/> Office <input type="checkbox"/> Service/Other <input type="checkbox"/> Food Sales <input type="checkbox"/> Outpatient Health <input type="checkbox"/> Education <input type="checkbox"/> Retail (Non-Mall) <input type="checkbox"/> Food Service <input type="checkbox"/> Public Assembly <input type="checkbox"/> Religious Worship				Balance Point: _____ °F
Incentive Type:	<input type="checkbox"/> Standard (\$250/ton) <input type="checkbox"/> Energy Optimization (\$1,250/ton) NOTE: Energy Optimization incentives available to customers with fuel oil, propane, or electric resistance heating only				

System Type	Square Footage*	AHRI Reference #	Efficiency Rating	Integrated Control Model Number(s)	Qty**	# of Tons	Customer Incentive
<b>Subtotal Requested Commercial Heat Pump Incentives</b>							

**System Type** = Central Ducted, Ductless Mini, or Ductless Multi-Split

**Square Footage\*** = Conditioned space of zone covered by outdoor unit(s)

**Efficiency Rating** = Per AHRI certificate

**Integrated Control Model Number(s)** = Not applicable for standard incentives, electric heat, or full oil/propane displacement

**# of Tons** = 1 ton = 12,000 Btu

\*Total space must be less than 10,000 square feet. Contact your Energy Advisor if project square footage is greater than 10,000 square feet.

\*\*If multiple identical outdoor units, total quantity must be five (5) or fewer. Contact your Energy Advisor if the number of outdoor units exceeds five (5).

# Incentive Application

## Terms & Conditions

### 1. Incentives

Subject to these Terms & Conditions, the PA will pay Incentives to Customer for the installation of EEMs.

### 2. Definitions

- a. "Approval Letter" means the letter issued by PA, or its representative, Franklin Energy, stating PA's approval of Customer's application, the maximum approved Incentives, required date of EEM completion, any changes to Customer's application and any other requirements of the PA related to the Incentives.
- b. "Customer" means the commercial and industrial ("C&I") customer maintaining an active account for service with either a gas or electric distribution company.
- c. "EEMs" are those energy efficiency measures described in the Program Materials or other Custom Measures that may be approved by the PA.
- d. "Facility" means the Customer location in Massachusetts or Rhode Island served by the PA where EEMs are to be installed.
- e. "Incentives" means those payments made by the PA to Customer pursuant to the Program and these Terms and Conditions. Incentives may also be referred to as "Rebates".
- f. "Minimum Requirements Document" means the minimum requirements document that may be required by the PA, which, if so required, will be submitted with Customer's application and approved by PA.
- g. "Program" means any of the energy efficiency programs offered to a C&I Customer by PA.
- h. "PA" or "Program Administrator" means National Grid.
- i. "Program Materials" means the documents and information provided or made available by the PA specifying the qualifying EEMs, technology requirements, costs and other Program requirements.

### 3. Application Process and Requirement for PA Approval

- a. The Customer shall submit a completed application to the PA's representative, Franklin Energy. The Customer may be required to provide the PA with additional information upon request by the PA. Customer will, upon request by the PA, provide a copy of the as-built drawings and equipment submittals for the Facility after EEMs are installed. To the extent required by the PA or by applicable law, regulation or code, this analysis shall be prepared by a Professional Engineer licensed in the state where the Facility is located.
- b. To be eligible for gas funded EEM's Customer must have an active natural gas account. To be eligible for electric funded EEM's a Customer must have an active electric account. Customers must meet any additional eligibility requirements set forth in the Program Materials.
- c. The PA reserves the right to reject or modify Customer's application. The PA may also require the Customer to execute additional agreements, or provide other documentation prior to PA approval. If PA approves Customer's application, PA will provide Customer with the Approval Letter.
- d. The PA reserves the right to approve or disapprove of any application or proposed EEMs.
- e. Sections 3(a)-(c) do not apply in the event that the Program Materials explicitly state that no Approval Letter is required for the Program. In such an event, Customer must submit to PA the following:
  - i. completed and signed Program rebate form,
  - ii. original date receipts for purchase and installation of EEMs, and
  - iii. any other required information or documentation within such time as Program Materials indicate.

### 4. Pre- and Post-Installation Verification; Monitoring and Inspection

- a. Customer shall cooperate and provide access to Facility and EEM for PA's pre-installation and post-installation verifications. Such verifications must be completed to PA's satisfaction.
- b. Customer agrees that PA may perform monitoring and inspection of the EEMs for a three-year period following completion of the installation in order to determine the actual demand reduction and energy savings.

### 5. Installation Schedule Requirements

If the Customer does not complete installation of the approved EEMs within the earlier of the completion date specified in the Approval Letter or twelve (12) months from the date the PA issues written pre-approval of the EEM project, the PA may terminate any obligation to make Incentive payments.

### 6. Incentive Amounts, Requirements for Incentives and Incentive Payment Conditions

- a. The PA reserves the right to adjust and/or negotiate the Incentive amount. PA will pay no more than the cost to Customer of purchasing and installing the EEM, the calculated incremental cost, the prescriptive rebate on the form, or the amount in the Approval Letter (unless such Approval Letter is not required), whichever is less.
- b. PA shall not be obligated to pay the Incentive amount until all the following conditions are met: (1) PA approves Customer's application and PA, or its representative, Franklin Energy, provides the Approval Letter (unless an Approval Letter is not required by the terms of the Rebate), (2) satisfactory completion of pre-installation and post-installation verifications by PA or its representative, Franklin Energy, (3) purchase and installation of EEMs in accordance with Approval Letter, Program Materials, Minimum Requirements Document, Customer's application and these Terms and Conditions, (4) all applicable permits, licenses and inspections have been obtained by Customer, (5) PA's receipt of final drawings, operation and maintenance manuals, operator training, permit documents, and other reasonable documentation, and (6) PA's receipt of all invoices for the purchase and installation of the EEMs.
- c. All EEM invoices will include, at the minimum, the model, quantity, labor, materials, and cost of each EEM and/or service, and will identify any applicable discounts or other incentives.
- d. PA reserves the right, in its sole discretion, to modify, withhold or eliminate the Incentive if the conditions set forth in Section 6(b) are not met.
- e. Upon PA's written request, Customer will be required to refund any Incentives paid in the event that Customer does not comply with these Terms and Conditions and Program requirements.
- f. PA shall use commercially reasonable efforts to pay the Incentive amount within forty-five (45) days after the date all conditions in Section 6(b) are met.

### 7. Contractor Shared Savings Arrangements

If EEMs are being installed by a contractor under a shared savings arrangement, in which the contractor's compensation is based on the savings achieved, the PA maintains the right to determine the cost of purchasing and installing the EEMs.

### 8. Maintenance of EEMs

Customer shall properly operate and maintain the EEMs in accordance with the manufacturer's recommendations and the terms thereof for the life of the equipment.

### 9. Program/Terms and Conditions Changes

Program terms and materials (including these Terms & Conditions) may be changed by the PA at any time without notice. The PA reserves the right, for any reason, to withhold approval of projects and any EEMs, and to cancel or alter the Program, at any time without notice. Approved applications will be processed under the Terms and Conditions and Program Materials in effect at the time of the Approval Letter.

### 10. Publicity of Customer Participation

The Customer grants to the PA the absolute and irrevocable right to use and disclose for promotional and regulatory purposes (a) any information relating to the Customer's participation in the Program, including, without limitation, Customer's name, project energy savings, EEMs installed, and incentive amounts, and (b) any photographs taken of Customer, EEMs, or Facility in connection with the Program, in any medium now here or hereafter known.



# Incentive Application

## 11. Indemnification and Limitation of the PA's Liability

- a. To the fullest extent allowed by law, Customer shall indemnify, defend and hold harmless PA, its affiliates and their respective contractors, officers, directors, members, employees, agents, representatives from and against any and all claims, damages, losses and expenses, including reasonable attorneys' fees and costs incurred to enforce this indemnity, arising out of, resulting from, or related to the Program or the performance of any services or other work in connection with the Program, caused or alleged to be caused in whole or in part by any actual or alleged act or omission of the Customer, or any contractor, subcontractor, agent, or third party hired by or directly or indirectly under the control of the Customer, including any party directly or indirectly employed by or under the control of any such contractor, subcontractor, agent, or third party or any other party for whose acts any of them may be liable.
- b. To the fullest extent allowed by law, the PA's aggregate liability, regardless of the number or size of the claims, shall be limited to paying approved Incentives in accordance with these Terms and Conditions and the Program Materials, and the PA and its affiliates and their respective contractors, officers, directors, members, employees, agents, representatives shall not be liable to the Customer or any third party for any other obligation. To the fullest extent allowed by law and as part of the consideration for participation in the Program, the Customer waives and releases the PA and its affiliates from all obligations (other than payment of an Incentive), and for any liability or claim associated with the EEMs, the performance of the EEMs, the Program, or these Terms and Conditions.

## 12. No Warranties or Representations by the PA

- a. THE PA DOES NOT ENDORSE, GUARANTEE, OR WARRANT ANY CONTRACTOR, MANUFACTURER OR PRODUCT, AND THE PA MAKES NO WARRANTIES OR GUARANTEES IN CONNECTION WITH ANY PROJECT, OR ANY SERVICES PERFORMED IN CONNECTION HEREWITH OR THEREWITH, WHETHER STATUTORY, ORAL, WRITTEN, EXPRESS, OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THIS DISCLAIMER SHALL SURVIVE ANY CANCELLATION, COMPLETION, TERMINATION OR EXPIRATION OF THE CUSTOMER'S PARTICIPATION IN THE PROGRAM. CUSTOMER ACKNOWLEDGES AND AGREES THAT ANY WARRANTIES PROVIDED BY ORIGINAL MANUFACTURERS', LICENSORS', OR PROVIDERS' OF MATERIAL, EQUIPMENT, OR OTHER ITEMS PROVIDED OR USED IN CONNECTION WITH THE PROGRAM UNDER THESE TERMS AND CONDITIONS, INCLUDING ITEMS INCORPORATED IN THE PROGRAM, ("THIRD PARTY WARRANTIES") ARE NOT TO BE CONSIDERED WARRANTIES OF THE PA AND THE PA MAKES NO REPRESENTATIONS, GUARANTEES, OR WARRANTIES AS TO THE APPLICABILITY OR ENFORCEABILITY OF ANY SUCH THIRD PARTY WARRANTIES. THE TERMS OF THIS SECTION SHALL GOVERN OVER ANY CONTRARY VERBAL STATEMENTS OR LANGUAGE APPEARING IN ANY PA'S OTHER DOCUMENTS.
- b. Review of the design and installation of EEMs by PA is limited solely to determine whether Program requirements have been met and shall not constitute an assumption by PA of liability with respect to the EEMs. Neither the PA nor any of its employees or contractors is responsible for determining that the design, engineering or installation of the EEMs is proper or complies with any particular laws, codes, or industry standards. The PA does not make any representations of any kind regarding the benefits or energy savings to be achieved by the EEMs or the adequacy or safety of the EEMs.
- c. PA is not a manufacturer of, or regularly engaged in the sale or distribution of, or an expert with regard to, any equipment or work.
- d. No activity by the PA includes any kind of safety, code or other compliance review.

## 13. Customer Responsibilities

Customer is responsible for all aspects of the EEMs and related work including without limitation, (a) selecting and purchasing the EEMs, (b) selecting and contracting with the contractor(s), (c) ensuring contractor(s) are properly qualified, licensed and insured, (d) ensuring EEMs and installation of EEMs meet industry standards, Program requirements and applicable laws, regulations and codes, and (e) obtaining required permits and inspections. PA reserves the right to (a) deny a vendor or contractor providing equipment or services, and (b) exclude certain equipment from the Program.

## 14. Removal of Equipment

The Customer shall properly remove and dispose of or recycle the equipment, lamps and components in accordance with all applicable laws, and regulations and codes. Customer will not re-install any of removed equipment in the Commonwealth of Massachusetts or State of Rhode Island or the service territory of any affiliate of the PA, and assumes all risk and liability associated with the reuse and disposal thereof.

## 15. Energy Benefits

Other than the (i) the energy cost savings realized by Customer, (ii) energy or ancillary service market revenue achieved through market sensitive dispatch, (iii) alternative energy credits, and (iv) renewable energy credits, the PA has the unilateral rights to apply for any credits or payments resulting from the Program or EEMs. Such credits and payments include but are not limited to: (a) ISO-NE capacity, (b) forward capacity credits, (c) other electric or natural gas capacity and avoided cost payments or credits, (d) demand response program payments. Except for the credits and payments set forth in (i)-(iv) of this Section, Customer agrees not to, directly or indirectly, file payments or credits associated with the Program or EEMs, and further will not consent to any other third party's right to such payments or credits without prior written consent from the PA. PA's rights under this Section are irrevocable for the life of the EEMs unless the PA provides prior written consent.

## 16. Customer Must Declare and Pay All Taxes

The benefits conferred upon the Customer through participation in this Program may be taxable by the federal, state, and local government. The Customer is responsible for declaring and paying all such taxes. The PA is not responsible for the payment of any such taxes.

## 17. Counterpart Execution; Scanned Copy.

Any and all Program related agreements and documents may be executed in several counterparts. A scanned or electronically reproduced copy or image of such agreements and documents bearing the signatures of the parties shall be deemed an original.

## 18. Miscellaneous

- a. Paragraph headings are for the convenience of the parties only and are not to be construed as part of these Terms and Conditions.
- b. If any provision of these Terms and Conditions is deemed invalid by any court or administrative body having jurisdiction, such ruling shall not invalidate any other provision, and the remaining provisions shall remain in full force and effect in accordance with their terms.
- c. These Terms and Conditions shall be interpreted and enforced according to the laws of the Commonwealth of Massachusetts or Rhode Island. The governing law of the state where the Customer's Facility will govern these Terms and Conditions and agreement between the Customer and PA. Any claim or action arising under or related to the Program or arising between the parties shall be brought and heard only in a court of competent jurisdiction located in the Commonwealth of Massachusetts.
- d. In the event of any conflict or inconsistency between these Terms and Conditions and any Program Materials, these Terms and Conditions shall be controlling.
- e. Except as expressly provided herein, there shall be no modification or amendment to these Terms and Conditions or the Program Materials unless such modification or amendment is in writing and signed by a duly authorized officer of the PA.
- f. Sections 4(b), 10, 11, 12, 14, 15 & 18 shall survive the termination or expiration of the Customer's participation in the Program.