

Energy Initiative

Lighting - Systems & Controls

2009 Vendor Project Information Form for Massachusetts, Rhode Island, and Nantucket

This *Project Information Form* provides a template to collect project systems and equipment information and specifications. In addition, this form serves as a guide to lighting system and controls terms and identifies energy efficiency improvement products and incentives. Prior to the start of any installation of equipment or systems, call your **Energy Solutions representative** to arrange a convenient time to perform an inspection of the existing equipment or systems. This inspection is required for all applications.

Customer Facility Information

Customer Facility Name: _____ Date of Application: _____
 _____ Sq. Ft. Covered by Application: _____
 Contact Person: _____ Phone Number: _____
 Street Address: _____ Fax Number: _____
 City: _____ State: _____ Zip: _____ E-mail Address: _____

Installation Contractor Information

Installation Performed By:* Installation Contractor Other (Vendor)
 Installation Company: _____ Street Address: _____
 Contact Person: _____ City: _____
 Phone Number: _____ State: _____ Zip: _____

Measure Category: **Lighting Systems and Controls**

Measure Code: refers to National Grid's unique system of identifying fixture and control types that qualify for incentives. For Measure Codes, see Appendix A: Lighting Incentive Table on page 2.

Annual Hours of Operation: refers to the estimated annual hours that the affected lighting system operates. Minimum of 1000 hours.

Minimum Watts Saved: refers to minimum amount saved in order to receive an incentive. See Appendix A on page 2

Watts Controlled: total wattage (combined lamps and ballast wattage) connected to lighting controls.

Minimum Watts Controlled: in order to qualify for an incentive, watts controlled **divided by** quantity of controls **must equal or be more than** the minimum watts controlled.

Annual Hours of Reduction: The estimated annual hours that affected lighting system operates

For more extensive definition of terms and information on eligibility requirements and other program details, refer to National Grids' Energy Initiative Lighting Incentive and Eligibility Requirements Manual.

For More Information

Phone: 1-800-787-1706

Internet: www.nationalgridus.com

Appendix A: Lighting Systems and Controls - Efficiency Improvement Opportunities

The following table lists the incentives available for energy efficient lighting improvements. Refer to the National Grid's Energy Initiative Lighting Eligibility and Incentive Manual for complete details on equipment and installation requirements to be eligible for incentives.

Lighting Systems Incentives

Measure	Measure Code	Measure Description	Incentive Amount Per Fixture	Min Watts Saved
High Efficiency Fluorescent Fixtures	10 ‡	Replace lamps and ballasts with new T-8 or T-5 lamps and Electronic ballasts	\$10	5
	11 ‡		\$24/pair	8
High Efficiency Fluorescent Fixtures	30 ‡	High Efficiency 2 lamp Fluorescent Fixtures - 2x2 or 2x4	\$50	19
	31 ‡	High Efficiency 3 lamp Fluorescent Fixtures – 2x2 or 2x4	\$40	11
High Efficiency Fluorescent Retrofit Kits	32 ‡	Recessed Fluorescent 2 lamp Retrofit kits- 2x2 and 2x4	\$50	19
High Efficiency Fluorescent Fixtures	34 ‡	Advanced Recessed Fluorescent Fixtures – 1x4, 2x2, or 2x4	\$65	19
Commercial/Industrial Fluorescent Fixtures	41 ‡	4 ft. Fluorescent Fixtures	\$30	10
	42 ‡	8 ft. Fluorescent Fixtures	\$35	11
Commercial/Industrial Fluorescent Fixtures and Tandem Wired Ballasts	41T ‡	4 ft. Fluorescent Fixtures with Tandem Wired Ballasts	\$20	6
	42T ‡	8 ft. Fluorescent Fixtures with Tandem Wired Ballasts	\$25	8
High Lumen Fluorescent Vaportite Fixtures	43 ‡	4 ft. High Lumen Fluorescent Vaportite fixtures	\$50	19
Compact Fluorescent Fixtures	21	1 Lamp Compact Fluorescent Fixture	\$20	6
	22	2 Lamp Compact Fluorescent Fixture	\$20	6
	23	Dimmable Compact Fluorescent Fixture	\$40	12
LED or LEC Exit Sign Fixtures	25	New LED or LEC (Electroluminescence) Exit Fixtures	\$10	4
High Intensity Discharge (HID) Indoor Fixtures	51	Pulse Start Metal Halide Lamp and Ballast Kits	\$45	13
	52	New Pulse Start Metal Halide Fixture	\$70	20
	55	New High Pressure Sodium Fixture	\$100	29
High Intensity Fluorescent (HIF) Fixtures	56 ‡	New fluorescent fixtures for high and low bay applications (less than or equal to 219 W)	\$70	23
	57 ‡	New higher wattage high and low bay fluorescent fixtures (greater than 219 W)	\$120	34
Specialty Lighting Fixtures	70	Metal Halide Specialty Lighting Fixtures	\$70	23
LED Downlights	80	LED Downlight Fixtures	\$70	21
		Note: 4ft straight tube 32W T8 lamps and ballasts must meet the Consortium for Energy Efficiency's High Performance T8 specification. For eligibility requirements and a list of eligible lamps and ballasts, National Grid's Lighting Incentive and Eligibility Requirements Manual or log onto CEE's web site at www.cee1.org . (applies to codes 10,11,30,31,32,34,41,42,41T,42T,43,56, and 57)		

Lighting Control Incentives

			Incentive Amount Per Control	Minimum Controlled Watts
Controls For Fluorescent Systems	61	Remote-Mounted Occupancy Sensor (per control)	\$75	119
	62	Daylight Dimming System (DDS-FL) (per ballast, min 4 ballast per control)	\$40	253
	63	Occupancy Controlled Step-Dimming System (per ballast)	\$40	253
	64	Wall Mount Occupancy Sensors (per control)	\$25	40
	68	High Bay Fluorescent (HIF) Occupancy Control Systems	\$50	79

Appendix B: Lighting Systems and Controls Eligibility Requirements

Lighting Systems

Measure	Eligibility Criteria
Code 10 Re-lamp/re-ballast of existing fixtures	Re-lamp/re-ballast of existing fixtures with T-8 or T-5 lamps, each fixture is composed of a ballast and 1, 2, 3 or 4 lamps. Only one incentive may be counted per fixture. Multiple fixtures served by a single ballast are only eligible for one incentive. Only 25, 28 and 30 W T-8 lamps are eligible for replacing 32 W T-8 lamps.
Code 11 Re-lamp/re-ballast existing fixtures tandem wired	Re-lamp/re-ballast existing fixtures or any new fluorescent fixture with T-8 or T-5 lamps that share a common ballast. Fixtures that share multiple ballasts for the purposes of multi level switching are not eligible. Only 25, 28 and 30 W T-8 lamps are eligible for replacing 32 W T-8 lamps.
Code 30 High Efficiency 2 Lamp Fluorescent Fixtures	Overall fixture efficiency must exceed: <ul style="list-style-type: none"> - 83% for a prismatic lensed fixture with two T-8 or T-5 lamps; - 75% for 2x4 fixture with parabolic louver (2" to 3" deep cells) with two T-8 or T5 lamps; - 70% for 2x2 fixture with 2" to 3" deep parabolic louver (2" to 3" deep cells) with two T-8 or T5 lamps; - 70% for 2x4 recessed indirect fixture with two T-8 or T-5 lamps; - 70% for 2x2 recessed indirect fixture with two T-8, T-5, or T5HO lamps.
Code 31 High Efficiency 3 Lamp Fluorescent Fixtures	Overall fixture efficiency must exceed: <ul style="list-style-type: none"> - 83% for a prismatic lensed fixture with three T-8 or T-5 lamps; - 75% for 2x4 fixture with parabolic louver (2" to 3" deep cells) with three T-8 or T5 lamps; - 70% for 2x2 fixture with 2" to 3" deep parabolic louver (2" to 3" deep cells) with three T-8 or T5 lamps; - 70% for 2x4 recessed indirect fixture with three T-8 or T-5 lamps; - 70% for 2x2 recessed indirect fixture with three T-8, T-5, or T5HO lamps. Eligible fixtures are limited to 3 lamps with a low power ballast factor < 0.80.
Code 32 High Efficiency 2 lamp Fluorescent Retrofit kits	Overall fixture efficiency must exceed: <ul style="list-style-type: none"> - 80% for 2x4 parabolic retrofit kit and advanced glare reducing diffuser retrofit kit with two T-8 or T-5 lamps; - 80% for 2x2 parabolic retrofit kit and advanced glare reducing diffuser retrofit kit with two T-8, T-5, or T-5HO lamps.
Code 34 Advanced Recessed Fluorescent Fixtures	Overall fixture efficiency must exceed: <ul style="list-style-type: none"> - 80% for 2x4 fixture with one or two T-8 or T-5 lamps, or one T-5HO lamp; - 80% for 2x2 fixture with one or two T-8, T-5, T-5HO lamps; - 80% for 1x4 fixture with one or two T-8 or T-5 lamps, or one T-5HO lamp; Fixtures must incorporate advanced glare reducing diffusers.
Code 41, 42 Industrial/ Commercial Fluorescent Fixtures	Overall fixture efficiency must exceed: <ul style="list-style-type: none"> - 85% for Industrial Reflector fixture with one, two, or three T-8 or T-5 lamps; - 83% efficiency for Commercial Grade Wraparound fixture with one or two T-8 or T-5 lamps. Fixtures must be installed 16 feet from the floor or less. Up to 20% up-light as an integral fixture feature (typically slots) may be included but only in instances where white or light colored walls or ceilings exist.
Code 41T, 42T Tandem Wired Industrial/ Commercial Fluorescent Fixtures	Overall fixture efficiency must exceed: <ul style="list-style-type: none"> - 85% for Industrial Reflector fixture with one, two, or three T-8 or T-5 lamps; - 83% efficiency for Commercial Grade Wraparound fixture with one or two T-8 or T-5 lamps. Fixtures must be installed 16 feet from the floor or less. Up to 20% up-light as an integral fixture feature (typically slots) may be included but only in instances where white or light colored walls or ceilings exist.
Code 43 Vaportite Fixtures	4 ft. Vaportite fluorescent fixture with one or two T-8, T-5, T-8HO, T-5HO or 3-T8 lamps. To be eligible for incentives, fixtures must be installed in garage or warehouse applications only.
Code 21, 22, 23 CFL Fixtures	To be eligible for incentives, all fixtures must have electronic ballasts with <33% THD.

Code 25 LED or LEC Exit Sign Fixture	All materials and assembled units shall comply with all applicable codes and standards including (but not limited to) Federal/State/Local building, fire, and electrical codes, and may require designated egress lighting to comply with such codes. Exit sign retrofit kits are not eligible.
Code 51 Pulse Start Metal Halide Lamp	All kits must include a new matched Metal Halide (Pulse Start) Lamp and Ballast installed per manufacturer's specifications and applicable codes. Outdoor Fixtures are not eligible.
Code 52 HID Fixtures	Only New Metal Halide Pulse Start fixtures are eligible. Retrofit of existing metal halide fixture of less than 200 watts with new fixture is not eligible. Outdoor fixtures are not eligible.
Code 55 New HPS Fixtures	New High Pressure Sodium Fixture. Outdoor fixtures are not eligible under this measure code.
Code 56 High Intensity Fluorescent	Fixtures must be installed higher than 16 feet. Maximum wattage is 219 Watts. Minimum wattage is 125 Watts. Minimum fixture efficiency must exceed 80%. High Intensity Fluorescent fixtures incorporate a number of lamp technologies that include T-8, T-5, T-5HO and compact fluorescent.
Code 57 High Intensity Fluorescent	Fixtures must be installed higher than 20 feet. Minimum wattage is 220 Watts. Minimum fixture efficiency must exceed 80%. High Intensity fluorescent fixtures incorporate a number of lamp technologies that include T-8, T-5, T-5HO and compact fluorescent.
Code 70 Specialty Fixtures	Metal Halide Specialty Fixtures must be approved by UL or similar agency
Code 80 LED Downlight Fixtures	LED downlight fixtures must carry the ENERGY STAR label. This applies to hardwired fixtures only.

Lighting Controls

Control Codes For Fluorescent Systems	61	Comply with manufacturer's coverage recommendations. Ceiling mounted control. No manual "ON" overrides.
	62	Minimum of 4 ballasts per control unit. Must have continuous dimming or adjust to a minimum of 4 levels.
	63	Ballast must be automatically controlled based on occupancy. Power consumption in low mode must not exceed 60%. Minimum of 4 fixtures controlled.
	64	Not eligible if installed in restrooms, locker rooms, stairwells or rooms of greater than 250 square feet.
	68	Ballasts must be automatically controlled based on occupancy. Systems with manual "ON" or override switches are not eligible. Sensors may be remote mounted or mounted on individual fixtures

Vendor Project Information Form Notes