

Advanced Lighting Control Rebate Requirements

Control System Requirements

Advanced lighting controls are designed to generate energy savings over traditional lighting control options through a combination of sensors, controllers and network interfaces. By combining several proven and effective lighting control strategies into one project, there is a greater level of control and efficiency for all luminaires within any given space.

ALL of the following capabilities are required to qualify for an advanced lighting control rebate:

- All controlled luminaires must be LED fixtures
- Luminaires must be networked through a centralized control system
- Each fixture/area must be named and numbered within the system
- Control system must be able to create separate usage subzones within the project area
- Solitary multiple-technology sensors must contain both occupancy and dimming controls
- Must contain continuous dimming capabilities including high-end trim
- Control system must be able to export measured energy usage data for every fixture/area and zone

Only interior control systems are eligible for an advanced lighting control rebate.

Explanation of Terms

1. LED luminaire requirement

- a. Only LED luminaires are able to take advantage of all required controls strategies.

2. Luminaire networking

- a. All individual luminaires and control devices must be able to exchange information with other luminaires within the system's space or zone levels.

3. Addressability of luminaries

- a. To configure or reconfigure devices and control zones independent of electrical circuits, individual luminaires within the lighting system must be able to be uniquely identified and addressed.
- b. Consideration may be given to systems that can address specific rooms or areas that are under a single device's control and usage setting.



Explanation of Terms (cont.)

4. Zoning

- a. In order to tailor light levels to individual area requirements, subzones must be able to be created.

5. Multi-type sensors

- a. Luminaire sensors must be able to control lighting levels based on occupancy.
- b. Luminaires that are controlled by ambient light or daylight conditions are also acceptable.

6. Continuous dimming and high-end trim

- a. Luminaires must be able to be continuously dimmed from 100 percent light levels to a minimum acceptable lighting level for area tasks and safety based on occupancy.
- b. High-end trim refers to setting maximum luminaire light output to a lower percentage of the maximum total output (typically 70–90 percent of the maximum luminaire wattage) in areas where less light is required.

7. Energy usage measurement and reporting

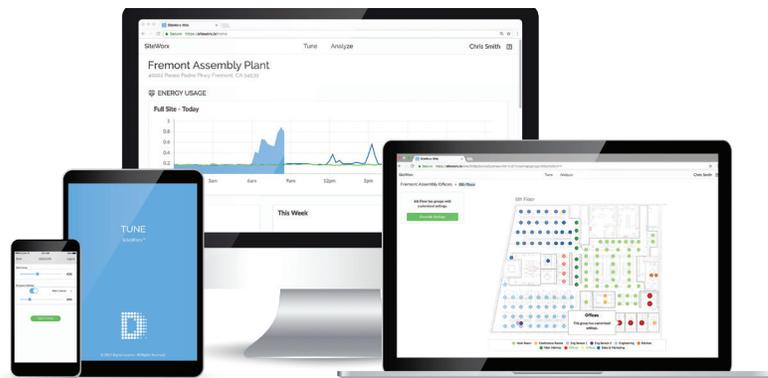
- a. Wattage of individual luminaires must be measured directly and reported to a central system
- b. Centralized systems must be able to record and export data in a minimum of hourly intervals.
- c. Measurement and verification for these projects include two weeks of baseline data collection and three weeks of post-installation data collection.
 - i. Projects that cannot meet these requirements will not qualify for an advanced lighting control rebate and must apply to the standard lighting rebate program.

8. Only interior lighting controls are eligible

- a. Exterior lighting controls are not eligible for a rebate at this time.

Project Recommendations and Best Practices

While there is no industry standard, the DesignLights® Consortium Networked Lighting Control Systems Technical Requirements Version 4.0 embodies many of the requirements for the PPL Business Energy Efficiency Program. In order to ensure that your system will be eligible for the increased incentive, please check with PPL program staff prior to purchase and installation. It is easier to ensure that your control systems meet all requirements before the final system choice has been specified for the project. Pre-approval is required for all advanced lighting controls projects. Projects that are underway or completed are not eligible for this program.



Questions?

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