

Lighting Energy Efficiency in Parking (LEEP) Campaign Award calculation and determination details

A Single Parking Facility is defined as a contiguous parking area (lot) or parking structure (garage) that serves a single building, a group of associated buildings, or an event/function structure or area.

For Lighting Retrofits of Single Parking Facilities			
Award	Baseline Energy Use (pre-project conditions)	Project Result Energy Use (post-project conditions)	Award Criteria Calculation
1. Highest absolute annual savings in a retrofit at a single parking lot	<p>If no controls other than photocell and/or astronomical time clocks are part of this existing installation AND none are going to be installed as part of the retrofit project, use method a) below to determine the baseline energy use.</p> <p>If any on-off or dimming controls that are either occupancy based or schedule-based (other than astronomical or dusk-to-dawn based) are part of the existing installation OR are going to be installed as part of the retrofit project, use method b) below to determine the baseline energy use.</p> <p>a) Total input power of the entire site lighting that includes lamp plus any ballast/driver/generator (not just rated lamp wattage) in kW X (13 hours for parking area OR 18 hours for parking structure) X 7 days</p> <p>b) Metered energy use in kWh over a typical week of operation for the entire site lighting</p>	Use the same method applied for the baseline energy use.	Absolute annual savings = 52 weeks x (Baseline energy use – Project result energy use)
2. Highest absolute annual savings in a retrofit at a single parking structure	If no controls other than photocell and/or astronomical time clocks are part of this existing installation AND none are going to be installed as part of the retrofit project, use method a) below	Use the same method applied for the baseline energy use.	Absolute annual savings = 52 weeks x (Baseline energy use – Project result energy use)

	<p>to determine the baseline energy use.</p> <p>If any on-off or dimming controls that are either occupancy based or schedule-based (other than astronomical or dusk-to-dawn based) are part of the existing installation OR are going to be installed as part of the retrofit project, use method b) below to determine the baseline energy use.</p> <p>a) Total input power of the entire site lighting that includes lamp plus any ballast/driver/generator (not just rated lamp wattage) in kW X (13 hours for parking area OR 18 hours for parking structure) X 7 days</p> <p>b) Metered energy use in kWh over a typical week of operation for the entire site lighting</p>		
<p>3. Highest percentage savings in a retrofit at a single parking lot</p>	<p>If no controls other than photocell and/or astronomical time clocks are part of this existing installation AND none are going to be installed as part of the retrofit project, use method a) below to determine the baseline energy use.</p> <p>If any on-off or dimming controls that are either occupancy based or schedule-based (other than astronomical or dusk-to-dawn based) are part of the existing installation OR are going to be installed as part of the retrofit project, use method b) below to determine the baseline energy use.</p> <p>a) Total input power of the entire site lighting that includes lamp plus any ballast/driver/generator (not just rated lamp wattage) in kW X (13 hours for parking area</p>	<p>Use the same method applied for the baseline energy use.</p>	<p>Percentage savings = $(1 - (\text{Project result energy use} / \text{Baseline energy use})) \times 100$</p>

	<p>OR 18 hours for parking structure) X 7 days</p> <p>b) Metered energy use in kWh over a typical week of operation for the entire site lighting</p>		
<p>4. Highest <u>percentage savings</u> in a retrofit at a <u>single parking structure</u></p>	<p>If no controls other than photocell and/or astronomical time clocks are part of this existing installation AND none are going to be installed as part of the retrofit project, use method a) below to determine the baseline energy use.</p> <p>If any on-off or dimming controls that are either occupancy based or schedule-based (other than astronomical or dusk-to-dawn based) are part of the existing installation OR are going to be installed as part of the retrofit project, use method b) below to determine the baseline energy use.</p> <p>a) Total input power of the entire site lighting that includes lamp plus any ballast/driver/generator (not just rated lamp wattage) in kW X (13 hours for parking area OR 18 hours for parking structure) X 7 days</p> <p>b) Metered energy use in kWh over a typical week of operation for the entire site lighting</p>	<p>Use the same method applied for the baseline energy use.</p>	<p>Percentage savings = $(1 - (\text{Project result energy use} / \text{Baseline energy use})) \times 100$</p>

For Lighting in Single Parking Facilities (New Construction)

Award	Baseline Energy Use (pre-project conditions)	Project Result Energy Use (post-project conditions)	Award Criteria Calculation
<p>5. Highest absolute annual savings in new construction at a single parking lot</p>	<p>For Parking areas: Total site square footage x Zone-LPD (90.1-2010 LPD) x 13 hours x 7 days.</p> <p>The Zone-LPD value is based on parking area location as follows:</p> <ol style="list-style-type: none"> 1) Developed areas of national parks, state parks, forest land, and rural areas = 0.04 2) Areas predominantly consisting of residential zoning, neighborhood business districts, light industrial with limited nighttime use and residential mixed use areas = 0.06 3) High activity commercial districts in major metropolitan areas as designated by the local jurisdiction = 0.13 4) All other areas = 0.10 	<p>If no controls other than photocell and/or astronomical time clocks are installed as part of the new project, use method a) below to determine completed project energy use.</p> <p>If any on-off or dimming controls that are either occupancy based or schedule-based (other than astronomical or dusk-to-dawn based) are installed as part of the new project, use method b) below to determine completed project energy use.</p> <ol style="list-style-type: none"> a) Total input power of the entire site lighting that includes lamp plus any ballast/driver/generator (not just rated lamp wattage) in kW X (13 hours for parking structure) X 7 days b) Metered energy use in kWh over a typical week of operation for the entire site lighting 	<p>Absolute annual savings = 52 weeks x (Baseline energy use – Project result energy use)</p>
<p>6. Highest absolute annual savings in new construction at a single parking structure</p>	<p>For Parking structures: Total site square footage x 0.19 (90.1-2010 LPD) x 18 hours x 7 days</p>	<p>If no controls other than photocell and/or astronomical time clocks are installed as part of the new project, use method a) below to determine completed project energy use.</p> <p>If any on-off or dimming controls that</p>	<p>Absolute annual savings = 52 weeks x (Baseline energy use – Project result energy use)</p>

		<p>are either occupancy based or schedule-based (other than astronomical or dusk-to-dawn based) are installed as part of the new project, use method b) below to determine completed project energy use.</p> <p>a) Total input power of the entire site lighting that includes lamp plus any ballast/driver/generator (not just rated lamp wattage) in kW X (18 hours for parking structure) X 7 days</p> <p>b) Metered energy use in kWh over a typical week of operation for the entire site lighting</p>	
<p>7. Highest percentage savings in new construction at a single parking lot</p>	<p>For Parking areas: Total site square footage x Zone-LPD (90.1-2010 LPD) x 13 hours x 7 days</p> <p>The <i>Zone-LPD</i> value is based on where the parking area is located as follows:</p> <ol style="list-style-type: none"> 1) Developed areas of national parks, state parks, forest land, and rural areas = 0.04 2) Areas predominantly consisting of residential zoning, neighborhood business districts, light industrial with limited nighttime use and residential mixed use areas = 0.06 3) High activity commercial districts in major metropolitan areas as designated by the local jurisdiction = 0.13 4) All other areas = 0.10 	<p>If no controls other than photocell and/or astronomical time clocks are installed as part of the new project, use method a) below to determine completed project energy use.</p> <p>If any on-off or dimming controls that are either occupancy based or schedule-based (other than astronomical or dusk-to-dawn based) are installed as part of the new project, use method b) below to determine completed project energy use.</p> <p>a) Total input power of the entire site lighting that includes lamp plus any ballast/driver/generator</p>	<p>Percentage savings = $(1 - (\text{Project result energy use} / \text{Baseline energy use})) \times 100$</p>

		<p>(not just rated lamp wattage)in kW X (13 hours for parking structure) X 7 days</p> <p>b) Total Metered energy use in kWh over a typical week of operation for the entire site lighting</p>	
<p>8. Highest percentage savings in new construction at a single parking structure</p>	<p>For Parking structures: Total site square footage x 0.19 (90.1-2010 LPD) x 18 hours x 7 days</p>	<p>If no controls other than photocell and/or astronomical time clocks are installed as part of the new project, use method a) below to determine completed project energy use.</p> <p>If any on-off or dimming controls that are either occupancy based or schedule-based (other than astronomical or dusk-to-dawn based) are installed as part of the new project, use method b) below to determine completed project energy use.</p> <p>a) Total input power of the entire site lighting that includes lamp plus any ballast/driver/generator (not just rated lamp wattage)in kW X (18 hours for parking structure) X 7 days</p> <p>b) Metered energy use in kWh over a typical week of operation for the entire site lighting</p>	<p>Percentage savings = (1 – (Project result energy use/Baseline energy use)) x 100</p>

Other Award Categories			
Award	Baseline (pre-project conditions)	Project Result (post-project conditions)	Award Criteria Calculation
9. Best use of lighting controls in a single facility	Typical code-required controls or standard practice	Effective or innovative use of standard or advanced controls for increased energy savings	Award committee consensus
10. Largest absolute number of facility upgrades	NA	Number of sites with completed upgrades that resulted in energy savings - ONLY NEW SITES SUBMITTED TO LEEP WILL COUNT FOR PREVIOUS LEEP PARTICIPANTS	Site upgrade count with energy savings
11. Largest absolute area of facility upgrades	NA	Total aggregate area of parking facilities upgraded that resulted in energy savings - ONLY NEW SITES SUBMITTED TO LEEP WILL COUNT FOR PREVIOUS LEEP PARTICIPANTS	Cumulative area of upgraded sites
12. Largest percentage of facilities upgraded (must have a minimum of five facilities to qualify)	Total number of sites owned, operated, or otherwise managed	Number of sites with completed upgrades that resulted in energy savings – WILL COUNT PREVIOUS LEEP PARTICIPANT DATA	Percentage savings = $(1 - (\text{Project upgrade count}/\text{Baseline site count})) \times 100$
13. Largest portfolio-wide annual absolute energy savings	See annual site baseline calculations above and apply to each site upgraded	See annual site project result calculations above and apply to each site upgraded – WILL COUNT PREVIOUS LEEP PARTICIPANT DATA	Portfolio annual savings = Sum of all individual site annual savings values
Parking Sector-Specific Awards			
14 Best Retail/Commercial Parking Facility	NA	NA	Award committee consensus
15 Best Office / Industrial Parking	NA	NA	Award committee consensus

Facility			
16 Best Healthcare Parking Facility	NA	NA	Award committee consensus
17 Best Higher Education Parking Facility	NA	NA	Award committee consensus
18 Best Airport Parking Facility	NA	NA	Award committee consensus
19 Best Municipal Parking Facility	NA	NA	Award committee consensus
20 Best Federal Parking Facility	NA	NA	Award committee consensus