

2017 Energy Rebates: Big Changes and What FMs Need to Know

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Today's Moderator



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Today's Presenter

Jeff Hungarter



Product Portfolio Manager
Cree

Jeff Hungarter is a Product Portfolio Manager at Cree, a market-leading innovator of lighting-class LEDs, LED lighting, and semiconductor solutions.

With over 16 years of lighting and technology marketing experience, Jeff leverages his knowledge and understanding of commercial and industrial markets to position the technical, operational and business benefits of LED Lighting.

At Cree, Jeff works closely with lighting agents, specifiers and end-customers to drive thought leadership and position his product portfolio to stay ahead of market trends.

Learning Objectives:

- Discuss updates on the latest rebate opportunities, energy and market trends
- Provide an overview and discuss the impacts of the new DLC Premium Tier
- Learn about expected changes in 2017 utility rebate programs
- Discuss utility-recommended best practices to follow, as many program cycles ended in 2016

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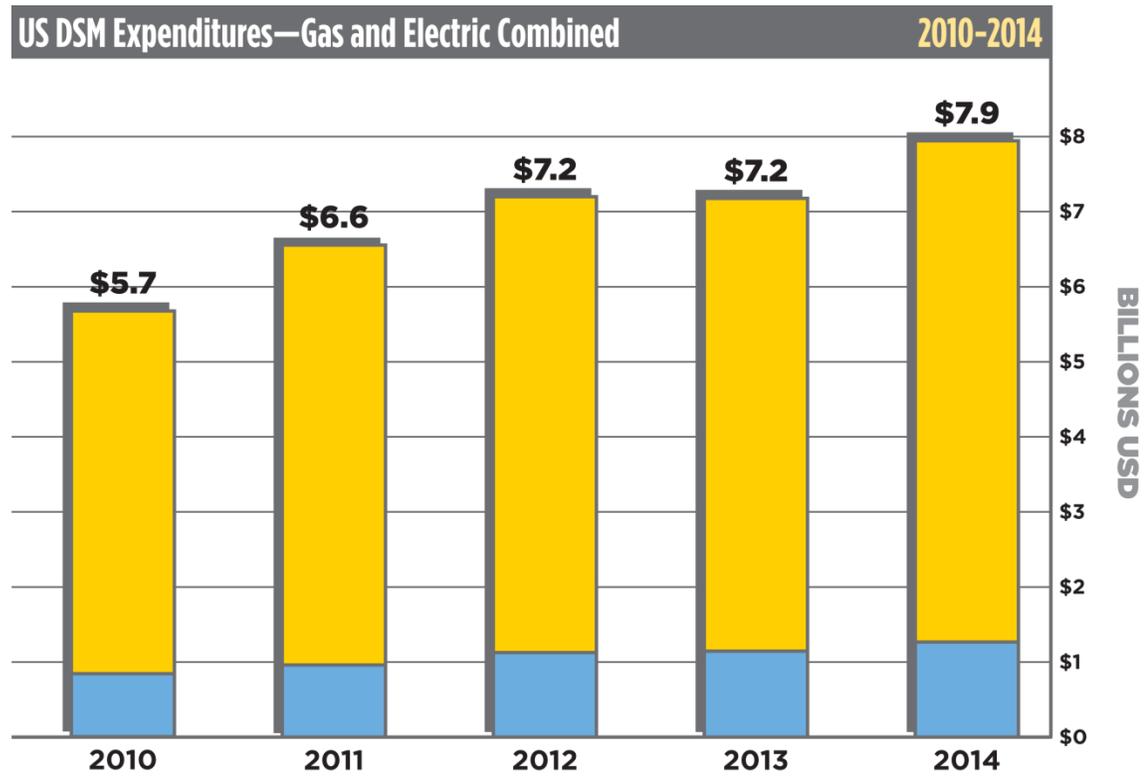


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**Navigating Big Changes for 2017 Energy Rebates: What
Facility Managers Need to Know**

Jeff Hungarter | Senior Manager, Product Marketing

US Gas & Electric Energy Trends



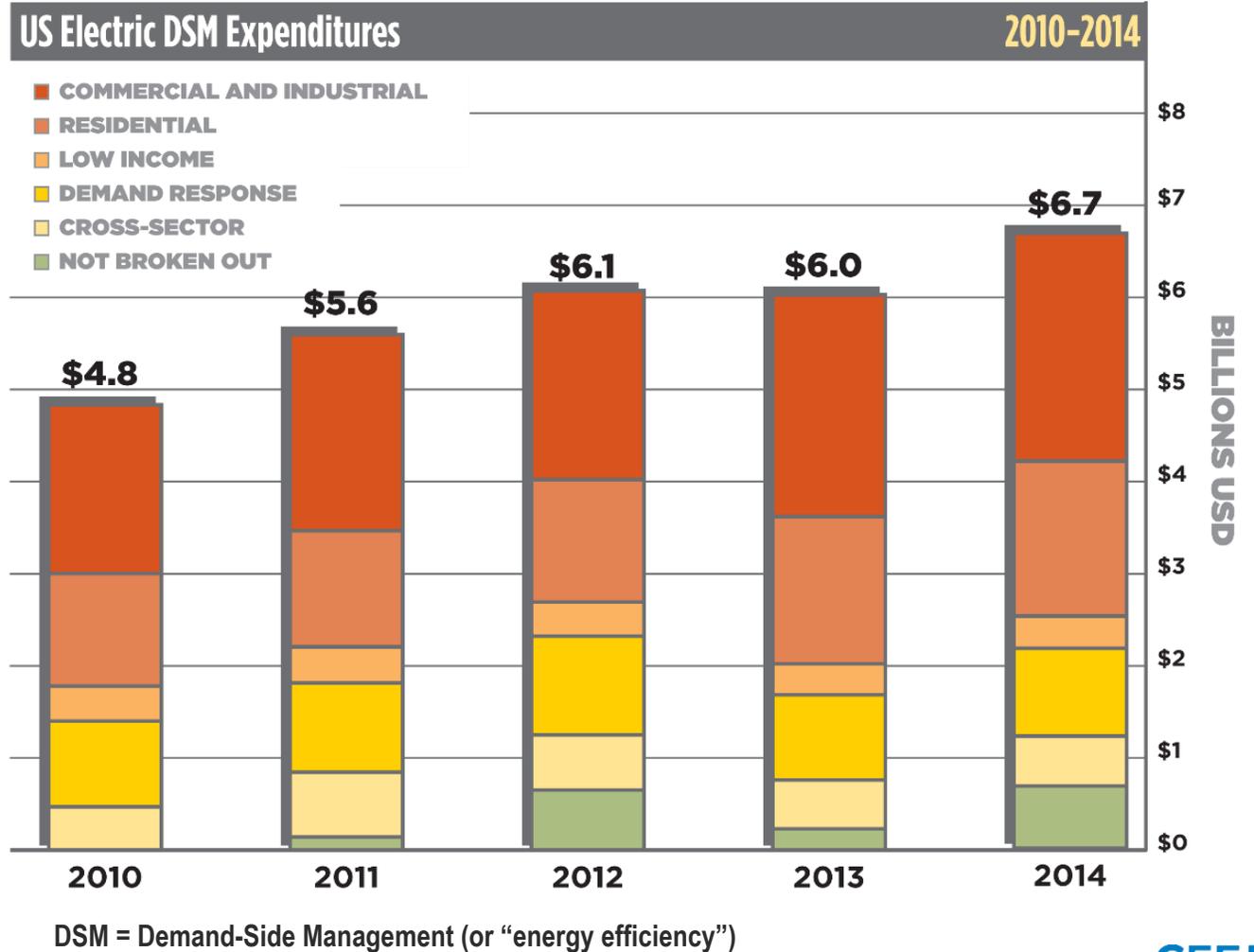
Energy
demand is
higher than
ever

DSM = Demand-Side Management (or “energy efficiency”)

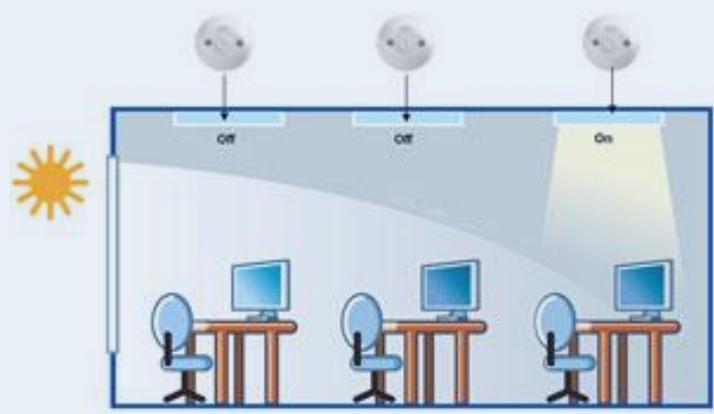
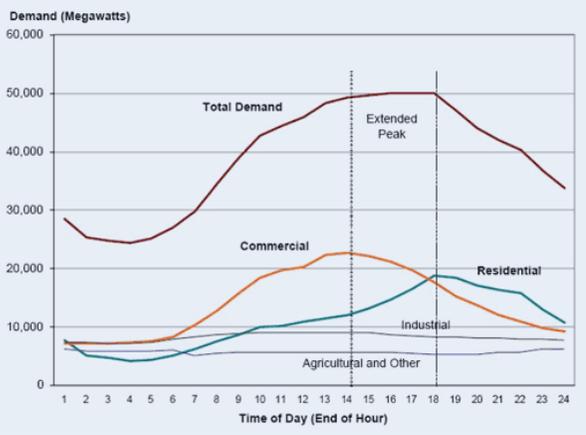
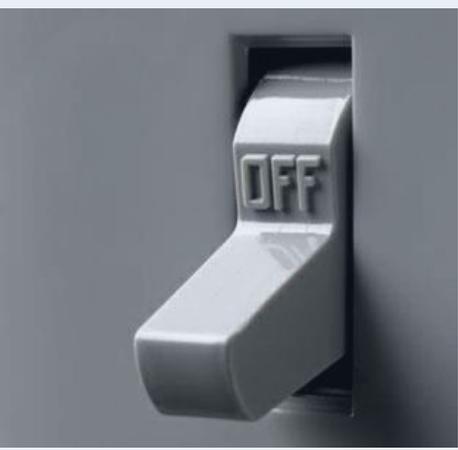


US Electric Demand Trends

Electric demand is up 28% since 2010



How do we take demand off the grid?



Use Less

Change Consumption Time

Control the Light

Reduce the Power

How can the DLC help?

DesignLights Consortium™ (DLC)

The DLC is dedicated to accelerating the widespread adoption of high-performing, energy efficient commercial lighting solutions.

- Members are mainly electric utilities across North America (82)
- Qualified product lists (LED luminaires and “networked controls”)
- Facilitate collaboration through Industry Advisory Committee
 - Cree one of 10 manufacturers on the committee
 - Also includes lighting designers

Why do you care about the DLC?

DLC Qualified products from a Top 3 lighting company dispensed ~\$200 million in commercial utility rebates in 2014.

- **Payback.** Requirement for almost all utility rebate programs
- **Confidence.** Standardized tested procedures
- **Environment.** Pushes industry to achieve greater EE performance

Source: Consortium for Energy Efficiency's 2014 Annual Report

Performance Changes in DLC Premium 4.0 for 2017

— In a nutshell, DLC Premium products require:

- Increased efficacies (~25% over DLC Standard)
- Improved lumen maintenance ($L_{90} > 36,000$ hours)

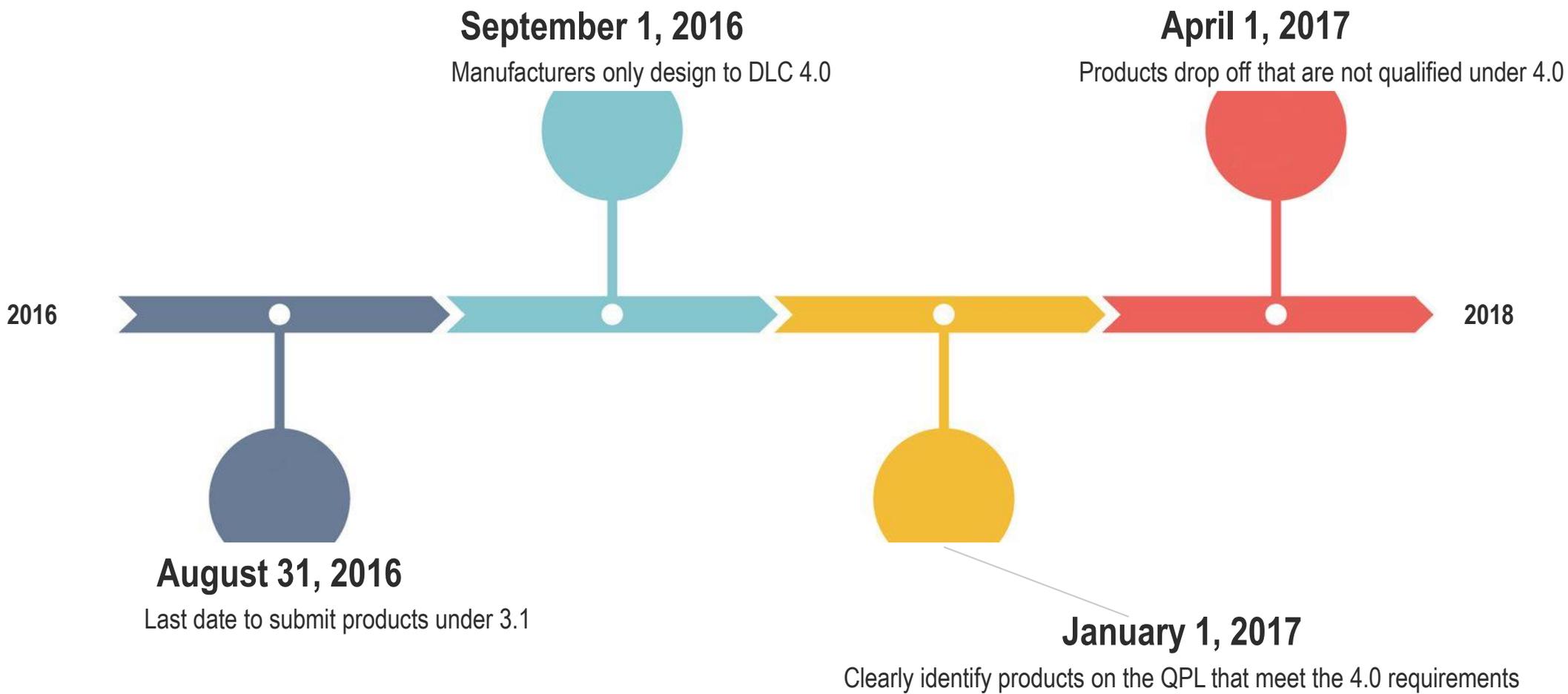
| Luminaire Application | Standard LPW | Premium LPW | % Increase |
|-----------------------|--------------|-------------|------------|
| Outdoor - Low Output | 90 | 110 | 22% |
| Outdoor - Mid Output | 95 | 115 | 21% |
| Outdoor - High Output | 100 | 120 | 20% |
| Interior Directional | 65 | 90 | 38% |
| Troffer | 100 | 125 | 25% |
| Linear Ambient | 105 | 130 | 24% |
| High- and Low-Bay | 105 | 130 | 24% |
| Average | 94 | 117 | 25% |

Why such aggressive boosts to performance?

- Need to better segment the highest-performing products
 - DLC Premium trying to incorporate the top 5%
- New requirements were determined cooperatively
 - DLC staff
 - DLC Member utilities
 - DLC Industry Advisory Committee
 - General industry feedback
- Very good news for lighting customers!



DLC 4.0 Key Transition Dates



Current DLC Premium 4.0 Offerings

Seven total programs currently using DLC Premium:

- **Mass Save (MA)** – increased rebates
- **Rochester Gas & Electric (NY)** – increased rebates
- **Energize Connecticut** – increased rebates (troffers)
- **Efficiency Maine** – minimum requirement
- **Baltimore Gas & Electric** – minimum requirement
- **Pacific Gas & Electric (CA)** – minimum requirement (troffers)
- **PSEG Long Island** – recognizes DLC Premium

Mass Save Lighting Rebate Averages

One of the largest, most influential programs in North America

| Rebate Description | DLC Standard | DLC Premium | \$ Increase | % Increase |
|----------------------|--------------|-------------|-------------|------------|
| Troffer | \$63 | \$73 | \$10 | 16% |
| Linear Ambient | \$60 | \$70 | \$10 | 17% |
| Indoor Directional | \$35 | \$45 | \$10 | 29% |
| High-/Low-Bay | \$200 | \$250 | \$50 | 25% |
| Outdoor | \$141 | \$200 | \$59 | 42% |
| Parking/Fuel Canopy | \$125 | \$175 | \$50 | 40% |
| Outdoor Floods/Spots | \$75 | \$100 | \$25 | 33% |
| Average | | | | 29% |

[Mass Save Lighting Rebate Application](#)

Efficiency Maine Lighting Rebates

LED Interior

| | |
|--|-------|
| LED 2x2 Interior Fixture <40W | \$70 |
| LED 2x2 Interior Fixture ≥40W | \$70 |
| LED 2x4 Interior Fixture <50W | \$75 |
| LED 2x4 Interior Fixture ≥50W | \$75 |
| LED 1x4 Interior Fixture <40W | \$70 |
| LED 1x4 Interior Fixture ≥40W | \$70 |
| Integrated Retrofit Kit for LED 2x2 Interior Fixture | \$50 |
| Integrated Retrofit Kit for LED 2x4 Interior Fixture | \$55 |
| Integrated Retrofit Kit for LED 1x4 Interior Fixture | \$50 |
| Linear Retrofit Kit for LED 2x2 Interior Fixture | \$40 |
| Linear Retrofit Kit for LED 2x4 Interior Fixture | \$45 |
| Linear Retrofit Kit for LED 1x4 Interior Fixture | \$40 |
| LED High/Low Bay Fixtures <100W | \$70 |
| LED High/Low Bay Fixtures ≥100-<150W | \$70 |
| LED High/Low Bay Fixtures ≥150-<200W | \$125 |
| LED High/Low Bay Fixtures ≥200-<300W | \$150 |
| LED High/Low Bay Fixtures ≥300W | \$175 |

LED Exterior Pole-Mounted

| | |
|---------|-------|
| <50W | \$75 |
| 50-100W | \$125 |
| >100W | \$175 |

LED Exterior Canopy & Parking

| | |
|-----------|------|
| <50W | \$50 |
| ≥50-<80W | \$50 |
| ≥80-<130W | \$75 |
| ≥130W | \$75 |

Lighting Controls

| | |
|---------------------------------------|------|
| Fixture Mounted Occupancy Sensor | \$35 |
| Occupancy Sensors Remote Mounted Only | \$60 |
| Vacancy Sensors | \$30 |

DLC Premium Rebate Poll Conclusions

Up to **one-half** of all commercial utility rebate programs **will adopt** rebate structures which **favor DLC Premium** products in 2017.

Estimates based on DLC poll results.

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Value Stream Calculation Troffers – Pacific Gas & Electric

Project Details:
500 Fixture Project
16 Hours Per Day
12c kw/hr

Competitor A
2x4 130 LPW 40L

Competitor B
2x4 100 LPW 40L

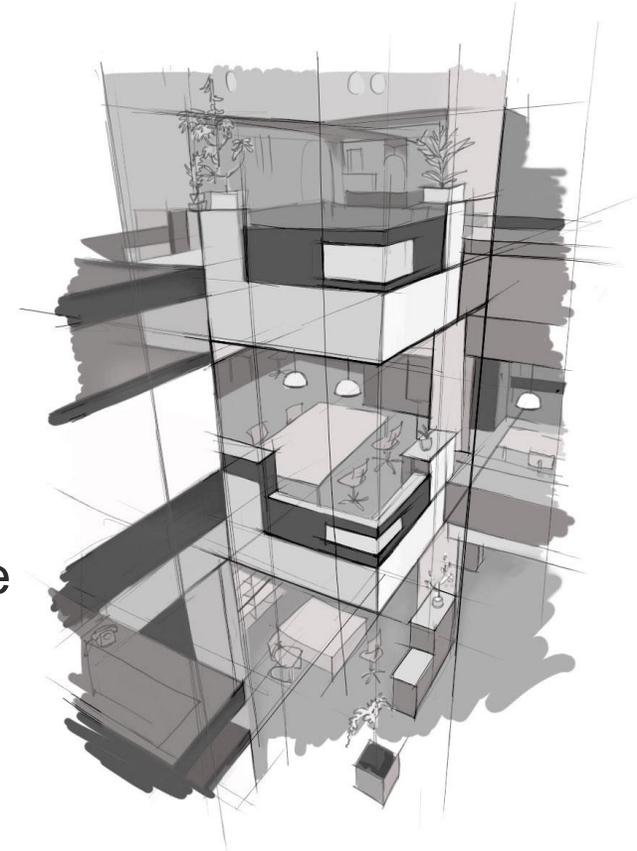
| | | |
|--|-----------------|----------------|
| End User Price | \$122 | \$102 |
|  Premium Rebate | \$32 | \$0 |
| Net Price after Rebate | \$90 | \$102 |
| Additional Energy Cost over Life | \$0 | +\$35,040 |
| Additional Outlay Cost over Life | \$0 | +\$5,800 |
| Total Project Cost Over Life | \$160,320 | \$201,160 |
| Total Project Net Savings | \$40,840 | |
| Project Payback vs. FLUO | 3.0 Yrs | 4.4 Yrs |

With **increased DLC Premium rebates**, lower initial cost doesn't always calculate to better payback!

Facility Manager Benefits beyond the energy savings

How does high efficiency help me?

- 1) Lower Wattage helps reduce “watts per square foot” allowing for more freedom in design renovations in a buildings
- 2) Easier to meet LEED goals for local tax incentives
- 3) Potential for higher lease rates with higher LEED level
- 4) Promotes “Go Green” culture people and businesses are striving to become



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Q&A

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