

LED Street Light Program

Update 9/18/18

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ComEd Street Light Program

✓ 2013 –

- SAG proposed LED Street Lighting Program for Utility street lights
- ComEd adds additional LED's to the Fixture Included Lighting rate

✓ 2014 –

- ComEd initiates a Proof of Concept project for smart LED street lighting,
- Filed LED Streetlight program with IPA to incent LED installation on utility owned street lights (PY08 & PY09). Participation limited to municipal street lighting accounts <100kW.

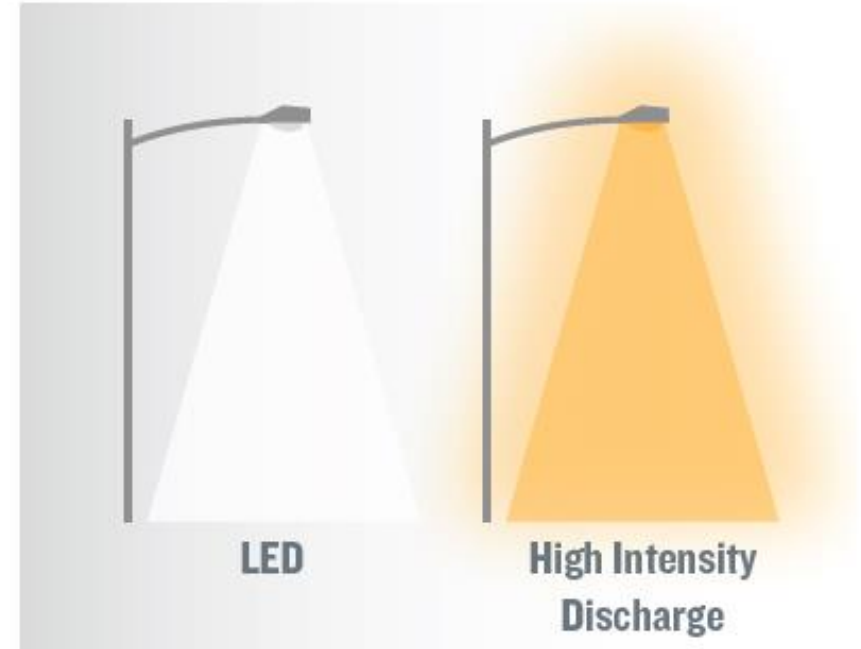
✓ PY09 bridge

- Expanded ComEd owned fixture eligibility to include accounts >100kW and assumed the DCEO street lighting program providing incentives for municipally owned street lights.

✓ CY18 – CY21 the LED Street Lighting program supports both ComEd owned and public sector street light incentives.

Benefits of LED Street Lights

- ✓ Decreased energy use and cost
- ✓ Reduced maintenance costs due to longer product life
- ✓ Improved safety through enhanced visibility
- ✓ Decreased light trespass and pollution
- ✓ No warm-up period required
- ✓ No mercury, lead or other known hazards



Street Light Market Potential

✓ Street light population estimate

- Chicago has approximately 300K streetlight, all of which are unmetered
- ComEd has approximately 150K unmetered streetlights serving municipalities
- Outside Chicago there are approximately 150K unmetered and 150K metered

✓ Energy savings Metered versus Unmetered

- Unmetered fixtures are billed based on reported lamp wattage and dusk to dawn hours of operation while street light fixtures behind a meter are billed based on actual usage.
- When a municipality make changes to unmetered fixtures those changes need to be reported to ComEd for the customer to see usage savings on their bill.

Proof of Concept

- ✓ Replace the existing ComEd owned Mercury Vapor (MV) and High Pressure Sodium (HPS) with LED in Bensenville and Lombard.
 - A total of 735 fixtures LED were installed with an annual savings of 460 MWh.
- ✓ Scope also included the installation a smart street light control node communicating over the same wireless network as ComEd smart meters
 - The smart controllers provided the opportunity to assess smart capabilities.
 - Beginning in 2018 ComEd began installing smart controllers on LED's
- ✓ Conclusion
 - Municipalities were very interested in a program that would lower their energy costs from the ComEd owned fixtures in their town.
 - Proceeded with a application to the IPA for a Street light program in PY08 and PY09

PY08 & PY09 LED Street Light Program (IPA)

- ✓ LED street lighting program approved for PY08 & PY09 provided a per fixture incentive to cover the early retirement fee that a customer would pay for the early replacement of an existing HID fixture with an LED fixture.
- ✓ PY08 – 41 municipalities had a total of 10,077 fixtures converted to LED's with an annual savings of 5,978 MWh.
- ✓ PY09 (including bridge period)– 54 municipalities had a total of 6,536 fixtures converted to LED's with an annual savings of 4.497 MWh.

PY09 Bridge period Municipal Street Lighting

- ✓ On June 1, 2017 ComEd took over the Public Sector LED street lighting program. This program incented the replacement of HID street light fixtures with LED's.
- ✓ One significant change to the program was the requirement that municipalities provide GIS data (latitude and longitude).
- ✓ PY09 bridge – 26 municipalities had a total of 14,303 fixtures converted to LED's with an annual savings of 12,955 MWh.

CY18-CY21 Budget and Savings



		2018	2019	2020	2021	Total
ComEd Owned	MWh	14,927	13,061	14,927	14,927	57,842
	\$	\$9,908,615	\$8,675,068	\$9,909,235	\$9,932,901	\$38,425,819
	Est. #	24,000	21,000	24,000	24,000	93,000
Public Sector	MWh	80,093	79,941	85,177	52,254	297,465
	\$	\$14,304,247	\$14,312,545	\$15,312,726	\$9,586,291	\$53,515,809
	Est. #	118,975	118,975	127,638	80,771	446,359

CY18 Update

✓ ComEd Street Lights

- 6 municipalities completed with 518 fixtures converted to LED's with an annual savings of 358 MWh
- 2 larger municipalities are finalizing this week with nearly 1,300 fixtures.
- On track to reach 24,000 fixtures installed and savings close to the goal of nearly 15,000MWh

✓ Municipal Street Lights

- 49 municipalities completed fixtures conversion to LED's with an annual savings of 24,400 MWh
- Final applications for Chicago's Austin and Englewood are completing in the next two months with an annual savings of 39,000 MWh
- Actively working with Elevate Energy to identify an additional 10,000 MWh in projects before year end.

State of Illinois Smart Street Lighting Master Contract



The State of Illinois recently selected 3 vendors for a master contract to supply smart street lighting fixtures and services to IL municipalities.

Benefits for you:

- ✓ Vetted contractors
- ✓ Streamlined procurement process
- ✓ Favorable pricing
- ✓ Financing options

For more information or to join the first set of municipalities to utilize the state master contract, email DoIT.SmartState@illinois.gov.

<https://www2.illinois.gov/sites/doit/Strategy/Pages/smartlighting.aspx>

Challenges

- ✓ Returning Municipal incentive to PY08 and PY09 levels (\$0.70/watt versus \$1.47/watt) has resulted in some municipalities waiting
- ✓ Identification of accounts associated with street lights being replaced can be challenging especially when there is a mix of metered and unmetered fixtures
- ✓ Documenting geographical information system (GIS) data associated with applications created several challenges
- ✓ Limited municipal \$ are going first to water projects because of the greater savings

Questions

