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

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**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 15,000 MWh

- **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 replaces 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