

## **Proposal Concerning Modifications to LIPA's Tariff for Electric Service**

### **Requested Action:**

The Long Island Power Authority ("the Authority") staff proposes to revise the Electric Service Tariff to update the eligible lighting technologies under Service Classification No. 7A, Outdoor Area Lighting, to add efficient Light-Emitting Diode ("LED") lighting fixtures.

### **Background:**

Service Classifications ("SC") No. 7 and 7A offer rates and charges for outdoor area dusk to dawn lighting that is owned, operated, and maintained by the Authority on behalf of eligible customers. Under SC 7A there are two lighting technology types currently available: high-pressure sodium and metal halide. LED lighting has since undergone improvements in technology, declines in cost, and more widespread adoption for outdoor lighting use. Many utilities across the nation have been replacing existing lighting fixtures with those utilizing LED lighting technology. LED lighting has the potential for significant measureable customer savings due to the efficiency of LED lighting technology while also benefitting the environment.

### **Proposal:**

Effective January 1, 2019, the Authority Staff proposes to provide two LED lighting options in its Tariff for Electric Service under Service Classification SC No. 7A and phase out obsolete lighting technologies over a three-year period. By replacing these lights, the Authority will provide energy savings to customers and reduce greenhouse gas emissions.

The customer will benefit from an approximate 50% reduction in energy costs, will not be charged installation costs for the LED fixtures, and will experience no change in the customer's existing monthly base charges for an equivalent LED fixture.

Additionally, the Authority would like to carry out a three-year replacement program that will allow for existing, Authority-owned lighting fixtures within the service territory to be replaced with LED fixtures. Customers will be informed of the impending change to their fixture and be given the option to keep their existing fixture.

The Service Provider will also consider customer requests for LED replacement ahead of the planned implementation schedule. Any failed fixture or those that have met the end of their useful life and require replacement will be converted to LED fixtures, with one exception: the High Pressure Sodium 100 watt fixture will still be available for replacement since there is no equivalent LED currently available.

Authority Staff also proposes to update the Tariff to indicate that, effective January 1, 2019 existing Metal Halide and High Pressure Sodium fixtures (with the exception of the 100 watt High Pressure Sodium option) will no longer be available for replacement. Customers will be required to select from the other available fixture options (either one of the two LED fixtures or the High Pressure Sodium 100 watt fixture). Additionally, effective January 1, 2022, existing Metal Halide and High Pressure Sodium (with the exception of the 100 watt

High Pressure Sodium option) bulbs and photocells will also no longer be replaced. The affected fixtures will be replaced from one of our currently available fixture options.

As noted above, all customers will be given the option to keep their existing light fixture. However, customers with operating flood lights will be encouraged to accept early replacement of the existing flood lights with LED fixtures. The Authority has not installed new flood lights since 2003 and the existing flood lights on the system are aging. Customers with existing flood lights may choose to keep the functioning flood light, but the Authority will only replace bulbs in such lights for a maximum of three years (until December 31, 2022). After such time, upon failure, the flood light will be replaced with an LED fixture or the account will be closed.

**Financial Impacts:** The three-year project plan will entail the use of approximately \$16 million in capital to replace approximately 11,700 existing fixtures with their LED equivalent. As a result of the reduction in energy from the LED technology, savings will be passed along to customers in the Power Supply Charge. This project will provide an approximate Power Supply Charge savings to customers of \$57 per year for those who switch from an HPS 250 watt to the LED equivalent and \$84 per year for switching from a HPS 400 watt to the LED equivalent<sup>1</sup>. The approximate energy savings, assuming existing inventory gets fully replaced with LED technology would be 9,660 MWh equating to approximately \$483,000 in Power Supply Charge savings<sup>2</sup>. This project will also have an estimated annual operating and maintenance savings of \$300,000<sup>3</sup> due to the extended ten year life of the LED bulb technology.

**Affected Tariff Leaf:** 241, 244, 245, 246 and 247

**Summary of Proposed Changes:**

To update the Electric Service Tariff Service Classifications 7 and 7A to include LED lighting options, and include additional clarifying language with regard to the replacement of obsolete lighting.

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<sup>1</sup> The Power Supply Charge savings were based on a \$.10 cent per kWh charge.

<sup>2</sup> Ibid, assuming half of the power supply charge is based on variable costs.

<sup>3</sup> Current lighting repair budget is approximately \$500,000, however due to LED bulb life extension from four to ten years this would result in O&M savings per year. The actual savings could be higher in the first five years since all of the LED bulbs will be new.

**VIII. SERVICE CLASSIFICATIONS (continued):**

**J. SERVICE CLASSIFICATION NO. 7**

**Outdoor Area Lighting:**  
**(Rate Code: 780)**

1. Who Is Eligible

Customers who used this service for outdoor lighting before December 5, 1986, provided:

- a) Suitable overhead distribution facilities exist, except,
- b) When only one (1) span of overhead secondary cable per lighting fixture is needed. In such cases, the Authority will provide the cable on existing poles.

2. Character of Service

- a) Unmetered, single-phase, 60 hertz, alternating current supplied to Authority-owned, operated, and maintained lighting facilities, and
- b) Provided for approximately 4,210 hours per year (4,222 for a leap year), at suitable voltages chosen by the Authority, and
- c) Provided to mercury vapor and incandescent lighting facilities.

3. Rates and Charges

a) Rates per Mercury Vapor Facility per Month

Type Luminaire	Approximate Lumens	Total Watts	Monthly Rates
Area Light*	7,000	200	\$12.86
Area Light*	21,000	455	\$18.24
Flood Light*	21,000	455	\$19.90
Flood Light*	52,000	1,100	\$41.76

b) Rates per Incandescent Facility per Month

Type Luminaire	Approximate Lumens	Total Watts	Monthly Rates
Flood Light*	100 c.p.	92	\$5.26
Flood Light*	250 c.p.	189	\$8.97

\* These luminaires are no longer available for new installations or unit replacements.

c) Adjustments to Rates and Charges

Each Customer's bill will be adjusted for the Power Supply Charge, Increases in Rates and Charges to Recover PILOT Payments, the Shoreham Property Tax Settlement Rider, the Distributed Energy Resources Cost Recovery Rate, the New York State Assessment Factor, the Securitization Offset Charge, and the Delivery Service Adjustment.

VIII. SERVICE CLASSIFICATIONS (continued):

M. SERVICE CLASSIFICATION NO. 7A

**Outdoor Area Lighting - HPS (High Pressure Sodium) and MH (Metal Halide) and LED (Light Emitting Diode):**  
 (Rate Codes: 781, 782)

1. Who Is Eligible

Customers who will use this service for outdoor lighting, provided:

- a) Suitable overhead distribution facilities exist, except
- b) When only one (1) span of overhead secondary cable per lighting fixture is needed. In such cases, the Authority will provide the cable on existing poles. Charges for additional cable and poles are given below.

2. Character of Service

- d) Unmetered, single-phase, 60 hertz, alternating current supplied to Authority-owned, operated, and maintained lighting facilities, and
- e) Provided for approximately 4,090 hours per year (4,102 for a leap year), at suitable voltages chosen by the Authority, and
- f) Provided to high pressure sodium (HPS), ~~and~~ metal halide (MH) and light emitting diode (LED) facilities.

3. Rates and Charges

a) Rates per Lighting Facility per Month

<u>Lamp Type</u>	<u>Type Luminaire</u>	<u>Approximate Lumens</u>	<u>Total Watts</u>	<u>Monthly Rates</u>
<del>High Pressure Sodium</del> <u>HPS*</u>	Area Light	6,400	108	\$18.70
<del>High Pressure Sodium</del> <u>HPS*</u>	Flood Light	27,500	309	\$22.94
<del>High Pressure Sodium</del> <u>HPS*</u>	Flood Light	50,000	476	\$30.48
<del>Metal Halide</del> <u>MH*</u>	Flood Light	36,000	453	\$31.01
<del>Metal Halide</del> <u>MH*</u>	Flood Light	110,000	1093	\$33.78
<del>High Pressure Sodium</del> <u>HPS**</u>	Full Cut-off	4,000	63	\$25.42
<del>High Pressure Sodium</del> <u>HPS**</u>	Full Cut-off	6,300	91	\$25.49
<del>High Pressure Sodium</del> <u>HPS</u>	Full Cut-off	9,500	128	\$25.85

~~\*Commencing October 1, 2003, not available for new installations or replacements.~~

VIII. SERVICE CLASSIFICATIONS (continued):

M. SERVICE CLASSIFICATION NO. 7A

Outdoor Area Lighting - HPS (High Pressure Sodium) and MH (Metal Halide) and LED (Light Emitting Diode) (continued):

(Rate Codes: 781, 782)

Rates and Charges (continued):

Lamp Type	Type Luminaire	Approximate Lumens	Total Watts	Monthly Rates
	<u>High Pressure Sodium HPS**</u>	Full Cut-off	28,500	305
				\$28.97
	<u>High Pressure Sodium HPS**</u>	Full Cut-off	50,000	455
				\$37.32
	<u>Metal Halide MH**</u>	Full Cut-off	20,500	288
				\$29.12
	<u>Metal Halide MH**</u>	Full Cut-off	36,000	455
				\$37.32
<u>LED</u>	<u>Full Cut-off</u>	<u>19,270</u>	<u>168</u>	<u>\$28.97</u>
<u>LED</u>	<u>Full Cut-off</u>	<u>29,100</u>	<u>255</u>	<u>\$37.32</u>

\*Commencing October 1, 2003, not available for new installations or replacements.

\*\* Effective January 1, 2019 these luminaires are no longer available for new installations or unit replacements. Effective January 1, 2022, bulbs and photocells replacements for these luminaires will also no longer be available.

a) The charge for Additional Overhead Secondary Cable and Poles dedicated to the Customer is \$14.57 per span per month.

b) Adjustments to Rates and Charges

Each Customer's bill will be adjusted for the Power Supply Charge, Increases in Rates and Charges to Recover PILOT Payments, the Shoreham Property Tax Settlement Rider, the Distributed Energy Resources Cost Recovery Rate, the New York State Assessment Factor, the Securitization Offset Charge, and the Delivery Service Adjustment.

4. Minimum Charge

The monthly Minimum Charge is the facilities charge computed under the rates in 3 a), b) and c) above for the number of lighting facilities in place on the billing date.

5. Terms of Payment

The Customer shall pay the balance due in cash, including checks and money orders, on receiving the bill. Late payments shall be subject to Late Payment Charges.

**VIII. SERVICE CLASSIFICATIONS (continued):****M. SERVICE CLASSIFICATION NO. 7A**

**Outdoor Area Lighting - HPS (High Pressure Sodium) and MH (Metal Halide) and LED (Light Emitting Diode)** (continued):

(Rate Codes: 781, 782)

**Rates and Charges (continued):**

6. Term of Service

- a) The Term of Service is two (2) years, and the Authority will provide service to the Customer until service is terminated either by the Customer or the Authority.
- b) The Customer shall give the Authority five (5) days written notice when requesting termination of service, after two (2) years from the start of service.
- c) The Authority may terminate service to the Customer in accordance with the provisions of this Tariff.
- d) The Authority may terminate service immediately if, for any reason, the Authority is not able to maintain the lines needed to supply the facility or is unable to maintain the facility.

**VIII. SERVICE CLASSIFICATIONS (continued):****M. SERVICE CLASSIFICATION NO. 7A****Outdoor Area Lighting - HPS (High Pressure Sodium) ~~and~~ MH (Metal Halide) ~~and~~ LED (Light Emitting Diode) (continued):****(Rate Codes: 781, 782)****Term of Service (continued):**

- e) The Authority will terminate service to a location and remove the facilities if the Authority decides that a location is too costly because of damaged equipment, unless a satisfactory arrangement can be made between the Authority and the Customer.

**7. Special Provisions****a) Authority Furnished and Installed Fixtures**

The Authority will furnish and install the outdoor lighting fixtures if:

- (1) The Customer has assured the Authority that the service will be on a continuous and reasonably permanent basis, and

- (2) The Customer signs a contract agreeing to the terms of this service classification.

- (2)(3) For a Customer that would like to replace an existing HPS or MH fixture with an LED fixture may do so given they have already met their two year term of service (See VIII.M.6).

**b) Fixture Types and Their Locations**

- (1) Only fixtures approved by the Authority will be installed and maintained at Authority-approved locations.
- (2) The Authority will only locate facilities where they can be maintained with the use of its aerial vehicles, and
- (3) The Authority will relocate fixtures or replace a fixture with one of different design if the Customer pays in advance for the relocation or replacement.

**c) Service and Maintenance**

- (1) The Authority will service and maintain the equipment only during normal working hours, and
- (2) The Authority will replace burned out lamps after being notified by the Customer unless prevented by conditions outside the Authority's control, and
- (3) If there is a service interruption:
  - (a) The Authority will allow the Customer a facilities and energy credit for each 24-hour period the lighting facility is out of service, after being notified by the Customer, and
  - (b) If service is not restored within twenty-four (24) hours.

**II. SERVICE CLASSIFICATIONS (continued):****M. SERVICE CLASSIFICATION NO. 7A**

**Outdoor Area Lighting - HPS (High Pressure Sodium) and MH (Metal Halide) and LED (Light Emitting Diode)** (continued):

(Rate Codes: 781, 782)

**Special Provisions (continued):**

d) Energy Delivery Points

The Authority will supply electricity for lighting facilities at the following Energy Delivery Points:

- (1) For overhead-supplied lighting facilities, at the overhead secondary distribution lines on the utility pole, and
- (2) For underground-supplied lighting facilities:
  - (a) At the Authority's overhead secondary distribution lines if the Authority's system is overhead, or
  - (b) At a pull box, provided and installed by the Customer, not more than one (1) foot from a designated Authority-owned manhole or splicing chamber, if the Authority's system is underground.

e) Notification Obligations of the Customer

- (1) The Customer shall be responsible for notifying the Authority in writing within thirty (30) days of any changes to existing lighting fixtures, including the addition of new fixtures, the deletion of fixtures or any other type of change in facilities.
- (2) The Customer shall be responsible for notifying the Authority when a fixture needs to be repaired.
- (3) The Customer may receive an adjustment to their bill covering the period from two business days after the date the Authority is notified to the date the fixture is repaired.
- (4) Customers who do not report such changes to the Authority are not entitled to receive an adjustment to their bill.
- (5) Upon request by the Authority, the Customer shall complete an easement application for dedicated poles.