

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on March 9, 2017

COMMISSIONERS PRESENT:

Audrey Zibelman, Chair
Gregg C. Sayre
Diane X. Burman

CASE 16-E-0616 - Tariff filing by Central Hudson Gas & Electric Corporation to establish new LED lighting options under Service Classification No. 5 - Area Lighting Service and modify Service Classification No. 8 - Public Street and Highway Lighting, P.S.C. No. 15 - Electricity.

ORDER APPROVING ADDITION OF LED STREET LIGHTING OPTIONS
WITH MODIFICATIONS

(Issued and Effective March 10, 2017)

BY THE COMMISSION:

INTRODUCTION

On October 27, 2016, Central Hudson Gas & Electric Corporation (Central Hudson or the Company) filed tariff amendments to its electric tariff schedule, P.S.C. No. 15, to establish new light emitting diode (LED) options under Service Classification (SC) 5 - Area Lighting Service and modify its four existing LED options under SC 8 - Public Street and Highway Lighting Rate A (Company Owned and Maintained). On January 24, 2017, Central Hudson filed further modifications to include nine additional LED fixture options, with various wattages, for both SC 5 and SC 8 Rate A. By this Order, the revisions proposed on October 27, 2016 to SC 5 and SC 8, as contained in the tariff

amendments listed in the Appendix A, are approved with modifications.

BACKGROUND

Central Hudson's current LED lighting options for SC 8 Rate A were approved in the 2015 LED Order.¹ In response to requests for LED replacement options from municipalities, Central Hudson was authorized² to add four LED fixture offerings with a Correlated Color Temperature (CCT) configuration of 4000 Kelvin (K) for each option under SC 8, Rate A. By the 2015 LED Order, customers requesting LED replacement were held responsible for the undepreciated book value associated with the non-LED fixture assets being removed. The undepreciated book value is recovered by applying a per fixture charge to all fixtures to be replaced and is required to be updated on an annual basis. Currently the Company does not offer LED lighting options under its SC 5 tariff.

TARIFF FILING

Central Hudson proposes to revise certain provisions under SC 8 Rate A, including revisions to the various wattages offered. The effective LED tariff provisions contain fixture rates associated with specific wattages, while the proposed tariff provisions includes LED fixture rates associated with tiered wattage ranges. Central Hudson proposes to transition from its current LED offerings of 4000 K to 3000 K by using the remaining 4000 K inventory for replacements then offering 3000 K fixtures exclusively. Central Hudson proposes this transition

¹ Case 15-E-0126, Central Hudson Gas & Electric Corporation - LED Tariff Filing, Order Adopting the Addition of LED Lighting Options with Modifications, (issued August 13, 2015) (2015 LED Order).

² Ibid., page 8.

plan unless a mass replacement requires utilization of all 3000 K lights to maintain light consistency between adjacent fixtures. Central Hudson proposes to address barriers to mass replacement of non-LED fixtures with LED fixtures by eliminating the per fixture charge for the undepreciated book value of the fixture being replaced for customer initiated replacements.

Central Hudson proposes to extend the LED replacement options offered to SC 8 customers to customers taking service under SC 5. For both SC 5 and SC 8 customers, Central Hudson proposes to establish a standard by which high pressure sodium (HPS) fixtures will be replaced with LED fixtures upon failure. Central Hudson has complied with the requirements of newspaper publication pursuant to Public Service Law §66(12)(b) and 16 NYCRR §720-8.1 for its proposed amendments.

NOTICE OF PROPOSED RULE MAKING AND COMMENTS

Pursuant to the State Administrative Procedure Act (SAPA) §202(1), a Notice of Proposed Rulemaking was published in the State Register on November 16, 2016 [SAPA No. 16-E-0616SP1]. The time for submission of comments pursuant to the Notice expired on January 3, 2017.

The Mid-Hudson Street Light Consortium (MHSC) filed comments on January 13, 2017. MHSC is generally supportive of the Company's proposal but puts forth several positions, some in opposition to the Company's proposal. First, MHSC proposes that municipalities should be able to choose from among all available LED options which should include different wattages and CCTs. Second, MHSC contends the Company's proposed wattage ranges are an improvement over the initial LED offerings, however, the proposed LED offerings are over-sized resulting in lost energy savings. Third, MHSC requests the Company ensure it has the municipality's permission to install LED upgrades and that it

has given municipalities the opportunity to provide a lighting design plan that specifies the LED wattage to be installed. MHSC states Central Hudson's current practice of a one-for-one replacement when upgrading to LEDs can replicate and exacerbate any pre-existing lighting deficiencies, including non-uniformity and over-lighting.

MHSC applauds the Company's proposed LED rates which are lower than the rates for existing SC 8 HPS fixtures. Also, MHSC supports the Company's proposal to eliminate the requirement that municipalities pay stranded costs associated with replacing existing fixtures that are not fully depreciated. MHSC indicated that they have found that payment of stranded costs are a barrier to municipalities requesting accelerated conversion and note the environmental benefits that can be achieved by accelerating the conversion to LED fixtures. The comments put forth are addressed below.

DISCUSSION AND CONCLUSION

HPS Replacement Standard

According to the Company, LEDs becoming more economically viable nationwide has resulted in a decline in the use and demand of other less efficient fixture types. The Company indicated that while prices associated with LED technologies have continued to decline, the price of HPS lighting is rising as it becomes increasingly obsolete. In an effort to move away from inefficient and outdated technology, Central Hudson proposes to make LED options the standard and its tariffed HPS equivalent fixtures non-standard, thereby phasing them out by no longer replacing them in-kind upon failure.

The Company's proposal to revise its LED tariff offerings in order to convey energy savings opportunities to its customers is commendable. However, it is premature to fully

phase out HPS offerings at this juncture, in part due to the recovery of net book costs as discussed further below. Additionally, to ensure customer satisfaction, it is important to afford customers conversion options. Therefore, the Company shall continue to offer HPS fixtures and allow customers to decide how and when to switch to more efficient LED luminaires.

LED Rates

By this order, the Commission approves the four LED options and rates listed in Appendix B. The approved rates are lower than those proposed by the Company.

The model used to generate the Company's proposed LED rates is consistent with methods approved in the 2015 LED Order. The Company used a capital cost study to determine the annual service costs of each proposed LED option. All costs (depreciation, cost of removal, cost of capital, and state and federal income taxes) associated with the LED conversion are included in the study. The Company averaged the cost per unit from several vendors to determine the proposed rate for each proposed LED offering. Consistent with the Commission's orders for Niagara Mohawk Power Corporation d/b/a National Grid³ and the City of Jamestown Board of Public Utilities⁴, the use of the lowest vendor price to determine the unit cost for each of the proposed offerings is adopted. Therefore, the four LED rates contained in Appendix B for SC 5 and SC 8 Rate A reflect the incorporation into the rate model of the lowest vendor fixture prices per 3000 K LED specification.

³ Case 15-E-0645, Niagara Mohawk Power Corporation d/b/a National Grid - LED Street Lighting, Order Adopting the Addition of LED Street Lighting Options (issued May 23, 2016).

⁴ Case 16-E-0523, City of Jamestown Board of Public Utilities - LED Street Lighting, Order Adopting LED Street Lighting Options (Jamestown Order), (issued January 26, 2017)

Central Hudson's current LED filing utilizes an average service life (ASL) of 12 years for the proposed LED luminaires. Considering the manufacturers chosen by Central Hudson provide an expected life of the LED light engines and electronic drivers of 100,000 hours, a 12 year ASL is low. Using the Company's SC 5 and SC 8 annual burn hours of 4000 hours, the LEDs are expected to survive approximately 25 years. Taking into consideration the northeast climate and unforeseen problems, the appropriate ASL of the LED luminaires is 20 years. As a result, the rates contained in Appendix B reflect the use of a 20 year ASL.

The Company's proposal to offer nine additional LED tiered options, per its January 24, 2017 filing, is rejected at this time. While these options appear responsive to MHSC's request for additional wattage options, the Company has not provided adequate cost information, such as supporting vendor price quotes. Without such information, the proposed rates are not substantiated. If Central Hudson would like to offer these options in the future, the Company may submit a tariff filing and provide the supporting information.

SC 8 LED Options

Incorporating the adjustments discussed above for each of the four approved SC 8 LED equivalent fixtures, the LED options prove to be cost beneficial when compared to the existing HPS options. The four LED options result in annual energy reductions of 68% on average in comparison to their HPS equivalent fixtures. After analyzing over 99% of the non-decorative fixtures in service, the LED rate options produce annual savings that range from \$36.76 (21%) for a 25 Watt LED replacing a 70 Watt HPS to \$127.22 (33%) for a 155 Watt LED replacing a 400 Watt HPS fixture.

SC 5 Area Lighting

Three of the four approved SC 5 LED equivalent fixtures prove to be cost beneficial in comparison to their existing HPS options when incorporating the rate adjustments discussed above. However, replacing a 70 watt HPS with a 25 watt LED fixture will not provide economic benefits under current HPS rate levels. The economic disadvantage of the LED offering is due to the substantially lower HPS fixture rates for SC 5 customers as compared to those for SC 8 customers. Given that the price of HPS lighting is rising as it becomes increasingly obsolete, HPS customers are expected to see rising prices, eventually resulting in an economic benefit for all LED equivalents. The disparate pricing for the HPS fixtures in SC 5 and SC 8 should be examined by the Company in its next rate proceeding.

Correlated Color Temperature

The SC 8 LED rates authorized in the 2015 LED Order were based on LED fixtures with a CCT of 4000 K. This CCT was similar to the offering of other utilities implementing LED lighting options at the time and was in compliance with the specifications of the New York State Department of Transportation. Central Hudson received complaints regarding the "cooler" light produced by the 4000 K LEDs relative to the "warmer" light produced by non-LEDs in close proximity. Moreover, several organizations such as the International Dark-Sky Association and the American Medical Association encourage use of 3000 K or less LED fixtures for outdoor lighting. In response to customer requests, Central Hudson proposes to transition its LED options from 4000 K to 3000 K.

The 2015 LED Order noted the importance of customer considerations in their individual design objectives and

decisions regarding their choice to upgrade to LED fixtures. CCT preference for LED options is customer dependent and influenced by factors such as the setting in which the streetlight is being used. The Company's proposal is responsive to the needs of its customers and is therefore approved. The Company should deploy the remaining 4000 K inventory in an appropriate manner, taking into consideration the need for uniformity within any mass replacements.

Maintenance Option

Central Hudson offers a maintenance option to its municipal customers, by which all non-working non-LED street lights are replaced with LED equivalent fixtures. A failed non-LED street light is defined by the Company as any non-working street light. As such, under the maintenance option, Central Hudson replaces a working HPS luminaire due to an HPS bulb failure. The Company proposes to record a regulatory asset for the remaining net book value of fixtures replaced through the maintenance option.

In the 2015 LED Order, payment of the undepreciated book cost associated with the non-LED assets to be replaced was determined to be the responsibility of the customer requesting replacement. While replacing, at no cost to the customer, a failed non-LED luminaire with an LED luminaire through a maintenance option is appropriate, replacing a fully functioning non-LED luminaire due to a bulb or photocell failure is not because the functioning non-LED fixture is prematurely retired. Consistent with the Jamestown Order, Central Hudson is directed to modify its maintenance option such that only failed luminaires are replaced with a new LED luminaire at no charge to the customer. The maintenance option should only make replacements with customer consent. If replacement is due to

minor maintenance occurrences such as re-lamping or changing of the photocell, rather than a failed luminaire, the customer shall be responsible for payment of the undepreciated book cost associated with the early retirement of the non-LED luminaire.

Additionally, under the maintenance option, the Company has converted non-LED fixtures to LED fixtures using a "one-for-one" replacement approach. Under this approach, HPS fixtures that fail are converted to the LED equivalent option listed in Central Hudson's tariff at the time of replacement. This systematic replacement can result in inconsistent lighting appearances and/or apparent over-lighting. As described by MHSC, customers should be consulted regarding their LED replacement options.

Recovery of Undepreciated Investment

Central Hudson proposes to eliminate the per fixture fee associated with the undepreciated book costs for customer initiated LED conversions. By the 2015 LED Order, the Commission determined that the undepreciated book value associated with the assets to be removed are the responsibility of the customer requesting conversion. Central Hudson states that this requirement has prevented customers from requesting mass conversions. Rather than charging the customer requesting the conversion, the Company proposes to defer the resulting unrecovered book value, grossed up for associated deferred income taxes, as a regulatory asset. Central Hudson's proposal is rejected. The current tariff provisions, which should remain in effect, allow the customer the option to make a one-time payment or make monthly levelized payments over a term not to exceed five (5) years. This option allows the customer to payback the undepreciated investment over time using savings resulting from the conversion.

The Company, as well as third party commenters, perceive this fee as a barrier to implementing mass replacement of non-LED street lighting fixtures. Implementing LED street lighting can play a role in helping the State achieve its clean energy goals, however any such initiative should be considered along with, and in the context of, the Company's full portfolio of energy efficiency initiatives. Central Hudson is encouraged to consider proposing an energy efficiency initiative to meet these objectives as part of its Energy Efficiency Transition Implementation Plan or as a component of its next rate filing.⁵

The Commission orders:

1. Central Hudson Gas & Electric Corporation's tariff amendments filed on October 27, 2016, and listed in the Appendix A shall become effective on April 1, 2017, provided that the Company files further revisions as discussed in the body of this Order, on not less than three days' notice to become effective on April 1, 2017.

2. Central Hudson Gas & Electric Corporation's further revisions filed on January 24, 2017, and listed in the Appendix A are rejected.

3. The requirements of Public Service Law §66(12)(b) and 16 NYCRR §720-8.1 as to newspaper publication with respect to the tariff amendments directed in Clause 1 are waived.

4. In the Secretary's sole discretion, the deadlines set forth in this order may be extended. Any request for an extension must be in writing, must include a justification for the extension, and must be filed at least one day prior to the affected deadline.

⁵ Any such proposal should include details on implementation, proposed cost-recovery mechanism, and relevant treatment of plant in service and rate base.

5. This proceeding is closed pending compliance with the above Ordering Clauses.

By the Commission,

(SIGNED)

KATHLEEN H. BURGESS
Secretary

Commission Approved Rates

SC 8 - Public Street and Highway Lighting - Rate A							
	Annual Charge Effective April 1, 2017			Annual Charge Effective July 1, 2017			
Median LED Fixture Watts	Proposed Fixture Rates	Approved Fixture Rates	Reduction in Fixture Rates		Proposed Fixture Rates	Approved Fixture Rates	Reduction in Fixture Rates
25	\$146.63	\$132.37	\$14.26		\$152.23	\$137.43	\$14.80
65	165.30	138.60	26.70		171.61	143.89	27.72
95	199.80	158.75	41.05		207.43	164.81	42.62
155	293.14	210.78	82.36		304.34	218.83	85.51

SC 5 - Area Lighting							
	Monthly Charge Effective April 1, 2017			Monthly Charge Effective July 1, 2017			
Median LED Fixture Watts	Proposed Fixture Rates	Approved Fixture Rates	Reduction in Fixture Rates		Proposed Fixture Rates	Approved Fixture Rates	Reduction in Fixture Rates
25	\$12.22	\$11.03	\$1.19		\$12.69	\$11.45	\$1.24
65	13.17	11.55	1.62		14.30	11.99	2.31
95	15.92	13.23	2.69		17.29	13.73	3.56
155	23.35	17.57	5.79		25.36	18.24	7.12