

**State of New Hampshire
Public Utilities Commission
DE 22-083
UNITIL ENERGY SYSTEMS, INC.**

**Proposed Light Emitting Diode Outdoor Lighting Service Tariff Changes
February 17th, 2023 NHPUC Record Requests**

Record Request 1:

Please explain what the Company means by “as applicable,” and how that will be determined, in the context of calculating the monthly kWh for billing.

Response:

“As applicable” is referring to All-Night Service or Midnight Service. Thus, if the customer is taking service under All-Night Service, the percentage reduction for the light will be applied to the monthly kWh designated in the tariff for All-Night Service. If the customer is taking service under Midnight Service, the percentage reduction for the light will be applied to the monthly kWh designated in the tariff for Midnight Service.

Person Responsible: Karen M. Asbury

Date: March 1, 2023

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Record Request 2:

The testimony notes that as a first step, the expected average operating wattage for each of the light sources resulting from installed control adjustments is multiplied by the annual hours of operation in the tariff, divided by 12 to get a monthly equivalent. In the second step, the resulting number is then **divided by the monthly kWh usage designated in the tariff** for All-Night Service or Midnight Service, and the resulting percentage is then “applied to the **monthly kWh designated in the tariff** for All-Night Service or Midnight Service” to get the **monthly kWh** for billing.

Please explain why it is necessary to conduct the second step? Is it not true that the second step will produce the same number as produced in the first step?
Please provide an illustrative example for clarification.

Response:

Please see RR-2 Attachment 1 for an illustrative example of the calculation. The example uses a 35 watt LED Area Light Fixture using 12 kWh per month under the All-Night Service Option in the tariff. While it is true that the second step will produce the same number as produced in the first step (without any rounding)¹, the second step is necessary as the Company proposes to apply a percentage (rounded to the nearest whole number) to reflect the lower usage with advanced controls to the original monthly kWh (in this case 12 kWh). The Company chose this option due to the complexity of potentially having a significant number of consumption levels that would need to be entered into the Company’s billing system. This example alone shows thirty-four consumption levels. Instead, for billing purposes, the Company proposes to apply the resulting percentage to the monthly kWh for the light type that is already hard-coded into the billing system. Also, the Company currently has a billing feature in use in its system that applies a percentage discount to the metered usage for primary metered customers. The Company intends to build-upon this functionality for the proposed LED tariff.

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¹ See Step 1 Result in Column 6, Step 2 Result in Column 9 (with rounding), and Step 2 Result in Column 11 (without rounding). The figures are shown in two decimal places just to demonstrate that there are minor differences in the underlying amounts due to rounding. The Company currently bills in whole kWh so the results would be the same in all three instances in this example.

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Record Request (RR) 3:

Please also refer to Pages 2 and 3, where the Company refers to the Settlement Agreement from Docket No. DE 21-030 requiring the Company's new or revised LED Outdoor Lighting Service tariff to align more closely with Liberty Utilities' LED-2 and Eversource's EOL tariff rate. Please explain in detail how the Company's proposed tariff changes align with each.

Response:

The Settlement Agreement requires the Company's tariff to align more closely with Liberty Utilities' ("Liberty") LED-2 and Eversource's EOL tariff to allow options for municipalities to install advanced lighting controls and to allow municipalities to own and maintain lighting fixtures. As discussed in further detail below, UES has revised its current tariff, Schedule LED (renamed to Schedule LED-1), to include a provision that allows options for the installation of advanced lighting controls while UES' new proposed tariff, Schedule LED-2, includes provisions for advanced lighting controls and allows municipalities to own and maintain light fixtures.

UES's new tariff provision "Use of Advanced Controls" is based on Liberty's and Eversource's tariff provisions. The tariffs provide that where lighting controls meeting the current ANSI C12.20 standard have been installed that allow for variation from the Company's outdoor lighting hours schedule, the Customer must provide verification and a schedule indicating the expected average operating wattage of the light. UES' billing approach is unique, however, and is described in response to RR-2. In addition, all three companies' tariffs include a provision that the Customer must provide the Company access to the data from the Customer's control system in order for the Company to verify the measured energy use and modify the billed usage as appropriate.¹ The UES tariff provision includes additional detail on the process with respect to modified billing as result of higher observed wattages than initially provided by the customer, including meeting in good faith to discuss the circumstances, attempting to resolve the matter in a mutually agreeable manner, and related determination of the number of fixtures subject to rebilling. The Company has also reserved the right to bill all the LED lights based on the total wattage provided under the tariff if any fixture is reset without the express written consent of the Company. Prior to such rebilling, the Company and the Customer would meet in good faith to attempt to

¹ Liberty's and Eversource's tariff provide that the billing may be modified as appropriate on a prospective basis.

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resolve the matter. The companies' tariffs provide that the Customer may revise the schedule of average operating wattage ratings annually. UES has specified that the schedule may be modified on the anniversary of the Customer's initial opt-in date. UES has also specified that annual revisions may take one or two billing cycles to become effective. These revisions were included for workload considerations.

UES starting point for its Schedule LED-2 was its current Schedule LED. The intent was to create a tariff that provides for both advanced controls and allow municipalities to own and maintain lighting fixtures. UES aligned the Availability provision consistent with Liberty's LED-2 and Eversource's EOL-2 tariffs to indicate that the tariff is available to governmental bodies who are converting from high pressure, mercury vapor or metal halide lighting to LED or that want new LED installations and that want to purchase and own the LED fixtures including the option to install advanced controls for alternative lighting schedules. Also, the same as Liberty and Eversource, UES has added provisions that the Customer must provide at least annually, a street light inventory including location of fixtures by pole number, wattage, Kelvin and lumen of all fixtures, and that the Customer holds title to all fixtures and is responsible for all maintenance of such fixtures. Similar to both companies, UES has also added language to indicate that service under the tariff applies to all night, midnight service or an alternative schedule with the use of advanced controls. UES' provision for midnight service differs, however, in that customers may select the midnight service option during an open enrollment period whereas Liberty and Eversource allow the option to be selected at any time. The open enrollment is part of UES' current LED tariff, thus is not a new feature.

UES has expanded its provision for Additional Requirements to align with Eversource EOL-2 as follows:

Any cost incurred with new installations, or with the replacement or removal of existing fixtures and/or brackets shall be borne by the Customer. Such costs shall include the installed cost of the new fixtures and/or brackets in the case of new installation and replacements, and the cost of removal of the existing fixtures and/or brackets, less any salvage value of such fixtures and/or brackets which are removed from service.

In the case of new installations, extensions and replacements which make use of underground conductors for supply and distribution and/or standards or poles employed exclusively for lighting purposes, the Company reserves the right to require the Customer to furnish, own, and maintain such underground supply and distribution facilities and/or the standards or poles.

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For outdoor lighting area lighting installation, the Customer shall provide without expense or cost to the Company, all permits, consents, or easements necessary for the erection, maintenance, and operation of the Company's facilities, including the right to cut and trim trees and bushes wherever necessary; and the Company shall not be required to move its facilities to another location on the Customer's premises unless the Customer shall bear the cost thereof. The Company reserves the right to restrict such installations under this rate to areas which are easily accessible by service truck.

The Use of Advanced Controls provision has been added to Schedule LED-2 as well, to more closely align with Liberty's LED-2 and Eversource's EOL-2. Specific modifications made by UES are discussed above.

The Company's current Maintenance provision, which already included provisions for Company maintenance or maintenance by a private line contractor, has been restructured to more closely align with the form of Liberty's LED-2 and Eversource's EOL-2. Now the section begins by stating the fee for any customer requesting replacement or maintenance of a light by the Company and that ongoing maintenance or replacement of fixtures owned by the customer, including photocell or advanced controls may be performed by the customer through a private line contractor. The section below, which was part of UES' current tariff has been moved to come after the language above. *"The Company shall not be required to perform any replacements or maintenance except during regular working hours. The Company will be responsible for correcting UES system voltage problems at no charge to the Customer. When the Company responds to a report of a non-working fixture not related to voltage, the Customer will be assessed a per-fixture per-visit charge to replace photoelectric controls or to remove an otherwise non-working fixture and return it to the Customer. If available, the Company will replace a non-working fixture with a replacement fixture to be supplied by the Customer."*

Unrelated to the settlement provisions, UES also made a revision under Failure of Lights to Burn to indicate that a deduction would be made from the monthly kWh (not monthly price) which is the method used in Liberty's EOL-2. Eversource's LED-2 does not include a Failure of Light to Burn provision.

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