STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: December 4, 2013
AT (~~OFFICE~~): NHPUC

ORIGINAL
N.H.P.U.C. Case No. DE 13-248
Exhibit No. #4
Witness Panel I
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FROM: Al-Azad Iqbal
Utility Analyst III

SUBJECT: DE 13-248 Public Service Company of New Hampshire

Proposal for Light Emitting Diode (LED) Option - Energy Efficient Outdoor Lighting Rate (EOL) street lighting option

Staff Recommendation

TO: Debra A. Howland
Executive Director

On August 28, 2013, Public Service Company of New Hampshire (Company) filed a proposal to introduce an LED street lighting option for its customers. It is an addition to its current Energy Efficient Outdoor Lighting Delivery Service Rate (EOL). Rate EOL is available to federal, state, county, municipal or other governmental units, departments or agencies. Currently only high pressure sodium (HPS) and metal halide (MH) fixtures are available under Rate EOL. Staff reviewed the proposal and recommends that the Commission approve the proposal with certain conditions.

Background

In Docket No. DE 09-035, the Company agreed to monitor developments in the technology and the applicable rating standards for LED lighting. As a result of its review, the Company determined that offering an LED option under Rate EOL may provide customers with opportunities for energy savings while improving overall lighting quality. The Company stated that an LED lighting service option is also consistent with its commitment to assist customers in managing their cost of electricity, to support energy-efficient initiatives, and to support State's clean energy goals. The Company stated that it experienced an increase of interest among its EOL customers in LED lighting system. Customers' preference for the newer LED technology over the currently available HPS and MH options is based on the potential savings in electricity usage. Although the initial cost of LED street lights was prohibitive in the past, the company believes that the cost decrease in last few years made it an attractive alternative for HPS or MH.

PSNH thus proposed an update of its EOL tariff to accommodate future lighting technologies accepted by the Company. The Company included additional requirements for the LED option. Under the proposed tariff, the customer is responsible for procuring all LED fixtures and providing replacement fixtures in the event of failure or damage. The customer must sign a service agreement governing the contribution for the unexpired life of the existing street lighting luminaires and brackets, the contribution for the installed cost of the new luminaires and brackets, and the conversion of existing luminaires. The Company also filed an economic analysis and rate structure for the LED option. The Company requested the approval of the proposed LED service option by December 1, 2013 for an effective date of January 1, 2014 or an effective date 30 days after the date of the Commission's order.

Analysis and Recommendation:

Staff agrees with the rationale to introduce the LED street lighting option. However, Staff has concerns about how the rate is set for the LED option. The Company proposed to set the rate for the LED option based on its current HPS and MH rates, not based on the actual cost of LED lighting. The Company used a regression analysis of the current EOL distribution charges plotted as a function of their wattage to determine the proposed charges for the LED option. Based on the regression analysis, the Company proposed the EOL distribution charges to be calculated in two parts: 1) a fixed charge irrespective to the size of the luminaire and the level of usage; and 2) a per watt variable charge based on the wattage of the luminaire. In response to a data request, the Company stated that HPS and MH rates are also not based on a cost analysis. The Company stated that many of the customers will be replacing HPS and MH with LED, so that setting the rates at the same level would provide the Company an opportunity to meet the Commission-approved revenue requirement from street lighting. Although the Commission typically adheres to the policy of 'cost based rate making', in the absence of any actual cost data Staff believes that the proposed methodology is an acceptable alternative for the interim period. Considering there are significant changes in responsibilities related to procurement and inventory, Staff believes that that it is important to track the costs for all EOL options so that the rate could be set accordingly in future.

The Company's proposed tariff opens up the possibility to accommodate any new technologies under EOL rates. Staff has concerns about how a new technology would be selected for the EOL options. PSNH did not provide any details how it would determine acceptability of a lighting technology to be considered under EOL rates. Staff believes that a comprehensive guide needs to be developed in this regard.

Based on the analysis above, Staff recommends that the Commission approve the proposed program to be effective 30 days after the date of the Commission's order with the following conditions:

1) The Company will track the actual cost for all options under the Rate EOL tariff including the LED option so that the rates for the various options can be reviewed in future.
2) The Company will file an annual report with the Commission with the data for customer participation, actual costs and revenue for each component and option of the program so that the Commission has the information to decide whether the rate should be adjusted before the next rate case.
3) The Company will develop a process, criteria and standards for evaluating new lighting technologies to be accepted under Rate EOL.

Staff is providing this recommendation in advance of the December 10, 2013 hearing to aid in the examination of PSNH's proposal during the hearing. If you have any questions about this matter, please do not hesitate to contact me.