March 28, 2023

Submitted electronically to board.secretary@bpu.nj.gov

Carmen D. Diaz Acting Secretary of the Board 44 South Clinton Ave., 1st Floor PO Box 350 Trenton, NJ 08625-0350

RE: Request for Comments on the PSEG Implementation of the LED Streetlight Program

Dear Ms. Carmen D. Diaz:

Signify (formerly Philips Lighting) appreciates the opportunity to provide written comments regarding the BPU Proposal to permit PSEG to convert existing street lighting to LED light fixtures. We applaud the efforts to optimize energy usage. Installing LED and connected lighting technology is one of the most quick and effective ways to reduce energy consumption and carbon emissions, while also supporting other important community objectives including safety, equity, and well-being. Our comments seek to highlight the benefits of LED conversions and the additional technologies associated with LED streetlight programs, as well as to provide examples of similar success being delivered in other states.

As a corporation with National Headquarters located in Bridgewater, New Jersey we support the efforts of the Board of Public Utilities and the work of State Government to achieve 100% clean energy by 2050. Signify is the globally recognized leader in LED and smart lighting solutions with more than 129 years of proven service and experience in lighting innovations. Formerly the lighting arm of the Royal Philips Company, the company became Signify in 2018. We don't just provide energy-efficient LED and connected lighting solutions; our commitment to sustainability and climate action extends throughout our operations. We achieved carbon neutrality in North America in 2018 and globally in 2020, and we have been recognized in the Dow Jones Sustainability World Index.

Cities, citizens, businesses, drivers, and pedestrians rely on the streetlight infrastructure to navigate their daily routines and connect them to their communities. Energy-efficient LED streetlighting can ensure these roadways are well lit, providing superior performance to traditional lighting sources. A further opportunity comes with connecting street light points so that they can be monitored and managed remotely as part of an integrated system. Connected lighting allows operators much greater control and oversight, including scheduling and adjusting lighting levels for specific locations, monitoring energy usage per light point, as well as optimizing the maintenance and performance of the system to reduce overall cost, outages and downtime. With connectivity, streetlights can also deliver new "Smart City" applications which are enabled through a variety of sensors to deliver value far beyond illumination.

Value of LED and Connected Street Lighting

Conversion to new high-efficiency LED and connected streetlights has significant proven benefits, including:

- Lower energy usage. Today's connected LED streetlight technology can offer superior lighting performance while lowering street lighting electricity consumption. Given that street lights can constitute as much as 40% of municipal energy bills,¹ these savings are important to cities.
- *Reduced greenhouse gas emissions.* Connected LED streetlights can result in carbon emissions reduction of up to 60-80%²
- *Improved maintenance service:* By immediately identifying outages, connected streetlights both reduce customer service calls and the need for routine inspections. Connected streetlights also improve asset management by creating a database of lights and a snapshot of realtime maintenance needs.
- Increased Road Safety and Lower Nighttime Crime: LEDs lighting offers improved visibility from the quality of light. Connected systems increase uptime and decrease system outages. The combined result is reduced road accidents with injuries by 30% and reduced nighttime crime by 10-36%.²
- Improved Uptime and Reduced Streetlight Outages: LEDs have a much longer lifetime than other lighting technologies. In addition, connected streetlights enable faster troubleshooting and maintenance with remote access to realtime, accurate streetlight asset and fault data. Connected LED lighting can reduce response times and reduce the number of "non-working" lights and "day burners".
- Deliver the foundation for your smart city journey: The connected LED streetlight system can be extended with sensors to deliver new value, e.g. smart parking, traffic analysis, and environmental conditions monitoring. Sensor based applications deliver value far beyond illumination. These applications have been shown to deliver increased parking revenue by 12 -25%, and decreased traffic by 15 - 31% ³

Signify encourages New Jersey to join the numerous other states and utilities who are far along the LED and Connected Lighting journey. These other programs offer mature connected LED streetlighting systems that include LED fixtures, controls, a lighting management software system, and sensors that can be added overtime. The following are examples demonstrate major statewide and utility programs that have had significant Connected LED Streetlight success.

- The New York Power Authority has been working with municipalities across New York State on the Smart Street Lighting NY program. Smart Street Lighting NY was launched in early 2018 by the NY Governor with an ambition to replace at least half of New York's more than 1 million streetlights with energy-efficient and sustainable alternatives. Through the program, NYPA provides financial, logistical, technical, and informational support to help cities upgrade their streetlighting to connected LED. Interact City IoT lighting software gives municipalities the option of leveraging the connected streetlighting system to deploy smart solutions citywide. The program was a stunning success right out of the gate with commitments from more than thirty cities to replace 250,000 streetlights. To date, over 100,000 LED streetlights have been installed or are in the process of being installed, saving millions of dollars in energy costs per year. With connected LED luminaires and an IoT lighting system, cities can reduce their energy consumption and carbon footprint. The technology can also play a role in making cities more livable with new services and safe for citizens. Cities including Rochester, White Plains and Albany have already implemented projects.⁴
- Georgia Power Georgia Power is one of the pioneers in street lighting services in North America, and its lighting team is responsible for the management of around 900,000 lights, regulated and unregulated, across its territory. The utility has been rolling out LED upgrades for several years

and it is also responsible for one of the world's largest deployments of connected lighting controls. Since 2015, Georgia Power has implemented network lighting controls on approaching 300,000 of the 400,000 regulated highway and roadway lights under its management. It also controls around 500,000 non-regulated area lights (such as parks, stadiums, campuses) which it is in the process of upgrading. Georgia Power and its customers have already seen significant benefits from the program. The new network is allowing the lighting management team to address long-standing issues around asset management and maintenance scheduling. It is also deploying service innovations such as on-fixture metering and time-of-use tariffs. There is no magic involved—the program has benefited from a combination of strategic vision, detailed implementation planning, and careful execution.⁵

LED Streetlights and Connected Lighting offer New Jersey and the BPU an exciting opportunity to bring new benefits to cities and citizens across the state. Utilities can act as a unifying entity to bring resources and establish parity to the smaller communities that may not have the same resources as the larger communities. If not for the efforts of PSEG, many communities may be left behind in the LED streetlight conversion and smart city journey.

Please contact me if you have any questions.

Sincerely,

Cindy Malinchak 848-702-8079 cindy.malinchak@signify.com



 $2\ http://news.dataforcities.org/2017/03/wccd-and-philips-lighting-publication.html$

4 https://www.signify.com/en-us/brighten-america/transportation/nypacasestudy

 $^{{}^{1}\} https://www.researchgate.net/publication/314081671_Cost_analysis_of_Smart_Lighting_Solutions_for_Smart_Cities$

³ https://www.parking-net.com/parking-industry-blog/get-my-parking/how-smart-parking-reduces-traffic

⁵ https://info.telensa.com/utility-case-for-street-lighting