

Copenhagen Clerk

From: Kim Vogt
Sent: Wednesday, May 4, 2022 2:59 PM
To: Mark Souva; Shareef Stokely; Kerry Colton; Gerald Snyder; Copenhagen Clerk
Subject: FW: [EXTERNAL]NYPJA-Jefferson / Lewis County Aggregate LED STL - Smart City Tech - Village of Copenhagen
Attachments: Smart City Grant Guideline.pdf; Smart City Tech Examples.xlsx

Good Afternoon All,

We will need to discuss and decide what we want for our village. WE received \$30,000 in grant and there is a \$10,000 additional funds allocated to the "Smart Cities" portion of our project. So we have up to \$40,000 to spend on these items.

Looking forward to having this conversation!

Kim R Vogt
Village of Copenhagen Trustee/Deputy Mayor
9915 State Route 12
Copenhagen, New York 13626

Village Office Phone (315) 688-4229
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From: Maya, David <David.Maya@nypa.gov>
Sent: Wednesday, April 27, 2022 1:53 PM
To: Kim Vogt <kvogt@villageofcopenhagen.com>
Subject: FW: [EXTERNAL]NYPJA-Jefferson / Lewis County Aggregate LED STL - Smart City Tech - Village of Copenhagen

From: Zachary T. Jacobs <zjacobs@wendelcompanies.com>
Sent: Friday, April 1, 2022 10:53 AM
To: Kim Vogt <kvogt@copenhagen-ny.com>; clerk@villageofcopenhagen.com
Cc: Kholodenko, Ilya <Ilya.Kholodenko@nypa.gov>; Maya, David <David.Maya@nypa.gov>; Sean O. Cox <scox@wendelcompanies.com>; Kurt R. Blemel <kblemel@wendelcompanies.com>; Mickey Dietrich <mickey@tughill.org>
Subject: [EXTERNAL]NYPJA-Jefferson / Lewis County Aggregate LED STL - Smart City Tech - Village of Copenhagen

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Good morning,

As discussed at the update meeting yesterday now that the majority of the municipalities have reached substantial completion we've begun working on the next steps, which are identifying and addressing punch-list items, commissioning of the asset management nodes, assisting the municipalities with the conversion reports, and identifying any Smart City Technology the Municipalities are interested in.

Regarding the Smart City Technology scope, attached are the Smart Street Lighting Grant Program Guidelines from NYPA as a refresher on the program. Also listed below and attached in excel are some of the Smart City Technologies eligible under this grant, if you are interested in any of these let us know and we can provide some additional literature or setup a vendor presentation. Additionally, if you are interested in something that is not listed just let us know and we can confirm whether it would be eligible.

In an effort to expedite this process please provide feedback on what systems you would potentially like to pursue with your grant money, or if you no longer interested in the Smart City Technology portion by the end of next week. Once we hear back from you, we will setup a follow up call with each municipality to discuss accordingly.

Following those meetings, we will obtain firm material and labor quotes to help assist you in your decision making process regarding which systems will fit in your budget and which you would like to move forward with.

Smart City Technology Option	Estimated Material Cost	Labor Cost	Eligible Community Type
Signify Multi-Use Sensor (X yrs.)	TBD	TBD	Cellular
Signify MultiSensor (5 yrs.)	\$300	TBD	Cellular
Signify BrightSites Smart-Pole (Wi-Fi and Camera Available)	\$8,800 - \$12,700	TBD	Fiber
CIMCON Parking Analytics (5 yrs.)	\$14,450	TBD	Cellular
CIMCON Air Quality (5 yrs.)	\$14,000	TBD	Cellular
CIMCON Gunshot + Crowd Aggression Detection (5 yrs.)	\$9,250	TBD	Cellular
CIMCON Advanced Video Surveillance (5 yrs.)	\$7,750	TBD	Cellular
CIMCON Threat Analytics (5 yrs.)	\$6,250	TBD	Cellular
CIMCON Traffic Monitoring (5 yrs.)	\$6,000	TBD	Cellular
CIMCON Pedestrian Counting (5 yrs.)	\$5,750	TBD	Cellular
CIMCON Essential Video Surveillance (5 yrs.)	\$5,075	TBD	Cellular
CIMCON Road Temperature Monitoring (5 yrs.)	\$4,750	TBD	Cellular

CIMCON Noise Monitoring (5 yrs.)	\$4,375	TBD	Cellula
Ubicquia Ubihub WIFI AI (3 yrs.)	\$3,595	TBD	Fib
Ubicquia Ubimetro CBRS (3 yrs.)	\$3,595	TBD	Fib
Ubicquia Ubihub WIFI (3 yrs.)	\$1,145	TBD	Fib
Ubicquia Air Quality Sensor (3 yrs.)	\$875	TBD	Cellula

Best regards,
Zack Jacobs, CWEP
Energy Services



ARCHITECTURE | ENGINEERING | ENERGY EFFICIENCY | CONSTRUCTION MANAGEMENT

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Smart Street Lighting NY Grant Program Guidelines

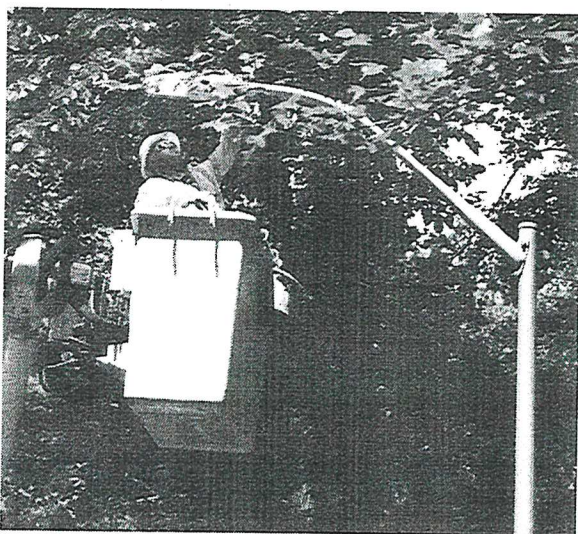
Customer Energy Solutions



**NY Power
Authority**

Program Overview

As an enhancement to the Smart Street Lighting NY Program, the New York Power Authority (NYPA) is pleased to announce the Smart City Technology Grant Program ("Smart City Grant"). The Smart City Grant, scheduled to go through December 31, 2025, will support the planning and installation of Smart City sensor hardware and software technology as part of LED street lighting conversions.



Applicants that meet all the requirements will be eligible to receive a range of grant funding outlined in the grant allocation table. Grant amounts will depend on the quantity of street lights, as well as, the amount of matching funds the community may contribute. If no matching funds are contributed then the community is eligible to receive the base grant amount. The community may contribute as much as they like but will only receive matching funds from NYPA up to the max amount in their tier plus the base grant amount as outline in the equation below.

$$\begin{aligned} &(\text{Base Grant}) + (\text{Community Contribution}) + \\ &(\text{NYPA Match of Contribution}) = \\ &\text{Total Smart City Cost} \end{aligned}$$

As technology continues to evolve, municipalities are able to make data driven decisions to enhance the operation of their assets and improve public services to their residents. Street lighting systems are no longer used solely to illuminate roadways, but are now considered vertical assets that can be used for a variety of new and innovative functions. NYPA will work with program participants statewide to enhance LED street lighting conversions by integrating one or more of the following technology categories:

- **Public safety:** video analytics, noise and motion monitoring, gunshot detection
- **Environmental:** air quality, ice and snow detection, sewer and storm water monitoring, weather detection
- **Transportation:** traffic optimization, traffic monitoring, parking management
- **Connectivity:** digital kiosks, connected vehicles, smart phone applications

As new technologies are developed, NYPA will expand the offerings mentioned above. NYPA will also provide municipalities with information on the potential roll out of 5G broadband small cell technology and public Wi-Fi. Adequate connectivity will be the backbone of how Smart City and Internet of Things (IoT) sensors communicate while also enhancing cellular density.

Application Requirements

The online application must be submitted for participation. In order for applications to be considered for award by NYPA, the applicant must satisfy the following requirements:

- Applications must be submitted by an authorized employee of the municipality implementing the project. While consultants or third parties may assist in creating project applications, applications submitted by third parties on behalf of the municipality will not be entertained.

- In order to receive an award, the applicant (“Applicant”) must enter into an agreement with NYPA for the full turnkey project implementation of an LED street lighting conversion. The Applicant must also execute a cost recovery agreement with NYPA. However, the municipality is not obligated to use NYPA’s low-cost financing.
- Each Applicant will be limited to submitting one application. Each application must include only one project, but the project can include installations at multiple locations. If the street lighting conversion is completed in multiple phases additional applications will not be accepted.
- Smart City sensors, hardware, and software must be preapproved by NYPA before an application is submitted. Please see the attached list of prequalified Smart City solutions. If there is a system that is not listed that an Applicant would like to implement, please send a comprehensive Scope of Work, respective cut sheets, and a project budget to the Program Manager Kevin Luteran (contact information below).
- Eligible Applicants can choose to supplement NYPA’s contributions with 50% matching funds of the total project cost in order to acquire additional grant funds. Matching funds can come from any combination of capital from the municipality’s budget or NYPA financing, if eligible. Matching funds are to be paid directly to NYPA as defined in the Customer Project Commitment (CPC). Customers must decide whether they will contribute matching funds at the time that the Authorization to Proceed (ATP) for the street lighting conversion is executed.
- Once a project has been officially awarded, the municipality will not be able to modify the project scope without approval from NYPA. If the matching funding option is chosen and upon completion of the work, the total project cost is below what was originally projected and approved, the municipality must still meet the 50% match requirement of the total project cost and NYPA will retain any unused grant funds. Any excess funds not used will not be paid to the Applicant. If upon completion of the work the cost of the Smart City technology is above what was originally projected and approved, the municipality will be responsible for the difference between what was awarded and the final cost of the project. NYPA will not accrue any project costs in excess of the originally agreed upon total allocation amount without consent.

Project Parameters

If an application is deemed incomplete, the applicant will be notified within 30 days of receipt of the application. The applicant must then resubmit the appropriate documentation to be considered for funding. Failure to resubmit revised application may result to declination of an application. If approved, Applicants will be notified of award decisions with a grant award notification within 30 days of applying.

Projects submitted for consideration must satisfy the following requirements:

- The installation of all Smart City devices are to be installed at the time of the installation of the LED street lights by NYPA. NYPA will also accept applications from municipalities who converted their street lights through NYPA after July 2017.

- The municipality will own all hardware and software associated with the grant program. The municipality is also responsible for operation and maintenance of the system after the respective program warranty expires.
- The municipality will allow NYPA to access non-sensitive data generated by Smart City systems in order to test, learn, and enhance the program as long as the data is anonymous, non-identifiable, and co-mingled with other data. Municipalities may be required to enter into a third party service agreement with a Smart City technology provider.

- The program will be offered up to year 2025 or until the capped program funding is depleted. NYPA does not guarantee this grant amount if the program funds are fully committed at the time you submit your application. Awards will be made on a first come first serve basis.
- Grant funds will not be dispersed to the municipality directly, they will be used as credit to the project to offset total project costs.
- As with all aspects of the Smart Street Lighting NY, all costs incurred to develop Smart City projects are subject to cost recovery fees.
- NYPA reserves the right to modify the parameters of the program at any time.
- Awards from NYPA shall follow the chart below in total grant allocation amount, per individual project:

Grant Allocation			
Number of Street Lights	Base Grant Amount (No customer match)	Matching Amount (up to 50% match)	Total Amount (Base + Matching)
0 to 500	Up to \$20,000	Up to \$40,000	Up to \$60,000
501 to 1,000	Up to \$40,000	Up to \$80,000	Up to \$120,000
1,001 to 5,000	Up to \$75,000	Up to \$150,000	Up to \$225,000
>5,000	Up to \$100,000	Up to \$200,000	Up to \$300,000

Example Project	
Number of Street Lights	3,500
Base project cost for LED conversion	\$5,000,000
NYPA Base Grant Amount	\$75,000
NYPA Matching Funds	\$100,000
City's Contribution	\$100,000
Total Grant Amount	\$175,000
Net Project Cost	\$5,000,000
Gross Project Cost (LED + Smart City)	\$5,275,000

For any questions please contact:

Kevin Luteran

Smart Street Lighting NY Program Manager

SmartStreetLightingNY@NYPA.gov

(518) 433-6742

Applications can be submitted here:

<https://www.nypa.gov/services/customer-energy-solutions/smart-street-lighting-ny>

Eligible Smart City Tech Examples

Smart City Technology Option	Estimated Material Cost	Labor Cost	Communication Type	Description	Communication Type
Signify Multi-Use Sensor (5 yrs.)	TBD	TBD	Cellular	MUS Sensor uses Edge Image Analytics to provide Smart Parking, Traffic Management, Public Safety (Crowd Detection, People Counting)	Cellular
Signify Multi-Sensor (5 yrs.)	\$300	TBD	Cellular	Each Luminaire mounted device has a radar motion sensor to adjust light level in case of activity, a noise monitoring sensor, a temperature sensor to monitor ambient conditions, and a tilt/impact sensor to trigger unsafe pole condition alerts	Cellular
Signify BrightStiles Smart Pole WiFi and Camera Available	\$8,800 - \$12,700	TBD	Fiber	Cost dependent on final selections of pole style, height, and added technologies, such as public WiFi access point, and security cameras of various levels of quality	Fiber
GIMCON Parking Analytics (5 yrs.)	\$14,450	TBD	Cellular/RF	Cloud-hosted data store for physical parking activity as collected by sensors installed for 35 total on-street and off-street parking spaces.	Cellular/RF
GIMCON Air Quality (5 yrs.)	\$14,000	TBD	Cellular/RF	Air Quality Measuring particulate matter (PM2.5), nitrogen dioxide (NO2), ozone (O3), temperature and relative humidity.	Cellular/RF
GIMCON Gunshot + Crowd Aggression Detection (5 yrs.)	\$9,250	TBD	Cellular/RF	Acoustic sensor based gunshot within an 100-ft area of sensor, does not further triangulate. Additionally monitors for crowd aggression as well as basic noise threshold detection.	Cellular/RF
GIMCON Advanced Video Surveillance (5 yrs.)	\$7,750	TBD	Cellular/RF	Everything in Essential Video Surveillance with License Plate Recognition Camera + advanced analytics	Cellular/RF
GIMCON Threat Analytics (5 yrs.)	\$6,250	TBD	Cellular/RF	Camera based public safety alerts with data transferred over mesh networks based on missing objects, unidentified objects, objects left behind, zone intrusion and other activities.	Cellular/RF
GIMCON Traffic Monitoring (5 yrs.)	\$6,000	TBD	Cellular/RF	Radar based traffic volume, speed detection, and vehicle classification.	Cellular/RF
GIMCON Pedestrian Counting (5 yrs.)	\$5,750	TBD	Cellular/RF	Camera based people counting on streets, plazas, or any outdoor spaces, useful for monitoring pedestrian flow.	Cellular/RF
GIMCON Essential Video Surveillance (5 yrs.)	\$5,075	TBD	Cellular/RF	Video Surveillance with rolling 30 day archive, accessible by cloud, and visualized on a dashboard. Supports live feeds.	Cellular/RF
GIMCON Road Temperature Monitoring (5 yrs.)	\$4,750	TBD	Cellular/RF	Road Temperature detection for both air and road surface temperatures to predict black ice formation.	Cellular/RF
GIMCON Noise Monitoring (5 yrs.)	\$4,375	TBD	Cellular/RF	Acoustic sensor based noise threshold alerts, helpful for monitoring city work, vehicle noise, and general noise.	Cellular/RF
Ubiquiti UbiHub WiFi AI (3 yrs.)	\$3,595	TBD	Fiber	WiFi 6 Access Point w/ AI Processor, Dual 4K on demand Cameras, gunshot detection, 4-Microphones + management and reporting	Fiber
Ubiquiti Ubimetro CBRS (3 yrs.)	\$3,595	TBD	Fiber	Streetlight powered small cell that will densify the 4G and eventually 5G network + management and reporting	Fiber
Ubiquiti UbiHub WiFi (3 yrs.)	\$1,145	TBD	Fiber	WiFi 6 Access Point + management and reporting	Fiber
Ubiquiti Air Quality Sensor (3 yrs.)	\$875	TBD	Cellular/RF	Air Quality Sensor: O3, NO2, SO2, CO, Particulates (1.0, 2.5, 10ppm) Temp, Pressure, Humidity, Noise + Connectivity	Cellular/RF