



# Unified Government

Streetlight Review & Funding Discussion

February 2, 2022

# LED Streetlighting Project

A streetlight project aligns with the Neighborhoods UP & SOAR Program initiatives

## Community Benefits



System Reliability & Driver Safety  
Repair and replace infrastructure to add and correct light spacing



Economic Benefit  
Reduction in overall operations costs and investing in neighborhood and community's economic growth



Reduce Future Energy Costs  
Reduced operations costs helps manage utility rates in the future



Environmental Stewardship  
New system will reduce greenhouse gas emissions by 62%



Smart & Connected  
Ability to incorporate future technologies

## Technical Benefits

### Improved Operations

Upgrading and connecting the over 20,000 lights within the system allows for a better understanding of outages, system issues and the ability to track system operations remotely.

20-25  
years

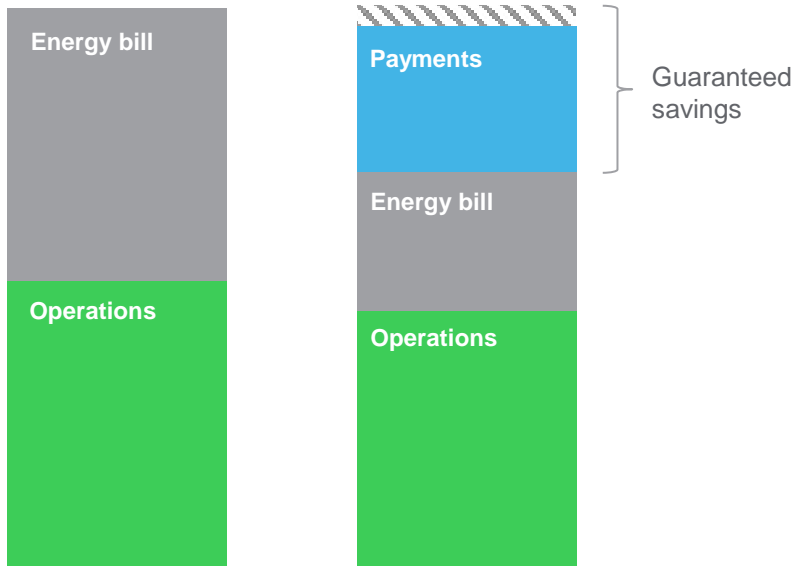
A useful life of 20 -25 years means this system requires less replacement inventory on hand, and drastically reduced maintenance costs.

75%

LED fixtures are between 40-75% more efficient than our current street lighting.

# Energy Services Model

Kansas enables and supports the design-build model with a guarantee of energy and operational cost savings



Budget before and after Capital Recovery and Reinvestment

## How to make this model work?

- UG needs to assume the costs, management, and oversight of the streetlight system
- Costs and expenses currently covered by BPU through rate structure and fees
- Establish a current state cost versus a future state cost post installation of the new system
- Leverage assumed cost savings to provide justification for investment

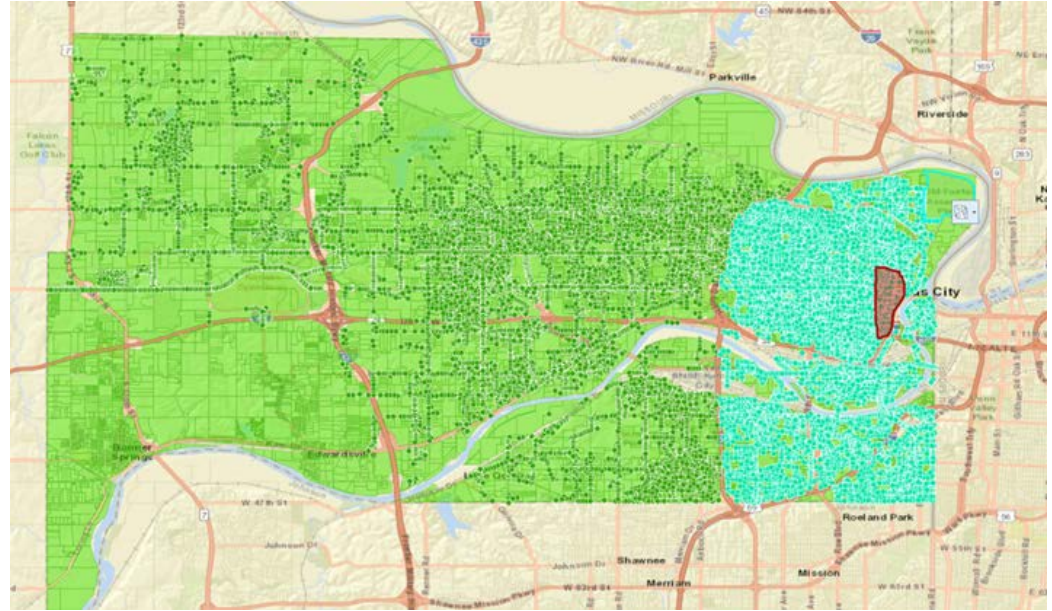
# Current Challenges

How to address a streetlight system that is mutually beneficial to the UG, BPU, and Community?

Total Luminaires: 26,297 (20,628 City Owned & 5,669 Rentals)

## Potential Scope:

- LED retrofit and replacement
- Additional streetlight poles and lighting
- Streetlight controls and smart cities integration
- Electrical infrastructure assessment and upgrade



# Projected Scope & Savings

Savings over a 20-year useful life of equipment

Luminaires	Quantity	Energy Cost	Maint. Cost	Total Cost
Rental	5,669	NA	NA	NA
Existing Nonrental Inventory	20,628	\$2,303,045	\$814,000	\$3,117,045
All LED Nonrental Inventory	20,628	\$744,825	\$414,000	\$1,158,825
<b>Savings Potential</b>		<b>\$1,558,220</b>	<b>\$400,000</b>	<b>\$1,958,220</b>

## Savings Assumptions:

- Wattage x Runtime x BPU Rate
- BPU Rate: Municipal Lighting Rate 751
- Savings escalated at 3% per year
- Maintenance assumed \$40 per HID vs. an LED rate of \$20 per luminaire

Year	Savings		
	Energy Savings	Operations & Maintenance	Total Savings (A+B)
	A	B	C
<b>Construction</b>			
1	\$ 1,558,220	\$ 400,000	\$ 1,958,220
2	\$ 1,604,967	\$ 412,000	\$ 2,016,967
3	\$ 1,653,116	\$ 424,360	\$ 2,077,476
4	\$ 1,702,709	\$ 437,091	\$ 2,139,800
5	\$ 1,753,790	\$ 450,204	\$ 2,203,994
6	\$ 1,806,404	\$ 463,710	\$ 2,270,114
7	\$ 1,860,596	\$ 477,621	\$ 2,338,217
8	\$ 1,916,414	\$ 491,950	\$ 2,408,364
9	\$ 1,973,906	\$ 506,708	\$ 2,480,615
10	\$ 2,033,124	\$ 521,909	\$ 2,555,033
11	\$ 2,094,117	\$ 537,567	\$ 2,631,684
12	\$ 2,156,941	\$ 553,694	\$ 2,710,634
13	\$ 2,221,649	\$ 570,304	\$ 2,791,953
14	\$ 2,288,299	\$ 587,413	\$ 2,875,712
15	\$ 2,356,948	\$ 605,036	\$ 2,961,983
16	\$ 2,427,656	\$ 623,187	\$ 3,050,843
17	\$ 2,500,486	\$ 641,883	\$ 3,142,368
18	\$ 2,575,500	\$ 661,139	\$ 3,236,639
19	\$ 2,652,765	\$ 680,973	\$ 3,333,738
20	\$ 2,732,348	\$ 701,402	\$ 3,433,751
<b>Total</b>	<b>\$41,869,955</b>	<b>\$ 10,748,150</b>	<b>\$ 52,618,105</b>

# Potential Funding

Schneider Electric has partnered with Learn Design Apply Inc.

## Support Provided:

- Grant consulting, management, writing, program development and relationship management
- Industry leader specializing in identifying, securing, and managing grant funding in partnership with public sector
- Track legislation, funding and trends to support infrastructure projects
- Past 12 months: \$600M requested for state and federal grants

Andrew Henshaw

Director of Business Development



# Rebuilding American Infrastructure Sustainably and Equitably (RAISE)

FY2022 Funding Total: \$1,500,000,000

- **Deadline:** April 27, 2022
- **Max Award:** \$25,000,000
- **Minimum Award:** \$5,000,000 for metropolitan areas (\$1m for rural)
- **Program Purpose:** The RAISE Discretionary Grant program provides a unique opportunity for the DOT to invest in road, rail, transit and port projects that promise to achieve national objectives while maximizing local or regional impact. The eligibility requirements of RAISE allow project sponsors at the State and local levels to obtain funding for multi-modal, multi-jurisdictional projects that are more difficult to support through traditional DOT programs. RAISE can fund port and freight rail projects, for example, which play a critical role in our ability to move freight but have limited sources of Federal funds. RAISE can provide capital funding directly to any public entity, including municipalities, counties, port authorities, tribal governments, MPOs, or others in contrast to traditional Federal programs which provide funding to very specific groups of applicants (mostly State DOTs and transit agencies). This flexibility allows RAISE and our traditional partners at the State and local levels to work directly with a host of entities that own, operate, and maintain much of our transportation infrastructure, but otherwise cannot turn to the Federal government for support.
- **Link for more details:** <https://www.transportation.gov/RAISEgrants>
- **Funded Project Examples:** <https://www.transportation.gov/RAISEgrants>

Life Is On



# Safe Streets and Roads for All

FY2022 Funding Total: \$5,000,000,000

- **Deadline:** TBD – Applications expected to open May 2022 (deadline typically 60+ days)
- **Max Award:** TBD
- **Program Purpose:** This new \$5 billion competitive grant program at the Department of Transportation will provide funding directly to and exclusively for local governments to support their efforts to advance “vision zero” plans and other complete street improvements to reduce crashes and fatalities, especially for cyclists and pedestrians.
- **Link for more details:** <https://www.whitehouse.gov/wp-content/uploads/2022/01/BIL-Factsheet-Local-Competitive-Funding.pdf>



# National Infrastructure Project Assistance “Megaprojects”

FY2022 Funding Total: \$5,000,000,000

- **Deadline:** TBD – Applications expected to open May 2022 (deadline typically 60+ days)
- **Max Award:** TBD
- **Program Purpose:** This new \$5 billion competitive grant program at the Department of Transportation will provide funding directly to and exclusively for local governments to support their efforts to advance “vision zero” plans and other complete street improvements to reduce crashes and fatalities, especially for cyclists and pedestrians.
- **Link for more details:** <https://www.whitehouse.gov/wp-content/uploads/2022/01/BIL-Factsheet-Local-Competitive-Funding.pdf>

# Additional Grant Opportunities

Beyond just streetlighting and looking at all transportation and safety infrastructure

## Energy Efficiency & Conservation Block Grants

- **FY2022 Funding Total:** \$550,000,000
- **Deadline:** late Fall 2022
- **Max Award:** Formula Grant (mathematical calculation)
- **Program Purpose:** This Department of Energy block grant program will provide \$550 million to states, local governments, and tribes for projects that reduce energy use, increase energy efficiency, and cut pollution.
- **Link for more details:**  
<https://www.whitehouse.gov/wp-content/uploads/2022/01/BIL-Factsheet-Local-Competitive-Funding.pdf>

## Charging & Fueling Infrastructure Grant

- **FY2022 Funding Total:** \$2,500,000,000
- **Deadline:** TBD – currently in comment period
- **Max Award:** TBD
- **Program Purpose:** In addition to the \$5 billion formula program distributed to states, this \$2.5 billion discretionary grant program at the Department of Transportation will fund the strategic deployment of publicly accessible electric vehicle charging infrastructure, as well as hydrogen, propane, and natural gas fueling infrastructure, along designated alternative fuel corridors and in communities.
- **Link for more details:**  
<https://www.whitehouse.gov/wp-content/uploads/2022/01/BIL-Factsheet-Local-Competitive-Funding.pdf>

## Bus & Bus Facilities Competitive Grant

- **FY2022 Funding Total:** \$250,000,000
- **Max Award:** \$25,000,000
- **Program Purpose:** The purpose of the Bus and Bus Infrastructure Program is to assist in the financing of buses and bus facilities capital projects, including replacing, rehabilitating, purchasing or leasing buses or related equipment, and rehabilitating, purchasing, constructing or leasing bus-related facilities.
- **Link for more details:**  
<https://www.transit.dot.gov/bus-program>

# **\$1,958,220** annual reduction in energy and operational cost savings



\$50+ million in funded capital improvements



\$53M million savings over 20-year partnership



Implemented over a 2-year construction schedule



Schneider Electric assumes all risk associated with project

# Next Steps

- Work with UG staff and administration on specific grants and funding opportunities
- Develop an engineering, implementation, and funding approach to current scope
- Approval of Investment Grade Audit with Schneider Electric to meet goals and vision of future streetlights:
  - Establish design criteria and standards
  - Finalize funding mechanism
  - Create construction plan with final scope of work
  - Begin implementation and achieve performance outcomes



Reduced Energy,  
Operations and  
Maintenance Costs



Alleviates up to \$50M in  
Current System Needs



Brighter, Safer, Smarter  
City Streets



Life Is On

**Schneider**  
Electric