



Information Presentation

Commission Meeting: May 3, 2018

PROJECT District of Columbia Smart Street Lighting Project	NCPC FILE NUMBER 7985
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PRESENTER Meghan Spigle (NCPC Staff) Judah Gluckman (DC Office of Public-Private Partnerships)	

Purpose: The purpose of this Information Presentation is to inform the Commission of the District's Smart Lighting Project, which also provides background for coordination with NCPC's Monumental Core Streetscape Project. Judah Gluckman, Deputy Director and Counsel, from the Office of Public-Private Partnerships (OP3) and Kathryn Roos, Project Manager, from the District Department of Transportation (DDOT) will present to the Commission.

Background: OP3, DDOT, and the Office of the Chief Technology Officer (OCTO) are partnering on the District's Smart Street Lighting Project. OP3, established in November 2015 under the Mayor's Office, is building collaborations between the private sector and District government. The purpose is to complete major infrastructure projects and other programs through long-term, performance-based procurements commonly referred to as public-private partnerships, or P3s. OP3 launched the Smart Street Lighting Project in 2017, which includes modernizing the District's streetlights to include LED bulbs and "Smart City" technologies.

Project Scope: The District has approximately 75,000 streetlights on streets, alleys, and public spaces. Many of the District's streetlights currently use energy-inefficient incandescent and high-pressure sodium light bulbs. This project will convert the District's streetlight bulbs to more reliable and energy efficient light emitting diode (LED) light bulbs. In addition, the project will modernize streetlights to include a remote monitoring and control system and expand the District's broadband WiFi coverage in priority corridors to serve as a platform for other "Smart City" technology, particularly in underserved neighborhoods. A private entity under a long-term, performance-based contract will install, maintain, and repair the District's streetlights and "Smart City" technologies.

Current Status & Timeline: Currently, OP3 and DDOT are in the procurement stage and recently announced the shortlist of qualified teams that will be responding to a Request for Proposals (RFP) this fall that will contain broad design parameters for the streetlights and technologies. Contracting with a private partner will likely occur in early 2019, followed by a design phase, which will include establishing detailed parameters. Over the course of the project, OP3 and DDOT have held several public meetings, with many more planned, and are coordinating with local and federal agencies, including NCPC.



SAFER. SMARTER. GREENER.



National Capital Planning Commission
Thursday, May 3, 2018





Agenda

1. Introductions
2. P3 Basics
3. Project Background, Scope and Benefits
4. Timeline/Next Steps
5. Discussion/Questions



What are public-private partnerships (P3s)?

Definition:

- Long-term, performance-based contract
- Risk transferred to party best able to manage
- Contractor Designs, Builds, Finances, and Maintains public facility (DBFM)



Benefits of P3s:

- Incentivizes Innovation
- Life-Cycle Management
- Transfers Risk
- Performance/Outcome-Based
- Debt Capacity



Examples:

- Virginia 495 Beltway Express Lanes
- Long Beach Courthouse
- Maryland Purple Line
- LaGuardia Airport

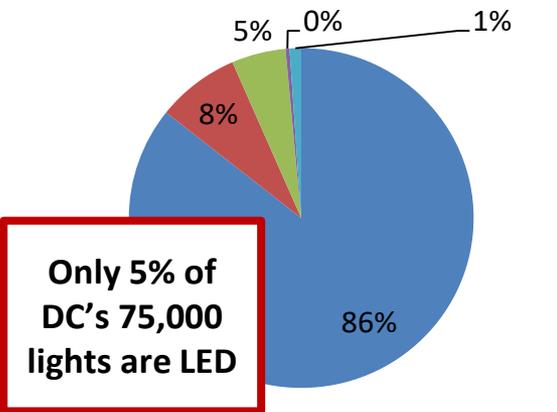


What a P3 is NOT:

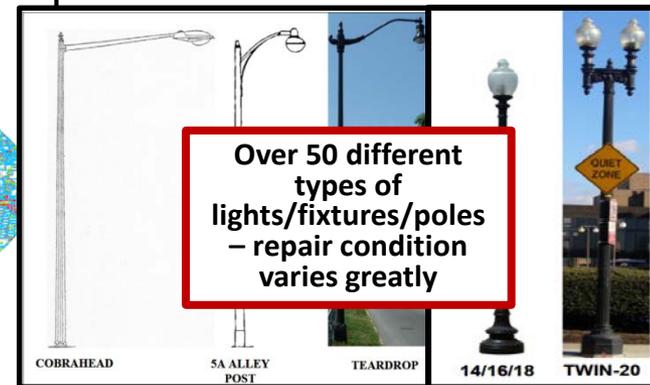
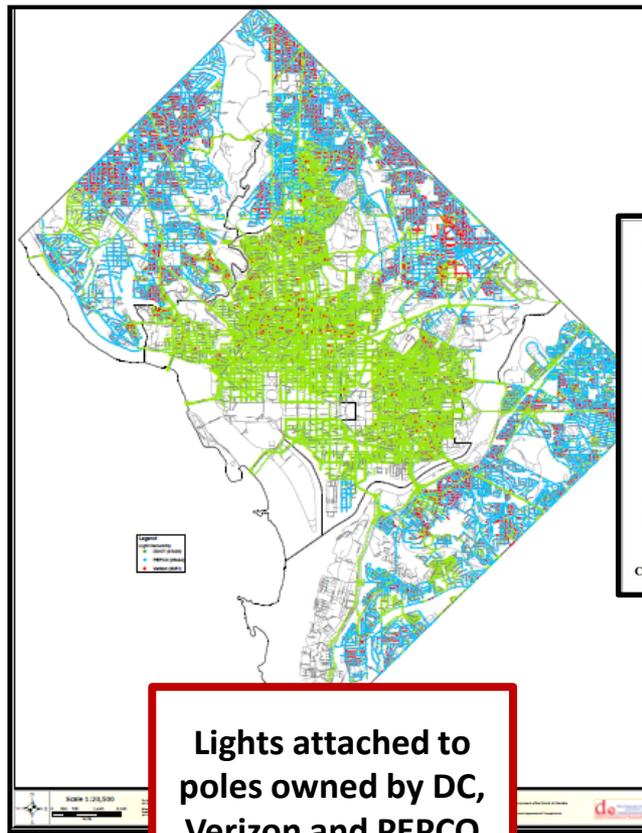
- Not – Free money
- Not – Privatization or Outsourcing
- Not – Philanthropy



Background: Streetlights, By the Numbers



- High Pressure Sodium (HPS) - 61359
- incandescent - 5583
- Light-Emitting Diode (LED) - 3639
- Metal Halide (MH) - 267
- Mercury Vapor (MV) - 775



Project Scope

LED Conversion

- Convert all 75,000 lights to more reliable and energy-saving LED

Remote Monitoring and Control System

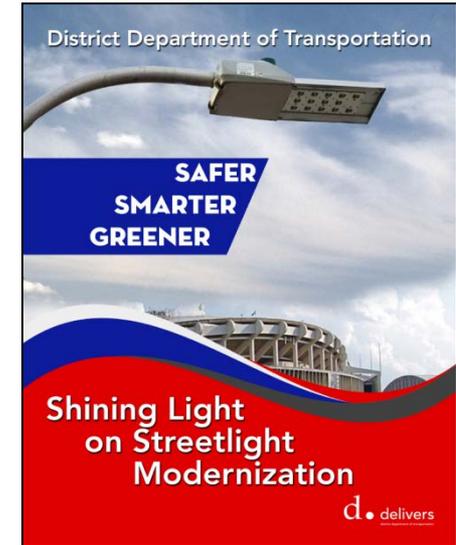
- Faster repair and customization by location

Asset Management

- Performance-based requirements and risk transfer

Smart City Technology

- Expanded public Wi-Fi which also helps enable future smart city technologies



Project Benefits

Public & Traffic Safety

- More consistent and reliable light
- Remote control system for incident response

Environmental

- Eliminate 30 tons of greenhouse gas per year (33 million pounds of coal not burned)
- Shielding and dimming reduce light pollution

Economic

- 40% to 50% reduction in energy costs (\$3 to \$4M annually)
- Lights last 3-4x longer and need fewer repairs

Neighborhood

- Remote monitoring and control system for comprehensive lighting design attuned to needs of each neighborhood
- Faster repair and customization by location

Smart City

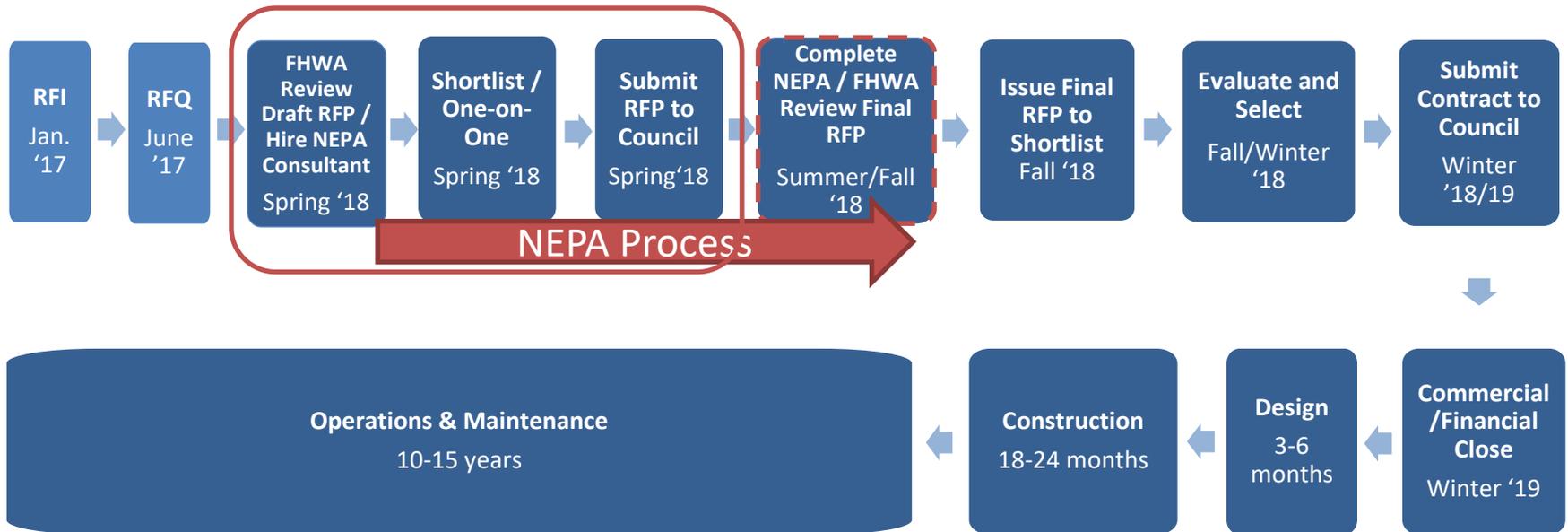
- Expansion of Free Broadband Wi-Fi
- Platform for other Apps (e.g., traffic and air sensors,)

P3 Risk Transfer

- 2-3 year install, compared to 8-12 currently
- Strict performance requirements (99% avail.)



Project Timeline



Public Outreach

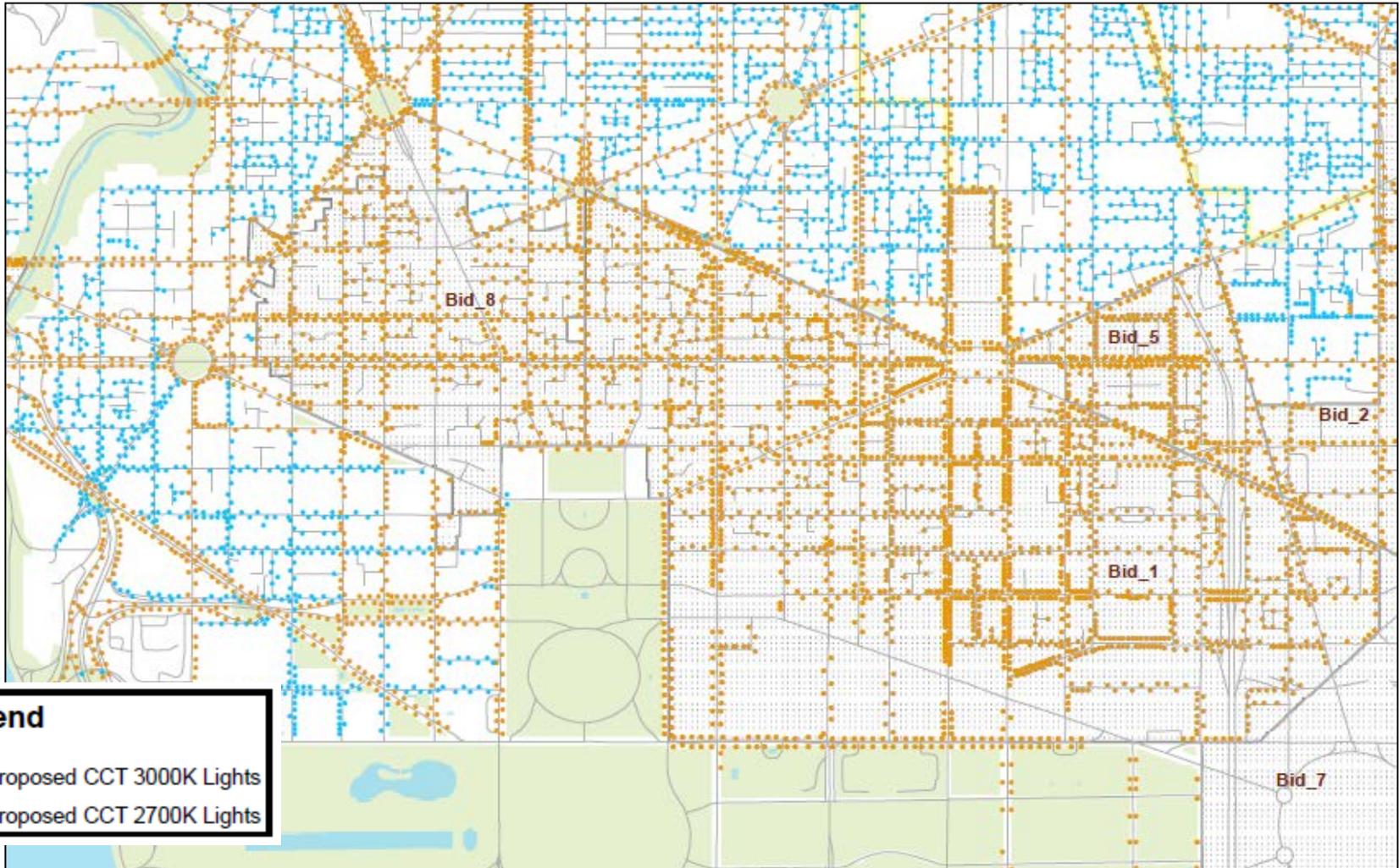
- Two public meetings in February; follow-up hearings scheduled for May 19th (Palisades) and 23rd (Lamond Riggs)
- General support for project – good ideas on LED color and light pollution
- Many more opportunities, including:
- **Streetlight Advisory Panel** – Diverse group of residents and experts in lighting design, public health, environmental, historic preservation, public safety and economic development to provide feedback and work with the government and contractors to improve the project



Lighting Design

- **Color Temperature:** 3000K will be max, with 2700K on residential streets (possibly more as DDOT continues to test new models)
- **Dimming:** Remote control monitoring system allows for customizations based on time, type of street, activity, etc.
- **Shielding:** Standard on most lights (discussions on-going for historic Globes)
- Streetlight Advisory Panel, NEPA and Section 106 process will assist in further refinements during procurement and design phases of project

Lighting Design





Thank You!

op3.dc.gov/streetlights

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Fun Facts about Infrastructure and P3s

- Every dollar spent on infrastructure, generates \$3.54 in GDP growth
- \$1 billion invested in infrastructure creates 21,671 jobs
- P3's are on average 17% less expensive and 3 times as likely to be delivered ahead of schedule
- 39 states and 33 countries have laws in place to procure P3s
- Canada procured 36% of its infrastructure with the P3 model in 2015, while the U.S. was just 1%

