Government of the District of Columbia

Department of Transportation

Hearing on the
Proposed Request for Proposals
DC Smart Street Lighting Project

Testimony of
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Before the
Committee on Transportation and the Environment
Council of the District of Columbia
The Honorable Mary Cheh, Chairperson

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INTRODUCTION

Chairperson Cheh and members of the Committee on Transportation and Environment, thank you for this opportunity to speak about the Request for Proposals for the DC Smart Street Lighting public-private partnership, or P3. I am Kathryn Roos, Interim Chief Operating Officer at DDOT. Since January 2018, I have served as project lead for the streetlight P3 project.

I am excited to be a part of the District's first P3. While more complex than a traditional contract, P3 projects are an opportunity to build partnerships between the private sector and District government to improve major infrastructure that provides residents services through long-term, performance-based contracts.

As we near the issuance of the RFP for bid, this hearing marks a milestone in the long life of the streetlight P3 project—one that will last 15 years into the future. I'd like to thank my colleagues at DDOT, OCP, OCTO, OP3, OAG, and OCFO and our technical advisors, as well as the numerous residents, community groups, and federal partners who have molded this project over several years.

Additionally, I want to note that this project itself is a milestone: Completion of the Streetlight P3 will position the District as a leader in the US P3 industry as well as deliver the largest, smart urban lighting network in the country.

Today, I will discuss the project scope, its benefits, how the P3 structure maximizes those benefits, how we've gotten to where we are, and what final steps are needed to procure this project.

SCOPE & BENEFITS

At a high level, the streetlight P3 will be a public-private partnership to convert DDOT's streetlights to energy-efficient LED technology, install a remote monitoring and control system to detect system outages, improve streetlight assets to a state of good repair, maintain the assets and respond to calls for service, and—in some locations—install wireless access points in support of the DC-Net public Wi-Fi program, run by the Office of the Chief Technology Officer, or OCTO. All of this will be done over a 15-year, performance-based contract.

LED Conversion

Why do we need this project now? Streetlights are an essential part of a functioning transportation system, a source of safety and comfort for pedestrians, cyclists, and motorists, and a tool to appreciate our historic built environment. Our current network of over 75,000 streetlights predominately uses outdated high-pressure sodium and incandescent bulbs to light the District's public right of way. Not only do these technologies use far more electricity than LED, but they are quickly being abandoned by manufacturers, making it more difficult every day to replace burnt out fixtures.

Additionally, we consistently get requests—one a day on average—from residents, business improvement districts, and MPD, for changes to or additional lighting, often calling for LED by name. While this project, as a retrofit, is not expanding the network of lighting or increasing light levels, we are excited to provide quality and consistent lighting across the District.

We have incorporated stakeholder feedback and included the following commitments in the RFP: First, the correlated color temperatures of the LEDs will be no cooler than 3,000 Kelvin, which is considered warm white light. This is in line with recommendations from the American Medical Association. We will require most lights— and all of those in residential areas—to be 2,700 Kelvin, or extra warm white light.

Second, we will require all fixtures to have the ability to be shielded to reduce light trespass into private property. We will make significant strides to reduce uplight by reducing it to zero for Cobrahead fixtures and shielding 90% of uplight for Washington globes. Third, all lights will be dimmable. All of these requirements will reduce light pollution and allow us to meet the needs of each neighborhood.

Using a P3 model allows us to complete this conversion much quicker than a public sector method. Under our current budget and traditional contracting, it would take ten years to convert the 88% of our network that is HPS, incandescent, and metal halide to LED technology. Under the P3, we will see full conversion in two years. This is because the P3 developer will finance the project, enabling them to front load the work. We will pay the developer back over the 15-years of the contract.

This rapid conversion means eight full years of financial savings and environmental benefits from energy-efficient LEDs. The network after LED conversion will reduce energy use by 50 to 60 percent, or 48.9 million kilowatts of electricity annually. This is will result in the elimination of 38,000 tons of greenhouse gases annually. It also means more than $2 million in operating budget savings yearly.

I would also like to point out the operational benefits of a quick LED conversion. The lifespan of an LED fixture is 3-4 times longer than an HPS. Further, maintaining a consistent network of one type of fixture is much more economical than the current hodgepodge. After full conversion in two years, we will see a precipitous drop in outages and calls for service, reducing the staffing needs of the contractor and cost of the project. Under traditional procurement, these lifecycle savings are not as easily captured.

Remote Monitoring and Control System

At the same time LED conversion occurs, our RFP requires the contractor to standup a remote monitoring and control system or RMCS by installing control nodes at each streetlight. This RMCS will make our network smart. It will make every streetlight independently dimmable. We will know how much electricity each light uses. And when it's using none, we will know the light is not working and will be able to dispatch repair teams in real time.

No longer will we rely on the public as our eyes to report outages via 311, which we know is not used consistently across all eight wards. This feature will greatly improve the equity of service provided by DDOT—one of the features of this project I'm most excited about.

Standing up this network of 75,000 connected streetlights will be no small feat. But because of the structure of the P3, the District does not retain the risk for design error or poor installation. Simply put: if the lights don't work, we don't pay. The developer must prove to us, as they install one bundle of lights and nodes after the next, that the system works. And after conversion, for the full fifteen years of the contract, they must make speedy repairs to outages. If they fail to meet these or other performance measures, we deduct money from their payments.

Additionally, the Developer could be subject to other deductions. One deduction is possible in the event that electricity consumption is greater than forecast, ensuring that the Developer is incentivized to keep energy costs down. And another deduction is possible in the event of unplanned obstruction to District roadways, bicycle paths and pedestrian walkways, ensuring that the Developer is incentivized to avoid disruption to the traveling public.

These deductions are automatic under the P3 structure. Under a traditional procurement, disagreements over poor delivery and missed targets may result in protracted disputes.

State of Good Repair Work

In addition to making our network smarter and energy-efficient, we will also make it structurally healthier. During the conversion period, the developer will be required to bring the entire network of assets to a state of good repair. This means that all of the DDOT streetlight foundations, bases, poles, and arms will be a condition rating of fair or better. They will then need to maintain the network in this state for the remainder of the 15-year contract. Unrepaired deficiencies will be met with financial deductions.

Because it is the same company completing the improvements on the front end and maintenance on the back end, they are able to achieve operational and cost efficiencies. A traditional contractor may complete this work at the minimum level required by the contract, and—when the poles have degraded —charge the District again. Under the long-term, performance-based contract of the P3, the developer is likely to proactively improve poles before they become deficient.

Expansion of DC-Net

The last part of the scope of the P3 project is the expansion of DC-Net. On behalf of OCTO, wireless access points will be installed to extend the reach of DC-Net public Wi-Fi. The intent is to bridge the digital divide by expanding the reach of this high-speed network.

As stated in the RFP, OCTO anticipates the installation of 239 access points in areas of need within the District. This portion of the project is paid for by OCTO.

P3 STRUCTURE

Next, I would like to further elaborate on how we've structured this public-private partnership and the additional benefits that come with it.

A major benefit of the P3 project delivery model is that the District is able to transfer many important risks to private partners. These risks often include things such as cost creep, design errors, contractor underperformance, and unexpected maintenance needs. Additionally, a P3 structure, in which one entity is responsible for the design, construction, maintenance, and performance of the asset, incentivizes innovation and coordination not typical of a conventional delivery.

PROCUREMENT

Next, I'd like to outline what we've accomplished so far in this project's life.

What We've Accomplished

DDOT, in coordination with the Office of Public-Private Partnerships, or (OP3), is in procurement of a private partner to develop the project. The procurement, as outlined by the P3 Act, is a two- step process, using a Request for Qualifications, or (RFQ), followed by a Request for Proposals, or (RFP) released only to the offerors deemed most qualified. The original RFQ was released and amended in 2017 and 11 offerors submitted proposals. Based on the responses to the RFQ, the District

selected and announced a shortlist of three highly qualified bidders in March 2018. An offeror that was not deemed one of the three most highly qualified respondents filed two separate protests with the Contract Appeals Board. The first resulted in a de novo re-evaluation of all eleven submissions and the second was decided in the District's favor and dismissed in January 2020.

Being an iterative process, over the last two years, the District and the three shortlisted teams have met separately for a series of one-on-one meetings to discuss technical issues and drafts of the RFP. During this process they have had the opportunity to review and comment on several rounds of drafts, as is typical in P3 projects of this size and structure.

Additionally, DDOT completed environmental and historical review processes, as required by the Federal Highways Administration. FHWA requested we prepare a Categorical Exclusion Level 3 document. (Categorical Exclusions do not have a significant effect on the environment and, therefore, neither an environmental assessment nor an environmental impact statement is required) This process was completed in December 2020 after hosting public meetings in every ward, hosting an inter-agency coordination meeting, and inviting each ANC to participate as a consulting party.

We have received a ruling of No Adverse Effect per Section 106 of federal historic preservation law. This ruling recognized that our project would make no changes to pole placement, pole styles, or luminaire styles. And DDOT has committed to a maximum color temperature of 3,000 Kelvin with most fixtures being 2,700 Kelvin.

Additionally, this ruling reflects the interests of federal partners, like the Commission of Fine Arts and National Capital Planning Commission, to retain the historic Washington Globe fixture and its distinct silhouette by shielding about 90% of the uplight emitted from the globe.

Throughout the process, community feedback has been critical to the success of this project. In addition to the numerous stakeholder engagement events conducted, the Mayor's office stood up a Streetlight Advisory Panel nearly three years ago. This group of residents has met almost every month since to discuss the project specifics in detail. We appreciate the comments that we have received and that have been incorporated into the RFP.

In January 2021, DDOT and OP3 completed a public hearing on the proposed RFP documents, as required by the P3 Act. Subsequently, the proposed RFP and supporting documents were submitted to Council for approval, which is deemed passed 45-calendar days after submission unless a resolution of approval or disapproval is introduced. The RFP was formally submitted by OP3 on February 24, via PR24-0110.

Next Steps

Immediately after Council approval, the RFP which is actually three documents—Instructions to Proposers, Project Agreement, and Technical Specifications—will be issued to the three respondents that were shortlisted; (1) Plenary Infrastructure DC, (2) Meridiam Smart Solutions DC and (3) DC Smart Lighting Partners. The

respondents will then submit financial and technical proposals which will be evaluated and scored in accordance with the process and criteria stated in the RFP. Once a selection has been made, the proposed contract award will be submitted to Council for approval. It is estimated the contract will be submitted to Council approximately six months after the final RFP is released.

The project is on a critical path to completion at this point. We must complete both commercial and financial close by the end of January 2022 to avoid losing a Private Activity Bond allocation from the U.S. Department of Transportation valued at $160 million.

Regarding financials, the total approved FY 2021 project budget is $25,476,190. The federal estimated ask was $14,776,190 and the local $10,700,000. This 58-42 percent breakdown is based on the current agreed upon split with FHWA. These are estimated figures until bids are submitted and the project reaches financial close. OCFO determined that only the local budget obligation contributes to the debt cap, and the estimated amount has been incorporated into the debt cap calculations.

After the developer is on board, the LED conversion, state of good repair, and DC-NET expansion will be complete within two years. The developer will be required to work in multiple wards at once, but it must also complete work within an ANC before moving onto the next.

For the remainder of the contract, the developer will maintain the network. They will conduct regular conditions assessments and perform preventative maintenance. At the end of the contract, they will hand over the network in a state of good repair to the District and its next vendor.

CONCLUSION

Fifteen years is a long time for a contract. That is why DDOT has worked so diligently to create an RFP that is in the District's best interests, will deliver a streetlight network we can be proud of, and will provide a level of service that is equitable and top-quality.

I look forward to working with the committee again when a bidder has been selected.

This concludes my testimony. I am happy to address your questions at this time.