



# NATIONAL CAPITAL REGION

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## TRANSPORTATION PLANNING BOARD

### TRAFFIC SIGNALS SUBCOMMITTEE OF THE MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (MOITS) TECHNICAL SUBCOMMITTEE MEETING

**DATE:** Thursday, February 5, 2015

**TIME:** 10:30 AM to noon

**PLACE:** MWCOG  
First Floor Meeting Room 1  
777 North Capitol Street NE  
Washington, DC 20002

**CHAIR:** Piotr Rachtan, Maryland State Highway Administration

**CALL-IN OPTION:** A call-in option, with documents shared via WebEx, will be available for participants who are not able to attend in person.

**Attendance:**

Maha Gilini – City of Alexandria (on the phone)

Craig Hinnert – McCain

Mike Kinney – Montgomery County DOT

Ling Li – VDOT

Curt McCullough – City of Fairfax (on the phone)

Andrew Meese – MWCOG

Erin Morrow – MWCOG

Kiel Ova – Traffic Technology Services

Piotr Rachtan – SHA

Daivamani Sivasailam – MWCOG

Mark Skinger – City of Alexandria (on the phone)

Marco Trigueros – MWCOG

#### 1. **Welcome, Introductions, and Review of Notes from the December 4, 2014 Traffic Signals Subcommittee Meeting**

Participants introduced themselves. Comments on meeting notes can be directed to Mr. Trigueros.

#### 2. **Introduction of New Subcommittee Chair**

Piotr Rachtan, Maryland SHA

The new subcommittee chair introduced himself. Mr. Rachtan is a graduate of the University of Massachusetts, Amherst and has been at SHA for two years.

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### **3. Update on Transit Signal Priority Components of Regional TIGER Grant**

Eric Tombs, WMATA

Mr. Tombs was not able to attend the meeting but provided an update via email. WMATA is still working with its partners to prepare everything for the field test on VA-7. Procurement for the cellular contract is underway with the request for proposals out and a notice to proceed expected the following week. The MOU with VDOT has been modified to address previous comments sent back to VDOT for review. The MOU with the City of Alexandria has been finalized and is being routed for signatures. WMATA will meet with the City of Fall Church in the following week to discuss their MOU.

### **4. Traffic Signals Power Back-up Discussion**

Marco Trigueros, COG/TPB Staff

Mr. Trigueros presented on the results of the latest traffic signal power backup survey. This year's survey included questions on the availability and deployment of generators as requested by the Emergency Preparedness Council (EPC). Although there are over 3,000 generator ready signals in the region, the survey results show that there is no capability to run all those under a widespread power outage. The group discussed the logistics of installing and refueling generators under these circumstances. Mr. Kinney noted that a strategy Montgomery County has adopted is to use generators to charge batteries, as two hours hooked up to the generator charges the battery to 80%. However, it still requires technicians to mobilize generators to multiple locations.

The results will be presented to the EPC at a future meeting upon further investigation into these results. The RESF-1 Committee will be taking charge of developing a strategic plan for traffic signal power backups from an emergency management perspective.

Regarding the duration of traffic lights on battery backups, Mr. Kinney noted that it depends on the number of heads at the intersection. Large intersections with more signal heads will last around 8 hours, but smaller intersections may last up to 16 hours.

In response to a question regarding communications with signals that are running on backup power, Mr. Kinney noted that Montgomery will have communications while backup power is on but will lose communications once backup power is exhausted. Signals are not controlled centrally in any case. A light in the cabinet signals technicians that the traffic signal is running on backup power which is the most reliable way of telling whether the intersection has experienced a power failure. Ms. Li noted that in VDOT's system, they would not be able to tell whether a loss of communications is due to a local power failure at an intersection or a communications failure due to general power loss.

Ms. Li noted that although VDOT's numbers remain similar to last year's so using past survey results is acceptable. Mr. Rachtan noted that SHA's response should be modified to show that signals with battery backups are also generator ready.

### **5. Presentation on Traffic Light Assist**

Kiel Ova, Traffic Technology Services

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Traffic Technology Services is working on a pilot project in the Washington Region with Audi and BMW. They will be providing traffic signal information data to the automotive industry, courier delivery services, and third party logistics providers from agencies throughout the country with the goal of providing personal signal assistant to drivers and performance metrics to transportation agencies. Mr. Ova presented on what is needed for this project as well as the benefits for traffic signal agencies. The system will provide in-vehicle information on current traffic signal status and predict the time until the light changes. The technology will allow drivers to drive more efficiently, making less stops, allow the vehicle to shut off and start automatically based on predictions of red light duration, and traffic signals agencies will receive data on system performance. Predictions are based on statistics from past operations. A demonstration project was completed in Las Vegas with 50 signals in operation since April 2013.

In response to a question regarding the utility of this technology in an adaptive signal system, Mr. Ova noted that they have not developed this capability yet.

In response to a question regarding the transfer of data from DOTs to TTS, Mr. Ova noted that it could be done either through direct access to the central signal system (as was done in Las Vegas) or it could be packaged and shared by the agency.

### **6. Jurisdictional Roundtable**

No additional updates.

### **7. Other Business**

No additional business.

### **8. Adjourn**