

# National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202 TDD: (202) 962-3213

## **Meeting Notes**

### **FREIGHT SUBCOMMITTEE**

**DATE:** November 10, 2011

**TIME:** 1:00 P.M. to 3:00 P.M.

**PLACE:** Metropolitan Washington Council of Governments, Room 1

**CHAIR:** Victor Weissberg, Department of Public Works and Transportation  
Prince George's County

#### **ATTENDANCE:**

Debbie Bowden, Maryland Department of Transportation  
Ron Burns, Frederick County  
Amber Carran-Fletcher, District Department of Transportation  
Randy Carroll, Maryland Department of Environment  
Eulois Cleckley, District of Columbia Department of Transportation  
Lyn Erickson, Maryland Department of Transportation  
Randy Hodgson, Virginia Department of Transportation  
Nathan Hutson, Cambridge Systematics  
Amr Ibrahim, Virginia Department of Transportation  
Allen Schaeffer, Diesel Technology Forum  
Jesse Shoyer, Smith Electric  
Tim Weaver, Smith Electric

#### **CALL-IN ATTENDANCE:**

Andrew Meese, MWCOG  
Daivamani "Siva" Sivasailam, MWCOG

#### **MWCOG STAFF ATTENDANCE:**

Leah Boggs, MWCOG  
Michael Farrell, MWCOG  
Karin Foster, MWCOG  
Erin Morrow, MWCOG  
Wenjing Pu, MWCOG  
Eric Randall, MWCOG  
Rich Roisman, MWCOG

**Victor Weissberg, Freight Subcommittee Chairman—**

Mr. Weissberg welcomed attendees and asked for introductions. Mr. Weissberg asked for any comment on the September 2011 Freight Subcommittee Summary and none was received.

**Jesse Shoyer/Tim Weaver, Smith Electric Vehicles, Current Application for All-Electric Medium Duty Trucks—**

Jesse Shoyer, Government Relations Manager for Smith Electric Vehicles, and Tim Weaver, Vice President for Growth at Smith Electric Vehicles jointly gave a PowerPoint presentation on Current Applications for All-Electric Medium Duty Trucks. Smith Electric Vehicles is the world's largest provider of commercial electric vehicles. The company traces its roots back 90 years to when Mr. Smith carted around glass bottled milk in electric trucks in England. Smith has one manufacturing plant in Kansas City, Missouri and another in Newcastle, England. The vehicles can serve in many applications such as a refrigerated delivery truck or a package delivery truck. Smith Electric Vehicle Fleet partners include Coca Cola, UPS, FritoLay, FedEx, Staples, Pepsi, and DHL. The Smith Newton Series 2000 are most popular because of their trademark Smith Power, Smith Drive, and Smith Link (onboard system that monitors and transmits the vital statistics of the vehicle). Smith offers five battery options for customers. Sometimes the smaller battery power option better meets the customers' needs. The battery price ranges from \$25k to \$75k. The economic payoff comes with time and maintenance and fuel savings. Smith estimates an \$87,417 savings versus diesel equivalent truck in maintenance and fuel over five years. Smith also estimates electric vehicles make one-tenth the carbon footprint versus diesel. Smith Electric Vehicles are best for industries that have specific predictable routes and where the vehicle can be plugged in during off hours.

*Questions and Comments:*

Allen Schaeffer, Executive Director of the Diesel Technology Forum, asked the Smith representatives about how often a battery needs replacement and what is the disposal fee for a battery. Jesse Shoyer of Smith replied that they have a battery buy-back program. She also commented that if a battery is fully used up and recharged, the life of the battery will last longer.

Mr. Schaeffer wanted clarification on the "zero emissions" comment made in the Smith Electric vehicles presentation. Ms. Shoyer replied that Smith vehicles have zero tailpipe emissions; however, while the vehicles are plugged-into the grid they do consume energy. In an example from Ohio, Smith Electric vehicles were 85 percent cleaner than diesel trucks. Ms. Shoyer noted that there is some variance in percent based on state.

Eric Randall, MWCOG staff, asked if Smith has coordinated with power companies to provide a solar or wind charge combo option for charging up the truck batteries. He noted solar panels on trucks to charge during the day. Ms. Shoyer commented that Smith has had discussions with power companies to provide such an option but it is not currently in place.

Eulois Cleckley asked about the grant the Smith representatives referred to in their presentation and where the locations are. 510 Smith electric vehicles were subsidized as part of a federal grant program. The locations included thirty-four vehicles in California, seven in New York, and a handful in Washington D.C. and Jessup, Maryland.

Karin Foster, MWCOG, asked about the proportion of customers from the public sector. Ms. Shoyer noted that this portion is less than one percent. Some partners include the Department of Defense.

Randy Carroll, Maryland Department of Environment, asked if the United States Postal Service (USPS) had considered electric trucks. He noted the inefficiency of their vehicles. He also commented on the financial crunch of the USPS.

Mr. Randall asked where the Smith Electric vehicles parts are sourced from. Ms. Shoyer responded that 98 percent of the parts for U.S. Smith Electric vehicles are sourced within the U.S. A few key components are sourced from Europe.

Daivamani “Siva” Sivasailam, MWCOG, commented on how the electric vehicles will decrease the gas tax revenue. Mr. Weaver noted that this issue is being discussed, how the Electric Vehicles can make up for lost revenue. To follow on Siva’s comment, Lyn Erikson of Maryland Department of Transportation noted that recent VIN decoder data showed that at present the percent of hybrids on the road are so minimal to make a real impact on gas tax revenues.

**Allen Schaeffer, Diesel Technology Forum, Moving Goods in 2014 and Beyond: Engine, Vehicle, and Fuel Considerations—**

Allen Schaeffer, Executive Director of the Diesel Technology Forum, gave a PowerPoint presentation to the TPB Freight Subcommittee. Members of the Diesel Technology Forum include: BP, Caterpillar Inc, Dow Automotive, Ford Motor Company, General Motors, Honeywell, Navistar, and others. Mr. Schaeffer’s presentation reviewed new government requirements, industry considerations, and technology. The Diesel Technology Forum recently released a report “[\*Diesel Powers the U.S. Economy.\*](#)” Eighty-three percent of U.S. freight shipments use diesel, with the truck and rail modes consuming the most diesel. Diesel advantages include: 1) energy efficiency; 2) power output; 3) durability and reliability; 4) portability; 5) less flammable than gasoline; and 6) fuel flexibility. The diesel share of highway fuel use has grown 50 percent since 1980. Mr. Schaeffer highlighted the importance of diesel to specific sectors: 1) 90 percent of agriculture’s 1.2 trillion in shipments used diesel vehicles; 2) 98.5 percent of construction and mining fuel use is diesel; 3) 85 percent of transit vehicles and 49 percent of transit passenger-miles were diesel powered; and 4) 83 percent of army and marine vehicles and engines are diesel powered. Additionally, many public sector functions rely on diesel such as emergency vehicles, hospitals, data centers, air traffic control towers, and national defense.

Following Mr. Schaeffer's overview on diesel, he focused on how the industry can reduce fuel consumption and greenhouse gas emissions from freight movement. Mr. Schaeffer noted a push in industry to optimize driver handling of trucks for maximum fuel efficiency. Methods to maximize fuel efficiency include driving less, idling less, limiting speed, right-sizing vehicle to freight demand, and logistics. Additional influences come from how the truck is designed, equipped, and fueled. Mr. Schaeffer spoke about the great opportunity for efficiency improvement from small changes. He noted that Class 8 trucks use 80 percent of all commercial trucking industry fuel and 28 percent of all fuel usage. Eighty percent of U.S. communities are served exclusively by truck.

The new EPA/NHTSA truck rule highlights Model Year 2014-2018. For the first time ever, medium and heavy-duty truck fuel economy standards have been set (applies only to new trucks). This will reduce oil imports, fuel consumptions, CO2 emissions, and operating costs for thousands of businesses. This rule covers pick-up trucks, vans, vocational vehicles, and long-haul trucks. The rule anticipates a 6 to 23 percent fuel savings by Model Year 2018.

Diesel (ultra-low sulfur diesel fuel) remains the primary fuel powering vehicles. Blends of diesel and biofuels are available. Basic biodiesels include fatty acid methyl ester, made from soy, canola, palm, rapeseed, peanut, etc. Second generation renewable biofuels include engineered yeast molecules, cellulosic production, and algae. At present, these fuels are much costlier. Mr. Schaeffer noted that compressed natural gas is feasible for local operations, but has inadequate power density for long-haul. Liquid natural gas is feasible for long-haul if a fuel infrastructure is assured.

Three components drive truck buyers' decisions to buy: 1) fuel economy; 2) weight; and 3) price. Mr. Schaeffer concluded that diesel remains the mainstream goods movement technology; it will use more low-carbon biodiesel fuels in the future. Today's clean diesel trucks are near zero emissions. Electric, fuel cell, and natural gas fuels will penetrate niche commercial markets.

#### *Questions and Comments:*

Ms. Foster asked about the ability to swap between diesel and biodiesel in a truck gas tank. Mr. Schaeffer commented that biodiesel can be used in a diesel tank. He noted some problems with storing biodiesel such as oxidative stability and layer separation. Another biodiesel challenge is that it cannot be shipped by pipe; it must be trucked to fueling stations. Regulations require that natural gas have its own tank.

Ms. Foster noted the MWCOG work with the I-95 Corridor Coalition Eco-Driving campaign. She asked if Mr. Schaeffer sees a similar emphasis in the trucking industry to

maximize fuel efficiency through truck driver handling techniques. Mr. Schaeffer noted that many truck companies offer incentives and rewards for fuel efficiency and safety. Much of this information is recorded by on-board computers.

**Karin Foster, Freight Program Updates—**

Ms. Foster commented on her work in assisting Mr. Kirby to develop Performance Measures for the Regional Transportation Priorities Plan.

**Roundtable Updates—**

Eulois Cleckley noted the District-based Trucking Association.

Rich Roisman commented on a truck restriction sign inventory project currently underway between MWCOG and the DDOT.

**Next Meeting February 2, 2012**