

EV Corridors & Maryland's Electric Vehicle Initiatives



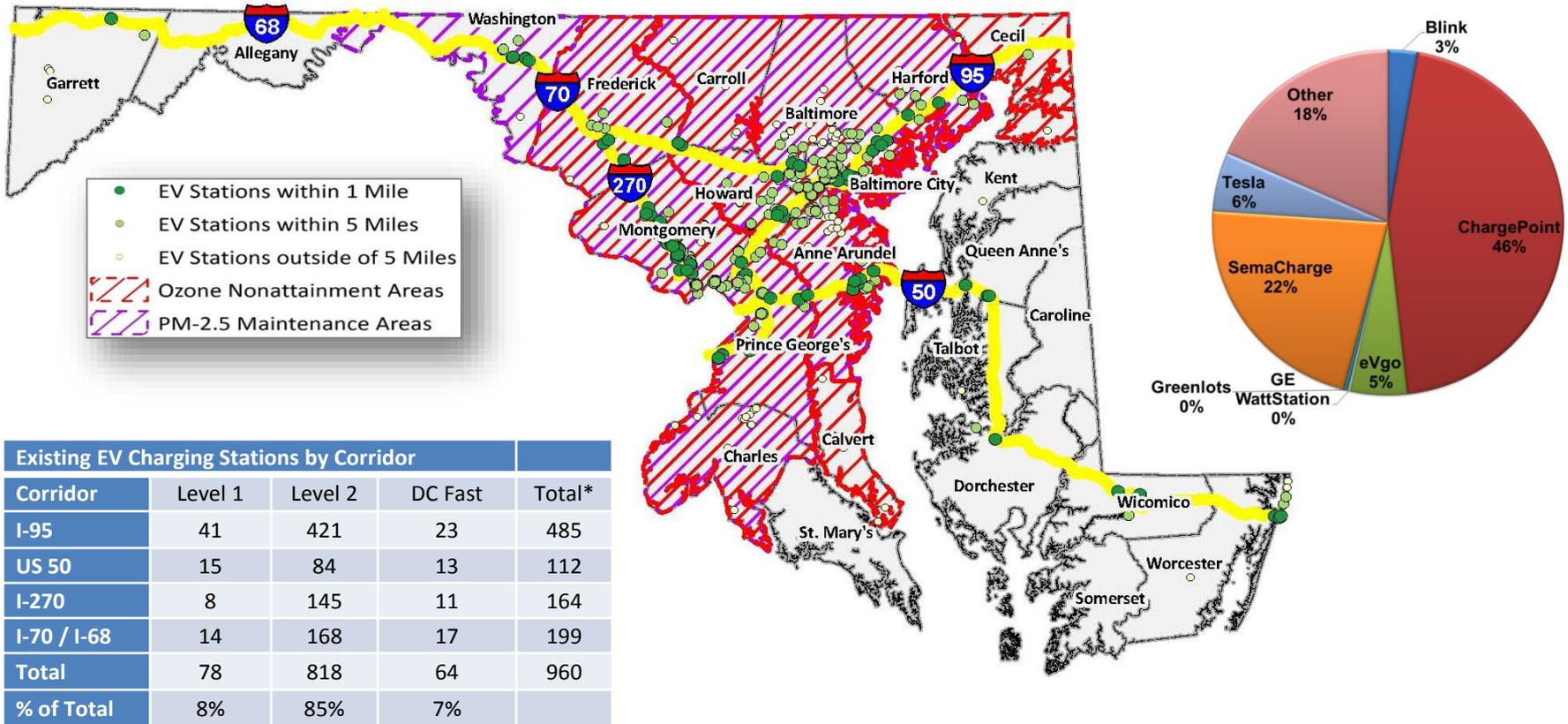
Baltimore Regional
Transportation Board
November 22, 2016

FAST Act Alt. Fuel Corridors

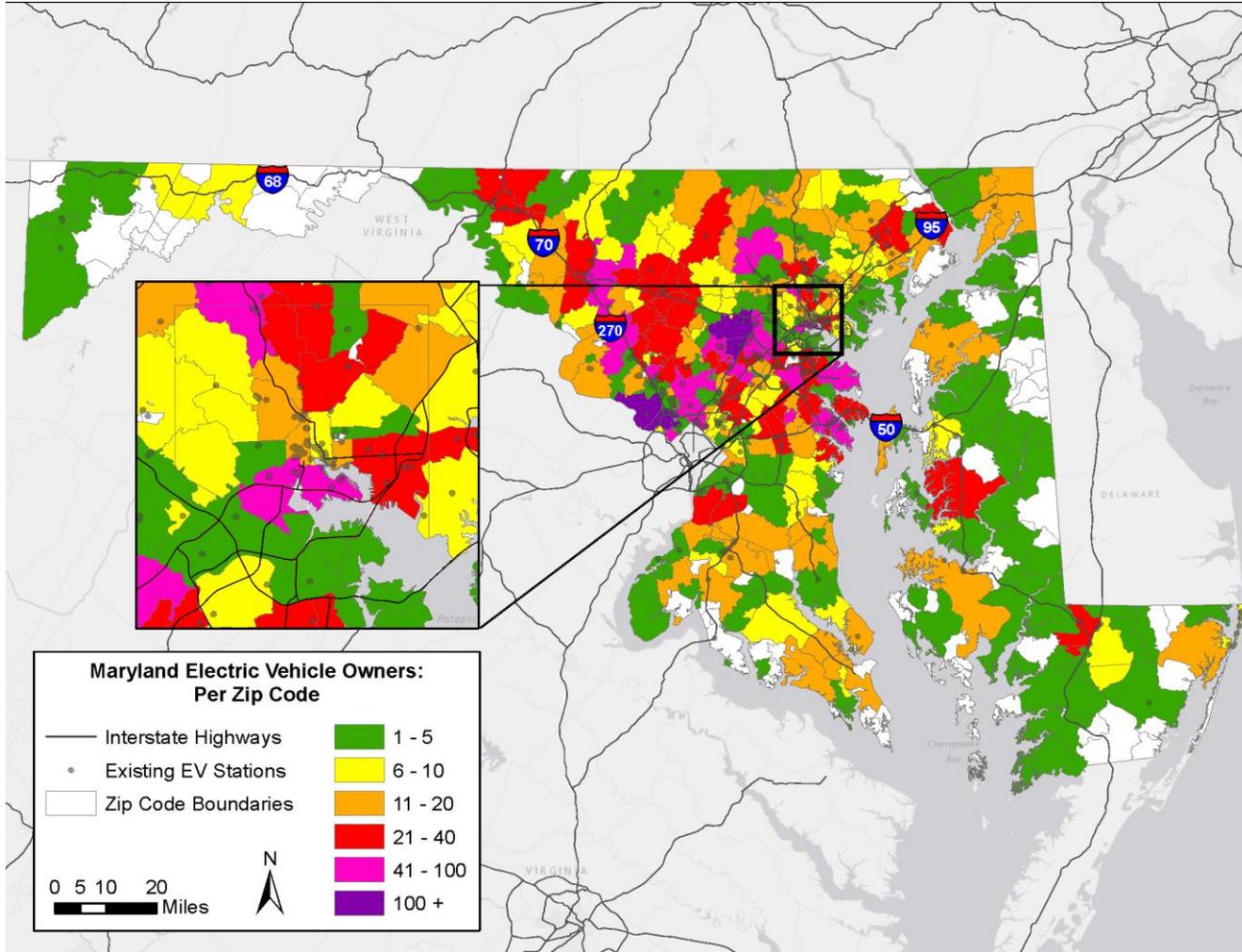
- MDOT Submitted Nominations August 2016
- Support from Multiple Partners / Stakeholders
- All Maryland Nominations were Designated 11/3/16



Maryland's Existing EVSE

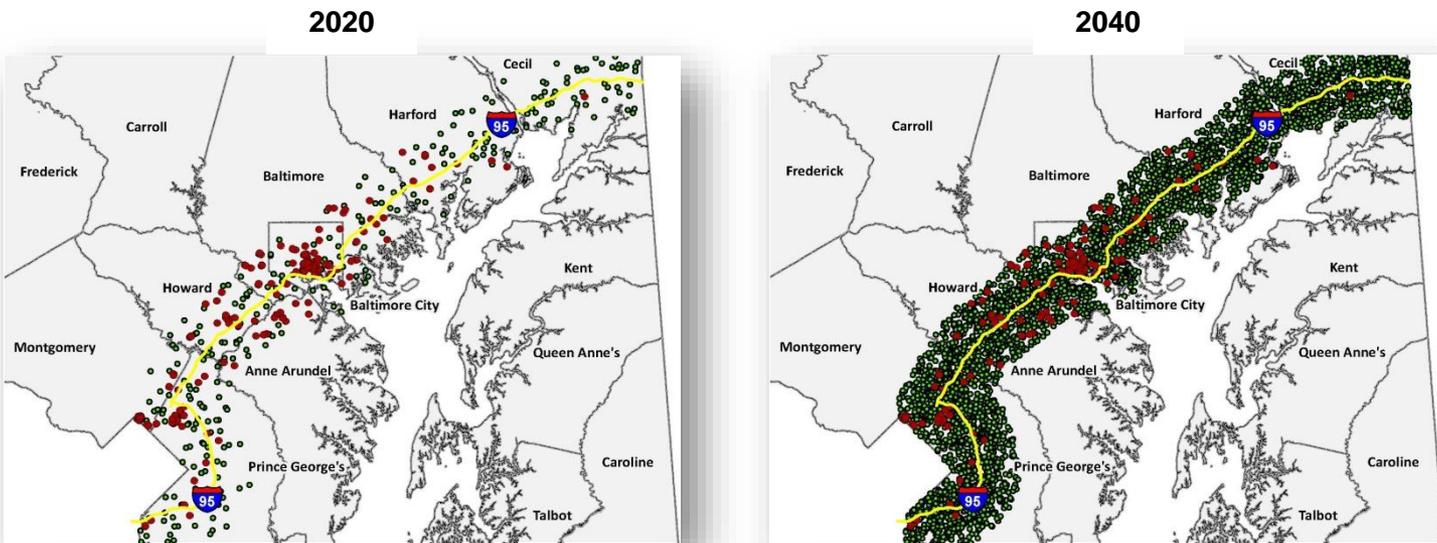


Maryland's Existing EV Registrations



Forecast EVs and EVSE

- 100,000 EVs and 2,227 Chargers in 2020
- 1.4 Million EVs and 32,713 Chargers in 2040

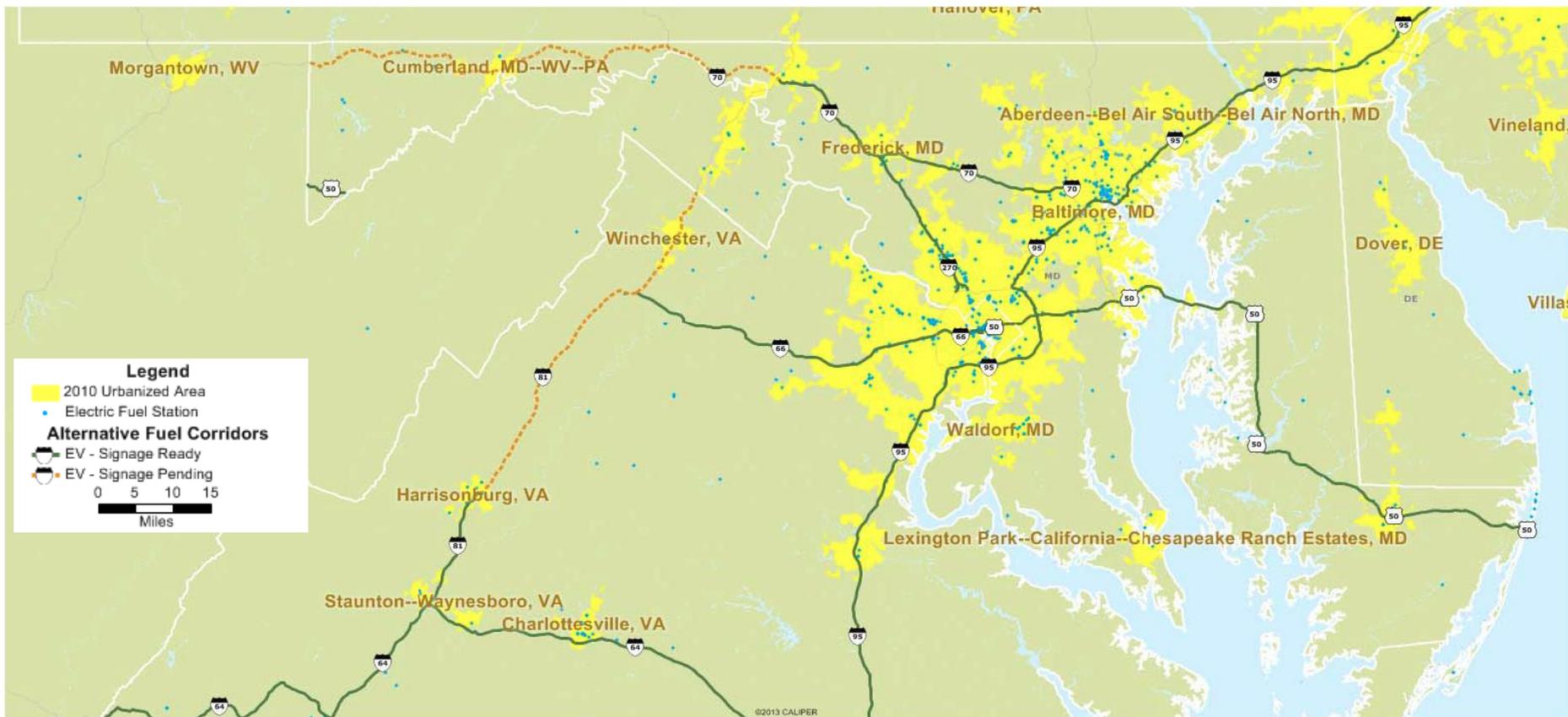


- Existing Station
- Forecast Station

		Level 1	Level 2	DC Fast	Totals
2020	Chargers	47	1,009	64	1,119
	Cost	\$46,824	\$5,043,148	\$5,378,205	\$10,468,177
2040	Chargers	688	14,816	940	16,444
	Cost	\$687,811	\$74,080,090	\$79,001,833	\$153,769,735

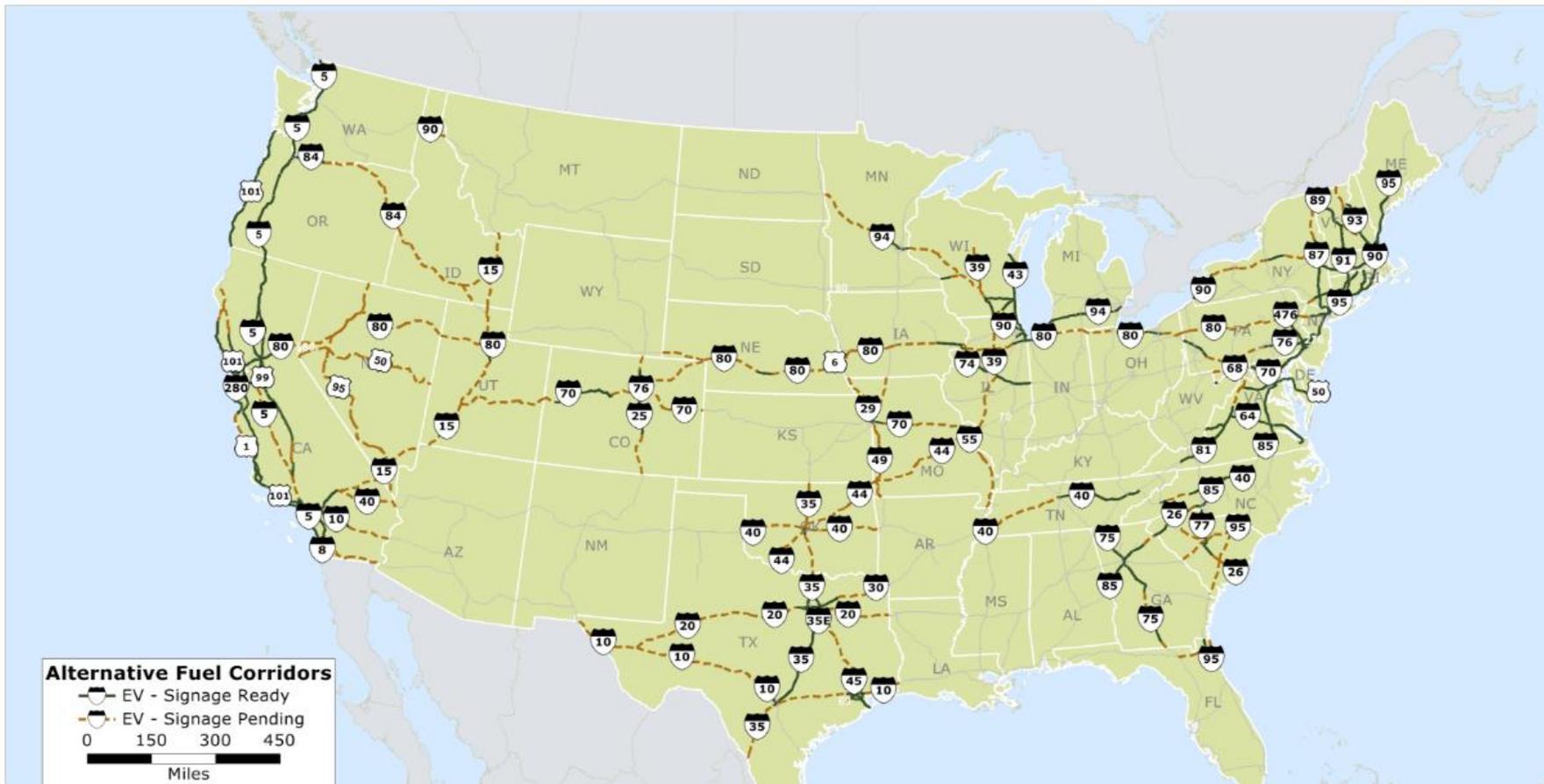


FAST – Maryland EV Corridors



FAST – National EV Corridors

EV Charging Map, US



Maryland State Agency Roles



Maryland
Department of
the Environment

ZEV MOU

Maryland
Clean Cars
Program

Maryland Energy
ADMINISTRATION
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EVIP & AFIP

EV / EVSE
(Incentives / Rebates)



Install EVSE

Chair / Staff
EVIC

Track EV
Registrations



Maryland Clean Car Program

- Adopted in 2007; Implemented in 2011
- Incorporates CALEV Program in MD
- ZEV mandate
 - requires all automobile manufacturers to make an increasing percentage of their new vehicles zero emission vehicles
 - Mandate began in 2011 and steadily increases to 22% in 2025



Maryland
Department of
the Environment



ZEV Memorandum of Understanding

- Signed October 2013 (CA, CT, MD, MA, NY, OR, RI and VT)
- Develop a ZEV environment/infrastructure to support ZEV requirements under the CALEV Program
- Highlights key commitments (Lead by Example, Harmonize Building Codes, Evaluate and Establish Incentives, etc...)
- Multi-State Action Plan Released May 2014
 - 11 specific recommendations to:
 - Support MOU goals
 - Guide interstate coordination
 - Advise state-specific action



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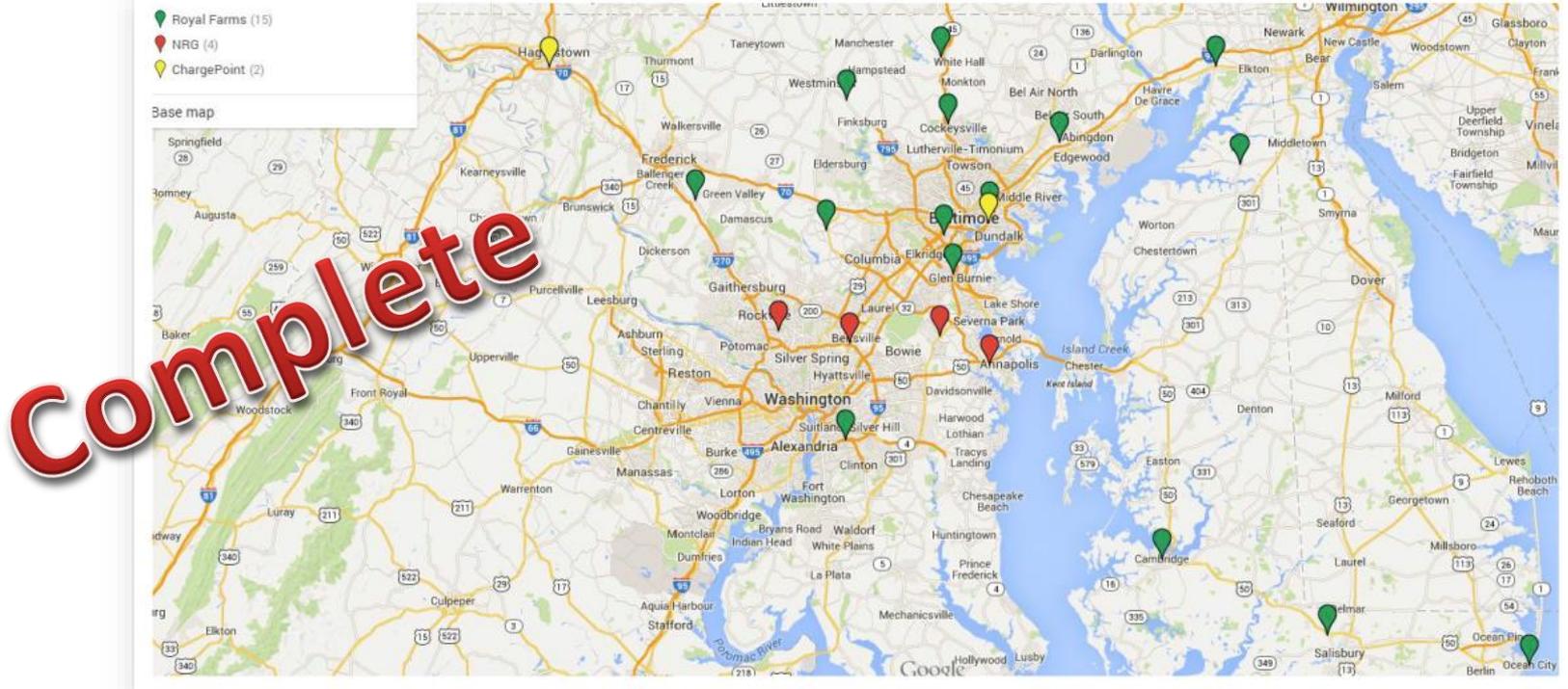
Volkswagen Settlement

- Maryland Funding Options:
 - Zero Emission Vehicle (ZEV) Investment: \$2 billion throughout Country - \$800M for CA
 - Environment Mitigation Trust (EMT) [State Funding] \$71M for MD
- ZEV Investment
 - EV Infrastructure
 - Brand Neutral Outreach
 - Implemented in 30 month increments of \$300M; must be fully spent in 10 years
 - Funding due to start in Spring 2017
- EMT
 - Up to 15% can be used for EVSE
 - Other projects focused on diesel emissions reduction



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the Environment

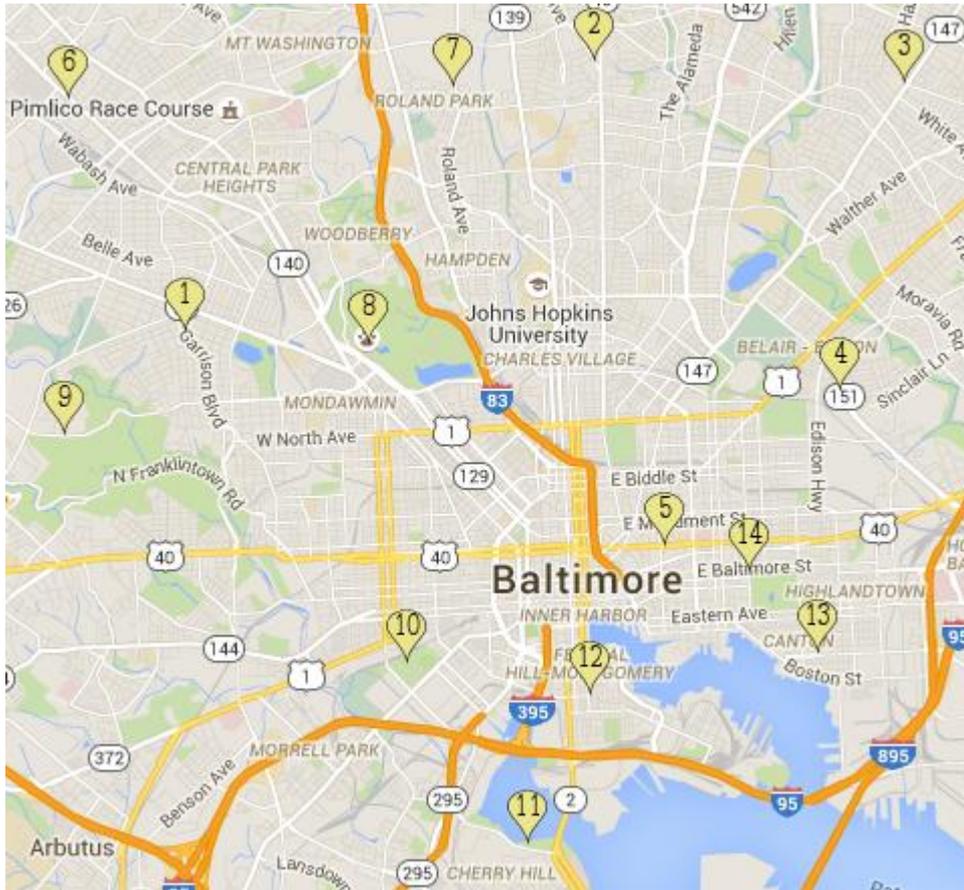
EVIP [Electric Vehicle Infrastructure Program]



- DC Fast Charging
- \$1M; 50% match

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AFIP [Alternative Fuel Infrastructure Program]



- DC Fast Charging
- Min. 50% match
- Max. EV Award \$45K
- FY 2017 up to \$2M

Maryland Energy
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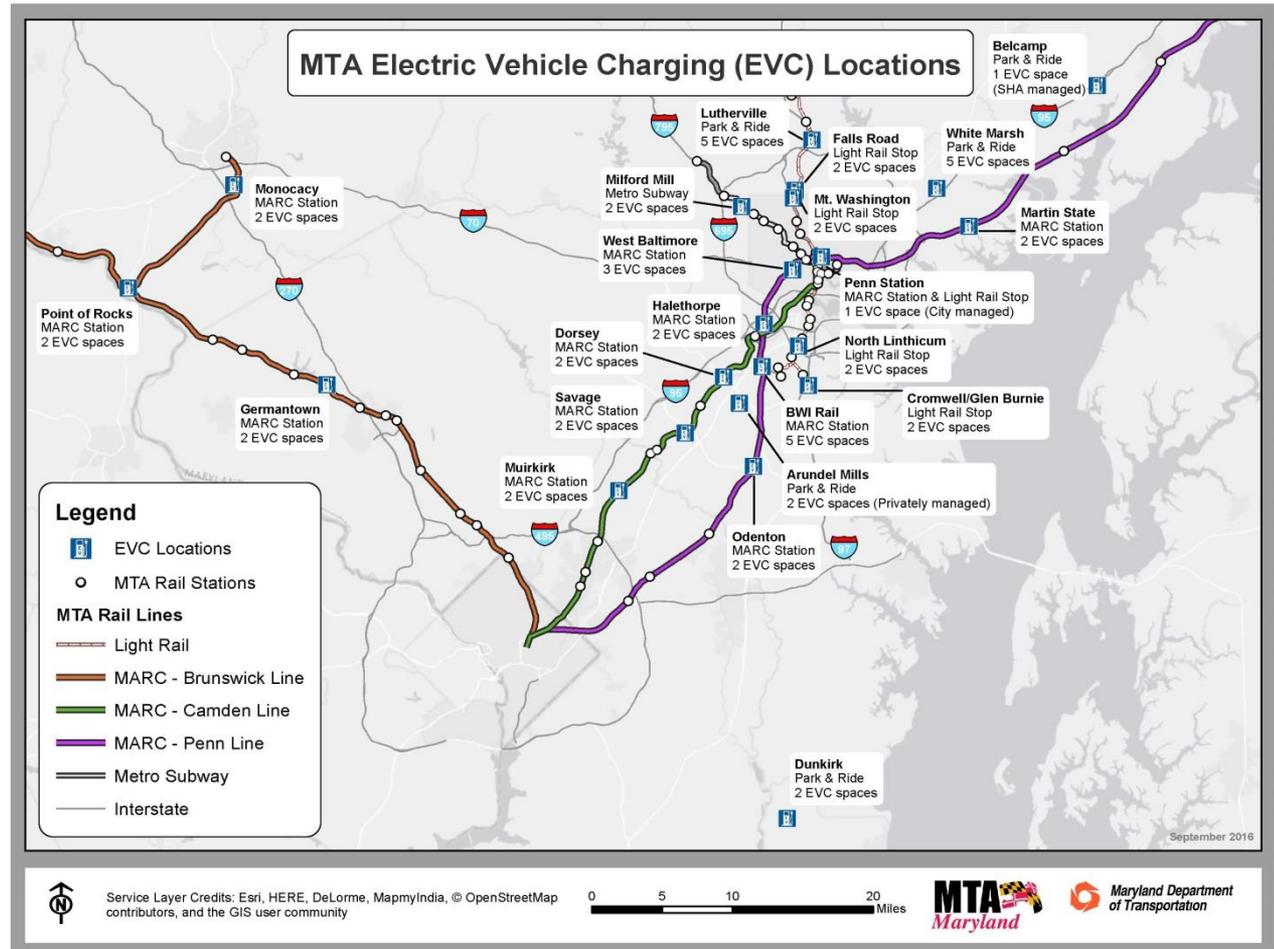


Additional Incentives

- EV Excise Tax Credit up to \$1.8M (FY 14-17)
- EVSE Rebate up to \$600K (FY 14-17)
- HOV Lane Exemption Permits for PEVs
- MD Freedom Fleet Voucher (FFV) Program

MDOT EVSE Installations

- TSO
- MTA
- MAA
- SHA
- MdTA
- MPA





EVIC [Electric Vehicle Infrastructure Council]

- Formed 2011; Extended through June 2020
- Council Members Defined in Statute & Appointed
- Chaired / Staffed by MDOT
- 2012 Action Plan
 - 32 Recommendations
- Starting in Feb. meet every other month
- Priorities Identified at 1st meeting in 2016





EVIC [Electric Vehicle Infrastructure Council]

- Priorities Identified during 1st Meeting in 2016
 - Identify legislative needs in advance of 2017 Session
 - Identify and address infrastructure limitations
 - Coalesce around central marketing theme
 - Identify technical and policy issues associated with workplace and urban charging, including
 - Interoperability
 - Paid vs. unpaid
 - Identify Economic Development Opportunities
- 4 Workgroups





2017 Legislation

- MD EV Tax Credit and EVSE Rebates [Expires FY 17]
- Installation of EVSE
 - Address barriers related to rented housing, multi-unit dwellings, homeowners' associations, etc.
- Reserved EV Parking Spaces
 - Anti-Icing
 - Signage / Fines





What Can BRTB Do?

- Lead by Example
- EVIC
 - Public Meetings
- 2017 Legislative Session
 - Tax Incentives for EVs and EVSE
- VW Settlement
- Outreach



CONTACT INFORMATION

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