

Accelerating Maryland's Future

Chris Rice, Clean Cities Coordinator

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Maryland Department of Environment
Baltimore, Maryland*



Maryland Energy

ADMINISTRATION

Powering Maryland's Future

Presentation Outline

1. About MEA
2. Technology
3. Programs



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Future”

About MEA

MEA's mission is to assist Maryland citizens and businesses save money through smart investments in energy efficiency, renewable energy and conservation. MEA fuels the creation of green jobs by providing funds and resources to expand the use and availability of clean, safe energy in Maryland.



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Maryland's Key Energy Goals



EMPOWER: Reduce electricity consumption

15% by 2015

RPS: Obtain 20% of electricity from renewables
by 2022

CLIMATE: Reduce greenhouse gas emissions
25% by 2020

JOBS: Create 100,000 new green jobs by 2015



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Electric Drive Vehicles

- Hybrid Electric Vehicles (HEVs)
- Plug-In Hybrid Electric Vehicles (PHEVs)
- All-Electric Vehicles (EVs)



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Electric Vehicle Availability in Maryland

Passenger Vehicles

Chevy Volt
Nissan Leaf
Ford Focus
Ford PHEV Escape
Mitsubishi iMev
Toyota PHEV Prius
Toyota eRAV4
Coda
Others

Tesla
Think City
Ford Fusion
Ford C-Max
Honda Fit
Smart Fortwo
Chevy Spark

Light to Medium Duty Trucks

Smith Electric Truck
Bright Electric
Navistar eStar
Ford Transit Connect
Others



Nearly every major manufacturer and several “new” entrants are expected to have product on the road by 2015.



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Sample views of Level 2 Charging Stations



- *Level 1 : 120 volt, 20 amp 1.2 – 1.5 kW /hour draw*
- *Level 2: 240 volt, 3.3 kW / hour draw*
- *Level 2 : 240 volt, 6.6 – 7 kW / hour draw*
- *(Future Level 2 may be as much as 19 kW draw)*

561 Public Charging Opportunities in Maryland



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Sample views of DC Fast Charging Stations

Dual Connector DC Fast Charging Station



9 Public Stations in Maryland

- *DC Fast Charge: typically 480 volts*
- *Adds 60-80 miles of range in 20 minutes*
- *CHAdeMO and SAE International combo connector*



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Programs



- \$5.9 Million ARRA Grant
- 143 Heavy Duty Hybrids
- 123 Hybrid Electric
- 20 Hydraulic Hybrids
- 143 Deployed
- 6,200,000 Miles on the Road
- Over 170,000 Gallons Saved
- 20%-30% Fuel Economy Increase
- Create 60 Green Collar Jobs



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Programs

Electric Vehicle Infrastructure Council

The Council was established to facilitate the successful integration of electric vehicles within Maryland's transportation sector.

HOV Lane Use

The HOV Lane Use statute authorizes the use of a high occupancy vehicle (HOV) lane by certain EV's.

EVSE at Intermodal Parking Lots

- Budget: \$1,000,000
- Potential MARC Locations: 38



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Programs

Electric Vehicle Tax Credit- 2,173 April 2014

Jurisdiction	Vehicle Count (90%)
Montgomery	734
Baltimore Co	421
Anne Arundel	198
Howard	195
Prince George's	126
Frederick	110
Baltimore City	93
Harford	73
Carroll	45

6,263,923

Lifetime GGE
Displaced



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Programs

Maryland Electric Truck (MET) Voucher Program

Budget	\$300,000
Voucher Amount	\$15,000-\$20,000
Eligible Vehicles	Class 3 and above
Eligible Fleets	Registered Maryland Motor Carriers

- Received 14 applications totaling \$280,000
- Over 20,000 gallons saved annually
- Partners: MEA, MCC, MDOT, MDE & MMTA



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Programs

Electric Vehicle Charging Station Tax Credit

- Allows a State income tax credit of 20% up to \$400.
- Awards issued: 126
- **July 1, 2014**: Rebate Conversion

Electric Vehicle Charging Station Rebate Program

- Annual budget: \$600,000 (FY15-FY17)
- Residential: 50% up to \$900
- Commercial/Government: 50% up to \$5,000
- Retail service station: 50% up to \$7,500
- No limit on Commercial, Government and Service Stations



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Programs

Electric Vehicle Infrastructure Program I

- Created in 2010 to aid the installation of EVSE's. Two grants issued totaling \$594,000.
- Eighty one (81) stations were installed.

Electric Vehicle Infrastructure Program II

- Developed in 2014 to aid the installation a DC Fast Charger Network across Maryland.
- Anticipate 1-2 awards involving multiple stations. Budget \$1 million
- **Coming Soon**



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Chris Rice
Clean Cities Coordinator

crice@energy.state.md.us

<http://energy.state.md.us>

Phone: (410) 260 - 7655