Maryland Planning Commissioners Association 2022 Conference

Transportation Planning: Supporting Federal and State Climate Action Strategies While Achieving MDOT's Mission

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Maryland Department of Transportation
October 26, 2022

Overview

- How does MDOT plan to assist with Maryland's overall goal of achieving 60% greenhouse gas emissions reductions over 2006 levels by 2031.

- What actions does MDOT plan to take to ensure a resilient transportation system for Maryland?

- Initiatives to be covered include:
  - The Maryland State Plan for National Electric Vehicle Infrastructure (NEVI) Formula Funding Deployment,
  - The MDOT Urban Tree Program, and
  - New climate/resilience formula funding programs within the Infrastructure Improvement and Jobs Act.

Mission Statement

*The Maryland Department of Transportation is a customer-driven leader that delivers safe, **sustainable**, intelligent, exceptional and inclusive transportation solutions in order to connect our customers to life's opportunities.*

Reducing GHGs

- Switching to all electronic tolling
- Transitioning vehicles to Zero Emission powered
  - Light duty
  - Medium duty
  - Heavy duty
- MDOT's Urban Tree Program awarded funding to first grant recipients
  - Funding to plant native trees
  - Reduce urban heat islands

Infrastructure Investment and Jobs Act (IIJA)

- IIJA is Maryland's transportation formula funding

  o Funding projects in Final FY 2022 – 2027 CTP

  o Draft FY 2023 – 2028 CTP

- Not all **"new"** money

IIJA Climate/Resilience Formula Funding

- **Existing Funding Sources**
  - CMAQ

- **New Funding Sources**
  - NEVI
  - Carbon Reduction Program (CRP)
  - PROTECT
  - Bridge Formula Program (BFP)

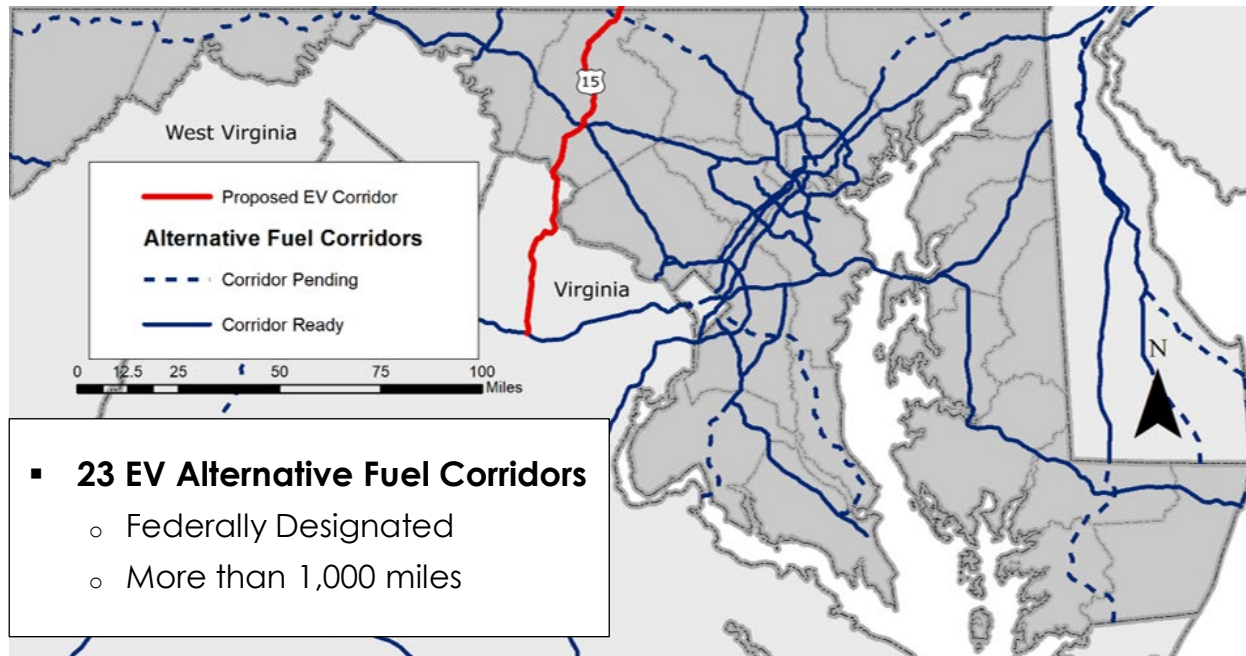| Program	MDOT Apportionment FFY 2022	FHWA Program Apportionment FFY 2022
CMAQ	$58.5M	$2.5B
NEVI	$9.3M	$615M
CRP	$18.1M	$1.2B
PROTECT	$20.6M	$1.4B
BFP	$88.1M	$5.3B

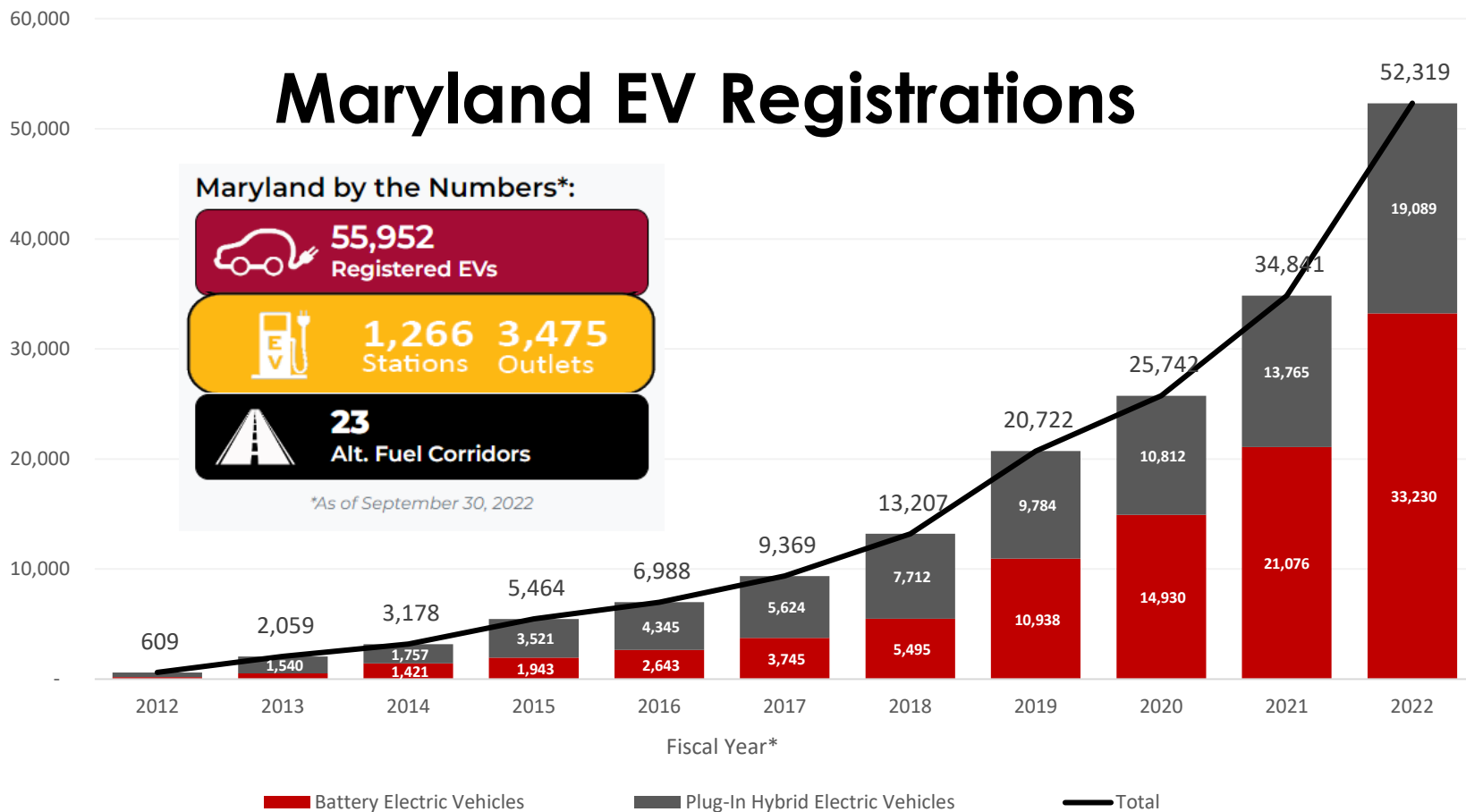# National Electric Vehicle Infrastructure (NEVI) Program

- Maryland's NEVI Plan **submitted July 15** & **approved September 14**.

- Goal of **500,000** charging stations nationwide.

  - **4 fast chargers** every **50 miles**
    - & within **1 mile** of corridors

- **$60 million** awarded to Maryland over the next five years to increase alternative fueling stations.

  - **Nationally $2.5 billion in discretionary grant funds**

23 EV Alternative Fuel Corridors (AFCs)

- **23 EV Alternative Fuel Corridors**
  - Federally Designated
  - More than 1,000 miles

Maryland EV Registrations

Maryland by the Numbers*:

55,952 Registered EVs

1,266 Stations 3,475 Outlets

23 Alt. Fuel Corridors

As of September 30, 2022

Fiscal Year*	Battery Electric Vehicles	Plug-In Hybrid Electric Vehicles	Total
2012			609
2013	1,540		2,059
2014	1,421	1,757	3,178
2015	1,943	3,521	5,464
2016	2,643	4,345	6,988
2017	3,745	5,624	9,369
2018	5,495	7,712	13,207
2019	10,938	9,784	20,722
2020	14,930	10,812	25,742
2021	21,076	13,765	34,841
2022	33,230	19,089	52,319

Fiscal Year*

■ Battery Electric Vehicles   ■ Plug-In Hybrid Electric Vehicles   — Total

*Fiscal Year ends June 30th of the respective year

MARYLAND ZERO EMISSION
Electric Vehicle Infrastructure Council

- 25% of state fleet passenger vehicles purchased must now be Zero-Emission Vehicles
- MTA will convert 50% of its transit bus fleet to ZEVs by 2030
  - That's 350 buses out of a 700-bus fleet
- MAA planning to replace parking lot shuttle buses at BWI Airport with electric models

NEVI BACKGROUND

MARYLAND DEPARTMENT
OF TRANSPORTATION

MARYLAND STATE PLAN FOR NATIONAL ELECTRIC VEHICLE INFRASTRUCTURE (NEVI) FORMULA FUNDING DEPLOYMENT

MDOT
MARYLAND DEPARTMENT
OF TRANSPORTATION

JULY 15, 2022
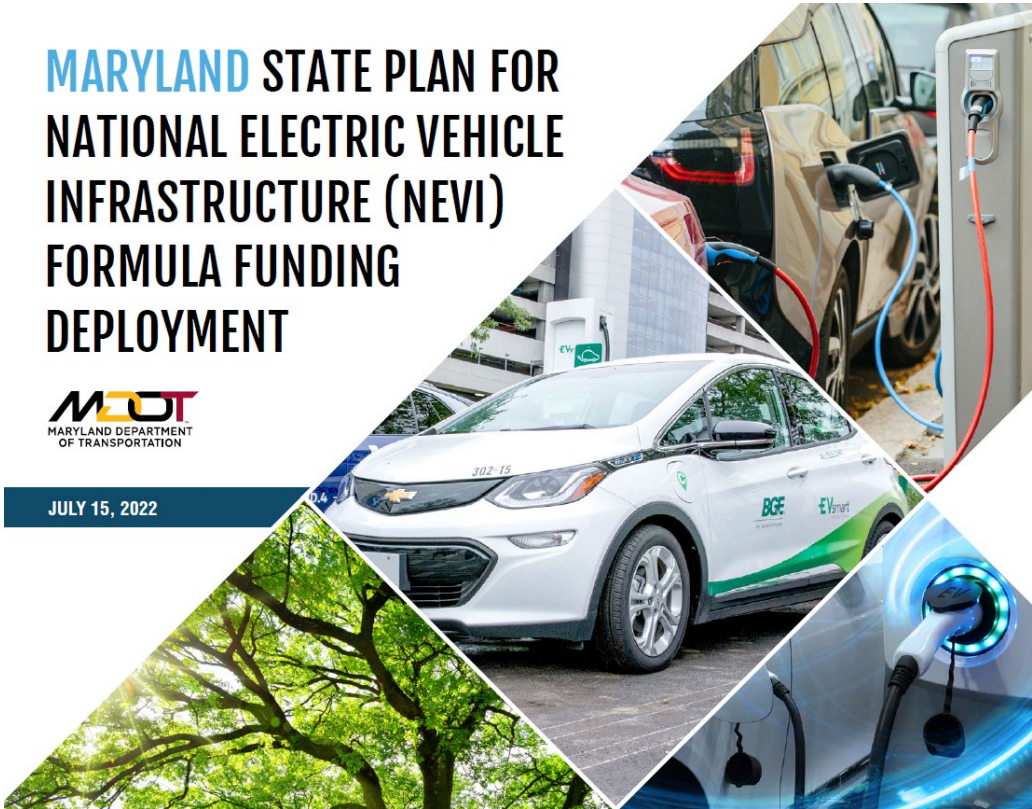
- Deadline for all states was to submit plans to the Joint Office August 1, 2022 (MD was one of the **first**)

- **$57,500,000** for investment in Maryland (after set-asides)

- **Maryland Goals:**

  1. Certify Corridors

  2. Invest in Communities per **ZEEVIC**

NEVI Goals

Alternative Fuel Corridors
Certify existing (23) corridors within five years and identify future roadways

Build & Strengthen Public-Private Partnerships
Facilitate contracting and implementation

Equitable Charging Infrastructure
Prioritize disadvantaged and rural communities

Collaboration
Work with state, local, regional, non-government organizations (NGOs), and public organizations and plans

Workforce/Job Impacts
Providing training
Enhance experience-level, and diversity

Resiliency and Reliability
Understand and address grid impacts, renewables, emergency preparedness, weather, operations/maintenance

Geographic and Location Diversity
Meet demands in various locations - Urban, suburban, rural, employment centers, multi-unit dwellings, etc.

Addressing Equity

ACCESSIBILITY

Ensuring all Marylanders and Visitors Have Access to Reliable EV Charging

Geographic Diversity

Rural/Urban

Corridors/Communities

Multi-Lingual Graphic User Interfaces

ADA Compliance

Multi-Unit Dwellings

Employment Centers

Safety While Charging

Grid Reliability
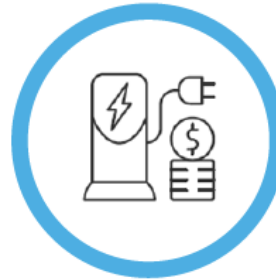
AFFORDABILITY

Creating Incentives, Innovations, and Systems that Increase Affordability of EV Ownership and Charging

Leveraging state, local, federal, and private funding

Cost of Vehicles

Cost of Charging

Mobility Hubs

Carshare

Rideshare

ZEV Transit

COMMUNICATION

Meeting People where they are, Listening, and Educating

Multi-Lingual Materials

Events

Webinars

Surveys and Polls

Geofencing

Website

Social Media

Calculators

Outreach

- 3 Webinars
  - Interactive Polling and Q&As
    - Summarized on ZEVIP Website

- MetroQuest Survey
  - 793 Total Participants

- Presentations
  - ZEEVIC, MPOs, Non-Profits, etc.

- ZEEVIC Outreach Activities
  - 6 Community Events in 2022
    - Baltimore, Salisbury, Boonsboro, Westminster, Cumberland and Leonardtown
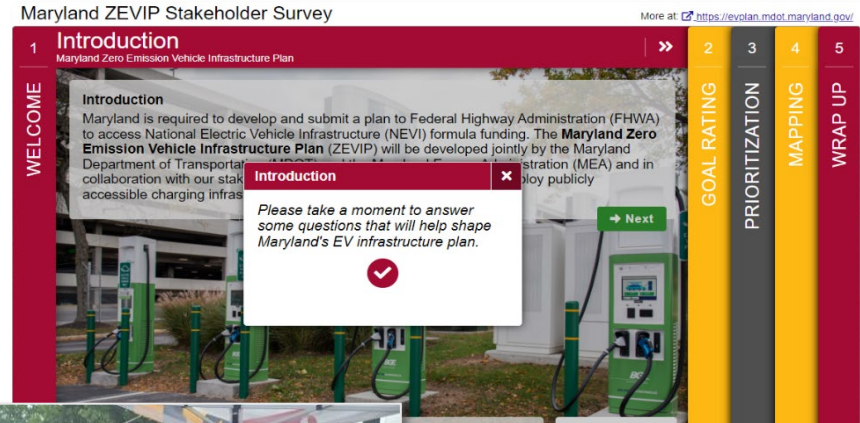
Role of Local Governments

Certify AFCs

- ✓ Approval of permits for the installation of EVSEs

Community Investment

- ✓ Identification of communities for investment
  - ✓ Focus on EJ/Rural
- ✓ Approval of permits for the installation of EVSEs
- ✓ Zoning & permits requirements support the installation of EVSEs

Other

- ✓ Identification of community/EJ groups and organizations to include within stakeholder & public engagement

- ✓ Support & encourage workforce development programs & trainings

Urban Tree Program

- 1st Year
- Spring 2022 - $8,000
  - Friends of Hampden
  - Town of Edmonston
  - UMD's Reforestation Project
- Fall 2022 - $10,200
  - Town of Middleton
  - Baltimore Green Space
  - Project Green Earth

MDOT Urban Tree Program

- Partnership with the Maryland Urban and Community Forest Committee and DNR,

- State-owned Transportation System

- Funding available for eligible organizations up to $5,000 for planting projects with additional funds for pocket forest projects.

Preference for projects in communities that experience:
1. Environmental justice concerns OR
2. Urban heat island impacts

Application

- ✓ Organizational information
- ✓ Project information: funding request, MDOT transportation facility that impacted the community, proposed benefits to the community
- ✓ Planting approach – species list, cost, maintenance plan & planting map

OCCRA combines applicant information with analysis from tools like MDE EJ Screen, the US Census Bureau, and other available data visualizations to inform funding decisions.
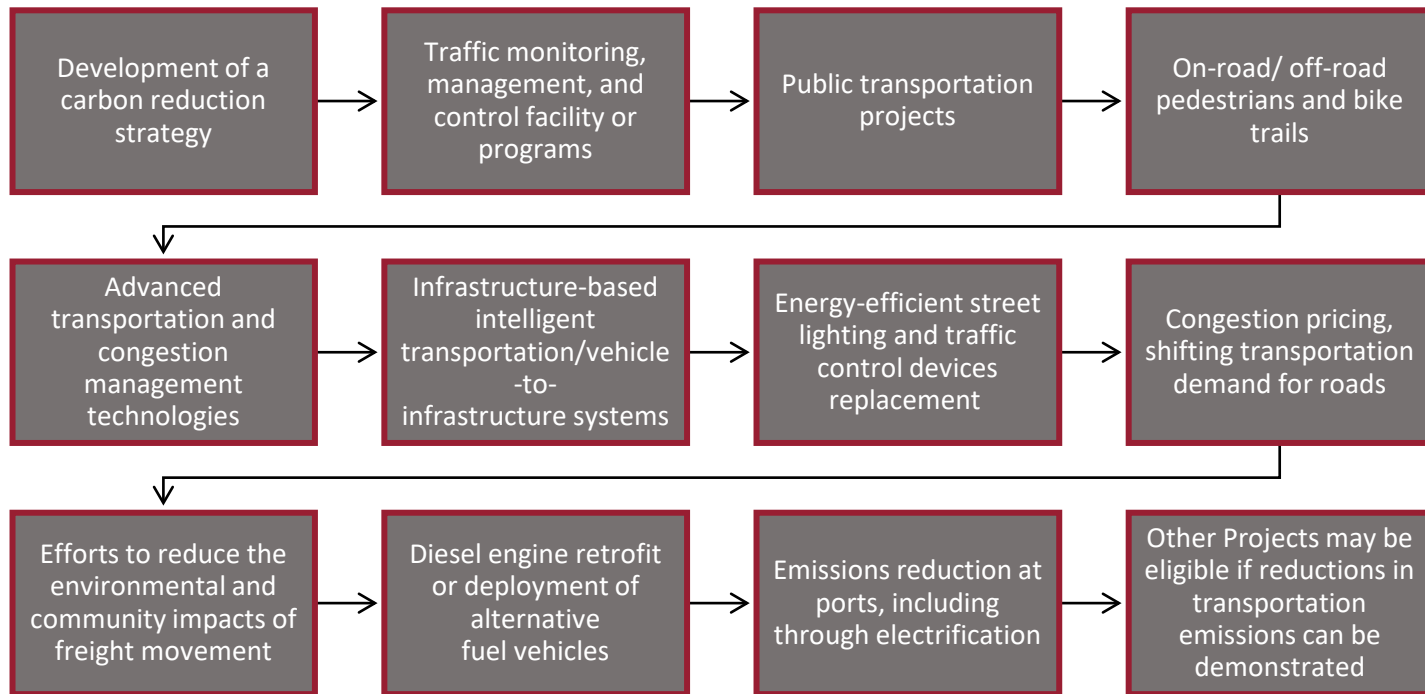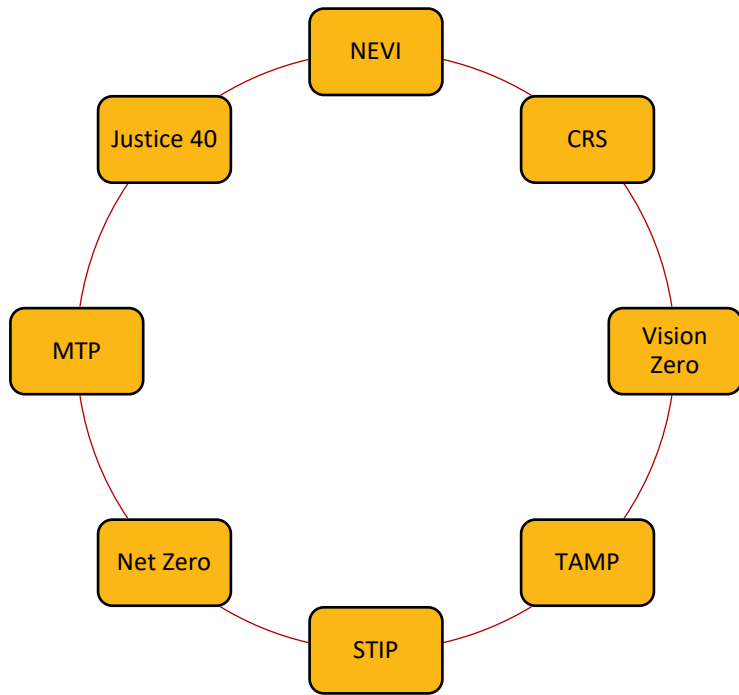
Carbon Reduction Program (CRP)
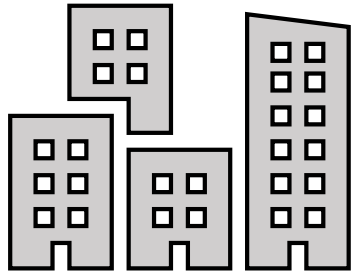
- FFY 2022 Apportionment is $18.1M

- The 65% of annual allocation must be obligated in proportion to the relative shares of the population.

- Remaining 35% can be obligated in any area

- Carbon Reduction Strategy required by November 15, 2023

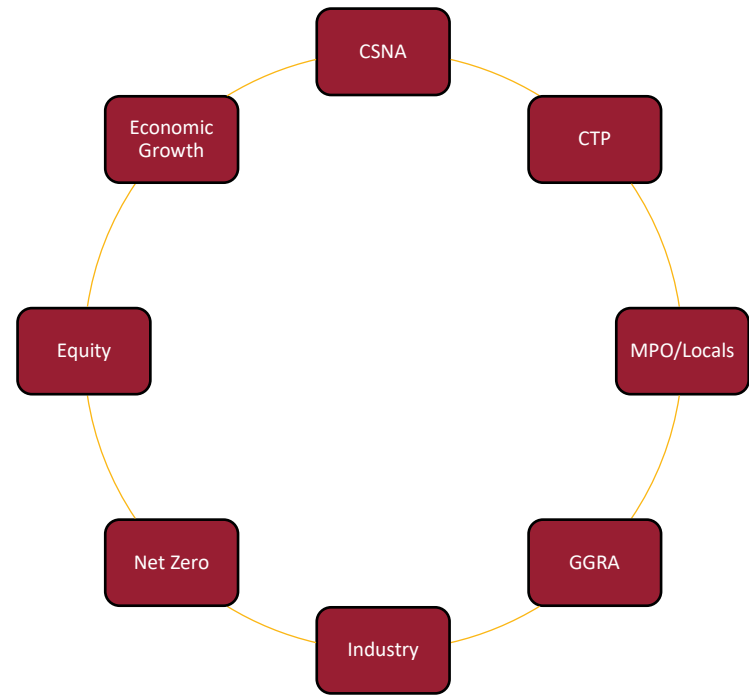https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_fact_sheet.cfm
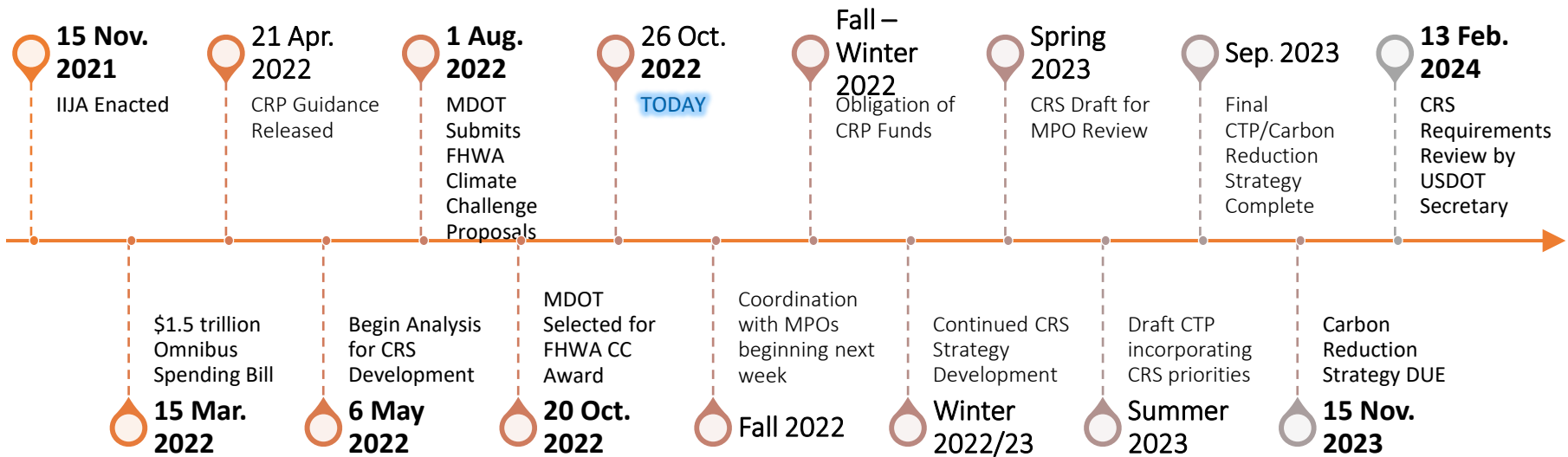
Carbon Reduction Program Eligible Projects

Development of a carbon reduction strategy	→	Traffic monitoring, management, and control facility or programs	→	Public transportation projects	→	On-road/ off-road pedestrians and bike trails

Advanced transportation and congestion management technologies	→	Infrastructure-based intelligent transportation/vehicle-to-infrastructure systems	→	Energy-efficient street lighting and traffic control devices replacement	→	Congestion pricing, shifting transportation demand for roads

Efforts to reduce the environmental and community impacts of freight movement	→	Diesel engine retrofit or deployment of alternative fuel vehicles	→	Emissions reduction at ports, including through electrification	→	Other Projects may be eligible if reductions in transportation emissions can be demonstrated

Carbon Reduction Strategy Influencers

Carbon Reduction Strategy Timeline

15 Nov. 2021
IIJA Enacted

15 Mar. 2022
$1.5 trillion Omnibus Spending Bill

21 Apr. 2022
CRP Guidance Released

6 May 2022
Begin Analysis for CRS Development

1 Aug. 2022
MDOT Submits FHWA Climate Challenge Proposals

20 Oct. 2022
MDOT Selected for FHWA CC Award

26 Oct. 2022
TODAY

Fall 2022
Coordination with MPOs beginning next week

Fall – Winter 2022
Obligation of CRP Funds

Winter 2022/23
Continued CRS Strategy Development

Spring 2023
CRS Draft for MPO Review

Summer 2023
Draft CTP incorporating CRS priorities

Sep. 2023
Final CTP/Carbon Reduction Strategy Complete

15 Nov. 2023
Carbon Reduction Strategy DUE

13 Feb. 2024
CRS Requirements Review by USDOT Secretary

Promoting Resilient Operations for Transformative, Efficient & Cost-Saving Transportation (PROTECT)

Limitations on Use

- 2% must be set-aside each fiscal year for eligible planning activities
- Cannot use more than 40% of funds for the construction of new capacity
- State may not use more than 10% of funds for development phase activities

Federal share is generally 80%

- However, reduced by 7% if a State Resilience Improvement Plan is developed and project is prioritized in the plan
- Additionally reduced by 3% if the Resilience Improvement Plan is incorporated into State Transportation Plan or MPO Plan

PROTECT Eligible Projects

Planning Activities: Resilience Improvement Plan, vulnerability assessments, capacity building, evacuation planning...

Resilience Improvements: <u>replacement, rehab or upgrade of surface transportation facility</u>, flood prevention and stormwater control upgrades, <u>lengthening or raising bridges</u>, scour protection, stream stability, vegetation management practices in ROWs.

Community Resilience and Evacuation Routes: redundant evacuation routes, expanding evacuation route capacity, intelligent transportation system (ITS) equipment, traffic incident management equipment or signage, or projects to ensure access to critical destinations.

At-Risk Coastal Infrastructure: strengthening, stabilizing, hardening, elevating, relocating, or enhancing the resilience of highway and non-rail infrastructure.

Resources

NEVI Website:
Evplan.mdot.Maryland.gov

NEVI Planning ToolKit:
https://storymaps.arcgis.com/stories/b83f23cdf1e349a8bd314c9eaf647c73

NEVI RFI:
https://emma.maryland.gov/page.aspx/en/bpm/process_manage_extranet/49012

NEVI Questions or Comments:
Email: Evplan@mdot.Maryland.gov

Carbon Reduction Program Fact Sheet:
https://www.fhwa.dot.gov/bipartisan-infrastructure-law/crp_fact_sheet.cfm

PROTECT Program Fact Sheet:
https://www.fhwa.dot.gov/bipartisan-infrastructure-law/protect_fact_sheet.cfm

CRP and PROTECT Questions or Comments:
Email: shertz@mdot.Maryland.gov