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# ENVIRONMENTAL POLICY & SUSTAINABILITY

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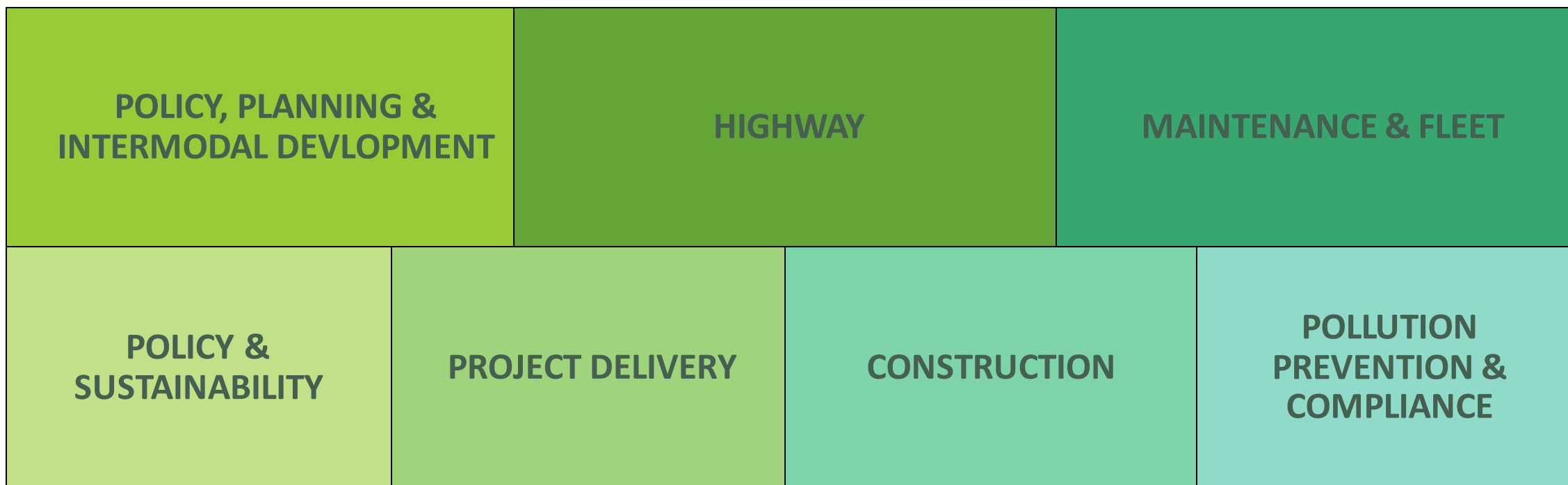
ANDREA WRIGHT, ENVIRONMENTAL POLICY MANAGER

PATRICK MURPHY, SUSTAINABILITY AND INNOVATIONS PROJECT MANAGER

HEATHER VOISIN, ENVIRONMENTAL POLICY ANALYST

# VTrans Environmental

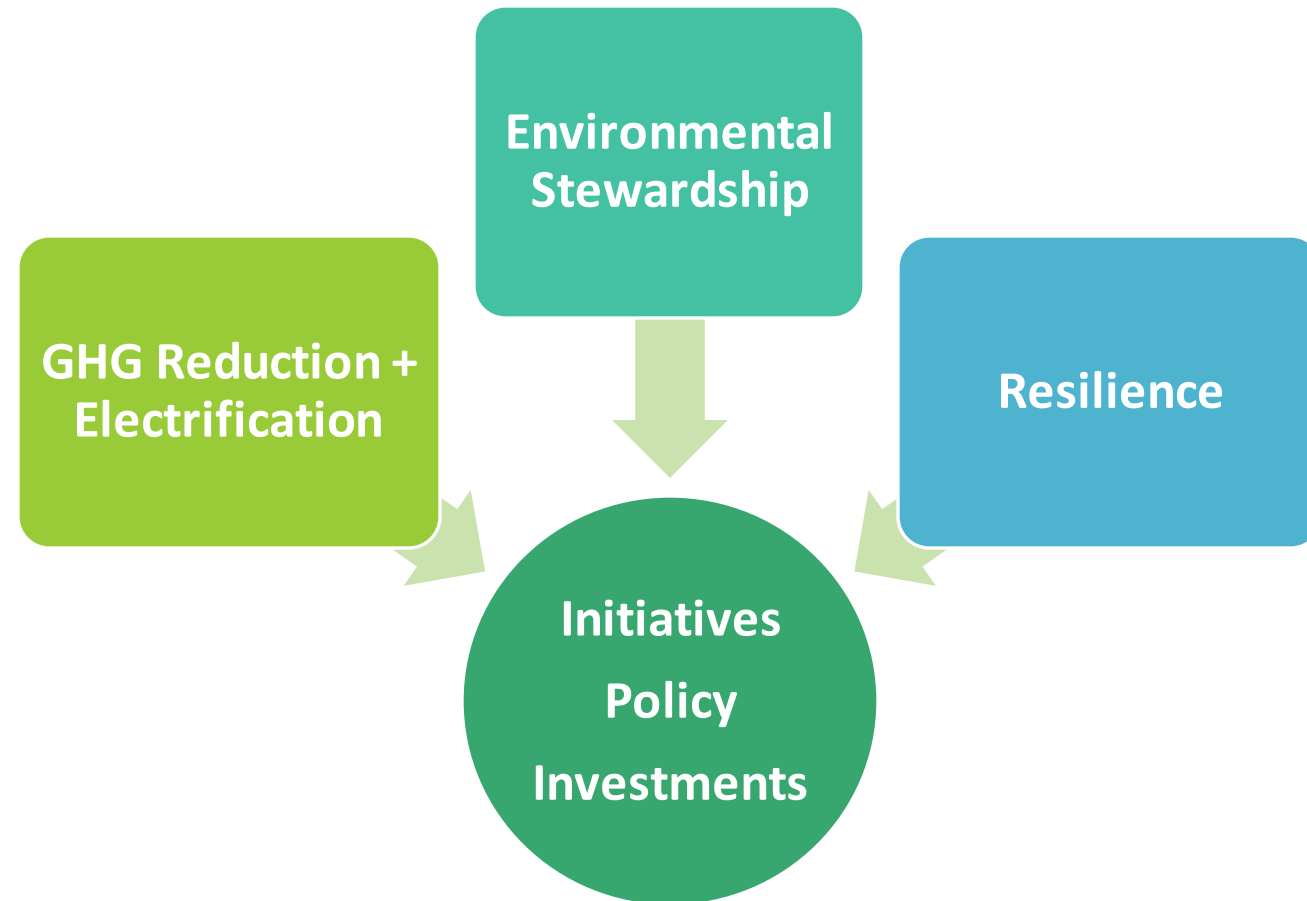
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FOUR PILLARS

# AOT EPS Section: What We Do

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# Environmental Policy

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**Inter Agency  
Coordination**

**Emerald Ash  
Borer Mgt  
Plan**

**Vegetation  
Management  
Plan**

**Contaminated  
Soils  
Guidance**

**Road Ecology**

**Permitting  
Efficiency**

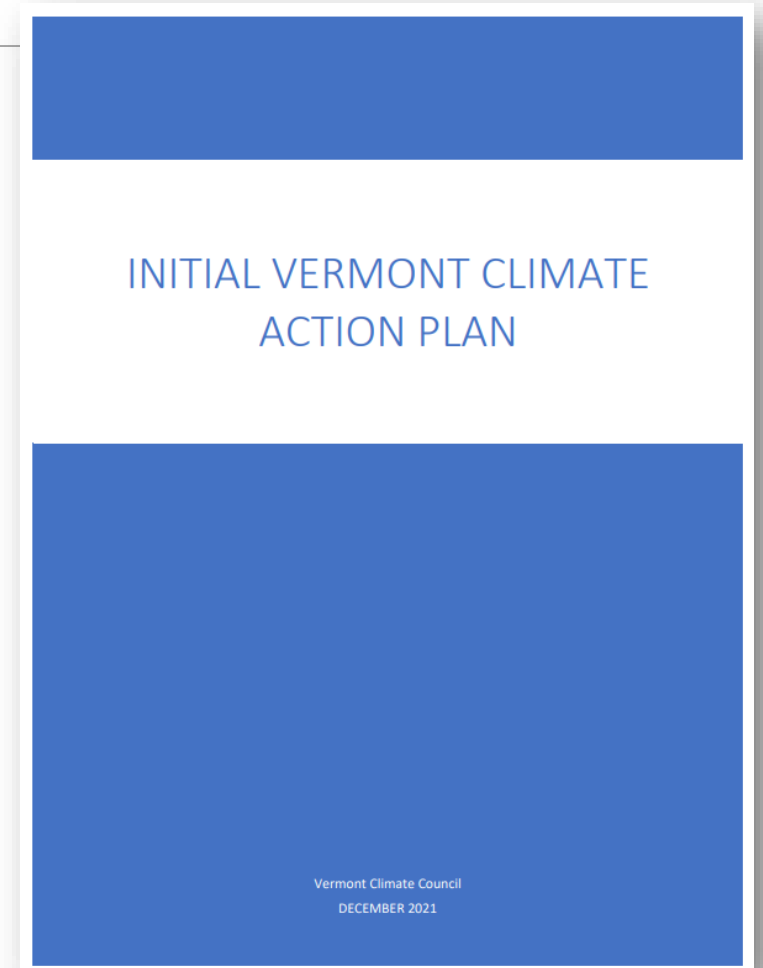


# Climate Mitigation

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## Global Warming Solutions Act

- Reduce GHG emissions below 2005 GHG emissions in Vermont by:
  - no less than 26% below 2005 GHG emission levels by January 1, 2025;
  - by no less than 40% below 1990 GHG emission levels by January 1, 2030;
  - and no less than 80% below 1990 GHG emission levels by January 1, 2050.

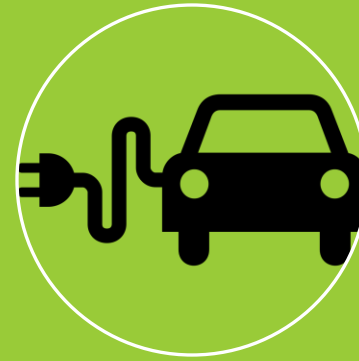




GHG



Energy



Electrification



# GHG Emissions Reduction

## **Carbon Reduction Program**

**Infrastructure Investment  
and Jobs Act (IIJA)**

**\$32 million**

**\$6.3 annually over 5 years**

- Public Transit
- Transportation Alternatives
- Congestion Mitigation
- Efficient Street and Traffic Lighting
- Travel Demand Management Strategies
- Deployment of Alternative Fuel Vehicles and related Infrastructure
- Carbon Reduction Strategy

# GHG Emissions Reduction

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## Carbon Reduction Strategy

### Phase I

Develop a greenhouse gas (GHG) accounting methodology for the capital program

#### Phase I – Accounting Methodology - 2022



May  
IIJA Guidance

June / July  
Scope of Work  
Consultant Contract

September  
Technical Committee

December  
Capital Program  
Accounting  
Methodology



# GHG Emissions Reduction

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## Carbon Reduction Strategy

### Phase II

Develop a strategy for the implementation of projects that most cost-effectively reduce GHG emissions

### Phase II – Strategy Development - 2023



January  
Advisory  
Committee

Spring - Summer  
Stakeholder and  
Public  
Engagement

October  
Strategy

Climate  
Mitigation -  
Energy

Comprehensive Energy Plan Support

Energy Profile

Facilities

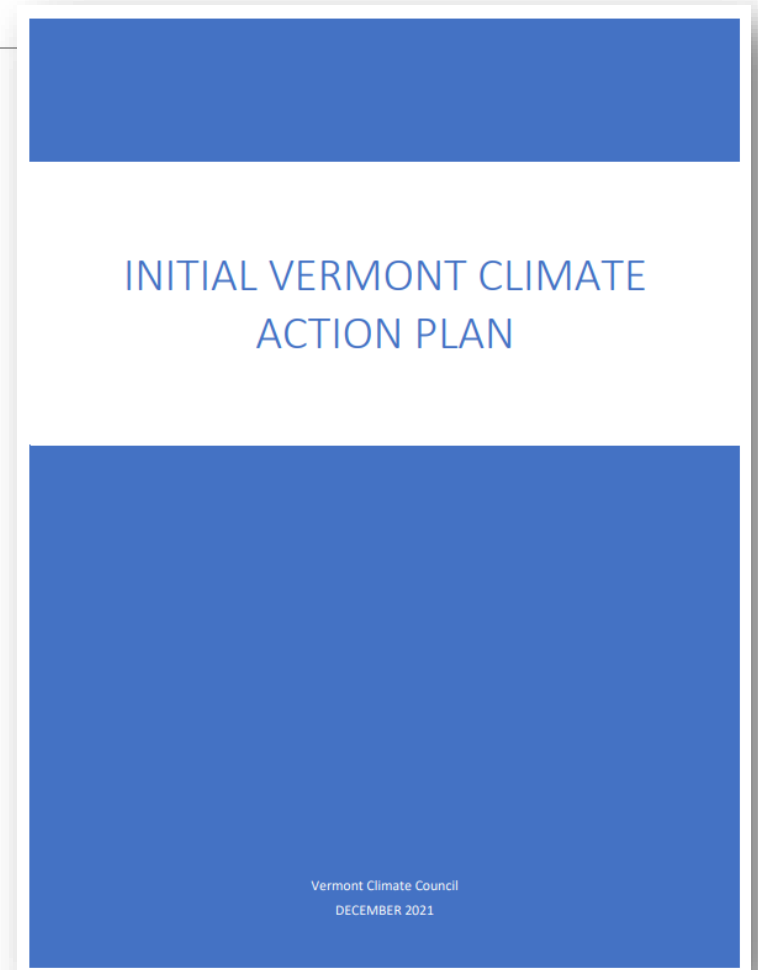
Alternative Uses of the ROW

# Vehicle Electrification

Initial Climate Action Plan finalized in December 2021

## EV Adoption Goals:

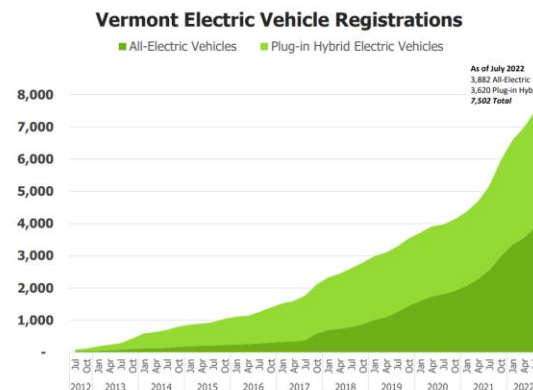
- **27,000** PEVs by **2025** (17% of sales)
- **126,000** PEVs by **2030** (68% of sales)
- Reduce GHG emissions below 2005 GHG emissions in Vermont by no less than 26% below 2005 GHG emission levels by January 1, 2025;
- by no less than 40% below 1990 GHG emission levels by January 1, 2030;
- and no less than 80% below 1990 GHG emission levels by January 1, 2050.



# Vehicle Electrification Incentive Programs

Over **\$20 million** in FY2023 General Funds:

- Incentive Program for New PEVs, \$12 million
- MileageSmart (used vehicles), \$3 million
- Replace Your Ride, \$3 million
- eBike Incentive Program, \$50k
- Drive Electric Vermont partnership, \$2 million



583

New Plug-in Electric Vehicles  
Incentivized, FFY22



228

Used Fuel-Efficient Vehicles  
Incentivized, FFY22



279

Electric Bikes  
Incentivized, FFY22



\$2.67M

Total Incentive Funds  
Issued, FFY22



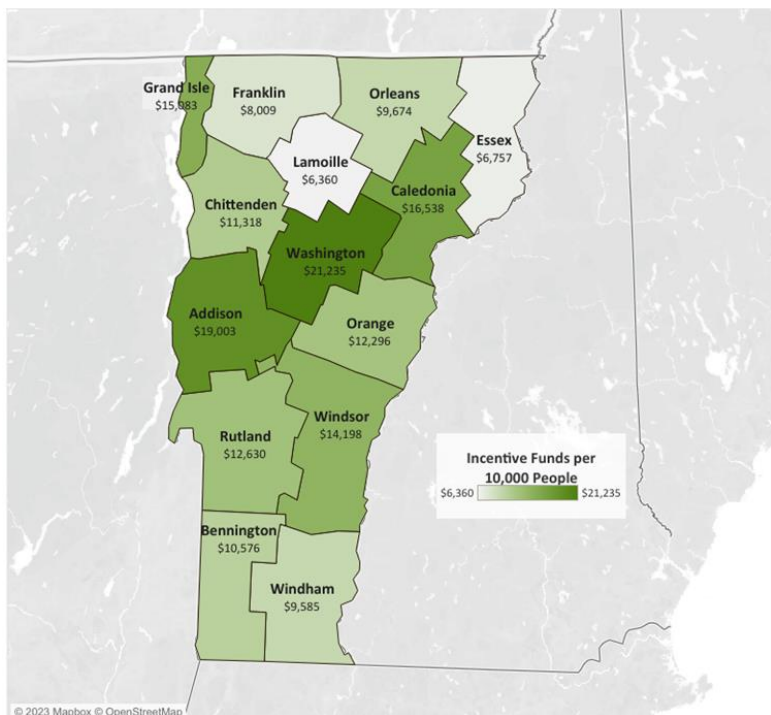
81%

Total Incentive Funding  
Directed Towards  
Households with Lower  
Incomes, FFY22

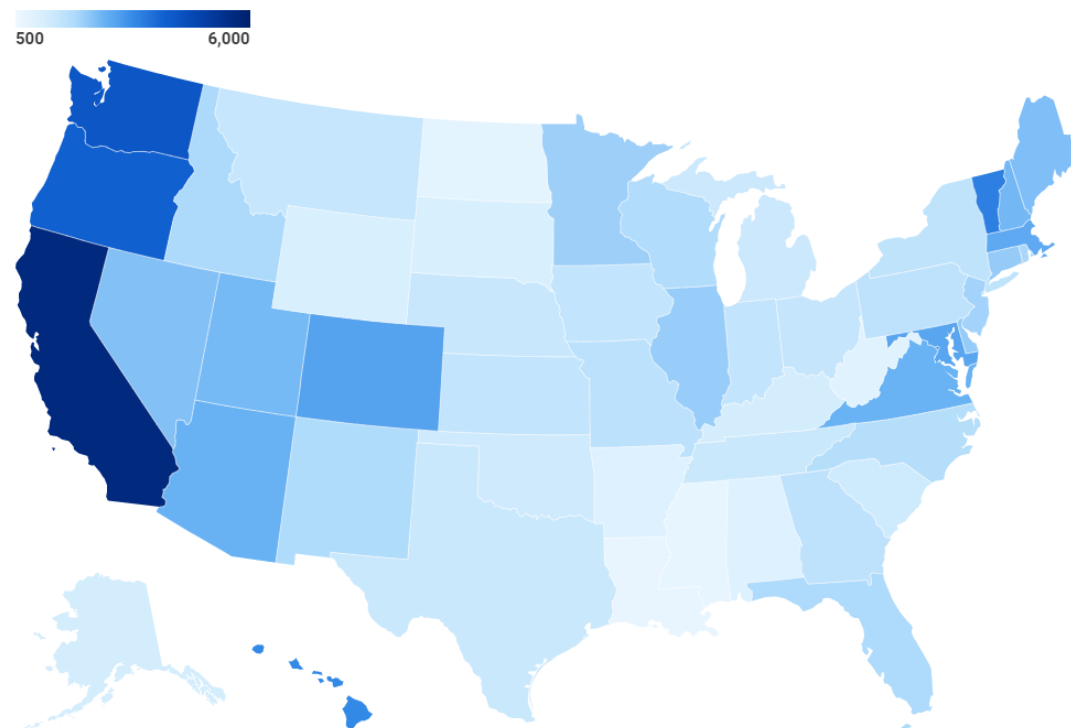
# Vehicle Electrification Incentive Programs

Vermont ranks 4<sup>th</sup> in the nation in EV adoption

Programs account for over 25% of EVs registered in VT



Electric and Hybrid Vehicles per 100,000 People



2021 data.  
Map: Chris Gilligan • Source: USA Facts



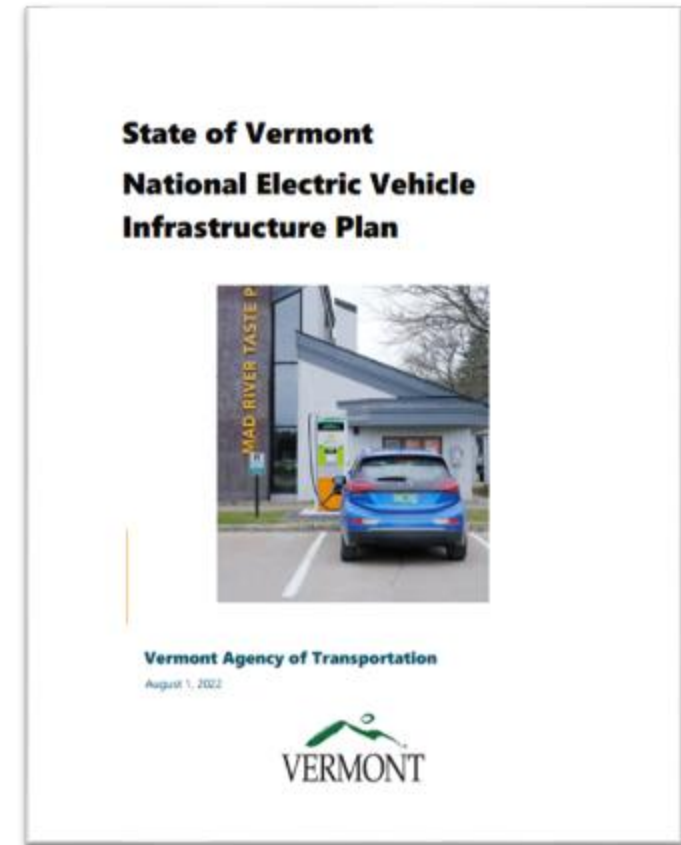
# Electric Vehicle Supply Equipment

**\$6.25 million** (\$2 million in ARPA) for VTrans authorized in SFY2023 for DC fast charging along highway corridors

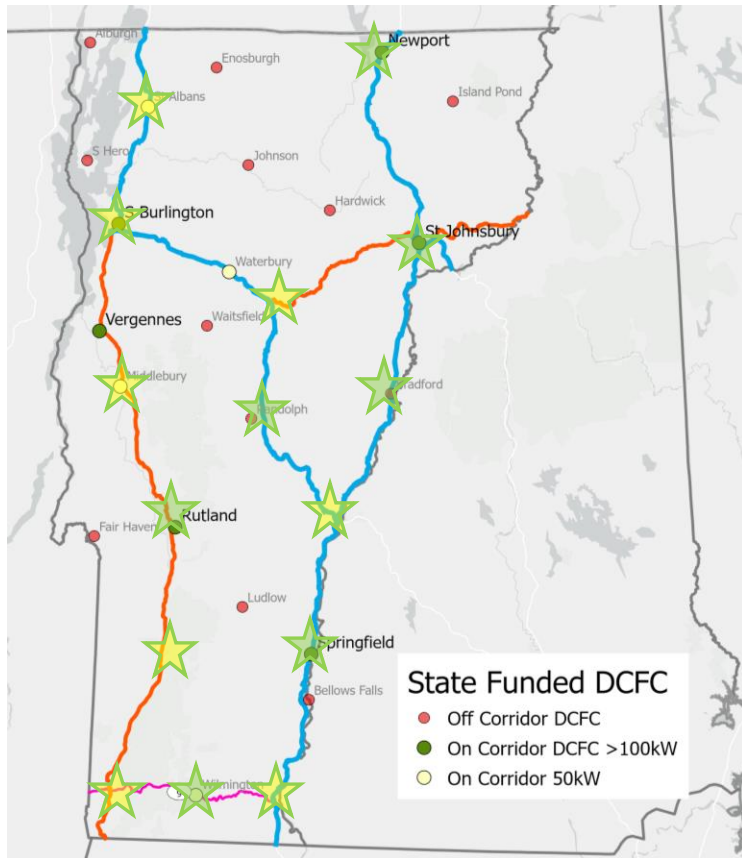
(\$10 million for Agency of Commerce and Community Development to administer community charging grants)

Vermont National Electric Vehicle Infrastructure (NEVI) Plan approved in September 2022 by FHWA unlocks **\$21.2 million** over five years for corridor charging; annual plan update required

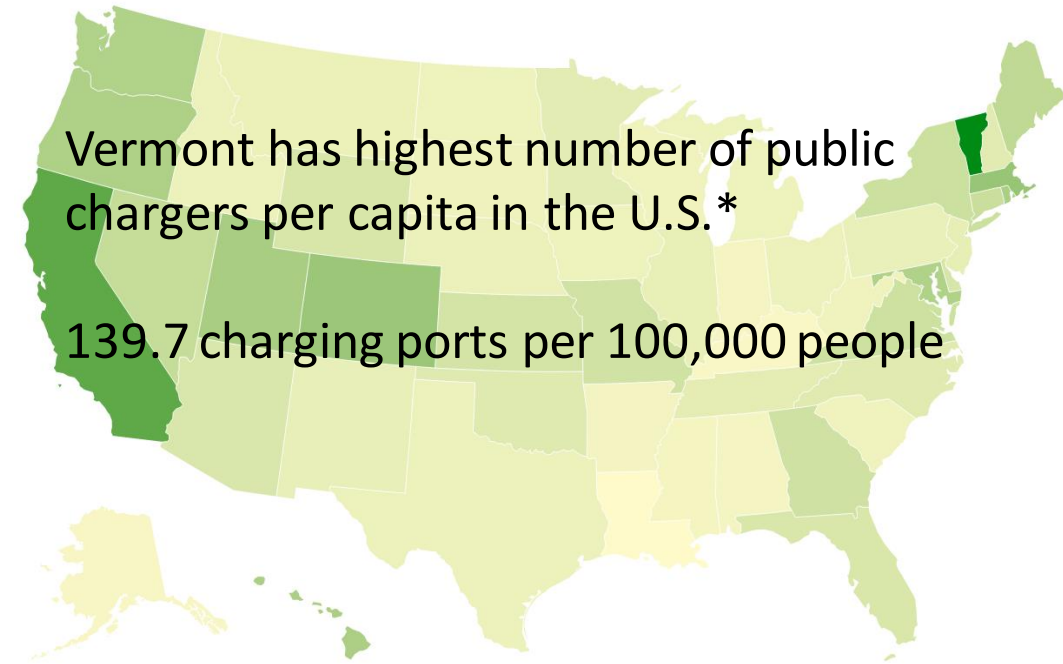
NEVI “gap-filling” and competitive grants also possible



# Electric Vehicle Supply Equipment

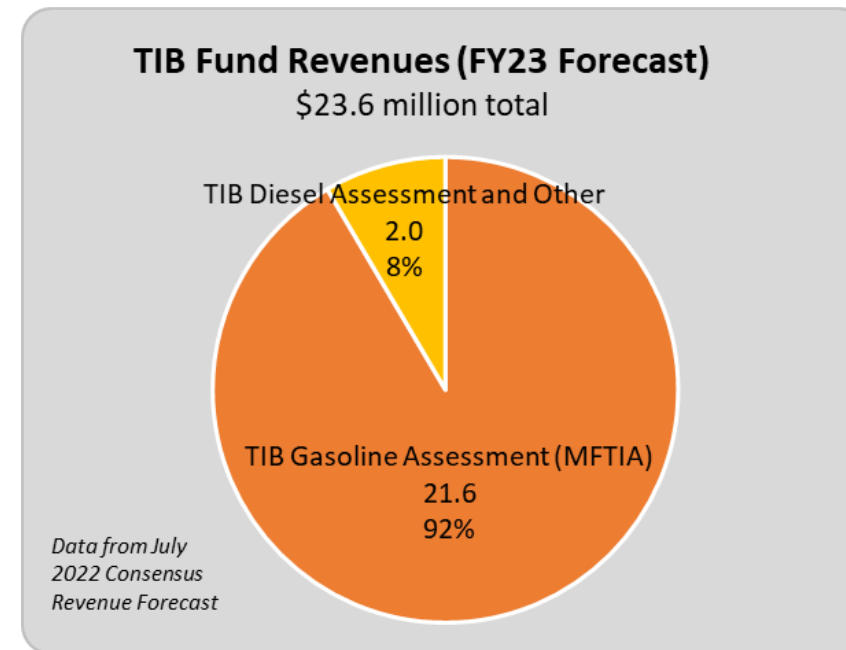
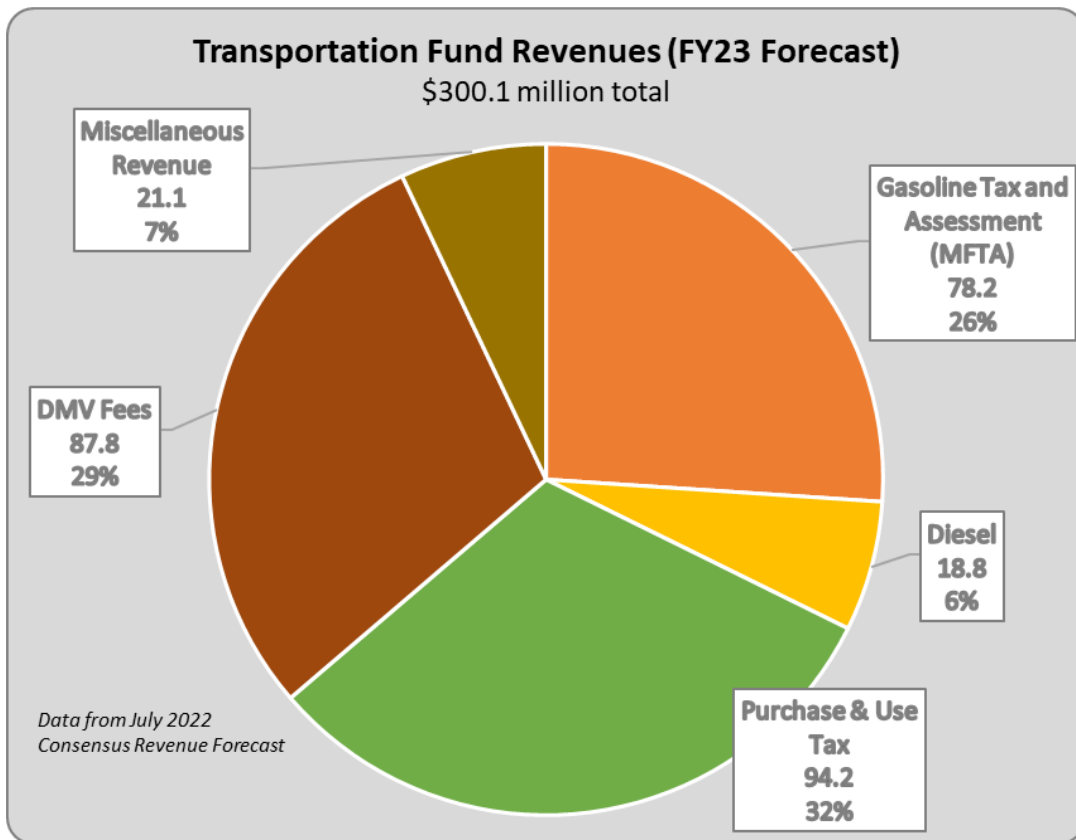


## Alternative Fueling Station Density Across the U.S.



Ranking based upon EV charger density per capita; a rank of 1 is the best, most-dense.  
Source: CoPilot • Created with Datawrapper

# Road Usage Charge



With current level of EV adoption, VT is losing over \$600k annually with that number expected to quickly rise into the millions



# Road Usage Charge

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RUC Advisory Committee considered many policy scenarios and recommended a mileage-based user fee (MBUF) for all plug-in electric vehicles:

- Best opportunity to align sustainable transportation revenue and climate goals
- Cost-effectively utilizes existing inspection process with odometer reading
- Flexible payment options/frequencies
- Fairness: drivers only pay for what they use
- Federal money can be leveraged to assist with implementation



# VTrans RESILIENCE

*“The ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions”  
(FHWA Order 5520)*

- EMERGENCY RESPONSE AND RECOVERY
- DESIGN AND ENGINEERING
- PLANNING AND PROGRAMMING
- INFRASTRUCTURE INVESTMENTS

Emergency Management	Transportation Planning and Project Delivery			
	Plan & Program	Design	Build	Operate & Maintain
Prepare	✓			✓
Respond				✓
Recover		✓	✓	✓
Mitigate	✓	✓	✓	

# RESILIENCE

## INFRASTRUCTURE INVESTMENTS

**Promoting  
Resilient  
Operations for  
Transformative,  
Efficient, and  
Cost-saving  
Transportation**

### **PROTECT FORMULA PROGRAM**

**INFRASTRUCTURE INVESTMENT & JOBS ACT (IIJA)**

**\$37 MILLION FOR VERMONT -- \$7.4 ANNUALLY OVER 5 YEARS**

- Natural Hazards
- Planning
- Resilience Improvement
- Evacuation Routes
- Nature Based Designs
- Resilience Improvement Plan

# RESILIENCE

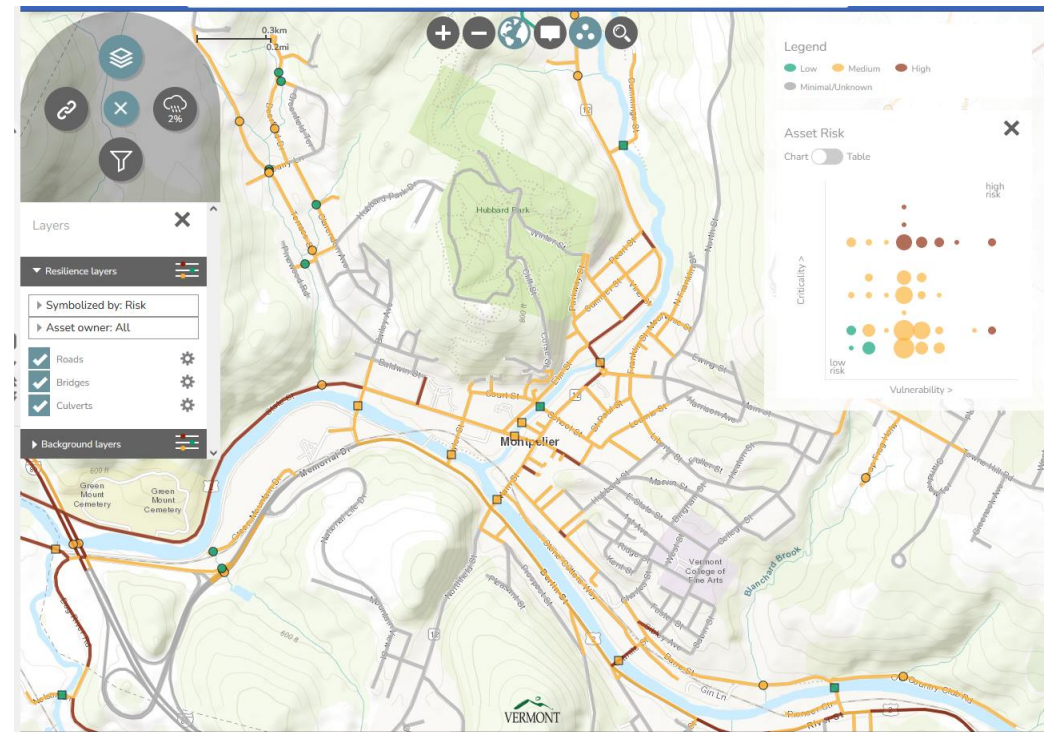
## PLANNING AND PROGRAMMING ACTIVITIES

### Transportation Resilience Planning Tool (TRPT)

**Risk = Vulnerability + Criticality**

- 100% State Coverage
- Statewide Training underway
- Web-based tool

<https://vtrans.vermont.gov/planning/transportation-resilience>



# RESILIENCE

## INFRASTRUCTURE INVESTMENTS



### FEMA Grants

- **Pre-Disaster Mitigation**
- **Building Resilient Infrastructure & Communities**
- **Hazard Mitigation**

