

Northeast Regional EV Corridor Planning

- **Northeast Diesel Collaborative**
- **2021 Partners Meeting**
- **October 20, 2021**

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Georgetown Climate Center

Georgetown Climate Center

A Resource for State and Federal Climate Policy

- Launched in 2009 as a resource to states
- Works at the nexus of federal-state policies
- Supports policymakers through research, facilitation, and convening

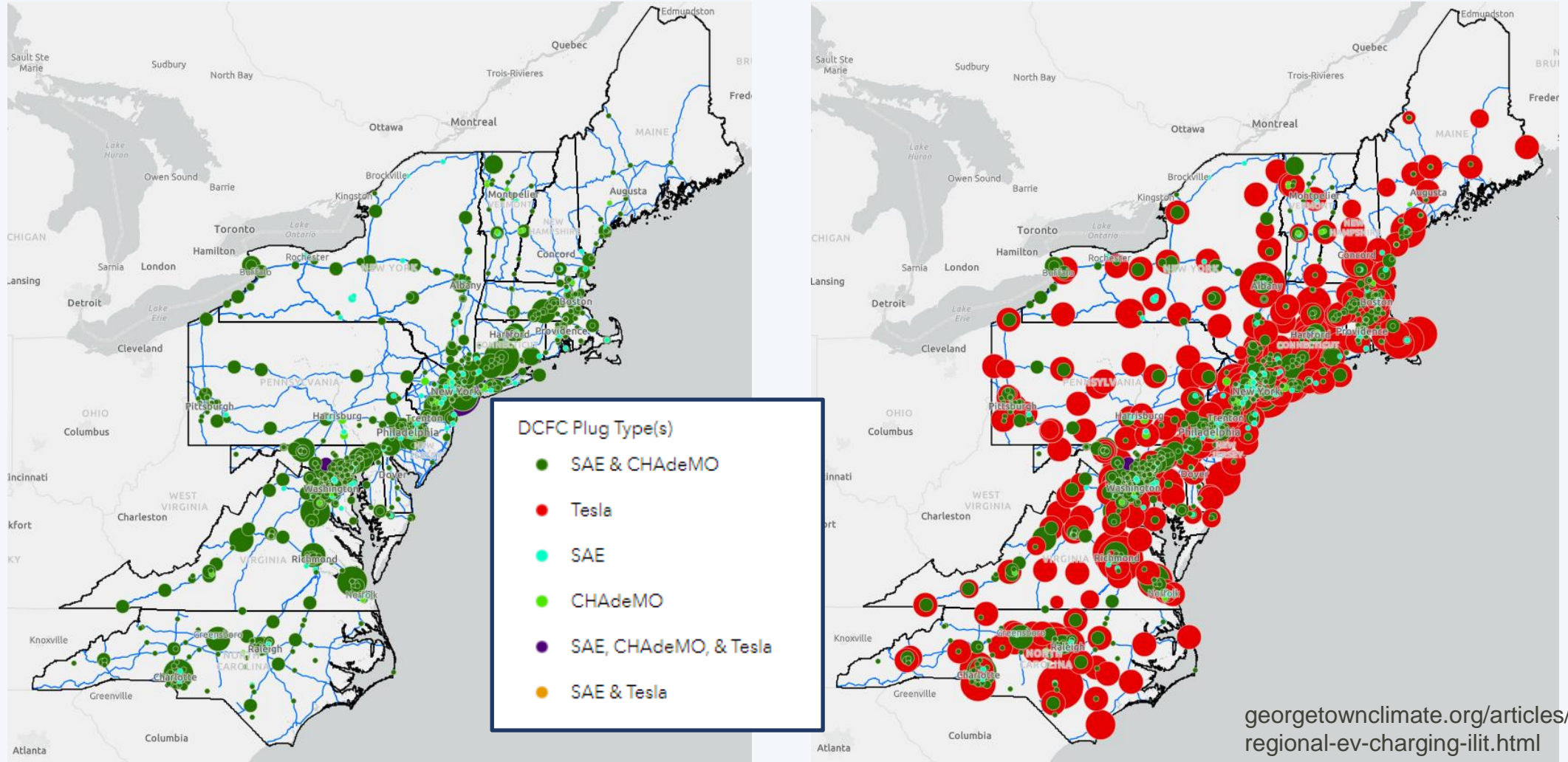


Northeast Regional EV Corridor Planning

Presentation Outline:

- Overview of EV charging infrastructure in the northeast corridor
- Regional collaboration: multi-state coordination, resources, and planning tools
- Upcoming opportunities for regional corridor planning
- Looking ahead to medium- and heavy-duty ZEV corridors

Existing EV Fast Charging Infrastructure

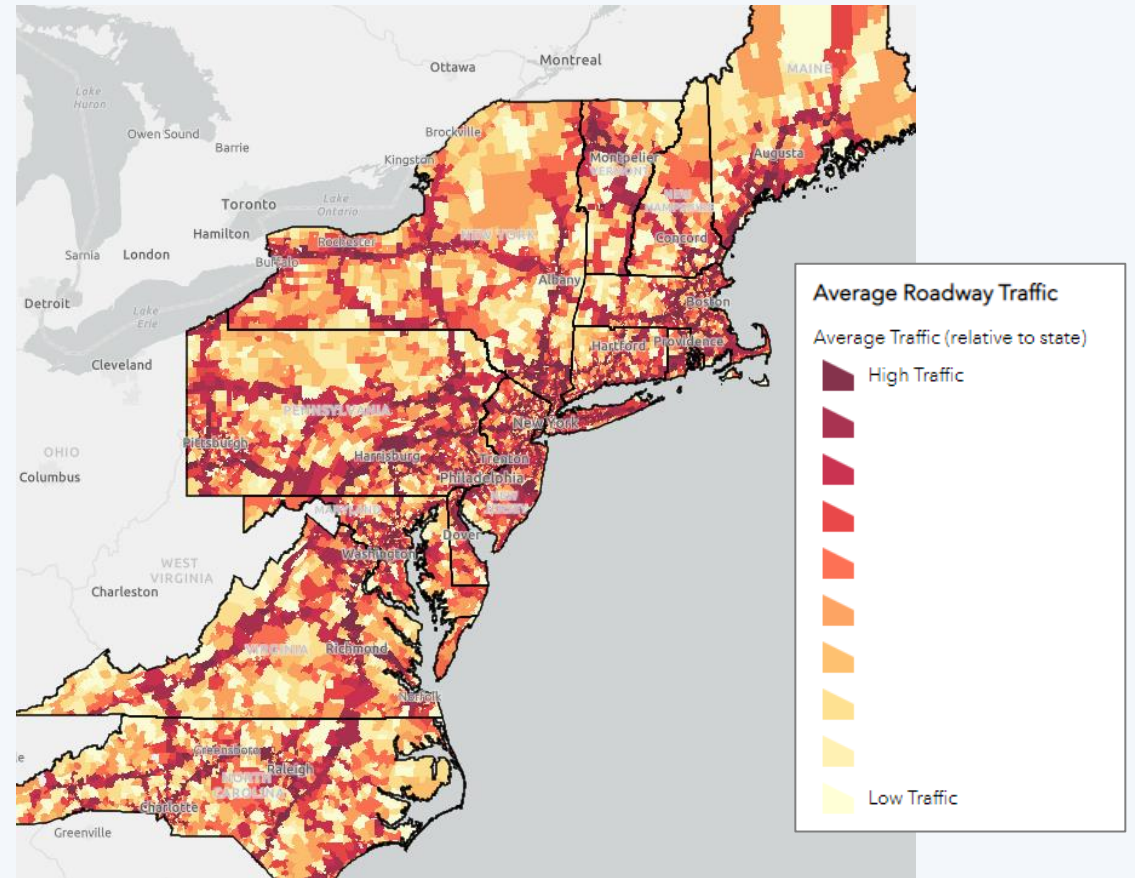


Left: Non-proprietary public DCFC
Right: All public DCFC

georgetownclimate.org/articles/regional-ev-charging-ilit.html

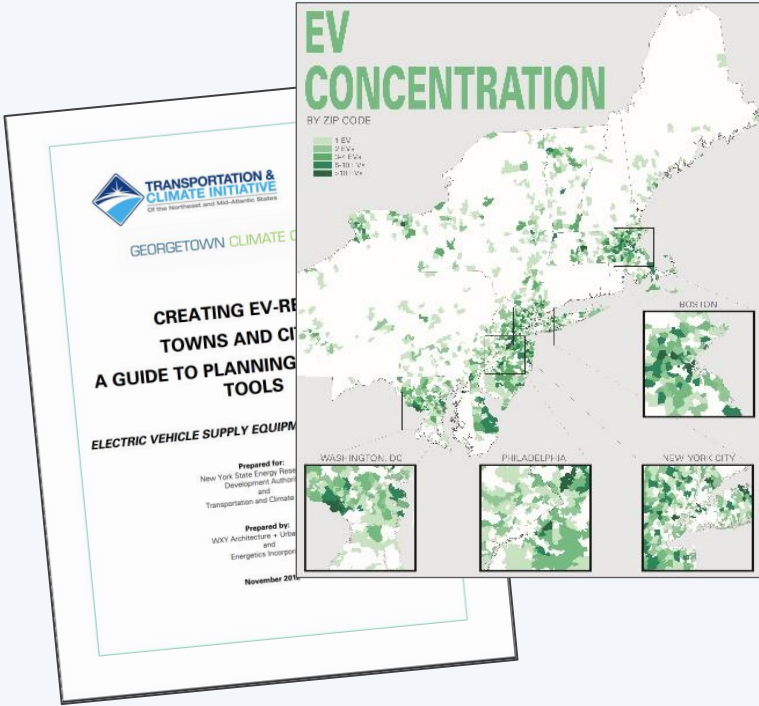
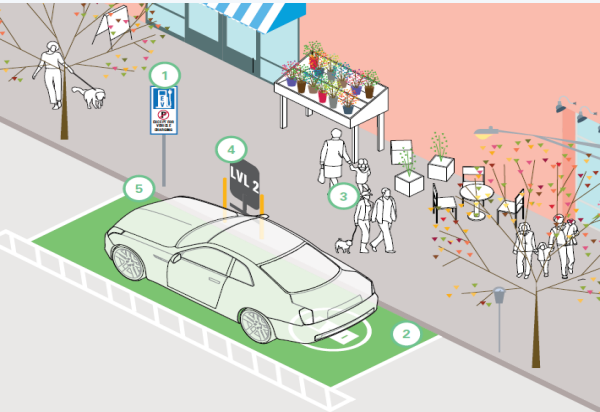
Benefits of Regional Coordination for EV Charging

- Closely connected economies, populations, and transportation networks
- Importance of consistent & convenience experience for drivers and businesses
- Opportunity for efficient build-out of EV charging infrastructure



Collaboration through the Transportation & Climate Initiative Clean Vehicles Workgroup

ALTERNATIVE FUELS CORRIDOR



Regional EV Charging Infrastructure Location Identification Toolkit (ILIT)

Analysis Parameters

Select state(s) included in analysis
 ▼ Select at least one state ▼ Clear All

Connecticut Massachusetts Pennsylvania
 Delaware New Hampshire Rhode Island
 Washington, D.C. New Jersey Vermont
 Maine New York Virginia
 Maryland North Carolina

Select Metro Area:

Select County:

Included Census Tracts
 Include all census tracts or only those within one mile of "Priority Corridors"

Priority Corridors (ILIT)
 All Census Tracts

DCFC Plug Types
 Plug types considered for proximity

Check all that apply: (must select at least one)

SAE
 CHAdeMO
 Tesla

Traffic Type
 Traffic data used for traffic metric

Select Type:

Considers total vehicle miles traveled and maximum roadway traffic within tracts

Equity Considerations

Qualified Opportunity Zones (QOZ)
 Filter census tracts by QOZ status

Define Census Tracts: [Click for more information](#)

U.S. EPA EJSCREEN EJ Index Metrics
 Filter census tracts by EPA EJSCREEN index values

Select EJ Index:

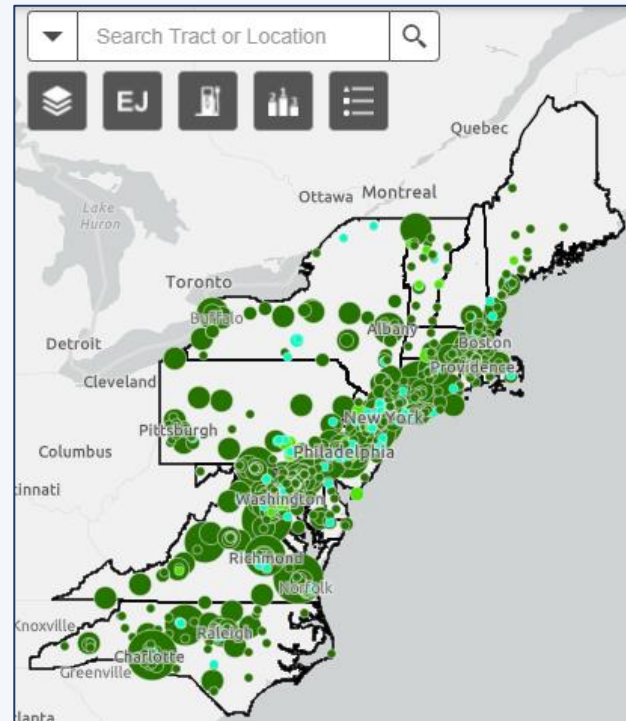
EJ Index state percentile is above: [Click for more information](#)

Metric Weighting

Weighting Method:

		Pre-Weight	Custom
Proximity	Closest DCFC	15%	20%
	Port Density	15%	15%
Demand	Traffic	30%	25%
	Nearby Activity	30%	25%
Demographics	Pop. Density	5%	5%
	Home Charging	5%	10%
Total		100%	100%

CHANGE INPUTS BEFORE CALCULATING



Inputs & Filters

Select State(s): All

Select Metro Area(s): All

Select County(ies): All

Tracts w/in 1-mile from Priority Corridors? All

DCFC Connector Type(s) (for proximity): SAE or CHAdeMO

Traffic Type (for traffic volume): Average Traffic

EJ Considerations (EPA EJSCREEN Index Values)

Tracts are w/in Qualified Opportunity Zones (QOZ)? All

State % of Demographic EJ Index: From 0

State % of Ozone EJ Index: From 0

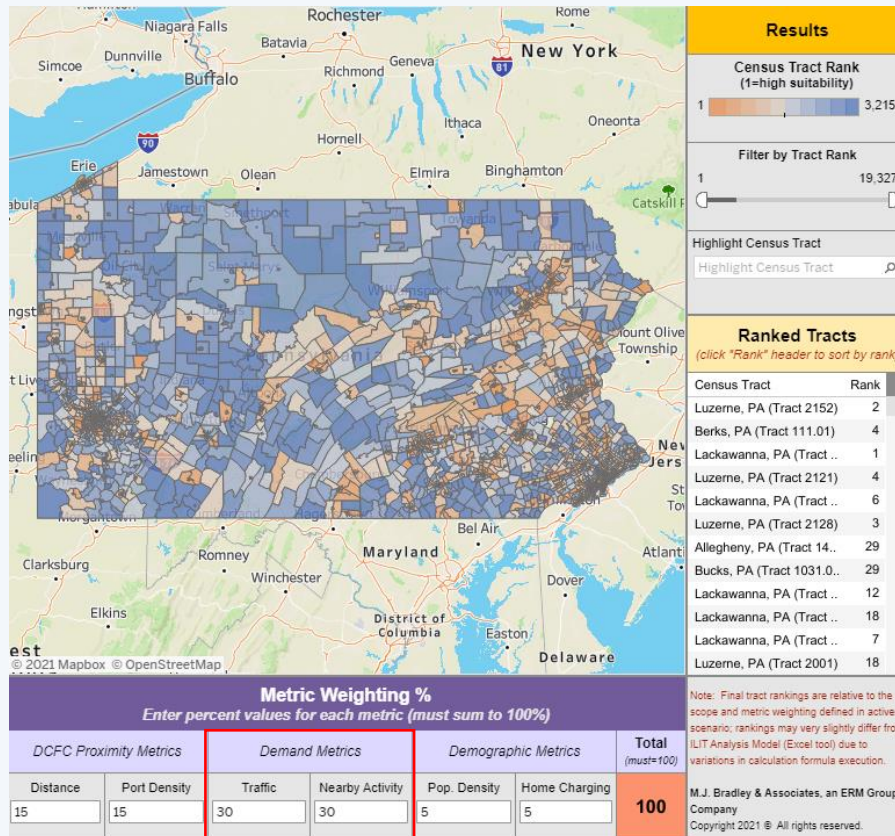
State % of NATA Respiratory Hazard EJ Index: From 0

Metric Weighting %
 Enter percent values for each metric (must sum to 100%)

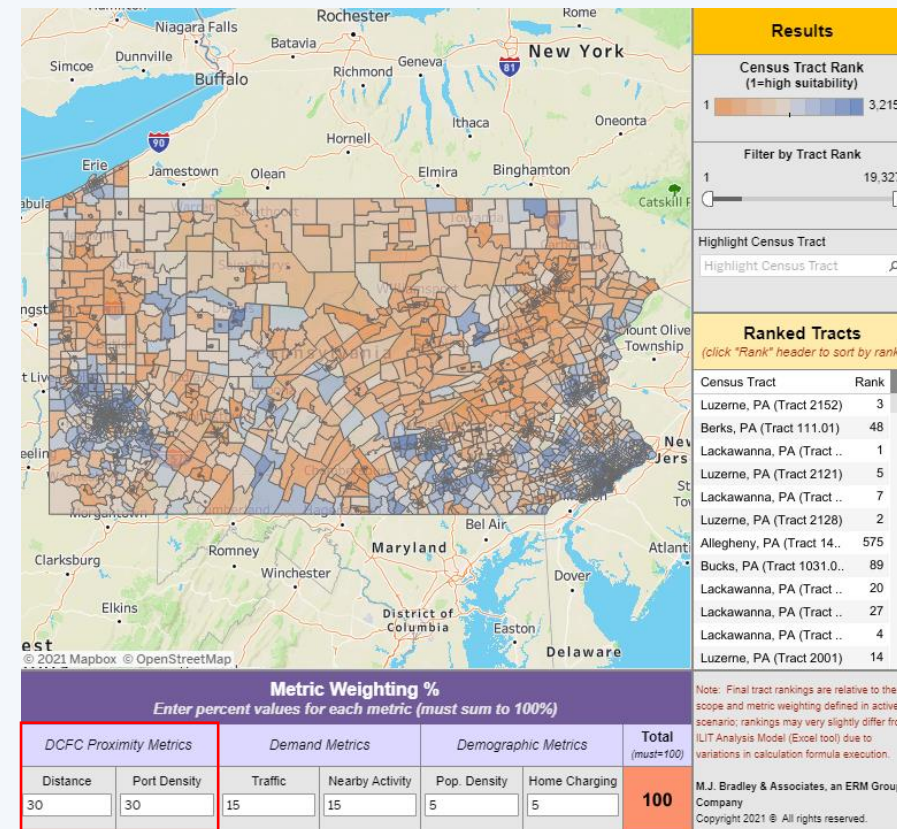
DCFC Proximity Metrics		Demand Metrics		Demographic Metrics	
Distance	Port Density	Traffic Volume	Nearby Activity	Pop. Density	Home Access
15	15	30	30	5	5

georgetownclimate.org/articles/regional-ev-charging-ilit.html

Toolkit Enables Custom Analysis Based on State and Local Priorities



Through Traffic weighting highlights areas with high traffic volume and commercial activity



Fill Gaps weighting highlights areas without significant levels of existing charging infrastructure

Expansion to National Analysis: 'E-DRIVE'

Welcome to E-DRIVE | E-DRIVE Directions | New England | Middle Atlantic | South Atlantic | East South Central | East North Central | West South Central | West North Central | Mountain West | Pacific | Hawaii & Alaska | D >

Analysis Parameters

Select State(s): (All)

Select Metro Area(s): (All)

Select County(ies): (All)

Proximity to Interstates or Highways: (All)

DCFC Plug Types Considered: All (SAE, CHAdeMO, & Tesla)

Equity Considerations

Tracts w/in Opportunity Zones (QOZ)? (All)

EPA EJSCREEN EJ Index Percentiles

State % of Demographic Index: 0 to 100

State % of Ozone Index: 0 to 100

State % of NATA Resp. Hazard Index: 0 to 100

Results

Census Tract Rank (1=high suitability)

1 to 11,701

Filter by Tract Rank: 1 to 11,701

Highlight Census Tract: Highlight Census Tract

Ranked Tracts

(click "Rank" and select "Sort Census Tracts ascending..." to sort by rank)

Census Tract	Rank
Rock, WI (Tract 7)	1
Montgomery, OH (Tr...	2
Montgomery, OH (Tr...	3
Montgomery, OH (Tr...	3
Rock, WI (Tract 13.0...	5
Fond du Lac, WI (Tr...	5
Montgomery, OH (Tr...	7
Vanderburgh, IN (Tr...	8
Montgomery, OH (Tr...	9
Vanderburgh, IN (Tr...	10
Montgomery, OH (Tr...	11
Montgomery, OH (Tr...	11
Montgomery, OH (Tr...	11
Montgomery, OH (Tr...	11

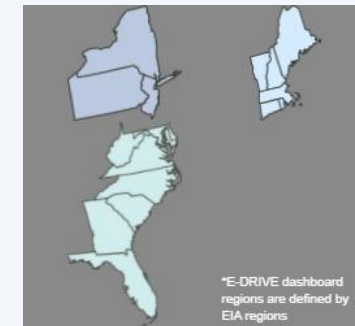
Note: Final tract rankings are relative and specific to the geographic scope, parameters, and metric weighting defined in the active scenario only.

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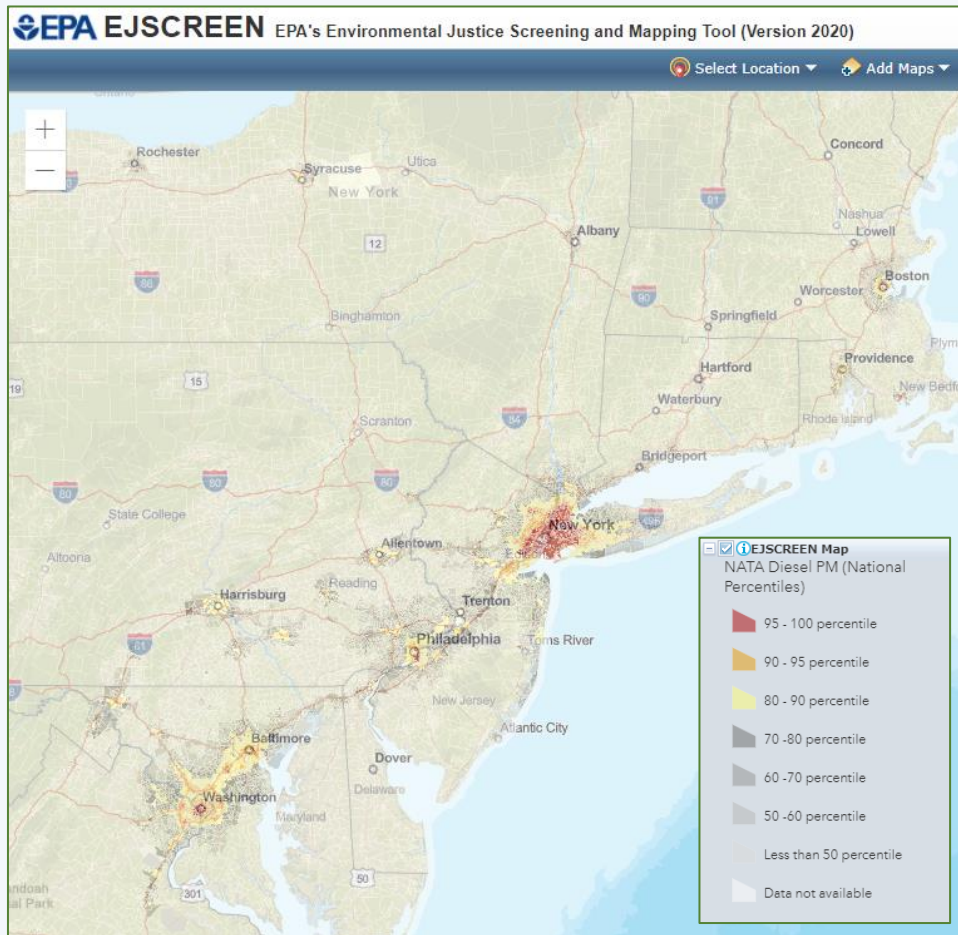
Metric Weighting

Enter values to define the relative weight or importance of each metric (must sum to 100)


DCFC Proximity Metrics		Demand Metrics		Demographic Metrics		Total (must=100)
Distance	Port Density	Traffic Volume	Nearby Activity	Pop. Density	Home Access	
15	15	30	30	5	5	100



Opportunities for Updates to Toolkit to Support Equitable Planning



US EPA EJSCREEN, NATA Diesel PM (National Percentiles)



BRIEFING ROOM

Executive Order on Tackling the Climate Crisis at Home and Abroad

JANUARY 27, 2021 • PRESIDENTIAL ACTIONS

The United States and the world face a profound climate crisis. We have a narrow moment to pursue action at home and abroad in order to avoid the most catastrophic impacts of that crisis and to seize the opportunity that tackling climate change presents. Domestic action must go hand in hand with United States international leadership, aimed at significantly enhancing global action. Together, we must listen to science and meet the moment.

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered as follows:

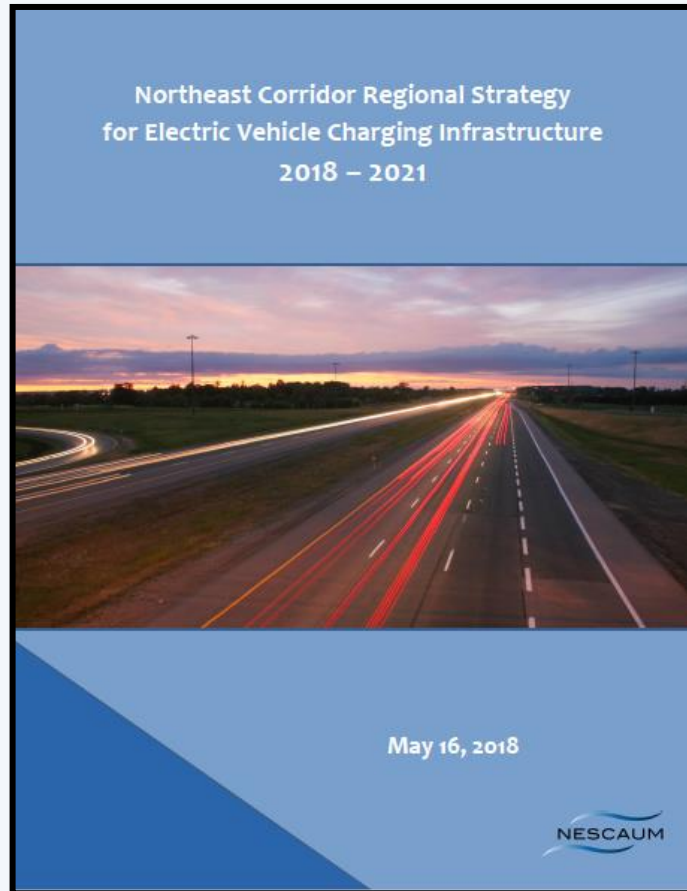
PART I – PUTTING THE CLIMATE CRISIS AT THE CENTER OF UNITED STATES FOREIGN POLICY AND NATIONAL SECURITY

Section 101. Policy. United States international engagement to address climate change – which has become a climate crisis – is more necessary and urgent than ever. The scientific community has made clear that the scale and speed of necessary action is greater than previously believed. There is little time left to avoid setting the world on a dangerous, potentially catastrophic, climate trajectory. Responding to the climate crisis will require both significant short-term global reductions in greenhouse gas emissions and net-zero global emissions by mid-century or before.

It is the policy of my Administration that climate considerations shall be an essential element of United States foreign policy and national security. The United States will work with other countries and partners, both bilaterally and multilaterally, to put the world on a sustainable climate pathway. The United States will also move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifest and will continue to intensify according to current trajectories.

Biden Administration's Executive Order 14008 directing development of a Climate and Economic Justice Screening Tool

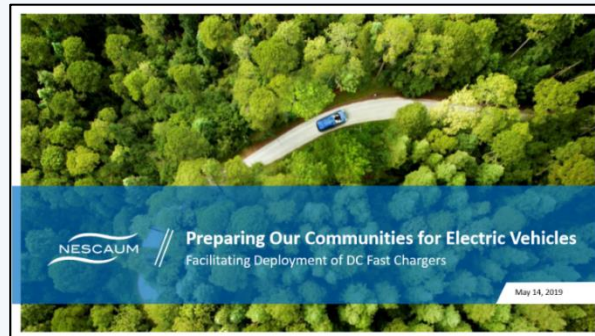
NESCAUM & Northeast Corridor Steering Committee



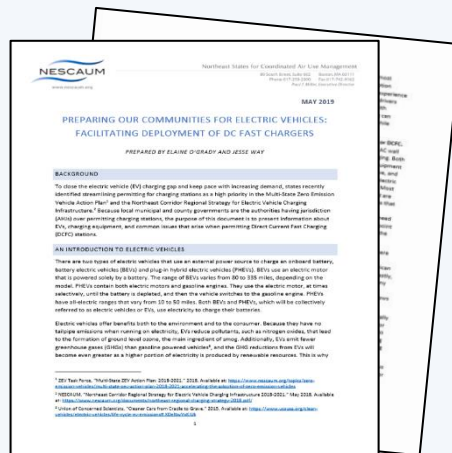
Northeast Regional Strategy for EV Charging Infrastructure

- Pricing Transparency
- Uptime
- Future Proofing
- Interoperability
- Data Collection
- Permit Streamlining
- Signage
- Building Codes
- Rate Design
- LMI Communities
- ADA Compliance

NESCAUM & Northeast Corridor Steering Committee



- Model State Grant and Procurement Contract Provisions for Public EV Charging (2019)
- Permit Streamlining: Preparing Our Communities for Electric Vehicles: Facilitating Deployment of DC Fast Chargers (2019)



- EV Charging Interoperability Recommendations for State Policy Makers (2020)

Upcoming Opportunities for Regional Corridor Planning

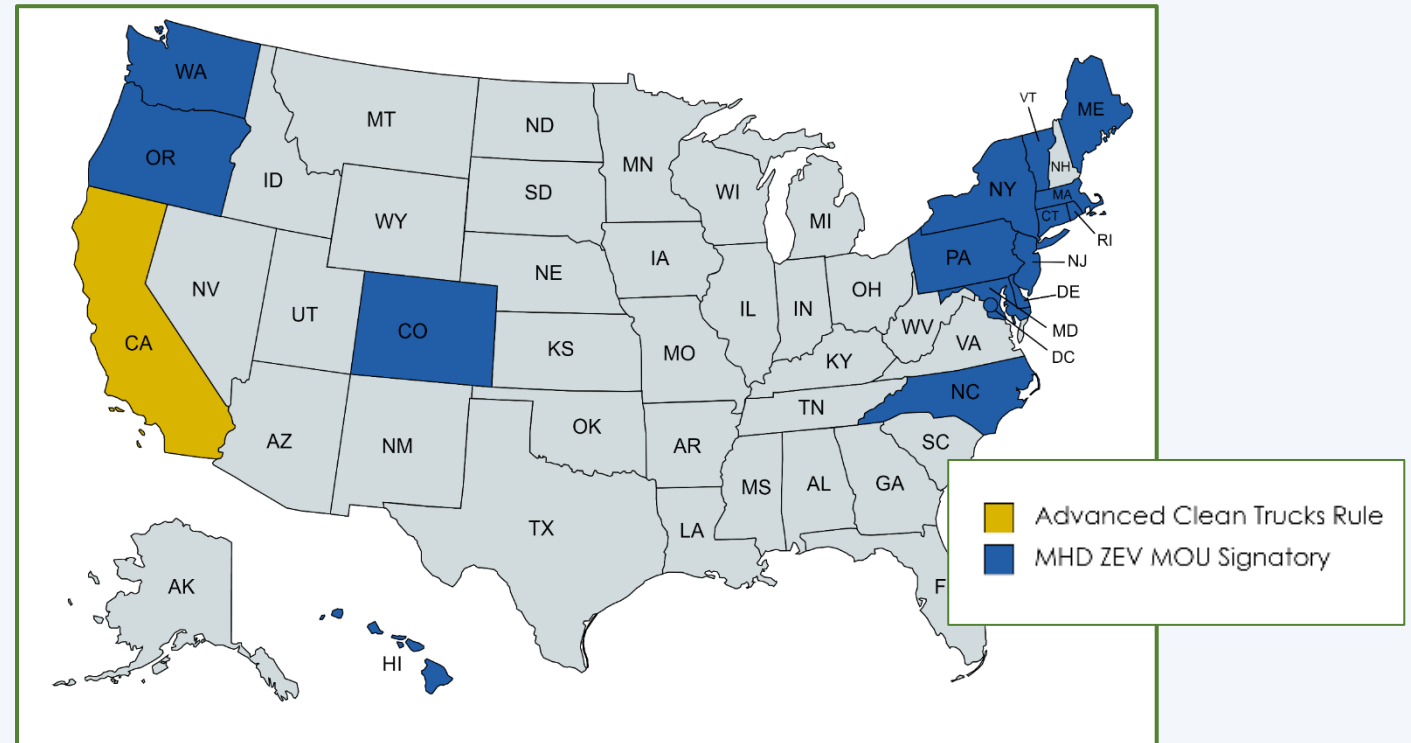
- Coordinating state-wide and corridor-specific planning efforts
- Engagement with federal agencies
- Implementation of potential new federal funding
- Alternative Fuel Corridors program
- Looking ahead to M/HDV infrastructure



Image: FHWA Alternative Fuel Corridors: Electric Vehicles, Rounds 1-5
www.fhwa.dot.gov/environment/alternative_fuel_corridors/maps/

Multi-state Coordination on ZEV Trucks and Buses & Charging Infrastructure

- Advanced Clean Trucks Rule
- Multi-state MHD ZEV MOU
- State incentive programs
- Utility regulatory proceedings and make-ready investments



Regional and Multi-state Planning for Electric Truck Charging Infrastructure



- Local, state, and federal coordination
- Opportunity to build on existing collaborations and partnerships
- Key questions around public charging infrastructure needs to support early deployment

West Coast
Clean Transit
Corridor Initiative



Photo by Dennis Schroeder, NREL

<https://westcoastcleantransit.com/>

Thank you!

For more information,
please visit: georgetownclimate.org

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Explore the Regional EV Charging ILIT

[georgetownclimate.org/articles/
regional-ev-charging-ilit.html](http://georgetownclimate.org/articles/regional-ev-charging-ilit.html)

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