Infrastructure Investments: Paving the Way for Electric Vehicles

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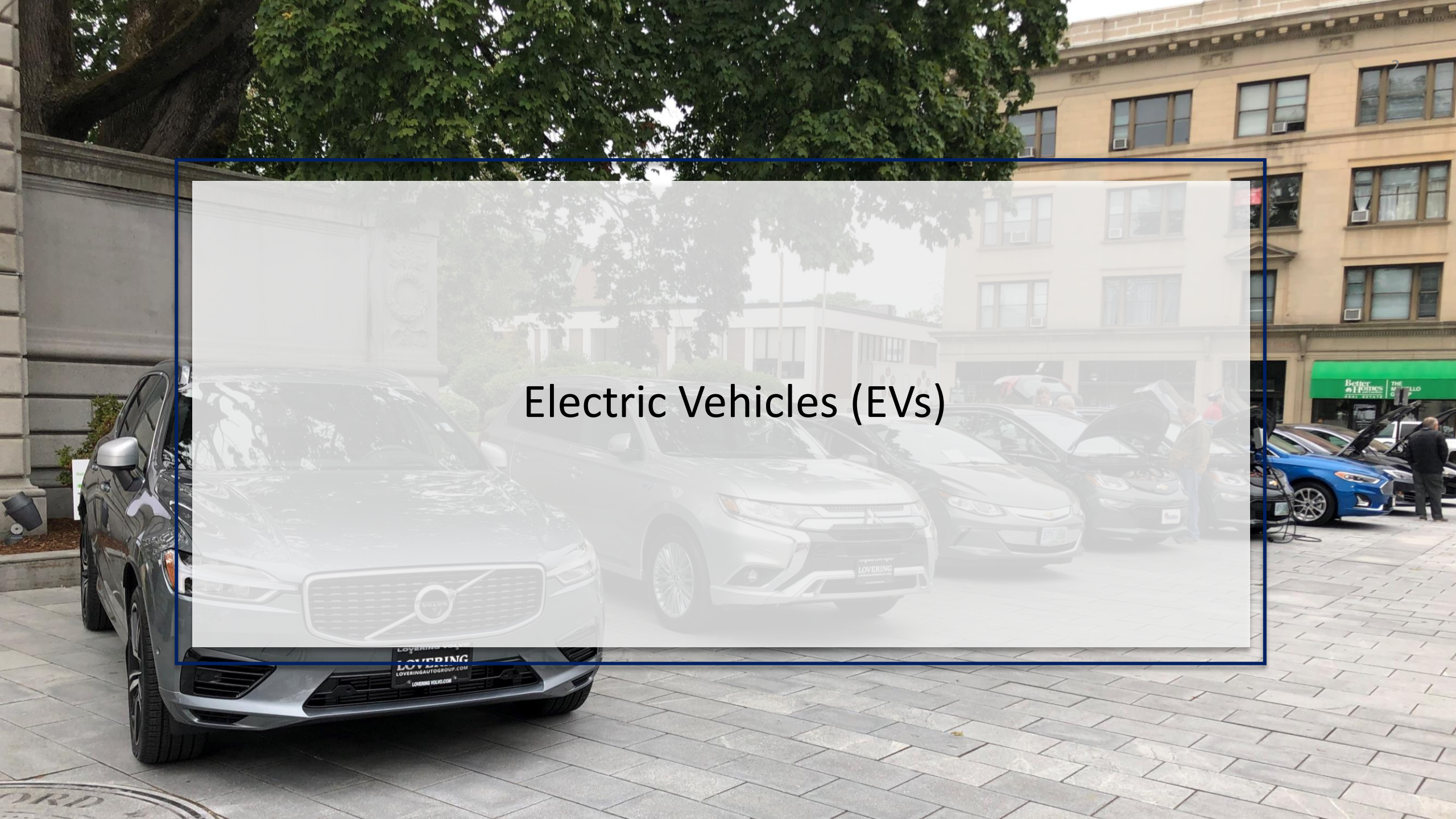


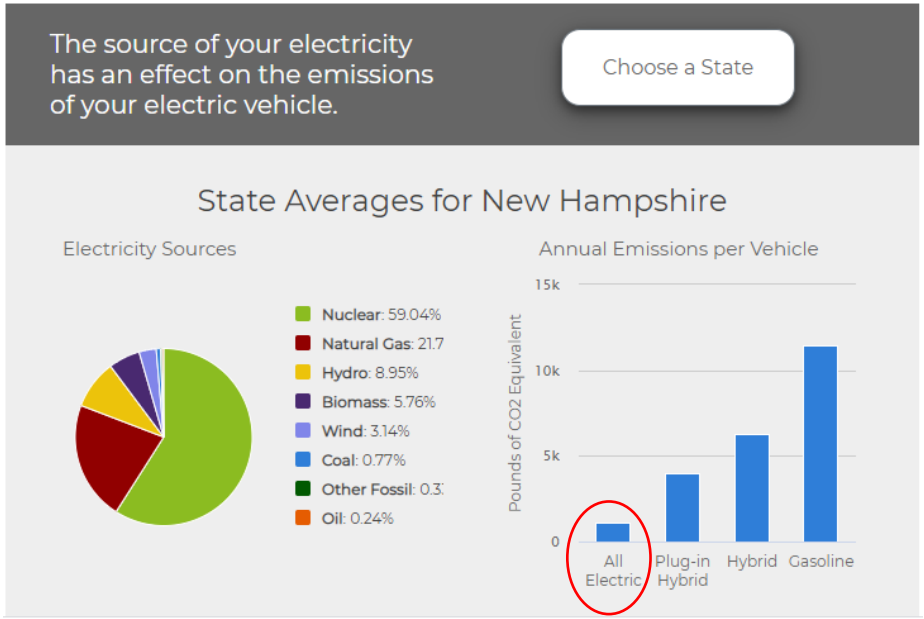
Electric Vehicles (EVs)

Types of Electric Vehicles (EVs)

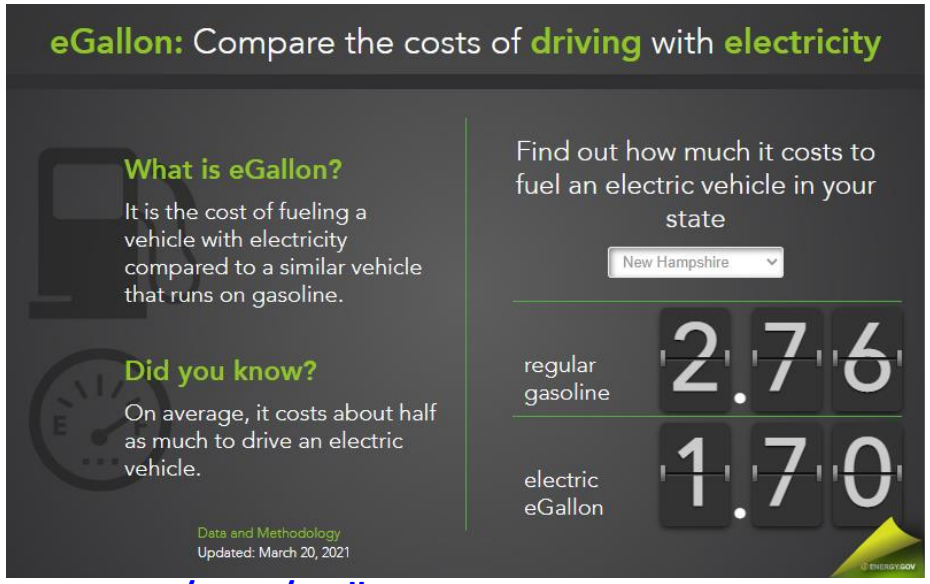
Battery Electric Vehicles (BEVs) powered solely by an electric battery

Plug-in Hybrid Electric Vehicles (PHEVs) powered by a combination of an electric motor and a gasoline engine

Both BEVs and PHEVs are considered Plug-in Electric Vehicles (PEVs) and require electricity to charge (or “fuel”) the electric battery.



afdc.energy.gov/vehicles/electric_emissions.html



energy.gov/maps/egallon

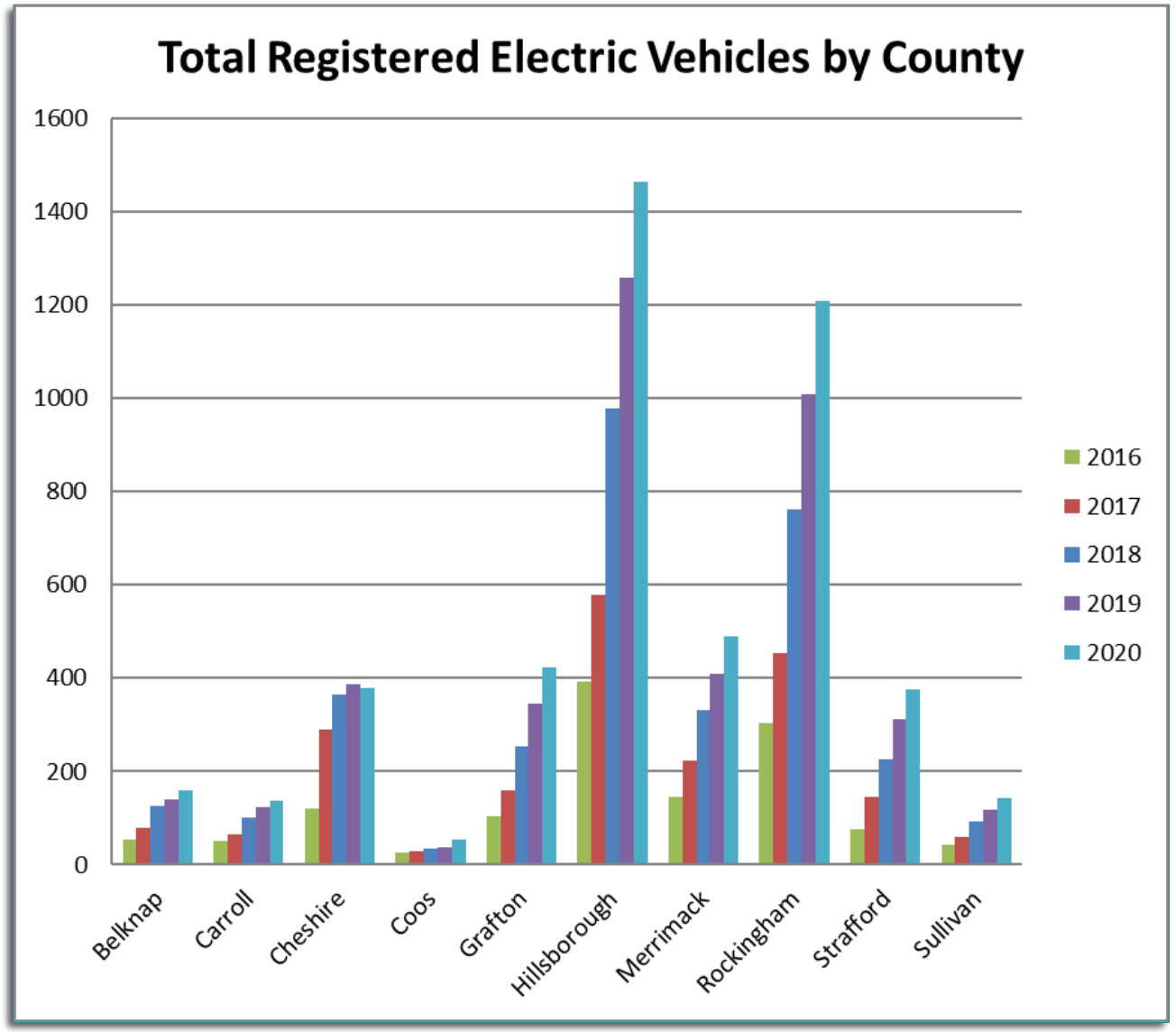
Benefits of EVs

Environmental Benefits

- Reduced emissions of NOx, greenhouse gases, and other pollutants
- Key strategy for integrating renewables into transportation
- EVs are quieter than gasoline-powered vehicles

Consumer Benefits

- EVs are fun to drive
- Cheaper to fuel and maintain
- Convenience of charging overnight at home


Total Registered Electric Vehicles by County
1600
1400
1200
1000
800
600
400
200
0
Belknap
Carroll
Cheshire
Coos
Grafton
Hillsborough
Merrimack
Rockingham
Strafford
Sullivan
2016
2017
2018
2019
2020

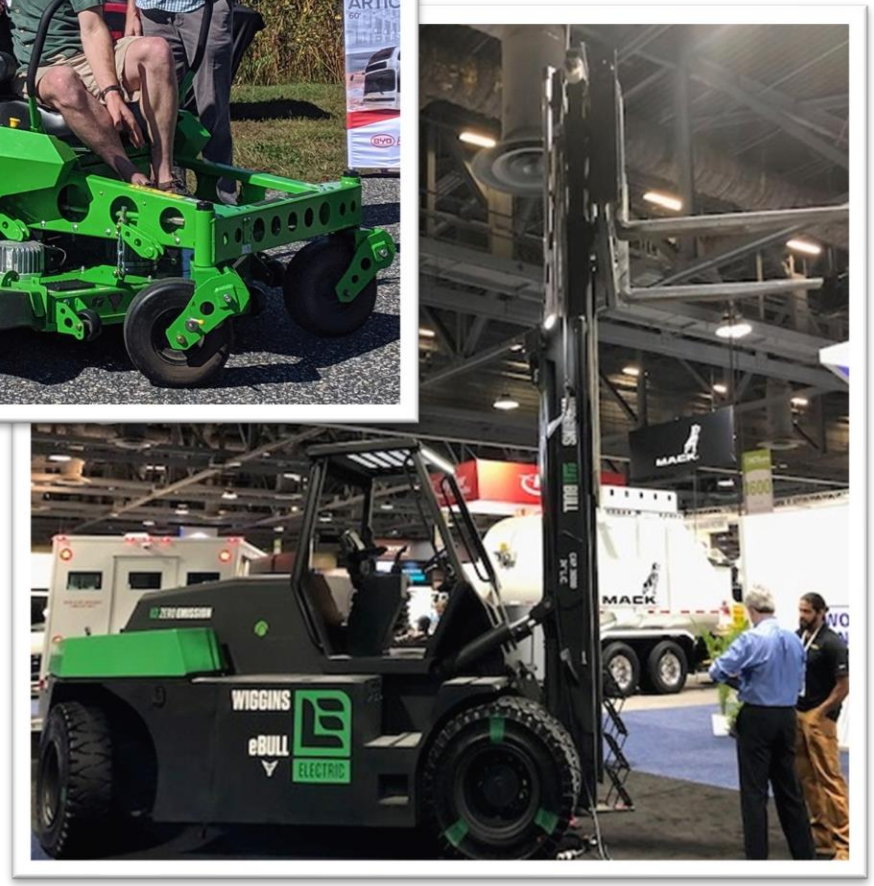
Mainstream Automakers are investing in electrification

Today, there are over 40 different models of EVs available in the Northeast alone!

https://driveelectricus.com/explore-electric-cars/?

The Market is Growing

Electric Commercial Equipment



Heavy-Duty Electric

EVSE: Charging Infrastructure

Types of Charging

Level 1

2 to 5 miles of range per hour of charging (full charge in 11-20 hrs)

Standard 120v AC Wall Outlet

1.4 kW – 2.4 kW

Level 1 Charging - Standard House Outlet

Level 2 (J1772)

10 to 25 miles of range per hour of charging (full charge in 8 hrs)

Requires 240v outlet and dedicated 40 amp circuit – the same kind used by a clothes drier or stove

3 kW to 19 kW (Avg 9.6 kW)

ChargePoint/Coulomb Level 2 Charging Station

DCFC

60 to 80 miles of range per 20 minutes of charging*

Generally require three-phase 480v AC electric circuit

Needs to be mounted on an equipment pad

50 kW – 150 kW – 350 kW

Blink DC Fast Charge Station
photo by ECOtality

DC Fast Chargers

DCFCs range from 50 to 350 kilowatts

There are three different plug types that are used by different vehicle manufacturers:


SAE Combined Charging System (e.g., BMW, GM, VW)


CHAdeMO (e.g., Nissan, Mitsubishi)

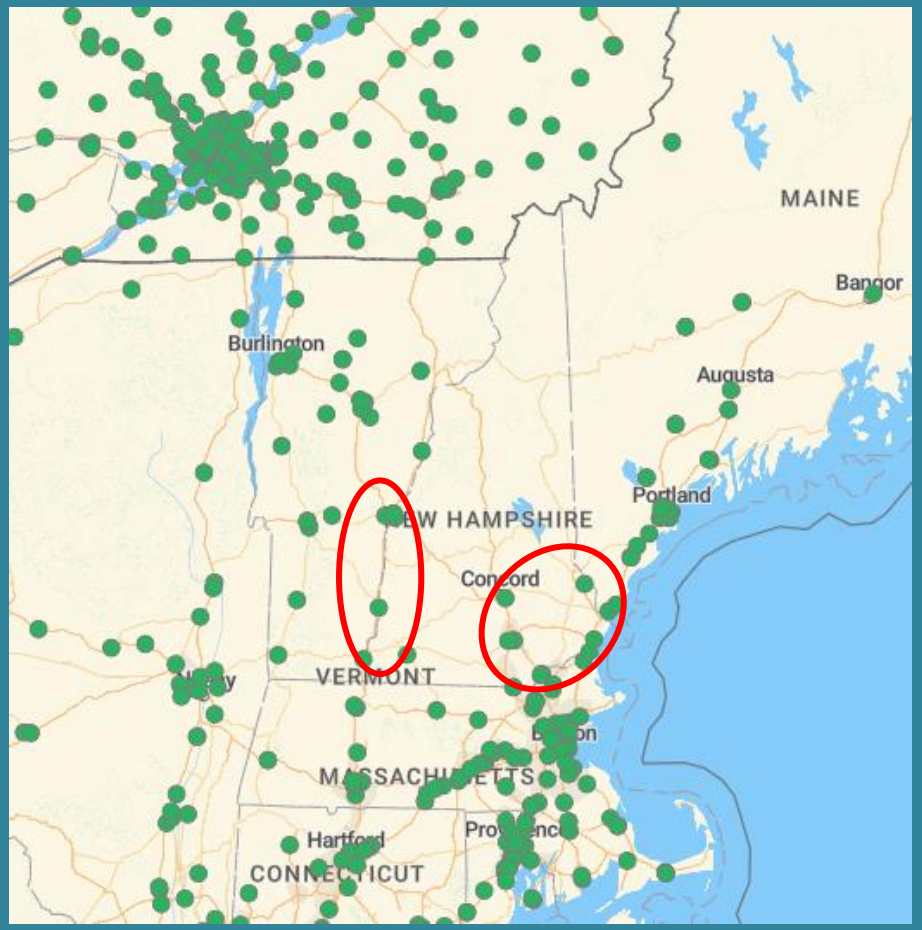

Tesla (used exclusively by Tesla)

Most new non-Tesla chargers come equipped with both SAE CCS and CHAdeMO plugs.

Learn more ➡ USDOE Resource EV Charger Selection Guide: **https://afdc.energy.gov/files/u/publication/EV_Charger_Selection_Guide_2018-01-112.pdf**

*__Note__: Most existing DCFC stations are 50kW and 150 kW, however, new 350kW DCFC are capable of delivering 200 miles of range in 10 minutes.

DCFC Infrastructure in NH



Current data as of 02/25/2022

Source: https://afdc.energy.gov/stations/#/find/nearest

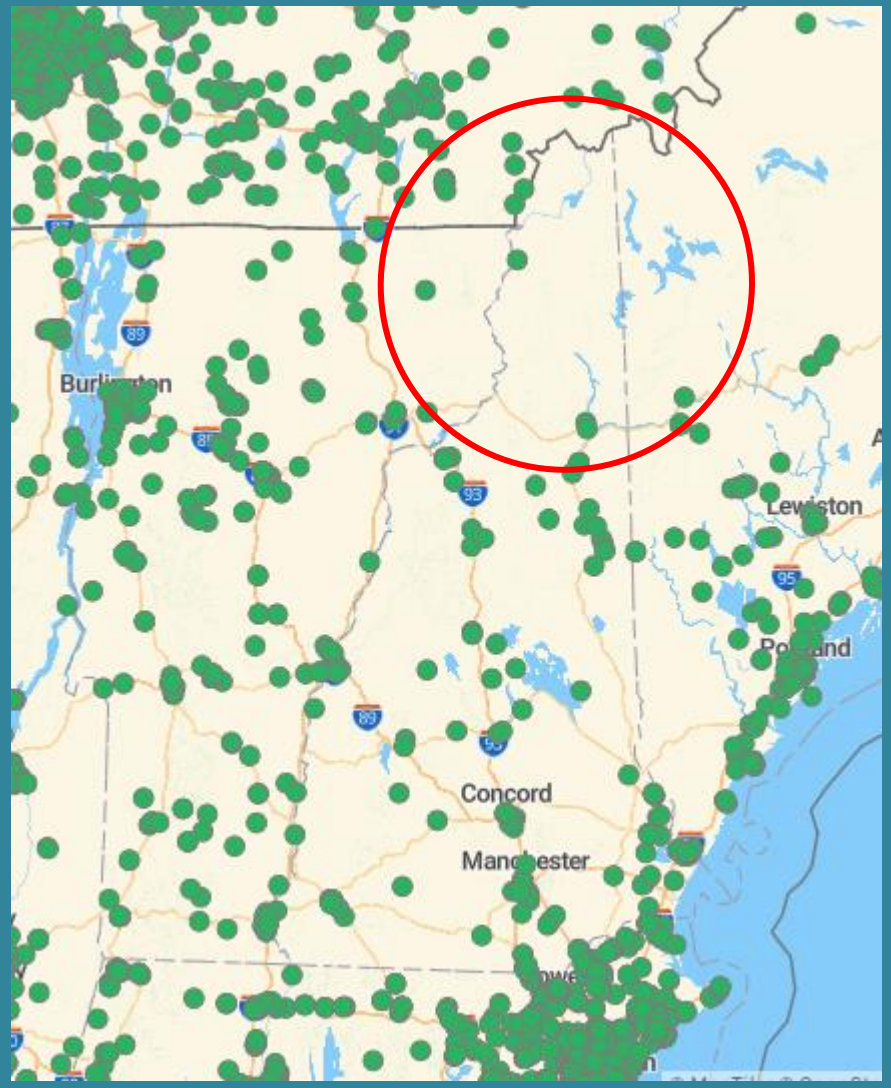
DCFC delivers the fastest charge for EV drivers, which:

- facilitates long distance travel,
- provides an alternative to home charging, and
- allows drivers to "top off"

There are currently **15 universal DCFC locations** (25 including Tesla) in New Hampshire, and over 6,000 universal DCFC locations in the US, with billions of dollars of planned investment.

For reference, DCFC infrastructure in neighboring states:

- Vermont – 32 locations
- Maine – 33 locations
- Massachusetts – 92 locations



Current data as of 03/31/2022

Source: https://afdc.energy.gov/stations/#/find/nearest

Level 2 EVSE in NH

There are currently **122 Level 2 charging locations in NH**.

For reference, charging infrastructure in neighboring states:

- Vermont – 263 locations
- Maine – 237 locations
- Massachusetts – 1,998 locations

Siting EVSE

Public & Workplace Charging

Mid-High Power AC (Level 2)	DC Fast Charging (DCFC)
• 208/240 Volts AC, up to 80 Amps • 10-20 miles of range per hour of charge • Typical EVC cost: $500 - $8,000 • Typical installation cost: $600 - $13,000 per charger	• 200 - 500 VDC, up to 350 A • 60-80 miles of range per hour of charge • Typical EVC cost: $15,000 - $40,000 • Typical installation cost: $8,000 - $50,000 per charger

Source: Electric Vehicle Charger Selection Guide
https://afdc.energy.gov/files/u/publication/EV_Charger_Selection_Guide_2018-01-112.pdf

Municipal Fleets

STATE OF NEW HAMPSHIRE 2022 MODEL YEAR VEHICLE INDEX

DESCRIPTION	CONTRACTOR	MANUFACTURER	VEHICLE MODEL	PRICE	Total Cost of Ownership (TCO): Assumptions of 10 year life w/15K annual miles	MPG or MPGe HWY	GVWR (Approx.)	Lbs CO2/mi
2011-01-SEDAN-LARGE								
#5 Hybrid	HUDSON	TOYOTA	AVALON HYBRID XLE	$ 31,957.00	$ 48,680.00	44	3610	0.552
2011-02-SEDAN-MIDSIZE								
#3 Hybrid	HUDSON	TOYOTA	COROLLA-HYBRID-LE	$ 21,960.00	$ 44,359.00	52	2850	0.456
#4 Electric	HUDSON	NISSAN	LEAF-S	$ 24,992.00	$ 42,651.00	99	4508	0.215
2011-04-SEDAN-SUBCOMPACT								
#4 Electric	MCMULKIN	CHEVROLET	BOLT EV	$ 28,395.00	$ 45,352.00	109	3680	0.193
2011-08-VAN-MINI								
#3 Hybrid	HUDSON	TOYOTA	SIENNA LE-FWD	$ 31,980.00	$ 50,351.00	36	6170	0.677
2011-09-VAN-MIDSIZE								
#1 6-Cylinder, 2WD	WHITESIDE	CHEVROLET	EXPRESS 2500	$ 39,000.00	N/A	16	8600	
#2 6-Cylinder, AWD	WHITESIDE	CHEVROLET	EXPRESS 2500 QUIGLEY 4WD	$ 54,000.00	N/A	16	8600	
#3 8-Cylinder, 2WD	WHITESIDE	CHEVROLET	EXPRESS 2500	$ 40,000.00	N/A	16	8600	
#4 8-Cylinder, AWD	WHITESIDE	CHEVROLET	EXPRESS 2500 QUIGLEY 4WD	$ 55,000.00	N/A	16	8600	
2011-10-VAN-LARGE 3/4 TON								
#1 6-Cylinder, 2WD	WHITESIDE	CHEVROLET	EXPRESS 2500	$ 39,000.00	N/A	16	8600	
#2 8-10 Cyl, 2WD	WHITESIDE	CHEVROLET	EXPRESS 2500	$ 40,000.00	N/A	16	8600	
#3 8-10 Cyl, AWD	WHITESIDE	CHEVROLET	EXPRESS 2500 QUIGLEY 4WD	$ 55,000.00	N/A	16	8600	
2011-11-VAN-LARGE ONE TON								
#1 6-Cylinder, 2WD	WHITESIDE	CHEVROLET	EXPRESS 3500	$ 41,500.00	N/A	14	9600	
#2 8-10 Cyl, 2WD	WHITESIDE	CHEVROLET	EXPRESS 3500	$ 42,500.00	N/A	14	9600	
2011-12-SPORT UTILITY/CROSSOVER-SUBCOMPACT								
#1 3-4 Cyl, 2WD	MCMULKIN	CHEVROLET	TRAILBLAZER	$ 19,490.00	$ 48,078.00	33	4189	0.867
#2 3-4 Cyl, AWD	MCMULKIN	CHEVROLET	TRAILBLAZER	$ 21,490.00	$ 49,649.00	33	4189	0.782
#4 Electric	MCMULKIN	CHEVROLET	BOLT EUV	$ 30,395.00	$ 45,505.00	104	3680	0.202

Parking Lots (Park & Ride Locations) and Garages

School Districts & Transit Fleets

EPA: CLEAN SCHOOL BUS PROGRAM

- BIL: $5 billion over 5 years (FY 2022-2026)
- Replace existing school buses with clean and zero-emission school buses
- First cycle: rebate program (lottery selection) – *opening as early as April 2022*
- Eligible recipients include:
  - State and local government entities that provide bus service to public schools, or that purchase school buses for public schools
  - Certain contractors – *this definition may change, further guidance forthcoming*
  - Nonprofit school transportation associations

Sign up for the email listserv:

https://lp.constantcontactpages.com/su/dgrhRed/cleanschoolbus

Become an EV Hotspot!

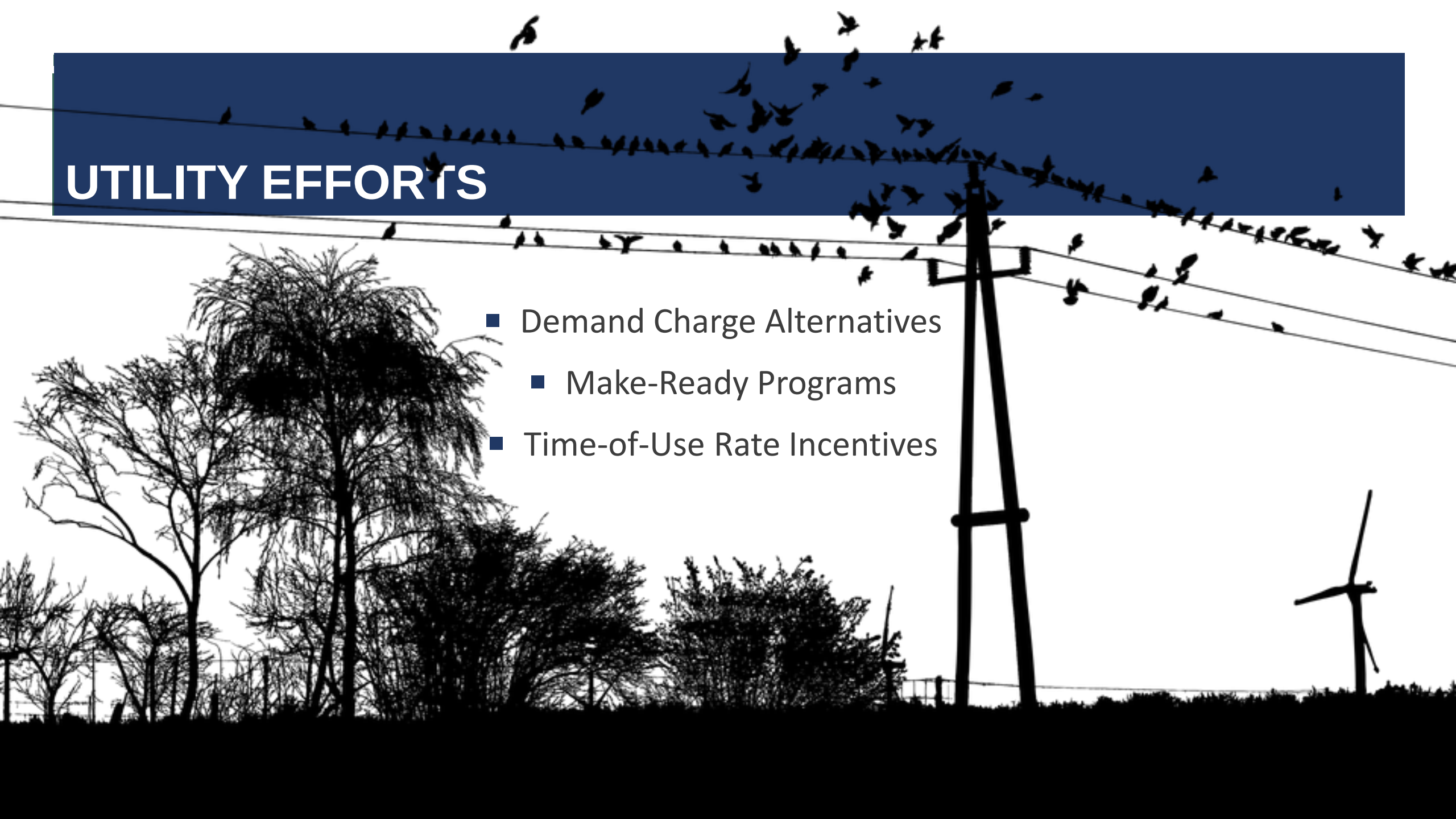
VENDOR & UTILITY CONSULTATION & ASSESSMENT

When considering an EV Charging Station project, the place to start is with the EV charging station provider/installer who can advise on hardware/software options and potential electric load/capacity, then contact the utility for further evaluation of the site (contact your account representative listed on your electricity bill).

SITE INFORMATION			
SITE NAME:			
ADDRESS:			
CITY/TOWN:	STATE: NH	ZIP:	
SITE OWNER NAME:	SITE OWNER PHONE:		
FACILITY MANAGER NAME:	FACILITY MANAGER PHONE:		
CHARGER MAKE:	MODEL:	QUANTITY:	# OF PORTS:
TOTAL kVA OF CAPACITY REQUESTED:	REQUESTED SERVICE SIZE AND VOLTAGE:		
ADDITIONAL COMMENTS (include any additional information that may help the utility in their assessment):			

SITE INFORMATION	
Is it anticipated that substation transformer upgrades will be needed due to this charging station? ☐ Yes ☐ No	
Is it anticipated that circuit position upgrades will be needed due to this charging station? ☐ Yes ☐ No	
Will a voltage conversion be required due to this charging station? ☐ Yes ☐ No	Anticipated conversion date: MM/DD/YYYY
Will reconductoring be required due to this charging station? ☐ Yes ☐ No	Anticipated reconductoring distance:
Anticipated distance to three-phase service:	
Anticipated cost of upgrades to serve the facility: ☐ Less than $20,000 ☐ $20,000-$50,000 ☐ $50,000-$100,000 ☐ $100,000-$250,000 ☐ $250,000-$500,000 ☐ $500,000-$1 million ☐ More than $1 million	
Description of primary work (e.g., trench length and conduit size) *Describe scope of primary voltage construction work that customer is responsible for to serve the site. Including but not limed to, length of trenching, conduit requirements, equipment pad requirements, etc. All secondary construction work is the responsibility of the customer*:	

UTILITY EFFORTS



- Demand Charge Alternatives
  - Make-Ready Programs
- Time-of-Use Rate Incentives

Volkswagen Trust Funding

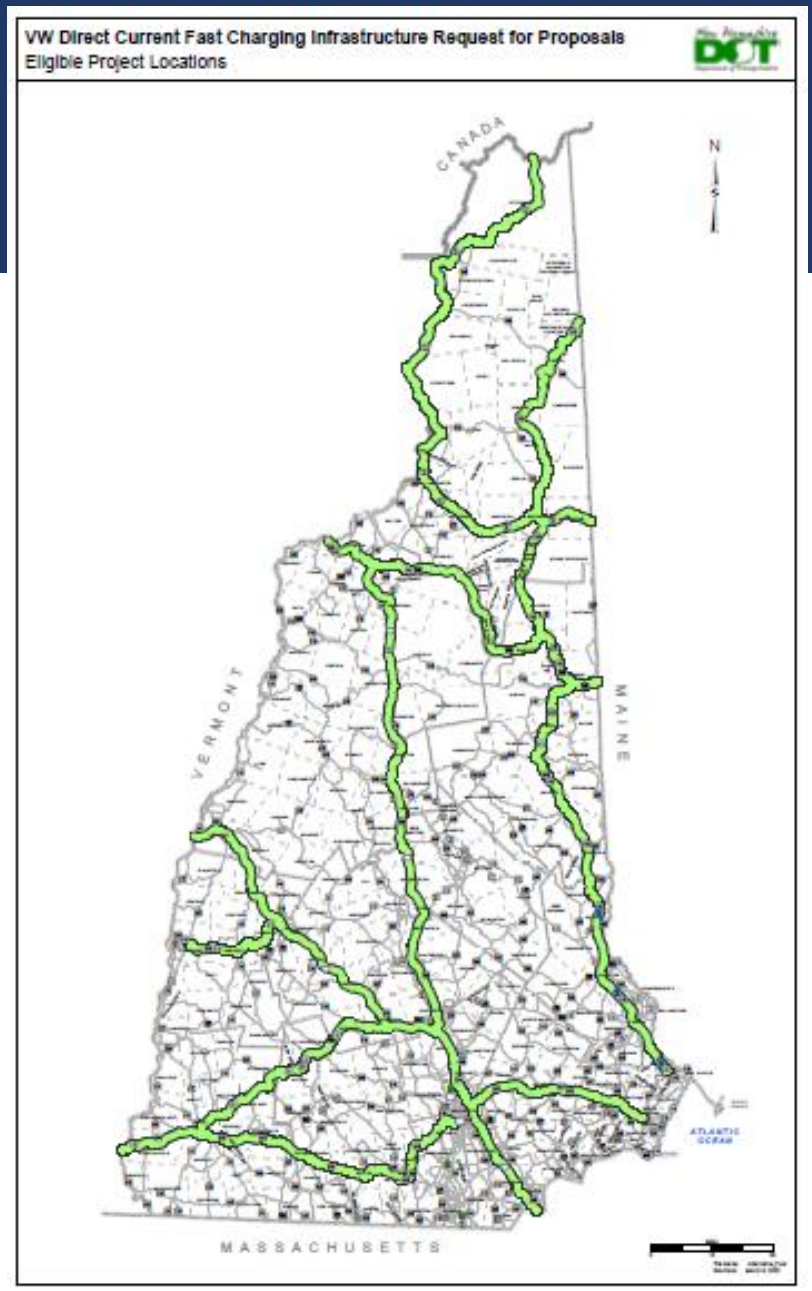
VOLKSWAGEN TRUST FUNDS: NH MITIGATION PLAN

- Approximately $31 million – 15% (**~$4.6 million**) dedicated to EVSE
- NHDES is Lead Agency – Released an EVSE Funding Opportunity:
  - September 2021– DCFC Request for Proposals (RFP) for **~$3 million** – *Closed 02/25/22*
    - Was open to any party with knowledge and expertise necessary to meet RFP requirements
    - Applicant need not own property or EVSE itself (e.g., EVSE & renewable energy Cos., mom-&-pop stores)
    - Contracting for installation plus operation and maintenance for five years
    - Eligible Costs: up to 80%, or up to 100% for EVSE located on state or local gov-owned property.
      - NHDES received 30 application packets containing a total of 53 proposed EVSE deployment options … **43 of the proposed options, representing 35 sites across 25 NH towns and cities, met the minimum qualifications of the RFP**. These proposals are being formally evaluated by a Scoring Committee comprised of reps from NHDOE, DOT & DES – *they are confidential until contracts are awarded*
- For Reference: NHDES Volkswagen Mitigation Trust Webpage:

  https://www.des.nh.gov/business-and-community/loans-and-grants/volkswagen-mitigation-trust

VW TRUST FUNDS: DCFC RFP

- Publicly Accessible Sites:
  - ≥ 2 DCFC + L2 – networked!
  - ≥ 50 kW DCFC
  - Connectors: CCS & CHAdeMO
- 9 Travel Corridors
  - US 3
  - US 2
  - Route 16
  - US 302
  - I-93
  - I-89
  - Route 11 / 103
  - Route 9 / 202
  - Route 101



Bipartisan Infrastructure Law (BIL)
Formerly IIJA

BIL INVESTMENT: EV INFRASTRUCTURE PLAN

- **Target = By 2030, US EV sales represent 50% of new cars sold**
- EV Charging Action Plan – Fact Sheet: https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/13/fact-sheet-the-biden-harris-electric-vehicle-charging-action-plan/
- National EV charging network – Guidance & Standards, Corridors & "CARE"
- Joint Office: federal DOT & DOE - https://driveelectric.gov/
- EV Batteries:
  - Increase domestic manufacturing and environmentally responsible sourcing
  - Advance re-use and recycling applications
  - Deploy energy storage (grid-connected battery storage) projects at federal sites

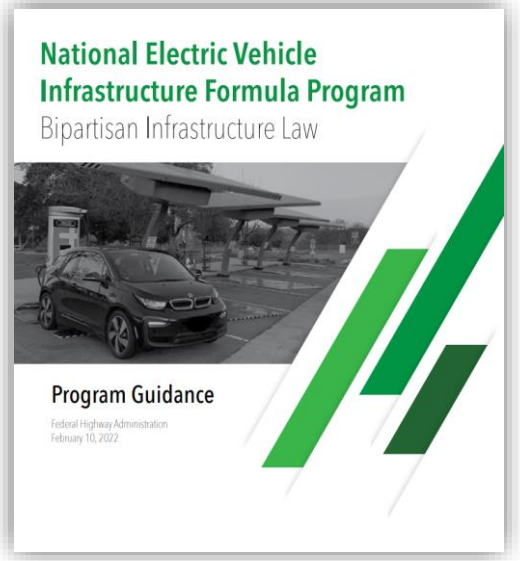
National Electric Vehicle Infrastructure (NEVI)
A program funded by the BIL

BIL: EV INFRASTRUCTURE PROGRAMS

- **National Goal: 500,000 EV chargers by 2030 (currently 100,000 +)**
- BIL invests a total of $7.5 billion
  - $5 billion NEVI formula funding
    - $1 billion per year for 5 years beginning FY 2022 (Oct 1)
      - NH 5-year formula funding = $17,271,581
        - NH Year 1 formula funding = $2,556,450
          - Cost-share: 80% federal – 20% private or state funds
  - $2.5 billion discretionary grant funding divided between corridor & community charging
    - Focus on rural charging, and access in underserved/overburdened/disadvantaged communities

NEVI: PROGRAM GUIDANCE

- https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/nominations/90d_nevi_formula_program_guidance.pdf
- Guidance includes details on:
  - State Plans
  - Project Eligibility
  - Program Administration
  - Technical Assistance



- NH DOT develops EV Infrastructure Deployment Plan – due 08/01 to Joint Office
- FHWA approves Plans by September 30, 2022 (60-day review period)

BIL: NATIONAL ELECTRIC VEHICLE INFRASTRUCTURE FORMULA PROGRAM (NEVI)

- Funding priorities for installation, operation, and maintenance of EV charging infrastructure:
  - On FHWA designated alternative fuel corridors
    - Interstate Highway System
  - Publicly accessible – rural and disadvantaged communities
  - DCFC every 50 miles and within 1 travel mile from the highway
    - ≥ four 150 kW DC output fast chargers with CCS ports capable of simultaneously charging four EVs

Once national network is fully built out, funds can be used on any public road or other publicly accessible location – flexibility to determine type and location

STATE EV INFRASTRUCTURE DEPLOYMENT PLAN

State Plan Template Released 03/02/22

- Describe state agency coordination in development of plan
- Discuss how the public was engaged in plan development
- Articulate the plan's vision and goals on a 5-year horizon
- Analyze existing and future risks/challenges to deployment
- Present a deployment strategy for installations on designated corridors (prioritizing Interstate Highway System)
- Identify non-federal funding source
- Consider sociodemographic, geographic, and economic equity (in deployment and workforce) – e.g., Justice 40 - EPA mapping tool: https://www.epa.gov/ejscreen)
- Be updated annually

BIL: DISCRETIONARY GRANT PROGRAM

- $2.5 billion discretionary grant funding divided between corridor & community charging - *competitive program*
  - $1.25 billion – Corridor Charging Grant Program
    - Publicly accessible EVSE, H2, LPG & NG fueling infrastructure along designated AF Corridors
  - $1.25 billion – Community Charging Grant Program
    - Publicly accessible EVSE, H2, LPG & NG fueling infrastructure in communities
    - Priorities: rural areas, LMI neighborhoods, and communities with a low ratio of private parking spaces.

That's all we know right now … additional guidance anticipated later this year (likely by November 15, 2022)

WHAT WE DON'T KNOW (YET)

- Minimum standards and requirements for EV charging projects, maintenance and data collection
  - (DOT to publish May 13)
- Future NOFO: Competitive Charging and Fueling Infrastructure Program
  - ($1.25BB community and $1.25BB corridor charging grant programs)
- Details of 10% set-aside for network gap-filling grants (administered by USDOE)
- Buy America requirements (USDOT/DOE RFI closed in January)
- Full criteria for designation of 'fully built out' corridors

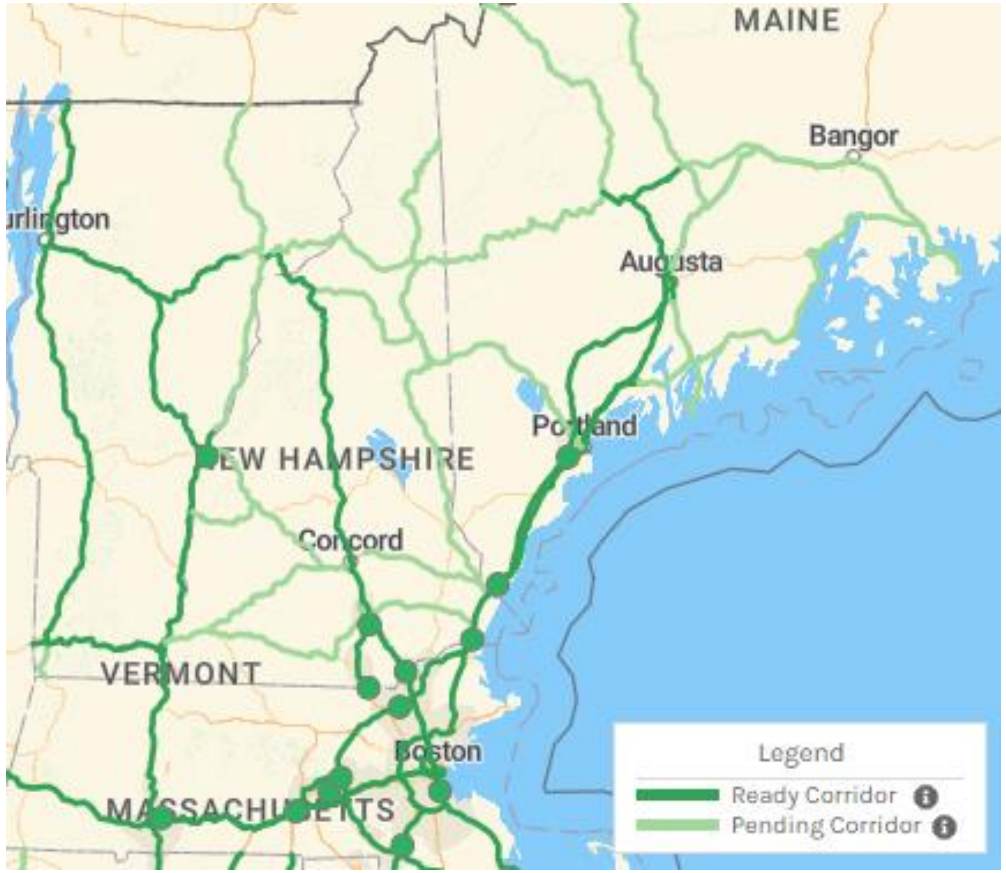
Alternative Fuel Corridor (AFC) Designations

NH's FHWA Designated EV Corridors

- I-89
- I-93
- I-95
- F.E. Everett Turnpike
- Spaulding Turnpike/NH SR-16
- US-302
- US-2
- US-4
- NH SR-9
- NH SR-11
- NH SR-12
- NH SR-101

GSCCC Newsletter Article for more details:
https://www.granitestatecleancities.nh.gov/happening/documents/news-20200910.pdf

EXISTING AFC CORRIDORS



- Stations within 1 mile of the exit, 4 CCS ports:
  - Walmart – West Lebanon
  - Simon Mall of NH – Manchester
  - Simon Pheasant Lane Mall – Nashua
  - Simon Mall at Rockingham Park – Salem
  - Walmart – Seabrook

Source: https://afdc.energy.gov/stations/#/corridors

Best Practices for Streamlining EVSE Permitting Process

Photo credit: Steve Brady

Each NH town has their own electric permitting process

As a result, the permitting process for EV Charging stations is often:

- Undefined
- Resource intensive
- Lengthy
- Variable from place to place

Standardize the permit review and inspection process

- Classify stations as an accessory use that do not trigger zoning reviews and clearly identify any exceptions.
- Provide concurrent reviews for building, electrical, etc.
- Clearly establish the grounds for denying a permit.
- Develop inspection checklists specifying what needs to be inspected and when, that the project will be inspected to ensure consistency with issued permits, documents to bring, and who should be present.

Make the permitting process transparent

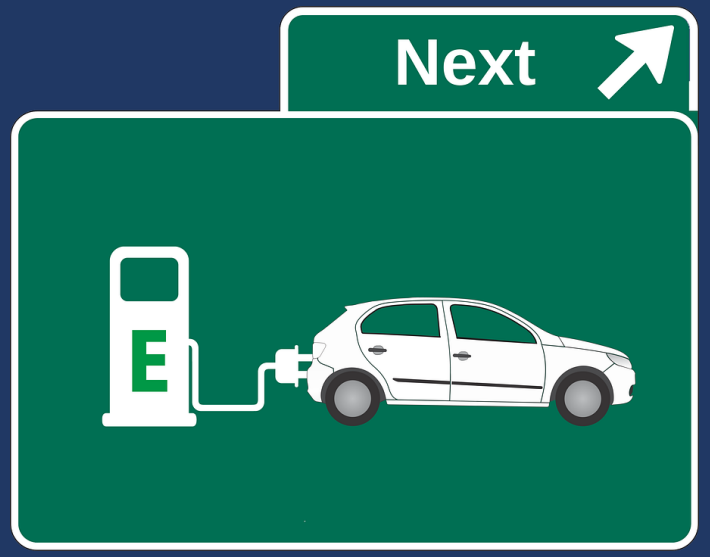
- Create facts sheets to clearly identify required application materials, where to find applications, timelines, fees, and points-of-contact.
- Feature this information prominently on website.

Offer options to submit permit applications electronically

- Provide forms, ideally fillable PDF applications that accept electronic signatures, online; or
- Provide application forms on website and allow applications to be submitted via email.

Count EV charging spaces as parking spaces

- Update ordinances to clarify that spaces for charging stations count toward minimum parking requirements.
- To incentivize the deployment of charging stations, some municipalities count EV charging spaces as more than one parking space for zoning purposes.



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www.granitestatecleancities.nh.gov

Thank you!

Questions?

RESOURCES

Guides

Electric Vehicle Charging Station Permitting Guidebook (GO-Biz):
https://businessportal.ca.gov/wp-content/uploads/2019/07/GoBIZ-EVCharging-Guidebook.pdf

Promoting Electric Vehicle Charging Station Installations: Increasing Planners' & Municipal Planning Boards' Involvement (NYSERDA):
https://static1.squarespace.com/static/53b2d171e4b058cbcb895ac5/t/5a956bac24a694ce121a5ce3/1519741891764/Revised_Planning_Board_EVSE_Implementation_FINAL.pdf

Electric Vehicle Charging Station Permitting and Inspection Best Practices: A Guide for San Diego Region Local Governments (Center for Sustainable Energy):
https://energycenter.org/sites/default/files/docs/nav/transportation/plug-in_sd/Plug-in%20SD%20Permitting%20and%20Inspection%20Report.pdf

Montclair Township Alternative Fuel Vehicle Readiness Plan (North Jersey Transportation Planning Authority):
https://www.njtpa.org/getmedia/356e2cb2-7d58-4066-8970-b23f3612f405/Montclair-AFV-Infrastructure-Readiness-Plan_FINAL_Dec17.pdf.aspx

Recommended Bylaw Updates for Electric Vehicle Charging (Chittenden County Regional Planning Council):
https://www.ccrpcvt.org/wp-content/uploads/2016/01/20140625_CCRPC_EV_zoning_model_language_clean.pdf

Model Fact Sheets

Electric Vehicle Charging Stations (Fairfax County, Virginia)
https://www.fairfaxcounty.gov/landdevelopment/sites/landdevelopment/files/assets/documents/pdf/publications/electric-vehicle-station.pdf

Websites

Alternative Fuels Data Center
https://afdc.energy.gov/fuels/electricity.html

Clean Cities Coalitions
https://cleancities.energy.gov/coalitions/

ACCESSORY USE EXAMPLES

Atlanta, GA

"**Permitted accessory uses and structures**
Uses and structures which are customarily accessory and clearly incidental to permitted principal uses and structures shall be permitted in this district. Devices for the generation of energy, such as solar panels, wind generators and similar devices, as well as electric vehicle charging stations equipped with Level 1, Level 2, and/or DC Fast Charge EVSE are allowed."

"Electric vehicle charging stations equipped with Level 1 or Level 2 are allowed as a permitted accessory use and structure in all zoning districts, and charging stations equipped with DC Fast Charging are allowed as a permitted accessory use and structure in the following zoning districts: Commercial; Industrial; SPI -11, -15, -16, -18, -20; PD-MU, -OC, and – BP; Martin Luther King, Jr. Landmark; Neighborhood Commercial; Live Work; and Mixed Residential Commercial."

Atlanta, Code of Ordinances, Part 16 (Zoning), see e.g., §16-19B.004. - Permitted accessory uses and structures.

Dover, NH

"An electric vehicle charging station is permitted outright as an accessory use to any principal use."

City of Dover Site Review Regulations §153-23 - Definitions

Montpelier, VT

"Electric vehicle charging stations may be provided within parking areas as an allowed accessory use in any zoning district."

City of Montpelier Zoning and Subdivision Regulations §3011.I(6)

Baltimore, MD

"Notwithstanding § 2-201 {"Application of Code"} of this subtitle, this Code does not apply to the following uses and structures, unless otherwise specifically provided in this Code: . . . (8) automobile charging stations, whether electric or solar."

Baltimore City Code, Zoning §2-202. Exempt utility and governmental uses.

EXPEDITED PERMIT PROCESS EXAMPLES

Otto, NY

"The permitting process for EVSE will be streamlined by:

1. Providing a single permit for EVSE's
2. Shall have a two day turn around time for permits
3. Shall eliminate reviews that do little to validate the safe and efficient operation of a proposed EVSE system. Only one initial inspection shall be required for this facility."

Town of Otto Zoning Ordinance, §6.6 Electric Vehicle Supply Equipment (EVSE).

Sacramento, CA

"A. Applicability. This section applies to applications for expedited building permits for electric vehicle charging stations pursuant to California Government Code Section 65850.7.

B. Process.

1. The building official shall adopt a checklist of all requirements for an application for an expedited building permit for electric vehicle charging stations. The checklist shall substantially conform to the checklist and standard plans contained in the most current version of the "Plug-In Electric Vehicle Infrastructure Permitting Checklist" of the "Zero-Emission Vehicles in California: Community Readiness Guidebook" published by the Governor's Office of Planning and Research.
2. If the building official determines that the application for an expedited building permit is complete and meets the requirements of the checklist, the building official shall issue the expedited building permit.
3. If the application for an expedited building permit is incomplete, the building official shall provide a written correction notice of the deficiencies and the additional information required to be eligible for expedited building permit issuance.
4. The checklist, application form, and any other documents required by the building official shall be published on the city's website.
5. An application for an expedited building permit for electric vehicle charging stations may be filed by email.
6. If the chief building official finds, based on substantial evidence, that an electric vehicle charging station could have a specific adverse impact upon the public health or safety, the city may require the applicant to apply for a conditional use permit pursuant to Title 17."

Sacramento City Code §15.08.190 Expedited building permit process for electric vehicle charging stations.

EV PARKING EXAMPLES

Montgomery County, MD

"A parking space that provides an electric charging station must count toward the minimum number of parking spaces required."

Montgomery County Zoning Ordinance, Article 59-6, §6.2.3. Calculation of Required Parking

Montpelier, VT

"Additional parking shall not be required when parking is converted and reserved for charging vehicles and such spaces shall count towards the minimum parking required under this section."

City of Montpelier Zoning and Subdivision Regulations §3011.I(6)

Stockton, CA

"Electric vehicle charging stations are permitted in all required and non-required off-street parking spaces. As an incentive for the provision of electric vehicle charging stations, a reduction in required parking is permitted up to two required parking spaces for each electric vehicle charging space provided, up to a maximum reduction of 10 percent of the total required parking."

Stockton Municipal Code §16.64.030

Sacramento County, CA

"Parking spaces designated for electric vehicle charging stations shall be counted toward meeting the minimum parking requirement."

Sacramento County Zoning Code §5.9.3.A.8.

"Each electric vehicle charging station shall be permitted to substitute for two (2) vehicular parking spaces. The area needed for charging equipment shall count toward meeting the parking space requirements."

Sacramento County Zoning Code §5.9.5.C.1.f.