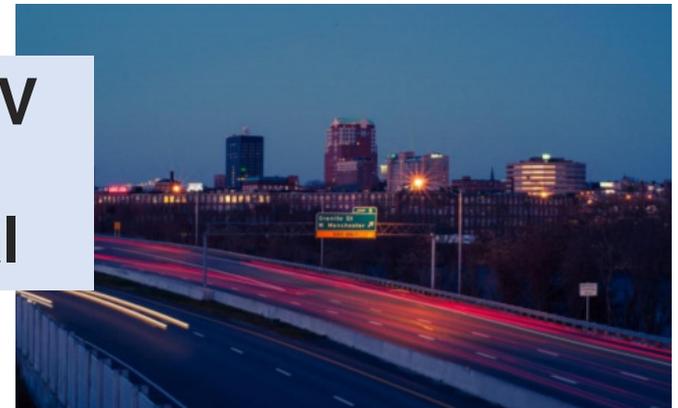


EVERSOURCE



New Hampshire EV Fast Charging Corridor Proposal

March 2019



Executive Summary

- We propose a public-private partnership creating a 12-site EV fast charging corridor across New Hampshire's major roadways.
- The proposal leverages the availability of VW Settlement Funds earmarked for EV charging infrastructure.
- The EV fast charging corridor will:
 - promote New Hampshire travel and tourism.
 - support commuters and drivers who choose to drive electric
- Our proposal maximizes the impact of VW Settlement funds:
 - the chargers will be funded with approximately 41% of VW Settlement funds already earmarked for EV charging.
 - drive third party innovation in business models for EV chargers.
- Eversource's contribution to the Fast Charger Corridor will more than pay for itself for all customers due to the rate reducing benefits of increased electrification and thus avoids subsidies.

Why Now?

The proposal for a public-private partnership creating a 12-site EV fast charging corridor in New Hampshire reflects a unique confluence of events, which ensure:

1. **leveraging of publicly available funds** so that New Hampshire customers are not subsidizing EV infrastructure
2. **enabling of in-state economic growth** through promoting travel and tourism along the proposed EV fast charging corridor

Publicly Available Funds

NH's **overall** share of VW Settlement Funds is **\$31M**

15% or **\$4.6M** of the total is allocated for **electric vehicle charging equipment**

OSI has specified that the \$4.6M should be invested to **maximize private sector funding** and may take into consideration **recommendations** from the NH Electric Transportation Commission

The **NH Electric Transportation Commission** has recommended that **DC Fast Charging corridors** be **prioritized**

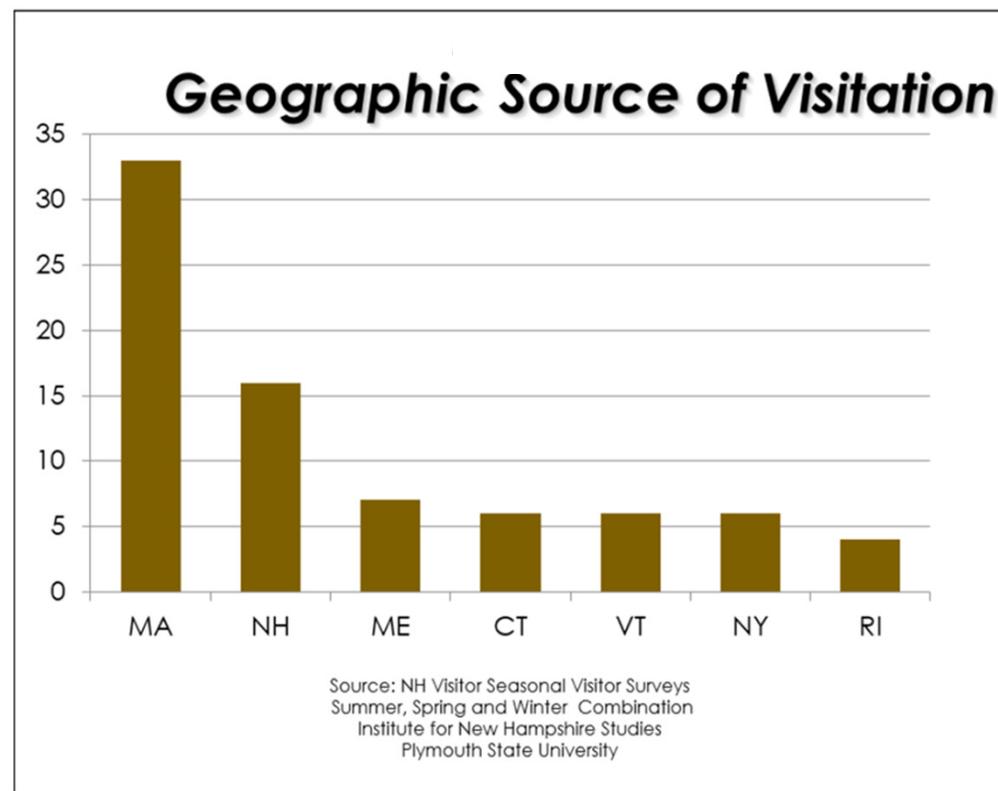
Driving NH Economic Growth

Tourism Key Facts

- Tourism is a core economic driver for NH
- In 2017
- 2.23 million visitor trips
 - \$269 million in tax revenues
 - 48,000 jobs

Intersection of Tourism and EVs

- Most demand for EVs is coming from CT, ME, MA, MD, NJ, NY, RI and VT
- Of these, CT, ME, MA, NY, RI, and VT are key feeder markets for NH

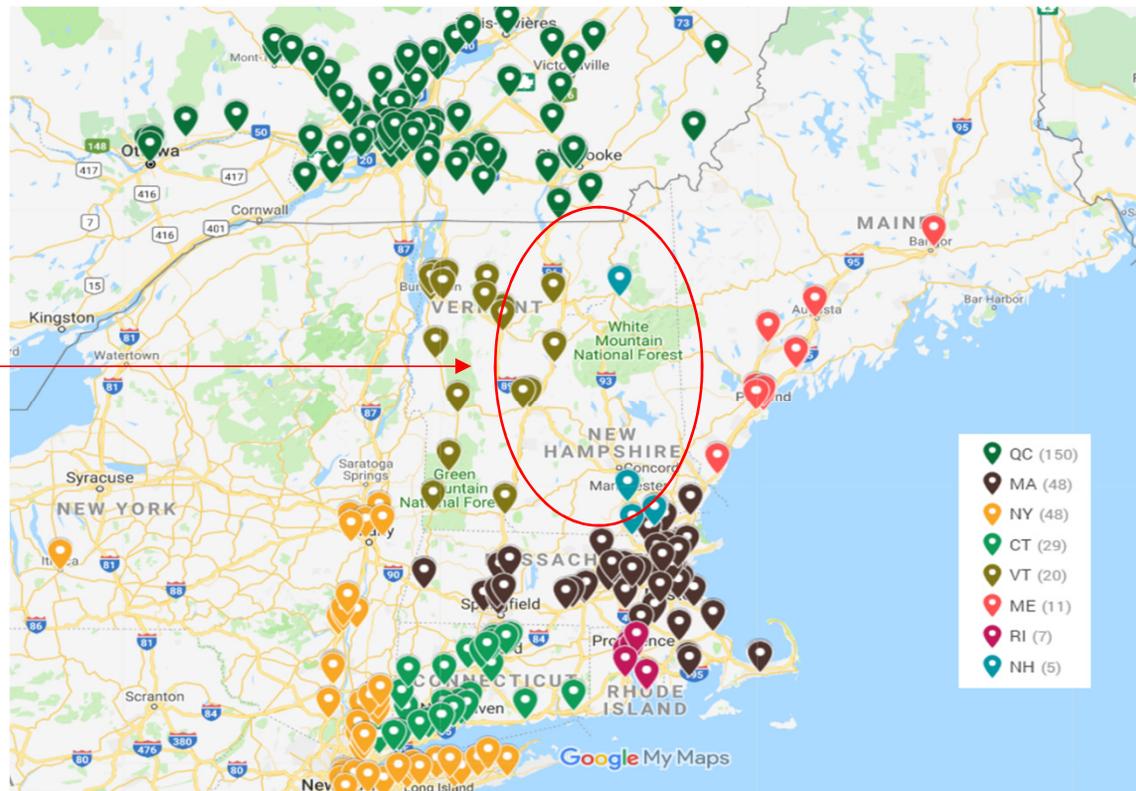


- Quebec is another key tourism feeder location with residents making more than 406,500 visits to NH each year, spending over \$83.9 million
- Quebec accounts for nearly 50 percent of all EV owners in Canada

Filling in the Gap

DC fast charge sites are being installed in neighboring states at a higher volume than New Hampshire, in large part to enable EV tourism

DC Fast Charging Corridor From Montreal to NY

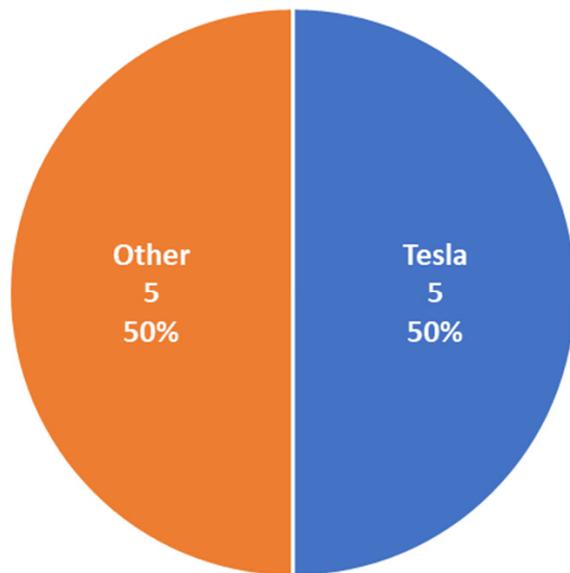


NH is the missing link

DC Fast Charger Need in NH Is Significant

Only 10 DC fast charging locations (47 individual chargers) currently exist:

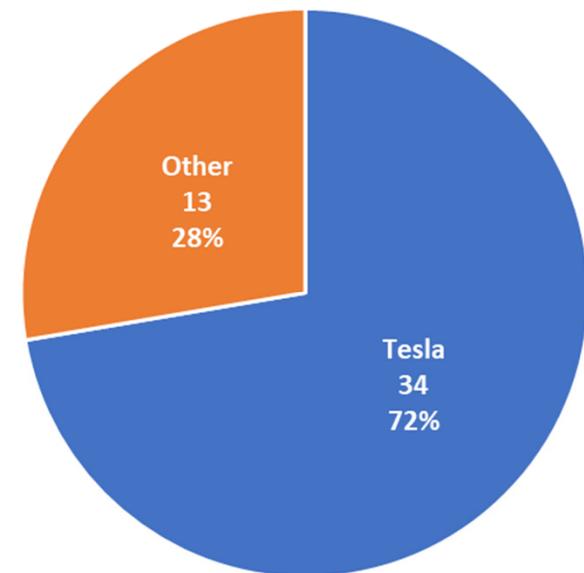
of locations



Tesla chargers have a proprietary plug and **are available to Tesla drivers only**

This infrastructure has the capability to support ~200 charging sessions per day

of chargers



Only **13** publicly available chargers are accessible to all EV drivers

The State needs approximately **135** additional DC fast chargers to retain its current inflow of commuters and tourists.

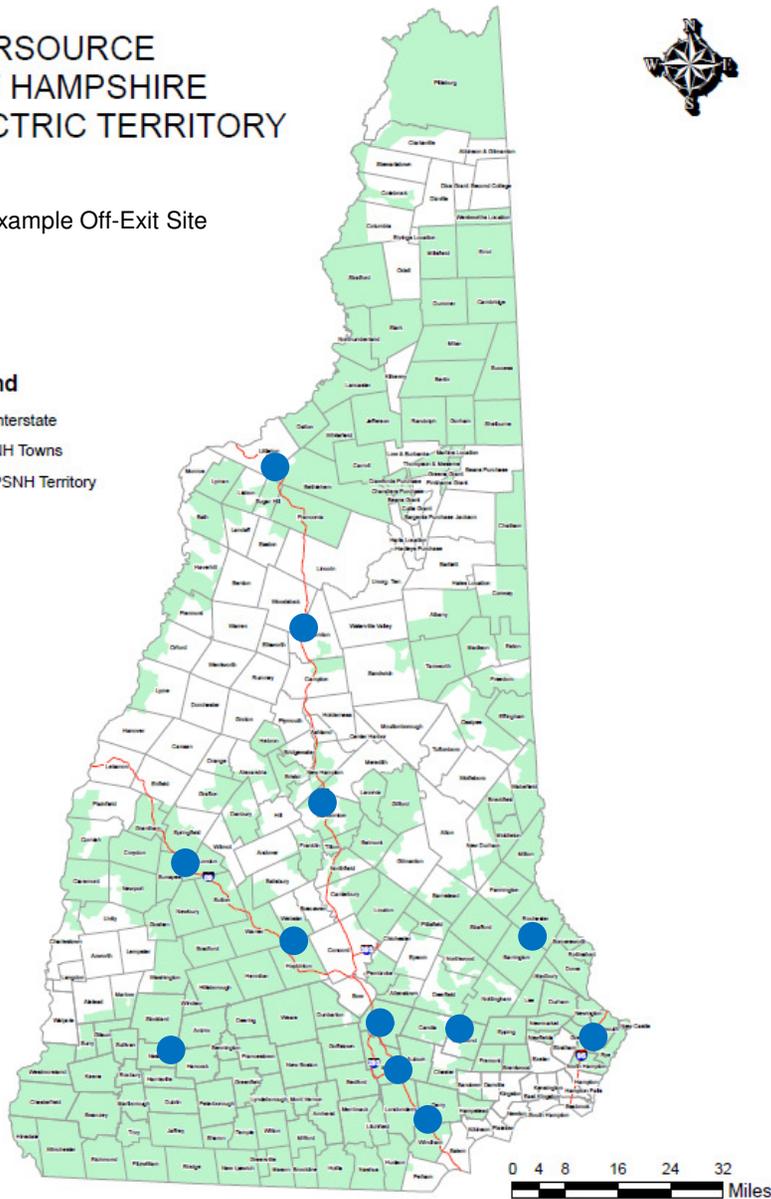
Proposed Solution: DC Fast Charging Corridor

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● Example Off-Exit Site

Legend

- Interstate
- NH Towns
- PSNH Territory



Off Exit - Accessible by both NB & SB

- I89 (2 sites)
- I93 (6 sites)
- 95 (1 sites)
- 101 (1 sites)
- Spaulding (1 site)
- Route 9 (1 site)
- 12 total sites
 - Locations TBD – need to recruit site hosts

Assumptions

- 4 50kW DCFC per site
- Make-Ready model (Eversource owns from service drop to stub up of charger – site host owns charger)
- Cost of DC Fast Chargers (\$1.92M) funded via VW Settlement Funds

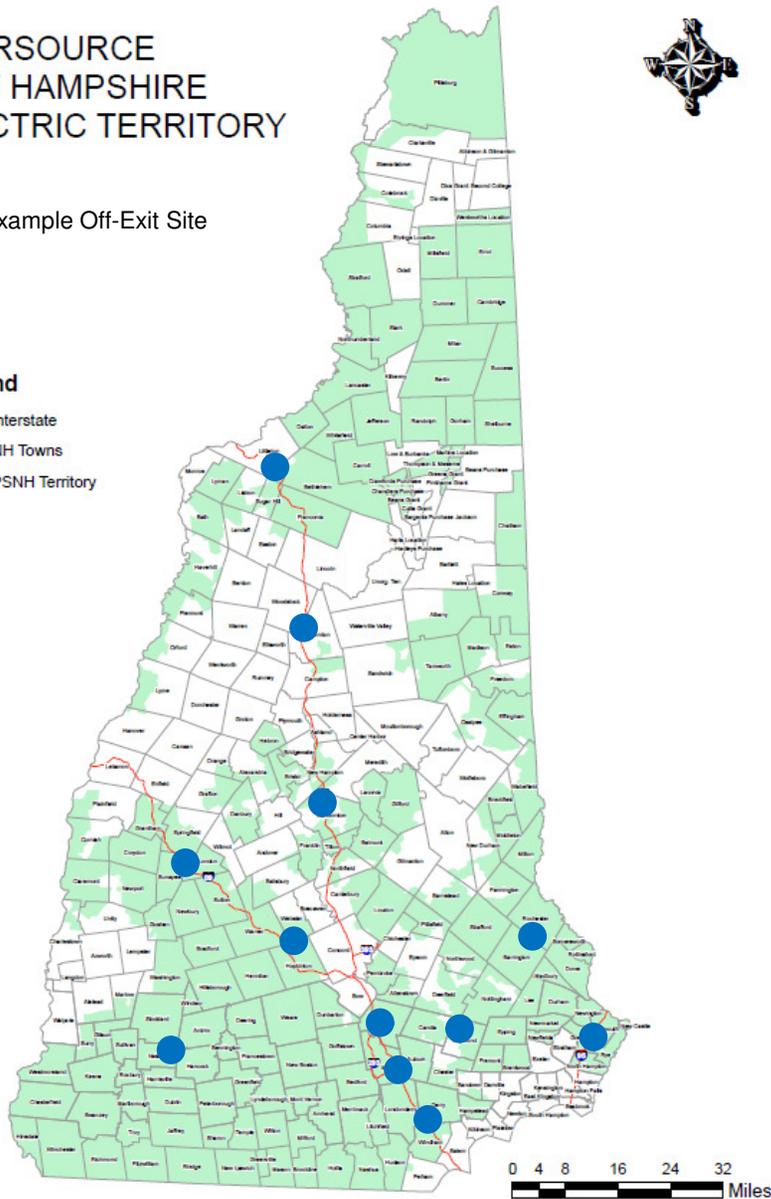
Site Selection Methodology

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● Example Off-Exit Site

Legend

-  Interstate
-  NH Towns
-  PSNH Territory



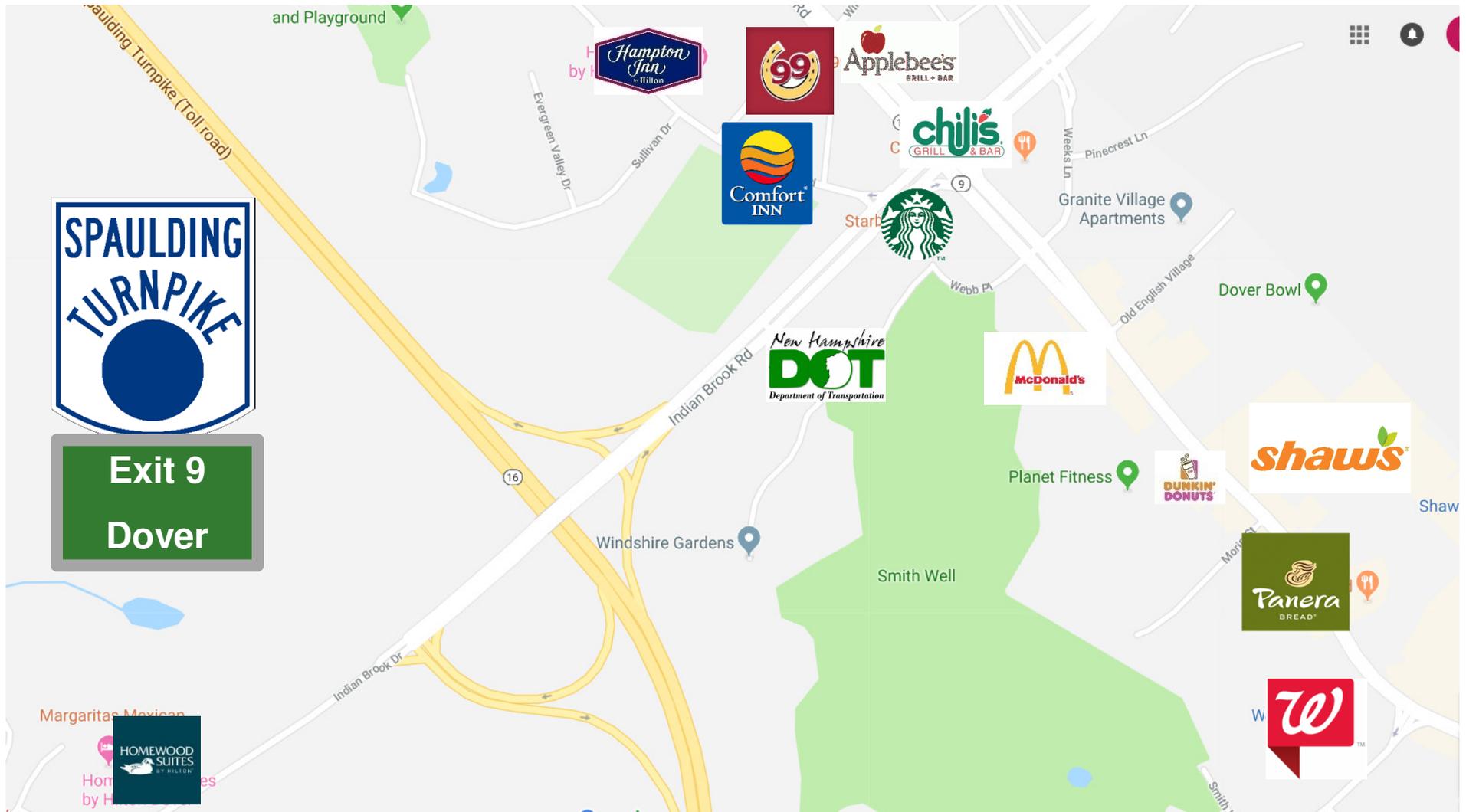
Selection Metrics

- Target peak traffic areas



- Ensure gap coverage between service territories
- 40 mile max distance to next station
- More stations in higher traffic areas
- Off-exit deployment to enable easy access

Corridor Deployment Targets - Example



Representative targets only, no definitive discussions with these customers

Total EV Fast Charging Corridor Costs



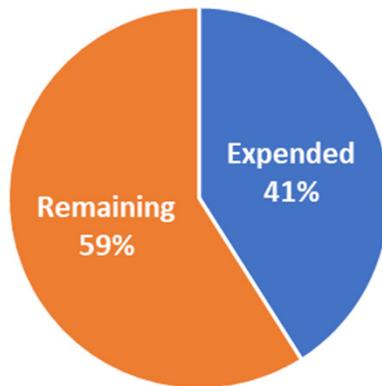
Component	Cost	Funding Source
Utility-side infrastructure	\$79,000	Eversource Investment
Customer-side infrastructure	\$96,950	Eversource Investment
Total Infrastructure Capital	\$175,950	
50kW DC Fast Chargers (4)	\$160,000	Govt. owned property (100% VW funding); non-govt. owned property (80% VW funding , 20% Eversource rebate)
Total Site Cost	\$335,950	
Total Program Cost	\$4,031,400	

Proposal Maximizes Impact of VW Funds

Eversource Contribution Maximizes Impact of VW Settlement Funds
Earmarked for EV Charging

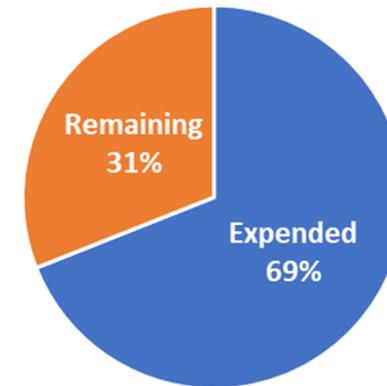
Total Draw on VW Funds To Stand Up 12 Site EV Fast Charging Corridor:

With Eversource Contribution



Optimal – leaves room for future uses of VW Settlement funds

Without Eversource Contribution



Sub-optimal – significant draw on total VW Settlement funds

Program Drives 3rd Party Innovation

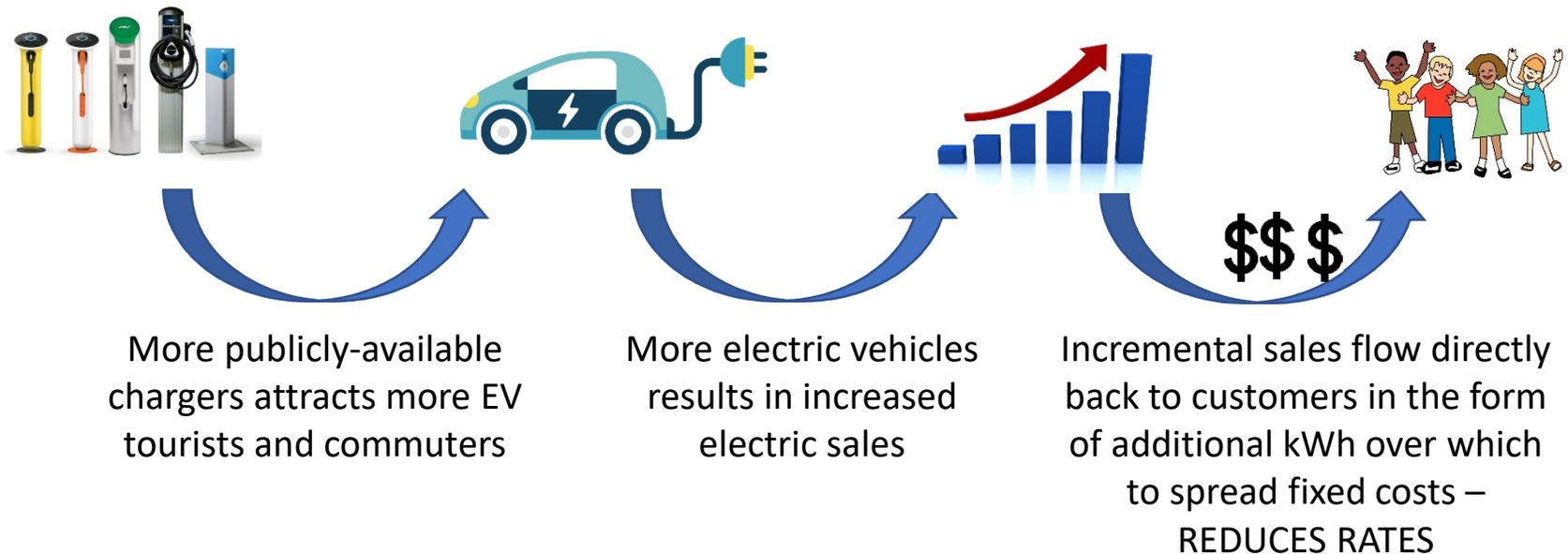


Eversource will leverage its expertise as an electrical infrastructure provider by bringing necessary power to the charging station

Charging station market will remain open to competitive suppliers all vying for share



Every \$1.00 of investment leverages >\$1.00 of rate reducing benefit



- With base assumptions, the benefit/cost ratio of Eversource's EV infrastructure investment is >1.0, indicating savings for customers
- Therefore, Eversource's contribution to the EV Fast Charging corridor more than pays for itself for all customers over its life and does not constitute a subsidy

Key Takeaways

1

We propose a public-private partnership creating a 12-site EV fast charging corridor across New Hampshire's major roadways

2

The proposal leverages the availability of VW Settlement Funds earmarked for EV charging infrastructure

3

The EV fast charging corridor will advance economic development in New Hampshire

4

Eversource's contribution will more than pay for itself for all customers due to the rate reducing benefits of increased electrification and thus avoids subsidies