

Impact of EV Incentive Programs

NASEO Annual Meeting

September 14, 2015

Center for Sustainable Energy (CSE)



Building
Performance



Clean
Transportation



Distributed
Generation



Energy
Efficiency



Energy
Storage



Renewable
Energy

CSE Electric Vehicle Activities



Incentives Design & Administration



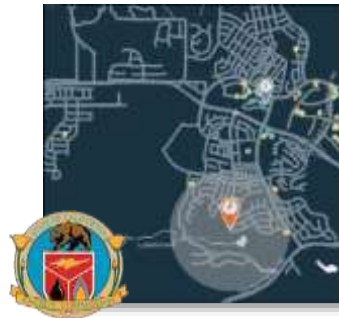
Consumer & Dealer Outreach



Stakeholder Engagement



Fleet Assistance & Clean Cities



PEV, Alt.-Fuel, & ZEV Planning & Implementation



2nd Life Battery Research & Vehicle-Grid Integration

CSE Electric Vehicle Activities



CLEAN VEHICLE
REBATE PROJECT™

MOR-EV
Massachusetts Offers Rebates
for Electric Vehicles

CHEAPR
Connecticut Hydrogen and Electric Automobile Purchase Rebate

Incentives Design
& Administration



Consumer & Dealer
Outreach



California Environmental Protection Agency
Air Resources Board

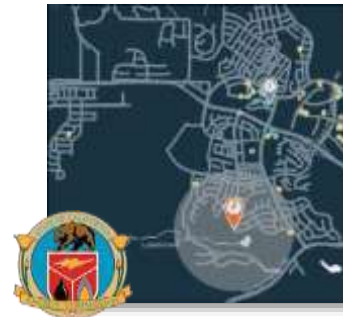


CALIFORNIA
PLUG-IN ELECTRIC VEHICLE
COLLABORATIVE

Stakeholder
Engagement



Fleet Assistance
& Clean Cities



PEV, Alt.-Fuel, & ZEV
Planning &
Implementation



2nd Life Battery
Research & Vehicle-
Grid Integration

Outline

- State EV Incentive Programs & Associated Funding Mechanisms
- Massachusetts Program (MOR-EV):
 - Program Functionality
 - Data collected
 - Program Statistics
 - Survey Data
 - Project Impact



EV Incentive Programs: Overview

- \$1,500-\$3,000 per vehicle depending on vehicle type
- Quick rebate distribution (days or weeks, depending on who receives)
- Rebates transferred to the dealer (price discounted at point of sale) or direct to the consumer
- Rebate checks mailed or ACH direct deposit to recipient
- Education and outreach, data collection, survey components



EV Incentive Programs: History & Funding

California Rebate Program - 2010

- 2007 Legislation (AB118) allowing vehicle registration fees
- Greenhouse Gas Reduction Fund



CALIFORNIA
CLEAN VEHICLE
REBATE PROJECTSM

Massachusetts Rebate Program - 2014

- Regional Greenhouse Gas Initiative



MOR-EV

Massachusetts Offers Rebates
for Electric Vehicles

Connecticut Rebate Program - 2015

- Utility Settlement



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MOR-EV IS A MASSACHUSETTS PROGRAM THAT ISSUES REBATES TO ELECTRIC VEHICLE DRIVERS

Purchase or lease an eligible electric vehicle and apply for your rebate today!



APPLY FOR A REBATE



Apply for incentives of up to \$2,500 for the purchase or lease of new electric vehicles, including battery electric, plug-in hybrid electric and fuel cell electric vehicles.

AVAILABLE FUNDING



Track reserved and available funding amounts. \$1.86M is available for the initial program year to increase the number of electric vehicles on the road.

PROGRAM STATISTICS



Find information on distribution of rebates over time and across the state, including specific vehicle category and manufacturer information.

FREQUENTLY ASKED QUESTIONS



Need a question answered? Check the FAQ page for more information on the application process, program eligibility and other program details.

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Application: Simplicity is Key

Application Process



Application: Simplicity is Key

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MOR-EV
Massachusetts Offers Rebates
for Electric Vehicles

BEV: NISSAN LEAF S

1 CHOOSE VEHICLE → 2 ACCEPT TERMS → 3 **APPLY ONLINE** → 4 SUBMIT DOCUMENTS

Rebate Information

Rebate Amount **\$2500.00**



Applicant Information

First Name *

Last Name *

Phone *

Applicant Email *

Registered Address *

City *

State *

Zip Code *

Mailing Address
Check if different.

Vehicle Information

Application Requirements:

- Personal information
- Vehicle information
- Dealer information

Supporting Documentation:

- Signed application form
- Sales/lease contract
- Vehicle registration
- MA driver's license

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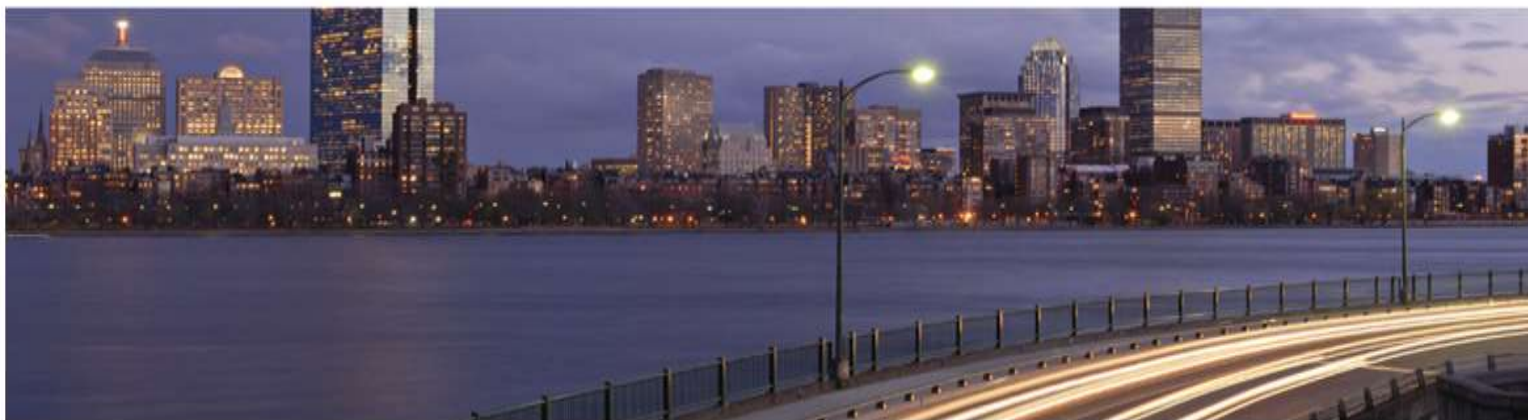


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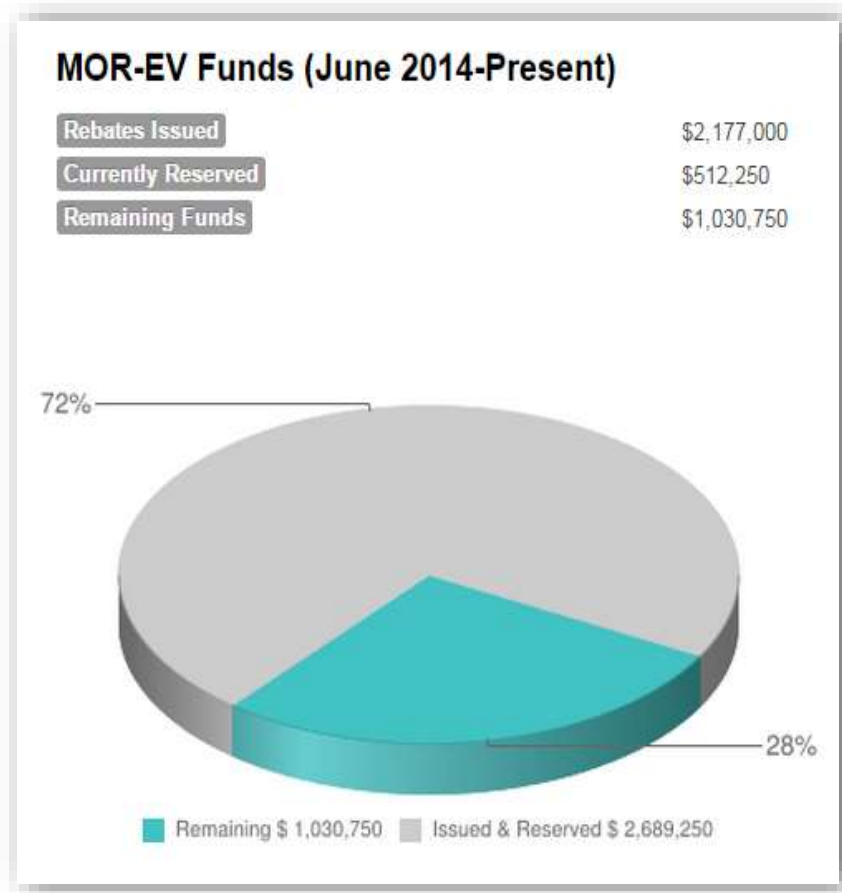
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Available Funding: Transparency is Key



- An additional \$1.86 million in rebate funding was added in April 2015
- Funding is expected to be depleted by February 2016 at current reservation rates

Program Statistics



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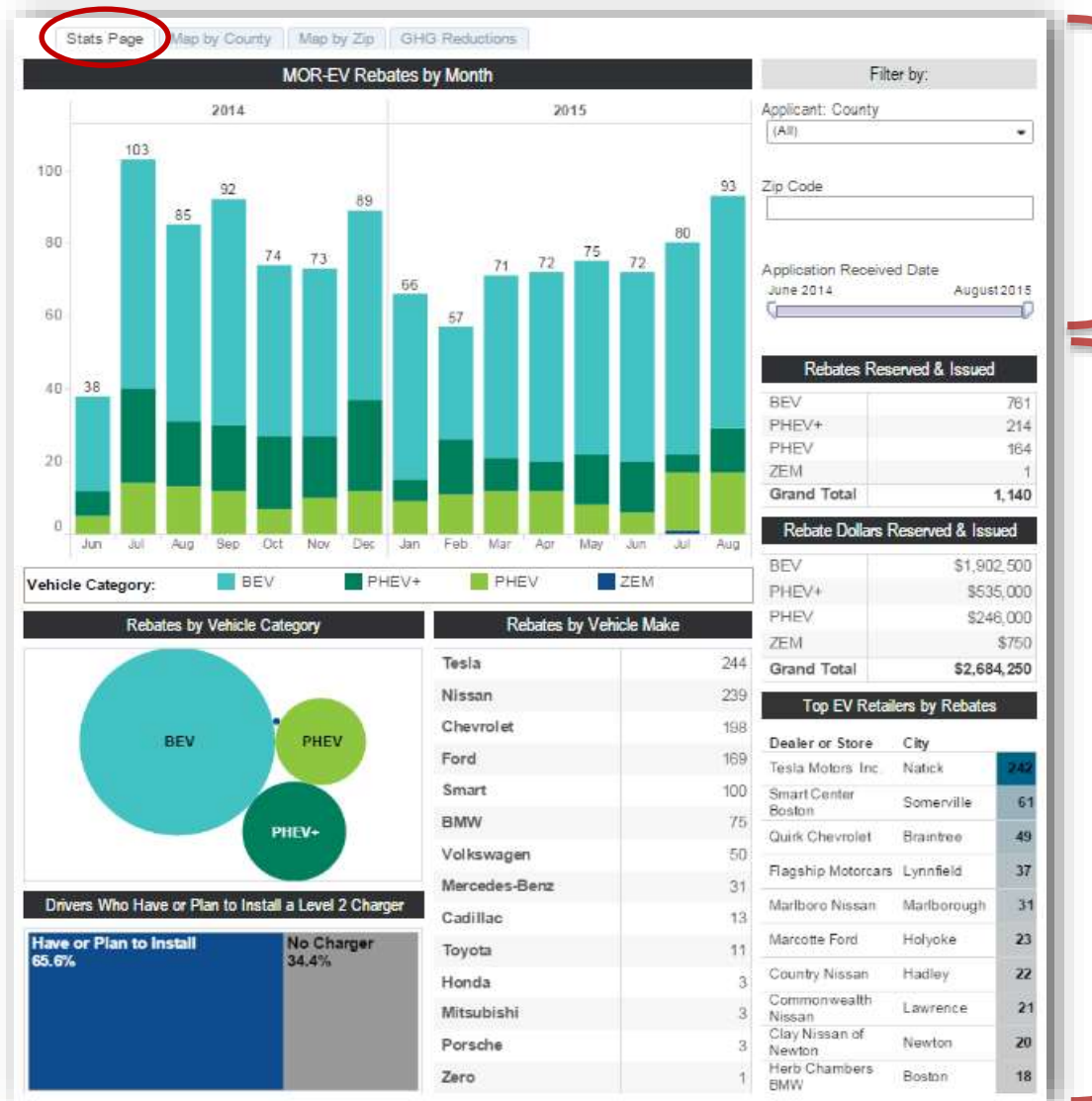
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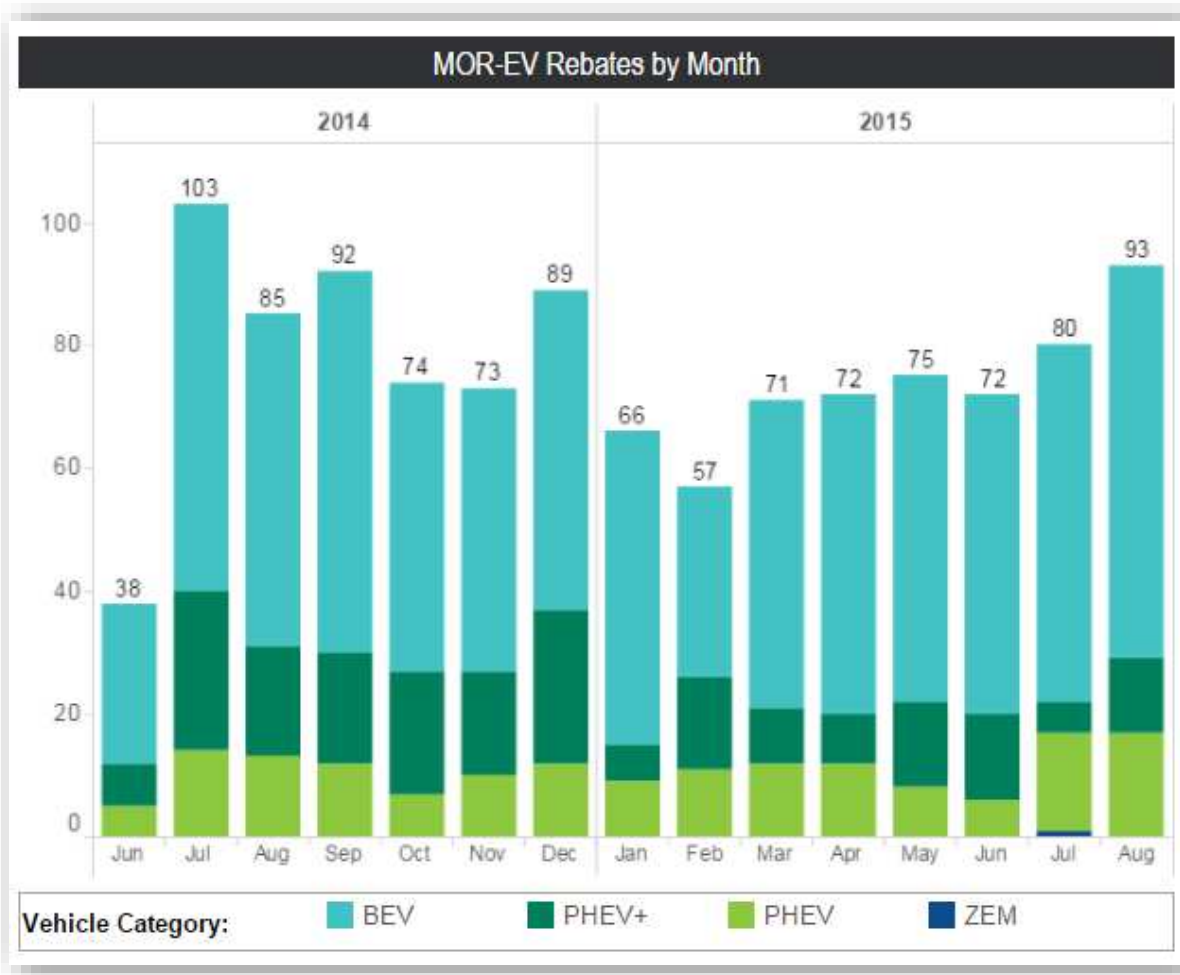


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Program Statistics



Program Statistics

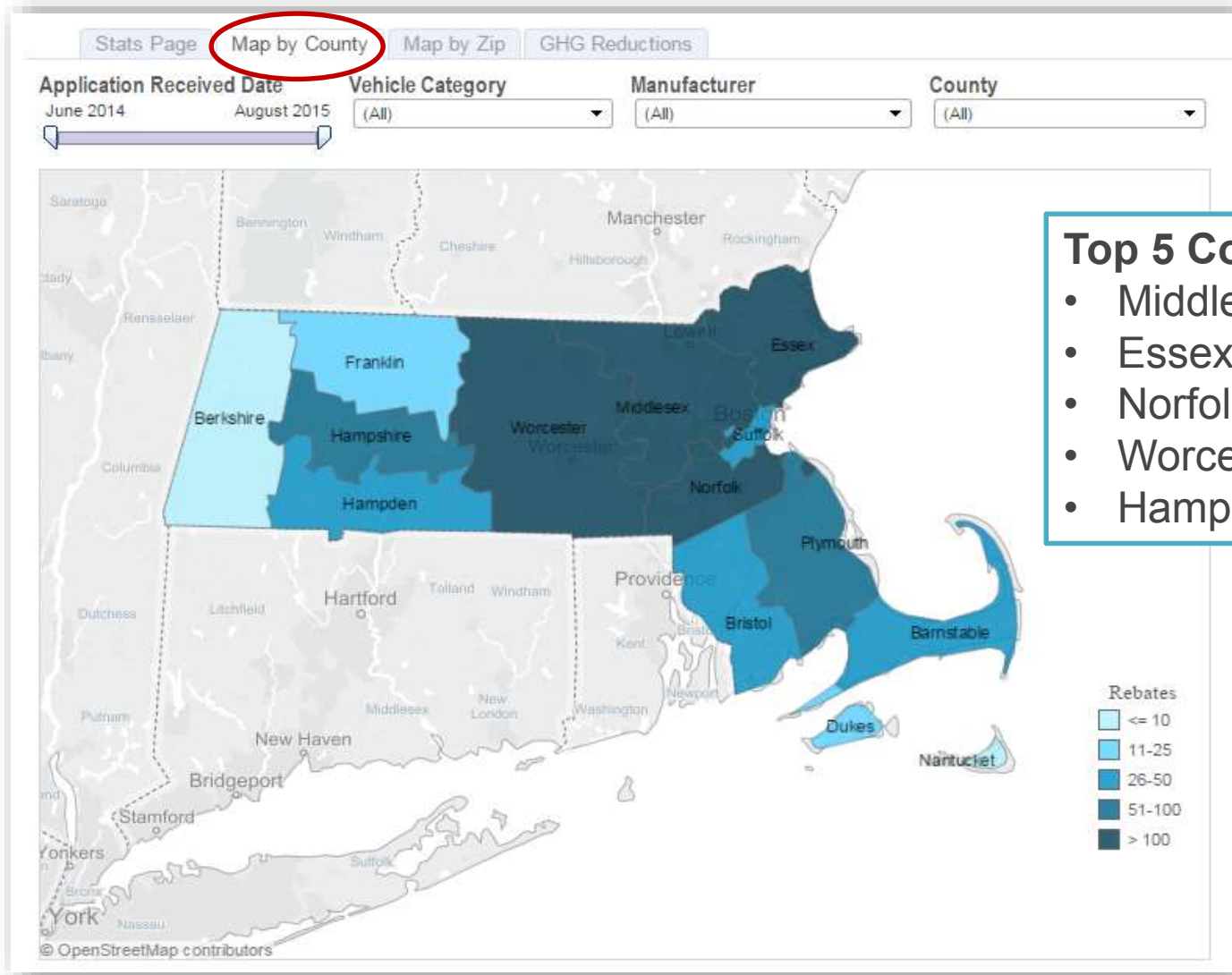


Rebates Reserved & Issued	
BEV	761
PHEV+	214
PHEV	164
ZEM	1
Grand Total	1,140

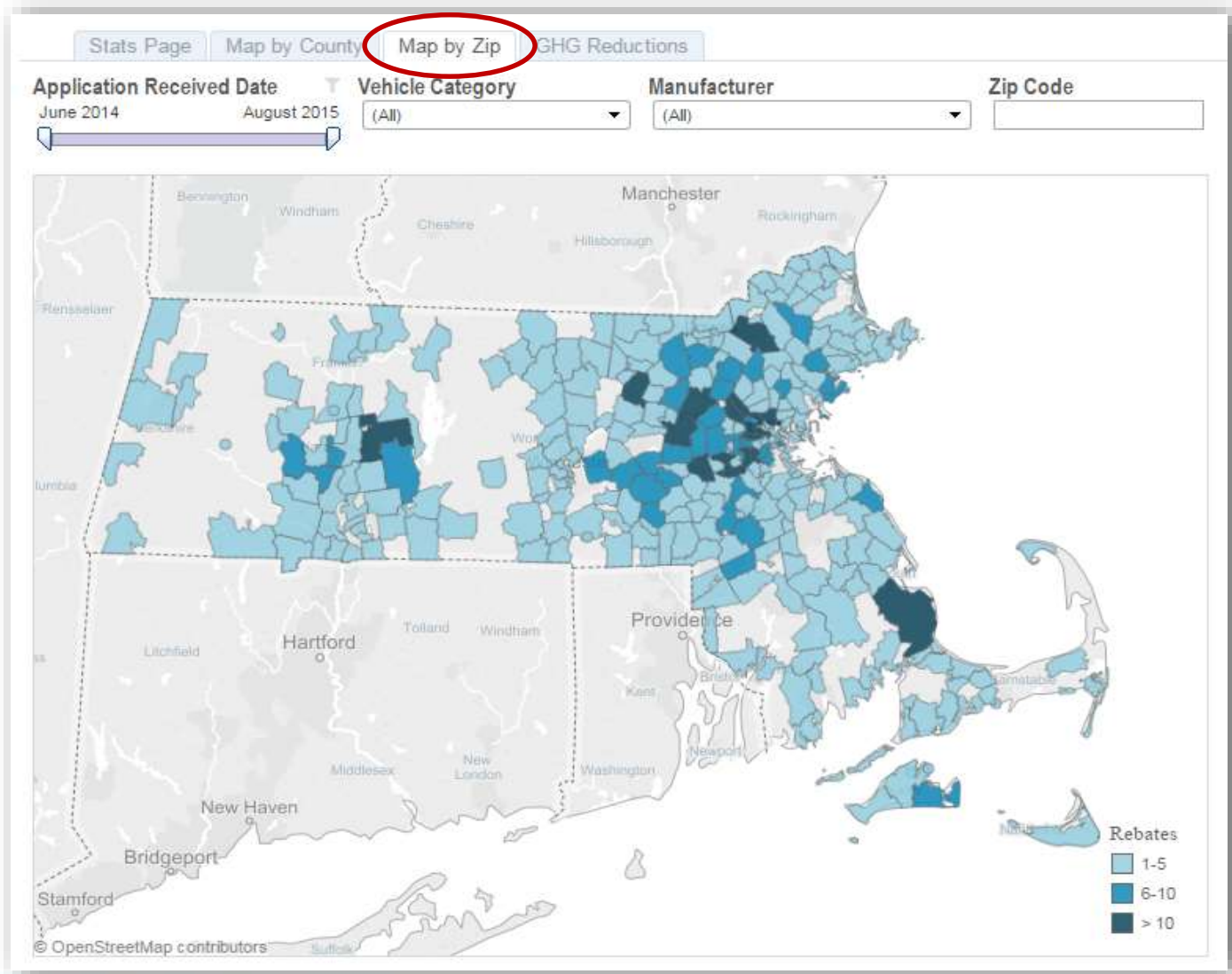
Rebate Dollars Reserved & Issued	
BEV	\$1,902,500
PHEV+	\$535,000
PHEV	\$246,000
ZEM	\$750
Grand Total	\$2,684,250

Top EV Retailers by Rebates		
Dealer or Store	City	Count
Tesla Motors Inc.	Natick	242
Smart Center Boston	Somerville	61
Quirk Chevrolet	Braintree	49
Flagship Motorcars	Lynnfield	37
Marlboro Nissan	Marlborough	31
Marcotte Ford	Holyoke	23
Country Nissan	Hadley	22
Commonwealth Nissan	Lawrence	21
Clay Nissan of Newton	Newton	20
Herb Chambers BMW	Boston	18

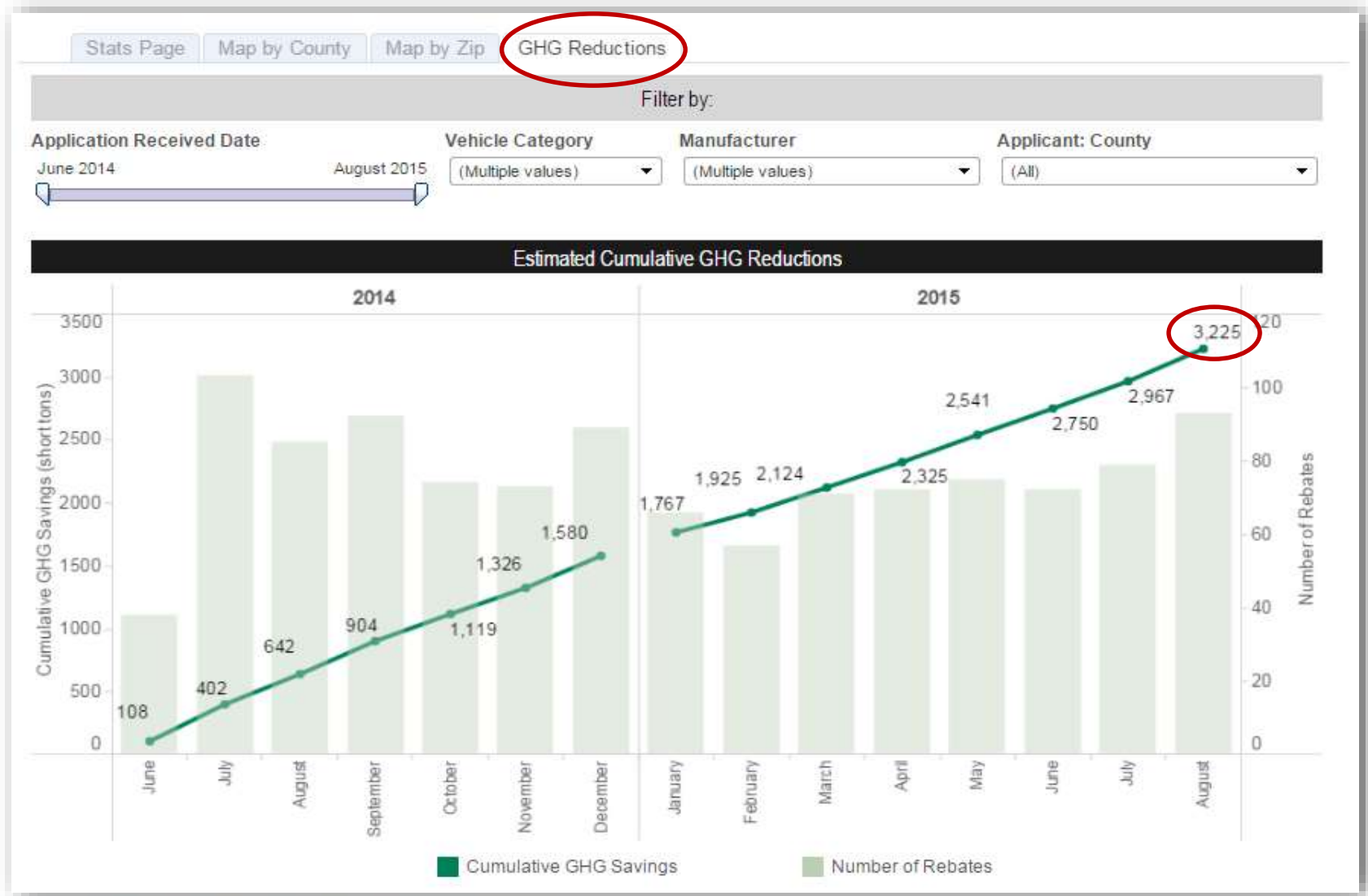
Rebate Distribution Map by County



Rebate Distribution Map by Zip



GHG Reductions



MOR-EV Survey Analysis

- Driver Survey on variety of EV-related topics:
 - Demographics
 - Vehicle Use
 - Purchase Motivations
 - Charging behavior and needs
 - Utility rate awareness
- 52% Response Rate
- Respondents are representative of MOR-EV population along the following parameters

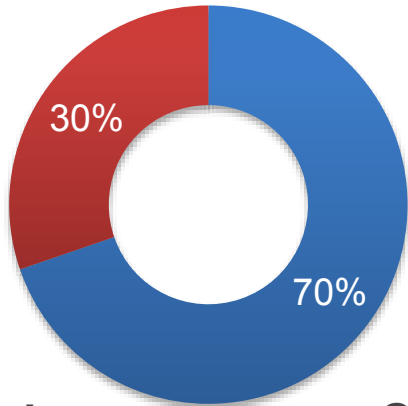
MOR-EV Demographics Summary

- **Average Age:** 50 years old
- **Sex:** 80% male
- **Median Household Income:** \$150,000 - \$199,999
- **Highest Level of Education:** 87% have at least a 4 year degree and over half have a graduate degree.
- **Single-Family Homeowners:** 86%
- **Installation of Solar:** Only 17% have installed solar PV, 24% are interested but 59% have no interest in solar

CA data shows a shift toward mainstream with lower incomes, more home renters, and more multi-unit dwelling drivers

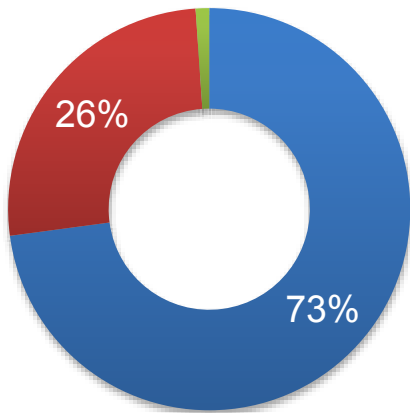
How are drivers using their new EVs?

Massachusetts

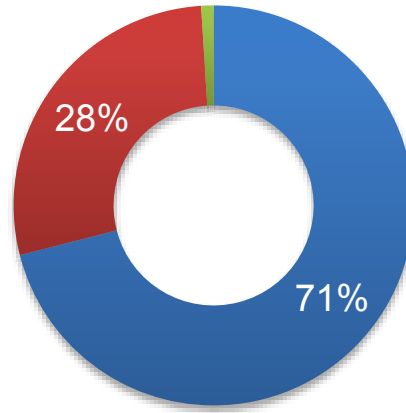


**Replacement Vehicles
and Primary Vehicles
in the household**

California



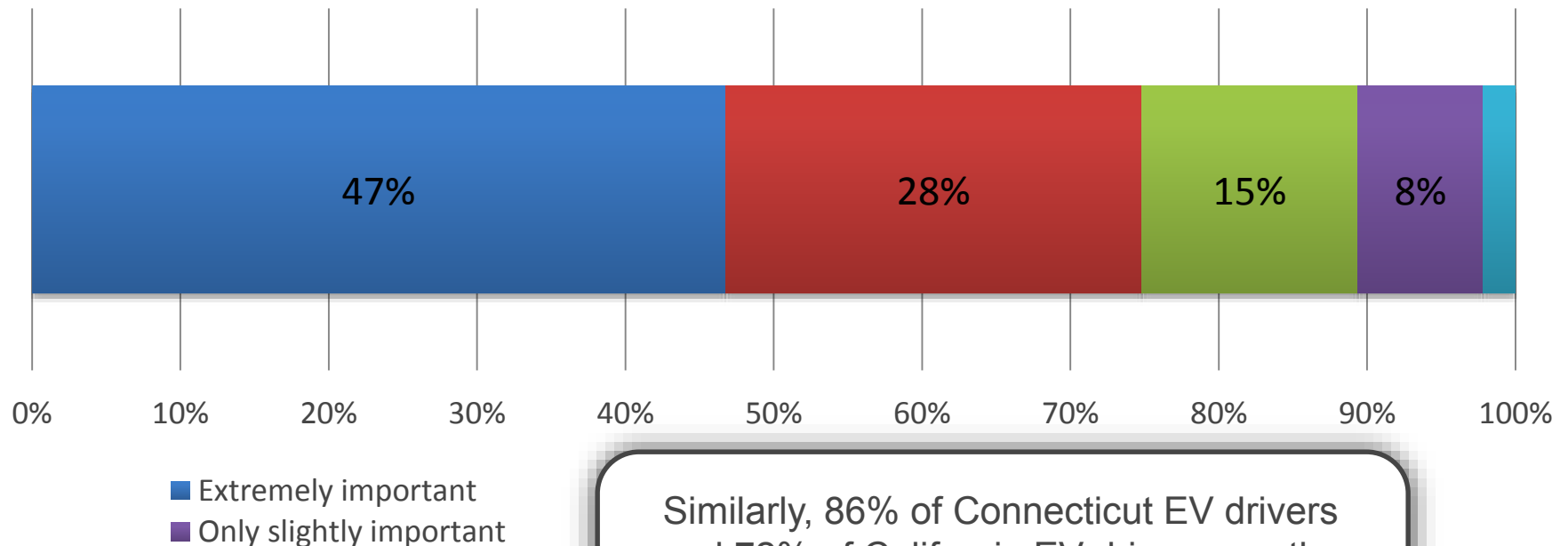
Connecticut



- Replacement vehicle
- Additional vehicle
- First vehicle

Impact of Incentive

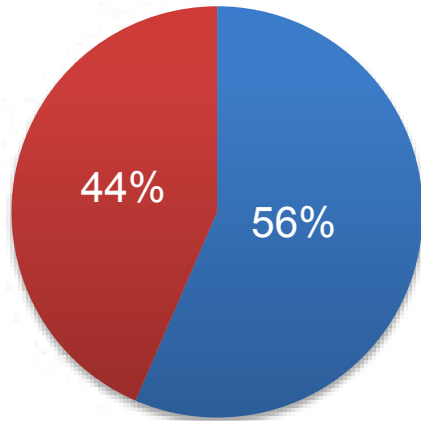
75% of drivers say the MOR-EV rebate was an “extremely” or “very” important factor in the decision making process to acquire an EV.



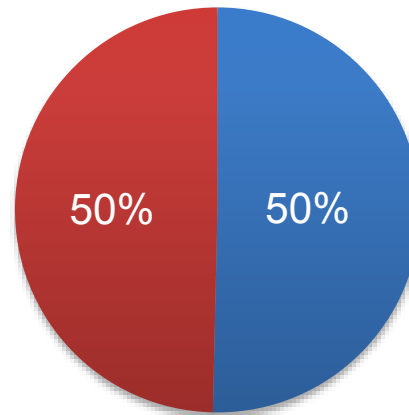
Similarly, 86% of Connecticut EV drivers and 72% of California EV drivers say the state rebate was also an “extremely” or “very” important factor.

Impact of Incentive

California

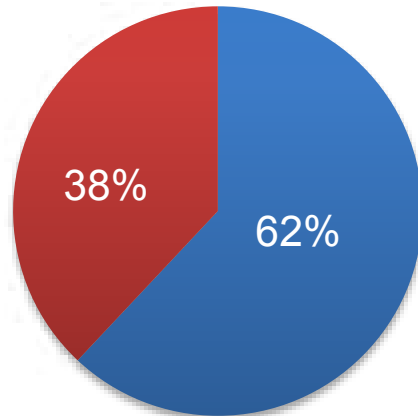


Massachusetts



- Would not purchase/lease EV without rebate
- Would purchase/lease EV without rebate

Connecticut



Rebates effectively more than doubling the EVs on the roads

Conclusion

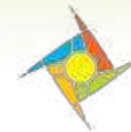
- Wide variety of program design and funding sources
- Application simplicity and funding transparency key program features
- 3/4 of EVs acquired replaced another vehicle
- Rebate impactful in decision-making for drivers
- Over 50% of adopters would not have acquired EV without the state rebates

Questions?

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