

State Considerations for the VW Settlement

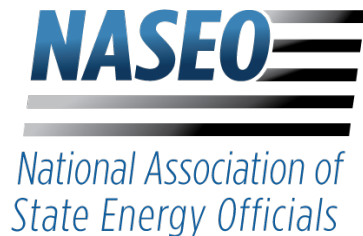
Opportunity: \$5 Billion for Vehicles and Infrastructure

February 23, 2017



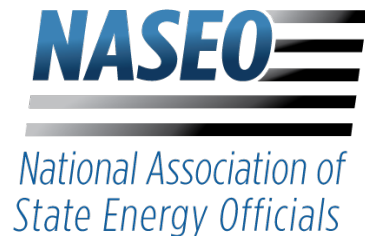
Agenda for State Considerations for the VW Settlement Opportunity: \$5 Billion for Vehicles and Infrastructure—February 23, 2017

- 2:00-2:02 **Rick Sapienza, NC State Clean Energy Technology Center—Welcome**
- 2:02-2:15 **Rick Sapienza, NC State Clean Energy Technology Center—VW Settlement Overview**
- 2:15-2:30 **Cassie Powers, NASEO—NASEO Perspective, Resources and Early Actions**
- 2:30-2:45 **Mary Sullivan Douglas, NACAA—Air Agency Perspective and Resources**
- 2:45-3:00 **Tom Brotherton, CALSTART—Voucher Programs**
- 3:00-3:15 **Colin Santulli, Center for Sustainable Energy—Incentive Administration Best Practices**
- 3:15-3:30 **Questions and Answers**



Format

- Q & A at end
- Submit questions to “Panelists”
- Scheduled for 2p-3p
- Can go beyond, if interest remains



Presenter



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Phone: 919-515-2788

Rick Sapienza

- Clean Transportation Program Manager NC Clean Energy Technology Center at NC State University
- 5 years with NC State
- 30 years experience including General Motors, Draper Lab and Great Lakes Pulp & Fibre in both engineering and business management roles

VW Settlement Overview

Rick Sapienza

NC Clean Energy Technology Center

Clean Transportation Program

February 23, 2017



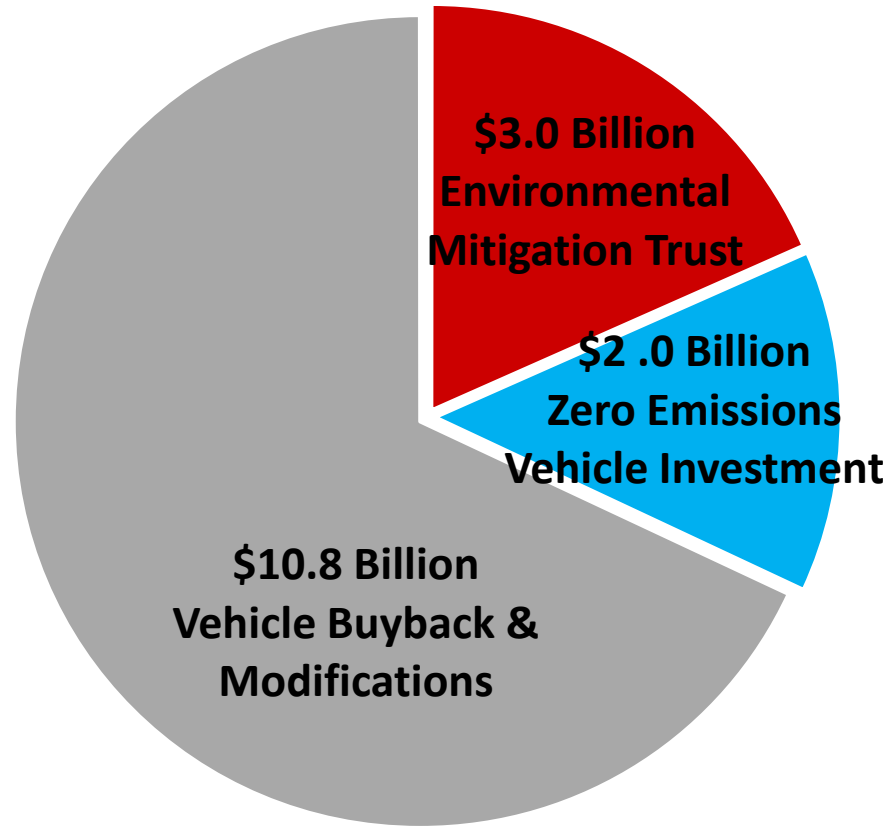
Overview

- U.S. EPA and CARB filed a complaint against VW alleging emissions defeat devices employed for diesel engines (2009-2015).
- \$14.7 billion settlement covering 2.0L engines—475,000 US vehicles.
 - Consumers, ZEV Investment Program, and Mitigation
- \$1.0 billion settlement covering 3.0L engines—85,000 US vehicles.
 - \$225 million to mitigation
- \$1.21 billion dealer settlement—652 dealers
- \$4.3 billion fine and criminal charges (up to \$34.1 billion)
- Up to 11 million vehicles world wide
- EU litigation for stricter penalties to deter emissions cheating

VW Settlement Outline

- \$15.7 Billion Civil Settlement
 - Consumer Compensation
 - Zero Emission Vehicle (ZEV) Investment Program
 - Environmental Mitigation Trust
- Possible Timeline
- Considerations
- Resources

Approved Settlement Breakdown



ZEV Investment

- VW will spend \$2 billion over 10 years on actions that will support increased use of zero emission vehicle (ZEV) technology in the U.S.
 - \$1.2 billion will be used in areas of the U.S. other than California
 - \$800 million will be used in California



ZEV Investment

- VW will develop a National ZEV and CA ZEV Investment Plan (4x30 month intervals)
- Approved by EPA and CARB
- Eligible expenses include:
 - Design/planning, construction/installation, and operation and maintenance of ZEV infrastructure (EV charging and/or hydrogen fueling)
 - Programs or actions to increase public exposure or access to ZEVs
 - Brand-neutral media activities that will provide education and raise awareness on ZEVs



Electrify America LLC

- VW has established Electrify America LLC for ZEV Plan
- Proposed 1st Round Plan Submission Feb. 22, 2017:
 1. Install EV charging infrastructure in 15 target cities across the US (300+) and DC fast charger nationwide network (200).
 2. Increase awareness and foster education.
 3. Green/smart city initiative, to be named CA city as pilot.
- Future rounds to consider hydrogen fueling stations or national ZEV car-sharing or ZEV ride-sharing services.



Environmental Mitigation Trust

- \$3.0 Billion- The Trust will support projects that reduce NOx emissions where the VW vehicles were, are, or will be operated
 - Based on the number of impacted VW vehicles in their jurisdictions

Environmental Mitigation Trust Allocations

Eligible Beneficiary	Initial Allocations	Eligible Beneficiary	Initial Allocations	Eligible Beneficiary	Initial Allocations
Puerto Rico	\$ 7,500,000	Louisiana	\$ 18,009,993	Colorado	\$ 61,307,576
North Dakota	\$ 7,500,000	Kentucky	\$ 19,048,080	Wisconsin	\$ 63,554,019
Hawaii	\$ 7,500,000	Oklahoma	\$ 19,086,528	New Jersey	\$ 65,328,105
South Dakota	\$ 7,500,000	Iowa	\$ 20,179,540	Oregon	\$ 68,239,143
Alaska	\$ 7,500,000	Maine	\$ 20,256,436	Massachusetts	\$ 69,074,007
Wyoming	\$ 7,500,000	Nevada	\$ 22,255,715	Maryland	\$ 71,045,824
District of Columbia	\$ 7,500,000	Alabama	\$ 24,084,726	Ohio	\$ 71,419,316
Delaware	\$ 9,051,682	New Hampshire	\$ 29,544,297	North Carolina	\$ 87,177,373
Mississippi	\$ 9,249,413	South Carolina	\$ 21,636,950	Virginia	\$ 87,589,313
West Virginia	\$ 11,506,842	Utah	\$ 32,356,471	Illinois	\$ 97,701,053
Nebraska	\$ 11,528,812	Indiana	\$ 38,920,039	Washington	\$ 103,957,041
Montana	\$ 11,600,215	Missouri	\$ 39,084,815	Pennsylvania	\$ 110,740,310
Rhode Island	\$ 13,495,136	Tennessee	\$ 42,407,793	New York	\$ 117,402,744
Arkansas	\$ 13,951,016	Minnesota	\$ 43,638,119	Florida	\$ 152,379,150
Kansas	\$ 14,791,372	Connecticut	\$ 51,635,237	Texas	\$ 191,941,816
Idaho	\$ 16,246,892	Arizona	\$ 53,013,861	California	\$ 381,280,175
New Mexico	\$ 16,900,502	Georgia	\$ 58,105,433	Tribal Subaccount	\$ 49,652,857
Vermont	\$ 17,801,277	Michigan	\$ 60,329,906	Trust Cost Subaccount	\$ 27,000,000
				Tribal Cost Subaccount	\$ 993,057
				Total	\$ 2,700,000,000



Environmental Mitigation Trust

- Each eligible beneficiary must file a single Certification Form no later than 60 days after the Trust Effective Date
 - Each form must include a designation of Lead Agency, certified by the Office of the Governor, indicating which agency, department, office or division will have the delegated authority to act on behalf of each state
 - Form is in Appendix D of Settlement Document
- 120 days from Trust Effective Date Trustee shall file list identifying certification requests with no objections -> deemed Beneficiary

Environmental Mitigation Trust

- After being deemed a Beneficiary, a “Beneficiary Mitigation Plan” needs to be submitted within 90 days.
- The Beneficiary Mitigation Plan must address:
 - Overall goal for use of funds
 - Categories of eligible mitigation actions the beneficiary anticipates are appropriate
 - Description for how the beneficiary will consider the potential beneficial impact of the selected eligible mitigation actions on air quality in areas that bear a disproportionate share of the air pollution burden in the state (NO_x is the primary stated emission of concern)
 - Description of the expected ranges of emissions benefits the Beneficiary estimates would result from implementation of the plan

Environmental Mitigation Trust

■ Possible Eligible Vehicle Classes/Equipment:

- Class 8 Local Freight Trucks, Port Drayage Trucks
- Class 4-8 School, Shuttle or Transit Bus
- Freight Switchers
- Ferries/Tugboats (marine)
- Class 4-7 Local Freight Trucks (Medium Trucks)
- Airport Ground Support Equipment
- Forklifts
- Ocean Going Vessels Shorepower
- LD ZEV Supply Equipment
 - L1, L2 or fast charging equipment
 - LD hydrogen fuel cell vehicle supply equipment

Eligible vehicles/engines must be scrapped. Repower or replacement with new diesel, alternative fuel or electric option.

Environmental Mitigation Trust

- Varying percentages of funding:
 - Vehicles: government **up to** 100%, non-government **up to** 25-75%
 - ZEV infrastructure: **up to** 15% of allocation

	Percentage of Project That Can Be Funded Through Trust
EVSE - publicly available at government owned property	100%
EVSE - publicly available at non-government owned property	80%
EVSE - at workplace but not available to general public	60%
EVSE - at multi-unit dwelling but not available to general public	60%
FCVSE - publicly available and able to dispense at least 250kg/day	33%
FCVSE - publicly available and able to dispense at least 100kg/day	25%

Diesel Emission Reduction Act (DERA) Option

- Trust Funds used for their non-federal match or overmatch for DERA
 - Example A: If a state's DERA allocation in FY2017 is \$200,000 under the DERA Clean Diesel State Grant Program, the state may use \$200,000 in trust funds as the 1:1 match. Then, the state will receive its bonus DERA funds equal to 50% of the base amount (\$100,000), making \$500,000 the total amount state receives—\$300,000 from DERA & \$200,000 from the trust.
- Allows use of Trust Funds for actions not specified in the settlement, but otherwise eligible under DERA
 - Example B: If a state's DERA allocation in FY2017 is \$200,000 under the DERA Clean Diesel State Grant Program, the state may use a larger amount—\$1 million in this example—in trust funds to overmatch the 1:1 ratio. The state receives its bonus DERA amount of \$100,000 and thus the total amount for the DERA Clean Diesel State Grant Program for FY2017 would be \$1.3 million—\$300,000 from DERA and \$1 million from the trust
- <https://www.epa.gov/sites/production/files/2016-08/documents/fy16-dera-project-eligibility-cost-share-overview.pdf>

Summary: Qualifying Mitigation Actions

Qualified Mitigation Actions, Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)	Actions / Fuels NG, Diesel, Electric, Hybrids Repower, Replace	Target Years * 2006 or older	Funding Percentages Non-Government 40% / 25% / 75%	Funding Percentages Government 100%	Scrapping Required for Replacements Yes
Class 4-7 Local Freight Trucks (Medium Trucks)	Repower, Replace	2002 – 2006	40% / 25% / 75%	100%	Yes
Class 8 Local Freight Trucks (Eligible Large Trucks) Class 8 Port Drayage Trucks (Eligible Large Trucks)	Repower, Replace	1997 – 2006 1992 - 2006	40% / 25% / 75%	100%	Yes
Freight Switchers	Repower, Replace	Pre-Tier 1	40% / 25% / 75%	100%	Yes
Ferries / Tugs	Repower,	Unreg, Tier1 or Tier2 engines	40% / 75%	100%	Yes
Ocean Going Vessels Shorepower	NA	NA	25%	100%	NA
Airport Ground Service Equipment	Repower, Replace	Tier 0, 1 or 2 diesel; gasoline (could not read the printout)	75%	100%	Yes
Forklifts	Repower, Replace	8,001 lb. lift cap.	75%	100%	Yes
LDV Zero Emission Supply Equipment (up to 15% of Trust Fund Allocation)	Repower, Replace	NA	25% - 80%	60 - 100%	NA
Diesel Emission Reduction Match Option	Repower, Replace		DERA details to be filled in later – see EPA DERA for more info.		Yes

Accessing and Spending Allocations

- Beneficiaries have up to 10 years to spend 80% of their allocation, and up to 15 years to spend 100% of their allocation
 - Beneficiaries may request up to one-third of its allocation during the first year, and up to two-thirds of its allocation during the first two years
- Beneficiaries can submit requests for Eligible Mitigation Action funding at any time
 - Funding must be approved, approved with modification, or denied within 60 days
- Beneficiaries may use its DERA proposal as its funding requests for Actions that are funded through the DERA option
- Two or more beneficiaries may submit a joint request for Eligible Mitigation Action funds
- Beneficiaries must submit a semiannual report

Updated Timeline Steps

Missed

VW Environmental Mitigation Trust Timing		
Timing	Estimated Date	Consent Decree Milestone
Settlement Effective Date (SED)	October 25, 2016	Consent Decree entered into court
SED + 30 Days	November 24, 2016	Trustee candidates submitted
60-90 days after the SED		Selection of Trustee
		Finalization of Environmental Trust Agreement
Trust Effective Date (TED)		Establishment of Environmental Trust
TED + 15 days		Trustee established trust account
TED + 60 days		Governmental entities file Certification Forms
TED + 120 days (note: proposed consent decree includes the phrase "no later than," so the Trustee may grant Beneficiary status sooner than 120 days)		Trustee approves /denies Beneficiary status
TED + 210 days (not later than 90 days after being deemed a Beneficiary)		Beneficiary Mitigation Plan submitted

Prepared by NASEO



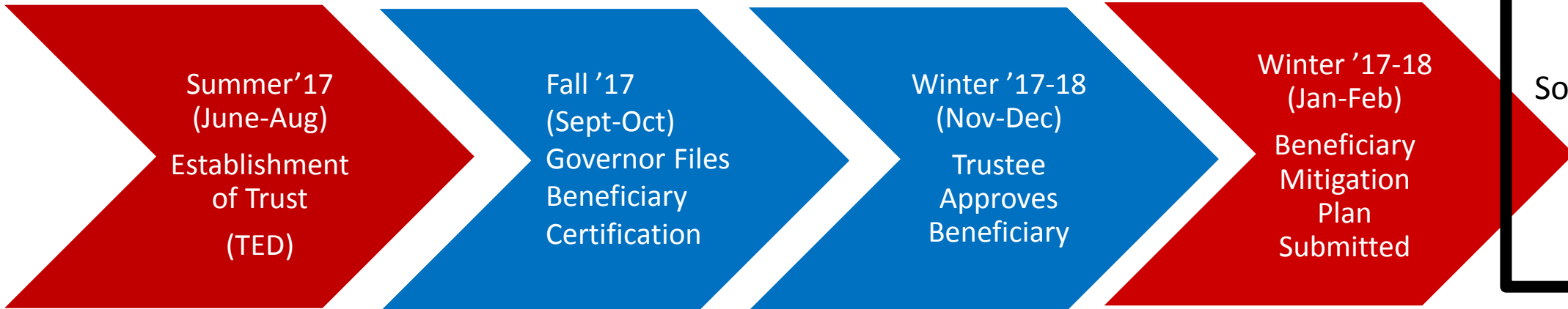
VW Settlement Potential Timeline



Oct. 25, 2016

Nov 24, 2016

W/I 60-90 days SED--**missed**




W/I 60 days TED

W/I 120 days TED

W/I 90 days

Spring '18 (Feb-May)
Solicitation & Awards



W/I 30-90 days

Considerations

Get involved—Have a voice

- Input to states:
 - RFI, webinars and public forums
- Contact/work with your Governor's Office, legislators and other relevant state or regional organizations w/ clean transportation expertise, such as Energy Offices, DEQ, Air Quality, NC CETC & Clean Cities



Considerations

Maximize \$\$ to projects--cooperation & collaboration

- Efficiencies in administration
- Efficiencies in awareness, education and outreach—consistent message
- Group buying opportunities
 - Nissan
 - Charge Point
 - GE
 - NGA



Reference Resources

- NASEO website: <http://www.naseo.org/volkswagen-settlement>
- NACAA repository website: [http://4cleanair.org/Volkswagen Settlement Information](http://4cleanair.org/Volkswagen%20Settlement%20Information)
- VW Settlement website: <https://www.vwcourtsettlement.com/en/>
- EPA website VW Clean Air Act partial settlement website: <https://www.epa.gov/enforcement/volkswagen-clean-air-act-partial-settlement>
- EPA's Frequently Asked Questions (FAQ) For Beneficiaries to the Volkswagen Mitigation Trust Agreement: <https://www.epa.gov/sites/production/files/2016-07/documents/faqvwmitigationtrustbeneficiariesfirstedition0716.pdf>
- Electrify America website: <https://www.electrifyamerica.com/>
- EPA DERA & VW information: <https://www.epa.gov/cleandiesel/volkswagen-vw-settlement-dera-option>
- Center for Climate and Energy Solutions: www.c2es.org/docUploads/vw-settlement-final.pdf

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Cassie Powers

- Senior Program Director for NASEO, leading transportation and State Energy Planning programs
- Prior work as an EV Program Coordinator with Georgetown Climate Center
- Master's Degree in Urban and Environmental Planning from the University of Virginia, and a Bachelor of Arts from the College of William and Mary



NASEO

*National Association of
State Energy Officials*



Volkswagen Settlement: Resources and Early Actions from States

Cassie Powers

National Association of State Energy Officials

February 23, 2017



About NASEO

- Formed by the states in 1986
- Membership includes the 56 Governor-designated energy policy officials from each state and territory, as well as private sector affiliates
- Facilitates peer learning across states to improve the effectiveness of energy programs and policies
- Serves as a resource for and about State and Territory Energy Offices
- Advocates on behalf of the State Energy Offices with Congress, federal agencies, and private-sector organizations
- Works through topical committees to facilitate peer learning across states to improve the effectiveness of energy policies and programs
- Visit www.naseo.org for more information





State Energy Offices and Alternative Fuels

- Set transportation energy goals through Comprehensive Energy Plans
- Advise Governors on alternative fuel vehicle policies
- Strong history of electric vehicle and alternative fuel vehicle program implementation
- Play lead or supporting role in Appendix D implementation





Resources – NASEO VW Website

www.naseo.org/volkswagen-settlement

- Timeline for Environmental Mitigation Trust
- PowerPoint presentation with information on the settlement
- Links to relevant Appendix D resources (e.g., links to final consent decree, EPA FAQ, etc.)



VW Environmental Mitigation Trust Timing		
Timing	Estimated Date	Consent Decree Milestone
Settlement Effective Date (SED)	October 25, 2016	Consent Decree entered into court
SED + 30 Days	November 24, 2016	Trustee candidates submitted
Trust Effective Date (TED)	Spring-Summer, 2017	Establishment of Environmental Trust
TED + 15 days		Trustee established trust account
TED + 60 days		Governmental entities file Certification Forms
TED + 120 days (note: proposed consent decree includes the phrase “no later than,” so the Trustee may grant Beneficiary status sooner than 120 days)		Trustee approves /denies Beneficiary status
TED + 210 days (not later than 90 days after being deemed a Beneficiary)		Beneficiary Mitigation Plan submitted



Resources – Beneficiary Mitigation Plan Toolkit

- Upcoming resource from NASEO that provides:
 - Settlement overview and basic requirements for Beneficiaries
 - Summary of repower and replacement options
 - Overview of emissions quantification tools (e.g., AFLEET; Diesel Emissions Quantifier, etc.)
 - Breakdown of Eligible Mitigation Actions, including expected emissions reductions from range of fuels and technologies
 - Case studies for each Eligible Mitigation Action
 - Links to additional resources





Early Stakeholder Engagement from States: Tennessee

- Early actions include:
 - Launched website with basic info on settlement
 - Launched web-based form for stakeholders to submit comments on how state can use Environmental Mitigation Trust funds
 - Will hold public listening sessions throughout state
 - <http://www.tennessee.gov/environment/article/energy-tennessee-and-the-volkswagen-diesel-settlement>

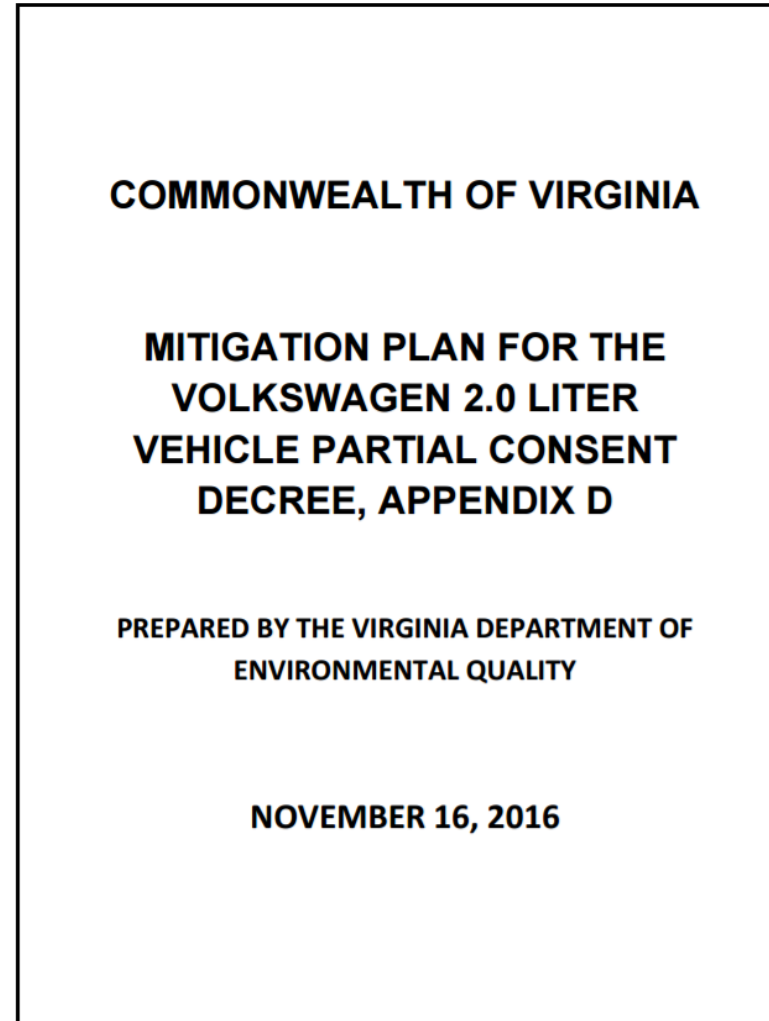
The screenshot shows the website header for the Tennessee Department of Environment & Conservation. The main content area is titled "Tennessee Volkswagen Settlement Environmental Mitigation Trust Public Participation". The text explains that the Volkswagen (VW) Diesel Settlement requires VW to establish a \$2.7 billion mitigation trust fund to be distributed among states for defined eligible projects that reduce NOx. Each state or jurisdiction's allocation is based on the number of registered illegal VW vehicles within its boundaries. Using this allocation methodology, Tennessee is expected to be eligible to receive approximately \$42 million. Governor Haslam has identified TDEC as the lead agency for purposes of administering the state's trust allocation. Once the trust is established, TDEC will follow the steps outlined in the settlement to apply for beneficiary status on behalf of the state, and will provide opportunity for stakeholder input regarding use of the trust funds. The page also includes a link to the "Tennessee VW Settlement Environmental Mitigation Trust Comment Form" and a section for "Public Education and Listening Sessions" where TDEC will be hosting public education and listening sessions regarding the VW settlement environmental mitigation trust.





Early Stakeholder Engagement from States: Virginia

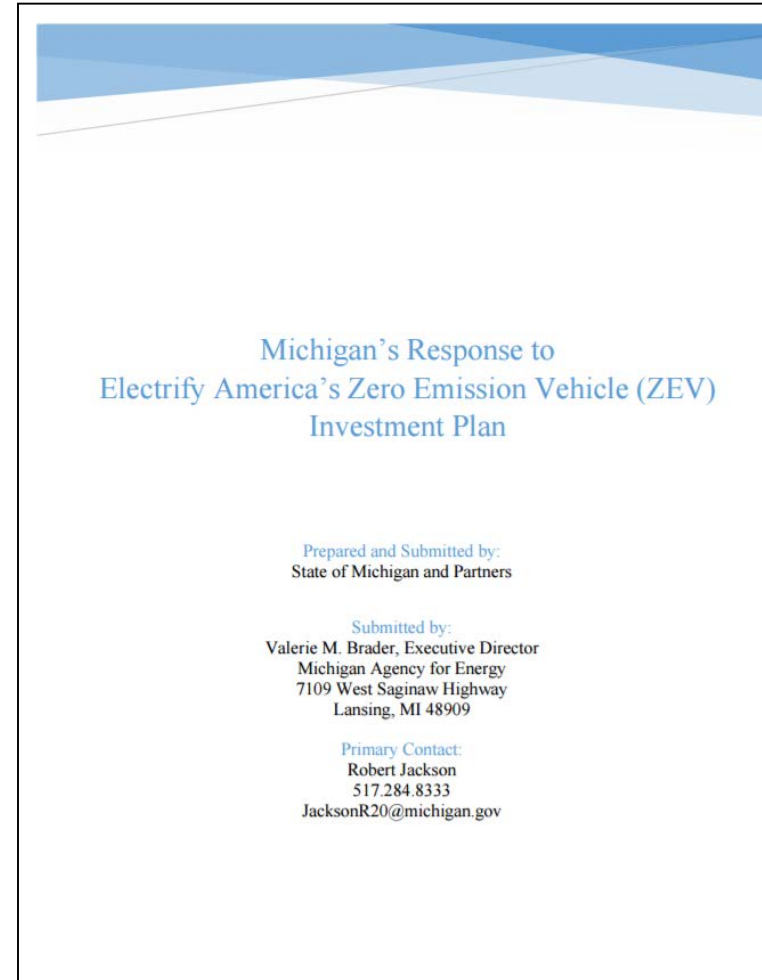
- Early actions include:
 - Developed draft Beneficiary Mitigation Plan
 - Held public comment period from November-December, 2017
 - Launched “Town Hall” email notifications that stakeholders can sign-up for to receive updates on meetings and actions related to plan
 - <http://www.deq.virginia.gov/Programs/Air/VWMitigation.aspx>





Early Stakeholder Engagement from States: Michigan

- Early actions include:
 - RFI for ZEV Investment
 - ZEV Investment Plan submitted to Electrify America
 - <http://www.michigan.gov/energy>
 - RFI for Environmental Mitigation Trust (closes March 3)
 - <http://www.deq.state.mi.us/forms/RFI-VWBMP.html>





Contact Information



Thank You

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www.naseo.org/volkswagen-settlement



**State Considerations for
the VW Settlement
Opportunity**

NC Clean Energy Technology Center Webinar

Mary Sullivan Douglas

NACAA

February 23, 2017

Presenter



Mary Sullivan Douglas

- **Senior Staff Associate for NACAA, lead staff person for issues related to hazardous air pollutants, enforcement, and appropriations and air quality agency funding**
- **Prior work in the office of Rep. Robert Roe of New Jersey**
- **Bachelor of Arts degree in Government from Georgetown University**

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About the National Association of Clean Air Agencies (NACAA)

- ❑ National association of state and local air pollution control agencies in 45 states and territories
- ❑ Headquarters office located in Washington, D.C.
- ❑ Our mission is to serve as a liaison between our members and EPA, Congress and other important stakeholders.
- ❑ Primary focus has been on implementation of the federal Clean Air Act.

NACAA Members Were Very Concerned About VW Violations

- ❑ NACAA members responsible under the Clean Air Act for meeting the NAAQS for NO₂ (the indicator for NO_x).
- ❑ State and local air agencies already working very hard to address NO_x.
- ❑ VW violations could directly interfere with state and local efforts to protect the public's health and welfare.
- ❑ NACAA pleased that consent decree included significant resources for states, earmarked directly for NO_x emission mitigation activities.

NACAA Recommendations in Two Documents

- NACAA outlined recommendations in two documents:
 - ◆ NACAA Recommendations for the Distribution of Funds for Environmental Mitigation and Supplemental Environmental Projects Related to Alleged Volkswagen Violations (May 17, 2016) – <http://www.4cleanair.org/sites/default/files/Documents/NACAA-VW-SEP-Recommendations-5-17-16.pdf>
 - ◆ NACAA Comments on the Proposed VW Consent Decree (August 2, 2016) – <http://www.4cleanair.org/sites/default/files/Documents/NACAACommentsVWProposedConsentDecree-08-02-16.pdf>

Role of Local Air Quality Agencies

- ❑ NACAA members include local air pollution control agencies.
- ❑ Most local agencies are highly sophisticated, effective and experienced.
- ❑ Local air agencies may play a key role in planning NO_x-reduction strategies.
- ❑ NACAA recommended that local agencies have a mechanism for obtaining Mitigation Trust Funds directly.
- ❑ Final Consent Decree did not provide for local agencies' direct application for funds, so they must work with states.
- ❑ NACAA recommends that state and local air agencies work together and that local agencies be included in mitigation programs.

NACAA Repository of State and Local Agency Information

- ❑ NACAA developed online repository for state and local info and links on VW Mitigation Trust Fund activities.
- ❑ Contains state/local agency webpages, public outreach materials, drafts of documents, etc.
- ❑ Will be updated regularly with additional information.
- ❑ http://4cleanair.org/Volkswagen_Settlement_Information

VOLKSWAGEN SETTLEMENT INFORMATION STATE AND LOCAL AGENCY LINKS AND PROGRAMS

State and Local Agency Information (February 14, 2017)

AGENCY	LINKS	OTHER INFORMATION	CONTACT
Alabama	Click here Click here	Basic information on the settlement and solicitation of comments on the development of the mitigation plan AG's statement when the settlement was initially announced (June 2016)	Dale Hurst (334) 271-7882 http://www.adem.alabama.gov/
Alaska			
Arizona	Click here		
Arkansas	Click here	Arkansas has established an email list for updates on state activities regarding the	Tricia Jackson Treece (501) 682-0055 treecep@adeq.state.ar.us

What NACAA Repository Shows

- ❑ 17 agencies have provided info or websites (AL, AZ, AR, CO, CT, IA, MN, NV, NH, OH, OR, RI, SC, TN, VA, WA, Puget Sound, WA).
- ❑ State websites provide general background info, FAQs, links, etc.
- ❑ Several include step-by-step timelines for action (AZ, CO, MN, NV, OH, OR, RI, SC).
- ❑ Several include details about public comment processes (AZ, CO, CT, MN, NH, OH, TX, VA, Puget Sound).

What NACAA Repository Shows (continued)

- ❑ Several have a mechanism for the public to join an email list serve for additional info (AR, CT, MN, NV, OR, VA, WA).
- ❑ One state includes maps of possible eligible counties (OH).
- ❑ One state provides its proposed mitigation plan (VA).
- ❑ In many cases, the lead agencies have not yet been identified.
- ❑ Local agency information will also be included (Puget Sound, WA).

Contact Info

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Presenter



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Tom Brotherton

- Based in CALSTART's CO office, oversees their vehicle incentive programs for in CA, NY and Chicago and is involved in efforts to reduce vehicle emissions and petroleum use
- Previous Deputy Director of Colorado's Energy Office and taught Architectural Engineering at the University of Colorado-Boulder
- BSE in Civil Engineering from Princeton, and a MS in Civil Engineering from University of Colorado. a registered PE in CO

CALSTART

Voucher Incentive Programs



Why Incentives?

- Help build markets sooner
- Ensure robust market in next decade
- Support growth of supply chain
- Offset trepidation with new technology

Why *Voucher* Incentives?

- Point of purchase discount
 - *Fleets get immediate discount*
- Dealers learn voucher system
 - *Fewer complications for fleets*
- Set-aside funding for each voucher
 - *Price certainty at time of request*

Program Flexibility

- Can use any vehicle technology
- New vehicles or retrofits
- Live funding status
- Web-based voucher processing center
- Database storage of documentation
- Can use multiple funding sources

Sample Programs



- Electric, hybrid, fuel cell, natural gas
- Trucks and buses
- New vehicles and retrofits
- 7 years
- 3,000+ vouchers

California HVIP

Zero-Emission trucks and buses:

GVWR (lbs)	Base Vehicle Incentive		
	1 to 100 vehicles ¹		101 to 200 vehicles
	Outside DC ²	Within DC ²	
5,001 – 8,500	\$20,000	\$25,000	\$12,000
8,501 – 10,000	\$25,000	\$30,000	\$18,000
10,001 – 14,000 ³	\$50,000	\$55,000	\$30,000
14,001 – 19,500	\$80,000	\$90,000	\$35,000
19,501 – 26,000	\$90,000	\$100,000	\$40,000
> 26,000	\$95,000	\$110,000	\$45,000

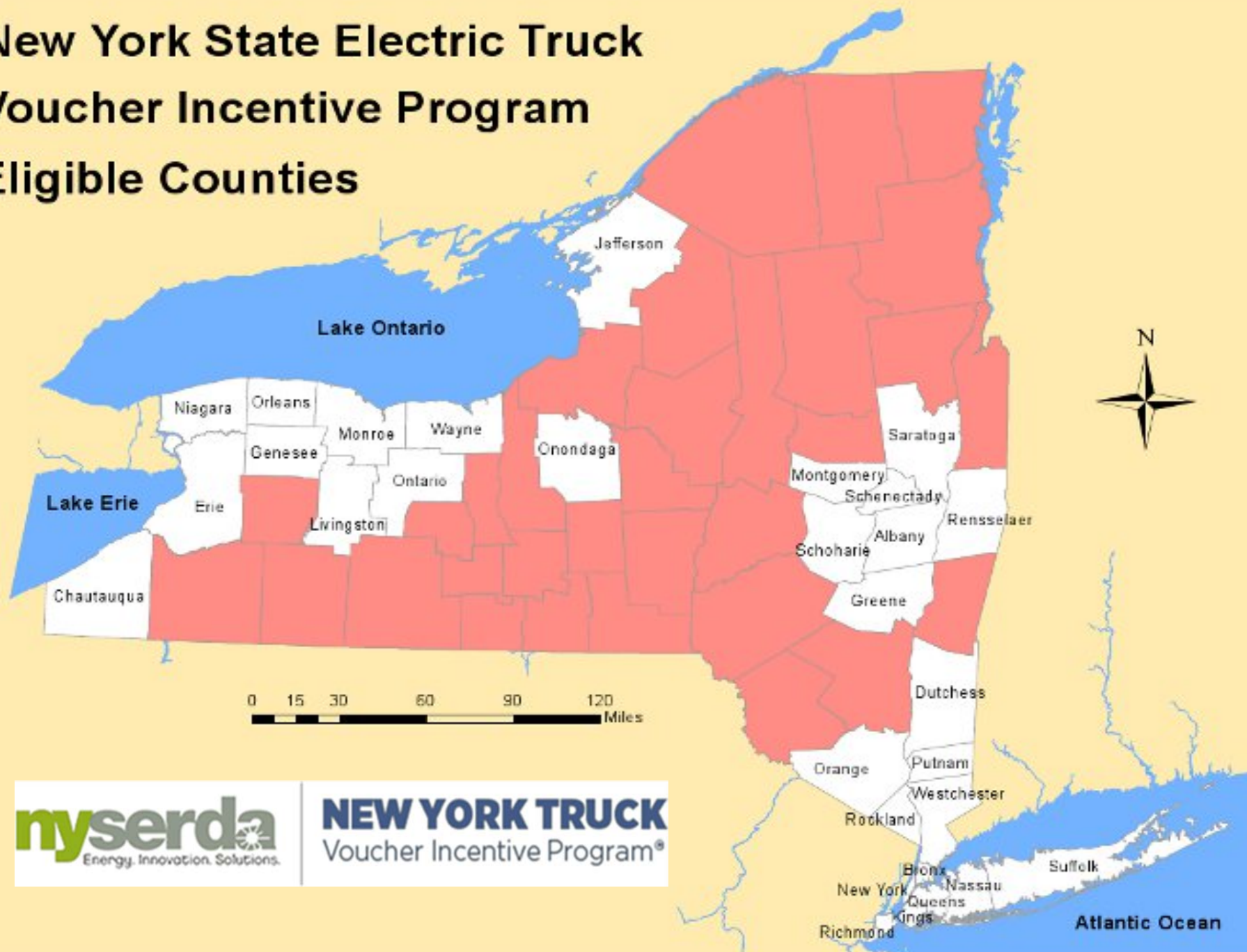
Hybrid trucks and buses:

GVWR (lbs) ¹	Base Vehicle Incentive	
	1 to 100 vehicles ²	101 to 200 vehicles
6,001 – 8,500 (plug-in hybrids only) ³	\$ 8,000	\$ 6,000
8,501 – 10,000 (plug-in hybrids only) ³	\$10,000	\$ 8,000
10,001 – 19,500	\$15,000	\$10,000
19,501 – 33,000	\$20,000	\$12,000
33,001 – 38,000	\$25,000	\$15,000
> 38,000	\$30,000	\$20,000

Low-NOx NG

\$8,500 to \$15,000

New York State Electric Truck Voucher Incentive Program Eligible Counties



NEW YORK TRUCK
Voucher Incentive Program®

NYT-VIP *E-trucks and E-buses*

- *For non-attainment counties in NY State*

Zero-Emission Trucks and Buses

- Voucher = 80% of incremental cost with caps based on GVWR

New Incentive Structure for NYSEV-VIF	
GVWR (lbs.)	All-Electric Vehicle
10,001 - 14,000	\$60,000 Cap
14,001 - 19,500	\$90,000 Cap
19,501 - 26,000	\$100,000 Cap
26,001 - 33,000	\$110,000 Cap
33,001 - 38,000	\$120,000 Cap
> 38,000	\$150,000 Cap

NY City AFV Fund

- *For fleets in New York City*
- Natural gas, hybrid, electric trucks + buses
- Voucher = 80% of incremental cost with caps:
 - *\$40,000 Cap for Hybrid Trucks and Buses*
 - *\$50,000 Cap for CNG Trucks and Buses*
 - *\$60,000 Cap for All-Electric Trucks and Buses (starting July 2018)*

Chicago Drive Clean Truck



- Incentives for ***hybrid and electric trucks and buses***
- Must garage and operate in 6-county metro Chicago area

Chicago *E-trucks and E-buses*

- Incentive = 80% of incremental Cost
- Incentive caps based on GVWR:

GVWR (lbs)	Zero Emission
6,001 - 10,000	Capped at \$55k
10,001 - 14,000	Capped at \$60k
14,001 - 19,500	Capped at \$90k
19,501 - 26,000	Capped at \$100k
26,001 - 33,000	Capped at \$110k
33,001 - 38,000	Capped at \$120k
> 38,000	Capped at \$150k

Chicago *Hybrid Trucks and Buses*

- Incentive = 80% of incremental Cost
- Incentive caps based on GVWR:

GVWR (lbs)	Hybrid
6,001 - 10,000	Capped at \$20k
10,001 - 14,000	Capped at \$30k
14,001 - 19,500	Capped at \$40k
19,501 - 26,000	Capped at \$50k
26,001 - 33,000	Capped at \$60k
33,001 - 38,000	Capped at \$80k
> 38,000	Capped at \$100k

Presenter



Colin.Santulli@energycenter.org

Phone: 858-244-1177

Colin Santulli

- Program Manager for the Center for Sustainable Energy's Transportation Programs Group
- Oversees CSE's clean transportation programs including four statewide incentive projects in CA, MA, CT and NY and several regional incentive projects
- frequently advises state and local governments, utilities and other entities on the design and implementation of clean transportation programs aimed at improving air quality and reducing GHGs



Incentives Programs for AFVs & Infrastructure

Designing a Program that Works

February 23, 2017

Colin Santulli, Director, Clean Transportation Programs

Center for Sustainable Energy (CSE)



Building
Performance



Clean
Transportation



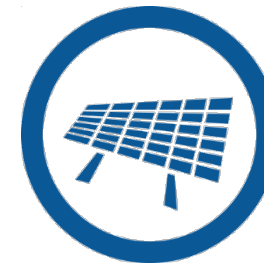
Distributed
Generation



Energy
Efficiency

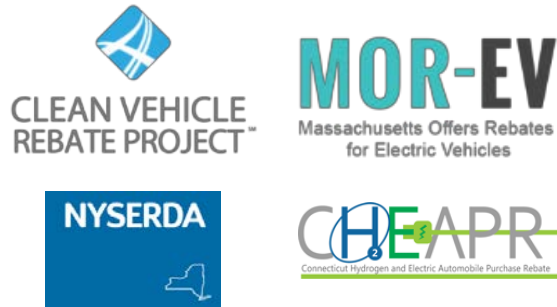


Energy
Storage



Renewable
Energy

CSE Clean Transportation Activities



Incentives Design & Administration



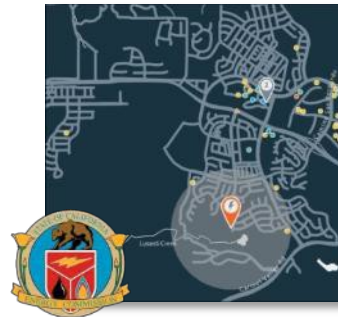
Consumer & Dealer Outreach



Stakeholder Engagement



Fleet Assistance & Clean Cities



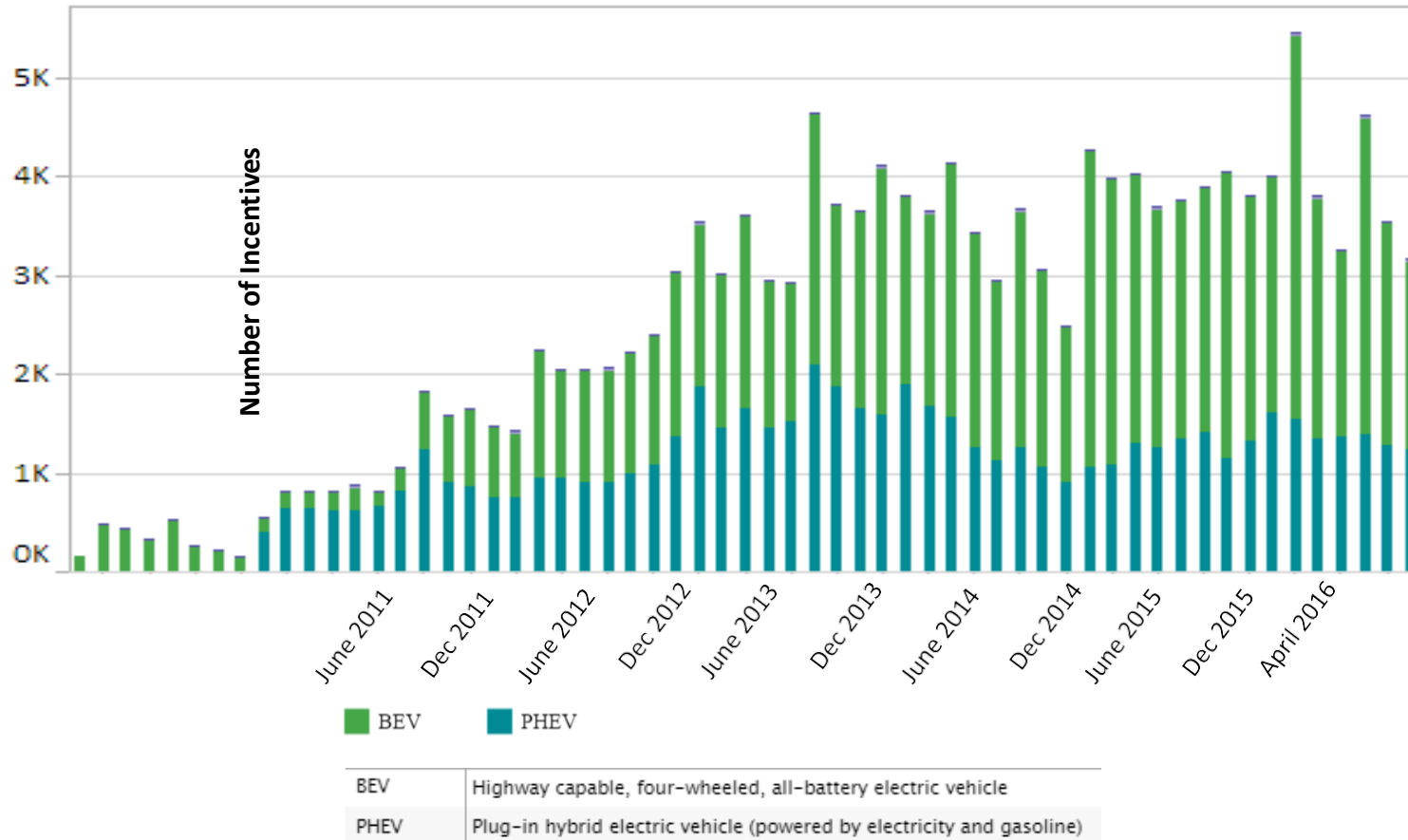
PEV, Alt.-Fuel, & ZEV Planning & Implementation



2nd Life Battery Research & Vehicle-Grid Integration

Clean Transportation Incentive Programs

California Clean Vehicle Rebate Project



CSE has processed more than:
176,000 vehicle rebates,
\$380 million in incentives



CLEAN VEHICLE REBATE PROJECT™



SOUTHERN CALIFORNIA EDISON®

An EDISON INTERNATIONAL® Company

Outline

Key Components of Successful Incentive Programs

- Accessible Website
- Outreach & Education
- Program Transparency
- Market Surveys





Key Features of Incentive Programs

Incentive Programs: Key Components

- Program Website and Application
 - Online applications and program information
 - Program funding transparency (real time funding ticker)
- Education and Outreach
 - Technical assistance
 - Fleet events, dealer training and support, ride and drive events
- Program transparency
 - Online program data publically available via online tools and datasets
- Program Surveys
 - Fleet surveys (technology adoption, vocation) and vendor surveys



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Project Website: Accessibility



Administered by CSE for the
California Air Resources Board

[Español](#)

[Get Started](#)

[Tools and Resources](#)

[Help](#)

[Log In](#)

Drive clean and save

California residents get up to \$5,000 for the purchase or lease of a new, eligible zero-emission or plug-in hybrid light-duty vehicle.

New to CVRP?

Existing applicant?

[Apply for a rebate](#)

[Check status](#)

California Environmental Protection Agency
 Air Resources Board

Vehicles and eligibility

Apply within 18 months of purchase/lease of an eligible vehicle and before rebate funds are exhausted.
See [complete eligibility guidelines](#).



Ford Focus Electric



Hyundai Sonata Plug-in Hybrid



Ford C-MAX Energi



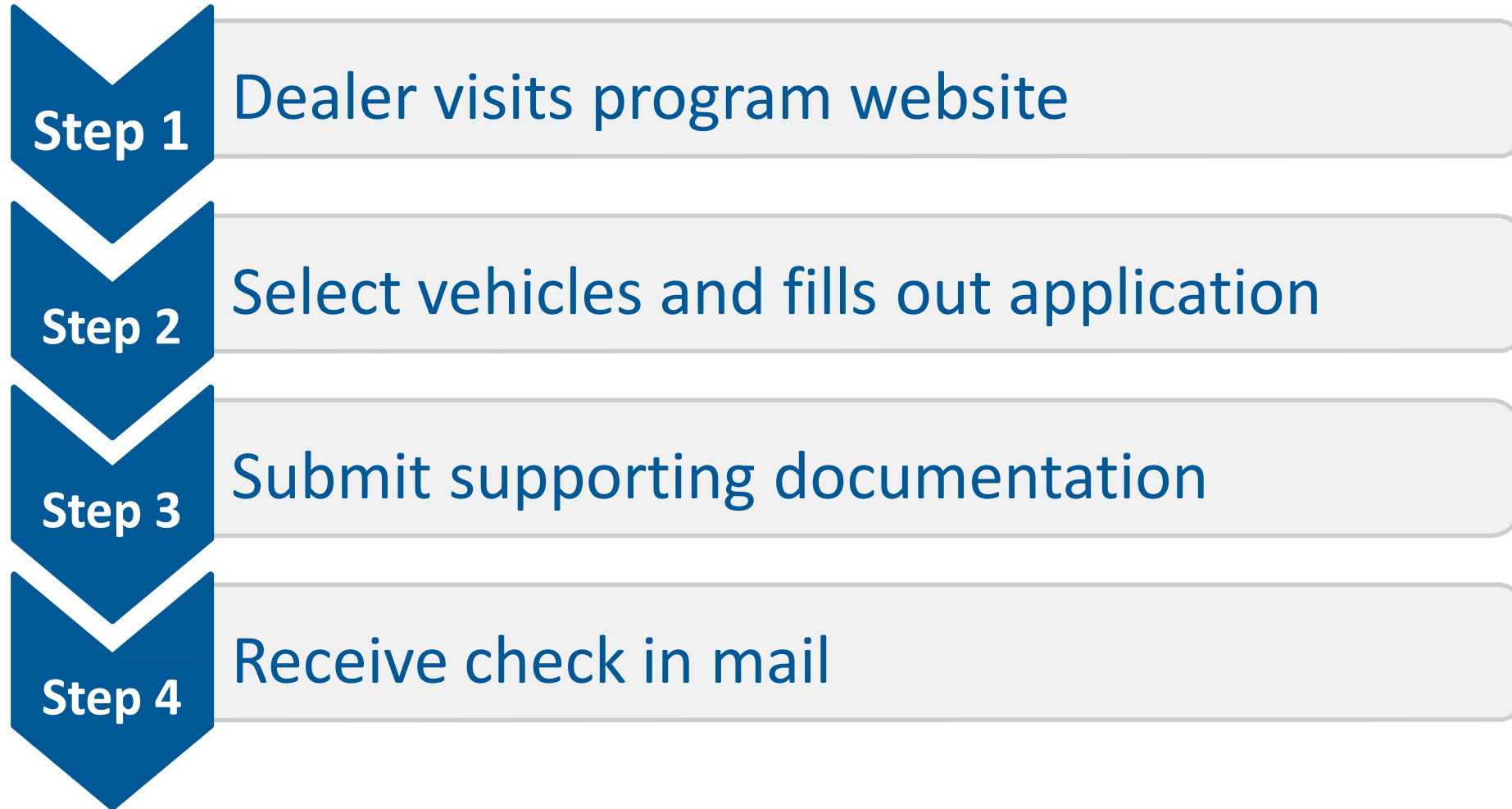
BMW i3 REx



Kia Optima Plug-in Hybrid

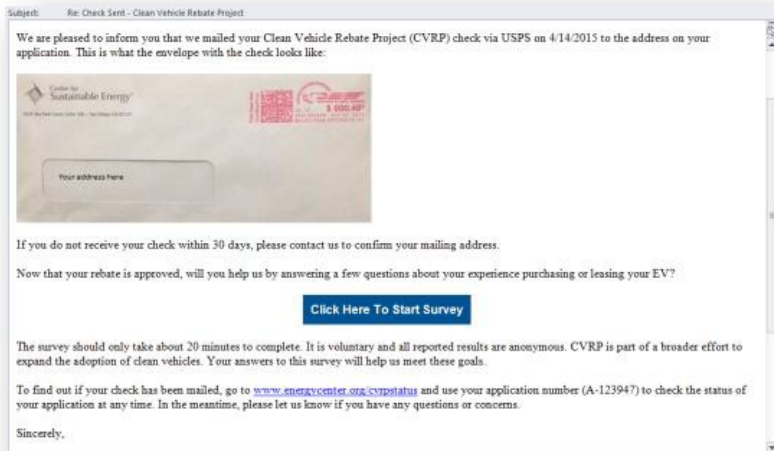
[View all eligible vehicles](#)

Application: Simplicity is Key



Application: Simple and Automated


- Streamlined application process
- Upload documents online or send via email
- Frequent automated email communications



Administered by CSE for the California Air Resources Board, the Clean Vehicle Rebate Project (CVRP) offers up to \$5,000 in electric vehicle rebates for the purchase or lease of new, eligible zero-emissions and plug-in hybrid light-duty vehicles.

1. Choose vehicle 2. Accept terms 3. Fill out application 4. Upload documents

Submit CVRP application



Hyundai Tucson Fuel Cell
2015-2016
\$5,000.00

APPLICANT INFORMATION

Applicant Type *
- Select a value -

First Name * Last Name *

Phone *

Applicant Email * Re-enter Email *

All notifications about your rebate will be delivered to this email address.

Password *

Confirm password *

Please create a password to log back into your CVRP account.

Street Address *

City *

State * Zip Code *
California

Mailing Address
Check if different.

VEHICLE INFORMATION

VIN *

Vehicle Year *
- Select a year -

Date of purchase or lease start date *
Date

Website: Available Funding Tracking

- Real-time funding easily accessible
- Funding trackers let fleets determine urgency

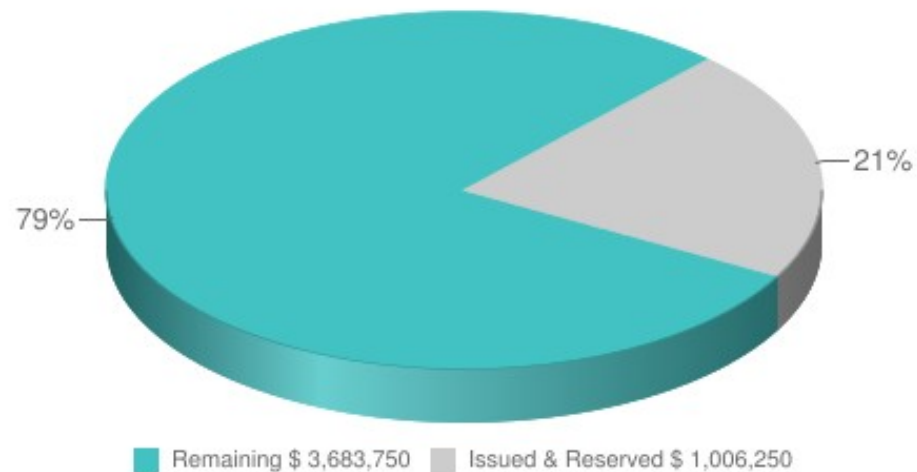
The screenshot shows the MOR-EV website interface. At the top left is the MOR-EV logo with the text 'Massachusetts Offers Rebates for Electric Vehicles'. To the right is a navigation menu with links for HOME, APPLY, AVAILABLE FUNDING, PROGRAM STATISTICS, RESOURCES, FAQ, and CONTACT US. Below the navigation is a main heading: 'MOR-EV IS A MASSACHUSETTS PROGRAM THAT ISSUES REBATES TO ELECTRIC VEHICLE DRIVERS' followed by the sub-heading 'Purchase or lease an eligible electric vehicle and apply for your rebate today!'. A large image of a city skyline at night is displayed below. At the bottom, there are four columns of content: 'APPLY FOR A REBATE', 'AVAILABLE FUNDING', 'PROGRAM STATISTICS', and 'FREQUENTLY ASKED QUESTIONS'. The 'AVAILABLE FUNDING' column is circled in red. It contains a circular icon with a refresh symbol and the text: 'Track reserved and available funding amounts. A total of \$3.72M has been dedicated to MOR-EV to increase the number of electric vehicles on the road.'

Website: Funding tracking

- Real-time funding easily accessible
- Funding trackers let fleets determine urgency

MOR-EV Funds (November 2016-Present)

Rebates Issued and Reserved	\$1,006,250
Remaining Funds	\$3,683,750



Since Program Began

Rebates Issued	\$6,518,500
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Incentive Programs: Key Components

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Outreach: Public Partnerships

Leveraged partnerships:

- DOE Clean Cities Coalitions
- Public and Private Utilities
- Land Grant/Extension Universities

Activities:

- General awareness events
- Fleet workshops
- Technical assistance
 - Vehicle replacement consultations
 - Infrastructure assessments
 - Life-cycling analysis



Outreach: Industry Support

Industry partnerships:

- OEMs
- Upfitters/aftermarket providers
- Trade press
- Equipment dealers



Activities:

- Trade shows participation
- Case studies in trade press
 - Show real-world, practical implementation
- Sales staff education



Outreach: Non-attainment and Underserved Areas

Target Audience Examples:

- Disadvantaged communities (DACs)
- EPA Non-Attainment/Maintenance Areas

Activities:

- Establish eligible geofences/ZIPs/Census Tracts for tracking purposes
- Integrate messaging into community based organizations and other agencies through workshops and events
 - NGOs
 - Utility Programs
 - COGs/Air Districts



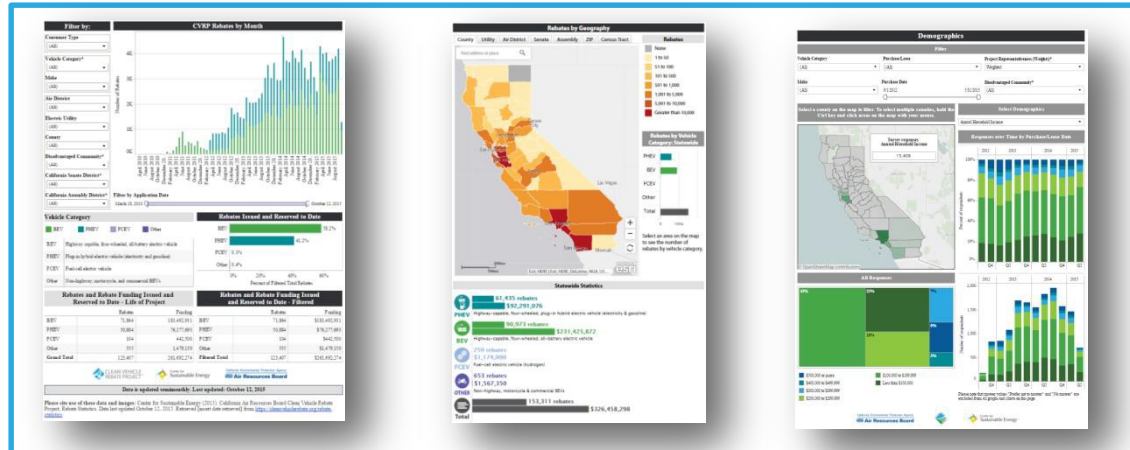
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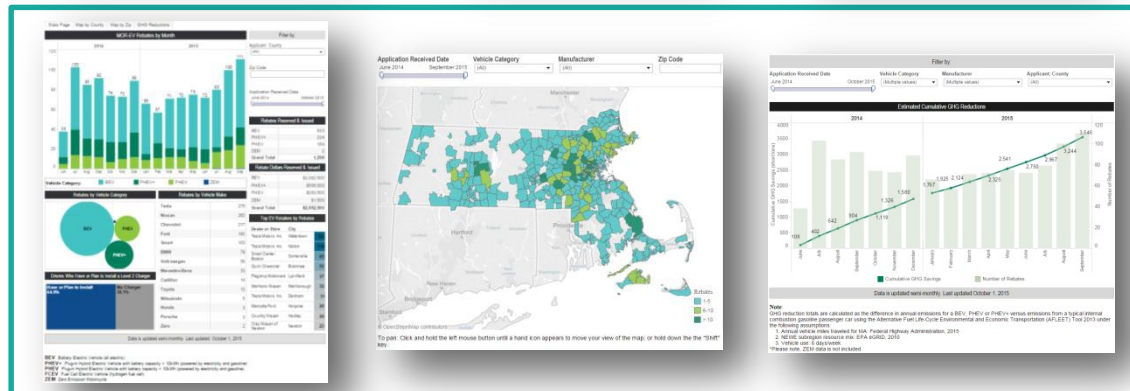
CSE Transparency Tools

- Public, online, interactive dashboards facilitate informed action
 - Data characterizing >175,000 EVs and consumers
 - ~\$380M in incentives processed
 - >19,000 survey responses statistically represent >90,000 consumers

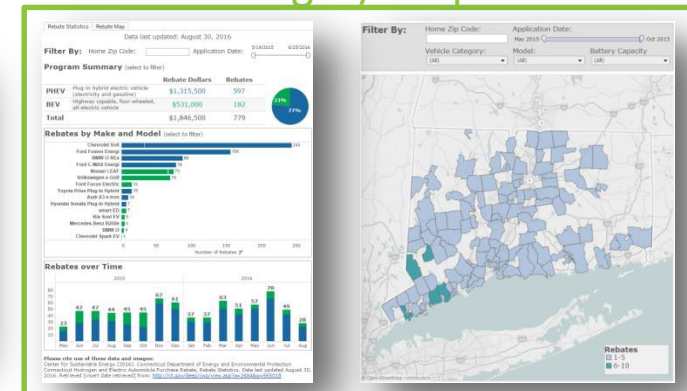


cleanvehiclerebate.org

ct.gov/deep



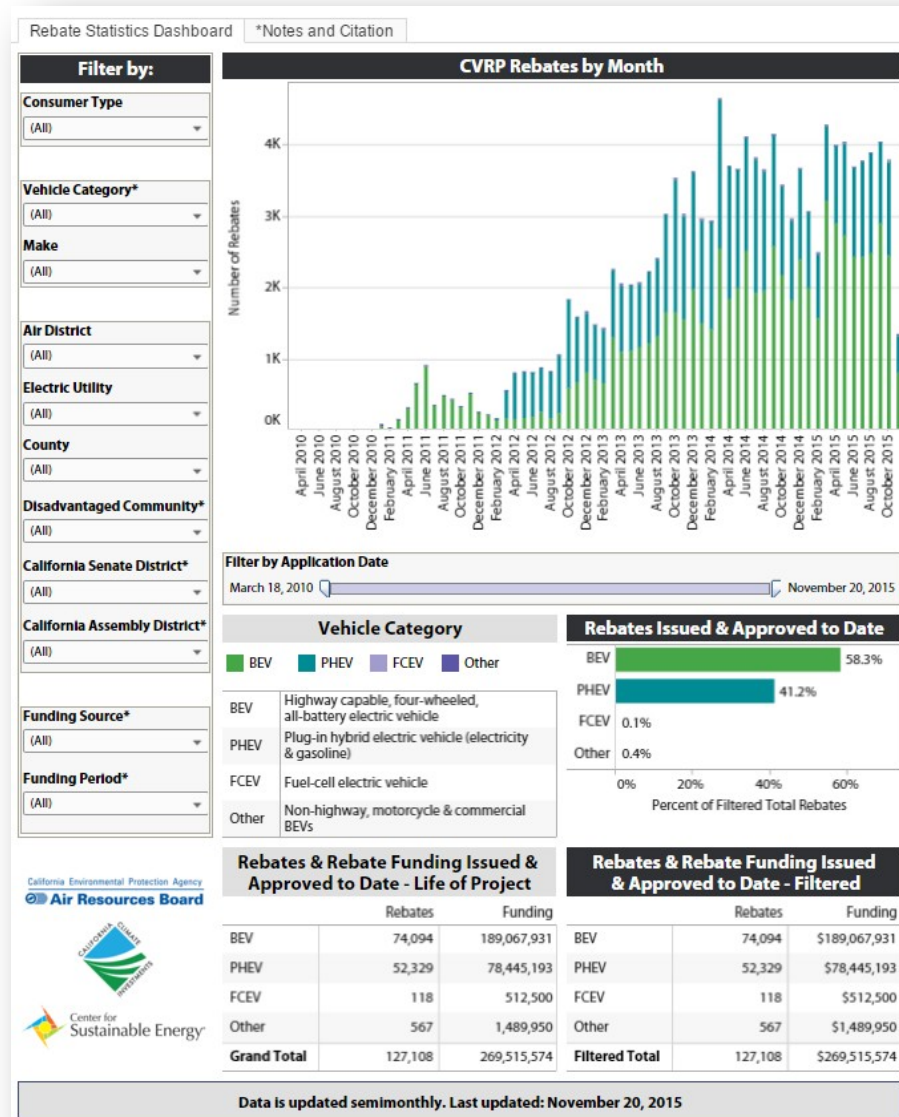
mor-ev.org



Incentives Dashboard

Results by:

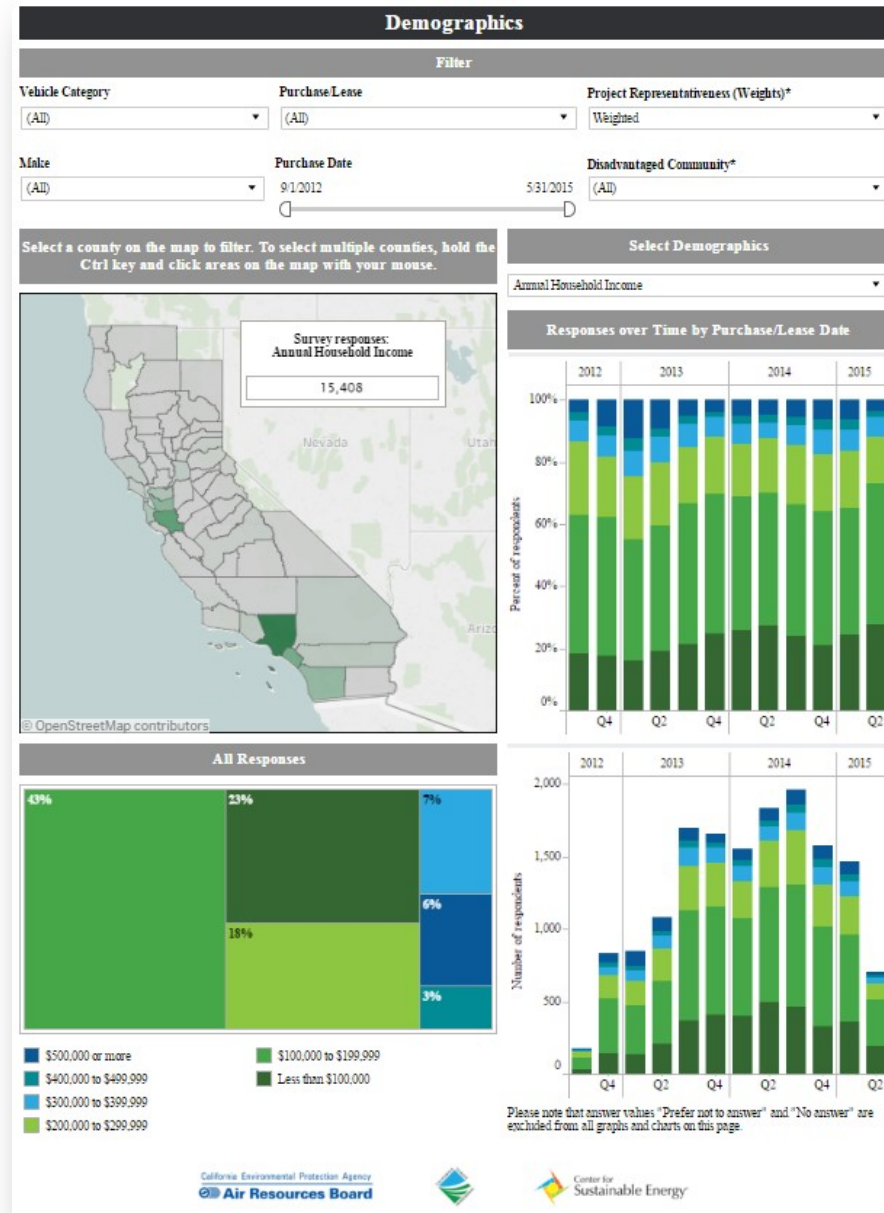
- Rebated vehicles and funds:
 - Life-of-project (grey headings) vs. filtered selection (black)
- Rebated vehicles:
 - By month
 - By vehicle category
 - Filtered totals and %
- Downloads:
 - Images
 - Raw data (incl. Census tract)



Please cite use of these data and images: Center for Sustainable Energy (2015). California Air Resources Board Clean Vehicle Rebate Project, Rebate Statistics. Data last updated November 20, 2015. Retrieved [insert date retrieved] from <https://cleanvehiclerebate.org/rebate-statistics>

Fleet Survey Dashboard

- All incentive recipients invited to take a survey
- +35,000 CVRP responses
- Topics include:
 - Demographics
 - Information channels
 - Purchase motivations and enablers
 - Dealership experience
 - Utility rate awareness
- Filter by: vehicle category, buy/lease, make, region
- Survey results weighted to program participants by county, model, and purchase/lease



EV Incentive Programs: Key Components

- Program Website and Application
 - Online applications and program information
 - Program funding transparency (real time funding ticker)
- Education and Outreach
 - Technical assistance
 - Fleet events, dealer training and support, ride and drive events
- Program transparency
 - Online program data publically available via online tools and datasets
- **Program Surveys**
 - **Fleet surveys (technology adoption, vocation) and vendor surveys**



Program Surveys

- Fleet Surveys on variety of AFV-related topics:
 - Vocation
 - Fleet satisfaction
 - Anticipated return on investment
 - Purchase motivations
 - Driving/Fueling behavior and needs
- Voluntary vs. Mandatory
- Multiple surveys vs. one-time interaction

Contact:

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colin.santulli@energycenter.org

(858) 244-1195





CSE Resources



Incentive Program Evaluation Examples

- **Target Consumer Segments: Converts, Incentive Essentials** ([BECC pres 2016](#) and forthcoming Jan 2017 paper)
 - Progress in **Disadvantaged Communities** ([AEA pres 2016](#))
 - **Information Channels** ([EV Roadmap pres, 2016](#))
 - Exposure & importance of various channels, consumer time spent researching various topics
 - **Infographics**
 - Overall ([CVRP infographic, 2016](#))
 - Disadvantaged Communities ([CVRP infographic, 2017](#))
 - Characterization of **Participating Vehicles and Consumers** ([CVRP research workshop pres, 2015](#))
 - **Program Participation** by Vehicle Type and County ([CVRP brief 2015](#))
 - **Dealer services: Importance and Prevalence** (EF pres 2015)
- Also:
- Evaluation of the CT Dealer Incentive ([AEA pres, 2016](#))