U.S. EPA's State and Local Energy and Environment Webinar Series

EPA United States Environmental Protection Agency

Electric Vehicle Policies and Strategies

February 16, 2021
12:00 – 1:00 PM Eastern

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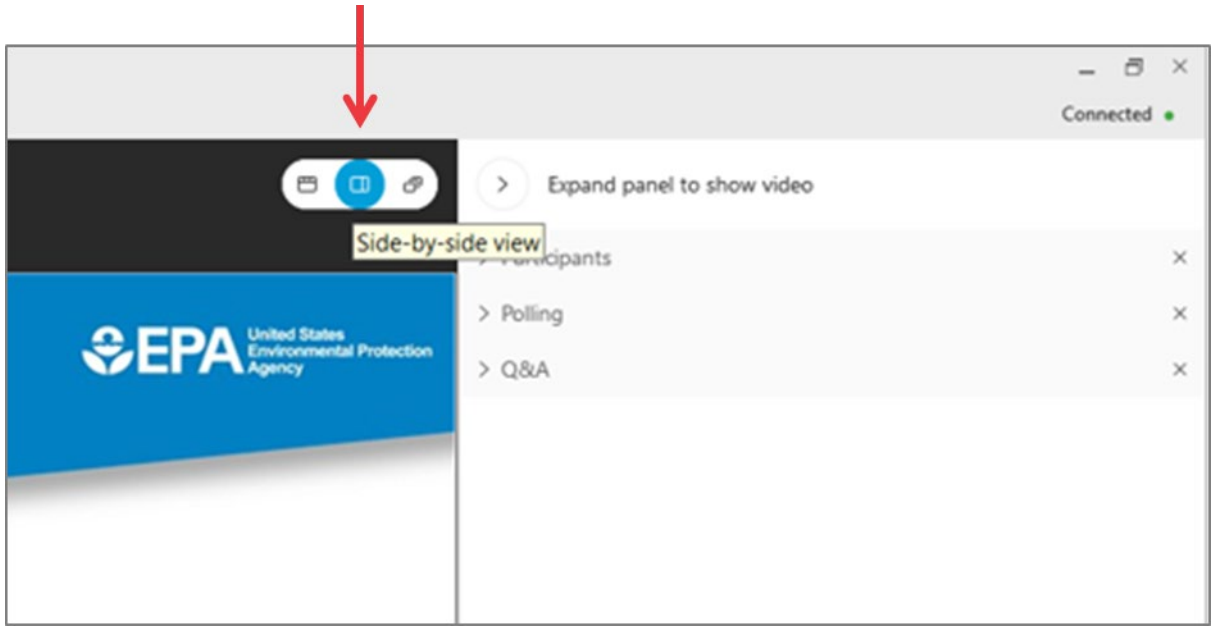
   Event number: 178 972 3736

Screen View

- There are several layout options
- We recommend the side-by-side view



Webinar Panels

We'll use three panels

- Participants, Polling, and Question & Answer (Q&A)
- Use the arrow to expand or collapse the panels

Adding Panels

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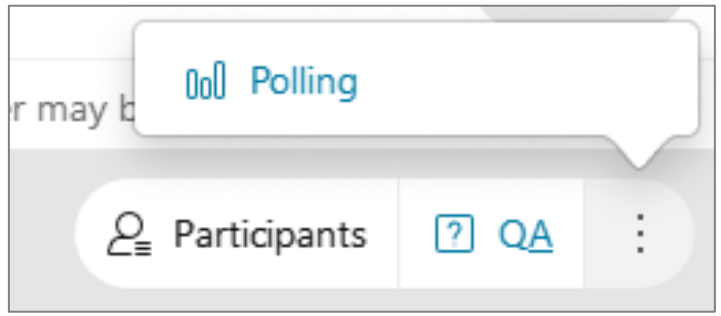

Polling and Feedback

Polling

- We'll ask several poll questions during the webinar
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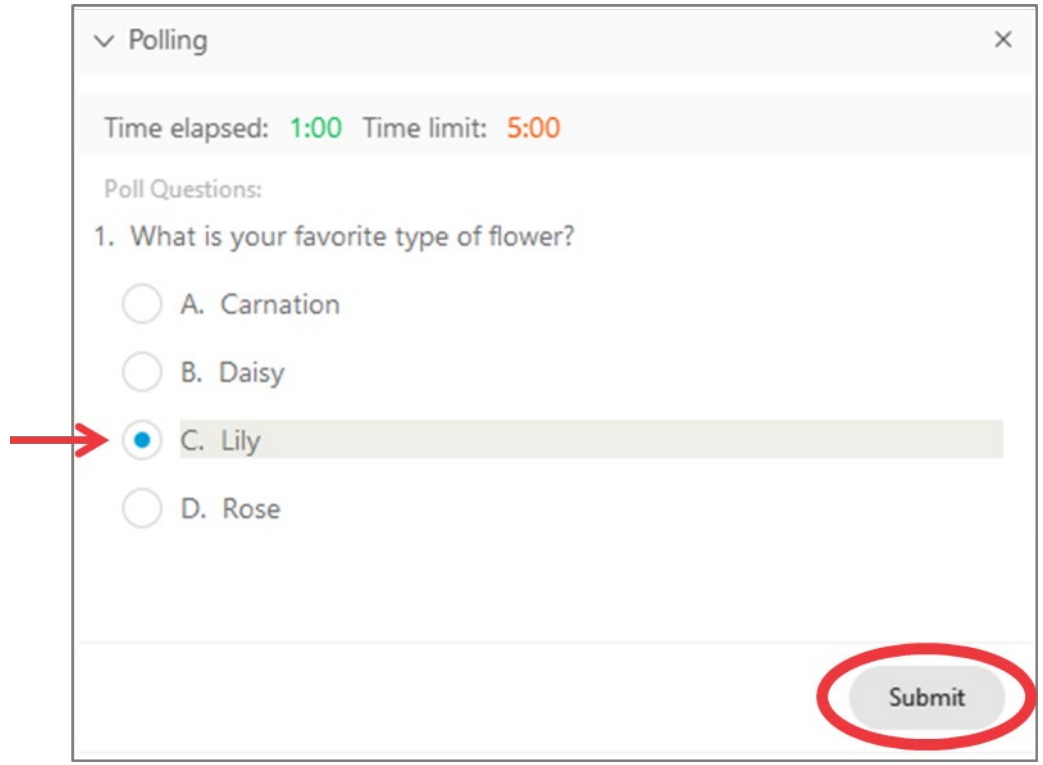

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- **Participants are muted**
- **Questions will be moderated at the end**
- To ask a question:
  1. Select “All Panelists” from the drop-down menu
  2. Enter your question in the Q&A box
  3. Hit “Send”

- **EPA will post today’s recording and slides on the Webinar Series page:**
  www.epa.gov/statelocalenergy/state-local-and-tribal-webinar-series

Today's Agenda

- **Andrea Denny**, Office of Atmospheric Programs, U.S. Environmental Protection Agency (EPA)

  Jessica Daniels, Office of Transportation and Air Quality (OTAQ), EPA
- **Sue Gander** and **Andrew Linhardt**, Electrification Coalition

  Katherine Stainken, Plug In America

  Hieu Le, Sierra Club
- **Jeremy Tarr,** North Carolina Governor's Office
- Question and Answer Session

The views expressed by speakers on this webinar are solely those of the participants and EPA does not endorse any products or commercial services mentioned in this webinar.

Introduction

Andrea Denny

Local Energy and Environment
Program Lead

Jessica Daniels

Environmental Protection Specialist

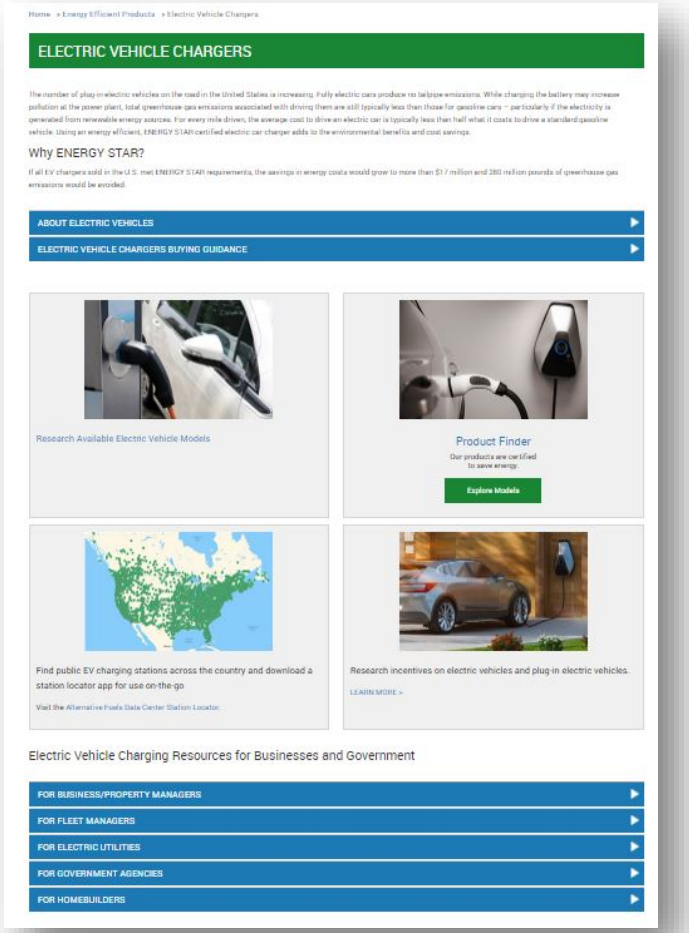
U.S. Environmental Protection Agency

U.S. EPA's State and Local Energy and Environment Program

EPA United States Environmental Protection Agency

- We offer free tools, data and technical expertise about energy strategies, including energy efficiency, renewable energy and other emerging technologies, to help state, local and tribal governments achieve their environmental, energy and economic objectives.
- Access these resources at: www.epa.gov/statelocalenergy
- Electrification Webinar Series
  - On-demand Transit - October
  - Additional Topics (codes, planning, etc.) – throughout 2020 and 2021
  - Get notifications by subscribing to our newsletter: www.epa.gov/statelocalenergy/state-and-local-energy-newsletters
  - Past Webinars: www.epa.gov/statelocalenergy/state-local-and-tribal-webinar-series
- ENERGY STAR Certified Electric Vehicle (EV) Supply Equipment: www.energystar.gov/products/other/evse

ENERGY STAR EV Charging Resources



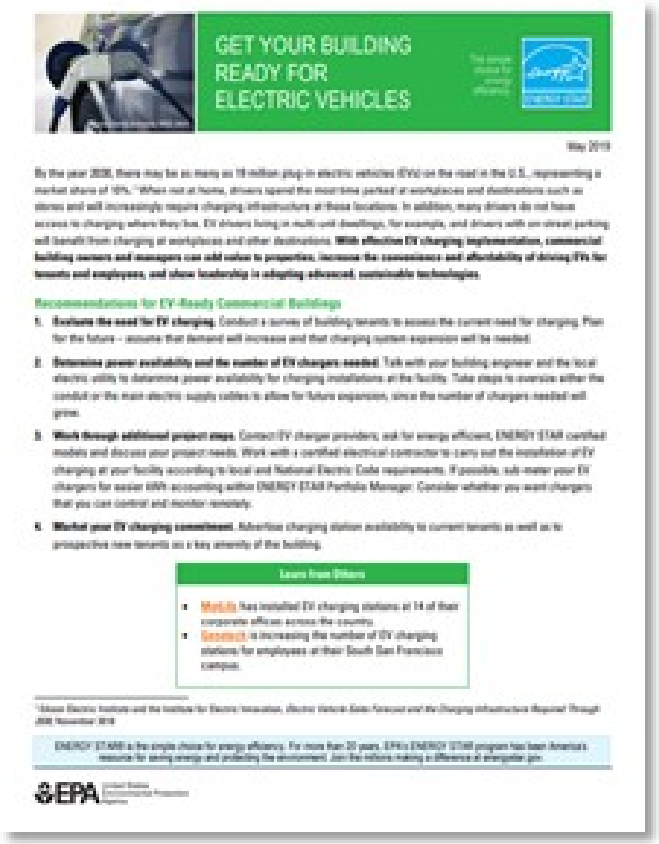
Consumer Facing Resources

- Electric Vehicle Finder
- Charging Station Locator
- Incentives Search
- Emissions Calculator

Utility, Business, Gov Resources

- One Pagers for:
  - Commercial Buildings
  - Home Builders
  - Utilities
- Additional Guidance for:
  - Fleet Managers
  - Government Agencies

https://www.energystar.gov/products/other/ev_chargers



U.S. EPA's Office of Transportation and Air Quality (OTAQ)

- State, local, and tribal transportation resources: www.epa.gov/state-and-local-transportation
  - State Implementation Plans
  - Transportation Conformity
  - Vehicle Emissions Inspection & Maintenance and state fuel programs
  - Travel Efficiency and Greenhouse Gas (GHG) Planning
  - MOVES, Calculators, and Tools

- Voluntary programs and initiatives
  - Clean Diesel program (Diesel Emissions Reduction Act | DERA): www.epa.gov/cleandiesel
  - Ports Initiative: www.epa.gov/ports-initiative
  - SmartWay: www.epa.gov/smartway

- Transportation trends
  - EPA Automotive Trends Report: www.epa.gov/automotive-trends
  - Green Vehicle Guide: www.epa.gov/greenvehicles

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State and Local Energy and Environment Program

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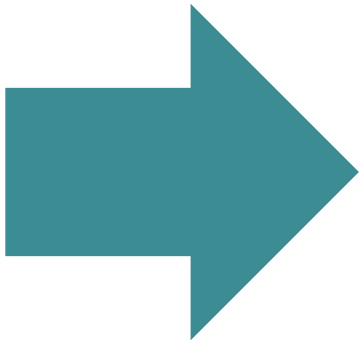
Which best describes your organization's experience with EV policymaking?

- We have active EV policies and programs
- We plan to launch EV policies and programs within the next 2 years
- We are considering EV policies and programs in the future
- We have no plans to create EV policies and programs



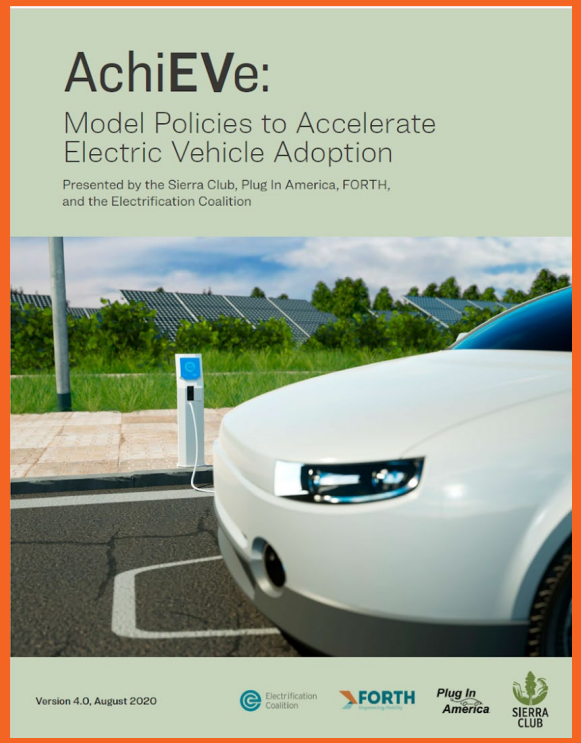
Poll 1

AchiEVe
Model Policies to Accelerate EV Adoption

Sue Gander
Andrew Linhardt
Electrification Coalition

Katherine Stainken
Plug In America

Hieu Le
Sierra Club



AchiEVe: Model Policies to Accelerate EV Adoption

Presented to: EPA
February 16, 2021

Who we are

Plug In America

Electrification Coalition

SIERRA CLUB

FORTH

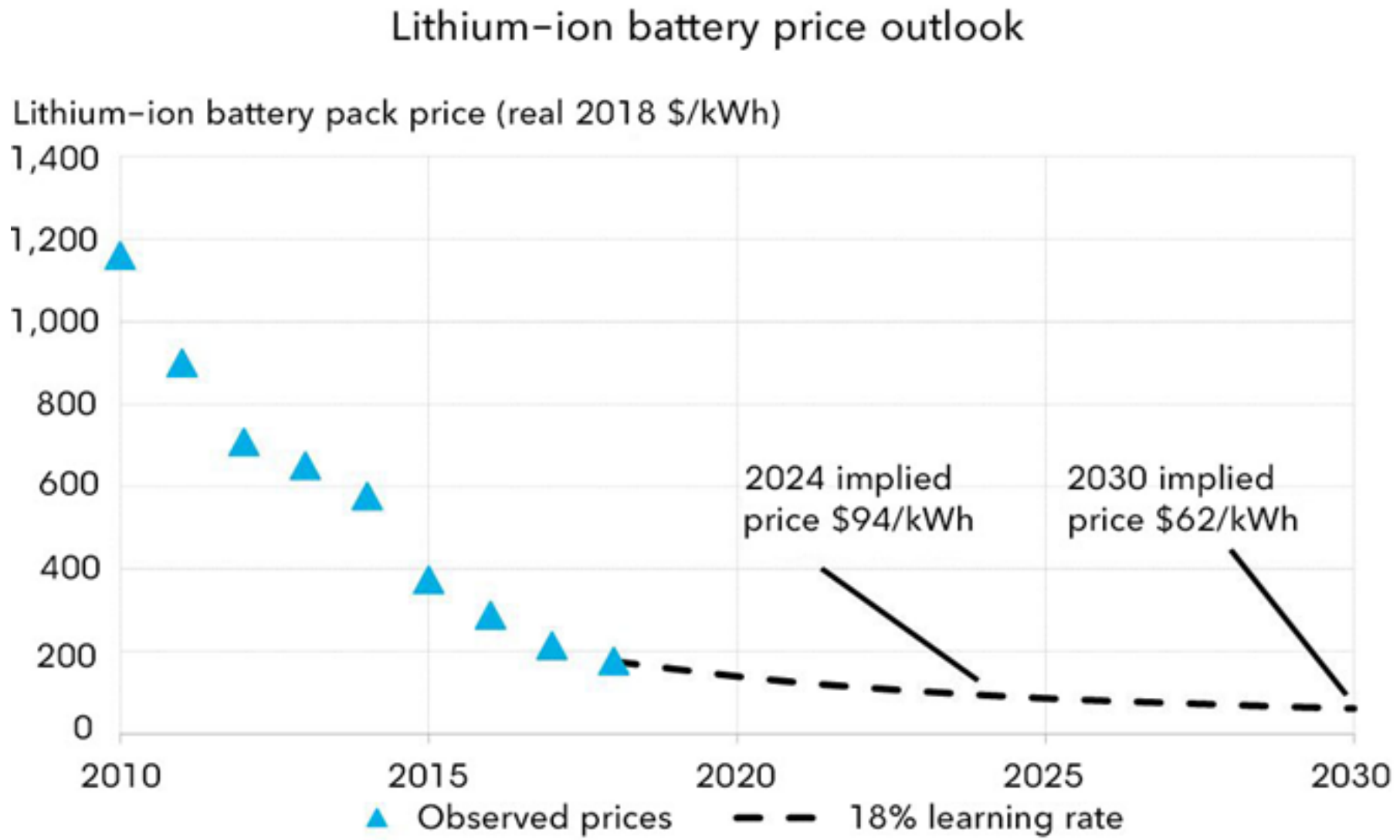
Agenda for our presentation:

1. Transportation electrification (TE) market growth
2. Benefits to TE
3. Key stakeholders
4. Policy categories
5. Who is getting it right?
6. Outreach plans

TE Market Growth

What are the latest and greatest updates?

Battery Prices are Falling



Source: BloombergNEF

kWh: kilowatt hour

Recent EV Market Announcements

- **January:**
  - General Motors announced a commitment to electrify vehicles by 2035.
  - Biden Administration Executive Order to electrify the federal fleet, including Postal Service
- **February:**
  - Automaker commitment thus far in 2021 alone totals $29 billion

Benefits to Transportation Electrification

What's in it for me, my business, my organization?

Benefits of TE

Affordability

Air Quality

Convenience

Environmental Stewardship

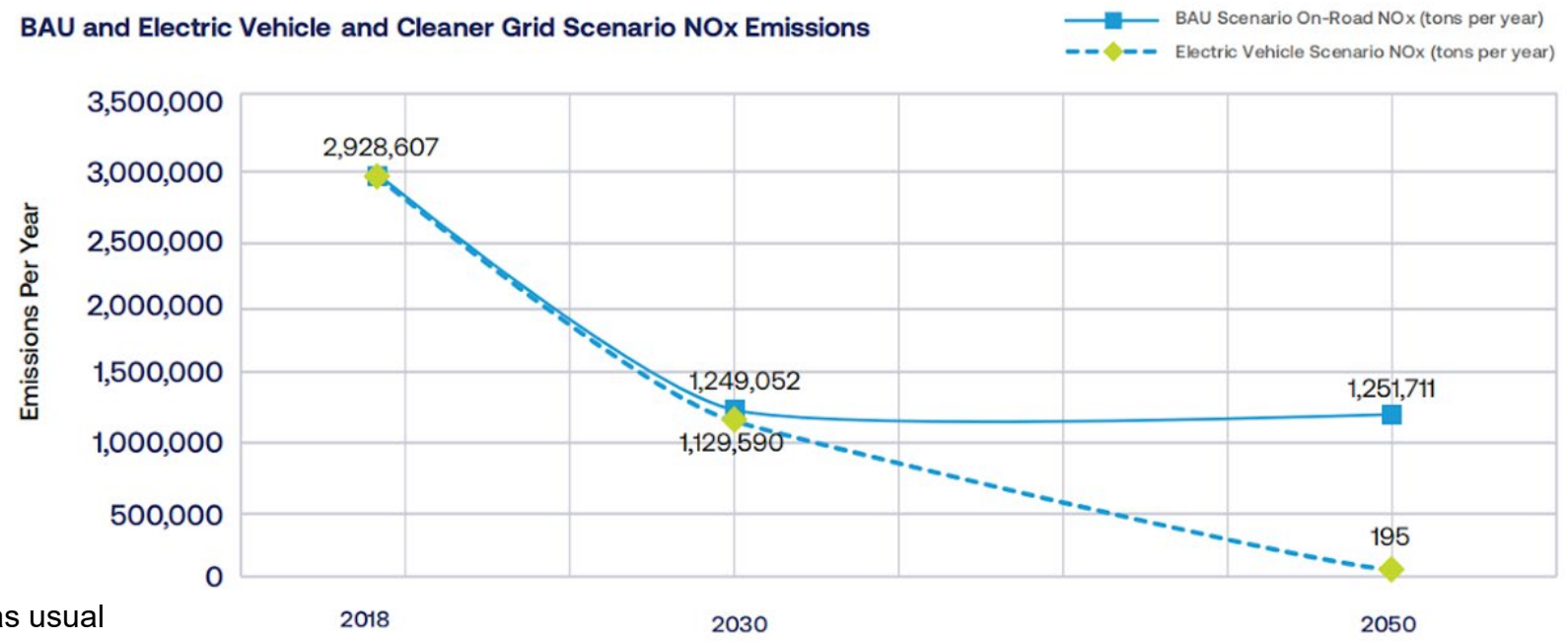
National Security

Performance

Air Quality and Health Improvement

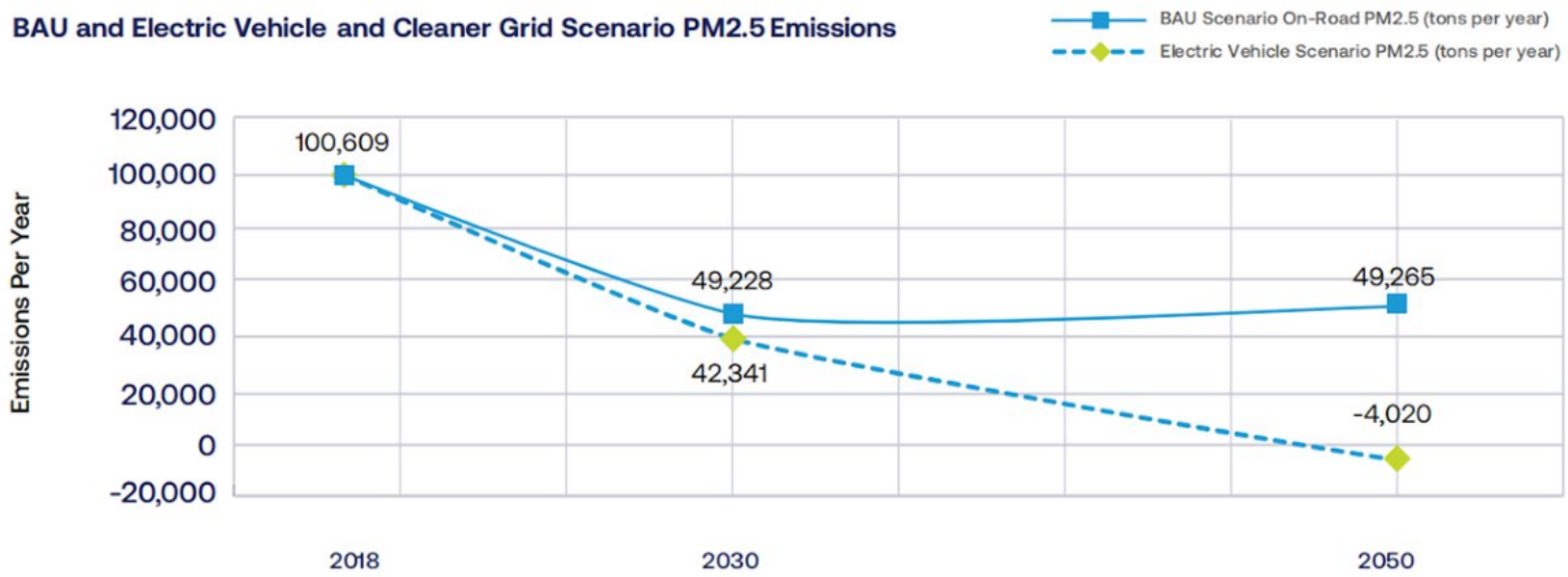
American Lung Association Healthy Transportation Scenario Results

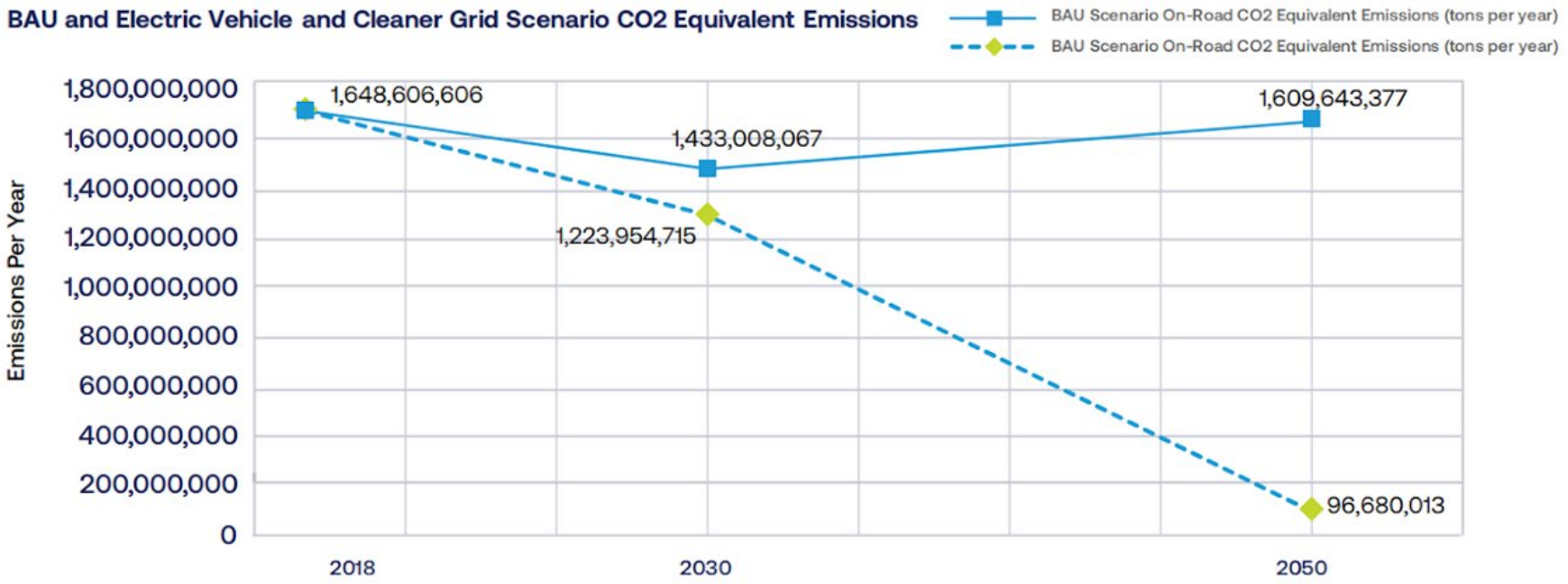
Health Benefits in 2050			Value of Benefits in 2050	
Premature Deaths Avoided	Asthma Attacks Avoided	Lost Work Days Avoided	Health Benefits	Climate Benefits
6,300	93,000	416,000	$72 Billion	$113 Billion



BAU: business as usual
NO_x: nitrogen oxides

Reductions in $PM_{2.5}$ and Carbon Emissions





PM: particulate matter
CO_2: carbon dioxide

Key Stakeholders

Who needs to be involved for a successful transition to an electrified transportation sector?

6 Key Stakeholder Groups

- Governor's Offices, State Agencies
- Legislators
- Transit Agencies
- Regulators, Utilities
- Cities, Local Government
- Businesses

Governor's Offices, State Agencies

GOVERNORS' OFFICES, STATE AGENCIES
EV Proclamations and Driver Bill of Rights
Open Access and Interoperability
Uniform Signage Requirements
Solutions to Barrier of Auto Dealers Selling EVs
Zero-and Low-Interest Loans for Consumers
Policies for Batteries and Battery Recycling
Adopting ZEV Standards
Policies to Electrify Light-Duty Vehicle and Bus Fleets
Using VW Settlement Funds for Electrifying School Buses and Transit Buses
Using VW Settlement Funds to Grow EV Charging Networks
Evaluating Vehicle Registration Fees
Waived or Reduced Vehicle Registration Fees for EV Drivers
Electric Ride-Hailing Policies and Programs
State Energy Policy Strategies and Transportation Electrification
CMAQ Program and Transportation Electrification
Policies for Medium- Heavy-Duty Freight
Corridor Programs
Charging Infrastructure Funding and Financing
Executive Orders for Fleets and Beyond
Charging Access for Underserved Communities

1. EV Proclamations and Driver Bill of Rights
2. Open Access and Interoperability
3. Uniform Signage Requirements
4. Solutions to Barrier of Auto Dealers Selling EVs
5. Zero and Low-Interest Loans for Consumers
6. Policies for Batteries and Battery Recycling
7. Adopting Zero-emission Vehicle (ZEV Standards)
8. Policies to Electrify Light-duty vehicle and bus fleets
9. Using Volkswagen (VW) Settlement Funds for Electrifying Buses and Transit Buses
10. Using VW Settlement Funds to Grow EV Charging Networks
11. Evaluating Vehicle Registration Fees
12. Waived or Reduced Vehicle Registration Fees
13. Electric Ride Hailing Policies and Programs
14. State Energy Policy Strategies and TE
15. Community Multiscale Air Quality (CMAQ) Program and TE
16. Policies for Medium-Heavy-Duty Freight
17. Corridor Programs
18. Charging Infrastructure Funding and Financing
19. Executive Orders for Fleets and Beyond
20. Charging Access for Underserved Communities

Legislators

LEGISLATORS
Vehicle Rebates and Tax Credits
Sales-Tax Exemptions
HOV Lane Access
Used EV Incentives
Open Access and Interoperability
Uniform Signage Requirements
Policies for Batteries and Battery Recycling
Direct Sales Legislation
Evaluating Vehicle Registration Fees
States With Waived or Reduced Vehicle Registration Fees for EV Drivers
Right-of-Way Charging
Rebates for Low-Income Drivers
Charging Access in Underserved Communities
Electric Ride-Hailing Policies and Programs
Policies for Medium- Heavy-Duty Freight

1. Vehicle Rebates and Tax Credits
2. Sales Tax Exemptions
3. High-Occupancy Vehicle (HOV) Lane Access
4. Used EV Incentives
5. Open Access and Interoperability
6. Uniform Signage Requirements
7. Policies for Batteries and Battery Recycling
8. Direct Sales Legislation
9. Evaluating Vehicle Registration Fees
10. Waived or Reduced Vehicle Registration Fees
11. Right-of-Way Charging
12. Rebates for Low-Income Drivers
13. Charging Access in Underserved Communities
14. Electric Ride-Hailing Policies and Programs
15. Policies for Medium-Heavy Duty Freight

Transit Agencies

TRANSIT AGENCIES
Transit Bus Fleet Upgrades
Using VW Settlement Funds for Electrifying School Buses and Transit Buses
Using VW Settlement Funds to Grow EV Charging Networks
Policies for Medium- Heavy-Duty Freight
CMAQ Program and Transportation Electrification
Charging Infrastructure Funding and Financing
Policies for Batteries and Battery Recycling
Electrification Partnerships With Ride-Hailing Companies
Right-of-Way Charging

1. Transit Bus Fleet Upgrades
2. Using VW Settlement Funds for Electrifying School Buses and Transit Buses
3. Using VW Settlement Funds to Grow EV Charging Networks
4. Policies for Medium and Heavy-Duty Freight
5. CMAQ Program and TE
6. Charging Infrastructure Funding and Financing
7. Policies for Batteries and Battery Recycling
8. Electrification Partnerships with Ride-Hailing Companies
9. Right-of-Way Charging

Regulators, Utilities

REGULATORS/UTILITIES
Streetlight and Power Pole Charging Access
Charging Infrastructure Principles for Utilities and Public Officials
Ride & Drive Events
Dealer Best Practices / Policy
EV-Utility Investments
Charging Infrastructure Funding and Financing
Right-of-Way Charging
Rebates for Low-Income Drivers

1. Streetlight and Power Pole Charging Access
2. Charging Infrastructure Principles for Utilities and Public Officials
3. Ride & Drive Events
4. Dealer Best Practices / Policy
5. EV-Utility Investments
6. Charging Infrastructure Funding and Financing
7. Right-of-Way Charging
8. Rebates for Low-Income Drivers

Cities, Local Government

CITIES/LOCAL GOVERNMENTS
EV-Ready Wiring Codes and Ordinances
Streetlight and Power Pole Charging Access
Ride & Drive Events
Solutions to Barrier of Auto Dealers Selling EVs
Zero-and Low-Interest Loans for Consumers
Using VW Settlement Funds for Electrifying School Buses and Transit Buses
Using VW Settlement Funds to Grow EV Charging Networks
EV Infrastructure at Multiunit Dwellings
Right-of-Way Charging
EV Car-Sharing Programs
Charging Access in Underserved Communities
Policies to Enable Workplace Charging
School Bus Electrification Policies and Pilots
Financing of Infrastructure

1. EV Ready Wiring Codes and Ordinances
2. Streetlight and Power Pole Charging Access
3. Ride and Drive Events
4. Solutions to the Barrier of Auto Dealers
5. Zero and Low-interest Loans for Consumers
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8. EV Infrastructure at Multi-Unit Dwellings
9. Right-of-Way Charging
10. EV Car Sharing Programs
11. Charging Access in Underserved Communities
12. Workplace Charging
13. School Bus Electrification Policies and Pilots
14. Financing of Infrastructure

Businesses

1. Ride and Drive Events
2. Workplace Charging Policies
3. Charging Infrastructure Funding and Financing
4. Solutions to the Barrier of Auto Dealers Selling EVs
5. Direct Sales Legislation

BUSINESSES
Ride & Drive Events
Policies to Enable Workplace Charging
Charging Infrastructure Funding and Financing
Solutions to Barrier of Auto Dealers Selling EVs
Direct Sales Legislation

Policy Categories

What's on the menu under each category?

Policies to encourage and enable vehicle purchase…

- Adopting ZEV Standards
- Direct sales legislation
- Vehicle rebates and tax credits
- Sales tax exemptions
- Used EV incentives
- Public and private fleet incentives
- HOV lane access
- Zero and low-interest loans for consumers

Policies to electrify light-duty vehicle and bus fleets…

- Executive orders for fleets and beyond
- Transit bus fleet upgrade commitments
- School bus electrification policies and pilots
- Using VW settlement funds for electrifying school buses and transit buses

Policies to increase availability of charging infrastructure…

- Corridor programs
- Charging infrastructure funding and financing
- EV-ready wiring codes and ordinances
- EV infrastructure at multi-unit dwellings
- Streetlight and power pole charging access
- Right-of-way charging
- Protecting EV-designated parking spots
- Using VW Settlement funds

EV-Utility Investments…

- Charging infrastructure principles for utilities and public officials
- Authorizing legislation
- Direct current (DC) fast charging: demand-charge mitigation
- utility marketing, education, and outreach programs
- Investor-owned utility programs
- Public utility programs

Policies to prioritize equity and expand charging access…

- Rebates for low-income drivers
- EV car sharing programs
- Charging access in underserved communities

Policies for consumer education and protection…

- EV proclamations and driver bill of rights
- Ride & drive events
- Open access and interoperability
- Uniform signage requirements

Other Policies….

- Batteries and battery recycling
- Solutions to barrier of auto dealers selling EVs
- Policies for medium- and heavy-duty freight
- Policies to enable workplace charging
- Electric ride-hailing policies and programs
- State energy policy strategies and transportation electrification
- CMAQ program and transportation electrification
- EV registration fees

Who is Getting it Right?

Highlights from the report

Policies to encourage and enable vehicle purchase…

Direct sales legislation

Colorado: Senate Bill 167, allows for an exception to the direct-sales prohibition by an original equipment manufacturer (OEM) if that OEM is exclusively selling EVs.

Utah: In 2018, House Bill 369 was signed into law. The bill created a pathway for EV OEMs to use a direct-sales model to sell light-duty vehicles by issuing new licenses, permitting direct sales under certain conditions and exempting them from the state's New Automobile Franchise Act.

Used EV incentives

Florida: The Orlando Utilities Commission provides rebates of $200 to residential customers who purchase or lease an eligible new or used EV.

New Hampshire: The New Hampshire Electric Co-op offers rebates of $1,000 for the purchase or lease of a new or used battery electric vehicle (BEV), and $600 for the purchase or lease of a new or used plug-in hybrid electric vehicle (PHEV).

Pennsylvania: Duquesne Light Company (DLC) offers a rebate of $1,000 to DLC customers for the purchase or lease of a used BEV or PHEV.

Pennsylvania: The state Alternative Fuel Vehicle rebate offers $750 for "one-time preowned" BEVs and $500 for a "one-time preowned" PHEV with less than 75,000 miles.

Policies to encourage and enable vehicle purchase…

Zero and low-interest loans

California: The Clean Vehicle Assistance Program is administered by the Beneficial State Foundation (BSF) and offers low-income Californians grants of up to $5,000 for an EV and affordable financing opportunities (≤ 8% interest); including up to $2,000 for a Level 2 home charger installation for eligible vehicle purchases or a $1,000 prepaid charge card and a free portable Level 1 charger.

Washington: The EVs for EVERYONE program is offered to Washington residents through a partnership between Plug In America and the Express Credit Union. Loans to purchase a new EV are as low as 3.24%, while loans to purchase a used EV are as low as 3.49%. Applicants also receive a free annual membership to the Plug In America toll-free support line, and have optional access to an experienced EV owner as a mentor to assist in the car-buying process.

Policies to electrify light-duty vehicle and bus fleets…

Executive orders for fleets and beyond

California: In July 2020, the California Air Resources Board passed the Advanced Clean Truck (ACT) Standard, which requires a given percentage of truck manufacturers' sales be battery electric or fuel cell beginning with model year 2024. The policy will apply to manufacturers of at least 500 trucks annually.

New York City, NY: New York City's Executive Order 53 (2020) sets a citywide goal of transitioning the city's entire fleet to 100% all-electric and carbon neutral by 2040. The order also requires the Department of Citywide Administrative Services and NYC Fleet to issue and implement a Clean Fleet Transition Plan, to be updated every two years.

Oregon: All state agencies are required to lease or purchase ZEVs for at least 25% of new light-duty vehicles to the greatest extent feasible. For vehicle classes where ZEV procurements are not feasible, state agencies may acquire alternative fuel vehicles so long as such use is economically and logistically possible. (Oregon Revised Statutes 283.327, 283.337, 267.030; Executive Order 20-04, 2020)

Washington: All state agency-owned vehicles are required to use 100% biofuels or electricity to the extent practicable and must prioritize both the leasing/purchasing of EVs for new procurements and the use of EVs for all trips.

Policies to electrify light-duty vehicle and bus fleets…

School bus electrification policies and pilots

Virginia: Dominion will partner with Virginia school districts to accelerate electric school bus procurement. Dominion will provide financial assistance to school districts to offset the additional costs of an electric school bus (and charging infrastructure) above a standard diesel school bus. The initial phase will begin with 50 buses, while phase two would expand the program to a total of 1,000 buses by 2025

White Plains, NY: In 2018, White Plains School District began an electric school bus pilot program with five buses, which are owned and operated by National Express, the district's contractor for student transportation. The pilot is financially supported by the New York State Energy Research and Development Authority and Con Ed.

Policies to increase availability of charging infrastructure…

Charging infrastructure funding and financing

Alternative Fuel Infrastructure Tax Credit: EV charging equipment is eligible for a tax credit of 30%, not to exceed $30,000.

Congestion Mitigation and Air Quality (CMAQ) Funds: Establishment of EV chargers and related infrastructure is eligible for funding under CMAQ if the facility is publicly owned or leased.

Low Carbon Fuel Standard (LCFS): LCFS programs could promote EV charger deployment by altering how operators generate credit revenues and improve investor return on charger investments, such as the introduction of capacity based credits. Under California's amended LCFS program, operators of EV DC fast chargers are awarded credits based on the capacity of the charger, rather than how much electricity has been supplied. In doing so, credit revenue for operators becomes significantly more predictable and reduces investor risk.

Pooled Procurements: Using collective bargaining power, cities, states, and private entities could participate in a bulk purchase of EV chargers to reduce costs. The Metropolitan Planning Council, which services the Boston metro area, completed its second EV charger group buy program in March 2019. Eight cities and towns participated, and the collective was able to secure discounts on several different types of chargers. The Electrification Coalition co-hosts a purchasing collaborative for the Climate Mayors program that has supported thousands of purchases for light- to heavy-duty EVs.

Policies to increase availability of charging infrastructure…

Streetlight and power pole charging access

Seattle, WA: The city of Seattle, the Woodland Park Zoo, and ReachNow installed 20 Light & Charge systems at the Woodland Park Zoo. The Light & Charge system transforms existing streetlights and parking lot lights into host sites for EV charging stations.

Lancaster, CA: The city of Lancaster launched the BLVD Streetlight EV Charging demonstration in 2017. The project integrates EV charging stations into five streetlights along a popular downtown boulevard.

Los Angeles, CA: The city has installed EV chargers on 284 streetlights across the city and is installing chargers on utility poles as well.

Protecting EV designated parking spots

Arizona: Pursuant to section 28-2416, a person who is found responsible for parking a gas-powered motor vehicle within any parking space specifically designated for parking and fueling EVs can be cited and subject to a civil penalty of at least $350.

Washington State: Revised Code of Washington 46.08.185 states it is a parking infraction with a penalty of $124 for any person who parks a vehicle in an EV charging station on public or private property if the vehicle is not connected to the charge equipment.

Illinois: House Bill 0198 makes it unlawful for a non-electric vehicle that is blocking a designated charging station can be towed and the owner fined between $75 to $100.

Policies to increase availability of charging infrastructure…

Right-of-way charging

Sacramento, CA: In June 2017, the city of Sacramento and EVgo entered into an agreement for EVgo to build three 150kw chargers and three 50kw chargers in the public right-of-way. In 2019, the city selected EVgo to also own and operate an additional 15 charging stations on public sidewalks.

Portland, OR: Launched in 2011 by Portland General Electric and Portland State University, Electric Avenue now consists of four DC fast chargers and level 2 chargers located on a busy downtown street.

Seattle, WA: The Electric Vehicle Charging in the Public Right of Way (EVCROW) Program was a pilot program that allowed for the installation of EV charging stations at curbside locations in the public right-of-way. The program ended December 31, 2019, with an evaluation report with key takeaways for future programs.

New Orleans, LA: The City Council unanimously voted to allow EV owners to apply for permits to install chargers for personal, noncommercial use next to the curb between their home and the street—a necessity in a city where many homes do not have driveways. Some of the requirements include how much space must remain on the sidewalk for pedestrians to pass and how close the devices can be to fire hydrants. A permit is $300 with a yearly renewal fee of $100.

EV-Utility investments…

DC Fast Charging: Demand charge mitigation

Examples of how utilities have proposed to address the demand-charge disincentive:

1. Pacific Gas and Electric in California: Subscription fee based on throughput of chargers plus strong time-of-use rates; no demand-charge (subscription fee acts like a modest demand charge).

2. Southern California Edison: Five-year demand-charge holiday; demand charges phased back in over the following five years.

3. New York utilities: Public Service Commission approved an off-bill demand-charge discount that declines over time and is intended to offset the disincentive to invest in DCFC while utilization rates are low.

Authorizing legislation

Colorado: SB 19-077 requires electric utilities (Xcel and Black Hills Energy) to submit Transportation Electrification Plans (TEPs) to the Public Utility Commission by May 2020 and triennially thereafter. These plans must include "regulated activities to support widespread transportation electrification" such as physical charging infrastructure, rate design changes, incentive programs, and customer education.

EV-Utility investments…

Public utility programs

Austin Energy, Austin, TX: Austin Energy is a larger municipal utility that offers to cover 50% of the purchase and installation costs of a Level 2 electric vehicle supply equipment for qualifying customers, up to $1,200 for a WiFi-enabled charging station. The utility also offers a time-of-use charging rate and allows its customers to charge for a flat rate across its "Plug-In EVerywhere" charging network.

Madison Gas & Electric (MG&E), Madison, WI: MG&E is another larger municipal utility and features its "Charge@ Home" program at the center of its website's home page. MG&E will install a Level 2 charger at no cost to the homeowner, who then only has to sign up for a time-of-use rate and pay a $20/ month charge on top of existing electrical fees.

Roanoke Electric, Aulander, NC: Roanoke Electric, a Touchstone Energy electric cooperative utility, has recently launched its debut EV Pilot Program. The program provides EV owners a special discount rate to charge their vehicles. The rate program is a flat fee of $50 a month and will provide EV drivers up to 1,500 miles of range. Participants can also opt to have charging stations installed at their home — about a $1,700 value. Roanoke also offers a $3,500 rebate for Nissan LEAFs and low-interest loans for EV purchases.

Policies to prioritize equity and expand charging access…

Rebates for low income drivers

California: The Charge Ahead California Initiative aims to bring one million electric cars, trucks, and buses to CA by 2023. SB 1275 directs the California Air Resources Board (CARB) to create equity programs that increase access to and use of EVs among low- and moderate-income individuals. For example, rebate payments to low-income consumers are prioritized through the Clean Cars 4 All Program, and low-income eligible applicants may receive additional compensation of $7,500 toward replacing a high-emitting motor vehicle. Through CARB, the Community Housing Development Corporation has a Transportation Program that serves low-income residents in six Bay Area counties by providing a vehicle-financing option for the purchase of a used hybrid electric vehicle, plug-in hybrid, EV, or fuel cell electric vehicle. The pilot program went statewide in June 2018.

Oregon: In addition to the $750 to $2,500 rebate for the purchase or lease of a plug-in hybrid or EV, drivers with low to moderate income who live in areas with elevated concentrations of air pollution are eligible for an additional rebate of up to $2,500 to replace a car that is at least 20 years old. The state's Clean Vehicle Rebate Project provides $2,500 for used plug-in electric vehicles and $5,000 for new plug-in electric vehicles to qualifying low-income individuals.

Vermont: Burlington Electric Department offers a $1,200 rebate to its customers, as well as an additional $600 and $300 for moderate-income consumers buying battery electric vehicle and plug-in hybrids, respectively.

Other policies….

Batteries and battery recycling

California: CARB will establish the Zero-emission Assurance Project (ZAP) to offer rebates for the replacement of the battery or other related vehicle component for eligible used EVs. Rebates will be limited to one per vehicle, and applicants must be at or below 80% of the statewide median income. Rebates will be available through July 31, 2025. (AB 193)

Federal: Currently, S 3356, the Battery and Critical Mineral Recycling Act of 2020, is an active bill before Congress. This bill would call for the Department of Energy to award multi-year grants to eligible entities for research, development, and demonstration projects to create innovative and practical approaches to increase the reuse and recycling of batteries in EVs.

Solutions to auto dealers selling EVs

PlugStar: This training platform performed by Plug In America (PIA) can be provided online or in-person to auto dealers. Qualified staff teach the auto dealers about the EV battery, how to charge and how to access charging stations, as well as review the answers to questions consumers might ask. PIA will connect the dealer to the local utility to ensure the dealer is aware of any incentives or programs and the available charging rates.

Madison Gas and Electric Dealer Program: The Dealership Rewards program offers a $50 gift card to each dealer who connects Madison Gas and Electric with customers in their service territory who are interested in purchasing an EV. The utility tracks dealership activity, including the greatest number of qualified leads, highest EV sales and event participation. The winning dealership receives a social media advertising campaign valued up to $1,500.

Other policies….

Medium and heavy duty freight

Multi-State Medium and Heavy-Duty Zero-Emission Vehicle Memorandum Of Understanding (MOU): 15 state governors and the mayor of the District of Columbia released a joint MOU on their commitment to truck electrification and eliminating toxic air pollution from medium- and heavy duty trucks and buses by 2050. The states joining this effort are CA, CO, HI, ME, MD, MA, NJ, NY, NC, OR, PA, RI, VT, WA, DC. The new MOU calls for 30% of new truck and bus sales to be zero-emission by 2030, and 100% zero-emission by 2050.

Truck Replacement Program (TRP): New Jersey's TRP is funded by CMAQ and the EPA's Diesel Emission Reduction Act and provides grant funding for the replacement of up to two trucks per entity. Trucks must be diesel-fueled and older than model year 2003. The fund provides up to 50% of the cost of a new truck or a maximum of $25,000, whichever is less.

Voucher Incentive Programs: Voucher programs intend to lower vehicle costs at the point of purchase and offer funds on a first-come, first-served basis. Approved vendors apply for vouchers and deduct the voucher amount from the purchase cost. Once the vehicles are purchased, the vendor submits the paperwork and is reimbursed the voucher amount. The California Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) and the New York Truck – Voucher Incentive Program (NYT-VIP) both offer vouchers to assist with electric truck procurement.

Outreach Plans

Groups we’re reaching out to!

Outreach Plans

- EVGridEx community!
- Environmental Council of the States
- National Conference of State Legislatures
- U.S. Environmental Protection Agency
- Business Council for Sustainable Energy
- National Association of State Energy Officials
- National Association of Regulatory Utility Commissioners
- National Governor's Association
- Western Governor's Association
- U.S. Climate Alliance
- State Innovation Exchange
- National League of Cities
- Bloomberg Cities
- American Association for State Highway Transportation Officials
  National Association for City Transportation Officials
- Alliance for Transportation Electrification
- State-based groups

Next Steps:

... 5.0 version next year!

... add in new model policies (i.e., AB 326 in CA on subscription models)

… update the best policies

... provide more policy templates

Drive Electric Earth Day

Starts the month of April!

Driveelectricearthday.org

United States National Online Events

Event	Day(s)
New EVs - First Look	Sep 29, 2020
Home EV Charging Station Installation Walk Through	Sep 27, 2020
EV Battery Recycling/Reuse	Oct 02, 2020
NDEW Kick-Off Event	Sep 24, 2020
EV Batteries: Straight Talk Edition	Sep 28, 2020
Find Your Perfect Match: EV Speed Dating	Sep 27, 2020
EV Trivia Happy Hour	Sep 29, 2020
The Policies Driving EV Adoption Forward	Oct 01, 2020
An EVening of Electrified Classic Cars	Sep 30, 2020
Electrify Your Ride to School	Oct 01, 2020
EVs and Solar: Driving on Sunshine	Sep 29, 2020
EV Myth Busting: Fact vs Fiction	Sep 28, 2020
Electric Cars and Vehicle to Grid Technology	Sep 28, 2020
EVs and Charging at the Workplace	Sep 30, 2020
EVs for All: Making EV Ownership More Inclusive	Oct 02, 2020
15 Events	

For additional questions…

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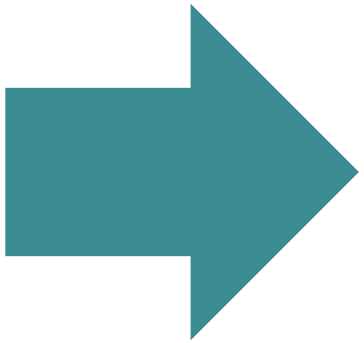
Which policies is your agency/organization implementing (or considering implementing)?

- Policies to encourage and enable vehicle purchase
- Policies to electrify light-duty vehicle and bus fleets
- Policies to increase availability of charging infrastructure
- Policies to prioritize equity and expand access
- Policies to promote EV-utility investments
- Other



Poll 2

North Carolina's Electrification Policies

Jeremy Tarr
North Carolina Governor's Office

Model Policies to Accelerate Electric Vehicle Adoption

Jeremy Tarr

North Carolina Governor's Office

February 16, 2021

Electric Vehicle Policies

- Context
- Executive Order
- Follow Through
  - Zero-emission vehicles (ZEV) Plan
  - Motor Fleet ZEV Plan
  - Annual reports

Electric Vehicle Policies

- Implementation and New Actions
  - M.J. Bradley & Associates tool
  - Volkswagen funds
  - Fleet turnover
  - Multi-State Medium- and Heavy-Duty ZEV Memorandum of Understanding
  - Transit electrification
  - Partnerships
- Stakeholder Engagement
- Ongoing Leadership

Implementation Strategies

- Select policies carefully
- Use executive orders wisely
- Build and increase momentum
- Empower champions

Jeremy Tarr

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Question and Answer Session

Connect with the State and Local Energy and Environment Program

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State and Local Energy and Environment Program

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Join Our LinkedIn Group | www.linkedin.com/groups/12129811/

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