Model policies and programs to accelerate EV adoption at the state and local level.
Speakers

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Agenda

- Why electric vehicles?
- The ACHIEVE: Transition to EVs Policy Toolkit 2.0 + How to Use It
- Q + A
Key Acronyms

**EVs (all-electric vehicles)** are powered by one or more electric motors. EVs plug into off-board sources of electricity and store the energy in a battery. These vehicles produce no tailpipe emissions.

**EVSE (electric vehicle supply equipment)** delivers electrical energy from an electricity source to charge a PEV’s battery. It communicates with the PEV to ensure that an appropriate and safe flow of electricity is supplied. EVSE units are often referred to as “charging stations.”

**HEVs (hybrid electric vehicles)** are powered by an ICE that runs on conventional or alternative fuel and an electric motor that uses energy stored in a battery. HEV batteries are charged by the ICE and through regenerative braking. HEVs are not plugged in to charge.

**ICEs (internal combustion engines)** generate mechanical power by burning a liquid fuel (such as gasoline, diesel, or a biofuel) or a gaseous fuel (such as compressed natural gas). They are the dominant propulsion technology for on-road vehicles today.

**PEVs (plug-in electric vehicles)** derive all or part of their power from off-board sources of electricity. They include EVs and PHEVs.

**PHEVs (plug-in hybrid electric vehicles)** are powered by an ICE and by an electric motor that uses energy stored in a battery. PHEVs can be plugged into off-board sources of electricity to charge the battery.

Toolkit: https://bit.ly/2lg0dQO
The Problem: Air Pollution

As of 2017, transportation is now the largest source of greenhouse gas emissions in U.S.

The cost of air pollution
Health impacts of road transport

3.5 MILLION
PEOPLE KILLED A YEAR Globally by outdoor air pollution
* THAT’S MORE DEATHS THAN FROM DIRTY WATER AND POOR SANITATION

50% OF DEATHS
FROM OUTDOOR AIR POLLUTION IN OECD CAUSED BY ROAD TRANSPORT
*DIESEL VEHICLES THE BIGGEST CULPRIT

US$ 1.6 TRILLION
VALUE OF PREMATURE DEATH BY OUTDOOR AIR POLLUTION IN OECD
= ALMOST THE SIZE OF THE CANADIAN ECONOMY
The Solution: Zero Emission Vehicles

- **Cleaner**
  - Lower emissions
  - 3 - 5 x more efficient, regardless of energy source

- **Affordable**
  - Lower maintenance costs
  - As low as .02 cents per mile operating costs

- **Fun**
  - Instant torque
  - Driveability in all conditions
Barriers to EV Adoption

- Lack of public awareness
- Vehicle purchase prices out of range for many
- Limited access to charging stations
- Punitive annual registration fees
- Insufficient auto industry effort to build, sell EVs
- Insufficient public policies to reduce the barriers
Policy Solutions

- Perks + Incentives
- Electrifying Vehicle Fleets
- Expanding Charging Access
- Evaluating EV Registration Fees
- Expanding Equity + Access
- Consumer Education & Protection
Purchase Rebates, Tax Credits & HOV Lanes

**Connecticut:** Offers rebates up to $3000 for purchase or lease of EV & $300 dealer incentive.

**Oregon:** Offers $750-$2,500 rebates. Additional $1,250-$2,500 rebates offered for low and moderate-income households buying or leasing new or used EV, and for households that voluntarily retire or scrap vehicles at least twenty years old.

**Massachusetts:** MOR-EV program provides rebates of up to $2,500 for the purchase or lease of an EV.

**Tennessee:** PEVS are eligible for the HOV lane but must apply for the Smart Pass program and display the decal in the window.
Washington, D.C.: The District Department of Transportation (DDOT) has adopted 14 electric buses, and a fully electric bus fleet is being considered.

New York: The New York State Energy Research and Development Authority (NYSERDA) provides vouchers to public, private and nonprofit fleets for the purchase or lease of all-electric vehicles operating 70% of the time.

Los Angeles: Along with deploying 95 electric buses into its fleet, L.A. County Metro has committed to a fully 100% electric transit bus fleet by 2030, replacing 2,200 CNG powered-buses.
Expanding charging access

Atlanta, Georgia: requires all new residential homes and public parking facilities to accommodate EVs; requires 20% of the spaces in all new commercial and multi-family parking structures be EV-ready.

Washington: requires 5% of parking spaces in new buildings to be equipped with EV charging infrastructure. The electrical room must be designed to accommodate 20% of all parking spaces with 208/240 V 40-amp.

Palo Alto, California: requires all new single-family residences and commercial buildings (MUDs, mixed-use facilities + hotels) be EV-ready.
EVSE Installation at Multi-Unit Dwellings Template

**This sample intent language and bill text below can be modified for your state and/or community according to the needs and transportation priorities for your state and/or community.**

**Intent Language:**

- The transportation sector is the largest creator of greenhouse gas emissions in XXX state, and deployment of electric vehicles can significantly reduce these greenhouse gas emissions.
- Traditional internal combustion engine vehicles produce harmful air pollutants that affect human health.
- Many citizens in XXX state live in multi-unit dwellings with limited or no access to a garage to install a home charging station.

**Sample Bill Text for a state Civil Code:**

(a) Any covenant, restriction, or condition contained in any deed, contract, security instrument, or other instrument affecting the transfer or sale of any interest in a common interest development, and any provision of a governing document, that either effectively prohibits or unreasonably restricts the installation or use of an electric vehicle charging station in an owner’s designated parking space, including, but not limited to, a deeded parking space, a parking space in an owner’s exclusive use common area, or a parking space that is specifically designated for use by a particular owner, or is in conflict with the provisions of this section is void and unenforceable.

(b)

(1) This section does not apply to provisions that impose reasonable restrictions on electric vehicle charging stations. However, it is the policy of the state to promote, encourage, and remove obstacles to the use of electric vehicle charging stations.
The key roles for utility regulators are to:

- Support the “EV conversation” among key stakeholders
- Support system planning for transportation electrification
- Identify and resolve key issues that will define utility and market roles
- Identify and resolve key issues related to role of utility and consumer protection
- Approve reasonable utility EV charging investment programs that are in the “public interest.”
Public Outreach and Education

- Ride and Drives
- EV Proclamations
- NDEW events
- Ribbon cuttings
- EV Driver Bill of Rights

Consumer Protection

**California:** SB 454 created the Electric Vehicle Charging Stations Open Access Act.

**New Hampshire:** SB 575 prohibits owner or operator of charging station from requiring membership or subscription fee for use of EVSE.

**Signage Requirements - federal, state policies**
EXPANDING EQUITY + ACCESS

**California**: The Clean Vehicle Assistance program helps low-moderate income residents with grants up to $5,000 to buy a new or used PHEV or EV.

**Oregon**: offers rebate up to $2500 for new EV or PHEV & additional $2500 for low-income drivers to buy new or used EV or PHEV.

**San Diego**: SDG&E’s Power Your Drive Program waives charging installation fees in underserved communities.

**Los Angeles**: BlueLA’s Electric Car Sharing Program
Registration Fees

- Median proposed fee: $123 / year
- Median annual gas tax: $71 / year
- EVs represent 3% of all autos in CA
- Everywhere else: 1%
- Transportation budget shortfalls are in the millions for most states
- Projected revenue from EV fees: MINIMAL
- Funded by Koch Bros, oil + gas lobby
Using the AchiEVe Toolkit

**Research**
Determine specific needs of your city / state / region

**Meet with Elected Officials**
Find someone to sponsor a bill or champion a policy or program

**Build campaign**
Mobilize supporters, engage with media + influence stakeholders
Why now?

The transportation sector will change more in the next 10 years than it has in the last 50.

Good vehicle policy depends on all of us.
questions?

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