



HOW CALIFORNIA AND VERMONT ARE DRIVING THE UPTAKE OF ELECTRIC CARS THROUGH PUBLIC-PRIVATE PARTNERSHIPS

CASE STUDY I DRIVE THE DREAM – CORPORATE COMMITMENTS TO ELECTRIC CARS IN THE WORKPLACE

This case study shows how the US states of California and Vermont are engaging with local businesses to drive corporate investment in plug-in electric vehicles. It is part of The Climate Group's States & Regions Policy work, which brings together pioneering state and regional governments to enable in-depth global peer learning on innovative sustainable approaches through its Peer Forums.

State and regional governments around the world are developing a new generation of innovative climate and energy policies. Through our Policy work, we showcase and explore these emerging policy models, working closely with governments to scale them globally.

“[DRIVE THE DREAM 2015] IS A HAPPY DAY, A VERY CREATIVE COMBINATION OF GOVERNMENT, OF BUSINESS, INTELLECTUAL RESEARCH, OF ENTREPRENEURS WILLING TO RISK THEIR MONEY. THIS IS A PLACE OF INNOVATION. IT’S NOT THE ORDINARY WAY, BUT IT IS THE WAY OF THE FUTURE.”

- Jerry Brown, Governor of California

THE CAR OF THE FUTURE IS ELECTRIC

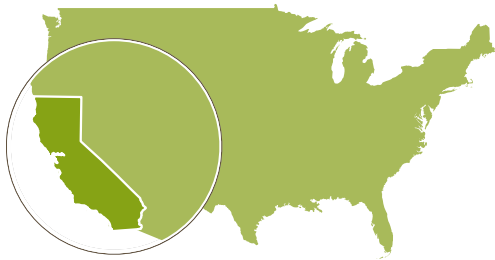
With 777,497 electric vehicles (EVs) sold globally in 2016 (a 41% increase on 2015), the number of EVs on the roads exceeded the symbolic threshold of two million.¹

This surge can partly be explained by plummeting costs – the price of lithium-ion batteries, which account for about 40% of an EVs cost, has fallen by two thirds since 2010² - but also by an increasing number of supporting policies, with sub-national governments leading the way.

Indeed, EVs represent a formidable opportunity to curb global transport emissions – if the electricity they are powered with comes from renewable sources. The International Council on Clean Transportation (ICCT) reported that EVs could save 125 million tons of CO₂ per year by 2030 and up to 1.5 billion tons per year by 2050.³

During a States & Regions Policy webinar in December 2016, experts from the states of California and Vermont gave a presentation on how they rolled-out the successful Drive the Dream initiative, which is focused on accelerating the market growth of plug-in electric vehicles (PEVs) through collaboration with business leaders to make workplaces PEV-ready.

THIS INITIATIVE WAS MADE POSSIBLE BY:



The California Plug-In Electric Vehicle Collaborative (PEV Collaborative) is a public-private partnership, launched in 2010, with the main objective of advancing the PEV market in California and globally. The PEV Collaborative convenes, collaborates and communicates on emerging PEV market trends and addresses barriers to PEV market growth. It comprises 47 members, including the California state government, local government entities, global automakers, utilities, research and environmental NGOs and third-party charging providers.

In 2017, a new consumer-focused electric car non-profit will launch in California called Veloz. Veloz is founded upon the PEV Collaborative. Veloz means ‘fast’ in Spanish and this is the pace at which the transportation sector needs to electrify. Veloz aims to get consumers testing, talking, driving, riding and excited to drive electric. To learn more, please visit www.veloz.org.



Drive Electric Vermont is a statewide coalition of policymakers, industry leaders and civil society groups dedicated to promoting the spread of electric transportation in the state. Its efforts are focused on infrastructure, legislation, finance, innovation, as well as education and outreach. The lead partner is the Vermont Energy Investment Corporation, a non-profit organization that focuses on energy efficiency and renewable energy technologies, whose members include state agencies, utilities, research groups and NGOs.

¹ <https://www.forbes.com/sites/rrapier/2017/02/05/u-s-electric-vehicle-sales-soared-in-2016/#250779de217f>

² <https://www.bloomberg.com/news/articles/2016-10-11/battery-cost-plunge-seen-changing-automakers-most-in-100-years>

³ http://www.theicct.org/sites/default/files/publications/ICCT_ghg-reduction-potential-evs_201512.pdf

DRIVE THE DREAM: TO EXPAND THE PEV MARKETPLACE, THE GOVERNMENT OF CALIFORNIA SET UP A SUCCESSFUL PUBLIC-PRIVATE PARTNERSHIP TO INCENTIVIZE BUSINESSES TO COMMIT TO WORKPLACE CHARGER INSTALLATIONS, PEV FLEET PURCHASES OR EMPLOYEE INCENTIVES FOR PEV OWNERSHIP. THIS INITIATIVE WAS THEN REPLICATED BY THE STATE OF VERMONT, WITH SUPPORT FROM CALIFORNIA.

FRAMEWORK AND TIMELINE:

The Drive the Dream initiative comprises high-level, flagship events that bring together representatives from the public and private sectors to encourage businesses to make public commitments to advance the PEV market.

The first Drive the Dream event was held in San Francisco in 2013, three years after the launch of the California PEV Collaborative. A second event was held in October 2015 in Los Angeles, demonstrating long-term political leadership.

The initiative was transferred from California to Vermont, with the first event in this state taking place in September 2015 in Shelburne.

JOINT EFFORT:

Drive the Dream is the result of a collaborative effort between:

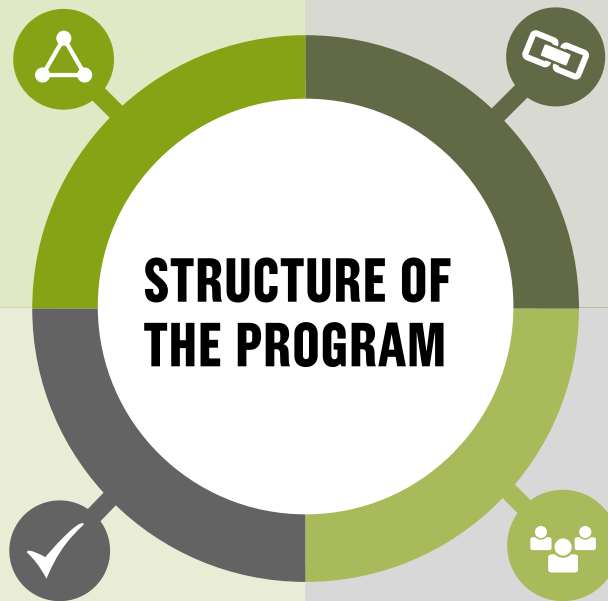
- **Multi-stakeholder initiatives** which are taking the lead by convening governmental authorities and businesses: the California PEV Collaborative and Drive Electric Vermont respectively (see box for more information)
- **State governments**, with strong support from state agencies up to the governor level, a key element in driving interest and participation
- **Partner NGOs**, which are bringing in human resources to organize the Drive the Dream events
- **Companies, businesses, public authorities and foundations** of all sizes making commitments and sponsoring the Drive the Dream events.



POLICY TIP

BENEFITS:

- In addition to the obvious global environmental benefits, the Drive the Dream initiative has significant benefits for committed businesses, and can support them in:
- Attracting top talent, rewarding existing employees and building workplace morale
- Expanding their sustainability efforts and reducing their carbon footprint
- Demonstrating leadership and showcasing the ability to adapt and prepare for a low carbon future
- Cost saving on fuel use and vehicle maintenance



RECOGNIZED LEADERSHIP:

The initiative encourages companies to make bold commitments, on either:

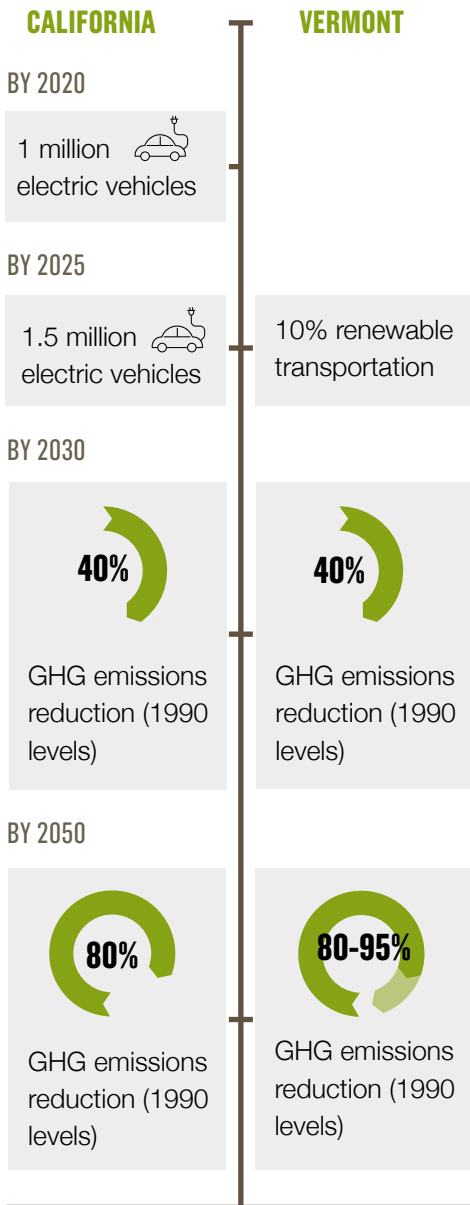
- **Infrastructure for workplace charging⁴;**
- **PEV fleet purchasing;**
- **Incentives for employees to purchase or lease PEVs.**

Companies are required to be represented by a high-level executive at the Drive the Dream event, and their commitments are communicated to the wider public through the media kit. The broad media coverage of the event is key not only in demonstrating the leadership of the participating companies, but also in raising awareness among others that may be interested in making similar commitments.

⁴ According to the US Department of Energy, employees with access to workplace charging are 20 times more likely to have an EV

CLIMATE ACTION TO DATE

TARGETS:



Supported by the [Climate Change Scoping Plan](#) (updated in May 2014).

Supported by the [Comprehensive Energy Plan](#) adopted in 2016.

⁵ <https://www.arb.ca.gov/cc/inventory/data/data.htm>

⁶ <http://climatechange.vermont.gov/climate-pollution-goals>

⁷ https://www.iea.org/publications/freepublications/publication/Global_EV_Outlook_2016.pdf

⁸ <https://www.eia.gov/state/analysis.php?sid=VT>

⁹ <https://www.greentechmedia.com/articles/read/california-utilities-seek-1b-to-build-out-electric-vehicle-infrastructure>

¹⁰ <http://publicservice.vermont.gov/renewable-energy>

DRIVE THE DREAM

WHAT IS THE PROGRAM AIMING TO SOLVE?

As the transportation sector represents 37% of California's emissions⁵ and 45% of Vermont's⁶, advancing the uptake of zero-emissions vehicles (ZEVs) - coupled with increased renewable energy deployment - is crucial to achieve the states' ambitious climate goals. At a more global scale, the International Energy Agency's (IEAs) 2 degrees Celsius scenario estimates that 140 million electric vehicles will be needed on the roads by 2030 to keep global warming below the 2 degrees threshold.⁷

Other benefits of a cleaner transportation system include improved air quality and cost savings linked to reduced fuel imports, both of which are crucial for the two states: California tends to have a worse air quality than the national average, while 60% of Vermont's energy consumption is based on petroleum imports, mostly used for transportation.⁸

More specifically, Drive the Dream was designed to fill a policy gap in California and Vermont: the incentivization of workplace charging.

HOW ARE THE INITIATIVES AND THE COMMITMENTS FINANCED?

The costs of the Drive the Dream initiative are linked to flagship events. The California 2015 event, for example, cost about US\$160,000 and was funded by the California PEV Collaborative with additional funding raised through sponsorship from Chevrolet, NRG Energy, ChargePoint and California's investor owned utilities. In kind contributions also helped contain costs associated with this event.

Financial support to help businesses implement their commitments was relatively limited until recent regulations opened the door to new financing opportunities. In both states, utilities are encouraged to invest in electric charging infrastructure, among other clean energy improvements:

- In 2015, the California Public Utilities Commission lifted a four-year ban on utilities investing in the EV charging market. **The three major investor owned utilities are already rolling out nearly US\$200 million in electric vehicle charging infrastructure** – including in workplaces – and are seeking permission to spend another US\$1 billion over the next five years.⁹
- In the same year, Vermont passed an act to establish a Renewable Energy Standard requiring utilities to meet 12% of their sales with “energy transformation projects” (including support for EVs and related infrastructure) by 2032.¹⁰

WHAT ARE THE MAJOR CHALLENGES FOR THE INITIATIVE AND HOW ARE THEY BEING OVERCOME?

Consumers' awareness remains significantly lower on PEVs compared to traditional vehicles and hybrid EVs that do not require charging. **Stimulating market demand for EVs is one of the main priorities for both states over the coming years.**

Other challenges were specific to the Vermont case:

- **Early stage EV market**, which started in 2013, when Vermont joined the Multi-State Zero Emission Vehicles Task Force (see box).
- **Lack of customer trust in EVs** due to the state's features: long winters with icy conditions, a prevalence of rural back roads and long commutes.
- **Limited media coverage** following the Drive the Dream event in 2015.

“CALIFORNIA IS KNOWN FOR SETTING TRENDS FOR THE REST OF THE NATION AND THE WORLD AND DRIVE THE DREAM 2015 IS NO EXCEPTION. WORKPLACE CHARGING IS A KEY COMPONENT FOR ENCOURAGING MORE DRIVERS TO CHOOSE ELECTRIC VEHICLES. THE SIGNIFICANT COMMITMENT AND INVESTMENT EMPLOYERS MADE TODAY, AND THAT WE HOPE ADDITIONAL EMPLOYERS WILL MAKE, TO BRING ELECTRIC VEHICLE CHARGING TO CALIFORNIA WORKPLACES, CAN HELP ACCELERATE THE TRANSITION TO ZERO EMISSION VEHICLES.”

- Janea A. Scott, Commissioner, California Energy Commission, and Chair, PEV Collaborative.

WHAT ARE THE RESULTS TO DATE?

DRIVE THE DREAM 2015

	California	Vermont
Participants	40 corporate leaders and public sector partners	21 businesses, hospitals and universities
Collectively pledged to:	<ul style="list-style-type: none"> – Install more than 763 new chargers – Add more than 4,669 new EVs to corporate fleets – Invest in infrastructure, network growth and employee incentive programs 	<ul style="list-style-type: none"> – Install 50 chargers for EV users – Add two new EVs to corporate fleets – Offer six incentive programs to encourage employees to buy or lease EVs

HOW WAS THIS INITIATIVE SUCCESSFULLY REPLICATED?

Vermont learned about the initiative through a presentation on the PEV Collaborative, which then shared materials which could be adapted to Vermont’s regional audience. Through continuous support and coaching from its Californian counterpart, Vermont was able to rapidly and cost-effectively develop its own Drive the Dream initiative.

California and Vermont are also part of two broader networks that aim to enhance inter-state collaboration on EVs:

- **The Multi-State EV Task Force** brings together eight US states committed to coordinated action to ensure the successful implementation of their state ZEV programs. Collectively, these states are committed to having at least 3.3 million ZEVs on the roads by 2025.
- **The ZEV Alliance** is a coalition of 14 national and sub-national governments who have set ambitious, achievable targets for ZEV deployment and collaborate on ZEV-enabling policies.

CONNECT WITH CALIFORNIA


Connect with the California Plug-In Electric Vehicle Collaborative

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CONNECT WITH US IF YOU WANT TO KNOW MORE ABOUT OUR POLICY PEER FORUM

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