



# Employer Policies and Incentives Encouraging EV Adoption

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For questions or comments on the content presented here, please contact Jasna Tomic, CALSTART Research Director at [jtomic@calstart.org](mailto:jtomic@calstart.org). For questions regarding CALSTART's role in accelerating the transition toward cleaner, more efficient vehicle technologies, please contact the report authors or visit our website at [www.calstart.org](http://www.calstart.org).

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*CALSTART is a non-profit organization that works with the public and private sectors to develop advanced transportation technologies and foster companies that will help clean the air, lessen our dependence on foreign oil, reduce global warming, and create jobs.*

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## Introduction

Workplace plug-in electric vehicle (PEV) charging is widely considered the second most important target for PEV infrastructure, after residential charging. It is being promoted ahead of public charging infrastructure at the federal level by the Department of Energy (DOE) through the Workplace Charging Challenge Program as well as individually at the states' level. While there are clear benefits for employees, employers can use workplace charging as a tool for workforce recruitment and retention, "green" corporate branding, enhanced employee productivity, regulatory compliance, and even some cost savings in converting fleet vehicles to plug-in electric variants. All these effects contribute to making the case for workplace charging, which is essential to further spurring adoption of PEVs.

CALSTART published a Best Practices for Workplace Charging document in 2013 detailing how to install and implement PEV infrastructure, cost recovery and taxes, and other policies supportive of PEVs. The purpose of this document is to chronicle and categorize internal employer policies that either directly or indirectly work to incentivize PEV adoption, in addition to providing charging stations. The incentives described here, both monetary and non-monetary, were collected through research and interviews by CALSTART staff with companies that have workplace charging. We hope the information provides useful examples for other companies interested in promoting PEVs.

## Policies Supportive of EV Charging

There are currently federal, state, and local incentives for EV adoption and charging infrastructure development. In Los Angeles, residential charging stations can receive up to \$2,000 in rebates while in parts of Texas some utilities enacted incentive programs that reduce operational costs for businesses with charging stations.

LEED credits for charging station installations can also count as credits toward LEED certification for structures. In Southern California there are additional regulations from local air quality districts compelling employers to reduce the greenhouse gas impact of their employees and facilities. Rule 2202, enforced by the Southern California Air Quality Management District (SCAQMD), requires employers with 500 or more employees to create plans and enact measures that reduce emissions from their employee commuting habits. Establishing workplace PEV charging is one such action which can satisfy the Rule 2202 stipulations.



Figure 1: Chevy Volt plugged into solar-powered EVSE. (Source: CALSTART)

## Early Adopter Employers

There are many employers within the state of California and nationwide that have taken strong initiative to install workplace charging for their employees, these include Evernote, Pomona College, 20<sup>th</sup> Century FOX, and Warner Brothers Entertainment studios. In addition, over 130 companies signed the DOE Workplace Charging Challenge pledge, indicating their commitment to providing charging access at their place of business. With thirteen new additions to this market-leading group in 2014 alone, the DOE project is well on its way toward the goal of a "tenfold increase in the number of U.S. employers offering workplace charging in the next five years," as shown in the map on the following page.



**Figure 2: Map of Employers Providing Workplace Charging in the U.S. (Source: DOE Workplace Charging Challenge)**

## Employer EV Policies

A review of the California Plug-In Electric Vehicle Collaborative publication, *Amping Up California Workplaces* provided a handful of different company policies relating to PEV incentives and workplace charging. Many case studies had similar motivation stories, in which employees and senior management formally requested charging infrastructure be installed at their site. At this point the company would review the different options and institute some version of a pilot program that allowed for review and future expansion.

Other companies took it upon themselves to provide charging for their employees, many of whom were already using PEVs or had intimated that they were interested in purchase or lease plans. In general, these early adopters have proven to be very proactive in responding to employee concerns while creating an environment conducive for self-policing EV forums.

CALSTART, through its Employer Electric Vehicle Initiative (EEVI) program, held a series of informational meetings and webinars that led to further conversations with specific employers on their workplace charging policies. CALSTART staff later interviewed personnel from a wide range of employers to learn about their internal incentives supportive of PEVs.

Many of these incentives are indirect non-monetary policies that influence employees' willingness to adopt PEVs. A total of eight employers were interviewed for this compendium, their policies are categorized into monetary and non-monetary policies defined below and explored in more detail in the following pages.

## Monetary Policies

There are three types of monetary incentives identified in the research process that employers have used to spur adoption of PEVs. They are: assistance for employees acquiring PEVs either through lease or purchasing, fee-based PEV charging access, and fixed daily incentives for PEV usage.

## Non-Monetary Policies

Some employers offer free PEV charging to their employees as a non-monetary incentive to spur adoption of these vehicles. The other two non-monetary policies include offering PEV users preferential on-site parking and PEV car-sharing services to all employees.

We also saw multiple examples of solar photovoltaic (PV) arrays used to power the EVSEs and help offset part of the employer site electrical load. This can be a particularly effective way of creating remote charging "islands" that do not require conduit lines run all the way from the nearest building or transformer facility.



**Figure 3: GM's solar tracking tree. (Source: plugincars.com)**

# Monetary Policy Number 1: Vehicle Purchase and Lease Assistance

A handful of employers are able to offer significant discounts in PEV financing to their employees through corporate agreements with car manufacturers. Leases range in coverage, but are generally highly competitive or favorable to standard leasing through a dealership. Some companies conduct vehicle specification overviews and subsequent consultations with employees to determine the appropriate vehicle for individual lease. Leases can also cover insurance and maintenance costs, making them even more attractive to employees.

If not directly called-out as PEV leasing programs, an employer's discounts on car purchases or lease financing may in fact include PEVs. One employer was also conducting a pilot program in Europe that included PEV lease options on employee lease plans.

In addition to leases negotiated with car manufacturers, one employer provides a monthly subsidy toward HOV-qualifying PEVs. The aim of this program is to increase employee morale and productivity by directly reducing time spent commuting. Similarly, another employer offers a one-time subsidy toward PEV purchase and has negotiated a deal with an EVSE network provider to waive annual membership fees for their employees. This can be particularly attractive for those without residential charging capabilities because they rely solely on the workplace and commercial station network.



**Figure 4: Nissan Volt plugged in and charging. (Source: Nissan)**

# Monetary Policy Number 2:

## Fee-Based Workplace Charging Infrastructure

Many employers require some kind of fee for PEV charging usage specifically to negate the “no free gas” complaints heard by site managers from conventional vehicle users. Usage fees can be on a kWh, hour, or per-session basis, and parking in these spots may also be limited only to those who need the charge. One site managed a hybrid of these bases, offering faculty and staff charging fees per kWh and all other visitors charging fees per hour, incentivizing the former slightly more than the latter. The observed range in fees was \$1-\$2.50/hour or \$.28 to \$.35/kWh. Each interviewee used internal company calculation methods to determine these numbers, though all had similar motivations of charging fees in order to cover costs associated with operating and maintaining the EVSEs.

At sites that instituted fees, Level 2 charging was usually limited to four to five hours of continual charging, though employers with only a few regular PEV users offered unlimited fee-based charging. Sometimes higher fees kick in to force users off of the charging infrastructure, though multiple employers described internal, self-policing, PEV forums which maintain the culture of unplugging or moving a fully charged vehicle.

Another example only allows employee charging and requires employees to register their vehicles with the company and sign a liability waiver in order to use the charging infrastructure. Their fees are charged on a per kWh basis with an additional per-session usage fee. Finally, a utility company made charging available to their employee and fleet vehicles, wherein employees pay different rates for Level 1 and 2 EVSEs on a per kWh basis depending on season and Time-of-Use (TOU), and one flat fee per session for DC fast charging. Free charging is considered a non-monetary benefit and will be discussed on the following page.



Figure 5: ChargePoint EVSE and PEV parking signage. (Source: ChargePoint)

# Monetary Policy Number 3:

## Fixed Daily Incentive

One employer monetarily rewards employees for every day that they commute to the site with their PEV. Separate from a mileage reimbursement program, this single payment every day that an employee drives their PEV to work acts as a usage incentive to spur PEV adoption. With an average work calendar year consisting of 250 days, the maximum annual value of this particular incentive is \$250.



Figure 6: Ford Fusion Energi charging at EVSE. (Source: Greencarreports.com)

# Non-Monetary Policy Number 1:

## Free Workplace Charging Infrastructure

We encountered many employers that offer free workplace charging to anyone who parks at their site, and others that allow free charging only for employees rather than visitors or the public, who may pay at varying rates on a per hour basis. This distinction between visitor and employee reinforces the idea that free workplace charging is seen by most employers as the primary incentive used to spur PEV adoption.

One dual-use charging station example identified fleet EVs which leave the site during the day, allowing free charging from the installed infrastructure to employees who need it. To ease accessibility these charging stations were placed in the employee parking lot rather than in the conventional fleet vehicle parking locations. This employer referenced the increased expense associated with installing EV charging infrastructure and that by siting it in the employee lot they were able to offer an employee incentive while retaining full functionality at an operational level.

There was another distinction provided between Level 1 and Level 2 users for one employer who indicated their goal to expand Level 1 plug access so that these users don't have to unplug and move their cars. On the other hand, several employers indicated that Level 2 users are expected to unplug and move their cars after 3 to 5 hours or a half-day of charging, though some put no limit on charge time. One municipality created a policy for PEV drivers that allows free parking and monthly charging at a variety of their downtown garages, a particularly attractive and often economical incentive for users.

## Non-Monetary Policy Number 2: Preferential Parking

Preferential parking for PEV charging is a distinct incentive that often occurs naturally but can also be purposely driven. In most cases, charging infrastructure is less expensive to install close to the building from which it derives power, thereby siting charging spots closer to facilities and more conveniently for PEV users. One employer specifically accentuates the benefits of preferential PEV parking by providing reduced garaging fees and priority waitlist positions for garage access.

Some employers actively combat this natural benefit by moving charging infrastructure to central locations in parking lots and garages to provide a more egalitarian parking experience for their employees. Policies also exist to help employers manage their PEV parking locations, such as placards given out at garage entrances for free, four-hour charging, after which employees must move their vehicles or standard parking rates will apply. Similar parking protocols have sprung up from internal company listservs that allow users to communicate with each other regarding open spots and requests for others to move their cars.



Figure 7: Assorted EV-only charging signage displayed in parking lots and garages.  
(Sources: teslamotorsclub.com, bcsiteservice.com, lilypadev.com)

# Non-Monetary Policy Number 3:

## PEV Car Sharing

One interviewed employer maintains an all-PEV car-sharing fleet, which domiciles and charges on its campus and is available free of charge to all its employees. This fleet is intended to be at the leading edge of vehicle technology and emissions reduction, effectively encouraging employees to interact with PEVs on a regular basis, thus increasing the likelihood of their increased adoption.



**Figure 8: All-PEV car sharing fleet. (Source: sdcleanfuels.org)**

Employers acknowledge that as PEVs become even more commonplace at their sites, a critical limit of charging infrastructure will be reached and that additional policies or programs will need to address vehicle usage and required infrastructure. Many employers (including those not interviewed for this project) promote alternative commuting via benefits to employees using mass transit or ride-sharing.

## Additional Resources

Many of our background incentives and employer policy research came from the following sources. Please click on the PDF image to download each report.

- CALSTART: “Best Practices for Workplace Charging” 
- California Plug-In Electric Vehicle Collaborative: “Amping Up California Workplaces: 20 Case Studies On Plug-In Electric Vehicle Charging at Work” 
- Center for Climate and Energy Solutions: “A Guide to the Lessons Learned from the Clean Cities Community Electric Vehicle Readiness Projects” 

Additionally, the following regions host information on individual readiness plans for PEVs, which are located at the linked sites.

- [California](#)
- [Colorado](#)
- [Florida](#)
- [Kansas City](#)
- [Maui](#)
- [Michigan](#)
- [New York City](#)
- [North Carolina](#)
- [Northeast Regional](#)
- [Ohio](#)
- [Oregon](#)
- [Richmond](#)
- [Southeast Regional](#)
- [Southeastern Pennsylvania](#)
- [Texas River Cities](#)

Further information can also be found at [www.evworkplace.org](http://www.evworkplace.org) and the [DOE Office of Energy Efficiency and Renewable Energy](#).