Southern California
Plug-in Electric Vehicle Readiness Atlas: 2017 Update

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About this Document
This document was prepared for the Southern California Association of Governments (SCAG) by the UCLA Luskin Center for Innovation. SCAG is coordinating a multi-stakeholder group of government agencies, utilities, and university researchers to prepare multi-faceted and interdisciplinary regional PEV readiness plans. Among other purposes, these plans will help illuminate and guide strategic infrastructure investment, PEV-related economic development, and supportive policy design in Southern California.

The document also serves as an update to the 2013 Southern California Plug-in Electric Vehicle Readiness Atlas. The PEV market has changed considerably since the release of the 2013 report, so policymakers and planners are now encouraged to refer to this version of the PEV Atlas.

Disclaimer
This work was prepared for the Southern California Association of Governments (SCAG) as part of Agreement M-004-16 and sponsored by the California Energy Commission (CEC). The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of SCAG, CEC, the State of California, or their employees. This report does not constitute a standard, specification or regulation. The CEC, the State of California, their employees, contractors, and subcontractors make no warranty, express or implied, and assume no legal liability for the information in this document; nor does any party represent that the use of this information will not infringe upon privately owned rights.

Acknowledgements
We thank the Southern California Association of Governments and the California Energy Commission for support of this project. In particular, we thank Marco Anderson of the Southern California Association of Governments for his guidance and assistance.

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Projected PEV Growth
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PEV Peak Morning Destinations
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Plug-in electric vehicles (PEVs) may provide a range of important benefits. For drivers, PEVs are a way to save money on fuel, avoid trips to the gasoline station, contribute to energy independence, and improve local air quality. For utilities, PEVs represent a new source of demand for power even as they support efficient use of energy produced during overnight hours. For state and regional air-quality regulators, PEVs help reduce criteria air pollutants and greenhouse gas (GHG) emissions.

To fully realize the benefits of PEVs, planners must coordinate and facilitate the growth of two complementary markets: one for PEVs and another for the electric charging opportunities that these vehicles need to refuel. This Atlas describes how many PEVs are in a given neighborhood and how their spatial concentrations vary over the course of a day as their drivers travel to workplaces and retail destinations. This Atlas also projects PEVs growth over the next 10 years within neighborhoods and municipalities in each of the 15 councils of government (COGs) within the Southern California Association of Governments region.

This Atlas also maps potential charging infrastructure opportunities to support and complement growth in the PEV market. It identifies the locations and sizes of workplaces, multi-unit residences and retail establishments that could potentially host PEV charging. Lastly, the Atlas includes maps of other resources that support PEV charging, such as existing publicly-accessible charging stations and stand-alone parking facilities.

This spatial information enables to planners to know where PEVs are currently and where growth is likely to occur. This will help them prioritize the municipal planning reforms such as those described in the Southern California PEV Readiness Plan. It describes where latent PEV demand is constrained because of the challenges of installing charging opportunities in multiunit residences. It also describes the locations of workplaces and retail establishments that are in neighborhoods with a higher density of PEVs during the day and evening. With this information, planners can take the next steps to provide the targeted technical assistance to these sites as described in the Southern California PEV Readiness Plan.

The methods section of this Atlas provides detailed information on data sources and analyses used to generate each map. This Atlas features the following maps of the neighborhoods and municipalities within each COG in the SCAG region:

1. **PEV registration density as of 2016.** Knowing how many PEVs are registered in a given area will indicate the location of current and near-future demand for residential charging. By extension, this information can help planners and utilities anticipate locations that will carry additional nighttime electrical load.

2. **PEV morning travel to work, providing spatial daytime PEV density at or near workplaces.** Understanding where PEVs are concentrated during morning peak hours (6 to 9 a.m.) can help planners and utilities identify neighborhoods where there will be demand for daytime charging.

3. **Workplaces identified by numbers of employees.** Planners can target the largest employers for workplace charging initiatives, as they presumably host the largest numbers of parking spaces on-site and can potentially serve the highest numbers of employees.

4. **Workplaces overlaid with morning peak PEV density.** Planners and utilities can use these maps to assess the potential utilization of workplace charging by comparing the spatial distribution of employers and weekday morning peak travel destinations for PEVs.

5. **Publicly accessible charging locations, identified by power level and number of stations per location.** Planners can use these maps to compare the location of existing publicly accessible charge stations with the locations of employment centers, retail centers and PEV daytime destinations, also mapped at the COG level in the Atlas. The maps can also be used to identify where there are gaps in meeting demand for charging. For MUDs that do not have parking, publicly accessible sites will become important charging options. The maps identify the number of charging units/cords available at each location along with the level of service (Level 1, Level 2, etc., or “Unknown” where charging is available but the quantity...
null
METHODS

This section describes the methods, assumptions and data sources used to create the maps and charts presented in this study. They are presented in the order in which they appear.

**PEV growth**

In this study, we define a PEV as any fully electric vehicle (including low-speed neighborhood electric vehicles and electrified trucks) or a plug-in hybrid electric vehicle (PHEV). See Table A.1 for a summary of the PHEV models counted in this analysis. The scope only includes PEVs registered as new in the Southern California Association of Governments region between December 2010 and September 2016 inclusive. PEV registrations were supplied at the 2010 Census tract level by IHS Automotive (formerly R.L. Polk & Co).

It is important to note that the San Fernando Valley Council of Governments (SFVCOG) is an overlay of portions of the City of Los Angeles, the Arroyo Verdugo Subregion, and North Los Angeles County. There is no unique area within SFVCOG that is not included in another COG.

Once the 2010–2016 PEV counts were obtained, a reasonable growth rate was needed to predict how PEVs would grow through the end of 2025. We experimented with a number of different models of monthly and cumulative growth. Ultimately, a quadratic model of monthly cumulative growth appeared to fit the data best. We estimated the following model for months between December 2010 and September 2016:

### Table A.1 PEVs Included in the Analysis

<table>
<thead>
<tr>
<th>Make</th>
<th>Model</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audi</td>
<td>A3</td>
<td>PHEV</td>
</tr>
<tr>
<td>Azure</td>
<td>Transit Connect</td>
<td>BEV</td>
</tr>
<tr>
<td>BMW</td>
<td>330e</td>
<td>PHEV</td>
</tr>
<tr>
<td>BMW</td>
<td>i3</td>
<td>BEV</td>
</tr>
<tr>
<td>BMW</td>
<td>X5</td>
<td>PHEV</td>
</tr>
<tr>
<td>Cadillac</td>
<td>ELR</td>
<td>PHEV</td>
</tr>
<tr>
<td>Chevrolet</td>
<td>Spark</td>
<td>BEV</td>
</tr>
<tr>
<td>Chevrolet</td>
<td>Volt</td>
<td>PHEV</td>
</tr>
<tr>
<td>Fiat</td>
<td>500</td>
<td>BEV</td>
</tr>
<tr>
<td>Fisker</td>
<td>karma</td>
<td>BEV</td>
</tr>
<tr>
<td>Ford</td>
<td>Focus</td>
<td>BEV</td>
</tr>
<tr>
<td>Ford</td>
<td>Fusion</td>
<td>PHEV</td>
</tr>
<tr>
<td>Ford</td>
<td>C-max</td>
<td>PHEV</td>
</tr>
<tr>
<td>GEM</td>
<td>N/A</td>
<td>NEV</td>
</tr>
<tr>
<td>Honda</td>
<td>Accord</td>
<td>PHEV</td>
</tr>
<tr>
<td>Honda</td>
<td>FCX</td>
<td>FCEV</td>
</tr>
<tr>
<td>Honda</td>
<td>Fit</td>
<td>BEV</td>
</tr>
<tr>
<td>Hyundai</td>
<td>Sonata</td>
<td>PHEV</td>
</tr>
<tr>
<td>Kia</td>
<td>Soul</td>
<td>BEV</td>
</tr>
<tr>
<td>Mclaren</td>
<td>P1</td>
<td>PHEV</td>
</tr>
<tr>
<td>Mercedes-Benz</td>
<td>B-Class</td>
<td>BEV</td>
</tr>
<tr>
<td>Mercedes-Benz</td>
<td>S550</td>
<td>PHEV</td>
</tr>
<tr>
<td>Mitsubishi</td>
<td>Miev</td>
<td>BEV</td>
</tr>
<tr>
<td>Nissan</td>
<td>Leaf</td>
<td>BEV</td>
</tr>
<tr>
<td>Porsche</td>
<td>918</td>
<td>PHEV</td>
</tr>
<tr>
<td>Porsche</td>
<td>Cayenne</td>
<td>PHEV</td>
</tr>
<tr>
<td>Porsche</td>
<td>Panamera</td>
<td>PHEV</td>
</tr>
<tr>
<td>Smart Car</td>
<td>Fortwo</td>
<td>BEV</td>
</tr>
<tr>
<td>Tesla</td>
<td>Model S</td>
<td>BEV</td>
</tr>
<tr>
<td>Tesla</td>
<td>Model X</td>
<td>BEV</td>
</tr>
<tr>
<td>Tesla</td>
<td>Roadster</td>
<td>BEV</td>
</tr>
<tr>
<td>Toyota</td>
<td>Mirai</td>
<td>FCEV</td>
</tr>
<tr>
<td>Toyota</td>
<td>Prius</td>
<td>PHEV</td>
</tr>
<tr>
<td>Toyota</td>
<td>Rav4 EV</td>
<td>BEV</td>
</tr>
<tr>
<td>Volkswagen</td>
<td>Golf</td>
<td>BEV</td>
</tr>
<tr>
<td>Volvo</td>
<td>XC89</td>
<td>PHEV</td>
</tr>
</tbody>
</table>
where \( \text{Cumul}_m \) is the cumulative PEV sales in a given month, \( \text{month}_m \) is the number of months elapsed since December 2010, \( \text{month}^2_m \) is the number of months elapsed since 2010 squared and \( \epsilon_m \) is a mean-zero error term. Using the coefficient estimated from this regression, we predicted cumulative PEV sales for all months until the end of 2025. At some point the PEV market will reach saturation, so this quadratic growth model represents PEV registrations in the early stages of technology adoption. We believe that 2025 is early enough in the PEV lifecycle that market saturation will be unlikely.

However, a potential limiting factor on the actual growth of PEVs is the high percentage of Southern California residents who live in multi-unit dwellings (MUDs). Unless steps are taken to facilitate charging in MUDs, PEV ownership may not grow as projected.

**PEV registrations**

The PEV registration maps show the number of PEVs registered between December 2010 and September 2016 in the COGs by Tier 1 travel analysis zone (TAZ). TAZs closely follow 2000 Census tract boundaries and are used by SCAG to estimate travel within and between neighborhoods. There are 4,109 Tier 1 TAZs in the SCAG region. The map colors move from lighter in areas with no or few PEVs registered to darker in areas with more PEVs registered. PEV registration data was supplied at the 2010 Census tract level by IHS Automotive (formerly R.L. Polk & Co), and was harmonized with TAZ boundaries.

**PEV morning peak destinations**

We used the outputs from SCAG’s 2012 Regional Model to determine the arrival locations and densities of PEVs during peak morning hours.\(^1\) Using surveys of household travel behavior, SCAG’s travel demand model estimates the number of trips from home to work, school, and other destinations by time of day. The morning peak period represents weekday trips that occur between 6 and 9 a.m. (i.e., commutes to work). The model does not distinguish commuting patterns by vehicle type, so we assumed that the commuting patterns of PEVs are the same as those of conventional vehicles, and applied the proportion of PEVs registered in the origin TAZ to the commute patterns that characterize that TAZ.

The data on PEV registrations comes from automotive data vendor IHS Automotive, which provided the number of PEVs registered as new within each 2010 Census tract from December 2010 through September 2016. It is important to note that these morning peak destination TAZs receive vehicles from outside the COG.

**Workplaces by number of employees**

The maps of employment density were prepared using commercially available Infogroup data from 2015 on employer size (i.e., number of employees) and location. This data is compiled from public documents that disclose employment size, as well as through a website and phone verification process. Each circle on the map represents one workplace. The circles move from small to large and from yellow to red as the number of employees per workplace increases.

**PEV morning peak destinations and workplaces**

This is an overlay of the previous two maps. The maps show both where PEVs driving to work are likely to be during daytime hours and where there are many employers and potentially high demand for workplace charging depending upon how charging is priced.

**Publicly accessible charging stations**

Data on publicly assessable charging stations was obtained from the online database maintained by PlugShare (www.plugshare.com), which contains information posted by users that charge at these locations. “Publicly accessible” refers to stations that are owned by either the government or private businesses but that are available for use by the general public. The precise number of connectors or charging units that are operational at any given time and location are subject to maintenance and upgrade schedules. The distribution of publicly accessible charging stations presented in this report reflect a snapshot of the PlugShare database as of May 23, 2017.

**Multi-unit residential land uses**

This data is obtained from SCAG’s 2012 Existing Land Use Dataset, which
includes information on the concentration of all residential units other than single-family in the SCAG region. The land use data was originally developed by Aerial Information Systems Inc. as a Modified Anderson Land Use Classification for the 2008 SCAG land use dataset. The 2012 dataset is based on this 2008 dataset and is updated using 2008-2012 new construction data and inputs from local jurisdictions in the SCAG region. The designations were determined by using aerial photography to estimate the land use at the parcel level. Each residential parcel in the dataset is assigned a code that best describes the composition of residential unit types. The factors that contribute to a parcel’s residential designation are the height of the buildings, the square footage, and the concentration of multi-unit dwellings per parcel. See Table A.2 for a summary of the multi-unit dwellings designations in the 2012 SCAG Existing Land Use Dataset.

**Commercial (retail) destinations**

This map data is obtained from SCAG’s 2012 Existing Land Use Dataset, which includes information on the concentration of retail centers in the SCAG region. The land use data was originally developed by Aerial Information Systems Inc. as a Modified Anderson Land Use Classification for the 2008 SCAG land use dataset. The 2012 dataset is based on the 2008 dataset and is updated using 2008–2012 new construction data and inputs from local jurisdictions in the SCAG region. The designations were determined by using aerial photography to estimate the land use at the parcel level.

The commercial (retail) destination maps contain retail and small business locations (such as beauty salons and small offices) within each COG in the region. They highlight five types of retail centers that are likely to attract many of the nonwork-related vehicular trips. These five categories are summarized in Table A.3.

![Table A.2 Multi-Unit Dwellings Designations in the 2012 SCAG Existing Land Use Dataset](image)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>1120</td>
<td>Multi-Family (General)</td>
<td>Uncategorized</td>
</tr>
<tr>
<td>1121</td>
<td>Mixed Multi-Family Residential</td>
<td>Mix of different density types</td>
</tr>
<tr>
<td>1122</td>
<td>Duplexes, Triplexes, and 2- or 3-Unit Condominiums and Townhouses</td>
<td>3 units or fewer</td>
</tr>
<tr>
<td>1123</td>
<td>Low-Rise Apartments, Condominiums, and Townhouses</td>
<td>4+ units; 10 to 18 units per acre; and 1-2 stories</td>
</tr>
<tr>
<td>1124</td>
<td>Medium-Rise Apartments and Condominiums</td>
<td>4+ units; more than 18 units per acre; and 3-4 stories</td>
</tr>
<tr>
<td>1125</td>
<td>High-Rise Apartments and Condominiums</td>
<td>4+ units; more than 18 units per acre; and 5 stories or greater</td>
</tr>
</tbody>
</table>

![Table A.3 Commercial (Retail) Designations in the 2012 SCAG Existing Land Use Dataset](image)

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Key Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1220</td>
<td>Commercial (Other)</td>
<td>Retail stores and other/unknown commercial development</td>
</tr>
<tr>
<td>1221</td>
<td>Regional Shopping Center</td>
<td>Department store with surrounding parking</td>
</tr>
<tr>
<td>1222</td>
<td>Retail Centers (Non-Strip With Contiguous Interconnected Off-Street Parking)</td>
<td>Magnet store with in-front parking</td>
</tr>
<tr>
<td>1223</td>
<td>Modern Strip Development</td>
<td>Small businesses with parking on-street and on one side</td>
</tr>
<tr>
<td>1224</td>
<td>Older Strip Development</td>
<td>Small businesses with on-street parking</td>
</tr>
</tbody>
</table>

2 Southern California Association of Governments Open Data. 2015. “Land Use Los Angeles.” Accessed October 2017 from: http://gisdata-scag.opendata.arcgis.com/datasets/0c432b1bca2f426e83e40a358414fe7c_0
4 Southern California Association of Governments Open Data. 2015. “Land Use Los Angeles.” Accessed October 2017 from: http://gisdata-scag.opendata.arcgis.com/datasets/0c432b1bca2f426e83e40a358414fe7c_0
Land use Code 1220, Commercial (Other), is the general code used for retail stores and commercial development when the specific subland use is not discernable.

Land use Code 1221, Regional Shopping Center, contains large retail centers with at least one major department store and a range of other smaller retail establishments. These shopping centers are generally enclosed malls with parking surrounding the one- to three-story building. This also includes factory outlet malls.

Land use Code 1222, Retail Centers, comprises at least one large magnet store, a large off-street parking lot, and additional detached commercial stores, including small retail stores, gas stations, and restaurants. All structures are generally one story tall. Retail Centers are often located conveniently off major highways or highly trafficked surface streets.

Land use Code 1223, Modern Strip Malls, designates parcels that contain retail stores, restaurants, service shops, and offices, and are often located along major traffic corridors. Parking is available on-street as well as off-street either in front, on the side, or behind the structures. Included in this category are gas stations, auto repair shops, convenience stores, liquor stores, small bank branch offices, clothing stores, restaurants, furniture stores, discount stores, novelty stores, car dealerships or auto centers, drug stores, small corner markets, auctions, and smaller malls which do not contain a large magnet store.

Finally, land use Code 1224, Older Strip Development, contains parcels of land with little or no off-street parking. This category is commonly found in older city and town business corridors. Units are small retail establishments, restaurants, and offices with store fronts without setback, adjacent to the sidewalk. Units are often attached to the neighboring unit creating an uninterrupted streetscape. Units with commercial space on the first floor and residential units on upper floors can be considered Older Strip Development.5

PEV mid-day destinations and commercial (retail) destinations
We used the outputs from SCAG’s 2012 Regional Model to determine the arrival locations and densities of PEVs during mid-day hours.6 Using surveys of household travel behavior, SCAG’s travel demand model estimates the number of trips from home to work, school, and other destinations by time of day. The mid-day period represents weekday trips that occur between 9 a.m. and 3 p.m. (i.e., trips to run errands). The model does not distinguish commuting patterns by vehicle type, so we assumed that the commuting patterns of PEVs are the same as those of conventional vehicles, and applied the proportion of PEVs registered in the origin TAZ to the commute patterns that characterize that TAZ. The data on PEV registrations comes from automotive data vendor IHS Automotive, which provided the number of PEVs registered as new within each 2010 Census tract from December 2010 through September 2016. It is important to note that these mid-day destination TAZs receive vehicles from outside the COG.

We then overlaid mid-day destination information from the travel demand model with the previous map to illustrate the relationship between retail centers and mid-day trips.

Stand-alone parking facilities
This map data is obtained from SCAG’s 2012 Existing Land Use Dataset, which includes information on the concentration of retail centers in the SCAG region. The land use data was originally developed by Aerial Information Systems Inc. as a Modified Anderson Land Use Classification for the 2008 SCAG land use dataset. The 2012 dataset is based on the 2008 dataset and is updated using 2008–2012 new construction data and inputs from local jurisdictions in the SCAG region.7 The designations were determined by using aerial photography to estimate the land use at the parcel level. The stand-alone parking facilities mapped at the COG level in the

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7 Southern California Association of Governments Open Data. 2015. “Land Use Los Angeles.” Accessed October 2017 from: http://gisdata-scag.opendata.arcgis.com/datasets/0c432b1bca21426e43e40a358414fe7c_0
Southern California PEV Atlas represent parking lots and structures greater than 2.5 acres that are not attached to other land uses. They highlight three types of stand-alone parking classified by SCAG:

Table A.4 PEVs Included in the Analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>Key Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attended Pay Public Parking Facilities</td>
<td>Stand-alone public parking areas and parking structures that have an attendant-cashier present</td>
</tr>
<tr>
<td>Non-Attended Public Parking Facilities</td>
<td>Free or metered public parking areas where no attendant-cashier is present</td>
</tr>
<tr>
<td>Park and Ride Lots</td>
<td>Cal Trans park and ride lots provided for commuter ridesharing, buspooling, vanpooling, and carpooling</td>
</tr>
</tbody>
</table>

The “Attended Pay Public Parking Facilities” classification does not distinguish between privately owned commercial parking facilities available for public use and municipal or other parking facilities owned by the public sector that are available for public use.

---

## PEV GROWTH SUMMARY

### PEV Growth by Council of Government (COG)

<table>
<thead>
<tr>
<th>COG</th>
<th>Through 2016</th>
<th>Through 2020</th>
<th>Through 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arroyo Verdugo Subregion</td>
<td>3,431</td>
<td>9,606</td>
<td>21,688</td>
</tr>
<tr>
<td>City of Los Angeles</td>
<td>29,071</td>
<td>80,760</td>
<td>181,541</td>
</tr>
<tr>
<td>Coachella Valley Association of Governments</td>
<td>1,427</td>
<td>3,904</td>
<td>8,713</td>
</tr>
<tr>
<td>Gateway Cities Council of Governments</td>
<td>6,568</td>
<td>17,453</td>
<td>38,251</td>
</tr>
<tr>
<td>Imperial County Transportation Commission</td>
<td>61</td>
<td>163</td>
<td>360</td>
</tr>
<tr>
<td>Las Virgenes Malibu Council of Governments</td>
<td>2,230</td>
<td>5,966</td>
<td>13,131</td>
</tr>
<tr>
<td>North Los Angeles County</td>
<td>15,526</td>
<td>43,178</td>
<td>97,053</td>
</tr>
<tr>
<td>Orange County Council of Governments</td>
<td>30,749</td>
<td>82,732</td>
<td>182,670</td>
</tr>
<tr>
<td>San Bernardino Associated Governments</td>
<td>5,451</td>
<td>14,779</td>
<td>32,763</td>
</tr>
<tr>
<td>San Fernando Valley Council of Governments</td>
<td>17,607</td>
<td>49,442</td>
<td>111,711</td>
</tr>
<tr>
<td>San Gabriel Valley Council of Governments</td>
<td>11,694</td>
<td>32,744</td>
<td>73,884</td>
</tr>
<tr>
<td>South Bay Cities Council of Governments</td>
<td>7,833</td>
<td>19,927</td>
<td>42,610</td>
</tr>
<tr>
<td>Ventura County Council of Governments</td>
<td>5,155</td>
<td>13,664</td>
<td>29,946</td>
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<tr>
<td>Western Riverside Council of Governments</td>
<td>5,516</td>
<td>14,879</td>
<td>32,892</td>
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<tr>
<td>Westside Cities Council of Governments</td>
<td>4,668</td>
<td>12,614</td>
<td>27,940</td>
</tr>
<tr>
<td><strong>Total</strong>*</td>
<td><strong>117,685</strong></td>
<td><strong>319,627</strong></td>
<td><strong>709,556</strong></td>
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</tbody>
</table>

*The rows do not add up to the totals due to overlapping boundaries among some COG regions.*
**ARROYO VERDUGO SUBREGION**

**Cumulative PEV Growth**

**Cumul. Hybrid and PEV Purchases in Arroyo Verdugo**

- **Hybrid Purchases**
- **Hybrids (smoothed trend)**
- **PEV Purchases**
- **PEVs (smoothed trend)**

**Cumul. BEV and PHEV Purchases in Arroyo Verdugo**

- **PHEV Purchases**
- **PHEVs (smoothed trend)**
- **BEV Purchases**
- **BEVs (smoothed trend)**
ARROYO VERDUGO SUBREGION
Projected PEV Growth

Pred. Cumul. PEVs in Arroyo Verdugo

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative PEV Registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>3,431</td>
</tr>
<tr>
<td>2017</td>
<td>4,684</td>
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<tr>
<td>2018</td>
<td>6,131</td>
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<tr>
<td>2019</td>
<td>7,772</td>
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<tr>
<td>2020</td>
<td>9,606</td>
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<tr>
<td>2021</td>
<td>11,635</td>
</tr>
<tr>
<td>2022</td>
<td>13,857</td>
</tr>
<tr>
<td>2023</td>
<td>16,274</td>
</tr>
<tr>
<td>2024</td>
<td>18,884</td>
</tr>
<tr>
<td>2025</td>
<td>21,688</td>
</tr>
</tbody>
</table>
ARROYO VERDUGO SUBREGION
PEV Peak Morning Destinations

PEV AM Peak Destinations
- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
ARROYO VERDUGO SUBREGION
Publicly Accessible Charging Stations
ARROYO VERDUGO SUBREGION
Multi-Unit Residential Land Uses

Multi-Unit Residential
- Multi-Unit (General)
- Duplexes/Triplexes
- Low-Rise Apt/Condos/Townhomes
- Mixed Multi-Family
- Medium-Rise Apts/Condos
- High-Rise Apts/Condos
ARROYO VERDUGO SUBREGION
PEV Mid-Day Destinations and Commercial (Retail Locations)
MONTHLY PEV GROWTH

MONTHLY HYBRID AND PEV PURCHASES IN CITY OF LOS ANGELES

MONTHLY BEV AND PHEV PURCHASES IN CITY OF LOS ANGELES

- Hybrid Purchases
- Hybrids (smoothed trend)
- PEV Purchases
- PEVs (smoothed trend)

- PHEV Purchases
- PHEVs (smoothed trend)
- BEV Purchases
- BEVs (smoothed trend)
CITY OF LOS ANGELES
Projected PEV Growth

Pred. Cumul. PEVs in City of Los Angeles

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>29,071</td>
</tr>
<tr>
<td>2017</td>
<td>39,582</td>
</tr>
<tr>
<td>2018</td>
<td>51,701</td>
</tr>
<tr>
<td>2019</td>
<td>65,427</td>
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<td>2020</td>
<td>80,760</td>
</tr>
<tr>
<td>2021</td>
<td>97,701</td>
</tr>
<tr>
<td>2022</td>
<td>116,250</td>
</tr>
<tr>
<td>2023</td>
<td>136,406</td>
</tr>
<tr>
<td>2024</td>
<td>158,170</td>
</tr>
<tr>
<td>2025</td>
<td>181,541</td>
</tr>
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</table>
CITY OF LOS ANGELES
Workplaces by Number of Employees

Number of Employees
- 1 - 100
- 101 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 +
CITY OF LOS ANGELES
PEV Peak Morning Destinations and Workplaces

Number of Employees

- 1 - 100
- 101 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 +

PEV AM Peak Destinations

- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +

City of Los Angeles | 37
CITY OF LOS ANGELES
Publicly Accessible Charging Stations
Cumulative PEV Growth

Cumul. Hybrid and PEV Purchases in Coachella Valley

Cumul. BEV and PHEV Purchases in Coachella Valley

- Hybrid Purchases
- Hybrids (smoothed trend)
- PEV Purchases
- PEVs (smoothed trend)
- PHEV Purchases
- PHEVs (smoothed trend)
- BEV Purchases
- BEVs (smoothed trend)
Monthly PEV Growth

Monthly Hybrid and PEV Purchases in Coachella Valley

- Hybrid Purchases
- PEV Purchases

Monthly BEV and PHEV Purchases in Coachella Valley

- PHEV Purchases
- BEV Purchases

COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
Projected PEV Growth

Pred. Cumul. PEVs in Coachella Valley

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>1,427</td>
</tr>
<tr>
<td>2017</td>
<td>1,932</td>
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<tr>
<td>2018</td>
<td>2,513</td>
</tr>
<tr>
<td>2019</td>
<td>3,171</td>
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<tr>
<td>2020</td>
<td>3,904</td>
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<tr>
<td>2021</td>
<td>4,714</td>
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<td>2022</td>
<td>5,599</td>
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<tr>
<td>2023</td>
<td>6,561</td>
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<tr>
<td>2024</td>
<td>7,599</td>
</tr>
<tr>
<td>2025</td>
<td>8,712</td>
</tr>
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</table>
COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS

Workplaces by Number of Employees
COACHELLA VALLEY ASSOCIATION OF GOVERNMENTS
PEV Peak Morning Destinations and Workplaces

Number of Employees
- 1 - 100
- 101 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 +

PEV AM Peak Destinations
- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
Projected PEV Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>6,568</td>
</tr>
<tr>
<td>2017</td>
<td>8,810</td>
</tr>
<tr>
<td>2018</td>
<td>11,371</td>
</tr>
<tr>
<td>2019</td>
<td>14,253</td>
</tr>
<tr>
<td>2020</td>
<td>17,453</td>
</tr>
<tr>
<td>2021</td>
<td>20,974</td>
</tr>
<tr>
<td>2022</td>
<td>24,813</td>
</tr>
<tr>
<td>2023</td>
<td>28,973</td>
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<tr>
<td>2024</td>
<td>33,452</td>
</tr>
<tr>
<td>2025</td>
<td>38,251</td>
</tr>
</tbody>
</table>
GATEWAY CITIES COUNCIL OF GOVERNMENTS

PEV Registrations

<table>
<thead>
<tr>
<th>PEV Registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (N/A)</td>
</tr>
<tr>
<td>1 - 15</td>
</tr>
<tr>
<td>16 - 30</td>
</tr>
<tr>
<td>31 +</td>
</tr>
</tbody>
</table>

Map showing the distribution of PEV registrations across Gateway Cities.
GATEWAY CITIES COUNCIL OF GOVERNMENTS
PEV Peak Morning Destinations

PEV AM Peak Destinations
- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
GATEWAY CITIES COUNCIL OF GOVERNMENTS
Publicly Accessible Charging Stations
Monthly Hybrid and PEV Purchases in Imperial Valley

Monthly BEV and PHEV Purchases in Imperial Valley

- Hybrid Purchases
- PHEV Purchases
- PEV Purchases
- BEV Purchases

Hybrids (smoothed trend)
PHEVs (smoothed trend)
PEVs (smoothed trend)
BEVs (smoothed trend)
Projected PEV Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>61</td>
</tr>
<tr>
<td>2017</td>
<td>82</td>
</tr>
<tr>
<td>2018</td>
<td>106</td>
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<tr>
<td>2019</td>
<td>133</td>
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<tr>
<td>2020</td>
<td>163</td>
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<tr>
<td>2021</td>
<td>196</td>
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<tr>
<td>2022</td>
<td>233</td>
</tr>
<tr>
<td>2023</td>
<td>272</td>
</tr>
<tr>
<td>2024</td>
<td>314</td>
</tr>
<tr>
<td>2025</td>
<td>360</td>
</tr>
</tbody>
</table>
PEV Peak Morning Destinations

- 0 (N/A)
- 1 - 15
- 16 - 30 (N/A)
- 31+ (N/A)
IMPERIAL COUNTY TRANSPORTATION COMMISSION
Publicly Accessible Charging Stations
IMPERIAL COUNTY TRANSPORTATION COMMISSION

Multi-Unit Residential Land Uses

- Multi-Unit (General)
- Duplexes/Triplexes
- Low-Rise Apt/Condos/Townhomes
- Mixed Multi-Family
- Medium-Rise Apts/Condos
- High-Rise Apts/Condos
LAS VIRGENES MALIBU COUNCIL OF GOVERNMENTS

Cumulative PEV Growth

Cumul. Hybrid and PEV Purchases in Las Virgenes

Cumul. BEV and PHEV Purchases in Las Virgenes
LAS VIRGENES MALIBU COUNCIL OF GOVERNMENTS

Monthly PEV Growth

Monthly Hybrid and PEV Purchases in Las Virgenes

Monthly BEV and PHEV Purchases in Las Virgenes
Projected PEV Growth

Year | Cumulative Predicted Sales
--- | ---
2016 | 2,230
2017 | 2,997
2018 | 3,876
2019 | 4,866
2020 | 5,966
2021 | 7,177
2022 | 8,500
2023 | 9,932
2024 | 11,476
2025 | 13,131
LAS VIRGENES MALIBU COUNCIL OF GOVERNMENTS

PEV Peak Morning Destinations

PEV AM Peak Destinations

- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
LAS VIRGENES MALIBU COUNCIL OF GOVERNMENTS
Commercial (Retail) Destinations

Commercial Destinations
- Regional Shopping Center
- Retail Centers
- Modern Strip Development
- Older Strip Development
- Commercial (Other)
LAS VIRGENES MALIBU COUNCIL OF GOVERNMENTS

Stand-alone Parking Facilities

Parking
- Attended Pay Public Parking
- Non-Attended Public Parking
- Park and Ride

THOUSAND OAKS

Pacific Ocean
NORTH LOS ANGELES COUNTY
Cumulative PEV Growth

Cumul. Hybrid and PEV Purchases in North Los Angeles County

Cumul. BEV and PHEV Purchases in North Los Angeles County
Northern Los Angeles County Monthly PEV Growth

Monthly Hybrid and PEV Purchases in North Los Angeles County

Monthly BEV and PHEV Purchases in North Los Angeles County
NORTH LOS ANGELES COUNTY

PEV Peak Morning Destinations and Workplaces

Number of Employees
- 1 - 100
- 101 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 +

PEV AM Peak Destinations
- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
NORTH LOS ANGELES COUNTY
Publicly Accessible Charging Stations

DC
- 1-2
- 3-7
- 8-10
- 11+

Level 1
- 1-2
- 3-7
- 8-10
- 11+

Level 2
- 1-2
- 3-7
- 8-10
- 11+
ORANGE COUNTY COUNCIL OF GOVERNMENTS
Projected PEV Growth

Pred. Cumul. PEVs in Orange County

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>30,749</td>
</tr>
<tr>
<td>2017</td>
<td>41,414</td>
</tr>
<tr>
<td>2018</td>
<td>53,633</td>
</tr>
<tr>
<td>2019</td>
<td>67,406</td>
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<tr>
<td>2020</td>
<td>82,732</td>
</tr>
<tr>
<td>2021</td>
<td>99,613</td>
</tr>
<tr>
<td>2022</td>
<td>118,046</td>
</tr>
<tr>
<td>2023</td>
<td>138,034</td>
</tr>
<tr>
<td>2024</td>
<td>159,575</td>
</tr>
<tr>
<td>2025</td>
<td>182,670</td>
</tr>
</tbody>
</table>
ORANGE COUNTY COUNCIL OF GOVERNMENTS

PEV Peak Morning Destinations

PEV AM Peak Destinations

- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
ORANGE COUNTY COUNCIL OF GOVERNMENTS

Stand-alone Parking Facilities

Parking
- Attended Pay Public Parking
- Non-Attended Public Parking
- Park and Ride

[Map of Orange County showing stand-alone parking facilities]
SAN BERNARDINO ASSOCIATED GOVERNMENTS
Projected PEV Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>5,451</td>
</tr>
<tr>
<td>2017</td>
<td>7,361</td>
</tr>
<tr>
<td>2018</td>
<td>9,553</td>
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<tr>
<td>2019</td>
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<td>2020</td>
<td>14,779</td>
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<tr>
<td>2021</td>
<td>17,814</td>
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<td>2022</td>
<td>21,129</td>
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<tr>
<td>2023</td>
<td>24,726</td>
</tr>
<tr>
<td>2024</td>
<td>28,604</td>
</tr>
<tr>
<td>2025</td>
<td>32,763</td>
</tr>
</tbody>
</table>
SAN BERNARDINO ASSOCIATED GOVERNMENTS

**PEV Registrations**

PEV Registrations

- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +

[Map of San Bernardino Associated Governments showing PEV Registrations]
SAN BERNARDINO ASSOCIATED GOVERNMENTS
PEV Peak Morning Destinations and Workplaces

Number of Employees
- 1 - 100
- 101 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 +

PEV AM Peak Destinations
- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
SAN BERNARDINO ASSOCIATED GOVERNMENTS

Multi-Unit Residential Land Uses

Multi-Unit Residential
- Multi-Unit (General)
- Duplexes/Triplexes
- Low-Rise Apts/Condos/Townhomes
- Mixed Multi-Family
- Medium-Rise Apts/Condos
- High-Rise Apts/Condos
SAN BERNARDINO ASSOCIATED GOVERNMENTS
Stand-alone Parking Facilities

Parking
- Red: Attended Pay Public Parking
- Green: Non-Attended Public Parking
- Blue: Park and Ride

This map illustrates the distribution of parking facilities in the San Bernardino Associated Governments region, including attended and non-attended public parking stations and Park and Ride locations. The map is a crucial tool for planners and policy makers to improve the accessibility and efficiency of public transportation in the area.
Cumulative PEV Growth

Cumul. Hybrid and PEV Purchases in San Fernando Valley

Cumul. BEV and PHEV Purchases in San Fernando Valley
San Fernando Valley Council of Governments

Projected PEV Growth

### Table: Pred. Cumul. PEVs in San Fernando Valley by Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>17,607</td>
</tr>
<tr>
<td>2017</td>
<td>24,068</td>
</tr>
<tr>
<td>2018</td>
<td>31,527</td>
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<tr>
<td>2019</td>
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<td>2020</td>
<td>49,442</td>
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<tr>
<td>2021</td>
<td>59,897</td>
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<td>2022</td>
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<td>83,806</td>
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<tr>
<td>2024</td>
<td>97,259</td>
</tr>
<tr>
<td>2025</td>
<td>111,711</td>
</tr>
</tbody>
</table>
Cumulative PEV Growth

Cumulative Purchases

Jan '11  Jan '12  Jan '13  Jan '14  Jan '15  Jan '16

PEV Purchases  PHEVs (smoothed trend)
BEV Purchases  BEVs (smoothed trend)

Cumulative PEV Purchases in San Gabriel Valley

Jan '11  Jan '12  Jan '13  Jan '14  Jan '15  Jan '16

Hybrid Purchases  Hybrids (smoothed trend)
PEV Purchases  PEVs (smoothed trend)
Projected PEV Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>11,694</td>
</tr>
<tr>
<td>2017</td>
<td>15,968</td>
</tr>
<tr>
<td>2018</td>
<td>20,901</td>
</tr>
<tr>
<td>2019</td>
<td>26,493</td>
</tr>
<tr>
<td>2020</td>
<td>32,744</td>
</tr>
<tr>
<td>2021</td>
<td>39,654</td>
</tr>
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<td>2022</td>
<td>47,223</td>
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<td>55,451</td>
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<tr>
<td>2024</td>
<td>64,338</td>
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<tr>
<td>2025</td>
<td>73,884</td>
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</table>
SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS

PEV Registrations

<table>
<thead>
<tr>
<th>PEV Registrations</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
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<td>Purple</td>
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<tr>
<td>1 - 15</td>
<td>Light Purple</td>
</tr>
<tr>
<td>16 - 30</td>
<td>Medium Purple</td>
</tr>
<tr>
<td>31 +</td>
<td>Dark Purple</td>
</tr>
</tbody>
</table>

The map illustrates the distribution of PEV registrations across various localities in the San Gabriel Valley.
SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS

PEV Peak Morning Destinations
SAN GABRIEL VALLEY COUNCIL OF GOVERNMENTS
PEV Mid-Day Destinations and Commercial (Retail) Locations

Commercial Destinations
- Regional Shopping Center
- Retail Centers
- Modern Strip Development
- Older Strip Development
- Commercial (Other)

PEV Mid-Day Destinations
- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
Cumulative PEV Growth

Cumul. Hybrid and PEV Purchases in South Bay Cities

Cumul. BEV and PHEV Purchases in South Bay Cities

- Hybrid Purchases
- PHEV Purchases
- PEV Purchases
- BEV Purchases
Monthly PEV Growth

Monthly Hybrid and PEV Purchases in South Bay Cities

Monthly BEV and PHEV Purchases in South Bay Cities

- Hybrid Purchases
- Hybrids (smoothed trend)
- PEV Purchases
- PEVs (smoothed trend)
- PHEV Purchases
- PHEVs (smoothed trend)
- BEV Purchases
- BEVs (smoothed trend)
Projected PEV Growth

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>7,833</td>
</tr>
<tr>
<td>2017</td>
<td>10,352</td>
</tr>
<tr>
<td>2018</td>
<td>13,207</td>
</tr>
<tr>
<td>2019</td>
<td>16,399</td>
</tr>
<tr>
<td>2020</td>
<td>19,927</td>
</tr>
<tr>
<td>2021</td>
<td>23,791</td>
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<tr>
<td>2022</td>
<td>27,991</td>
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<tr>
<td>2023</td>
<td>32,528</td>
</tr>
<tr>
<td>2024</td>
<td>37,401</td>
</tr>
<tr>
<td>2025</td>
<td>42,610</td>
</tr>
</tbody>
</table>
SOUTH BAY CITIES COUNCIL OF GOVERNMENTS

PEV Registrations

<table>
<thead>
<tr>
<th>PEV Registrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (N/A)</td>
</tr>
<tr>
<td>1 - 15</td>
</tr>
<tr>
<td>16 - 30</td>
</tr>
<tr>
<td>31 +</td>
</tr>
</tbody>
</table>

SOUTHBAYCITIESCOUNCILOFGOVERNMENTS
PEV Registrations
WORKPLACES BY NUMBER OF EMPLOYEES

Number of Employees
- 1 - 100
- 101 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 +

SOUTH BAY CITIES COUNCIL OF GOVERNMENTS

SOUTHERN CALIFORNIA PLUG-IN ELECTRIC VEHICLE READINESS ATLAS: 2017 UPDATE

SOUTH BAY CITIES COUNCIL OF GOVERNMENTS
Publicly Accessible Charging Stations

DC
- 1 - 2
- 3 - 7
- 8 - 10
- 11+

Level 1
- 1 - 2
- 3 - 7
- 8 - 10
- 11+

Level 2
- 1 - 2
- 3 - 7
- 8 - 10
- 11+
SOUTHWEST CALIFORNIA PLUG-IN ELECTRIC VEHICLE READINESS ATLAS: 2017 UPDATE

SOUTH BAY CITIES COUNCIL OF GOVERNMENTS

Commercial (Retail) Destinations

[Map showing commercial destinations with legends for Regional Shopping Center, Retail Centers, Modern Strip Development, Older Strip Development, and Commercial (Other).]
VENTURA COUNCIL OF GOVERNMENTS
Projected PEV Growth

Predicted Cumulative PEV Purchases

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
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</thead>
<tbody>
<tr>
<td>2016</td>
<td>5,155</td>
</tr>
<tr>
<td>2017</td>
<td>6,906</td>
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<tr>
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<td>2020</td>
<td>13,664</td>
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<td>2021</td>
<td>16,419</td>
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<td>2023</td>
<td>22,681</td>
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<td>2024</td>
<td>26,188</td>
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<tr>
<td>2025</td>
<td>29,946</td>
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VENTURA COUNCIL OF GOVERNMENTS
Workplaces by Number of Employees

Number of Employees
- 1 - 100
- 101 - 1,000
- 1,001 - 5,000
- 5,001 - 10,000
- 10,001 +
VENTURA COUNCIL OF GOVERNMENTS
Publicly Accessible Charging Stations
VENTURA COUNCIL OF GOVERNMENTS
Multi-Unit Residential Land Uses

Multi-Unit Residential
- Multi-Unit (General)
- Duplexes/Triplexes
- Low-Rise Apts/Condos/Townhomes
- Mixed Multi-Family
- Medium-Rise Apts/Condos
- High-Rise Apts/Condos
WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS

Cumulative PEV Growth

Cumulative Hybrid and PEV Purchases in Western Riverside

Cumulative BEV and PHEV Purchases in Western Riverside

- Hybrid Purchases
- PHEV Purchases
- PEV Purchases
- Hybrids (smoothed trend)
- PHEVs (smoothed trend)
- PEVs (smoothed trend)
Monthly PEV Growth

Monthly Hybrid and PEV Purchases in Western Riverside

Monthly BEV and PHEV Purchases in Western Riverside
Projected PEV Growth

Pred. Cumul. PEVs in Western Riverside

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
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</thead>
<tbody>
<tr>
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<td>2017</td>
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<td>2018</td>
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<tr>
<td>2019</td>
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<td>2020</td>
<td>14,880</td>
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<tr>
<td>2021</td>
<td>17,922</td>
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<tr>
<td>2022</td>
<td>21,244</td>
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<td>2023</td>
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<td>2024</td>
<td>28,729</td>
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<tr>
<td>2025</td>
<td>32,892</td>
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WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS

PEV Mid-Day Destinations and Commercial (Retail) Locations
Stand-alone parking Facilities
Monthly Hybrid and PEV Purchases in Westside Cities

- Hybrid Purchases
- PEV Purchases

Monthly BEV and PHEV Purchases in Westside Cities

- PHEV Purchases
- BEV Purchases

### Projected PEV Growth

#### Pred. Cumul. PEVs in Westside Cities

<table>
<thead>
<tr>
<th>Year</th>
<th>Cumulative Predicted Sales</th>
</tr>
</thead>
<tbody>
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<tr>
<td>2017</td>
<td>6,295</td>
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<tr>
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<td>8,161</td>
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<tr>
<td>2019</td>
<td>10,268</td>
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<tr>
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<td>12,614</td>
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<td>2022</td>
<td>18,025</td>
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<td>2024</td>
<td>24,395</td>
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<tr>
<td>2025</td>
<td>27,940</td>
</tr>
</tbody>
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WESTSIDE CITIES COUNCIL OF GOVERNMENTS
PEV Registrations

PEV Registrations
- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +
WESTSIDE CITIES COUNCIL OF GOVERNMENTS

Commercial (Retail) Destinations
WESTSIDE CITIES COUNCIL OF GOVERNMENTS
PEV Mid-Day Destinations and Commercial (Retail) Locations

Commercial Destinations
- Regional Shopping Center
- Retail Centers
- Modern Strip Development
- Older Strip Development
- Commercial [Other]

PEV Mid-Day Destinations
- 0 (N/A)
- 1 - 15
- 16 - 30
- 31 +