Transportation Electrification Partnership
THE PARTNERSHIP BRINGS TOGETHER LOCAL GOVERNMENT, REGULATORS, UTILITIES, INDUSTRY LEADERS AND LABOR
Zero Emissions 2028 Roadmap

TRANSPORTATION ELECTRIFICATION PARTNERSHIP
THE PARTNERSHIP IS FOCUSED ON REDUCING GHG EMISSIONS & AIR POLLUTION AN ADDITIONAL 25% BEYOND EXISTING COMMITMENTS BY 2028

**SECTORS & TARGETS**

### PEOPLE MOVEMENT

**Charging infrastructure**
- 60,000-130,000 public chargers installed

**Light-duty private vehicles**
- 20-45% of all light-duty private vehicles on the road are electric

**Shared cars**
- 50-100% of shared cars (e.g., taxis and TNCs) are electric

**Local transit**
- 80-100% of Metro and LADOT buses on the road, and 100% of new buses being introduced are electric

**Commuter rail**
- Begin planning for electrification of one or more commuter rail lines with key partners

**Light electric vehicles (LEVs) and active transit**
- All DAC neighborhoods with a walkscore of less than 65 have LEV hubs to reduce SOV trips

**Aerial transit**
- Ensure short-haul and VTOL transit is electric

### GOODS MOVEMENT

**Goods charging infrastructure**
- 10,000-100,000 zero emission chargers installed for goods movement

**Heavy duty drayage trucks**
- 10-40% of drayage trucks on the road being zero emissions

**Heavy duty long haul trucks**
- 5-25% of trucks on the road are zero emission vehicles

**Medium duty delivery trucks**
- 25-50% of medium-duty delivery trucks are electric

**Marine shipping & freight trains**
- Begin electrification of shipping and freight rail in the region

**Aerial**
- Ensure local delivery drones are electric

### ENERGY-TRANSPORTATION NEXUS

**Grid capacity**
- The electricity grid in the region – increasingly comprised of clean energy sources – has sufficient capacity to meet the rising needs from electrification

**Grid intelligence and EV-grid interconnection**
- Smart grid and storage technologies are incorporated into the grid and utility interconnection and permitting processes for electric charging infrastructure is streamlined to enable greater use of electric vehicles and efficient dispatch of energy as needed

**Digital tools and autonomy**
- Current and emerging technological and digital innovations, such as autonomous vehicles, connectivity, data, IoT, and blockchain, integrate with and help advance transportation electrification and emissions reduction
WE’RE IDENTIFYING SOLUTIONS TO ACHIEVE THESE TARGETS VIA WORKING GROUPS

<table>
<thead>
<tr>
<th>THE WORKING GROUPS</th>
<th>SAMPLE WORKING GROUP DELIVERABLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Working Group</td>
<td>Narrow the ranges for electric vehicles and chargers</td>
</tr>
<tr>
<td>People Movement Working Group</td>
<td>Work with the Southern California Association of Governments to present info/tools on expedited permitting for EV charging to city managers and planners throughout the greater LA area</td>
</tr>
<tr>
<td>Goods Movement Working Group</td>
<td>Create a Last Mile Zero Emission Cargo Zone Feasibility Assessment; identify closed campus such as a hospital or university for a pilot</td>
</tr>
<tr>
<td>Energy-Transportation Nexus Working Group</td>
<td>Prepare research report on disruptive business models, focusing on Vehicle to Grid Integration in the context of some of the broader changes happening in energy and transport such as autonomous vehicles and blockchain technology</td>
</tr>
</tbody>
</table>
### ATHLETE TRAINING PLAN

- Assemble trainers/coaches/supporters
- Set clear goals
- Plan a strategy to achieve goals
- Train across a variety of disciplines
- Chart progress
- Fuel appropriately (sleep, food, hydration)
- Maintain mental concentration – don’t get distracted by size of the task ahead
- Be a good team player and share lessons with the rest of the team

### TRANSPORTATION ELECTRIFICATION PARTNERSHIP PLAN

- Leadership and Advisory Groups
- Additional 25% in GHG and air pollution in LA County by 2028
- Zero Emissions 2028 Roadmap
- Engage in related efforts that involve a subset of partners (pilots, RFI on goods movement, sign-on letters)
- Annual Roadmap publication of progress, with 2, 5 and 8 year milestones for target ranges
- Fuel our work by celebrating wins along the way and feeding our knowledge with expert partners
- Acknowledge we have aggressive goals, but also an influential coalition that is focused on goals
- Sharing lessons with other cities/regions/states (Houston, New Jersey, etc.)
THANK YOU!

For More Information
www.laci.org/roadmap

Michelle Kinman
Director of Transportation
michelle@laci.org
310-621-8935
@michellekinman1

Zero Emissions 2028 Roadmap 2.0 --
Coming September 18, 2019!
**Goals for Roadmap 2.0**

- Narrow vehicle ranges
- Narrow charging infrastructure ranges
- Conduct [locational analysis](#) for charging infrastructure demand and provide policy recommendations

---

**Working Group Members**

<table>
<thead>
<tr>
<th>Mayor Garcetti’s Office</th>
<th>Audi</th>
</tr>
</thead>
<tbody>
<tr>
<td>LADWP</td>
<td>Clean Power Alliance</td>
</tr>
<tr>
<td>SCE</td>
<td>Greenlots</td>
</tr>
<tr>
<td></td>
<td>Itron Idea Labs</td>
</tr>
<tr>
<td></td>
<td>South Coast AQMD</td>
</tr>
<tr>
<td></td>
<td>Tesla</td>
</tr>
</tbody>
</table>
# PEOPLE MOVEMENT – WORKING GROUP

## Goals for Roadmap 2.0

<table>
<thead>
<tr>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify requirements for locational analysis for charging infrastructure</td>
</tr>
<tr>
<td>Work with the Southern California Association of Governments to present info/tools on <strong>expedited permitting for EV charging</strong> to city managers and planners throughout the greater LA area</td>
</tr>
<tr>
<td>Work with cities to seek <strong>harmonization of permitting processes</strong> throughout the greater LA area</td>
</tr>
<tr>
<td>Conduct a focus group for LADWP to <strong>identify areas for improvement in the utility’s interconnection process</strong> for EV charging infrastructure</td>
</tr>
</tbody>
</table>

## Working Group Members

<table>
<thead>
<tr>
<th>LA County</th>
<th>BMW Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>LADWP</td>
<td>BYD</td>
</tr>
<tr>
<td>LA Metro</td>
<td>Freewire</td>
</tr>
<tr>
<td>SCE</td>
<td>Greenlots</td>
</tr>
<tr>
<td></td>
<td>Nissan North America</td>
</tr>
<tr>
<td></td>
<td>PCS Energy</td>
</tr>
<tr>
<td></td>
<td>Proterra</td>
</tr>
</tbody>
</table>
Goals for Roadmap 2.0

Utilize **Results from RFI on Zero Emission Trucks, Infrastructure and Pilots for Goods Movement** as basis for exploring further work areas.

Conduct feasibility assessment for a **Last Mile Zero Emission Cargo Zone**; identify closed campus such as a hospital or university for a pilot; work with local government to identify candidate pilot sites.

Interview terminal and fleet operators regarding the idea of creating **prioritization for zero emission trucks** within the reservation system at the Ports of Los Angeles and Long Beach.

---

**Working Group Members**

- Mayor Garcetti’s Office
- SCE
- Amply Power
- BYD
- Greenlots
- IBEW-NECA
- PCS Energy
- South Coast AQMD
- Tesla
**Goals for Roadmap 2.0**

Prepare **research report on disruptive business models**, focusing on **Vehicle to Grid** in the context of some of the broader changes happening in energy and transport such as autonomous vehicles and blockchain technology.

**Working Group Members**

| LADWP  | Amply Power   |
| SCE    | BMW Group    |
|        | Clean Power Alliance |
|        | Freewire      |
|        | Greenlots     |
|        | IBEW-NECA     |
|        | Itron Idea Labs |
|        | Tesla         |