A Call to Action: Advancing Policies and Pilots in 2020

February 6, 2020
Context for the Partnership

- Local air quality continues to threaten public health, and the climate crisis is only worsening as seen by extreme heat, drought, and wildfires from California to Australia.

- The US withdrawal from the Paris accord highlights how local, regional, state efforts are more important than ever.

- Using spirit of Olympics & urgency of climate crisis, the Roadmap is intended to help rally all sectors of government, economy, & public in LA region to work together to move toward zero emissions transportation.
The Transportation Electrification Partnership is an unprecedented multi-year partnership among local, regional, and state stakeholders to accelerate transportation electrification and zero emissions goods movement in the Greater Los Angeles region (LA) in advance of the 2028 Olympic and Paralympic Games.
Zero Emissions 2028 Roadmap

History

May 2018

Partnership launched with Leadership Group

Sept. 2018

Roadmap 1.0 released, setting 25% emission reduction goal.
18 partners

Nov. 2019

Roadmap 2.0 released with detailed targets to achieve 25% goal.
25 partners

Roadmap 2.0
Reduce the region’s transportation sector greenhouse gas and air pollution emissions 25 percent beyond September 2018 commitments.

TEP’s Roadmap v1.0 goal: reduce GHGs and air pollution by an additional 25 percent by the time world arrives for Olympics in 2028.

Where We Are And Where We Need to Go

1. Reference Scenario
   CARB's forecast of transportation GHG emissions in LA County from their EMFAC (mobile sources emissions inventory) database.

2. 2018 Commitment Scenario
   The planning and targets of the Partnership members—such as of September 2018—that will affect transportation GHG emissions in LA County, including greater share of renewables in the power mix, trip reduction, mode shift, fuel efficiency, and vehicle electrification consistent with Governor Brown’s EO-948-18.

3. Roadmap 2.0 Scenario
   An enhanced commitment to collectively exceed the 2018 commitment efforts by an additional 25% through transportation electrification, as outlined in Roadmap 1.0.
Zero Emissions 2028 Roadmap

Three-pronged Call to Action to all sectors of government, economy, public

1. Accelerating the adoption of light-duty passenger electric vehicles (EVs) to be 30 percent of all vehicles on the road, and at least 80 percent of all vehicles sold by 2028.

2. Shifting over 20 percent of all trips in single occupancy vehicles to zero emissions public and active transit by 2028.

3. Ensuring that by 2028 all public investments into goods movement, freight vehicles (i.e., trucks and cargo handling equipment), and related infrastructure to support goods movement will advance zero emissions solutions, and ensure that the I-710 is the first zero emissions goods movement corridor in the nation.
The Zero Emissions 2028 Roadmap Progress

Accelerate transportation electrification in the Greater LA region towards an additional 25 percent reduction in GHG emissions and air pollution by 2028 to build on our region’s leadership.

**SECTORS & TARGETS**

**People Movement**
- **Charging Infrastructure**: 84,000 public and workplace chargers.
- **Light-Duty Private Vehicles**: 30% of all light-duty private vehicles on the road are electric.
- **Shared Cars**: 100% of shared cars (e.g., taxis and TNCs) are electric.
- **Local Transit**: 100% of Metro and LA Dod buses on the road are electric.
- **Commuter Rail**: Begin planning for electrification of one or more commuter rail lines.
- **Aerial Transit**: Ensure short-haul and vertical Take-Off and Landing transit is electric.

**Goods Movement**
- **Goods Charging Infrastructure**: Up to 95,000 zero emission chargers installed for goods movement.
- **Heavy duty short haul and drayage**: 40% of short haul and drayage trucks on road are zero emission vehicles.
- **Heavy duty long haul trucks**: 5% of trucks on the road are zero emission vehicles.
- **Medium duty delivery trucks**: 60% 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 in the right places to meet the rising needs from transportation electrification.
- **Grid intelligence and EV-grid integration**: Smart grid, vehicle grid integration, and storage technologies are incorporated into the electricity 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, such as digital twin technology, and blockchain, integrate with and help advance transportation electrification and emissions reduction.

Ensure equal access to zero-emission transportation options that are cost-competitive, safe, and convenient.

Ensure that the autonomous future is electric and does not increase VMT.

Ensure that first and last mile electric options complement the region’s public transit network.

Ensure infrastructure planning and investments support modern zero emission freight corridors.

Improve freight efficiency and transition goods movement to zero-emissions technologies.

Increase competitiveness and future economic growth within freight sector in the Greater LA region and across California.

Expand grid infrastructure in a way that ensures resilience and promotes EV adoption at scale.

Ensure the increased demand from transportation electrification is met through renewable energy.

Ensure a localized power grid that addresses the opportunities and needs for integration of EVs and related technologies.

20% MODE SHIFT
These are the four key principles that inform and guide the entire Roadmap.

- **Guiding Principle: When visitors & athletes arrive for the Olympics, people and goods can move emissions-free throughout the region**

- **Guiding Principle: Eliminate range anxiety by ensuring sufficient charging infrastructure**

- **Guiding Principle: Enhance equity through improved air quality, goods jobs and access to mobility**

- **Guiding Principle: Grow the Greater LA regional economy through transportation electrification**
Zero Emissions 2028 Roadmap

People Movement and the Importance of Mode Shift

- **Charging Infrastructure**: 84,000 public and workplace chargers
- **Light-Duty Private Vehicles**: 30% of all light-duty private vehicles on the road are electric
- **Shared Cars**: 100% of shared cars (e.g., taxis and TNCs) are electric
- **Local Transit**: 100% of Metro and LADOT buses on the road are electric
- **Commuter Rail**: Begin planning for electrification of one or more commuter rail lines
- **Light Electric Vehicles (LEV) and Active Transit**: All SAC neighborhoods with a walkscore of less than 65 have LEV hubs to reduce SOV trips
- **Aerial Transit**: Ensure short-haul and Vertical Take-Off and Landing transit is electric

Ensure equal access to zero-emission transportation options that are cost-competitive, safe, and convenient.

Ensure that the autonomous future is electric and does not increase VMT.

Ensure that first and last mile electric options complement the region’s public transit network.

Building an inclusive green economy
Zero Emissions 2028 Roadmap

Goods Movement

- **Ensure infrastructure planning and investments support modern zero emission freight corridors**
- **Improve freight efficiency and transition goods movement to zero-emissions technologies**
- **Increase competitiveness and future economic growth within freight sector in the Greater LA region and across California**

**Goods Movement**

- **Goods charging infrastructure**
  - Up to 95,000 zero emission chargers installed for goods movement

- **Heavy duty short haul and drayage**
  - 40% of short haul and drayage trucks on road are zero emissions

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

- **Medium duty delivery trucks**
  - 60% 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

Building an inclusive green economy

laci.org
How will the partnership move towards these targets?

- Through the targets and guiding principles, **TEP will deliver policies and pilots** to ensure equity, grow the economy, and help visitors in 2028 move emissions-free while encouraging startup and corporate innovation in the region.

- Other regions such as **Houston and New Jersey are replicating and drawing from the TEP model in their region**. We hope to inspire and learn from other cities, regions, and states across the country & world.
Zero Emissions Mobility and Community Pilot

Pacoima
EV Adoption

Huntington Park
Curbside DCFC

San Pedro
EV Car Sharing

Long Beach
E-cargo bikes

Building an inclusive green economy | Learn more at laci.org
Medium- and Heavy-Duty Goods Movement Truck and Charging Pilots

RFI on Zero Emissions Trucks, Infrastructure & Pilot Concepts

- I-710 Electrified Freight Corridor Pilot Proposal
- Voluntary Zero Emissions Urban Delivery Zone Pilot
- Co-located Medium-Duty Delivery Truck Charging
Join the Call to Action!

Sign up for our Zero Emissions 2028 Roadmap Newsletter to stay informed on LACI’s transportation initiatives and how you can join us in tackling the climate crisis at www.laci.org/roadmap

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