

Southern California Edison Transportation Electrification

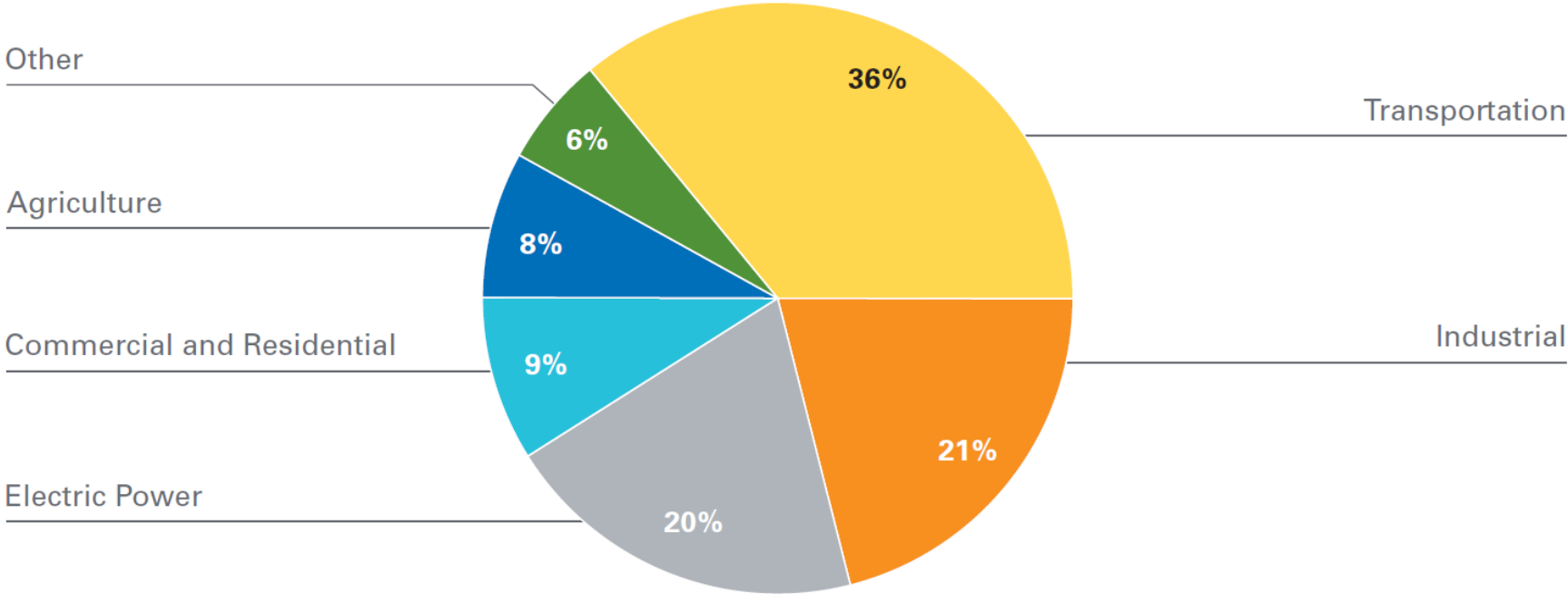
Transportation Technology Policy Forum

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Transportation Sector is a Major Contributor to GHG Emissions

2014 California GHG Emissions by Sector

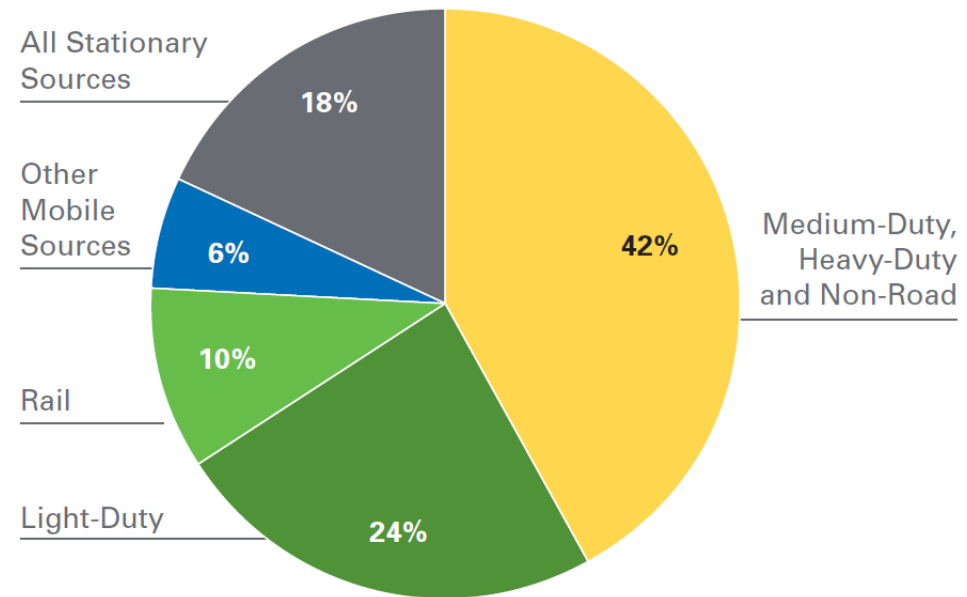


Note: Data from California Air Resources Board

SCE Serves the Only Two Basins in the Nation in Extreme Non-Attainment for Ozone: San Joaquin and South Coast

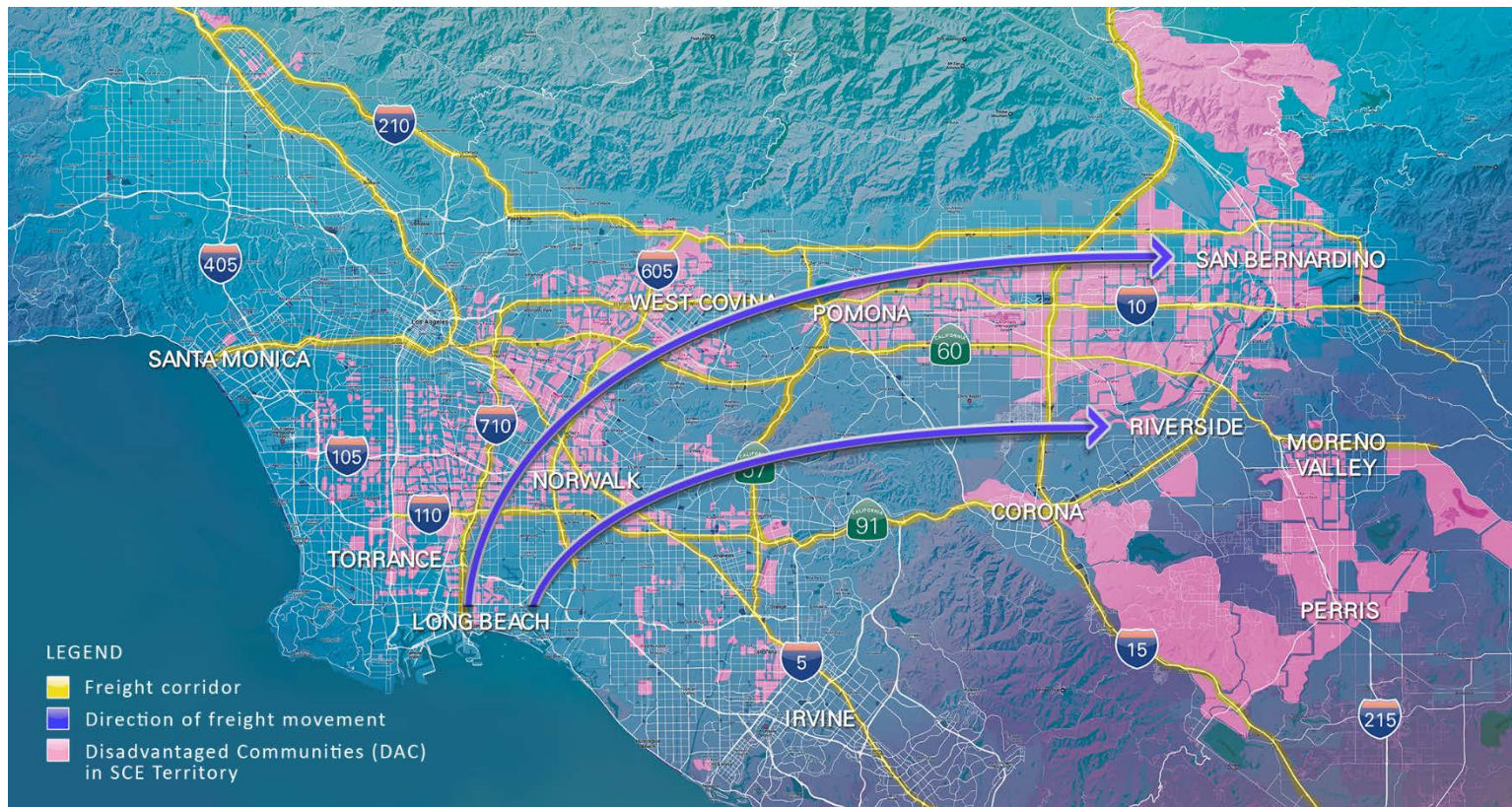
- Transportation has an even greater impact on air quality than on GHG emissions in California – accounts for 80 percent of NOx and 95 percent of particulate emissions in the state
- **Meeting 2032 attainment deadlines is more difficult than meeting the state's 2050 GHG goal as far as pace of commercialization of TE and other technologies according to CARB**
- Heavy-duty EVs reduce NOx up to 60 times more per kWh than renewables or energy efficiency
- Light-duty EVs reduce NOx about 8 times more per kWh

Medium-Duty, Heavy-Duty and Non-Road Vehicles Contribute Significantly to NOx Emissions in Los Angeles County



Disadvantaged Communities are Heavily Impacted by Air Pollution from Freight Corridors – SCE has 45% of CA's DACs

- In SCE's service area, the communities most heavily impacted by the associated air pollution from transportation are disadvantaged communities
- These communities are disproportionately impacted by the pollution caused by transportation both to and from warehouses and factories and along major freight corridors



Note: Communities are considered DACs if they are in the worst quartile of environmental & economic burden, as evaluated by the California EPA using CES 3.0. Freight corridors are consistent with those identified by the Southern California Association of Governments in its 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy. A map of freight corridors, warehouses, and rail lines is available in the RTP/SCS Goods Movement appendix, available at http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_GoodsMovement.pdf.

Proposed programs in application span transportation sub-sectors: target both GHG and air-quality abatement opportunities

	Description	Cost	Duration
 Light duty	Customer rebate for residential charging station installation - Offer rebates to expand make-ready program to residences (not covered by Charge Ready)	\$4M	1 Yr
	Building urban DC Fast Charger (DCFC) clusters - Deploy cluster of five DC fast charge stations to test if those who don't have access to nighttime charging can use this instead (also ridesharing drivers and others)	\$4M	1 Yr
	Bonus reward to rideshare/taxi drivers who use EVs - Offer driver bonus to incentivize ridesharing (with focus on low-income)	\$4M	1 Yr
 Trucks, Buses, Forklifts	Rates designed to incentivize EV adoption - Propose a new rate ² to mitigate demand charge barriers to stand-alone DC fast charge stations, fleets and other commercial	N/A	10 Yr
	Funding for medium- and heavy-duty vehicle charging infrastructure ³ - Build make readies and charging station rebates ³ for electric trucks, buses, shuttles, port and material handling equipment	\$553M	5 Yr
 Port	Building vehicle charging infrastructure for electric transit buses - Provide infrastructure and charging station rebates ³ for early-adopter transit agencies	\$4M	1 Yr
	Two Port of Long Beach electrification projects - Make readies for Port of Long Beach gantry crane and yard tractor electrification	\$3.5M (total)	1 Yr (each)

¹ Program also supports public funding programs: IRS (tax credits), ARB (CVRP, LCT, HVIP), SCAQMD (Carl Moyer)

² New rate design proposal contains new tariffs for three customer classes based upon demand size

³ Rebates will only be available in sectors with technology that meets applicable standards

Thank you!

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