

# CARB Advanced Clean Fleets Regulation

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September 14, 2023



# Zero Emission Executive Order

## Governor Newsom's Zero-Emission by 2035 Executive Order (N-79-20)

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Executive Order calls for elimination of new internal combustion passenger vehicles by 2035

**DATE** January 19, 2021

### **CATEGORIES**

**Topics** Air Pollution, Transportation Electrification, Clean Cars

**Programs** Advanced Clean Cars Program, Clean Miles Standard, Clean Cars 4 All

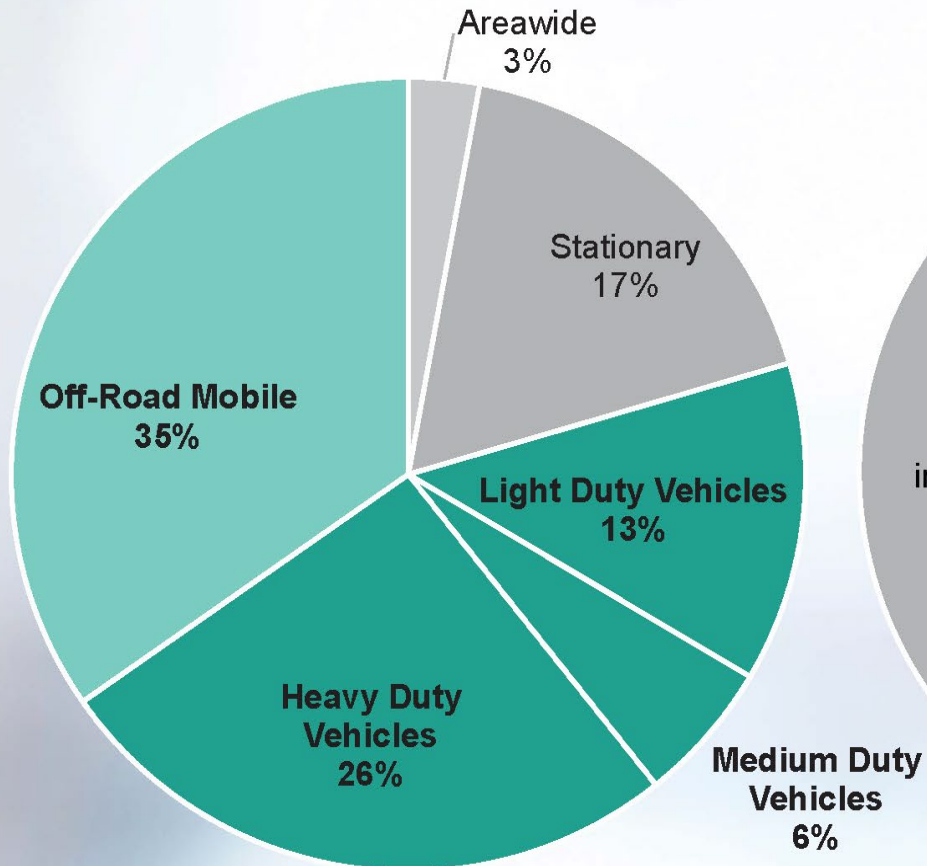
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By setting a course to end sales of internal combustion passenger vehicles by 2035, the Governor's Executive Order establishes a target for the transportation sector that helps put the state on a path to carbon neutrality by 2045. It is important to note that the Executive Order focuses on new vehicle sales for automakers, and therefore does not require Californians to give up the existing cars and trucks they already own.

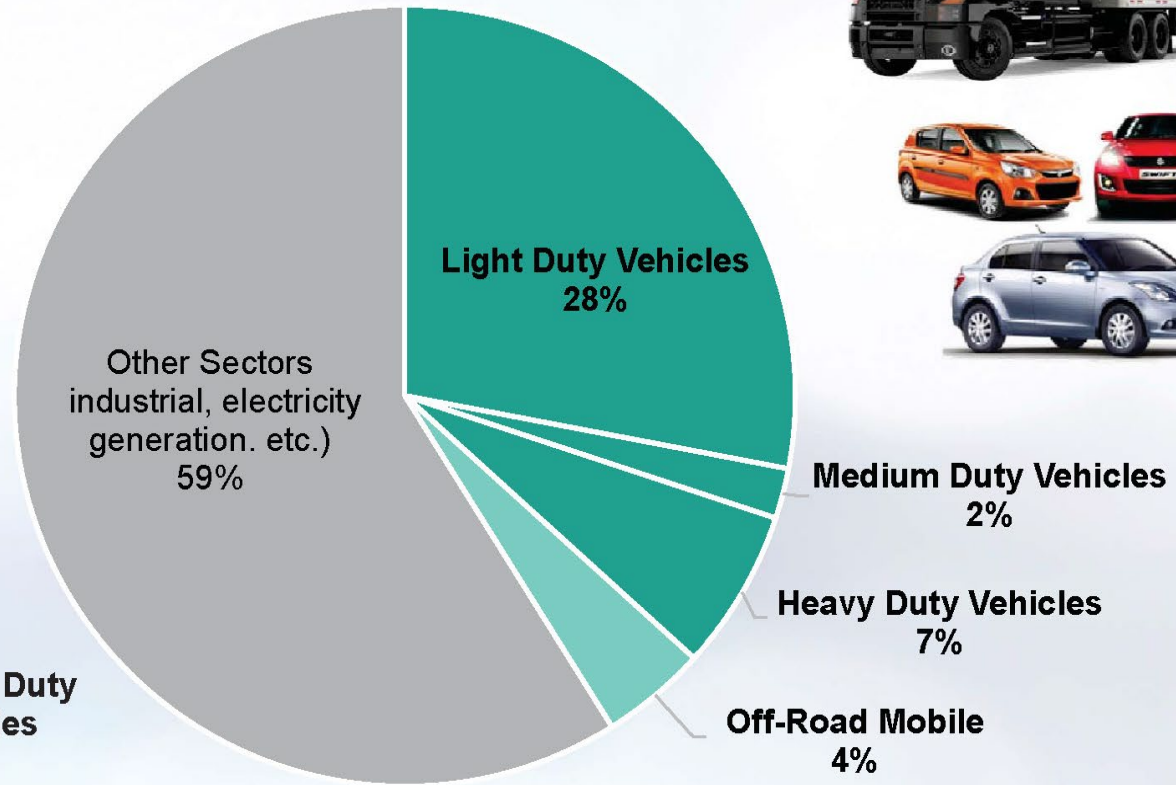
Furthermore, by setting the target in 2035, the Executive Order provides time for automakers to scale up and market new zero-emission vehicles (ZEVs) as well as further impetus for the

# Why Electrify?

## Statewide NOx Emissions




## Statewide GHG Emissions



# Mobile Source Strategy

## Executive Order N-79-20

 **100% ZEV sales** by 2035

Full transition to  
**ZEV short-haul/drayage trucks**  
by 2035 

Full transition to **ZEV buses & heavy-duty long-haul trucks**  
by 2045\*  

Full transition to  
**ZE off-road equipment**  
by 2035\* 

\*where feasible

# CARB Mobile Source Strategy – ACT Sales

Model Year	Class 2b-3 Group	Class 4-8 Group	Class 7-8 Tractors Group
2024	5%	9%	5%
2025	7%	11%	7%
2026	10%	13%	10%
2027	15%	20%	15%
2028	20%	30%	20%
2029	25%	40%	25%
2030	30%	50%	30%
2031	35%	55%	35%
2032	40%	60%	40%
2033	45%	65%	40%
2034	50%	70%	40%
2035 and beyond	55%	75%	40%



# CARB Advanced Clean Fleets Regulations

Impacts vehicle purchases for Class 2b-8 vehicles (>8,500 lb. GVWR)

- **Purchase requirements for the regulation:**
  1. Public Fleets: 50% of vehicles added to be ZEV by 2024, and 100% by 2027, with limited exceptions.
  2. High Priority Fleet (Group 3): 10% of vehicles added to be ZEV by 2030 and 100% by 2042, with limited exceptions.
- **Plug in hybrids (NZEV) count as ZEV until 2035 – Not RNG/CNG vehicles**
- **Exemption process provides little relief**
- **Infrastructure delay provisions**



# CARB Advanced Clean Fleets Regulations

If your organization is NOT within a low population county (i.e., unshaded counties in figure) and you have >10 vehicles in your fleet, the following timelines apply:

- As of January 1, 2024, 50% of vehicle purchases in each calendar year must be zero-emission vehicles (ZEVs)
- As of January 1, 2027, 100% of vehicle purchases must be ZEVs

If your organization is within a low population county or  $\leq 10$  vehicles in fleet:

- As of January 1, 2027, 100% of vehicle purchases must be ZEVs.



# High Priority & Federal Fleets Requirements

*If you are large (>50 vehicle) **OR** have trucks that support diversion of organic waste in effort to implement SB 1383 mandates, you can opt into this regulation (but must do it soon!)*

- Allows more time to transition medium- and heavy-duty fleet vehicles
- Does **NOT** provide for the anticipated expansion in trucks fueled by biomethane in support of SB 1383 (only allows trucks in fleet fueled exclusively by biomethane as of January 1, 2024)

Percentage of vehicles that must be ZEVs →	10%	25%	50%	75%	100%
Milestone Group 1: Box trucks, vans, buses w/ two axles, yard tractors, light-duty package delivery vehicles	2025	2028	2031	2033	2035 & beyond
Milestone Group 2: Work trucks, day cab tractors, buses with three axles	2027	2030	2033	2036	2039 & beyond
Milestone Group 3: Sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042 & beyond



# CARB ACF Resolution

Be it further resolved that, consistent with the latest Scoping Plan, the Board recognizes that the successful implementation of the food waste diversion requirements and methane emissions reductions mandated by SB 1383 are critical to the State's climate goals. The Board further recognizes that multiple reliable uses for non-fossil biomethane will be needed for successful implementation. The Board recognizes the need for coordination meetings with other state agencies such as CEC, CPUC, State Water Resources Control Board, CalRecycle, CDFA, CRNA, and other relevant stakeholders such as the **California Association of Sanitation Agencies** and the California Air Pollution Control Officers Association, to implement SB 1383 and SB 1440.54 As such, the Board directs staff to prioritize policy discussions related to **SB 1383** and SB 1440 implementation and discussions on how to transition biomethane into hard to decarbonize sectors, or as a feedstock to produce hydrogen for FCEV fuel and to produce electricity to charge BEVs. **Report back to Board at the end of 2025 on alternative uses for biomethane including identifying any appropriate regulatory actions as needed.**

# CMUA – AB 1594 (Garcia)

## SECTION 1.

The Legislature finds and declares all of the following:

(a) Public agency utility vehicles are essential to maintaining reliable water and electric service, achieving the state's ambitious energy and water goals, for responding to disasters in an emergency capacity, and for providing mutual aid assistance in the state and nationwide.

(b) Public agency utility vehicles are operated under various weather and geographic conditions and zero-emission vehicle procurement plans for public agency utilities should be reasonably tailored to support each public agency utility's ability to respond to major disruption events, including, but not limited to, severe weather, wildfires, natural disasters, and physical attacks, and to maintain reliable utility services to California communities.

28500. (a) "Public agency utility" means a local publicly owned electric utility, as defined in Section 224.3 of the Public Utilities Code, a community water system, as defined in Section 116275 of the Health and Safety Code, a water district, as defined in Section 20200 of the Water Code, and a wastewater treatment provider, as defined in Section 116773.2 of the Health and Safety Code.

(b) Any state regulation that seeks to require, or otherwise compel, the procurement of medium- and heavy-duty zero-emission vehicles shall authorize public agency utilities to purchase replacements for traditional utility-specialized vehicles that are at the end of life, as determined by the State Air Resources Board in consultation with public agency utilities, when needed to maintain reliable service and respond to major foreseeable events, including, but not limited to, severe weather, wildfires, natural disasters, and physical attacks, without regard to the model year of the vehicle being replaced. For the purposes of determining the daily usage of a medium- or heavy-duty vehicle, a public agency utility may provide comprehensive usage data for a class of vehicles that does not exclusively rely on the lowest mileage reading and does not exclude the highest usage days.

# CSDA – SB 496 (Hurtado)

- Establish an Advanced Clean Fleets Regulation Appeals Advisory Committee for purposes of reviewing appeals of denied requests for exemptions
- Exempt from the Advanced Clean Fleets Regulation or any similar regulation vehicles reasonably anticipated to respond to emergency situations, or that support those efforts.
- The bill would prohibit the state board from requiring a state or local government fleet owner to provide documentation showing an executed zero-emissions vehicle purchase agreement in order to count an internal combustion engine vehicle as a zero-emissions vehicle purchase for purposes of postponing a zero-emissions vehicle transition mandate in the Advanced Clean Fleets Regulation.

# Federal Developments

- EPA Waivers pulled – Private Fleets are no longer covered by ACF regulations
- Congress nixing waivers for:
  - Advanced Clean Trucks Regulation
  - Advanced Clean Cars II – passenger and light duty vehicles
  - Omnibus Rule
- Public Fleets are still subject to ACF regulations
- Stay tuned

# CARB Advanced Clean Fleets Regulation

“Two-engine vehicle” means a specially constructed on-road mobile vehicle that was designed by the original equipment manufacturer to be equipped with 2 engines: 1 engine provides the primary source of motive power of the vehicle while the second engine is an auxiliary engine with 50 brake horsepower or greater that is permanently attached and integrated into the original design of the vehicle to perform a specific function, which may include providing auxiliary power to attachments, performing special job functions, or providing additional motive power. If a vehicle was originally designed with the capability to have an auxiliary engine installed, but the auxiliary engine was installed by someone else other than the original equipment manufacturer, the vehicle still qualifies as a two-engine vehicle. Two engine street sweepers are not included in this definition.

# CARB Advanced Clean Fleets Exemptions

- Backup Vehicle
- Daily Usage
- Infrastructure Delay
- ZEV Purchase
- Mutual Aid





# Electric Heavy-Duty Trucks



# ZEV Trucks Tested or In Use



# ZEV Trucks Tested or In Use



# ZEV Trucks Tested or In Use



# CARB Advanced Clean Fleets Regulation

## From page 18 of Attachment A-1:

Sales Disclosure of Regulation Applicability. Any person subject to this regulation selling a vehicle subject to this regulation must provide the following disclosure in writing to the purchaser on or with the bill of sale, sales contract addendum, or invoice: “A vehicle operated in California may be subject to the California Air Resources Board Advanced Clean Fleets regulations. It therefore could be subject to requirements to reduce emissions of air pollutants. For more information, please visit the CARB Advanced Clean Fleets webpage at <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets>. ”



# Advanced Clean Fleets - Lessons Learned

- Metropolitan Water District (MWD) Started a monthly Lessons Learned group (ELL)
- Meets virtually monthly
- Discusses all elements of Electric Fleets
  - Purchase challenges – slow or no delivery
  - Charging challenges – cables too short or lack capacity
  - Personal vehicle/charger policies
  - Portable charging units

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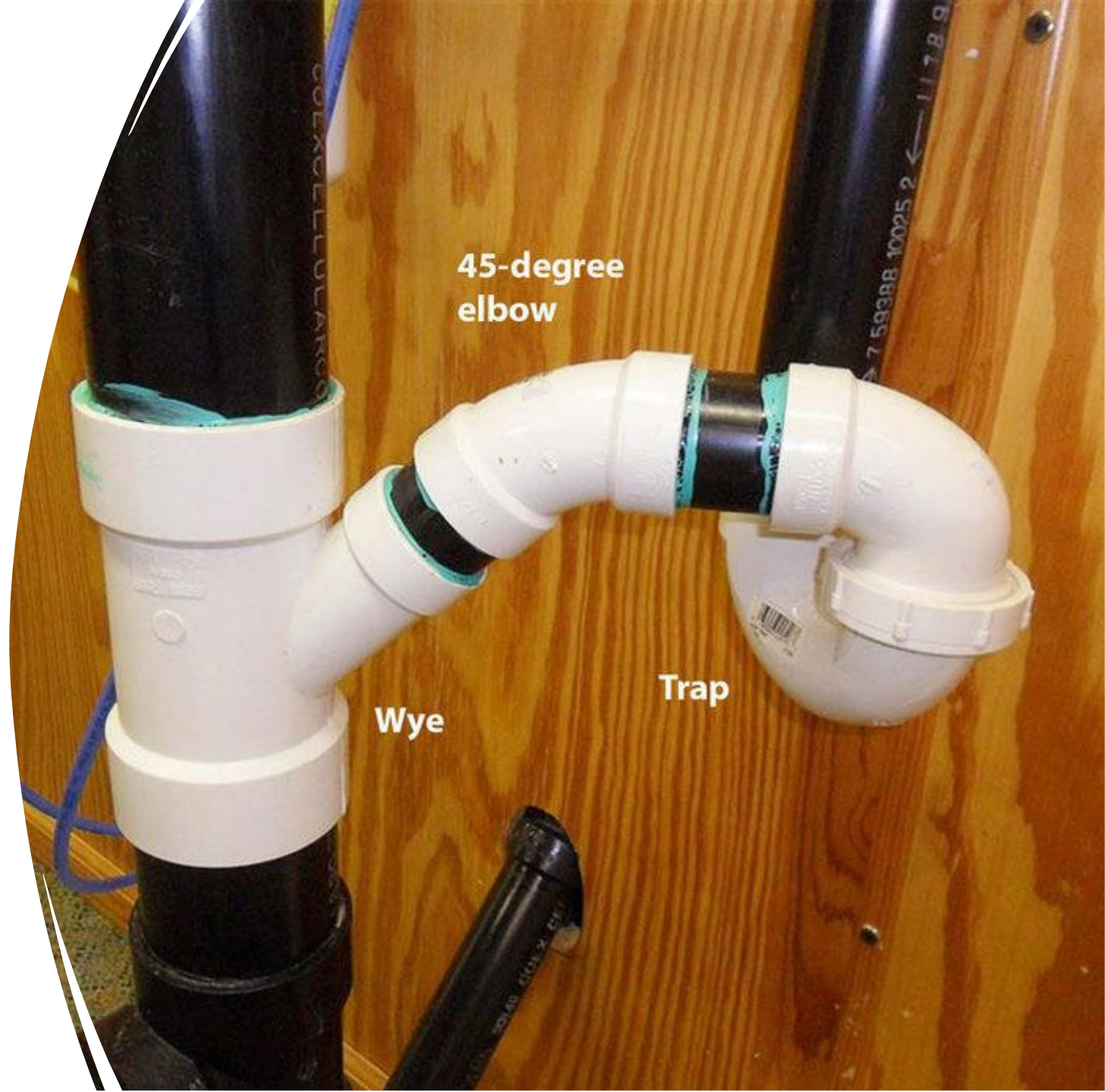


# Proposed Cleaner Emergency Generators

- **Air districts are requiring Tier 4 diesel generators as BACT.**
  - BAAQMD adopted Tier 4 as BACT for generators over 1,000 hp.
  - SCAQMD is adopting Tier 4 as BACT for generators over 1,000 hp.
  - SJAPCD is accepting compliant Tier 4 generators without additional testing.
- **Tier 4 Certified Generators have an auto shut off feature!**
  - They are easy to permit, no acceptance testing, but be aware of the auto shut off
  - Tier 4 compliant generators do not have auto shut off, but may require testing or data recording for out of spec operation.
- **CARB and SCAQMD are recommending fuel cells rather than diesel generators**
  - We want reliability demonstration projects

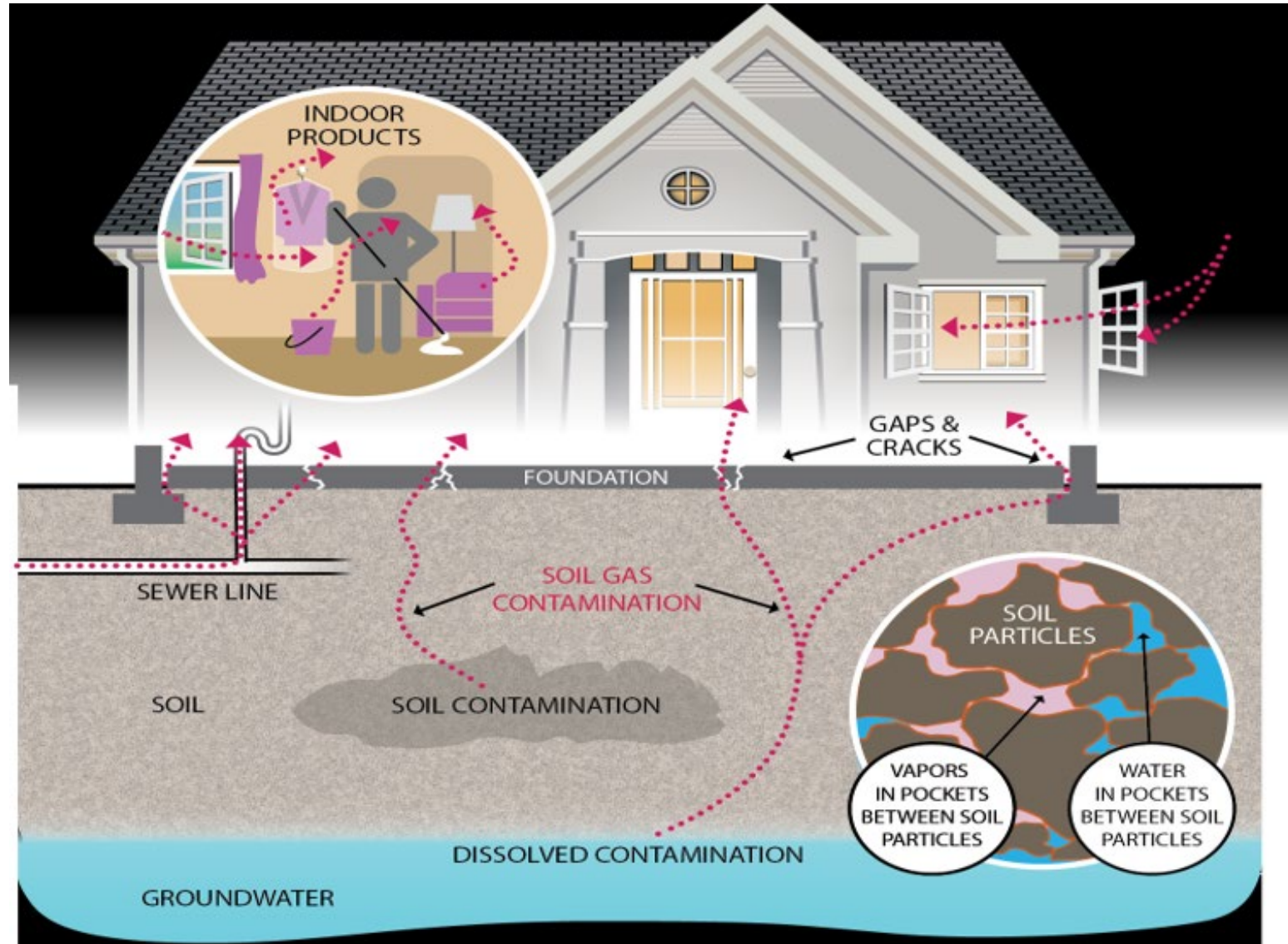
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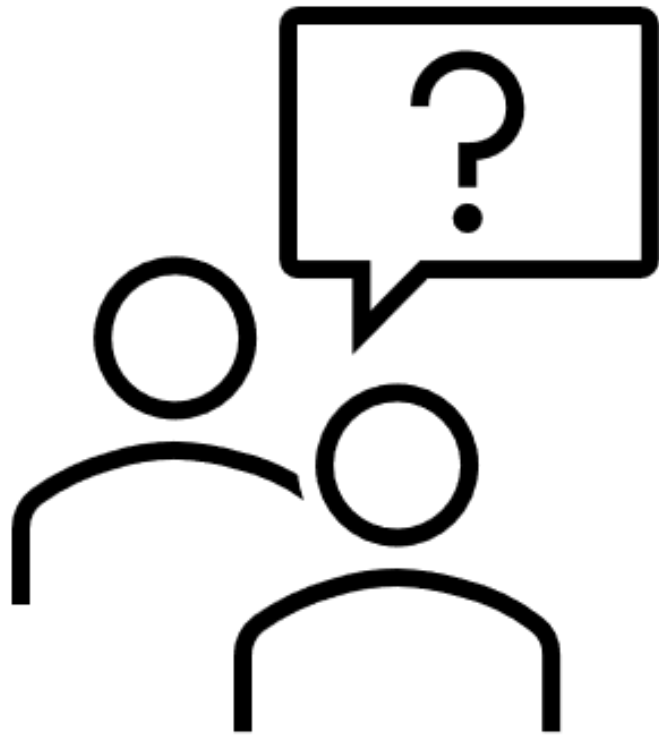
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# CalEPA/DTSC Vapor Intrusion Guidance Illustration





**Thanks for listening!**

**Questions?**

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CREATING SUSTAINABLE SOLUTIONS