

California Energy Commission

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Transportation Transformation for Clean Air & Public Health

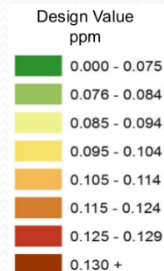
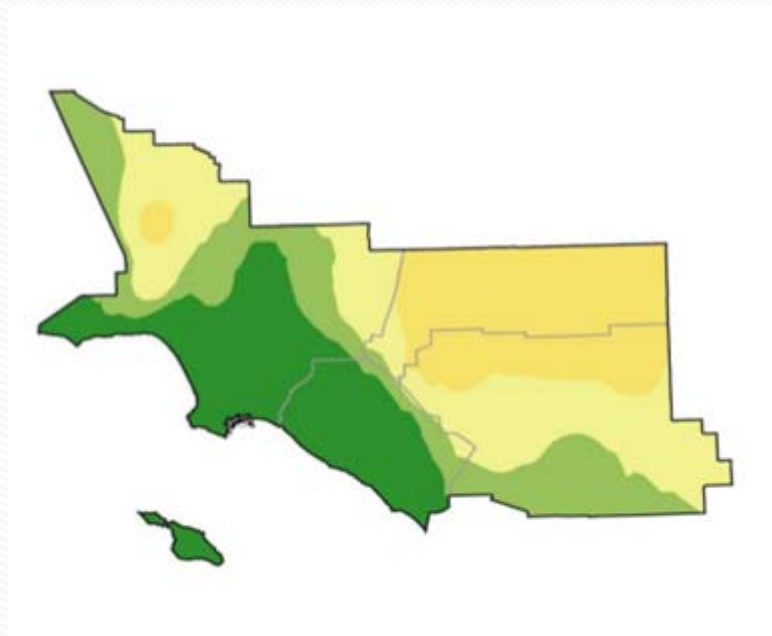
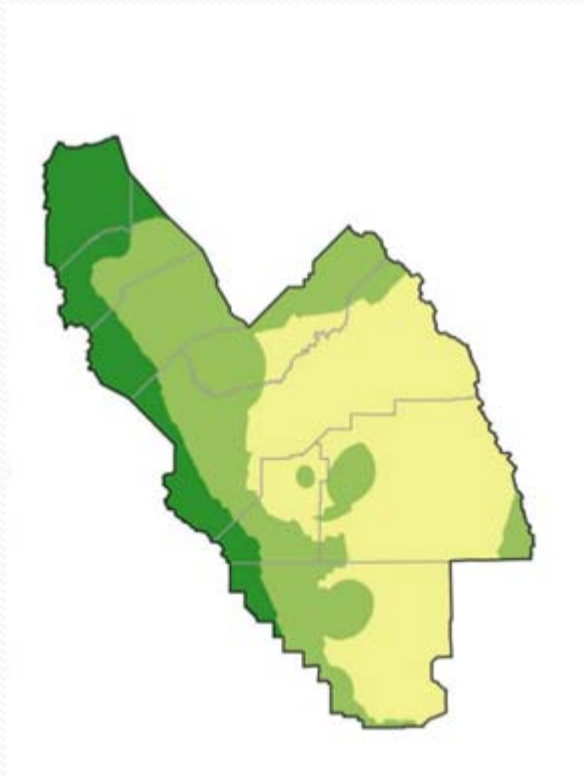
Sandra Berg
Board Member, Air Resources Board

CEC IEPR Workshop
March 27, 2014

California Environmental Protection Agency

 **Air Resources Board**

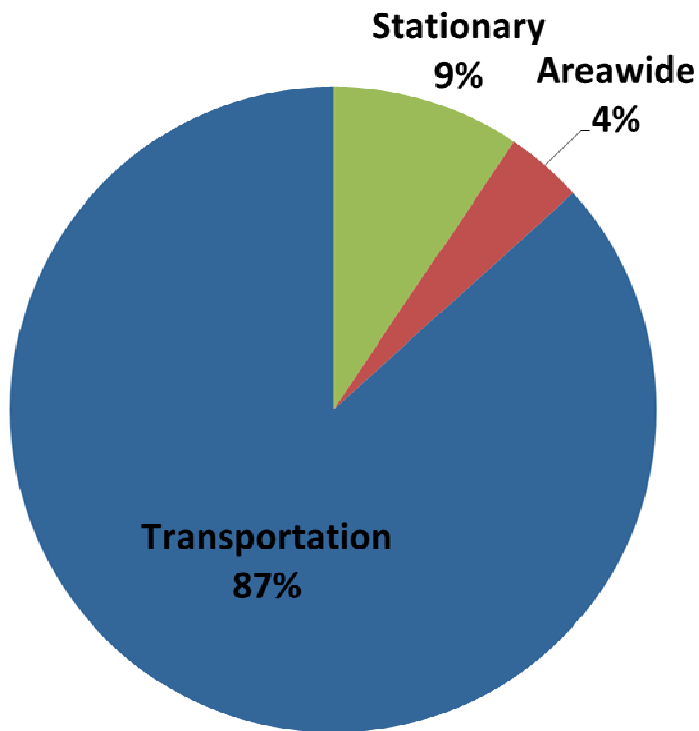
Strong Progress ... Now for the Challenge



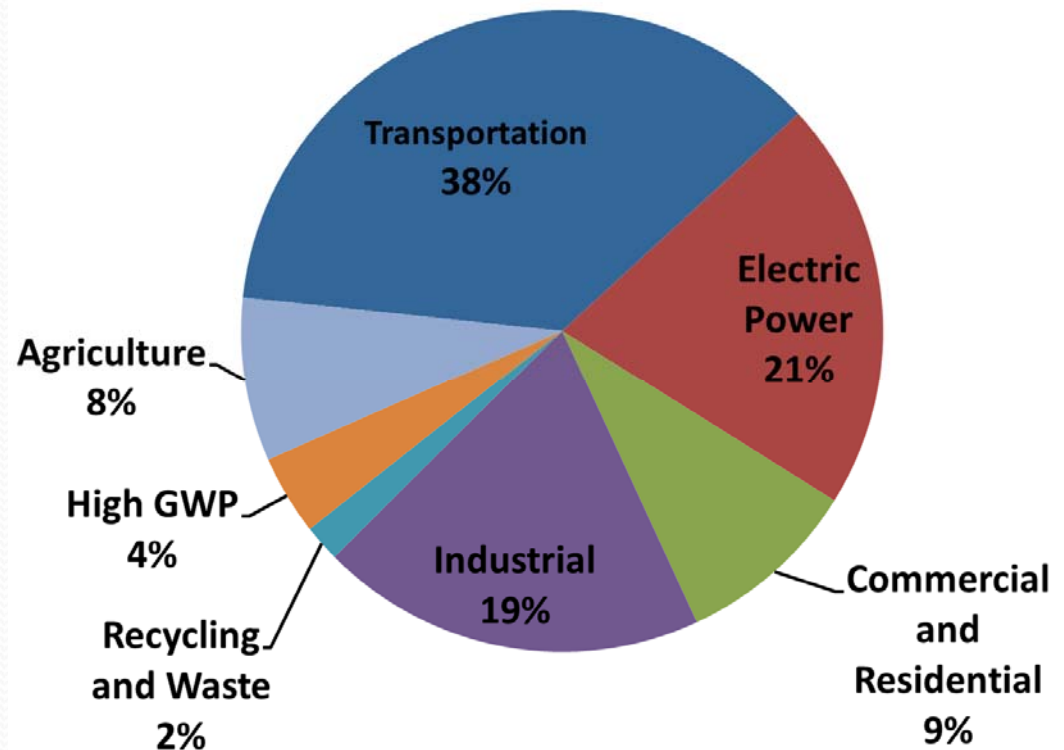
**2013 San Joaquin Valley and South Coast
Ozone Levels**

Transportation is a Key Driver

South Coast NOx Emissions

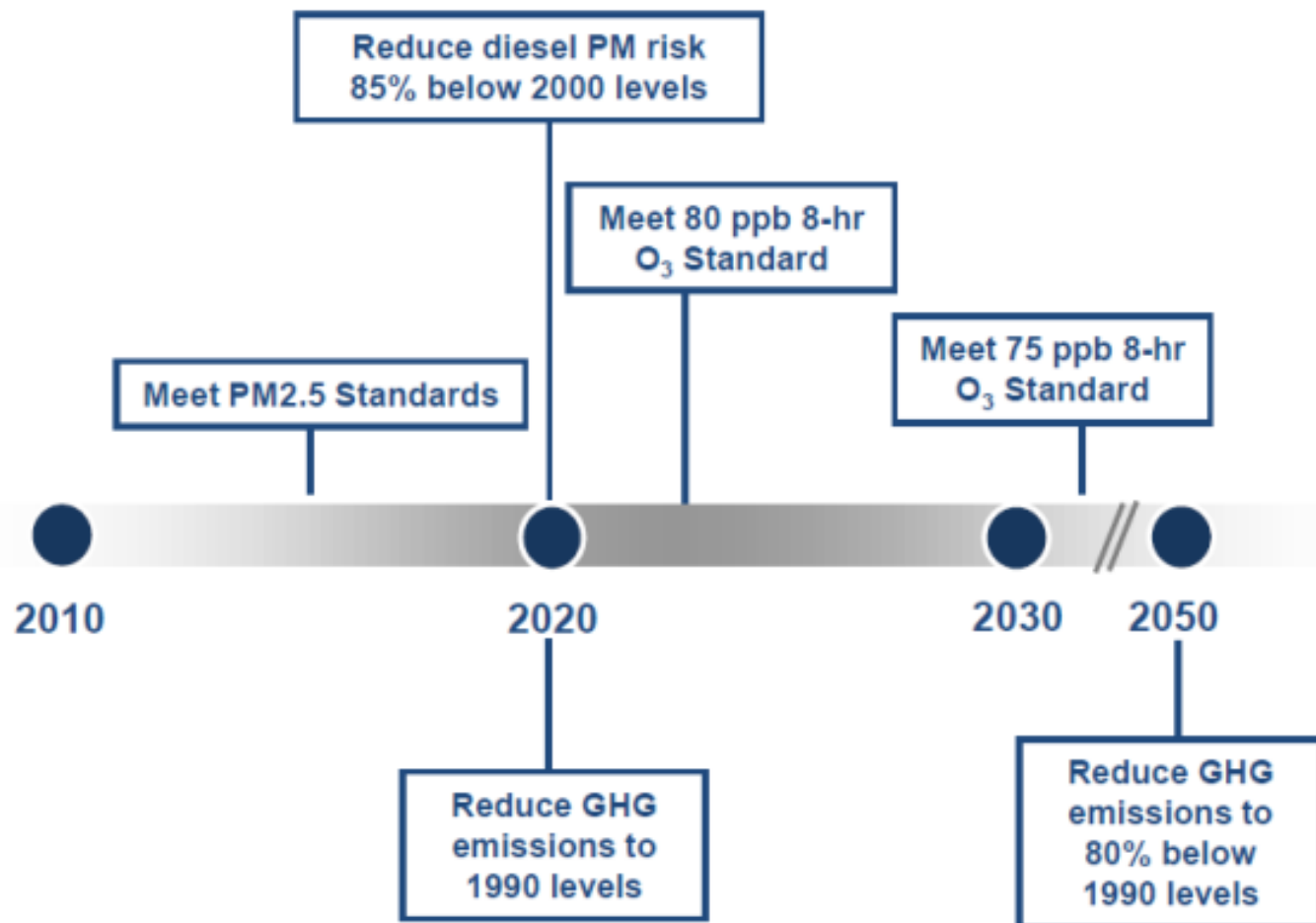


Statewide GHG Emissions



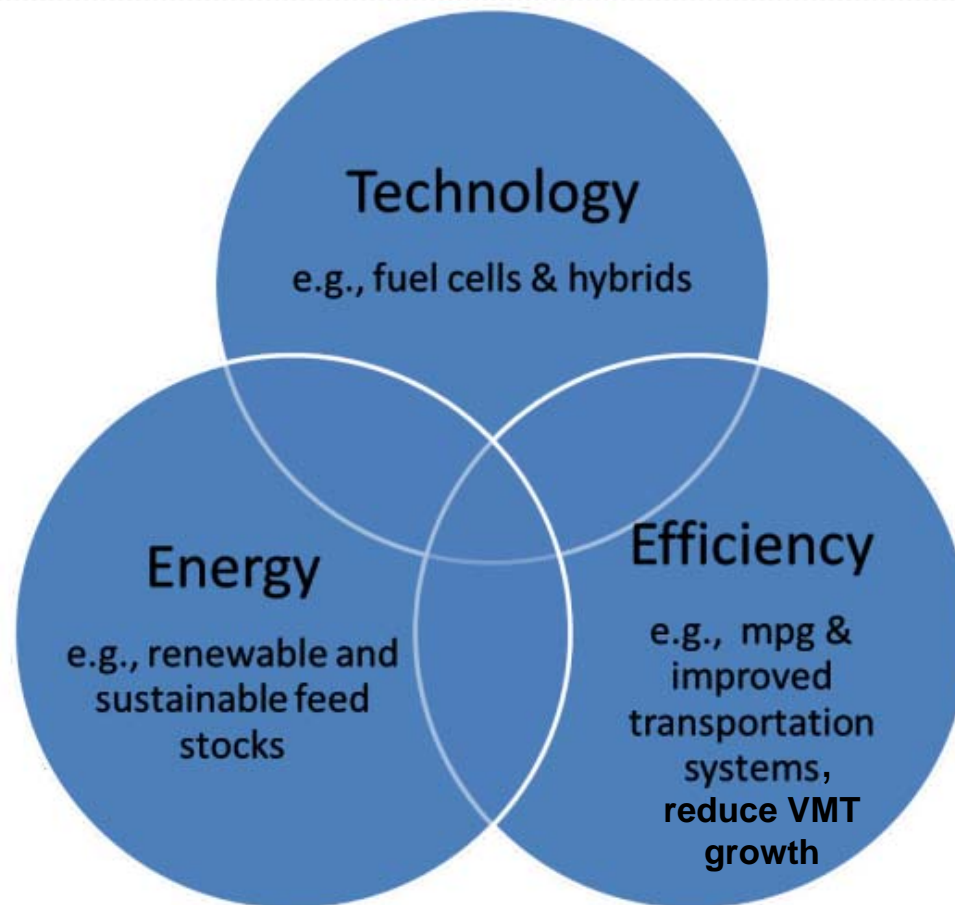
2020 Attainable....2050 Transformational

Timing is Critical & Requires Visionary Leadership



Transformational Inter-Agency Effort

Using Multi-faceted Portfolio Strategy



Challenge is Innovation to Commercialization

Why Transformation is the Path

Let's take Light Duty Vehicles for Example.....

Vehicle Technology & Infrastructure

- ~90% of today's fleet of ICE vehicles will need to transition to zero or near-zero technologies such as PHEVs, BEVs, and FCVs along with the infrastructure and consumer behavior to support such a dramatic change.

Fuels

- Electric grid – meeting growing demand AND cleaner than 2020 target
- High volume of innovative fuels such as biofuels to meet the demand of the new transportation technology and energy needs in a low carbon lifestyle.


Lifestyle – Reduce VMT Growth

- Plan and build sustainable communities to reduce VMT growth
- Innovative smart transportation/mobility options to reduce VMT growth

Momentum, Momentum, Momentum

Closing the Gap to Commercialization

- **Transformative Mobility** through alternative vehicles, fuel markets and smart mobility which need to be launched over the next 5-10 years with growth (2025-2050) comparable to that of the *IT* world...think *iPhone*.
- **Transformative Industries/Markets** through encouraging, supporting and rewarding key innovation.
- **Transformative Citizen/Consumers & Infrastructure**
- **Transformative Leadership** to envision and develop strategic, purposeful, integrated, dynamic, clear, multi-stakeholder public policy.



“We can not solve our problems
with the same thinking we used
when we created them.”

- Albert Einstein