

16-9-5

# 2016 PM2.5 State Implementation Plan for the San Joaquin Valley

**Seyed Sadredin**

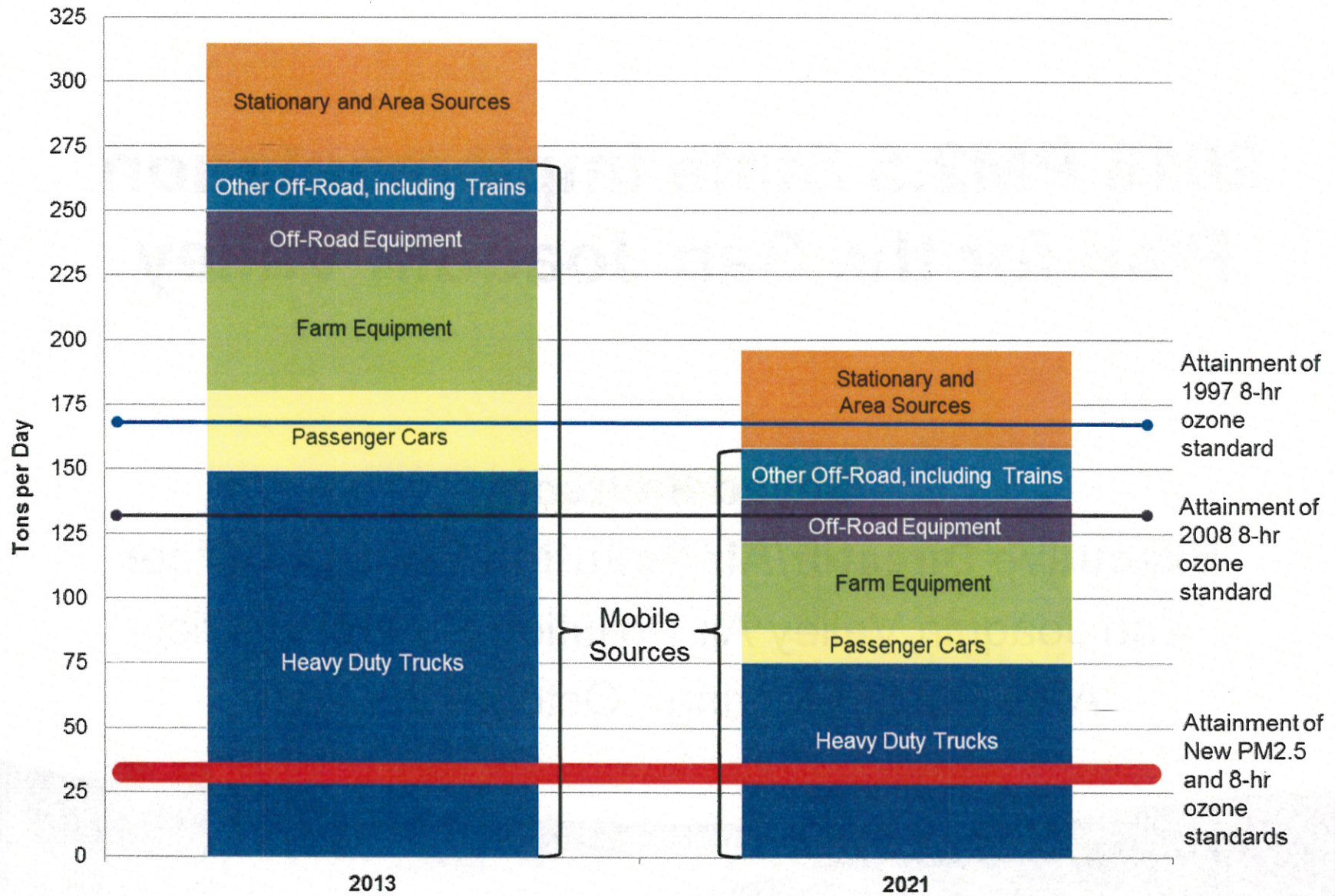
**Executive Director/Air Pollution Control Officer**

San Joaquin Valley Air Pollution Control District

ARB Public Hearing - October 20, 2016

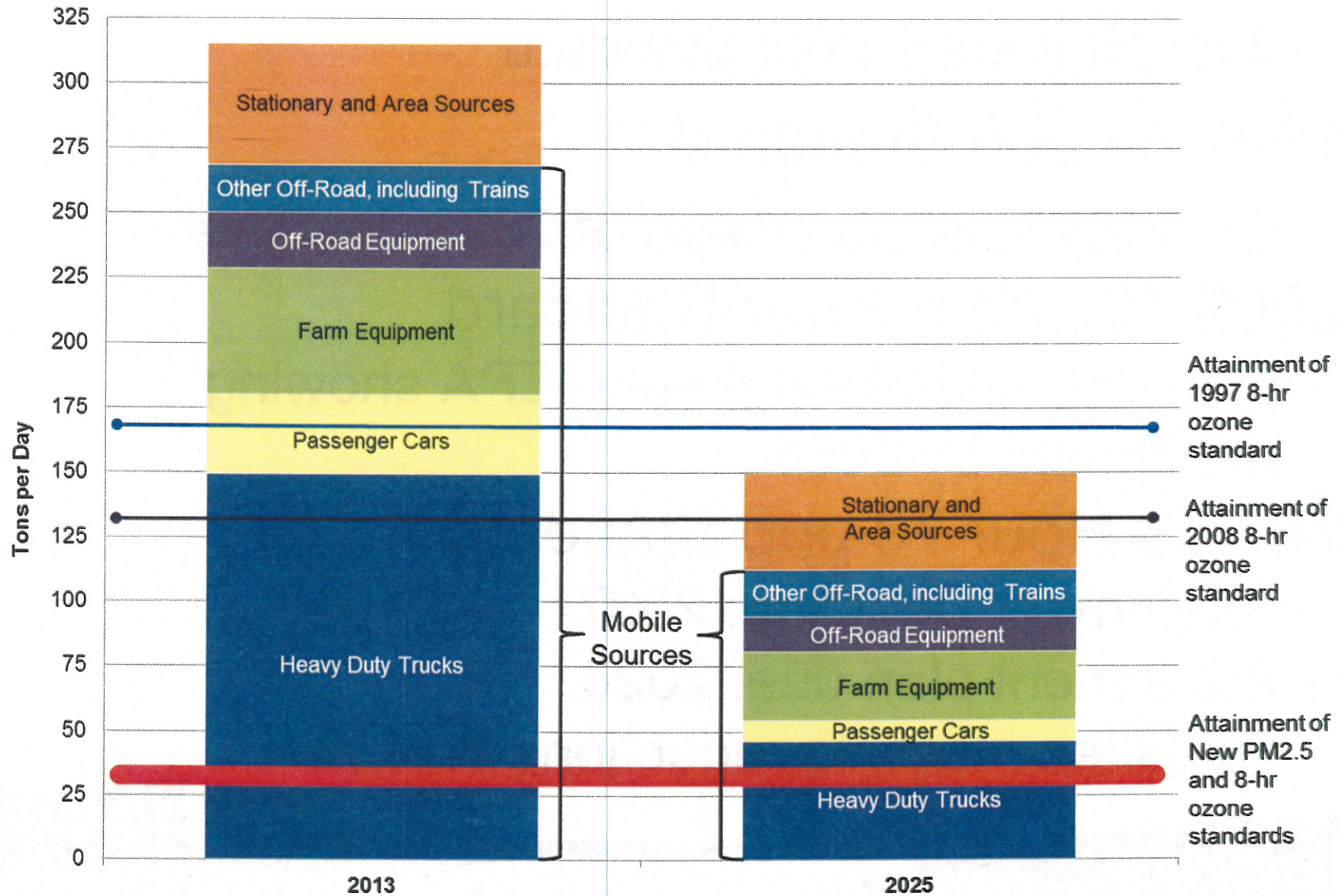


# Attaining the 2012 PM2.5 Standard by 2021 Physically Impossible





# Attaining the 2012 PM2.5 Standard by 2025 Extremely Challenging



# Federal Ozone Standards and Deadlines

- 1979 1-Hour Standard
  - Just attained 1-hour standard
- 1997 84 ppb Standard
  - On track to attain ahead of 2023 deadline
- 2008 75 ppb 8-Hour Standard
  - Recently submitted plan to EPA showing attainment by 2031
- 2015 8-Hour 70 ppb Standard
  - Attainment Deadline: 2037
  - Attainment plan due: 2020
  - Requires massive reductions in NO<sub>x</sub>



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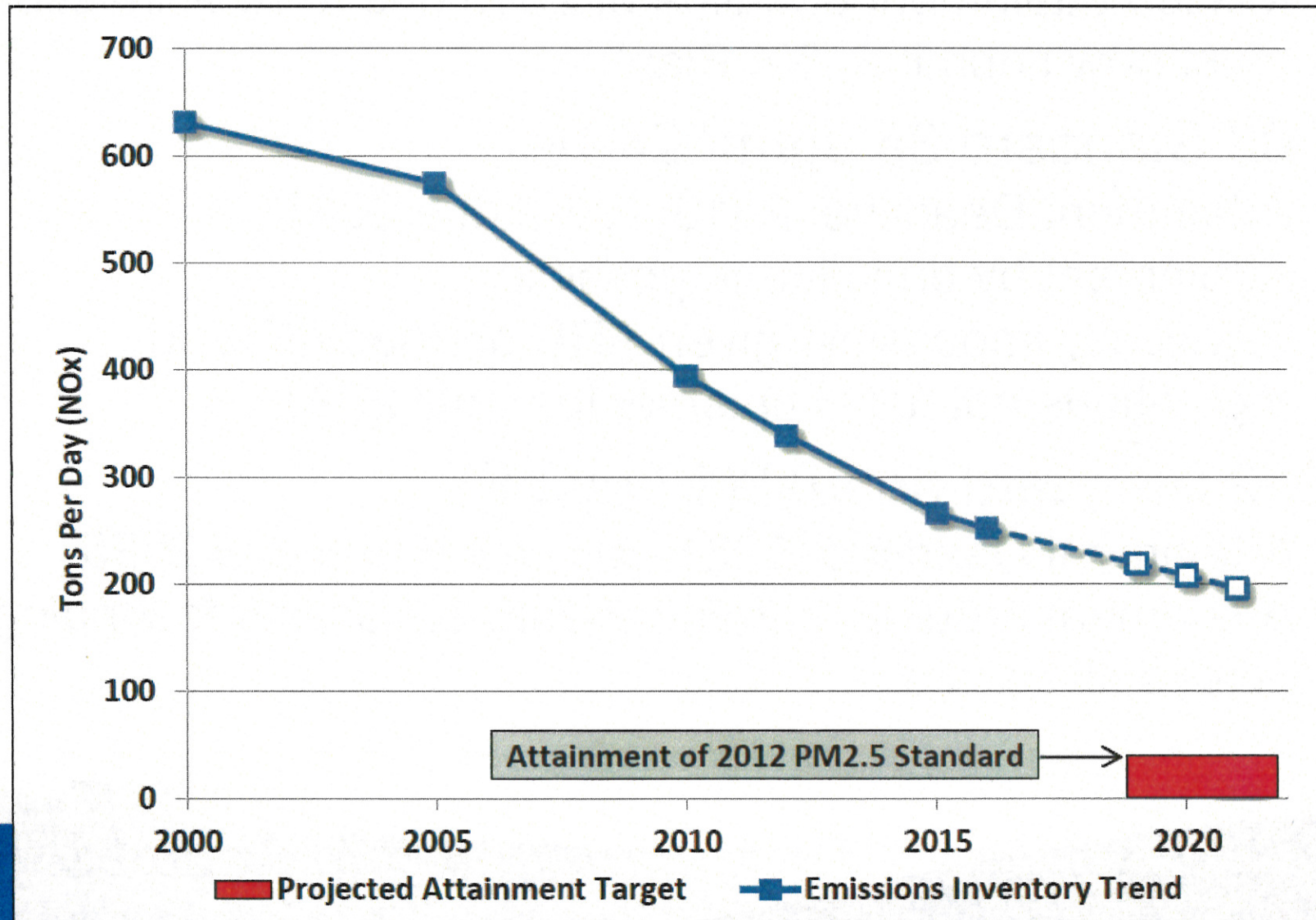


# Federal PM2.5 Standards and Deadlines

- 1997 Standard 24-hr ( $65 \mu\text{g}/\text{m}^3$ ) - annual ( $15 \mu\text{g}/\text{m}^3$ )
  - Missed attainment deadline of 2015 due to EPA inaction, must now submit a “5% Plan”
- 2006 Standard  $35 \mu\text{g}/\text{m}^3$  24-hr
  - Attainment Deadline: 2019 – plan due 2017
  - Attainment by deadline impossible
  - Physically impossible given ARB on road/off road regulations not fully implemented until 2023
- 2012 Standard annual ( $12 \mu\text{g}/\text{m}^3$ )
  - Attainment Deadline: 2021 can be extended to 2025
  - Attainment requires zero/near-zero emissions technology across all sources



# NOx Target for Attainment of 2012 PM2.5 Standard





# Transformative Control Measures Required to Attain Upcoming Standards

- Despite major reductions, impossible to attain new standards without transformative control measures
  - Unlike ozone, PM2.5 attainment plans not able to rely on “black box” reductions from yet-to-be identified technologies
  - Valley must reduce emissions by an additional 90% by 2025 to meet latest PM2.5 standards
- Need significant reductions from mobile sources
  - District does not have authority to adopt tailpipe standards
  - Responsibility of state and federal government
- New local, state and federal regulations coupled with robust incentive-based emission reduction strategy necessary to achieve public health goals under the Clean Air Act



# Local Efforts Moving Forward

- Leave no stone unturned in identifying and promulgating additional stationary source controls
- Measures to reduce directly emitted PM<sub>2.5</sub>
  - Work with ARB and EPA to advance inventory, modeling, and innovative technologies
- Healthy Soil Initiative
- Enhanced Conservation Management Practices for agricultural operations
- Advanced controls for underfired charbroilers
- Enhanced and continued local revenues for incentive-based measures (DMV, ISR, mitigation agreements)



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# What We Need Federal Government

- National standards for heavy duty engines
  - Petitions by South Coast and San Joaquin (our petition asks for locomotive controls in addition to trucks)
- Funding for incentive-based control measures
  - Significant reductions to continue to come from regulatory measures
  - Attainment impossible without incentive-based measures
  - Update federal policies to allow full utilization of incentive-based measures in SIPs



# What We Need State Government

- Renewed commitment to address criteria pollutants and toxic emissions in South Coast and San Joaquin Valley
  - Need pollution reductions by 2025 (need specific strategy from ARB)
  - NOx is the real “super-pollutant”
  - Maximize co-benefits from climate change measures
  - Do not add to NOx burden (e.g. oxidizing methane)
  - Greater focus on reducing black carbon
- Don't go too far in relaxing state's portable engine controls



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# What We Need State Government (cont'd)

- Continue to focus state funding in disadvantaged communities in nonattainment areas
- Work with South Coast, San Joaquin Valley, and other stakeholders to identify and procure new funding sources
- Continue to work with South Coast, San Joaquin Valley, and EPA on technology advancement
- Recognize Valley's need for near-zero emissions technologies (natural gas can serve as bridge to renewable gaseous fuels)



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