



# Senate Bill 1075: Hydrogen Development, Deployment, and Use

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Oakland Community Meeting  
May 27, 2025

# Workshop Agenda

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- Welcome and Introduction
- Meeting Agreements
- CARB presentation on the role of hydrogen in California's climate and energy goals
- Discussion

# Meeting Agreements

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- Respect Others: Value time, perspectives, and contributions.
- Be Mindful of Time: Allow space for everyone to speak.
- Listen Actively: Stay focused, understand before responding, and stay on topic.

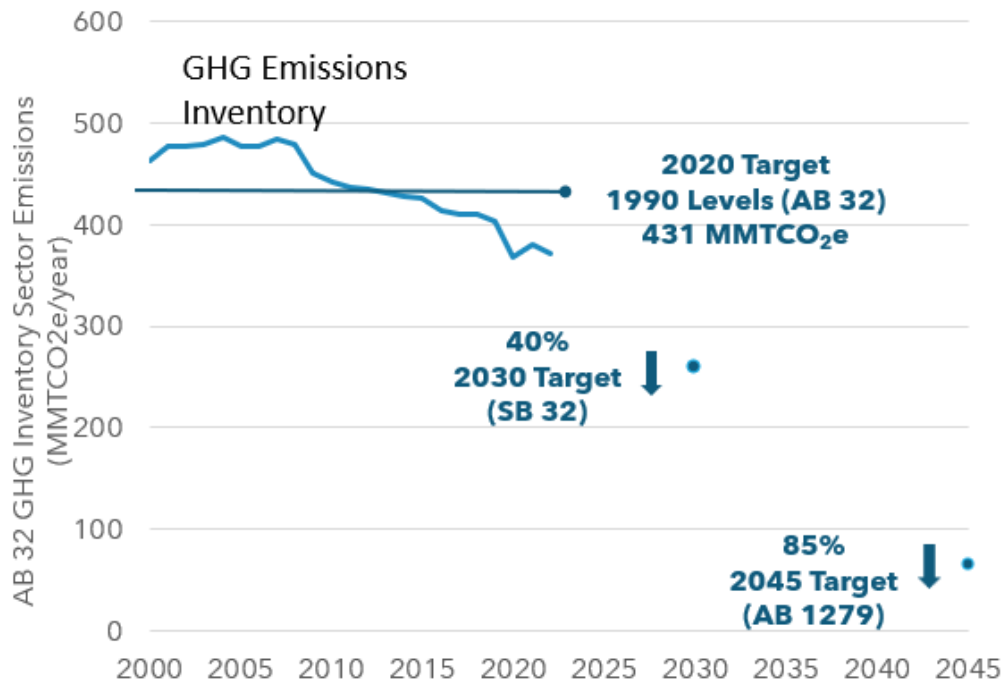
## Why are we hosting these community meetings?

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- To engage with people who live in communities where hydrogen could be produced or used.
- To consult with residents on the work the state is doing through the SB 1075 report
- To listen to resident concerns and desired outcomes regarding hydrogen production, distribution and end use
- Your feedback will inform the development of the SB 1075 report.

# Legislative Greenhouse Gas (GHG) Reduction Targets

## *Achieved Assembly Bill (AB) 32 Target in 2014*



ACHIEVING  
**CARBON**  
NEUTRALITY  
BY **2045**

GHGs included in statute: Carbon dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), Nitrous oxide (N<sub>2</sub>O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulfur hexafluoride (SF<sub>6</sub>), Nitrogen trifluoride (NF<sub>3</sub>)

# Ambitious Action Delivers Huge Benefits

## Unprecedented Deployment of Clean Technology and Nature-Based Climate Solutions



37x total on-road zero emission vehicles



6x electric appliances in residences



1700x hydrogen supply



4x installed wind/solar generation capacity



> 2.5 Million acres of natural working lands climate action per year

In 2045 relative to 2022

## Significant Greenhouse Gas Reductions and Health Improvements



94% decrease in liquid petroleum fuel demand



91% decrease in fossil gas used in buildings



66% decrease in methane emissions from agriculture



10% reduction in wildfire emissions

# Basic Information about Hydrogen

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- Hydrogen is an element found in air, water and living things.
- It can also be used as a fuel that can be converted to electricity in a fuel cell or combusted, creating energy.
- Hydrogen can be produced in several ways and stored as a gas or liquid.

Production Method	Where the H <sub>2</sub> is From
Electrolysis	Water
Biomass gasification	Wood or agricultural waste
Steam methane reformation	Methane or biomethane

# Hydrogen in California's Climate Plan

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Blending in Pipelines



Aviation Fuel



Ocean-Going Vessel Fuel



Industrial High Heat Uses



Transportation Fueling



Focus on Low-carbon Sources, e.g. Biomass or Electrolytic



Capitalizing on Federal Funding for Hydrogen Hubs and Low-Carbon Intensity Hydrogen



Significant Reduction in Overall Greenhouse Gas Emissions by Replacing Methane End-Uses with Hydrogen



Prioritize non-combustion options



# Driving Hydrogen Demand

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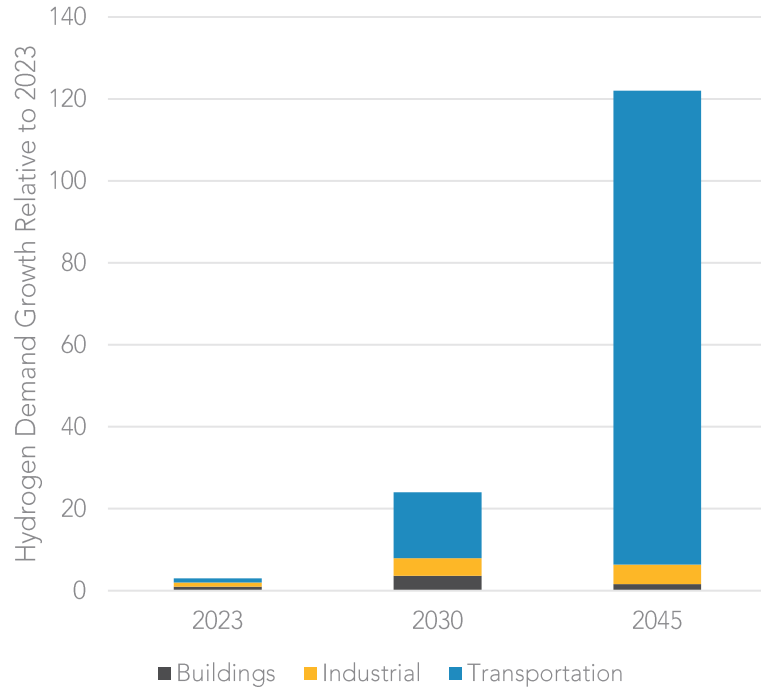
CARB rules advance zero-emission vehicle deployment:

- 100% light-duty new sales requirements by 2035
- Requirements to increase sales of zero-emission trucks

Incentives and other programs to help fleets adopt cleaner technology



# Hydrogen Demand Growth by Sector in the Scoping Plan



- Hydrogen demand largely driven by non-combustion uses in transportation sector:
- Fuel cells for light-, medium-, and heavy-duty vehicles, aviation, ocean-going vessels, freight and passenger rail
- Other end-uses with relatively smaller volumes include:
  - Gas replacement to reduce fossil gas use in buildings and industrial sectors
  - Hydrogen turbines in electric sector

# Legislative Direction: SB 1075 Analysis

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- Requires CARB, in consultation with California Energy Commission, the California Public Utilities Commission, and the California Workforce and Development Board to produce a comprehensive report on hydrogen



# SB 1075 Analysis

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What could the state of hydrogen in California be in the short and long term?

This includes analyzing:

- Potential hydrogen feedstocks
- Hydrogen transportation and distribution methods
- Possible end uses
- Air quality and health outcomes
- Safety
- Economic development and job creation
- Policy recommendations

# Public Engagement

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## Workshops

- Daytime workshops
- Share preliminary results
- Discuss approach for future work
- Gather feedback and input
- Will be considered in the development of the report
  - Additional areas of research
  - Policy recommendations

## Community Meetings

- Evening meetings
- Feedback from community members
- Will be considered in the development of report
  - Additional areas of research
  - Policy recommendations

# How to subscribe to the CARB mailing lists

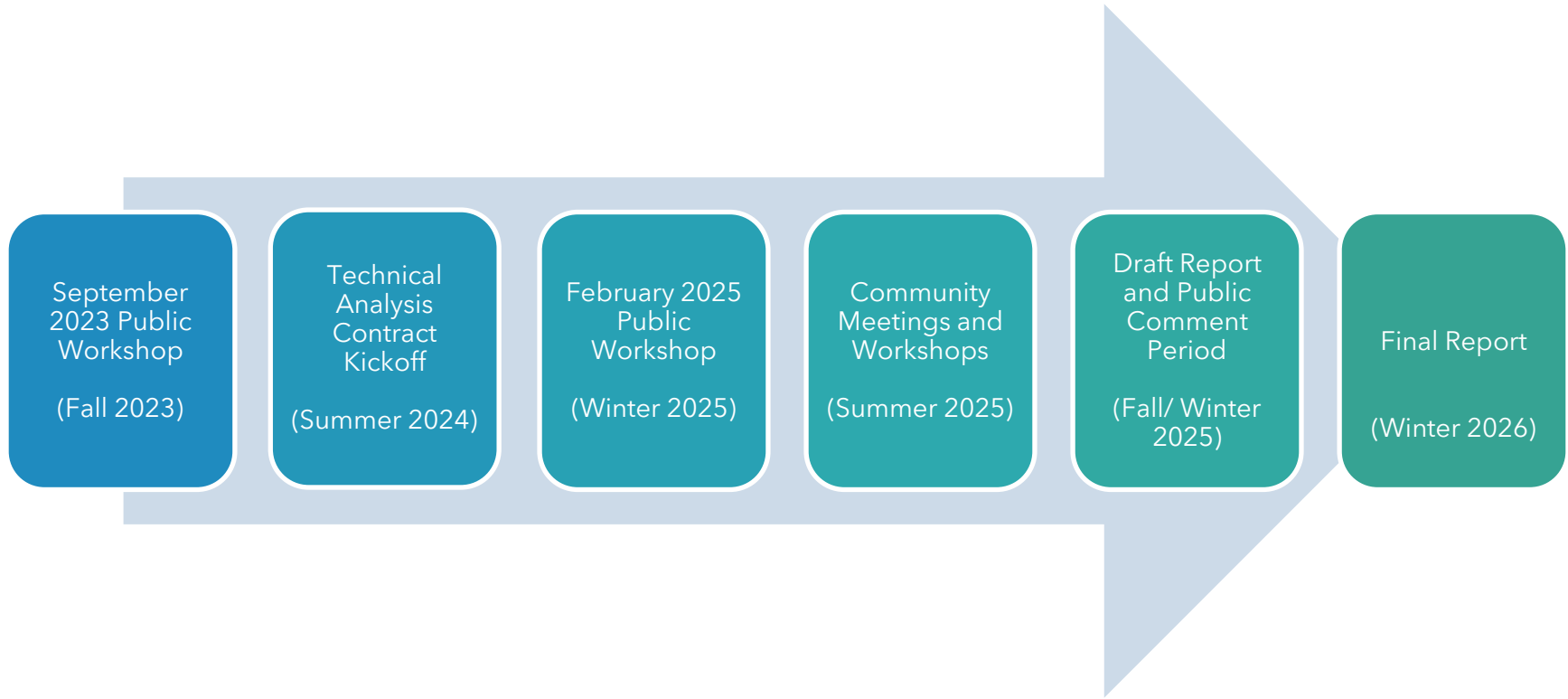
- Go to the CARB SB 1075 page: [SB 1075 Report: Hydrogen Development, Deployment, and Use | California Air Resources Board](https://www2.arb.ca.gov/our-work/programs/sb-1075-hydrogen)
- Click on subscribe: [California Air Resources Board](#)
- Enter your information
- Subscribe to California Hydrogen and other topics of interest



Subscribe Here

# Report and Engagement Timeline

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## Discussion Questions

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- **We want to hear your comments, concerns, and experiences on any topics related to SB 1075.**
- Are there any specific experiences or perspectives you want to share regarding the production and use of fossil fuels in your community?
- What are the best end uses for low carbon hydrogen in the transition away from fossil fuels?
  - Transportation end uses (cars, trucks, busses)
  - Industrial end uses (heat, as a feedstock to help make chemicals or fertilizer)
  - Other?
- Do you have any concerns about hydrogen production, transportation or use?



## Discussion Questions

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- **We want to hear your comments and experiences on any topics related to SB 1075.**
- Do you see any opportunities for hydrogen production or use in your community? What benefits would you like to see?
- What economic and safety measures can hydrogen producers, transporters or end users take to best meet the needs of your community? (Examples might include hiring locally, putting in leak detection systems, etc.)
- What are some challenges to introducing hydrogen production or use that you might experience in your community?
- Is there anything else you would like the state to be aware of in relation to hydrogen?

## Contact us

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- For additional information, visit: <https://ww2.arb.ca.gov/our-work/programs/sb-1075-hydrogen>
- Contact us at: [hydrogen@arb.ca.gov](mailto:hydrogen@arb.ca.gov)



Program Webpage



**THANK YOU!**