



Senate Bill 1075: Hydrogen Development, Deployment, and Use

Oakland Community Meeting
May 27, 2025

Workshop Agenda

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

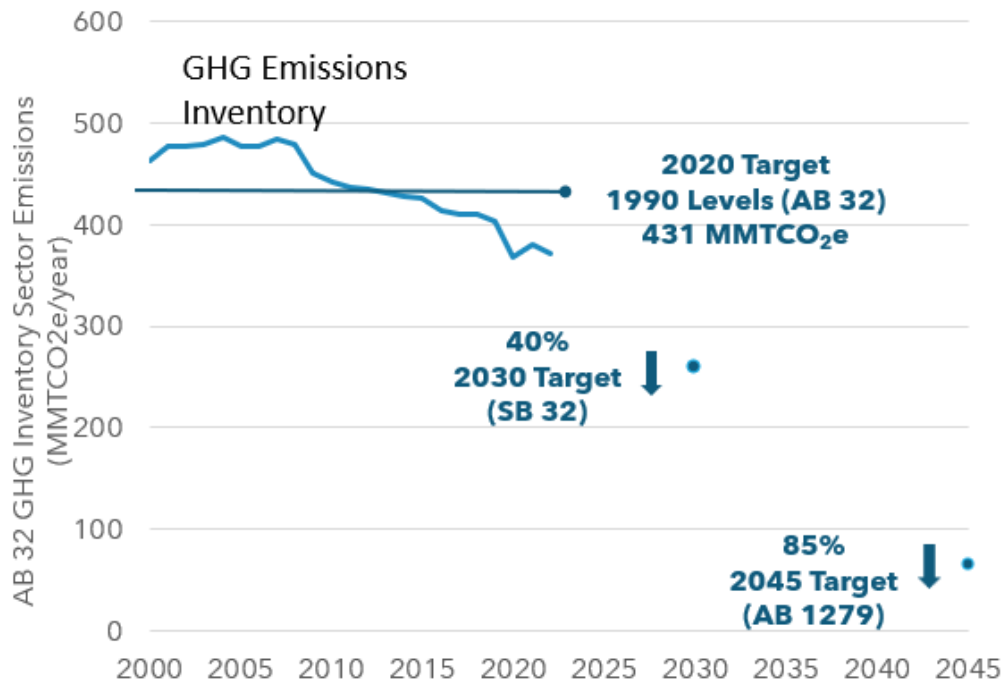
Meeting Agreements

- 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 hosting these community meetings?

- 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 (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulfur hexafluoride (SF₆), Nitrogen trifluoride (NF₃)

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



Decrease in asthma symptoms and respiratory hospitalization

Basic Information of Hydrogen

- 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 ₂ is From
Electrolysis	Water
Biomass gasification	Wood or agricultural waste
Steam methane reformation	Methane or biomethane

Hydrogen in California's Climate Plan



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

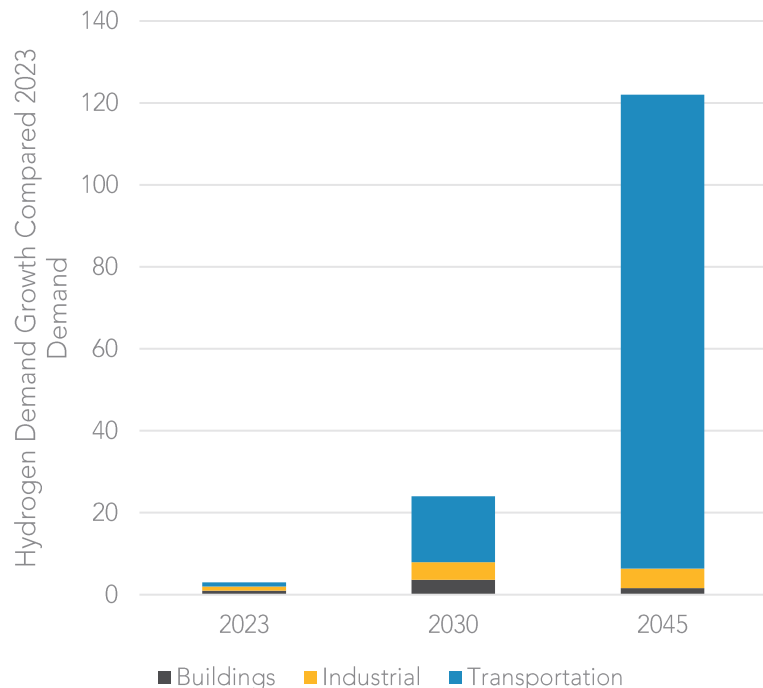
CARB rules advance zero-emission vehicle deployment:

- 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 Use 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

- 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

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

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

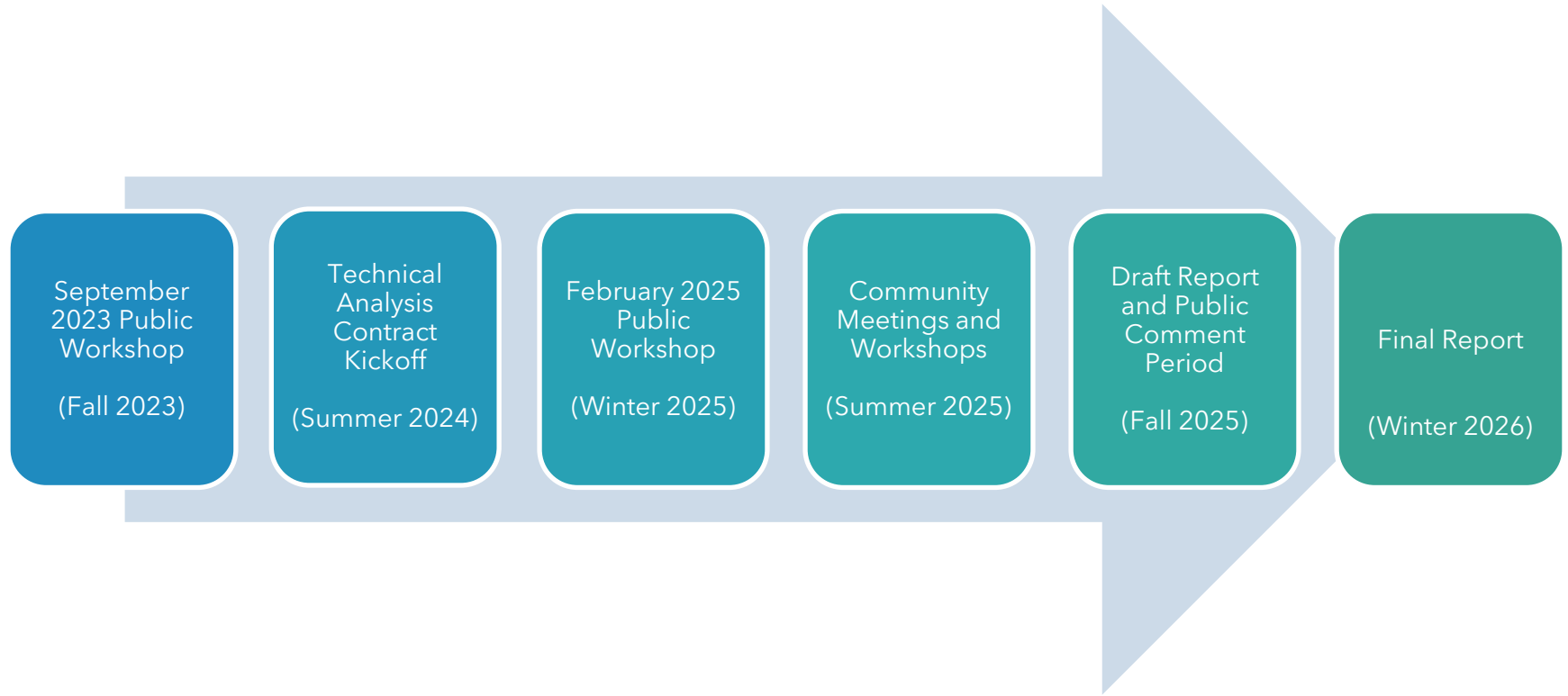
How to subscribe to the CARB mailing lists

- 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



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Report and Engagement Timeline



Discussion Questions

- **We want to hear your comments, concerns, and experiences on any topics related to SB 1075.**
- Are there any specific experiences you'd like to personally 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

- **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

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



Program Webpage



THANK YOU!