

DOCKETED

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2022 Scoping Plan

*California's Proposed Strategy for Achieving
Carbon Neutrality*



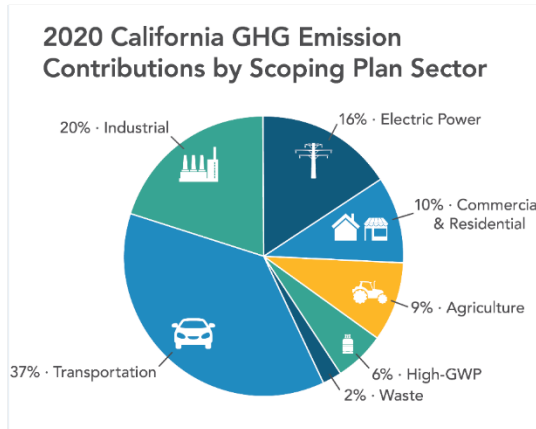
SB 100 Kickoff Workshop
August 22, 2023

California's Climate Policy Framework



GHG Targets & Goals

Legislation & Executive Orders: Total GHGs (AB 32/SB 32/AB 1279) or sector targets (SB 1383/SB 100), etc.



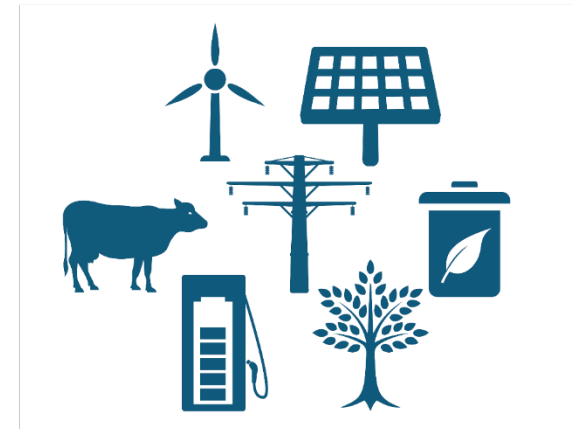
Scoping Plan

Actionable plan across all sectors



Action

Regulations & Incentives: Advanced Clean Cars, climate change investments, etc.

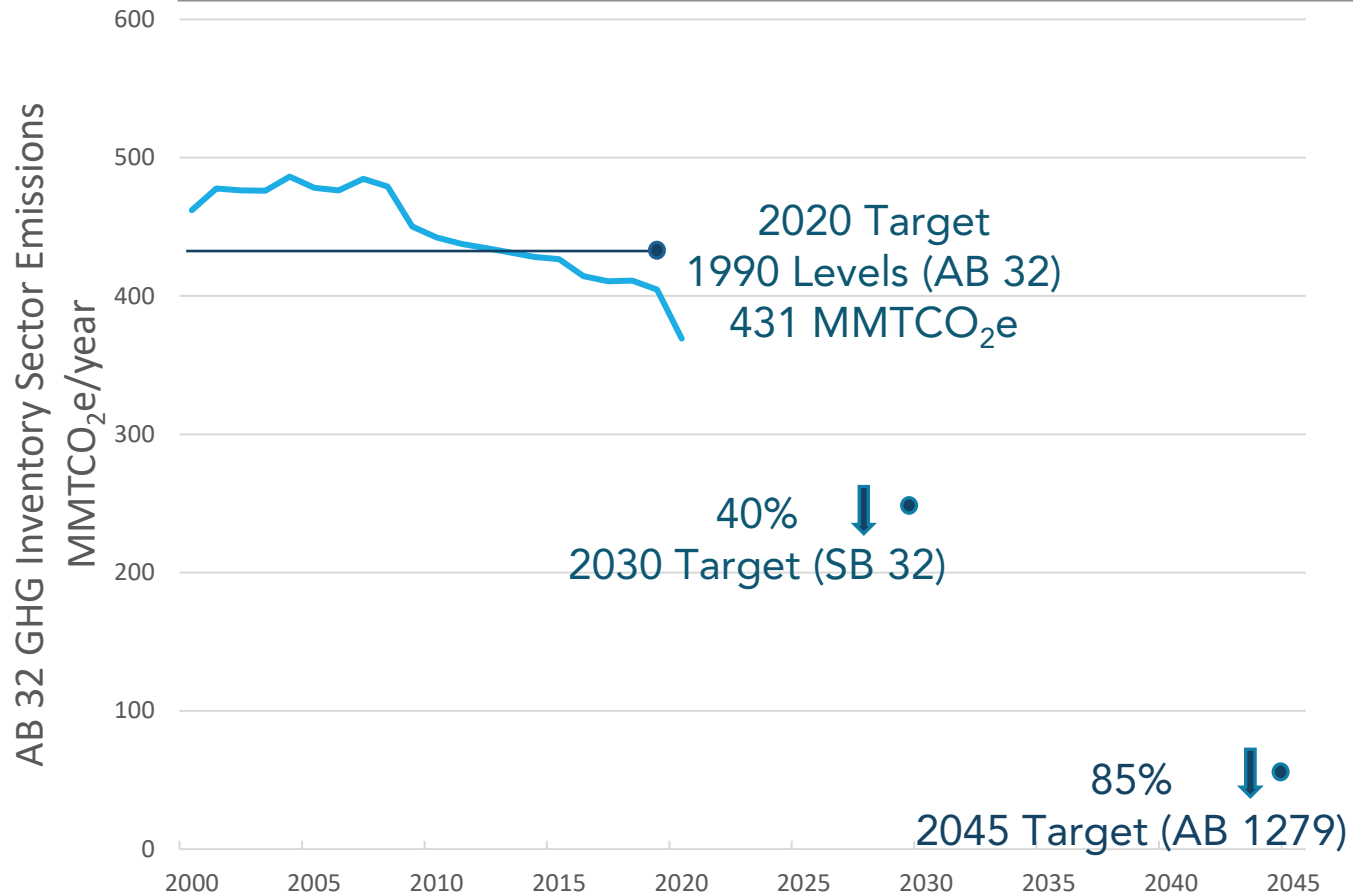


Projects

Examples: Zero-emission trucks, energy infrastructure and renewables, compost facilities, digesters, etc.

GHG Reduction Targets

Achieved AB 32 target in 2014



ACHIEVING
CARBON
NEUTRALITY
BY **2045**

2022 Scoping Plan Update

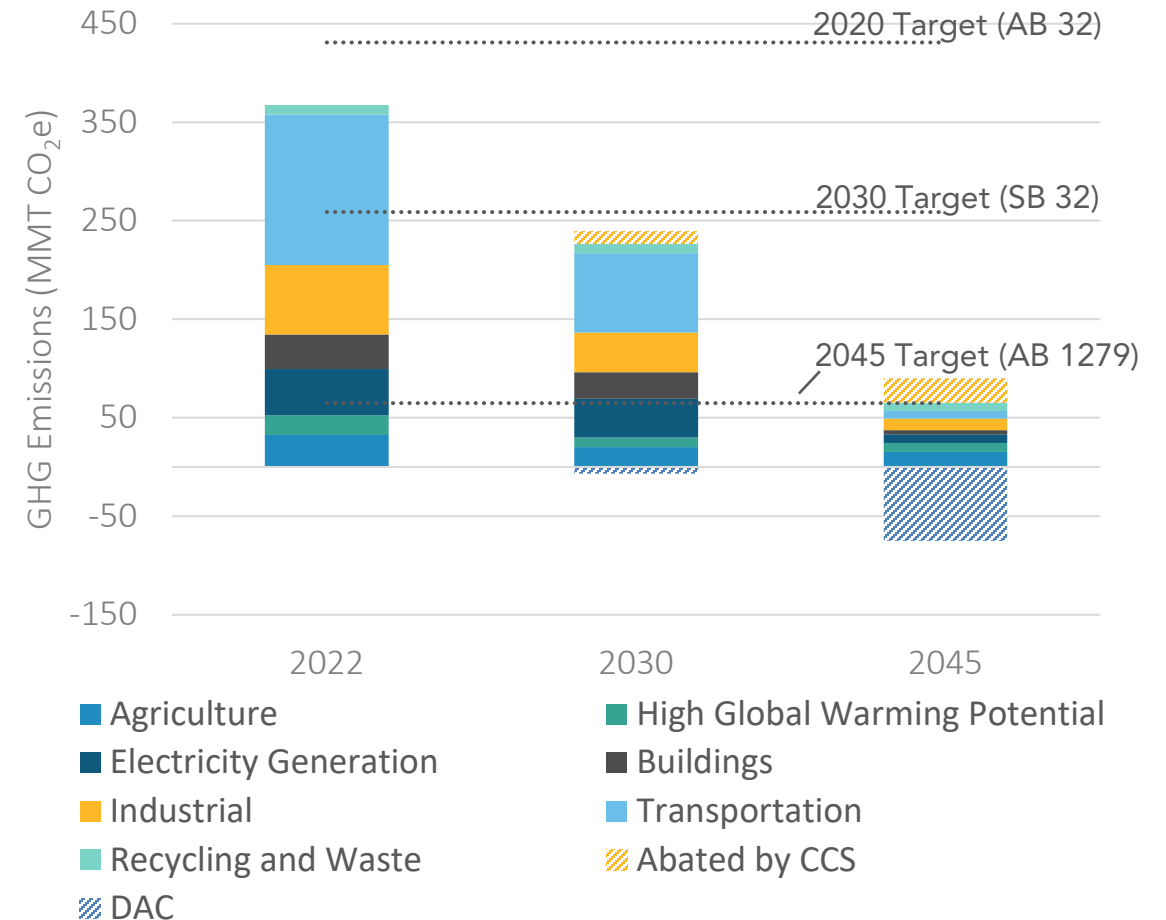
A Plan for Science-Driven Climate Action

2030: 48% reduction below 1990

- Increased ambition from SB 32 40% target
- SP scenario incorporates 20 MMTCO₂e of mechanical carbon dioxide removal (CCUS/DAC) in 2030
- 462x increase in renewable hydrogen

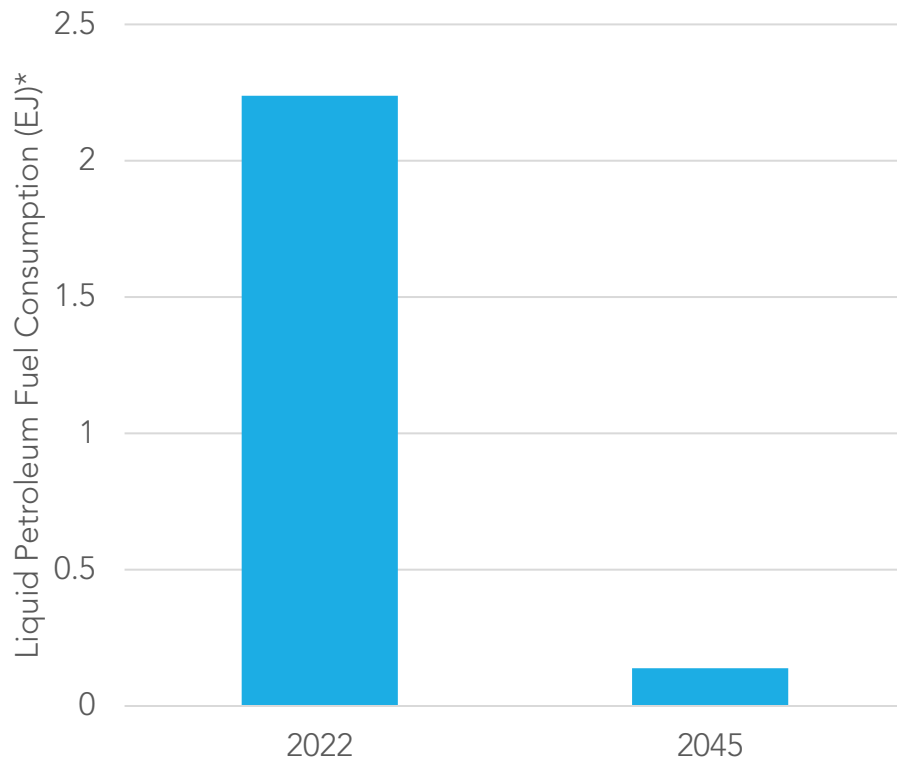
2045: 85% reduction below 1990

- Need carbon dioxide removal to compensate for residual emissions to achieve carbon neutrality and CCS

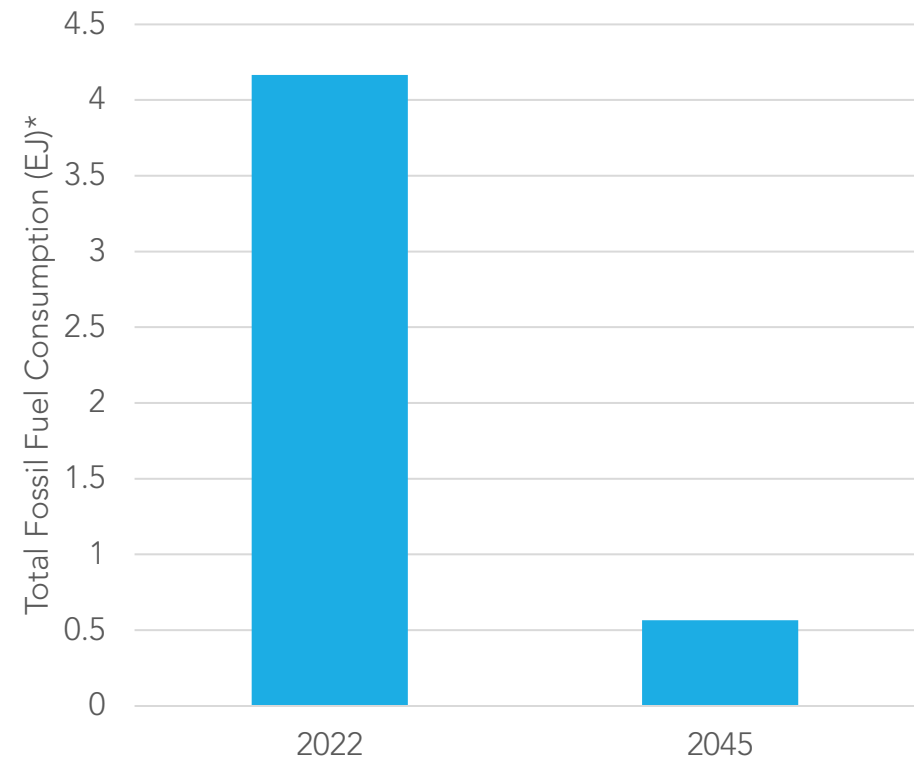


Dramatic Reductions in Fossil Fuel Demand

94% reduction in liquid petroleum



86% reduction in total fossil fuel

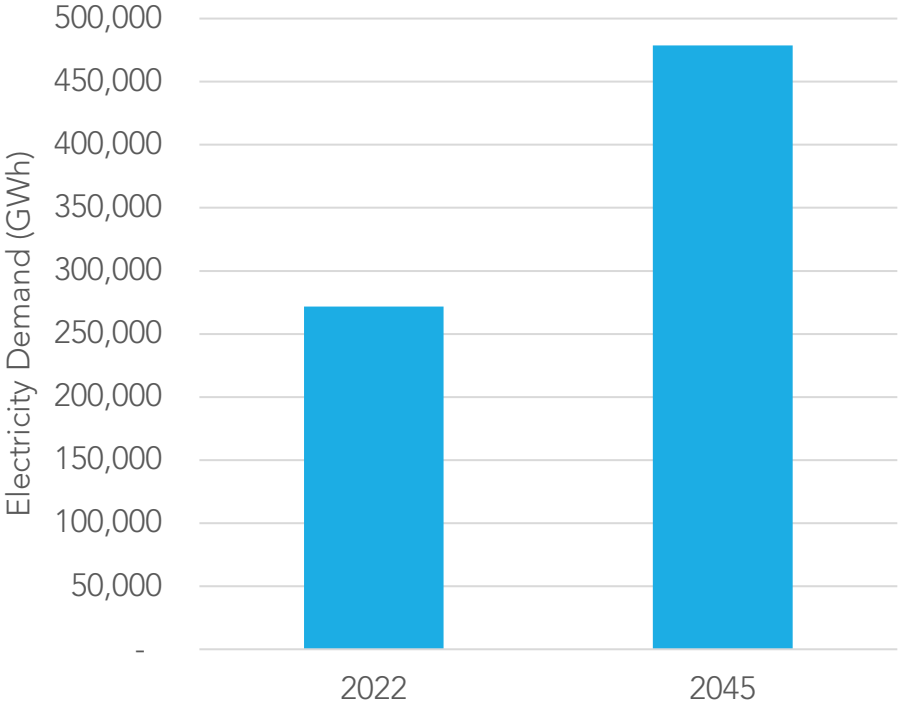


In 2045 relative to 2022

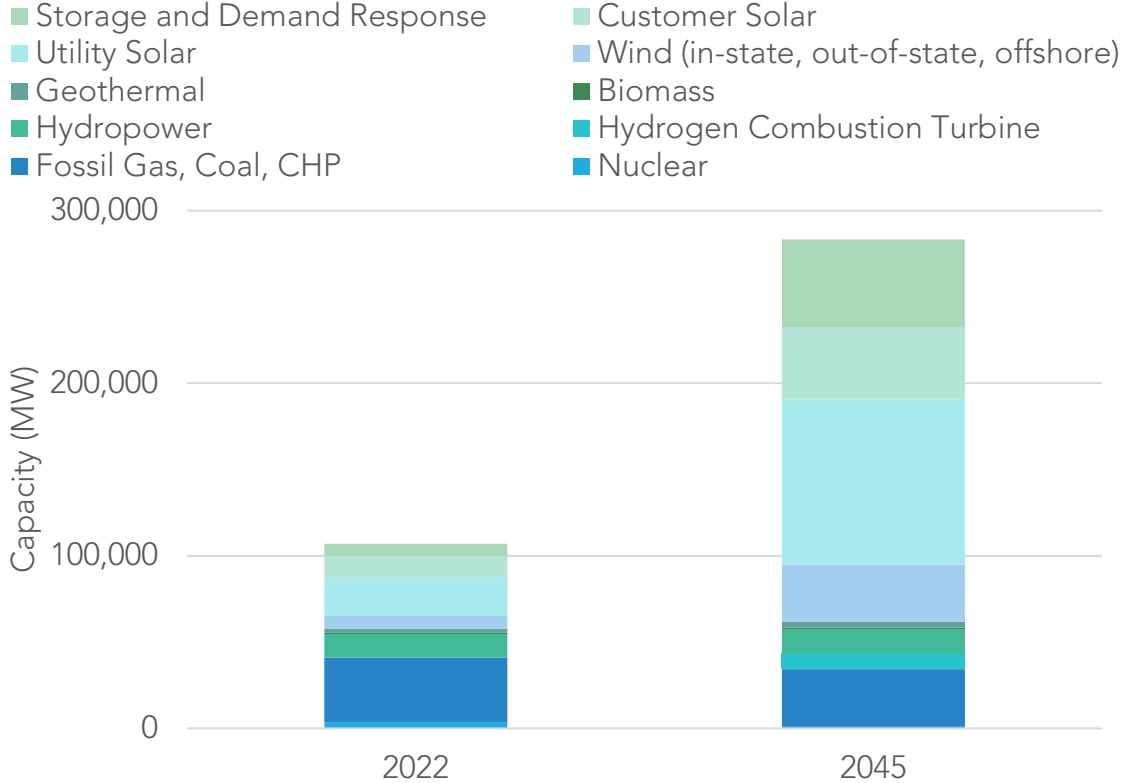
* exajoule

Building a Clean, Affordable, Reliable Grid

2x existing electricity generation

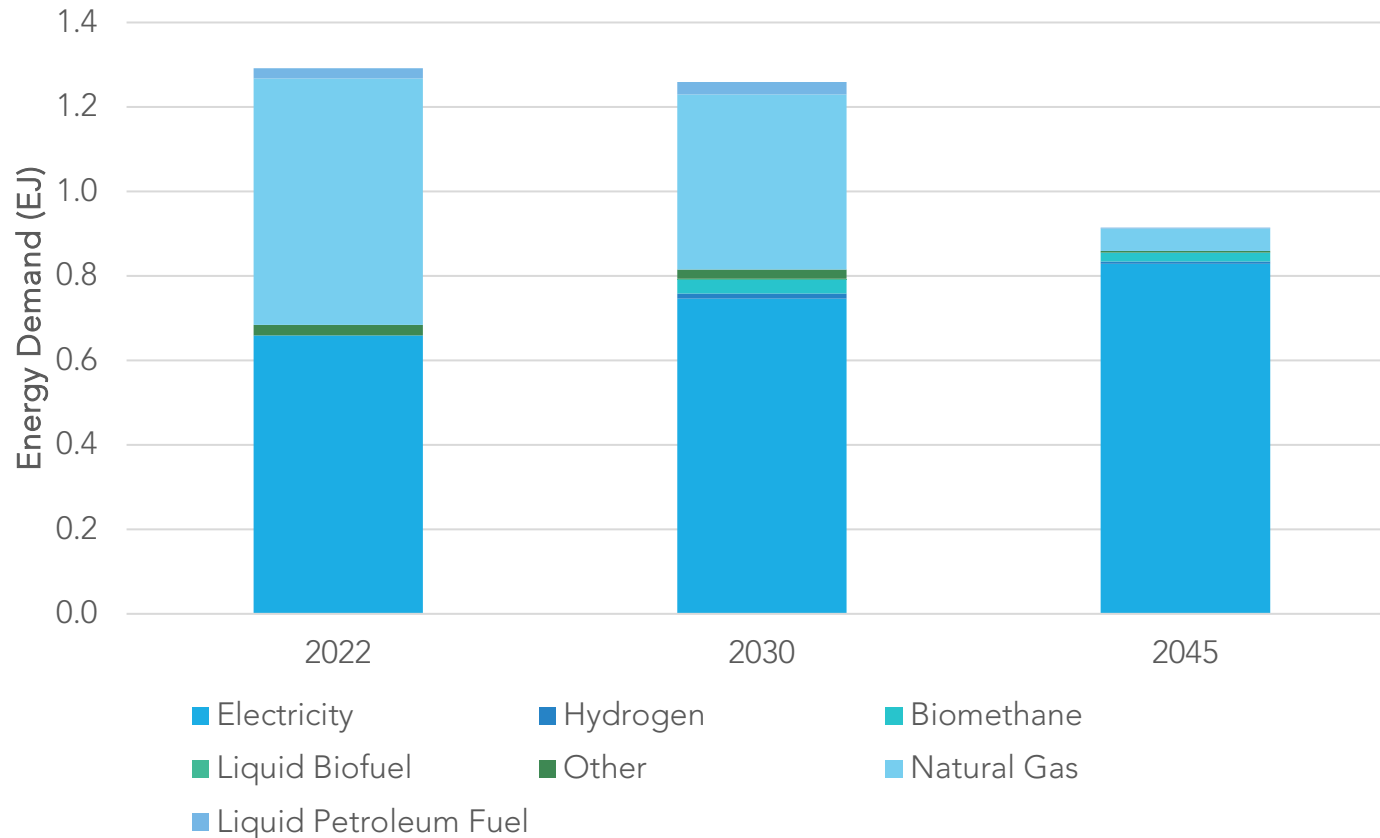


4x existing wind and solar capacity in 2045



Fossil gas use by electric sector decreases by 47% in 2045 compared to today

Decarbonizing Buildings



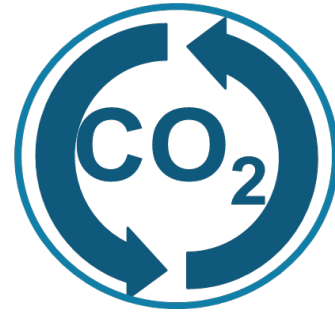
- 91% reduction in fossil gas demand by 2045
- Improve outdoor and indoor air quality
- 3 million all-electric buildings by 2030, 7 million by 2035
- 6 million heat pumps by 2030

In 2045 relative to 2022

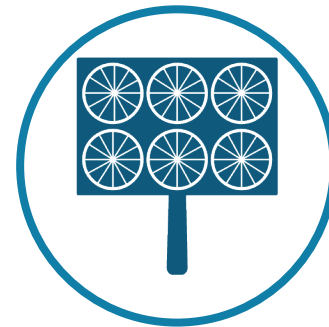
Role and Scaling of Carbon Dioxide Removal (CDR)



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Net Zero

AB 32 GHG Inventory Sectors: Significantly reduced, but some emissions remain even with CCS

NWL a modest source

Need carbon dioxide removal to compensate for AB 32 GHG Inventory and NWL sectors

- **Role of CDR is reduced if:**

- We reduce the emissions from the AB 32 GHG Inventory Sectors faster
- NWL are able to become a sink

Ambitious Action Delivers Huge Benefits

Unprecedented Deployment of Clean Technology and Nature-Based Climate Solutions



37x total on-road ZEVs



6x electric appliances in residences



1700x hydrogen supply



4x installed wind/solar generation capacity



> 2.5 Million acres of NWL climate action per year

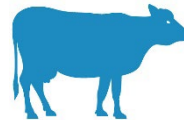
Significant GHG Reductions



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

In 2045 relative to 2022

CALIFORNIA'S CLIMATE PLAN LAYS THE ROADMAP TO 2045



CUT AIR POLLUTION **71%**



SLASH GREENHOUSE GAS
EMISSIONS **85%**



DROP GAS CONSUMPTION **94%**



CREATE **4 MILLION** NEW JOBS



SAVE CALIFORNIANS **\$200 BILLION**
IN HEALTH COSTS DUE TO
POLLUTION

