



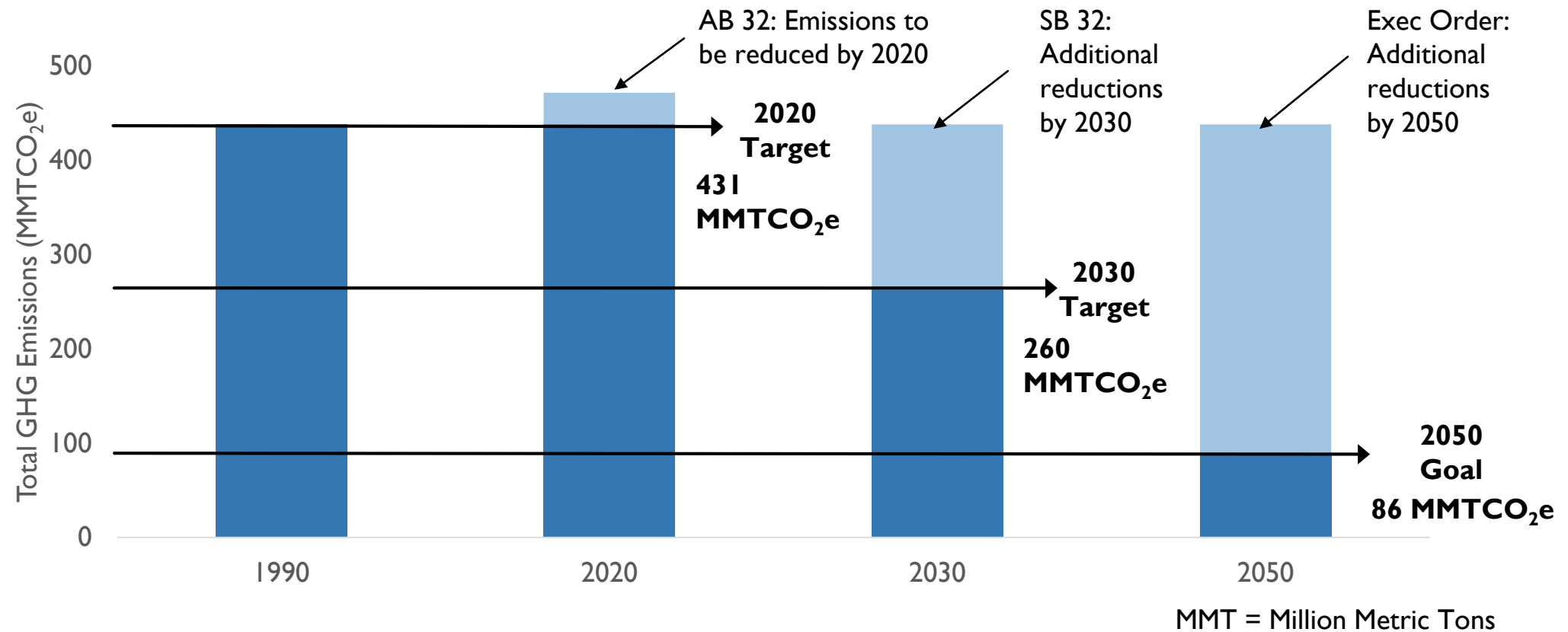
CALIFORNIA
AIR RESOURCES BOARD

Clearing California Skies for 50 Years

**IEA-EPRI-IETA GHG TRADING WORKSHOP:
UPDATE ON CALIFORNIA'S EMISSION REDUCTION
EFFORTS**

OCTOBER 2019

CALIFORNIA'S GHG EMISSIONS REDUCTION TARGETS



Source: CARB, 2018

IMPLEMENT 2017 CLIMATE CHANGE SCOPING PLAN



Double building efficiency



50% renewable power**



More clean, renewable fuels



Cleaner zero or near-zero emission cars, trucks, and buses



Walkable/bikeable communities with transit



Cleaner freight and goods movement



Slash potent “super-pollutants” from dairies, landfills and refrigerants



Cap emissions from transportation, industry, natural gas, and electricity



Invest in communities to reduce emissions



Protect and manage natural and working lands

**In 2018, SB 100 increased the RPS to 60% by 2030

CAP-AND-TRADE PROGRAM BACKGROUND

Declining Caps

Steadily Increasing
Price Signal

Targets Lowest
Cost Reductions
First

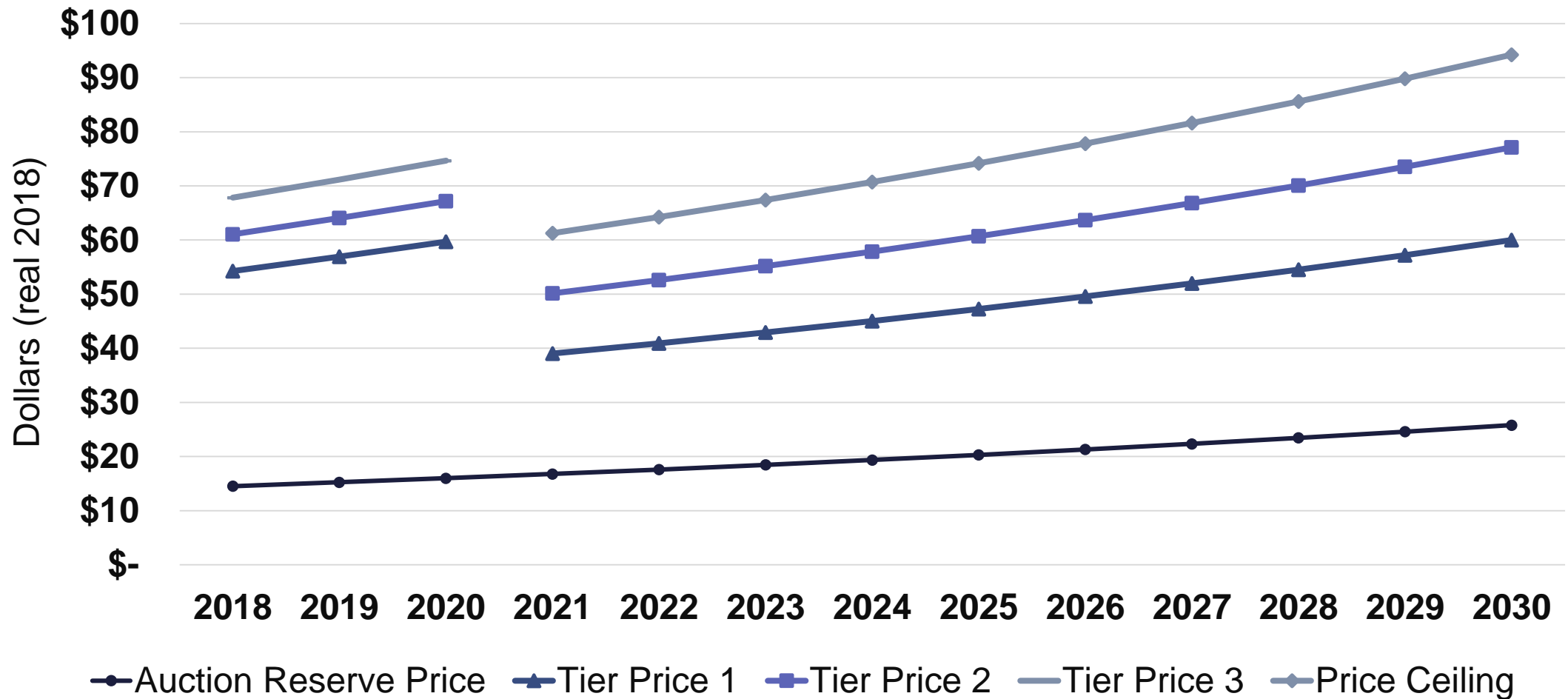
Long-Term Price Signal
for Clean Technology
Investments

- Critical part of State strategy to achieve AB 32 and SB 32 GHG reduction targets
 - 2017 Scoping Plan that includes Cap-and-Trade is 4 times less costly than alternatives
- Covers ~80% of State's emissions and works in concert with other complementary air quality and climate policies
- Greater than \$11 billion generated for California Climate Investments
 - Most recent auction cleared at \$17.16 USD (compared to price floor of \$15.62)
- ~450 covered entities in the Cap-and-Trade Program
- Program linked with Québec's cap-and-trade program on January 1, 2014

CAP-AND-TRADE PROGRAM DESIGN FEATURES

- Regulates entities that emit 25,000 MTCO₂e or greater/ year
- Allocation to industrial sources to prevent leakage
- Quarterly auctions with price floor
- Multiyear compliance periods
- Banking
- Offsets
- Allowance Price Containment Reserve through 2020

AB 398: PRICE CEILING AND RESERVE TIERS



AB 398: OFFSET AMENDMENTS

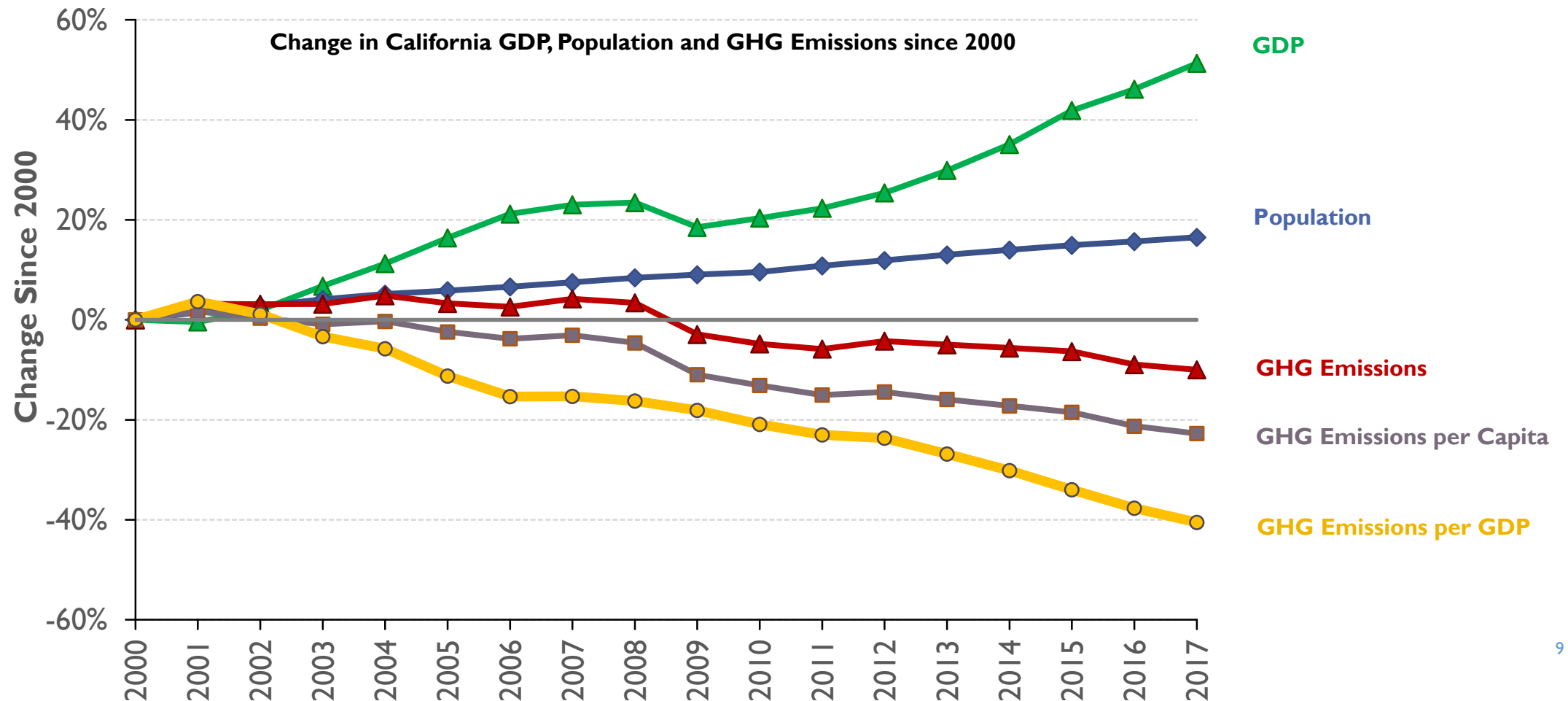
- Reduce compliance offset usage limits to 4% for 2021 to 2025 calendar year emissions and 6% for 2026 to 2030 calendar year emissions
- No more than one-half of the offset usage limit may be sourced from projects that do not provide direct environmental benefits in the state
- Direct environmental benefits in the state defined as the reduction or avoidance of emissions of any air pollutant in the state or reduction or avoidance of any pollutant that could have an adverse impact on waters of the state
- Performance standard for projects located in-state or sourced with gases from in-state
- Case-by-case review for projects located out-of-state or sourced with gases from out-of-state

AB 398: NO CHANGES TO POST-2020 CAPS OR BANKING RULES

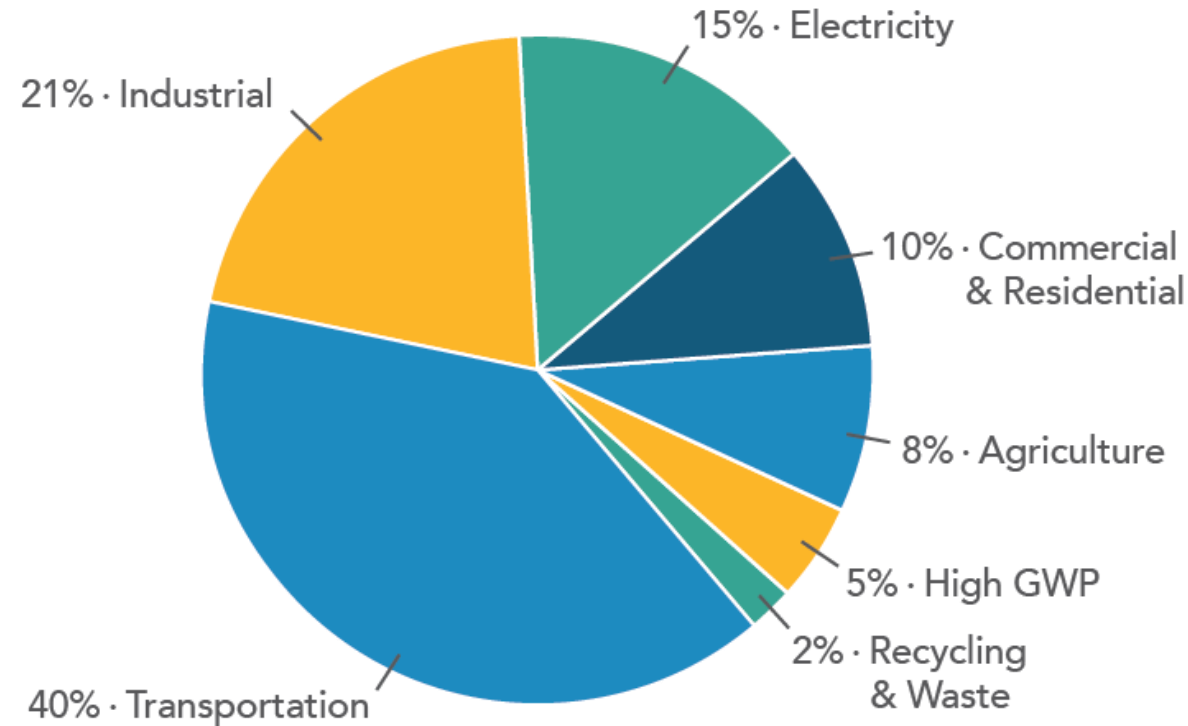
AB 398 directs CARB to evaluate concerns related to “overallocation” and banking rules

- Historical data shows gradually increasing price signal to incent reductions
- Caps for 2013 through 2030 are set to conform to AB 32 and SB 32 statewide GHG reductions targets
- From the beginning, Program has been designed with features to support gradually increasing carbon price signal
- Staff and third-party analyses show the caps are binding on emissions through 2030
- Removing allowances would increase prices today and in the future

CALIFORNIA'S ECONOMY AND POPULATION ARE GROWING WHILE REDUCING CARBON EMISSIONS



2017 GHG EMISSIONS BY SCOPING PLAN CATEGORY



424.1 MMTCO₂e
2017 TOTAL CA EMISSIONS

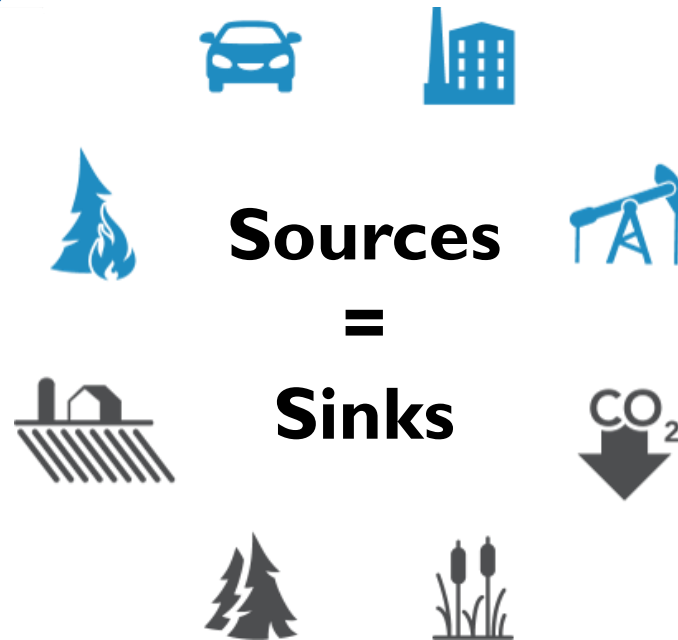
Source: CARB, 2018

THE PATH FORWARD: CARBON NEUTRALITY BY 2045

IPCC Report – Carbon neutrality by 2045 may hold global warming to 1.5°C



Some regions are net emitters;
others are sinks



Carbon Neutrality by 2045



Reduce fossil energy and NWL
emissions; evaluate potential sinks

THANK YOU