

Carbon Dioxide Capture, Removal, and Sequestration



Prepared for SMUD Energy Resources & Customer Services Committee | May 17, 2023

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Recent California Climate Legislation

AB 1279

- 2045 carbon neutrality target
- Anthropogenic emissions to be reduced by 85% by 2045 relative to 1990 levels

SB 905

- CARB to establish a Carbon Capture, Removal, Utilization, and Storage Program



2045: 85% Reduction Below 1990 Levels

Governor's letter directed carbon removal targets in 2030 and 2045

- 20 MMT in 2030
- 100 MMT in 2045

SB 905

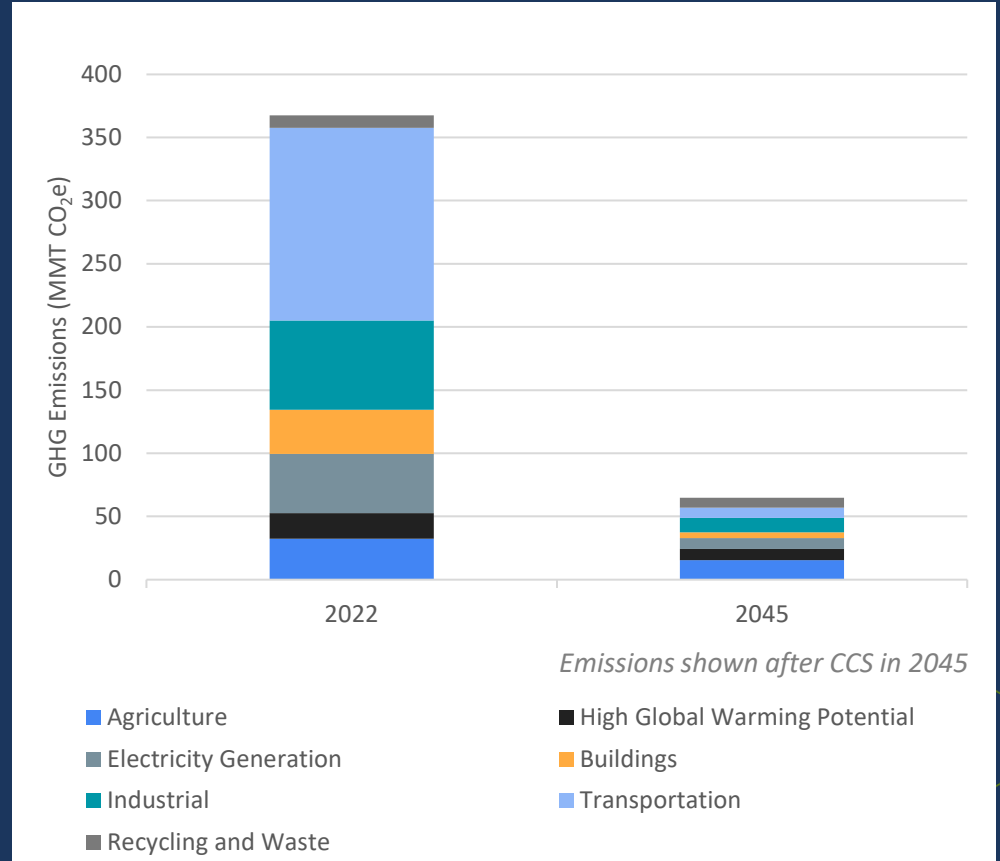
- CARB to establish a Carbon Capture, Removal, Utilization, and Storage Program

Inflation Reduction Act

- Federal incentives

US EPA Power Plan

- Regulation includes CCS



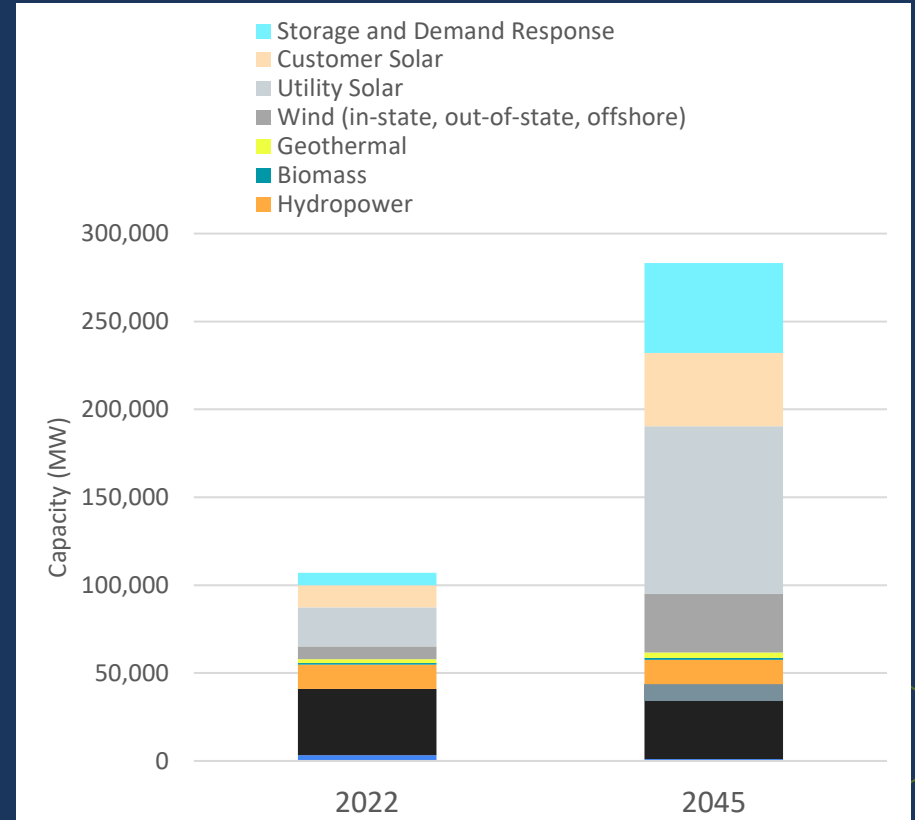
Transitioning the Electric Sector

Add 4 times the existing wind and solar capacity by 2045

Add no new gas capacity

Include 16.8 MMT of captured carbon in this sector to achieve 85% reduction target in 2045

Existing fossil gas use decreases by 47% relative to current levels



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