

# Carbon Pricing Mechanisms: Risks and Competitiveness

PG&E PRESENTATION TO SEMARNAT, GIZ,  
CARBON TRUST MEXICO, MÉXICO<sub>2</sub>

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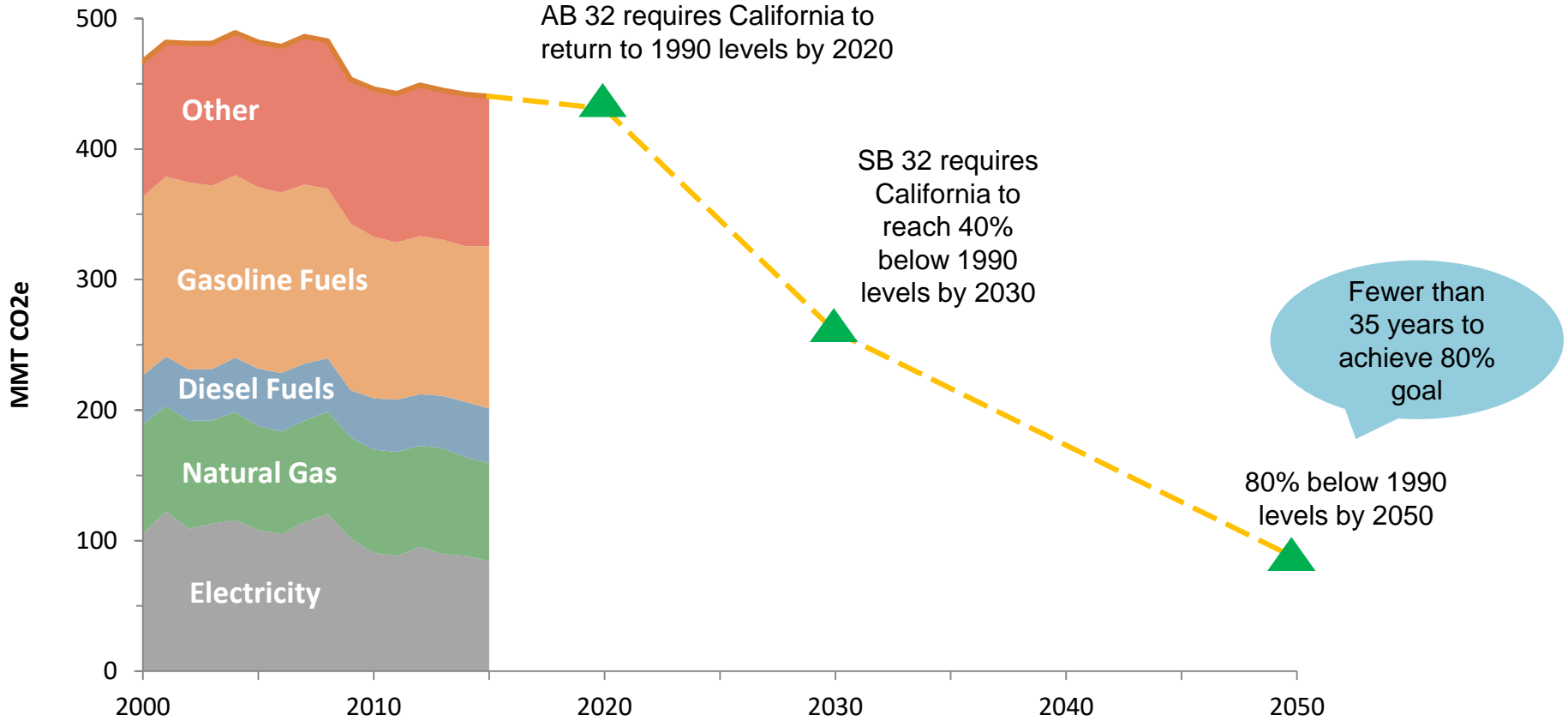


Together, Building  
a Better California



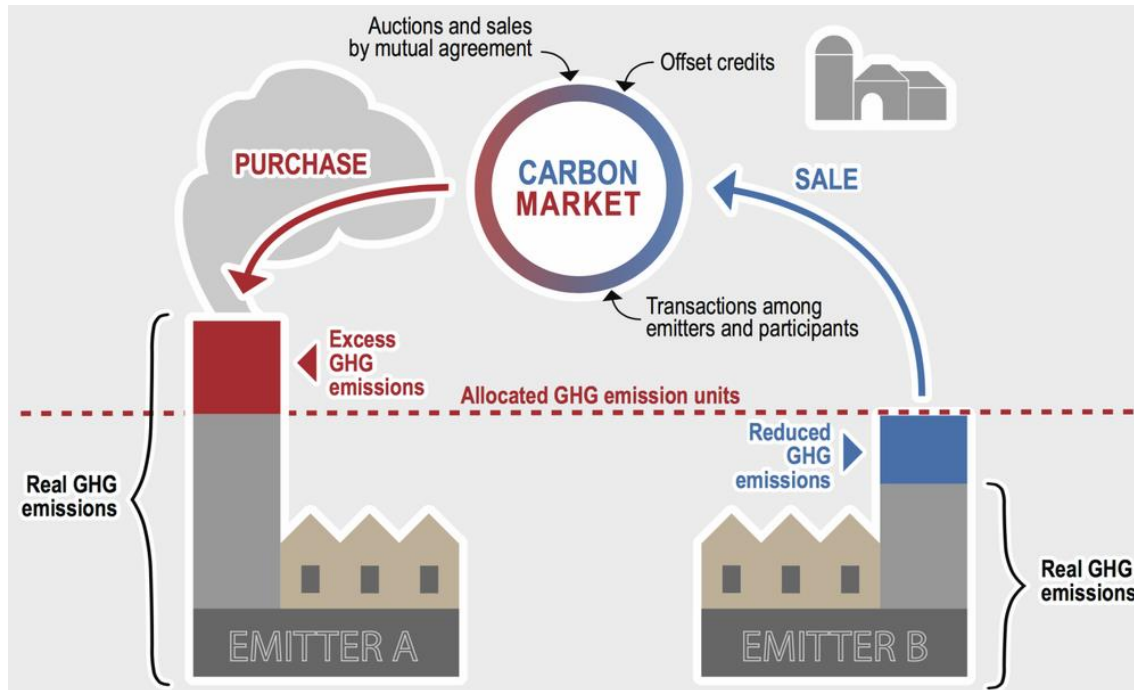
# California's GHG Reduction Targets

**California Greenhouse Gas Reduction Goals and Historic Emissions**  
million metric tons CO<sub>2</sub>e



**California's 2020 and 2030 GHG reduction targets are codified in legislation**

# Cap-and-Trade Program



## The Cap-and-Trade Program:

- Cost-effective
- Provides compliance flexibility
- Allows for linkage opportunities
- Ensures GHG emissions reductions with declining cap
- Allowance allocation returns revenue to customers



# PG&E - Overview



## Company Facts

- Fortune 200 company founded in 1905
- Headquartered in San Francisco, CA
- ~ 20,000 employees

## Core Business

- Serves approximately 16 million people:
  - 5.4 million electric accounts
  - 4.3 million natural gas accounts
- Delivered electricity that was nearly 80% greenhouse gas-free in 2017
- Connected 285,000 solar customers — about 25% of the nation's rooftop solar



# PG&E – Cap-and-Trade Compliance

## Covered Facilities

- 3 natural-gas-fired electricity generation stations
- Number of compressor stations that exceed 25,000 MtCO<sub>2</sub>e reporting threshold
- In 2015, emissions from natural gas delivered to customers were included under the program

## Compliance Process

- Allocated allowances are consigned to CARB for resale at quarterly auctions
  - Revenue from consigned allowances are passed on to customers via the California Climate Credit
- PG&E may procure GHG compliance instruments to cover its emissions via the following channels:
  - CARB auction and its Allowance Price Containment Reserve
  - Bilateral transactions
  - CPUC-approved exchanges



# PG&E's Approach – Key Lessons

- **Establish a cross-functional coordination team** to update on developments, align on policy, and implement the program across the entire business.
- **Early, voluntary reporting can help establish practices** across the company that can be helpful preparation for subsequent regulatory reporting requirements.
- **Proactively work with regulators** on market design and development of compliance plans
- **Participation in emission trading simulations** and voluntary offset programs can give hands-on experience ahead of a carbon pricing program
- **Collaboration with other key stakeholders** (businesses, environmental groups, academics, etc.) can help build consensus on policy design and result in better outcomes.



# PG&E's approach – Cross-Functional Team

A cross-functional team that includes staff with an array of expertise can be helpful to address to impacts of the Cap-and-Trade program on multiple departments

Competence	Responsible Department
Strategic	CEO
Political	Corporate Affairs
Measurement & Reporting	Safety, Health, and Environment
Cap-and-Trade Compliance	Energy Procurement
Regulatory Engagement	Regulatory Relations

# Approach to Compliance Requirements





# Thank you

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# PG&E Supports Cap-and-Trade

**PG&E supports a scenario where Cap-and-Trade is the focal point that drives the emission reductions required to meet the 2030 target, combined with sustainable complementary measures**

## **Benefits:**

- Compliance flexibility and cost-containment
- Hard cap on total emissions and C&T serves as backstop
- Opportunity for linkage
- Administrative continuity
- Generates revenue for GGRF
- Offsets customer cost burden
- Advancing California's climate leadership

## **Recommended Modifications:**

- Feasible LCFS carbon intensity target
- Emphasis on Cap-and-Trade over direct regulations
- Maintain support of programs that effectively reduce co-pollutants