The background of the slide features a stylized globe on the left side, showing continents and oceans. A horizontal blue bar with a slight gradient is positioned at the top. The overall color scheme is light blue and green.

AB 32 Climate Change Scoping Plan Implementation Update

November 19, 2009
California Air Resources Board

Outline

- Review of approved measures
- Preview of upcoming actions
- Federal activity
- International update

Approved Measures

- 12 of 30 ARB regulations approved, including all nine Discrete Early Actions
- Approved measures provide approximately 70 MMTCO₂e in 2020
 - 40% of our 2020 goal of reducing 169 MMTCO₂e
- First year of Mandatory Reporting complete
 - 97% compliance rate

Tracking Progress

- Scoping Plan Measures Implementation Timeline available on website

- http://www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf

Scoping Plan Measures Implementation Timeline November 18, 2009

| Row # | Scoping Plan Measure | Measure # | Page # | Responsible Agency (ies) (Lead in Bold) | Planned Approval Date | Implementation Date | MMT CO ₂ E Reductions in 2020 [‡] | Type of Action (Regulation, Voluntary, etc.) | Staff Contact |
|-------|--|-----------|----------------------|--|------------------------|---------------------|---|---|-----------------------------|
| 1 | Pavley (AB 1493) | T-1 | C-57 | ARB | Sep-2004 (Approved) | 2009-2016 | 27.7 | Regulation | Paul Hughes |
| 2 | Ship Electrification at Ports (Discrete Early Action) | T-5 | C-66 | ARB | Dec-2007 (Approved) | 2010 | 0.2 | Regulation | Grant Chin |
| 3 | Port Drayage Trucks | T-6 | C-68 | ARB | Dec-2007 (Approved) | Beginning 2010 | 3.5 [§] | Regulation | Mike Miguel |

Low Carbon Fuel Standard

- Reduce GHGs from transportation fuels 16 MMTCO₂e or by about 10% in 2020
- Other jurisdictions using California's LCFS rule as example
- At the December Board Hearing staff will update the Board on:
 - LCFS Expert Workgroup,
 - Sustainability Workplan
 - Guidance Document for Biorefinery Siting

Selected Measures Under Development

- Greenhouse Gas Cap and Trade
- Zero Emissions Vehicles
- Pavley II
- High GWP Refrigerant Management Program
- Renewable Electricity Standard
- Regional GHG targets for Transportation (SB 375)

Cap and Trade Regulation

- Preliminary Draft Regulation released later this month
 - Will provide a firm, declining cap on GHG emissions
 - Trading and offsets to provide flexibility
- Extensive Public Process
- Coordinated development with WCI Partners
- Scheduled for Board action in late 2010

Economic and Allocation Advisory Committee

- Appointed by ARB and Cal/EPA to advise on auction and distribution of allowances
- Recommendations expected in January with a focus on:
 - Allocation of emissions allowances
 - Use of revenue from allowances
- Advice on economic analysis

Economic Analysis

- Working closely with EAAC and stakeholders
- Release report and update Board in February 2010
- Report to include
 - Costs and savings of reductions, including appropriate inclusion of reductions in co-pollutants
 - Timing of capital investments and annual expenditures to repay investments
 - Sensitivity to changes in key inputs
 - Impacts on small businesses

Cap and Trade Public Health Analysis

Health Impact Assessment

- Collaborating with California Department of Public Health
- Feedback from Academic Advisory Committee
- Briefing at the December 17 Climate Action Team Public Health Workgroup meeting
- Draft expected early 2010
- Draft White Paper on disadvantaged communities in process

Zero Emissions Vehicles

- Staff reviewing current regulation
 - Focus on years 2015 and beyond
- Update to the Board next month
- Revisions to regulation for Board consideration in 2010
- Integration of criteria pollutant and GHG programs

High-GWP Refrigerant Management Program

- First statewide GHG rule to reduce high-GWP refrigerant emissions from commercial and industrial refrigeration systems
- Extensive public outreach process with trade associations and California businesses
- Focuses on leak inspection and repair
- Significant emission reductions (~8 MMT in 2020)
- On average, cost savings to California businesses
- Board consideration in December

Energy Efficiency

California Public Utilities Commission (PUC)

- New 2010-2012 EE goals, funded at \$3 billion
- Shift toward deeper reductions in electricity use

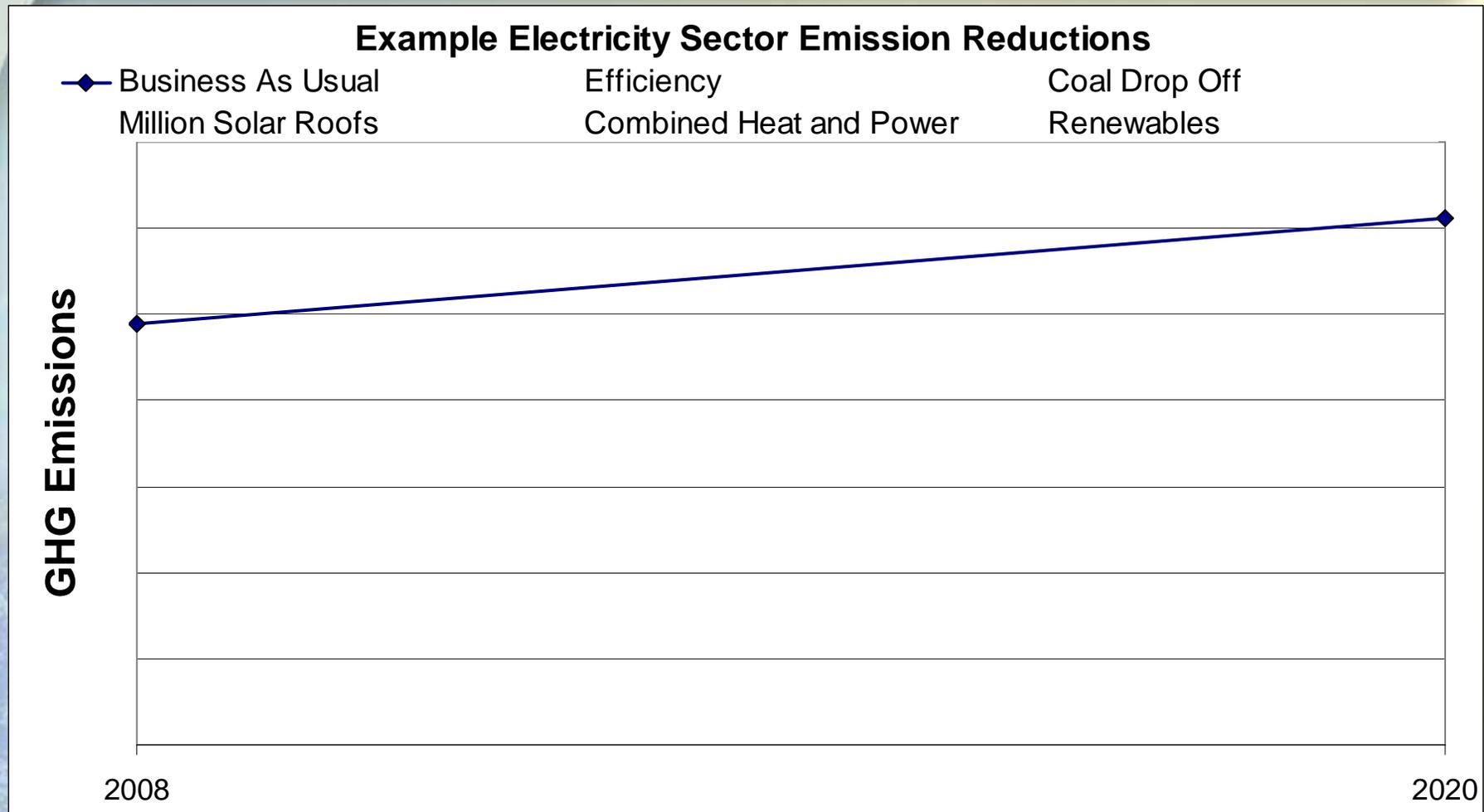
California Energy Commission (CEC)

- Work begun on aggressive 2012 new building standards
- First ever appliance standards for TVs
- AB 758 targets stimulus funds for existing buildings

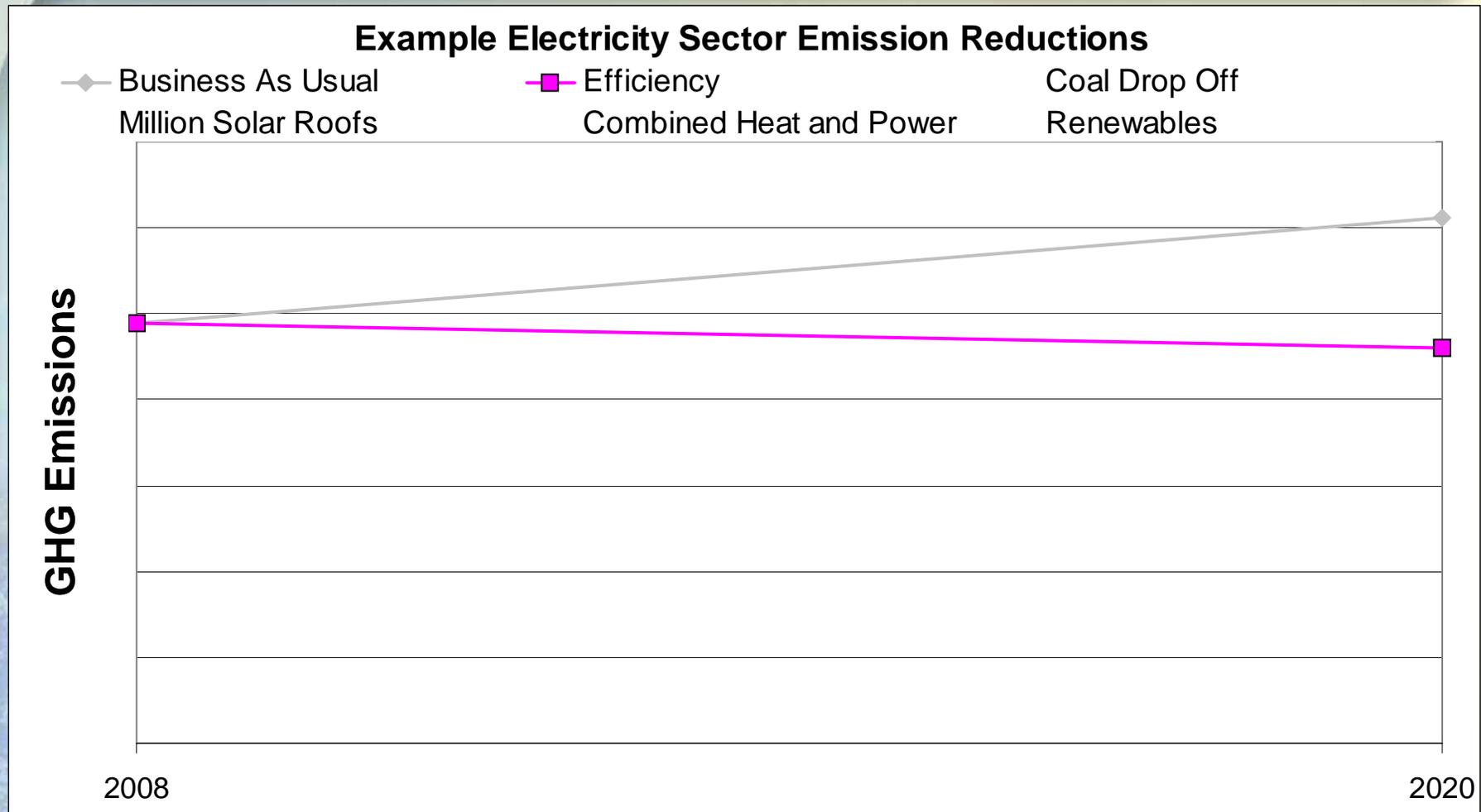
Other Energy Activities

- Expiring coal contracts
- California Solar Initiative
- Combined Heat & Power (CHP)
 - Ongoing Public Utility Commission work on feed-in tariff for CHP
 - ARB workgroup focused on increasing CHP

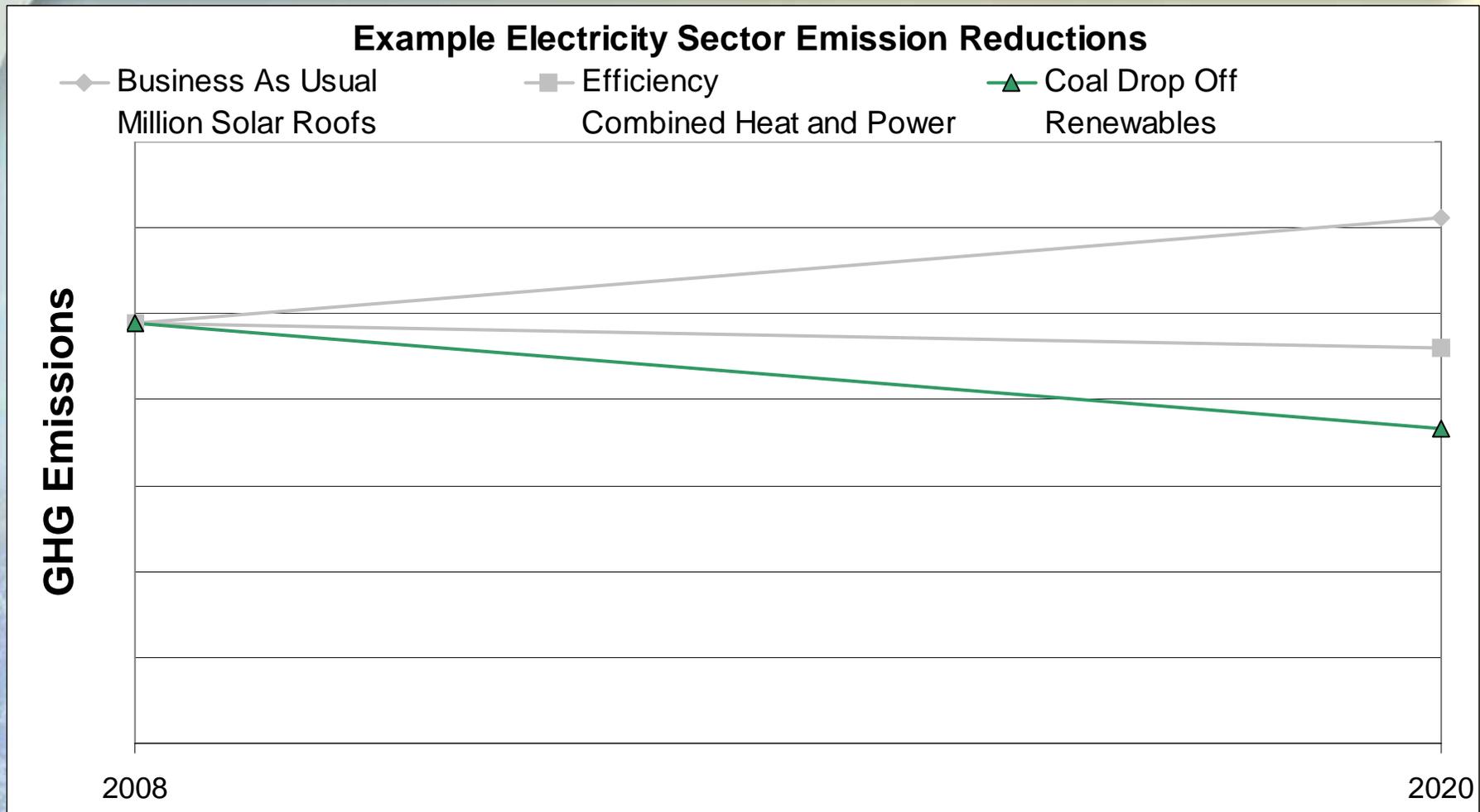
Emissions from the Energy Sector



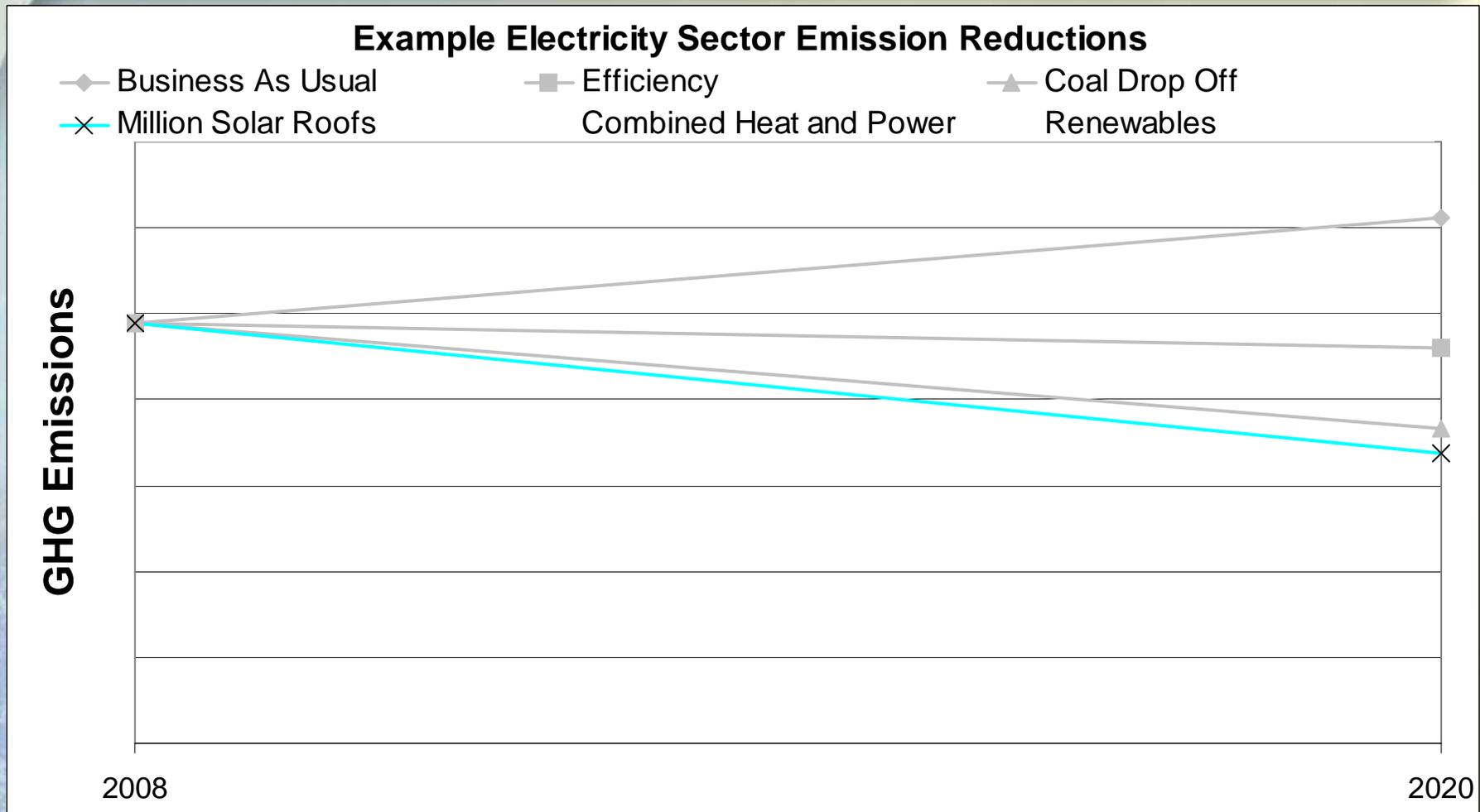
Emissions from the Energy Sector



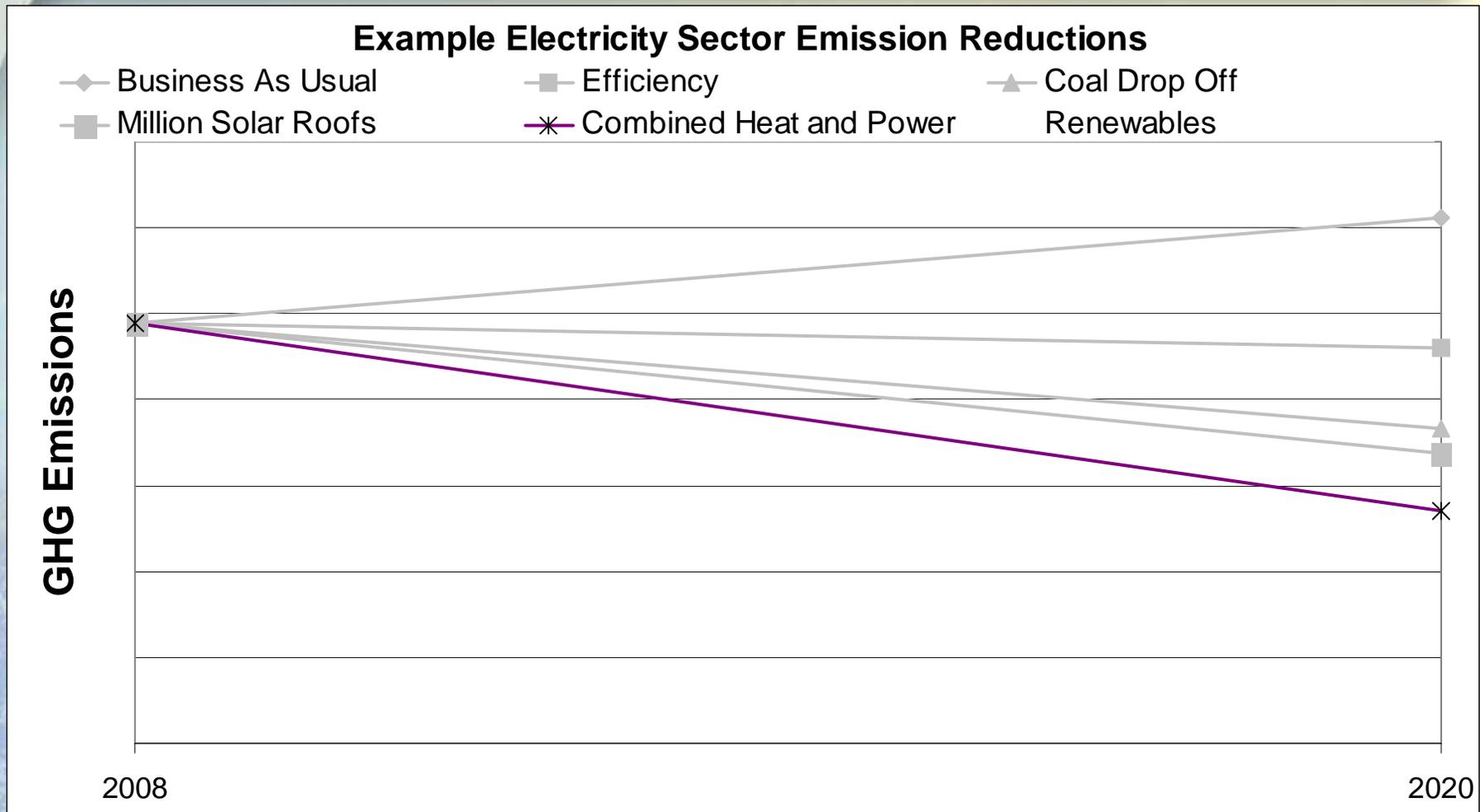
Emissions from the Energy Sector



Emissions from the Energy Sector



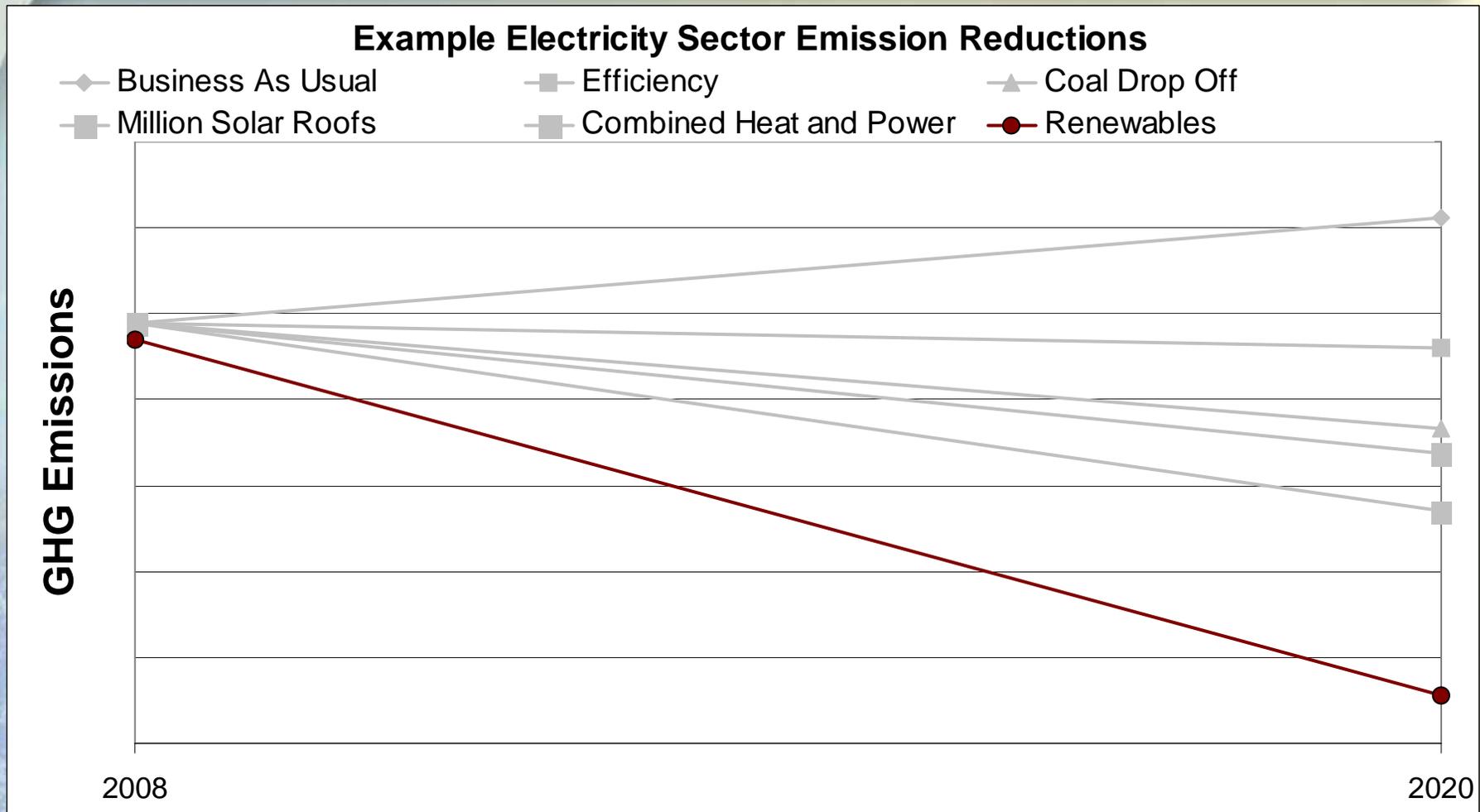
Emissions from the Energy Sector



Renewable Electricity Standard

- Existing 20% Renewable Portfolio Standard
- Governor's Executive Order S-21-09
 - Makes ARB the lead agency to develop the Renewable Electricity Standard
 - Scheduled for Board consideration in July 2010
- ARB working closely with PUC, CEC and Cal-ISO
- Public process underway

Emissions from the Energy Sector



Other State Agency Activity

- Adaptation
 - California's Climate Adaptation Strategy
 - Integration of mitigation and adaptation
- Water
 - Recent legislation mandates a 20% cut in urban per capita water use
- Recycling and Waste Management sector
 - Mandatory commercial recycling
- Green Collar Jobs Council
- Carbon Capture and Sequestration

Federal Activity

U.S Environmental Protection Agency

- National greenhouse gas auto standards
- Promulgated mandatory reporting rule
- Proposed “tailoring” Rule

Congress

- American Clean Energy and Security Act
 - 17% below 2005 levels by 2020, 83% by 2050
- Senate EPW Committee passed Clean Energy Jobs and American Power Act
 - 20% below 2005 levels by 2020, 83% by 2050

International Activities

Governors' Global Climate Summit 2

- 51 signatories to 2009 Declaration
- Forestry MOU and joint letter
- California-Jiangsu China Framework

UNFCCC meeting in Copenhagen Dec. 7-18

- California's role
 - Provide leadership on policy and partner with other states and countries

In Summary

- 40% of reductions to meet 2020 goal approved
- Board to consider major regulations in 2010
- California's program a model for the region, the nation, and the world