



# Climate Change:

## Setting the Stage for Company Investment

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# California Legislation

- ◆ California is taking the lead: *“The debate is over. We know the science. We see the threat. And we know the time for action is now.”*—Gov. Arnold Schwarzenegger, June 1, 2005
- ◆ AB 32 (Speaker Nunez/Assemblywoman Pavley)
  - CARB to adopt regulations that will reduce CO<sub>2</sub>e emissions beginning in 2012 and reduce emissions to 1990 levels by 2020
  - Requires a GHG reduction plan including regulatory and market measures by 2009
  - Leaves many implementation details to be determined by regulatory agencies
- ◆ SB 1368 (Senate President Pro Tem Perata)
  - Requires all base-load electricity procurement of five years or more meet the average GHG emission rate of natural gas fired, existing combined cycle base-load generation (subsequently set at 1100 lbs/ MWh)
- ◆ EPRI analysis of potential costs of California Legislation
  - All policies analyzed showed real economic costs to state
    - Costs ranged from \$100 to \$500 billion through 2050
  - Broad, market-based cap-and-trade policies are most cost-effective
    - Command-and-control or sector-specific caps are more costly
    - An allowance price “safety valve” would limit costs, but fewer CO<sub>2</sub> reductions



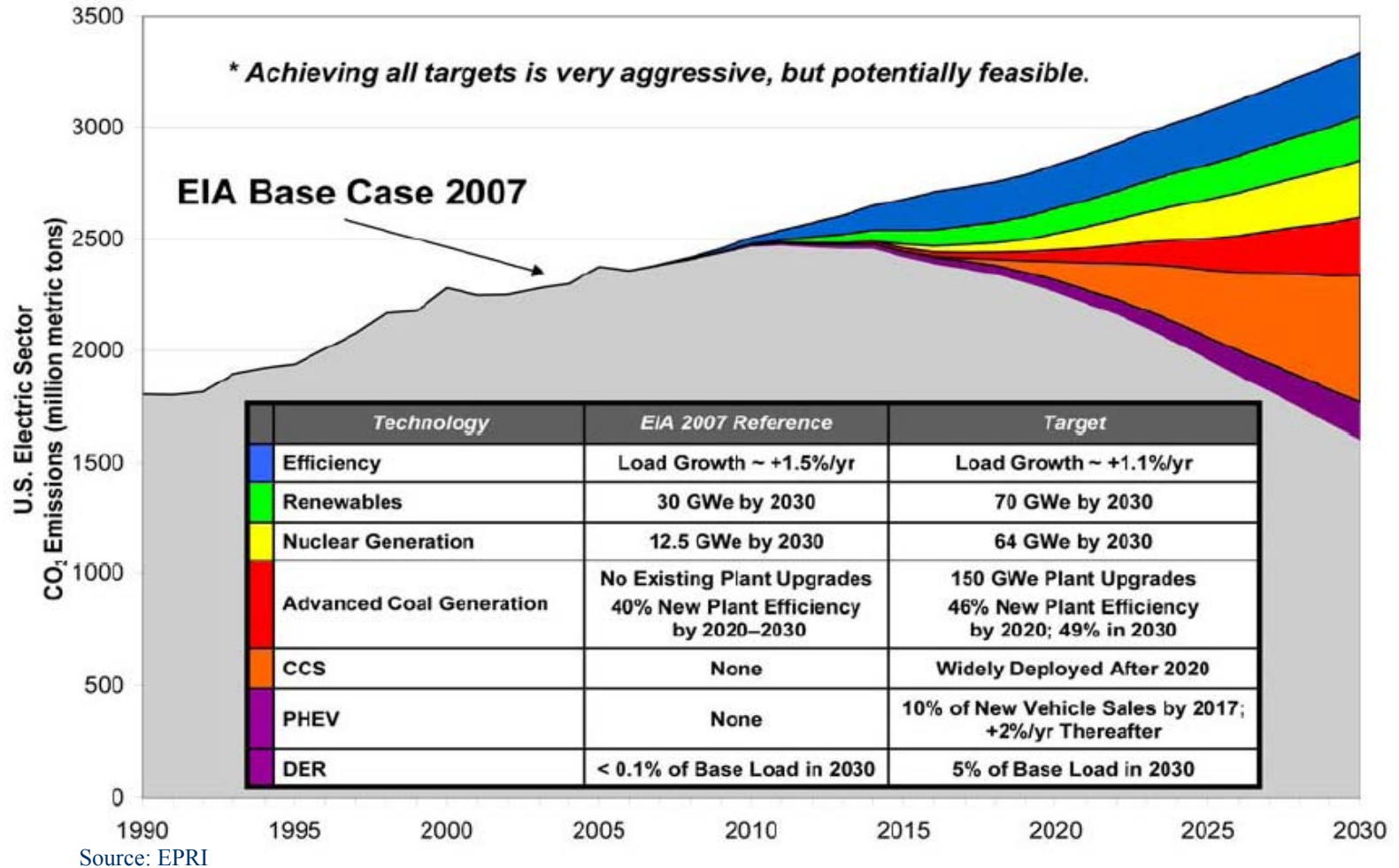
# Proposed Federal Legislation

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- ◆ There are several Federal Climate Programs that have been proposed by Congress including:
  - S.1766 Bingaman calls for a 60% reduction from 2006 levels by 2050
  - S.288 Lieberman calls for a 60% reduction from 1990 levels by 2050
- ◆ EIA analyses of federal legislation and the EPRI PRISM analysis suggest:
  - Average electricity prices would increase by 21% (S.280) in 2030
  - Unlimited offsets can reduce energy related costs and allowance prices by about 50%
  - Full auction substantially increases costs over phased auction
  - No silver bullet – Requires a diverse set of new and existing technologies
  - Use of new nuclear and development and full deployment of new technologies will lead to reduced costs



# EPRI “PRISM” Analysis



*But significant investment requirements and uncertainty*

