

Working Toward a Green and Clean California



Catherine Witherspoon
Low Carbon World Conference
London – April 2008

2005 Executive Order Greenhouse Gas Targets



- By 2010, reduce to 2000 levels*
- By 2020, reduce to 1990 levels**
- By 2050, reduce 80% below 1990 levels

***60 MMT reduction, 11% below BAU**

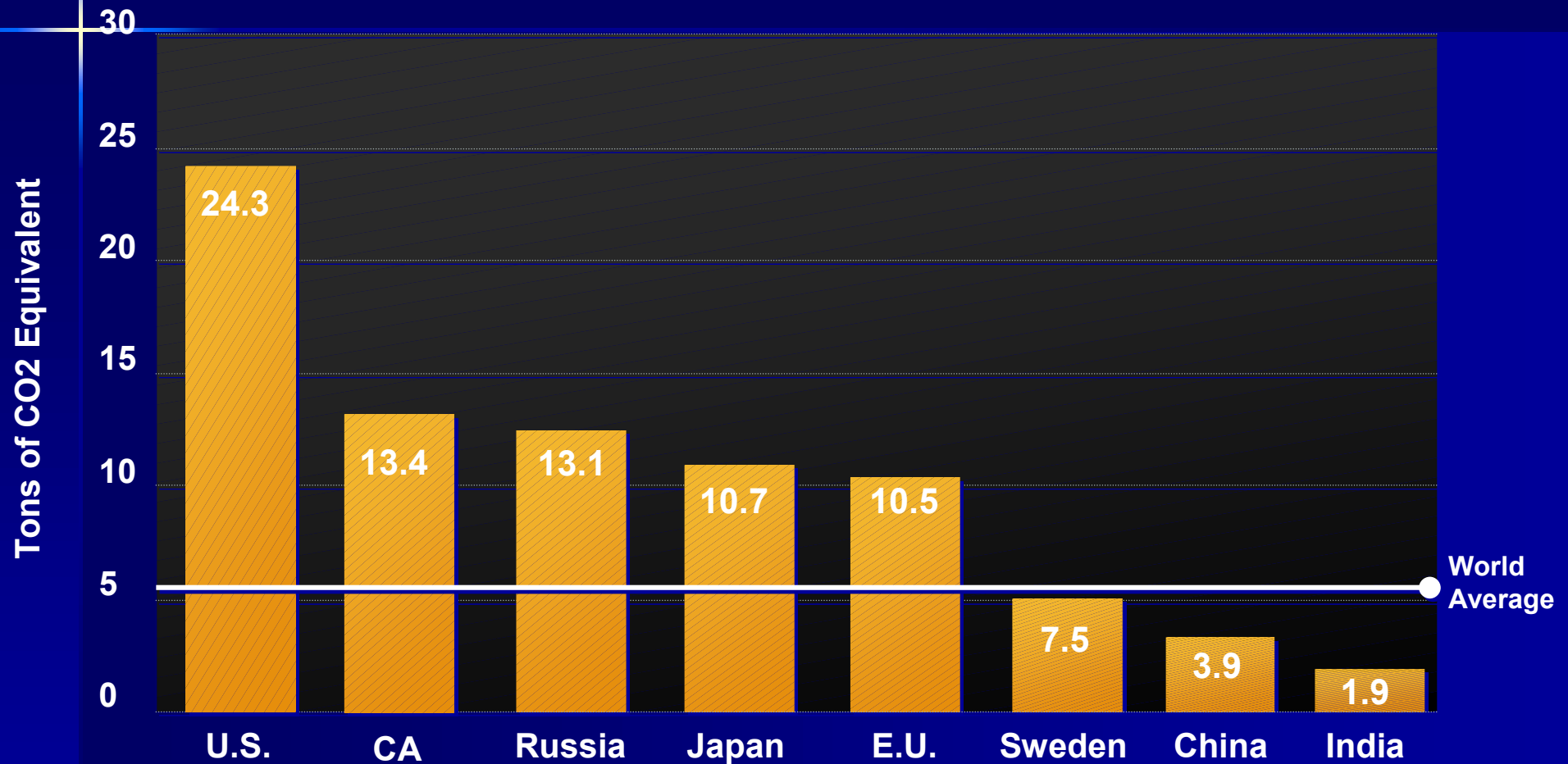
****174 MMT reduction, 30% below BAU**

Global Warming Solutions Act

(Assembly Bill 32, 2006)

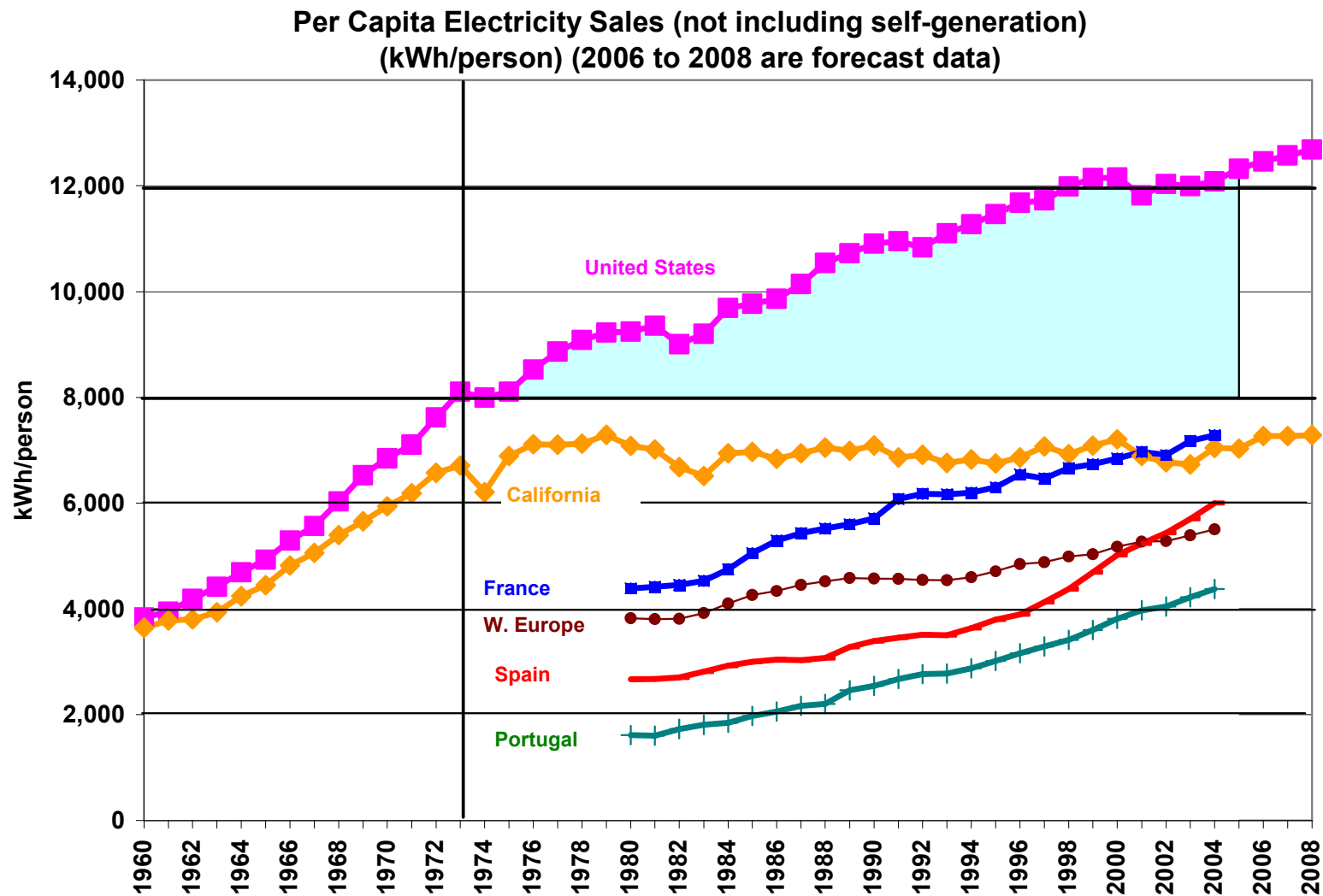
- Locked in 2020 target
- Single agency in charge (CARB)
- Comprehensive plan in 2008
- Early regulatory actions
- Mandatory GHG reporting
- Allows cap & trade
- All rules adopted by 2011

Greenhouse Gas Emissions Per Capita



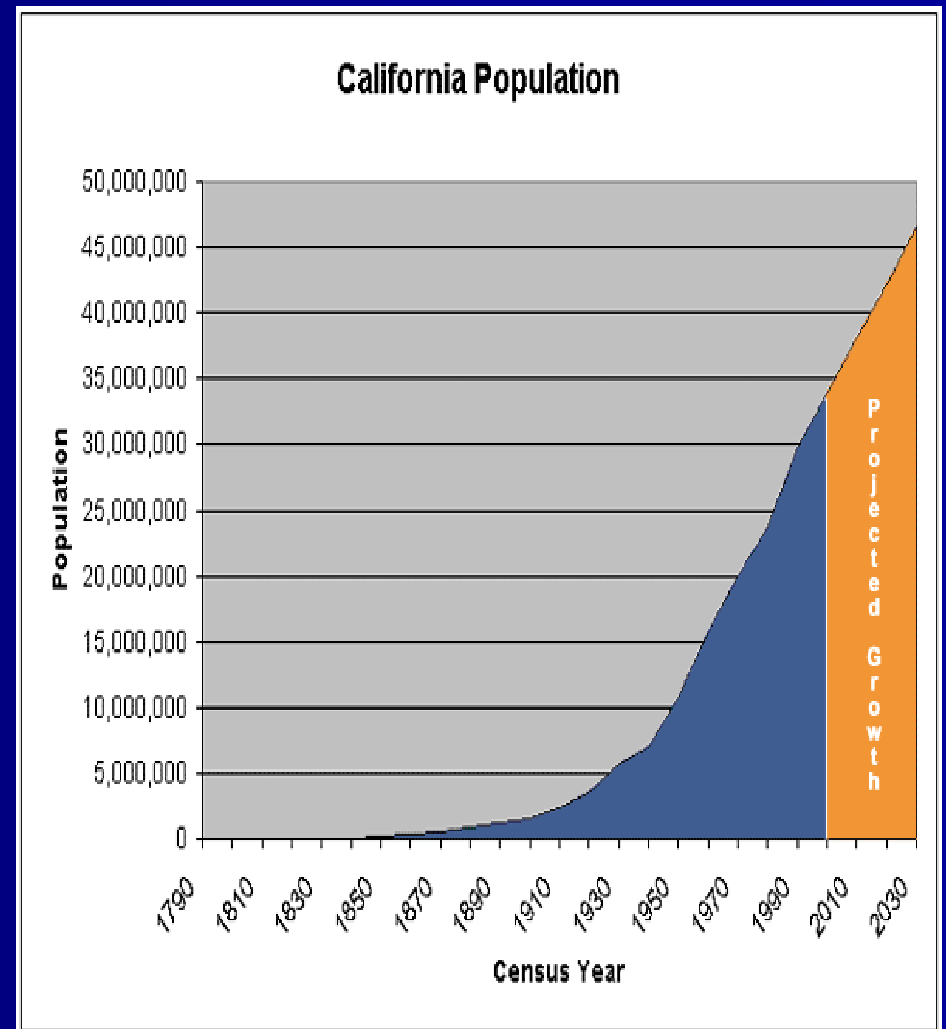
Source: Climate Analysis indicators Tool (CAIT US Version 1.0, CAIT version 4.0), World Resources Institute, 2007 (data is for CY 2001 – 2002 and includes CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ emissions for countries and CO₂, CH₄, N₂O, and F-gases for CA)

Per Capita Electricity Consumption 1960 - 2008



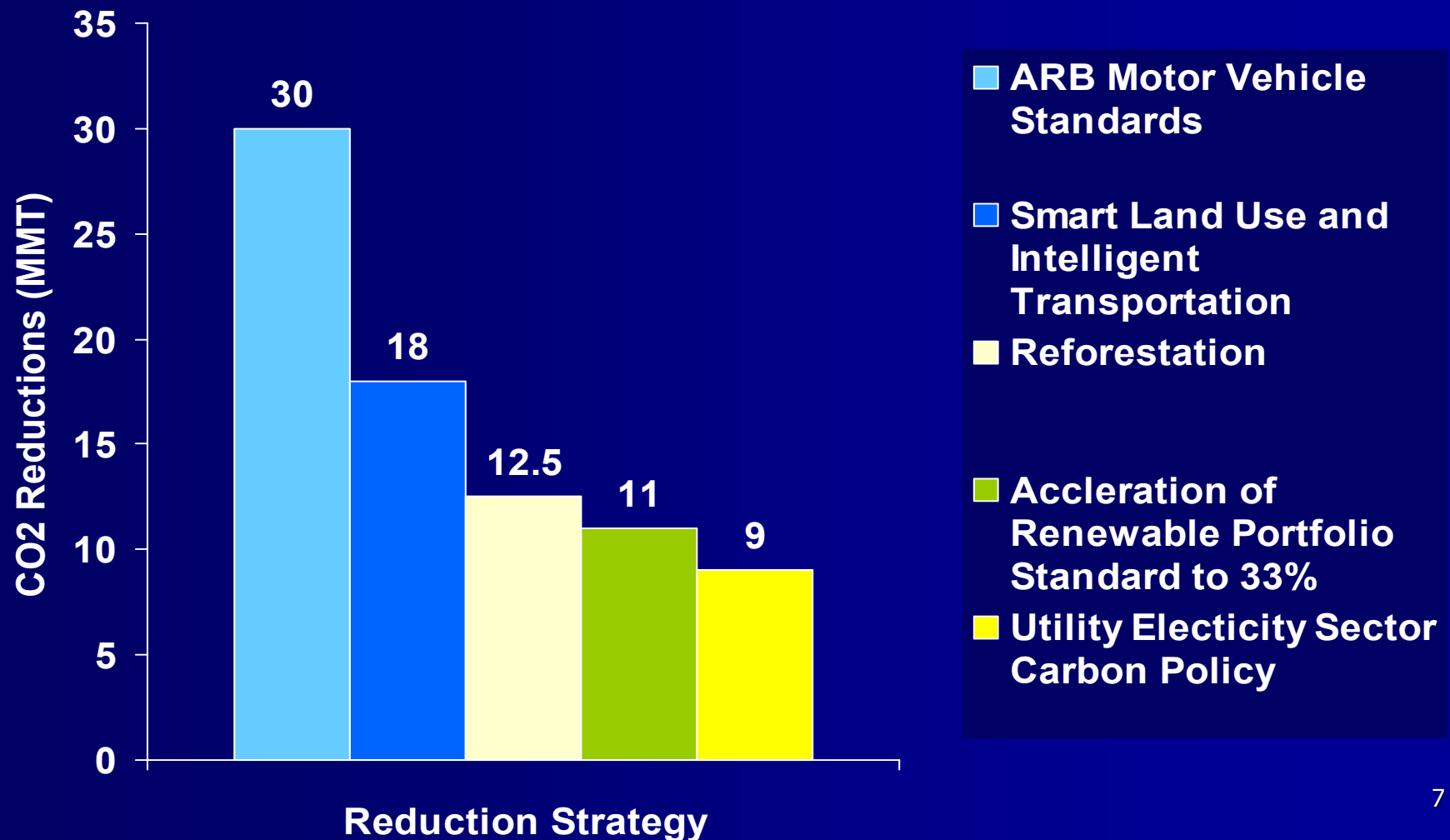
California's Growth Pressures

- Population up 1.6%/year
 - Currently 37 million
 - 2050 forecast ~60 million
 - 47% increase 1990 to 2020
- Vehicle travel up 2%/year
 - Unending sprawl
- State economy \$1.5 trillion
 - Growing 4-5%/year
 - Fiscal crisis notwithstanding



CA's Proposed Climate Strategies

CO2e Reductions by 2020



California Vehicle Standards

Greenhouse gases:

- New cars 30% cleaner by 2016 (mandate)
- New cars 50% cleaner by 2030 (proposed)

Advanced technology

- 14% of new cars must be hybrids by 2014
- Hydrogen fuel cells under development
- Electric cars and plug-ins coming to market



California's Proposed Low Carbon Fuel Standard

<u>Concept:</u>	gasoline sold in CA must meet declining emission standard
<u>Goal:</u>	10% less life-cycle CO ₂ e by 2020
<u>Credits for:</u>	Cleaner diesel, cleaner cars
<u>Benefit:</u>	10-20 MMTCO ₂ E reduction



CA's Renewable Energy Goals

- 20% of total electricity by 2010
- 33% by total electricity by 2020
- Current power mix:
 - 41.5% natural gas
 - 19% hydro
 - 15.7% coal
 - 12.9% nuclear
 - 10.9% renewables



California Efforts to Change US Coal Policy

- Prohibit new long-term coal purchases
- Require natural gas equivalent emissions
- Wean system off dirty coal plants
- CCS demonstration project in Central Valley



Transportation & Land Use: California's Toughest Nut to Crack

- Miles driven increases 2% per year
- Single-drivers dominate
- Public transit not economical
- Continued low-density sprawl
- “Home rule” mentality of cities, counties



California's Collaboration with Other States & Nations

- Western Climate Initiative
 - 15% regional GHG cut from 2005 by 2020
- Midwest Greenhouse Gas Accord
 - Commitment to targets, renewables, efficiency
- International Climate Action Partnership
 - Work together on cap & trade program design
- Several bilateral MOUs
 - Share information, technologies, etc.

Preliminary Economic Analysis of Climate Action Plan

- Net positive for California economy
- 83,000 new jobs, \$4B growth
- Huge savings from energy efficiency and vehicle emission standards
- Remaining strategies priced at zero to \$50/ton



Summary of California's Outlook

- Optimism about technological advances and new export markets
- Willingness to spend money on public health and environmental protection
- Partnerships are essential – can't do it alone
- Sense that policy shift is inevitable; first movers will have the advantage

*THANK YOU
FOR LISTENING*

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