



California's Petroleum Market – Recent Gasoline Price Issues and Outlook

Assembly Committee on Transportation

Los Angeles, California

March 26, 2004

Pat Perez, Manager

Transportation Fuels Office

Transportation Energy Division

California Energy Commission



Presentation Topics

- Overview of California's petroleum market
- Demand & supply outlook
- Imports & infrastructure
- Gasoline price issues (volatility)
- Current actions and recommendations



2003 Integrated Energy Policy Report

- *“The demand for transportation fuels in California is increasing at an alarming rate, surpassing in-state refining capacity. California’s refiners rely increasingly on imported petroleum products to meet demand, and these imports enter through ocean ports facilities that are reaching maximum capacity. The industry must expand its import and storage facilities, otherwise supply constraints and price volatility will continue.”*



2003 Integrated Energy Policy Report (Cont'd)

- *“The inability of the petroleum industry to meet today’s needs without substantial price volatility causes concern about its ability to meet the growing demand for gasoline and diesel in the future. Without assurances from the industry how they will meet growing demand, the state must take aggressive steps to safeguard consumers and the California economy against more severe supply disruptions and price volatility.”*

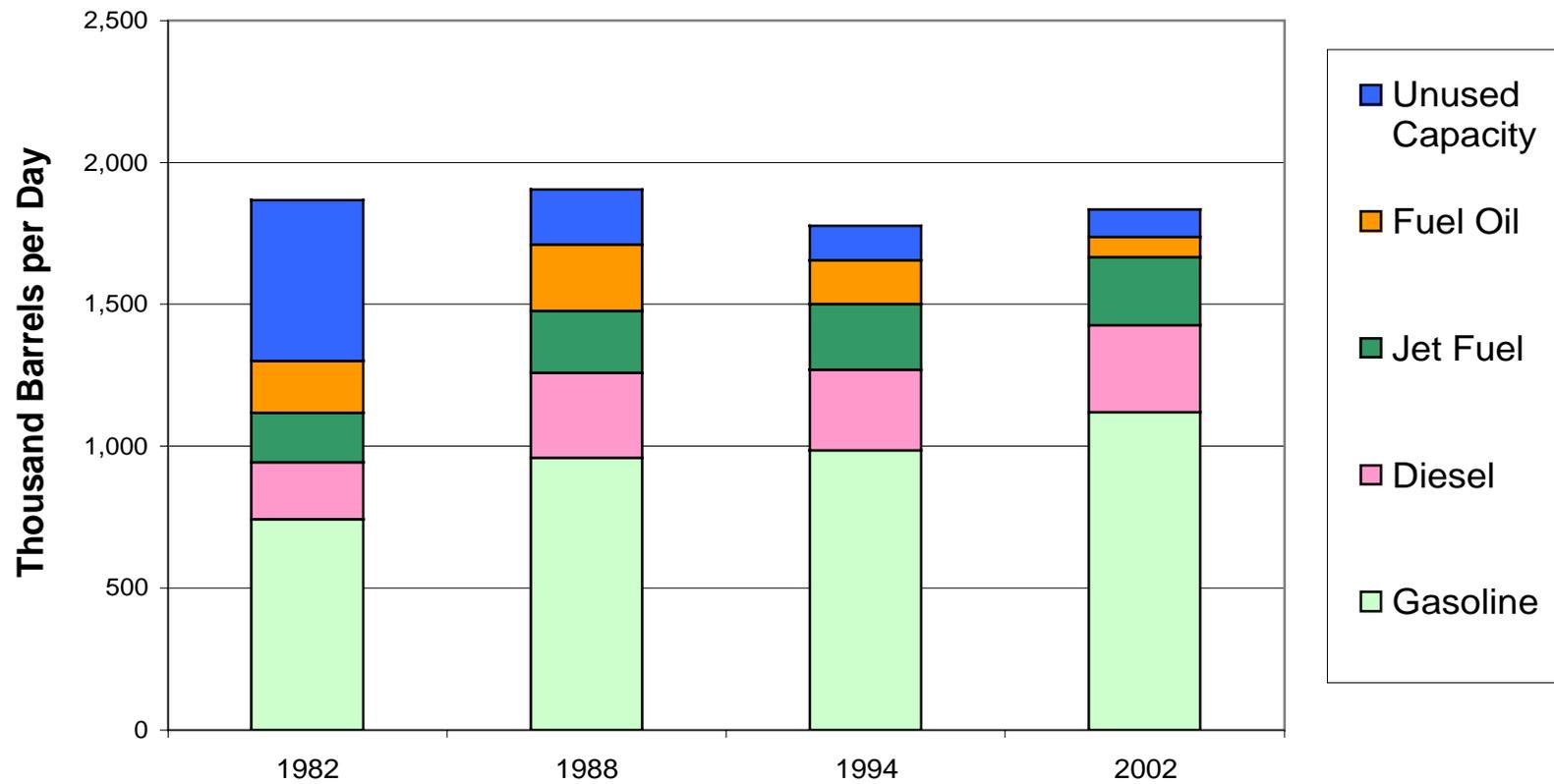


Overview of the Market

- 13 refineries in California produce reformulated gasoline
- 9 smaller facilities produce diesel, jet fuel and asphalt
- 1969 was the last time a new “greenfield” refinery was constructed in the United States – Benicia facility in Northern California previously owned by Exxon
- Independent refiners have increased their presence in California
- Permits and emission offsets for expansion projects are difficult to obtain
- Through the Integrated Energy Policy Report process, the Energy Commission recommended that the State take steps to streamline permitting



California Refinery Capacity and Production

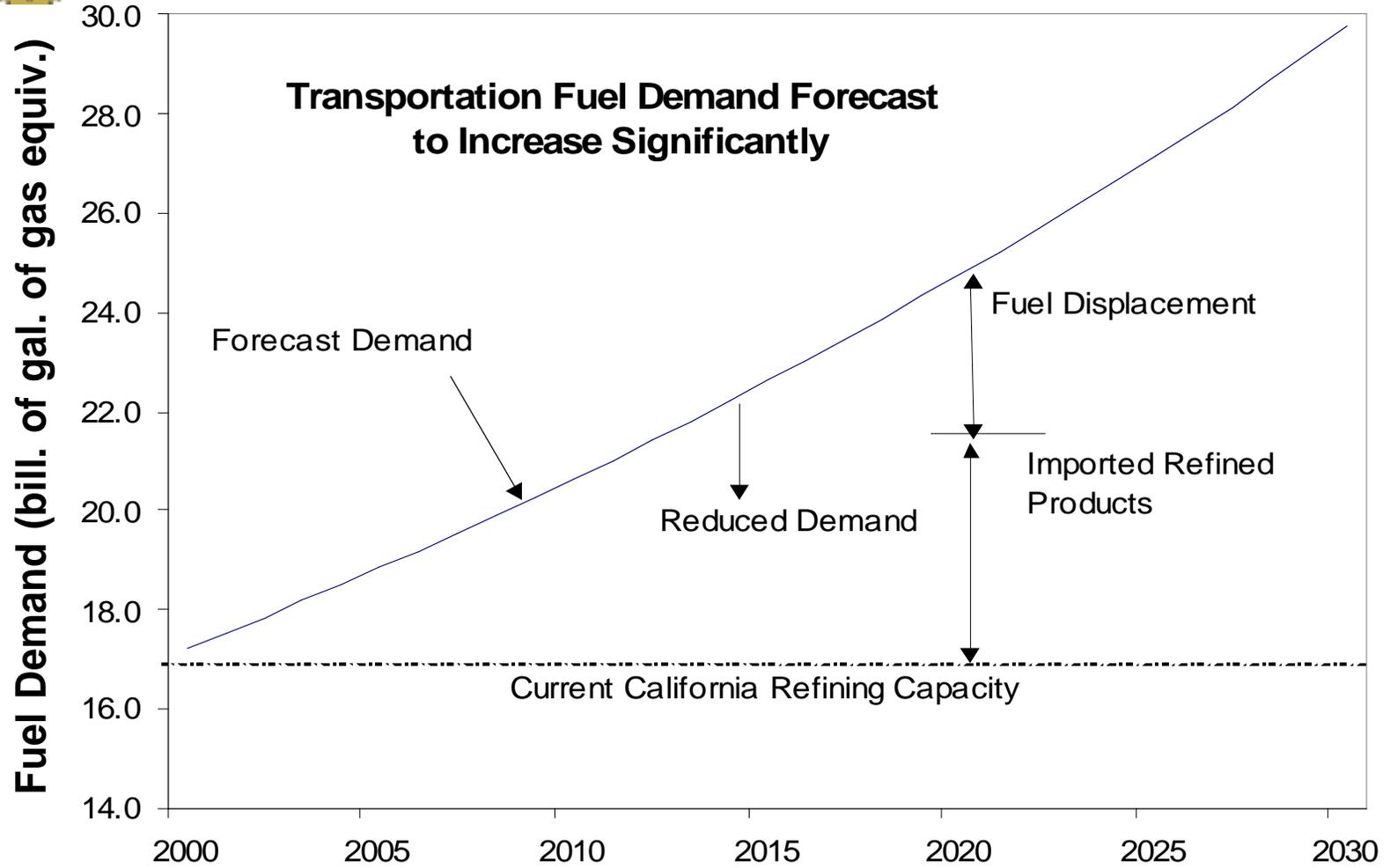


Source: California Energy Commission and U.S. Department of Energy



Demand & Supply Outlook

- Gasoline demand in California during 2003 estimated at 15.6 to 16 billion gallons, diesel fuel demand 2.8 to 3 billion gallons
- California represents nearly 12 percent of United States gasoline demand
- Demand for California transportation fuels expected to increase between 1.6 and 2.5 percent per year
- Refinery capacity increases have been small over the last several years, but could see some future gains
 - ConocoPhillips and Valero
- Refineries operate at or near maximum capacity, little ability to “ramp up” production
- Imports are an important and growing source of supply for California





Imports and Infrastructure

- California shifted from a net exporter of finished petroleum products (transportation fuels) to a net importer in 1997
- Imports of refinery feedstocks and blending components also continue to grow
- Crude imports are also forecast to rise as California production of oil continues to decline



Imports and Infrastructure

- Crude oil and petroleum product infrastructure assets are separate and distinct from one another – not interchangeable
- Exports and imports of like petroleum products use similar marine facilities
 - Finished products – 121 million barrels (332 TBD)
 - Feedstocks & components – 57 million barrels (156 TBD)
- The Energy Commission has evaluated the marine logistics and determined that the infrastructure to handle imports is becoming constrained
- Southern California facilities are forecast to receive the bulk of the additional imports – both crude oil and petroleum products



Price and Volatility Issues

- California retail gasoline prices are normally higher than U.S. average
 - Higher-quality, cleaner-burning gasoline is more expensive to produce than other types of gasoline sold throughout the rest of the U.S.
 - California is net importer of gasoline and blending components to meet demand, adding to supply costs

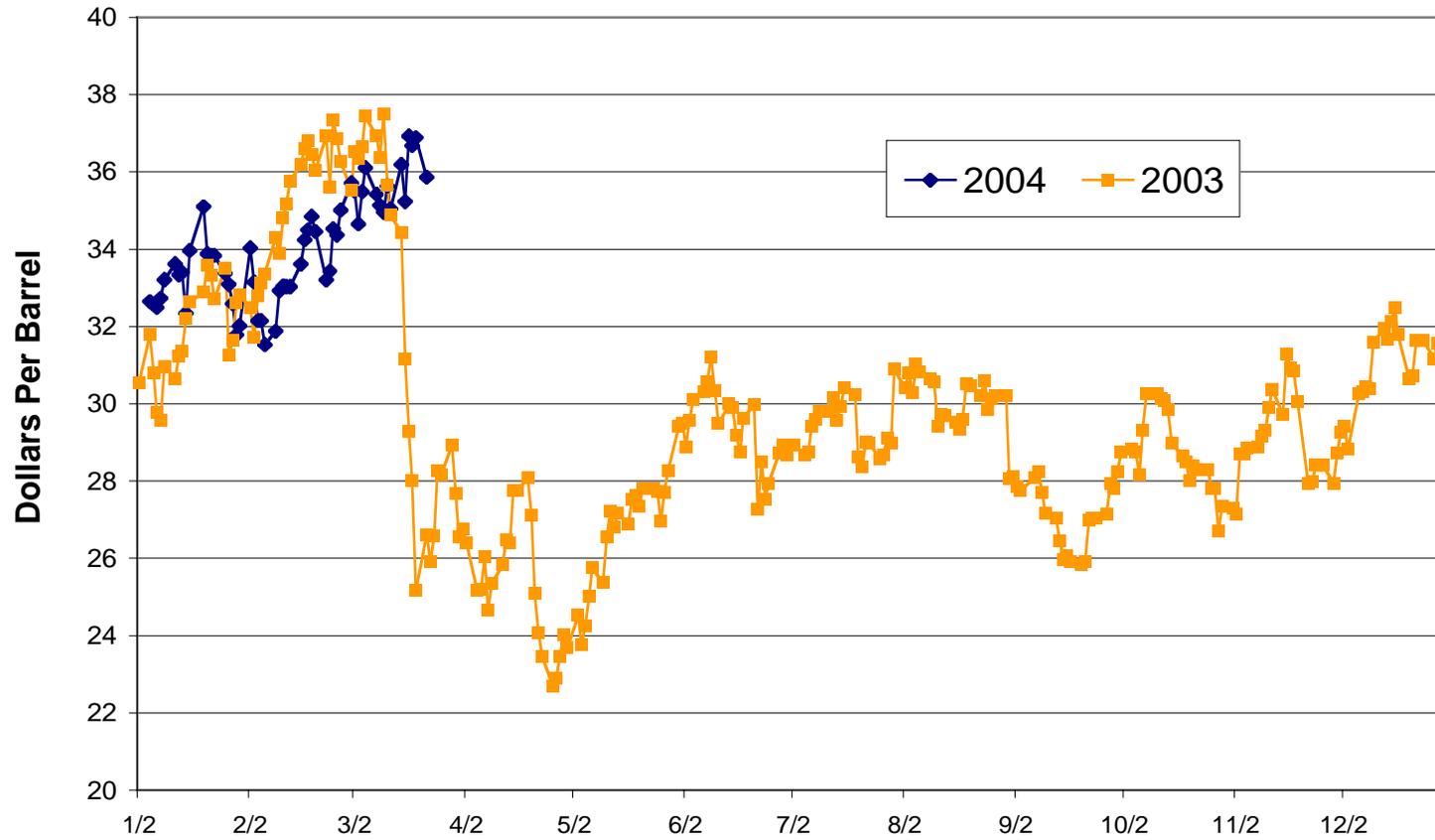


Price Issues (Cont'd)

- Volatility (price swings) has also increased
 - Market is geographically isolated from alternative sources of supply by two to six weeks
 - Refinery problems have resulted in price spikes, some times in excess of 50 cents per gallon
 - Steadily increasing demand for transportation fuels
 - Declining spare refining capacity and inventory levels
 - The elimination of MTBE has reduced the supply of gasoline in California
 - Infrastructure limitations
- Greater volatility could continue if quality imports become scarce or the infrastructure to handle the additional volumes is further constrained.



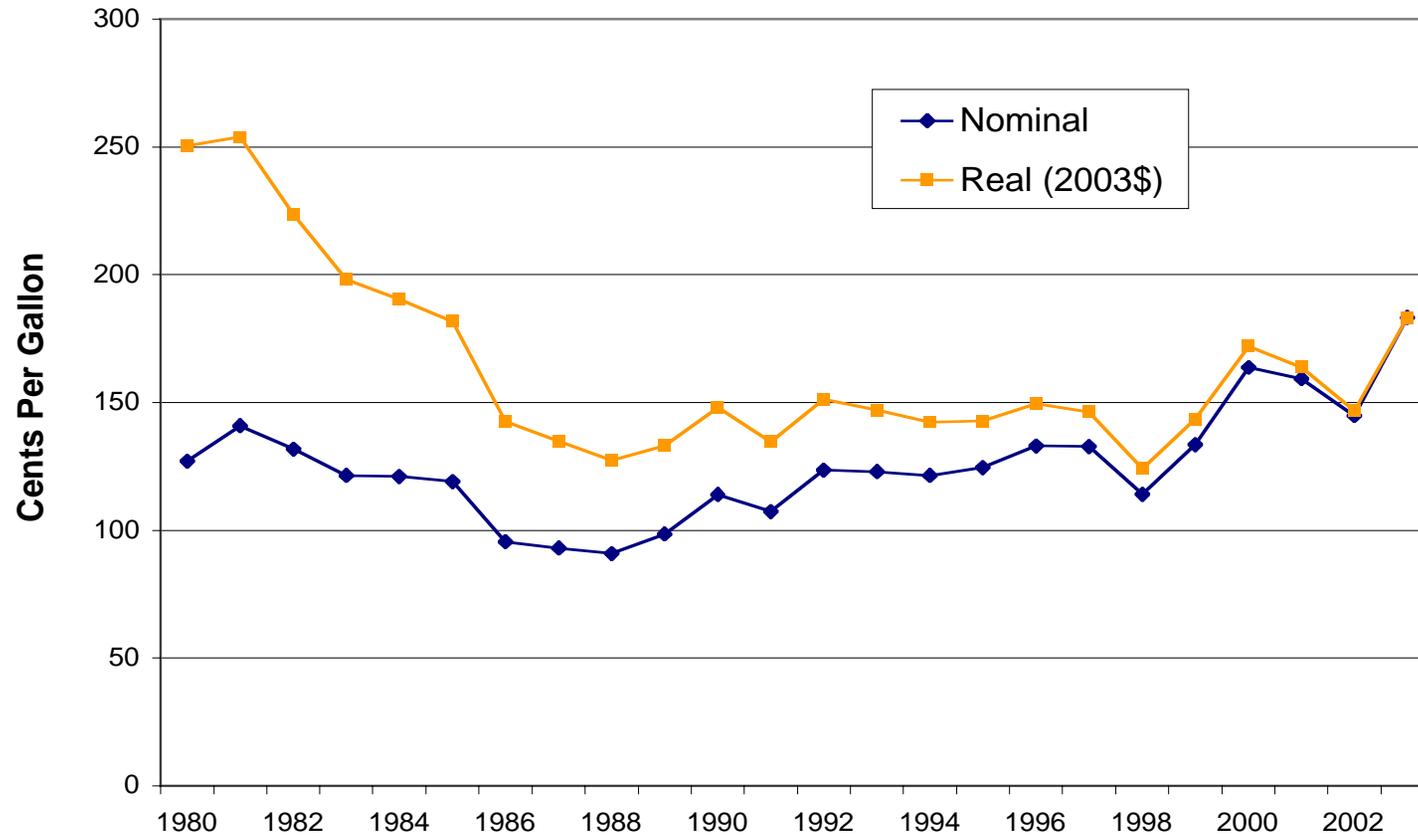
Alaska North Slope Crude Oil Prices



Source: Wall Street Journal



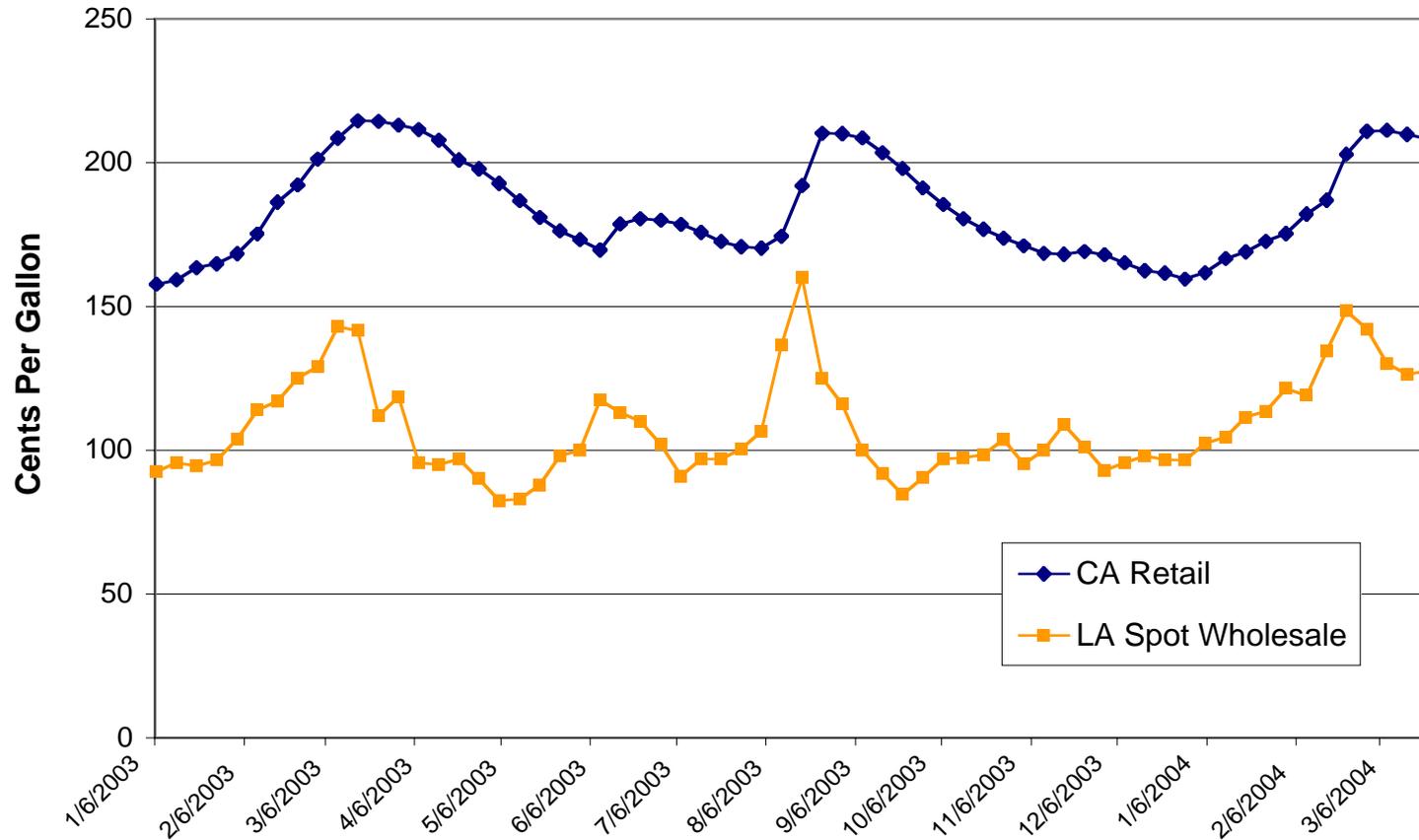
California Retail Regular-Grade Gasoline Prices (1980-2003)



Sources: 1980-1995 U.S. Bureau of Labor;
1996-2003 U.S. Department of Energy



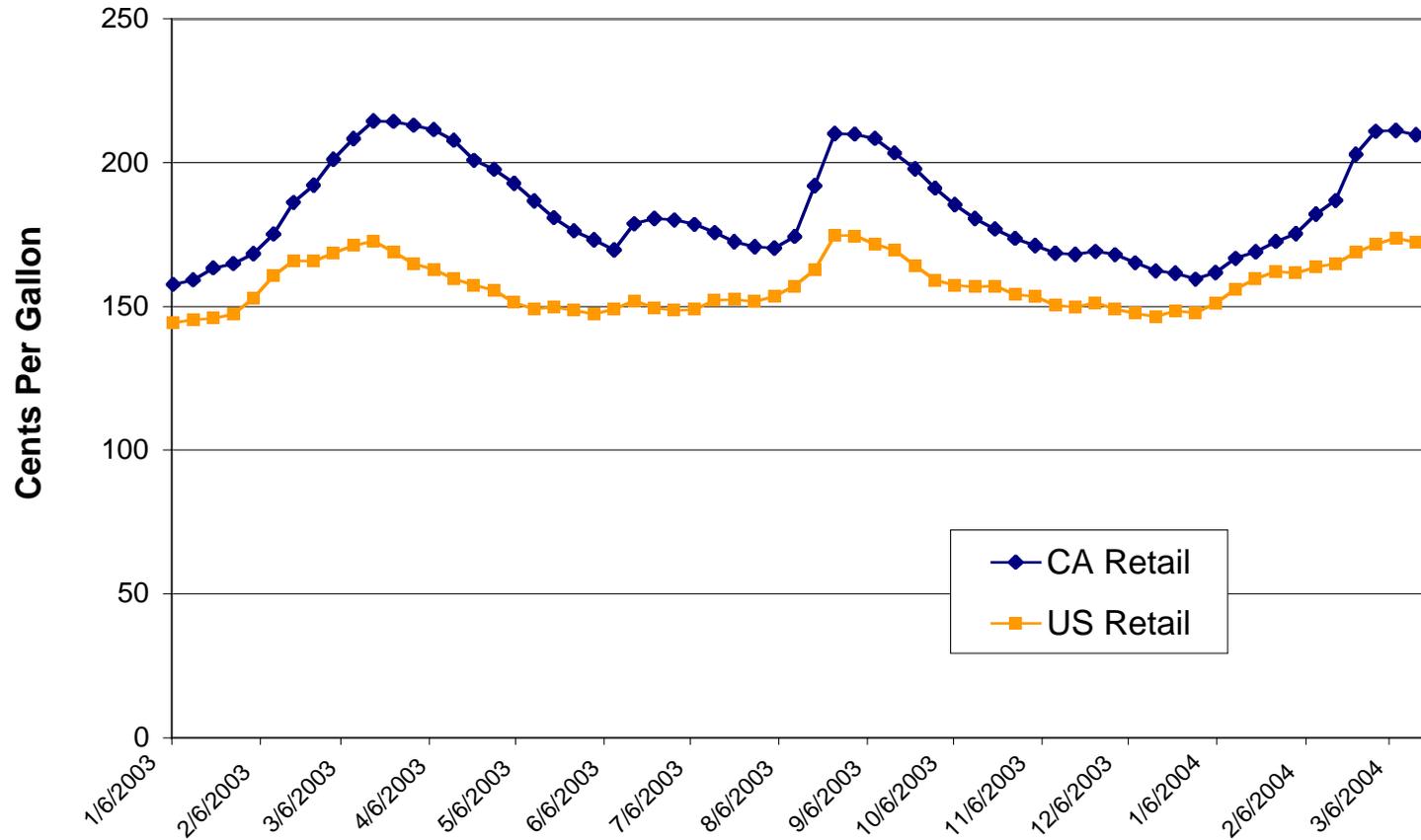
California Retail & Wholesale Regular Gasoline Prices (January 2003 to Present)



Source: U.S. Department of Energy



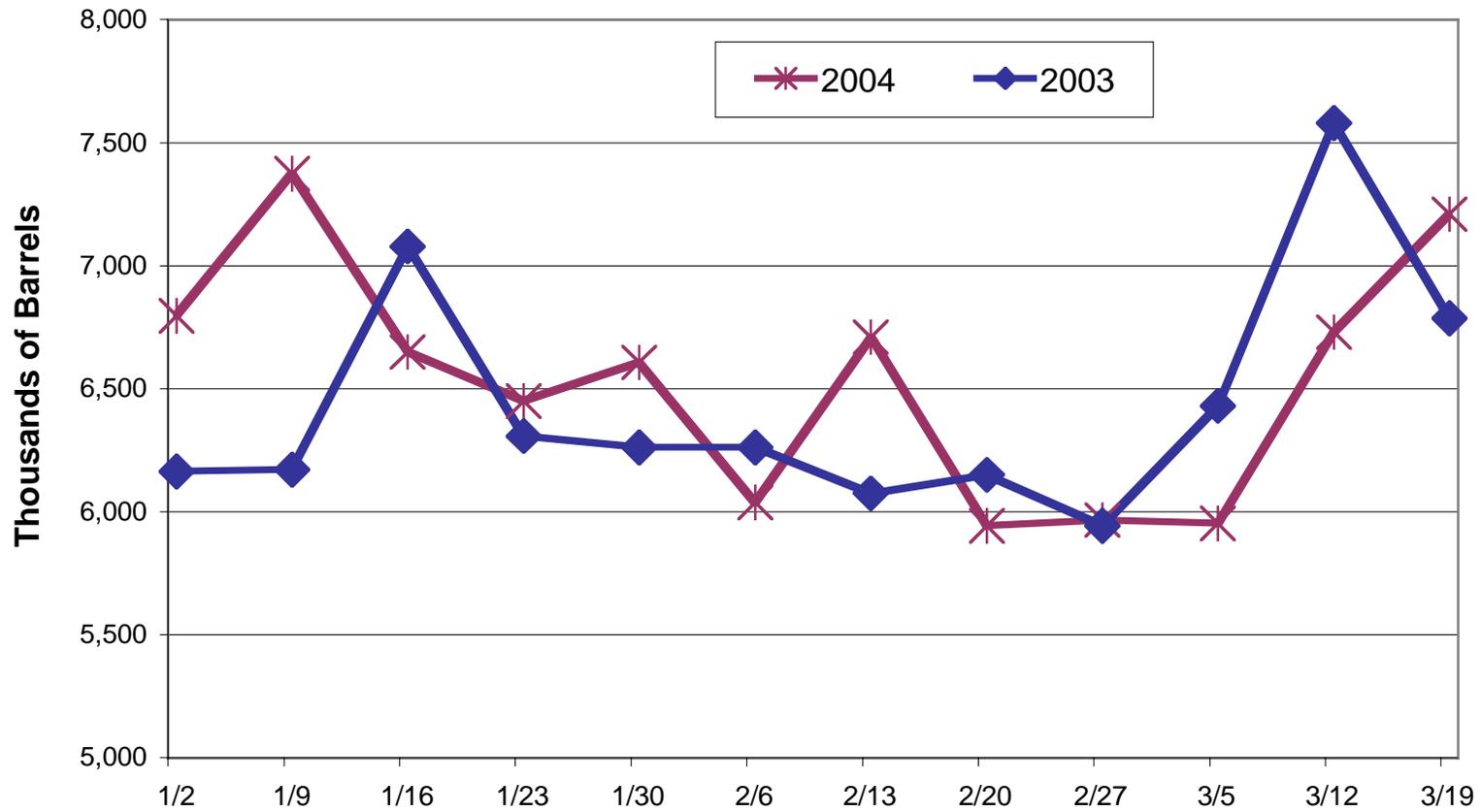
California and U.S. Retail Gasoline Prices (January 2003 to Present)



Source: U.S. Department of Energy



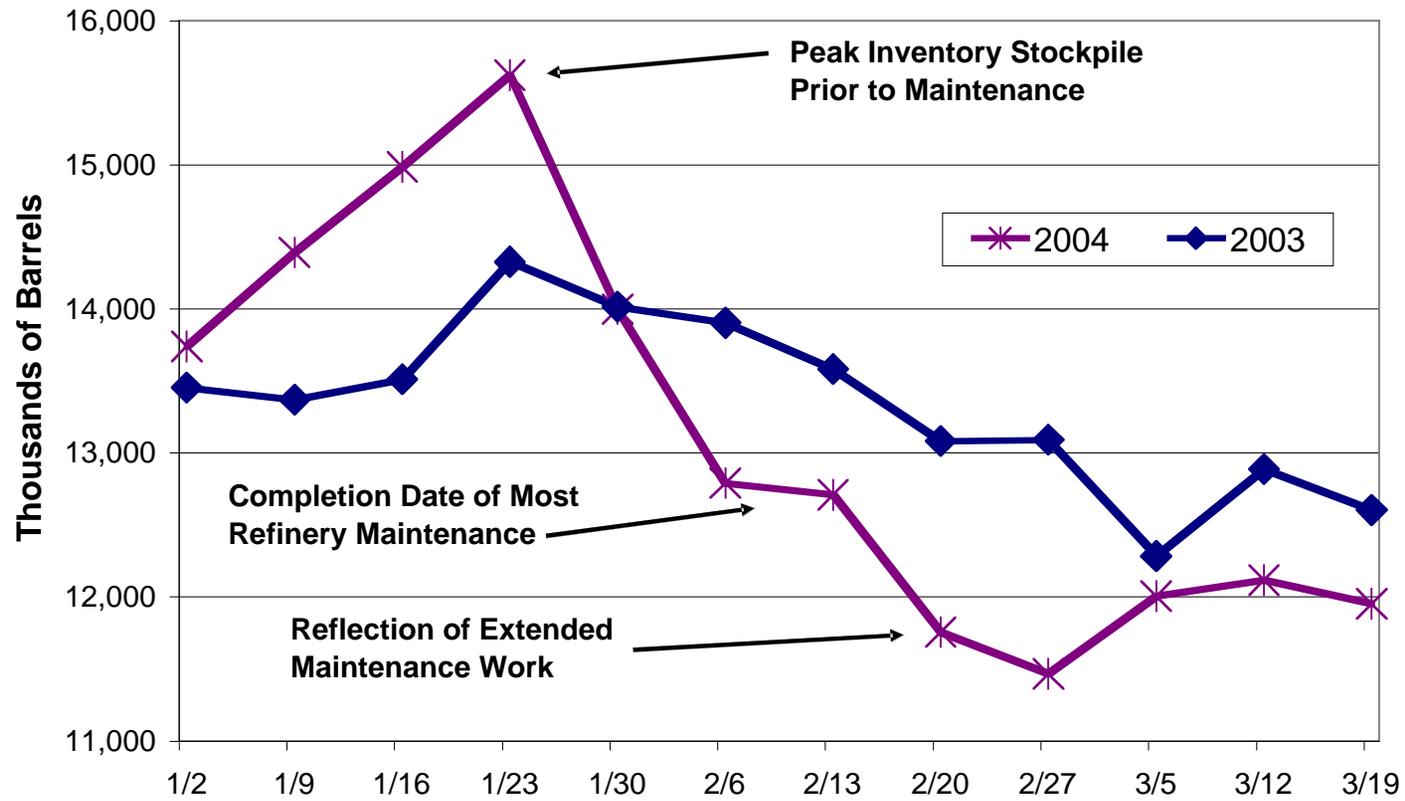
California Production of Reformulated Gasoline (Comparison of Jan-Mar 2004 with 2003)



Source: California Energy Commission



California Gasoline Inventories (Comparison of Jan-Mar 2004 to 2003)



Source: California Energy Commission



Current Actions

- Continue to pursue U.S. Environmental Protection Agency oxygenate waiver
- Collaborating with industry to improve collection of petroleum data
- Undertaking a comprehensive petroleum infrastructure evaluation
- Exploring with stakeholders ways to streamline permitting for petroleum infrastructure



Recommendations

- Strategy to Reduce Petroleum Dependence (2003) and Integrated Energy Policy Response (2003)
- Establish a goal to reduce gasoline demand (15% below 2003 levels by 2020)
- Increase non-petroleum fuels to 20% by 2020
- Encourage use of alternative fuel vehicles
- Double Corporate Average Fuel Economy standards
- Adopt tire efficiency standards



Price Volatility



CALIFORNIA ENERGY COMMISSION



For More Information about
Petroleum Information & Activities...

Visit the California Energy Commission's
web site at: www.energy.ca.gov