

Summary
Statement of John Cook
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Department of Energy
before the
Subcommittee on Consumer Affairs, Foreign Commerce and Tourism
Committee on Commerce, Science, and Transportation
U.S. Senate
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Prices for regular grade gasoline have risen over 20 cents per gallon across the country over the past 4 weeks. While the largest increases in gasoline prices over this period have occurred in the Midwest and Gulf Coast regions of our country, average prices along the West Coast are still the highest in the country at over \$1.70 per gallon.

Typically, gasoline prices on the West Coast, are the highest in the nation. This is largely due to two factors. First, the West Coast is geographically isolated from the rest of the country; thus petroleum markets in this region are mostly self-contained. Secondly, California, which represents a dominant share of West Coast gasoline demand, uses its own type of reformulated gasoline. California RFG has more stringent requirements than Federally mandated RFG. Not only does this make it more expensive to produce California RFG, but when supplies get tight, there is not a ready source of gasoline available immediately outside the region. By using a "boutique" blend of gasoline (i.e., a type only used in a limited area) changes in market conditions may cause larger price changes than might otherwise occur.

High gasoline prices are a result of low gasoline inventories across the country and low crude oil inventories, particularly on the West Coast. The specter of rolling blackouts in California this summer adds uncertainty to a situation that is delicately balanced between supply and demand. The potential exists for a substantial price "spike" to occur on the West Coast this summer, as has happened before. Although it may take weeks to arrive, if gasoline prices get high enough, it will encourage more supply into the West Coast system, thus reducing prices eventually.

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West Coast Retail Gasoline Prices

Thank you, Mr. Chairman. I would like to thank the Committee for the opportunity to testify on behalf of the Energy Information Administration (EIA).

As you know, gasoline prices have increased substantially in recent weeks. Prices for regular grade gasoline have risen over 20 cents per gallon across the country over the past 4 weeks, with additional increases likely to follow. While the largest increases in gasoline prices over this period have occurred in the Midwest and Gulf Coast regions of our country, average prices along the West Coast are still the highest in the country at over \$1.70 per gallon (Figure 1). Regular grade Reformulated Gasoline (RFG) prices along the West Coast are currently averaging nearly \$1.83 per gallon, with premium grade RFG averaging over \$2.02 per gallon. When gasoline prices reach these levels, consumers, industry, and policy makers alike demand to know the underlying causes. In my testimony before you today, I will attempt to describe these factors.

Why West Coast Gasoline Is Often the Most Expensive in the Nation

Typically, gasoline prices on the West Coast, are the highest in the nation. This is largely due to two factors. First, the West Coast is geographically isolated from the rest of the country; petroleum markets in this region are mostly self-contained (i.e., supplied by West Coast refineries). Thus, if supplies get tight, it can take weeks for resupply to arrive from outside the region. To satisfy demand, West Coast refineries operate at relatively high utilization rates, especially during the peak summer season. If there is a problem with a refinery or the distribution of supplies, or demand increases dramatically, markets along the West Coast can

tighten very quickly, thus causing prices to rise quickly. Since the entire West Coast market is interconnected, price pressures in one area often affect the whole region.

The second reason gasoline prices are typically higher along the West Coast is that California, which represents a dominant share of the West Coast market, uses a unique type of reformulated gasoline. California RFG has more stringent requirements than Federally-mandated RFG. Not only is California RFG more expensive to produce, but when supplies get tight, there is not a ready source of gasoline available immediately outside the region. By having a "boutique" blend of gasoline (i.e., a type only used in a limited area) changes in market conditions may cause larger price changes than might otherwise occur.

Parts of the Midwest have their own "boutique" blend of RFG, one that is blended with ethanol, rather than MTBE, which is used by most of the rest of the country as a blend stock for the Federally-mandated RFG. The unique nature of gasoline in the Chicago and Milwaukee areas was one of the reasons why Midwest gasoline prices temporarily rose above West Coast prices last summer when supplies were initially unable to meet demand at the start of the summer season. While not geographically isolated per se, the Chicago/Milwaukee market is partially dependent on distant Gulf Coast production. This combination, which effectively makes the Chicago/Milwaukee area an "RFG island", can result in very high prices, because significant distances are involved in acquiring a blend of RFG not produced by many refineries outside their market.

Gasoline Prices Are High Across the Country

As I stated earlier, prices are increasing dramatically across all regions of the country. There are a number of reasons for this.

First, crude oil prices remain high, nearly triple what they were as recently as early 1999. The change in crude oil prices alone would explain about 35-45 cents per gallon of the increase in gasoline prices since that time.

As importantly, gasoline inventories are currently very low throughout most of the country. EIA's preliminary estimate has total gasoline inventories at the lowest end-March level since 1963, which is as far back as EIA has compiled data. The situation has not improved in recent weeks, with mid-April gasoline inventories significantly less than has been averaged over the previous 5 years (Figure 2). For example, as of April 13, gasoline inventories in the East Coast (PADD I) and the Midwest (PADD II) are 10-15% less than the 5-year average for this time of year and even about 10% less than last year's low levels. When inventories are low, supplies immediately available to cover any imbalances in supply and demand are reduced and prices can become more volatile. Since U.S. refineries operate at very high utilization rates throughout the gasoline season, without inventories on hand, additional supplies must come from farther away, either from other parts of the country, or even foreign sources. As such, even the perception of tightening conditions, such as rumored refinery problems, can precipitate price pressure through "precautionary buying". In fact, while gasoline production has generally exceeded year-ago levels since the beginning of the year, extensive refinery maintenance this Spring has somewhat limited recent operations, resulting in a brief dip below year-ago levels in the second half of March. With demand resuming growth rates so far this year typical of the late 1990s, despite an apparent slowdown in the U.S. economy, an exceedingly tight gasoline balance has emerged,

resulting in very low stocks and rapidly rising wholesale prices. With spot prices rising 25 to 30 cents per gallon since mid-March in almost all regional markets, retail prices have begun to respond accordingly. Of course, high gasoline prices would encourage additional supply, both through increased production and imports. Thus, barring a sudden reversal in current patterns, further retail increases should be expected over the next few weeks, but prices could fall some thereafter if increased gasoline supplies enter the market.

While gasoline inventories are much lower than is normal for this time of year, crude oil inventories remain below typical levels as well, despite a dramatic increase in recent weeks. Nationally, crude oil inventories have improved considerably in the last few weeks, rising by over 35 million barrels to 313 million barrels, with the Gulf Coast region (PADD III) finally returning to 5-year average levels this past week. But, the situation is much worse in the West Coast (PADD V), where crude oil inventories are over 17% less than the 5-year average and more than 6% less than last year's low levels. With the West Coast a largely self-contained region, low crude oil inventories could contribute added pressure to already high product prices in the near future.

California and Oregon Gasoline Markets

As I mentioned earlier, the West Coast gasoline market is an interconnected one, where price pressures in one area can affect other areas in the West Coast. However, there are a few unique characteristics about both the California and Oregon gasoline markets that I would like to take a moment to address now.

Certainly, the use of California RFG is the most unique factor affecting California gasoline markets. But an often, unnoticed factor is that California

consumes more gasoline than any other state, nearly 39 million gallons daily in 1999, and whose demand is growing at 2 to 4 times the rate of California's gasoline production growth in recent years. These two factors combine to put pressure on refineries to produce at near maximum rates. With the balance between supply and demand so fragile, any problems with infrastructure, whether refining or distribution, could cause prices to increase substantially. An April 2000 General Accounting Office (GAO) report noted that while California had not experienced a greater number of price "spikes" than other regions of the United States, the increases experienced were larger. This finding is consistent with a system that has a finely tuned balance between supply and demand, with little or no room for error.

A new concern for California this summer is the possibility of rolling blackouts. California has already experienced rolling blackouts this Spring and hot summer weather suggests more are likely this summer. Without sufficient backup capability offline from the California grid, a rolling blackout could cause an entire refinery to have to shut down, which besides meaning less product being made available, would also disrupt pipeline flows. Typically, refineries are not built to shut down abruptly or to begin smooth operations immediately following a "cold start". With the delicate system that I have already described, many analysts are concerned rolling blackouts could further affect gasoline prices this summer. We are in communication with the California Energy Commission, as well as industry groups regarding this issue and will be closely monitoring the situation this summer.

Although California strongly influences gasoline market conditions for the entire West Coast, there are a few unique factors unique to Oregon that I would like to address.

Oregon's gasoline prices are usually about 15 cents per gallon higher than the national average, although currently they are about 10 cents below the national average, since prices have been increasing more elsewhere in the country than in Oregon recently. Oregon is one of only two states (the other being New Jersey) which has a ban on self-service gasoline stations. A GAO memo on Oregon gasoline prices released in March 2001 cited "industry experts" estimating that the self-service ban could add as much as 5 cents per gallon to the final retail price. In addition, Oregon's lack of refinery capacity makes it dependent on product shipments from outside the state, primarily California and Washington, thus increasing the transportation costs to get gasoline into the state. Then once in the state, transportation costs to get the gasoline to the retail station is generally higher than in other states since a large proportion of Oregon's gasoline is in rural areas. A tight supply and demand balance, a lack of excess refining capacity, stringent standards on California reformulated gasoline all impact the West Coast conventional gasoline market by effectively reducing the capacity available to make other products, including the conventional gasoline used in Oregon.

Conclusion

U.S. retail gasoline prices have risen substantially in the last three to four weeks, with further increases likely since even greater jumps have occurred at the spot level. This situation has come about as a result of low gasoline inventories across the country, a tight supply and demand balance, little excess refining capacity, and low crude oil inventories, particularly in the West Coast. With California requiring some of the cleanest gasoline in the world and the geographic isolation of West Coast markets from other regions, West Coast gasoline prices are

typically the highest in the country, as they are now. The specter of rolling blackouts this summer adds uncertainty to a typically delicate balance between supply and demand. The potential exists for a substantial price "spike" to occur on the West Coast this summer, even from already high levels, if problems are experienced at refineries or in the delivery system. Although it may take weeks to arrive, if gasoline prices get high enough, supply into the West Coast system would be encouraged, thus reducing prices eventually. But of course, no one really knows what will happen this summer. I can assure you that EIA will be actively monitoring the summer season and will provide as timely analyses as possible throughout the summer months.

This concludes my testimony, and I would be pleased to answer any questions the Committee may have.

Figure 1.

Figure 2.