

# McCULLOUGH RESEARCH

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## Comments on SB X1-2 Workshop on Maximum Gross Gasoline Refining Margin and Penalty

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November 28, 2023

Goethe once remarked that:

Truth has to be repeated constantly, because Error also is being preached all the time, and not just by a few, but by the multitude. In the Press and Encyclopedias, in Schools and Universities, everywhere Error holds sway, feeling happy and comfortable in the knowledge of having Majority on its side.

Although the renowned poet, playwright, novelist, scientist, statesman, theatre director, and criticist is long in his grave, it is useful to heed his advice and repeat the fundamentals frequently to answer the deluge of misinformation available in policy discussions.

The workshop today addresses three pivotal questions:

1. Whether a Max Margin and penalty are likely to cause greater imbalance between supply and demand in the California transportation fuels market.
2. Whether a Max Margin and penalty are likely to cause higher average prices at the pump on an annual basis.
3. Whether case-by-case exemptions from the Max Margin will allow refiners to demonstrate the need for a greater margin before making production decisions.

Answer to Question 1:

No. Elimination of California's price spikes will not reduce operations.

Discussions of gasoline prices often revolve around largely hypothetical shortages of gasoline. Price spikes in the California market often coincide with news stories from markets that have no physical connection with the U.S. west coast or revolve around the annual turnarounds of refineries. While the press releases appear plausible on first read, their relevance fades on reflection. Hurricanes closing drilling platforms in Louisiana generally

have little impact on world oil markets and since there is no pipeline between the Gulf Coast and California no physical relevance to California. The annual planned turnarounds are known months in advance. Refineries know that the turnarounds will reduce production, so they increase refined gasoline in anticipation of the planned shutdown. The refineries own expert testimony in previous litigations has established this.

A major forced outage can reduce production. However, California can – and does – import gasoline on the Pacific Rim. Sailing times vary by the port of departure, but new supplies of California gasoline grades are available in weeks – not months. Data on this abounds in the CEC archives – including the daily reports on gasoline output from previous price spikes.

The paradigmatic “imbalance between supply and demand” took place on October 30, 2012. On that day a very short-lived glitch in the supply of electricity to the Torrance refinery initiated an orderly shut down of the plant. Replacement gasoline supplies were quickly arranged, the plant resumed operations within days and gasoline inventories increased over the week.

Why did retail prices increase from San Diego to Seattle that day? The wholesale price of gasoline on the west coast is based on a market index published by the Oil Price Information Service (OPIS). Then, and today, wholesale and retail pricing adjusts overnight to the index published in the OPIS newsletter.

The index is based on reported trades to OPIS. In this case, very high prices set the index. The quantities traded on that day were insignificant. The motivations of the traders were unknown. However, the economic impacts on consumers were massive – approximately a dollar per gallon.

Answer to Question 2:

No.

Simply stated, speed limits do not cause accidents.

In 1905 George Santayana wrote that “Those who cannot remember the past are condemned, to repeat it.”

In 1998, California initiated complex and opaque rules governing the wholesale price of electricity. At the time there was effectively no market surveillance or regulation of such prices – as is true today for wholesale gasoline.

On May 25, 2000, prices in the California markets spiked. The causes stemmed from a variety of market manipulations ranging from imaginary plant outages to trades that artificially increased the price of electricity. On June 10, 2021, FERC implemented the wholesale price cap on the west coast. Plant operations improved completely, prices fell below the cap, and the California Energy Crisis was over. Interestingly, the price cap was never applied to a single wholesale transaction since prices fell below the cap and stayed there.

Over time, criminal and civil penalties punished the market leader and a variety of their allies in the California market. Billions of dollars in refunds were received by victims and the Supreme Court of the United States made new laws protecting consumers.

Restrictions to the maximum margin changes the incentives for any number of market abuses ranging from exaggerated public announcements to wash trades designed to raise the OPIS index. The management of the refineries will exercise more supervision over their California operations if they face the incentive to do so. Absent such incentives, the unexplained market events experienced over the past decade will continue.

Answer to Question 3:

No. Unless the refinery exemption issue is significant, case by case exemptions will be ineffective and misleading. A minimum cost level for an exemption must be identified.

This question reveals a great deal of confusion about plant operations:

1. Plants are operated on a monthly basis. A modern refinery is an incredibly complex facility. If the margin is positive, it will pay the refinery to operate according to its monthly operating plan. Refineries cannot “turn on a dime.”
2. “Margin” appears to be poorly understood. It’s normal meaning is the net income after all relevant costs have been subtracted from revenue. Any positive revenue is sufficient to keep the refinery on its monthly operating plan. Even a negative margin may keep operations at the plan if inputs and co-products cannot be adjusted.
3. “Case by case exemptions” assumes that CEC staff is able to evaluate the engineering and accounting details – effectively in real time. This is highly unlikely. Having provided expert witness testimony over the past forty years -- both in California and other states -- on the economics of industrial operations, I can state how impossible it will be to evaluate case by case information.
4. The only way to avoid an enormous amount of effort in evaluating smaller events at the refinery, it will be essential to set a specific – documented – dollar amount

for the cause of the exemption. For example, the failure and replacement of an hydrotreater is sufficient justification for an exemption review. The same would be true for a new high voltage substation. Periodic maintenance during the yearly turnaround would not be appropriate.