

**Statement of Bob Gregory
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Valero Energy Corporation**

**Before the Subcommittee on Energy Policy, Natural Resources and
Regulatory Affairs
United States House of Representatives**

**Field hearing on the California Gasoline Market: From MTBE to Ethanol
Diamond Bar, California
July 2, 2003**

Chairman Ose and Members of the Subcommittee, thank you for this opportunity to testify regarding the California gasoline market and issues related to ethanol and MTBE. My name is Bob Gregory, and I am a Vice President and General Manager of Valero Energy Corporation's Wilmington, California refinery.

Valero Energy Corporation (Valero) is a Fortune 500 company based in San Antonio, Texas with approximately 20,000 employees and revenues of nearly \$30 billion. One of the top U.S. refining companies, Valero has an extensive refining system with a throughput capacity of almost 2 million barrels per day. The company's geographically diverse refining network stretches from Canada to the U.S. Gulf Coast and West Coast. Valero has long been recognized throughout the industry as a leader in the production of premium, environmentally clean products, such as reformulated gasoline (RFG), California Air Resources Board (CARB) Phase II gasoline, low-sulfur diesel and oxygenates. Our Wilmington refinery employs 435 individuals and has a total throughput of approximately 140,00 barrels per day. Refined products are distributed from the Wilmington refinery by a third-party pipeline to a network of refined product terminals owned by third parties in southern California, Nevada and Arizona, and then on to our wholesale and retail customers.

Valero is a member of the National Petrochemical & Refiners Association, an organization with more than 450 member-companies, including virtually all U.S. refiners and petrochemical manufacturers. Valero supports the positions advocated by NPRA with respect to the motor fuel provisions of recently proposed federal energy legislation.

1. Motor Fuels Policies Should Focus on Increasing Supply

Mr. Chairman, the decision to examine the dynamics of the California fuels market could not be more timely. Decisions regarding motor fuels policies have substantial economic impacts, and a healthy domestic economy requires a stable supply of reasonably priced gasoline.

Refiners, such as Valero, are a vital link in the supply chain. Domestic refiners currently supply approximately 17 million barrels of refined petroleum products out of the 20 million barrels that the U.S. economy demands on a daily basis.

No new refinery has been built in the United States since 1976, and it is unlikely that one will be built here in the foreseeable future, due to economic and political considerations, including siting costs, environmental requirements, overall industry profitability and public concerns. U.S. refining capacity has increased because of added capacity at existing refineries, but it has become increasingly difficult for refiners to keep pace with the growing demand for petroleum products because of stringent environmental regulations and tight profit margins.

Refiners currently face a massive task of complying with four regulatory programs with significant investment requirements, all in the same timeframe. Refiners must shortly invest about \$20 billion to sharply reduce the sulfur content of gasoline and both highway and much of off-road diesel. Refiners face additional investment requirements to deal with state and possible federal limitations on ether use, as well as compliance costs with Mobile Source Air Toxics reductions and other limitations. This does not include additional significant investments needed to comply with stationary source regulations affecting refineries.

On the horizon are other environmental requirements that will necessitate significant investment. They are: the challenges and cost of increased ethanol use, expected federal or state programs mandating changes in diesel fuel properties (cetane and aromatics content, lower gravity), and the potential for significant proliferation of new fuels caused by the need to comply with the new 8 hour ozone NAAQS. These factors will also significantly impact fuel manufacture and distribution.

Refining earnings have recently been more volatile than usual, but refining returns are generally quite modest when compared with other industries. The average return on investment in the industry is about 5 percent; this is about what investors could receive by investing in government bonds, with little or no risk. This relatively low level of return, which incorporates the cost of investments required to meet environmental regulations, is one reason why domestic refinery capacity additions are modest, and why new facilities are unlikely to be constructed.

Domestic refiners will rise to meet the challenges of the current situation. We have demonstrated the ability to adapt to new challenges and keep products flowing to consumers across the nation. But, certain economic realities cannot be ignored, and they will impact the industry. Thus, refiners will, in most cases, make the investments necessary to comply with the environmental programs outlined above. In some cases, however, where refiners are unable to justify the costs of investment at some facilities, those facilities may close.

Decisions regarding gasoline and other refined petroleum products should be made consistent with efforts to increase domestic supply of refined petroleum products. As the National Petroleum Council (“NPC”) noted in a landmark report issued in 2000, the limited profit margins and high regulatory costs associated with refining create a precarious situation for the domestic refining industry. As the NPC explained, changes in motor fuels policies must be undertaken with great care because changes in product requirements can have a severe impact on the ability of refiners to provide an adequate supply of refined petroleum products to U.S. consumers. Valero and other refiners are making every effort to produce a reliable and affordable supply of vital petroleum products, and our fuels policy should work in concert with these efforts.

2. Banning MTBE Will Harm Consumers

Methyl tertiary butyl ether (MTBE) is a clean-burning fuel additive that satisfies the RFG requirements of the 1990 Clean Air Act. The Act requires that RFG contain two percent (by weight) of oxygen. Because it is readily available, easy to transport, efficient, and easily integrated into the nation's gasoline pool, MTBE has become the refining industry's oxygen additive of choice. Banning or reducing the use of MTBE will be bad for California and the nation, because such policies will further tighten gasoline supplies and may cause spikes in gasoline prices for consumers.

Today, many of America's drivers use cleaner-burning gasoline designed to cost-effectively reduce harmful motor fuel emissions and improve the air we breathe. Introduced in 1995, RFG is used today in the most polluted urban areas in 17 states and the District of Columbia. RFG usage accounts for about 34 percent of the total U.S. gasoline market (*i.e.*, 2.5 million barrels/day or 100 million gallons/day).

An Energy Information Administration (EIA) study recently showed that the supply reduction from the MTBE ban could increase retail gasoline prices nationwide by an average of four cents per gallon and more than ten cents per gallon in many of the largest metropolitan areas, which require RFG to keep air clean. This price increase will remove over \$6 billion from consumers' pockets. Additional investment costs to the refining industry for replacing infrastructure used to make and blend MTBE is estimated to be \$3.6 to \$10 billion. Finally, the additional subsidies needed for blending additional ethanol is expected to reach \$10 billion. Given the fragile state of our economy, it is not wise to impose these massive costs on consumers at this time.

Furthermore, banning MTBE will contribute to a gasoline supply crisis, since the ban results in a three to four percent reduction of total U.S. gasoline supplies. Such a supply loss equals the output of about five medium-sized U.S. refineries or about 400,000 barrels of gasoline blendstock per day.

3. Calls for an Ethanol Mandate Should be Rejected

History has shown that single-fuel mandates inevitably lead to higher gasoline costs and tighter and less reliable fuel supplies. Production of ethanol is highly concentrated, with one company alone controlling a large percentage of the ethanol market. While we need to encourage and develop renewable fuels, we must also address energy security. Our dependence on foreign oil is once again demonstrably troubling. Now is the time to enhance security in the gasoline market, not undermine it with a single-fuel mandate for ethanol. An ethanol mandate would likely contribute to higher gasoline prices, more instability in gasoline supply, and more damage to the environment.

MTBE comprises three percent of the United States supply, and its replacement, ethanol, comprises only one percent. The gap resulting from a shift from MTBE to ethanol will yield fuel shortages and potentially higher prices, while demand continues to rise. In fact, a report commissioned by the California Energy Commission predicted such a price increase,

precipitating California's delay on its MTBE ban by a year. The study found that banning the fuel could double gasoline prices.

Recently, one analyst at the Oil Price Information Service described current prices this way, "It's Ash Wednesday, and we're going to be asked to give up disposable income for Lent." The analyst noted that "high fuel prices rob consumers of money to pay for computers, cars, home improvements and other economy-boosting goods and services." ("No Stopping Gas Prices," *USA Today*, March 5, 2003, citing Tom Kloza). The article in which he was cited went on to assess complicating factors. And one of these was:

Conversion to ethanol instead of potential pollutant MTBE as an ingredient in summer-season gas. The change is cumbersome, and states such as California rely on distant states for corn-based ethanol. "Not a lot of folks can help them out if they get into trouble" with ethanol supplies, says Joanne Shore, senior analyst at DOE's Energy Information Administration. (*Id.*)

In addition, since smaller volumes of ethanol will replace larger volumes of MTBE in transition, valuable capacity will be lost. According to Jeremy Bulow, a Stanford University economist, the transition to ethanol simply means California will be able to make less of its own gasoline and will have to increase the amount of supply it imports from elsewhere. "It reduces the capacity of the refiners in California to produce gasoline," Bulow noted. (Alan Zibel, *San Mateo County Times*, Mar. 14, 2003).

While ethanol currently has a significant and growing share of the fuel pool, some have suggested that mandating its further use could answer price and supply questions. Valero believes that an ethanol mandate does not provide an acceptable answer to U.S. energy security needs, given ethanol's heavy dependence on fossil fuel inputs and its net negative energy yield. David Pimental of Cornell University further noted that, "Numerous studies have concluded that ethanol production does not enhance energy security, is not a renewable energy source, is not an economical fuel, and does not insure clean air. Further its production uses land suitable for crop production and causes environmental degradation." (*The Limits of Biomass Utilization*, August 16, 2001 at 9). In a study, published in *BioScience* in December 2002, Pimental and his associates at Cornell analyzed ten alternative energy sources. Of the ten, ethanol and geothermal production were found to be "not sustainable." The studies authors stated that, "Ethanol production requires more than 30 percent more fossil energy to produce a gallon of ethanol than the energy yield in a gallon of ethanol." Also, the ethanol technology causes serious environmental problems, including air, water, biological and soil pollution, the study found (for a review, see *Geotimes*, Feb. 2003, at <http://www.agiweb.org/geotimes/feb03/resources.html>) John Krummel, a senior research analyst at the Argonne National Labs, funded by the U.S. Department of Energy, said that Pimental's work on ethanol efficiency "shows the Achilles' heel of renewable energy: large land areas are needed for full deployment." *Id.*

4. Conclusions

The California gasoline market is highly volatile and consumers are vulnerable to hikes in gasoline prices and increases in air pollution that can result from flawed fuels policies. The

problems of tightness in supply and refining capacity are likely to be with us for the time being. The need to maximize energy security will continue as well. As new fuel choices present themselves, we should adopt public policies that do their best to minimize external costs associated with new fuels and fuel additives. We must maintain a robust and competitive market in fuel additives, and not allow one particular approach to dominate. Valero Energy Corporation is committed to continuing our efforts with states and the federal government aimed at accomplishing these goals.

Refiners and domestic gasoline consumers are best served by policies that do not limit flexibility in the motor fuels market by banning or mandating the use of specific products, such as ethanol. Banning MTBE or mandating the use of ethanol in gasoline could result in substantial negative consequences for refiners, consumers, and the environment because such actions would undermine supply, competition, and the use of fuel additives that protect public health by reducing air pollution.

Mr. Chairman, and other Members of the Subcommittee, I thank you for your careful attention to these matters. Valero Energy Corporation looks forward to working with you on a fair and effective national fuels policy – one that protects consumers, human health, and the environment.