

# LEGISLATIVE RESEARCH REPORT

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## PETROLEUM REFINERIES AND GASOLINE PRICES IN ALASKA

PREPARED FOR REPRESENTATIVE LES GARA

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You asked for information on issues that impact gasoline prices in Alaska. Specifically, you wanted the following information:

- ◆ Recent operating costs and profits for gasoline sales by Alaska refineries compared to those of refineries elsewhere in the nation;
- ◆ States that regulate prices charged by refineries and how such regulation might be applied in Alaska;
- ◆ A review of efforts by the State of Hawaii to implement wholesale price controls on gasoline.
- ◆ Whether any of Alaska's refineries are for sale; and
- ◆ Current gasoline prices in Alaska and the Municipality of Anchorage compared to the national average.

## SUMMARY

We were largely unable to precisely determine costs and profits for Alaska refinery operations. It is clear, however, that the proportion of gasoline prices attributable to refineries in the state has increased dramatically in recent months. Since March, the "refinery component" of regular gasoline, also known as the "refinery margin" (wholesale price minus the cost of crude oil), in Alaska increased over 230 percent, with over half of that increase coming since crude oil prices began dropping rapidly from all-time highs in July. By comparison, since March, the refinery component in the state of Washington increased about 63 percent and the average component for all U.S. refineries increased 120 percent.

In recent months, refinery margins have increased across the U.S. However, we are unable to explain why cost increases for Alaska refineries have outstripped those of other states. It is possible that Alaska refiners took advantage of easing oil prices to recoup profits lost through months of historically high crude oil costs, during which refiners were under pressure to keep their margins low. Whatever the reasons, it is clear that local refinery margins contribute to Alaska currently having the highest gasoline prices in the nation.

We located no states that currently regulate wholesale prices charged by refineries. Absent violations of antitrust laws through "price-fixing," in which two or more companies collude to set their prices at artificial levels, or the application of price gouging laws during a natural disaster or another emergency, it appears that refineries may generally set their prices as they see fit. That said, we located no obvious legal impediment to Alaska regulating gasoline prices through price caps or through mechanisms similar to those used by the Regulatory Commission of Alaska (RCA) to regulate utility prices.

Hawaii enacted a gas cap law in September 2005, but repealed the law eight months later when evidence suggested that it may have been counter-effective (gasoline prices rose after its enactment). The state continues to closely monitor the various components of gasoline costs in efforts to improve transparency in pricing; however, whether that effort will succeed in regulating prices is not yet clear.

On December 10, Governor Palin announced a joint effort between the state and Flint Hills Resources to evaluate the North Pole refinery's future. The owners of the refinery have been suggesting for some time that they may sell or close the refinery due to poor financial performance. The Governor did not, however, indicate that the state would be taking a stake in

the refinery. The joint analysis of the refinery's future is expected to take between three and six months.

## REFINERIES IN ALASKA

According to the Department of Natural Resources, Division of Oil and Gas (DOG), there are six refineries in Alaska with a combined crude oil distillation capacity of about 373,500 barrels per day (136.4 million barrels per year). The DOG notes that five of the six facilities are "topping" plants that remove the lighter, higher valued transportation fuels—most commonly gasoline and aviation fuel—from the crude oil stream and inject the degraded fuels back into the crude oil pipeline. Combined, these six refineries meet most of the need for gasoline and aviation fuel used by residential, commercial, industrial, and transportation customers across the state.<sup>1</sup>

Of the six in-state refineries, only two—Flint Hills Resources, near North Pole, and Tesoro, in Nikiski on the Kenai Peninsula—produce significant amounts of gasoline for the retail market. Therefore, as we discuss Alaska refineries with regard to gasoline, keep in mind we are primarily referring to these two facilities. The two refineries with the least capacity, located on the North Slope and owned by the crude oil producers, primarily provide products such as diesel fuel to support the drilling and production operations of the producers. The other two refineries, respectively located in North Pole and Valdez near the Trans Alaska Pipeline System (TAPS) marine terminal, are owned by Petro Star, Inc, a subsidiary of the Arctic Slope Regional Corporation. Table 1, shows the location and maximum daily distillation capacity of each of Alaska's refineries.<sup>2</sup>

It is important to keep in mind that Alaska refineries do not generally operate at full capacity. In early 2008, for instance, the three refiners that produce products for the commercial market—Flint Hills, Tesoro, and Petro Star—took in an average of about 127,000 barrels of crude oil per day; about 37 percent of their collective capacity.<sup>3</sup>

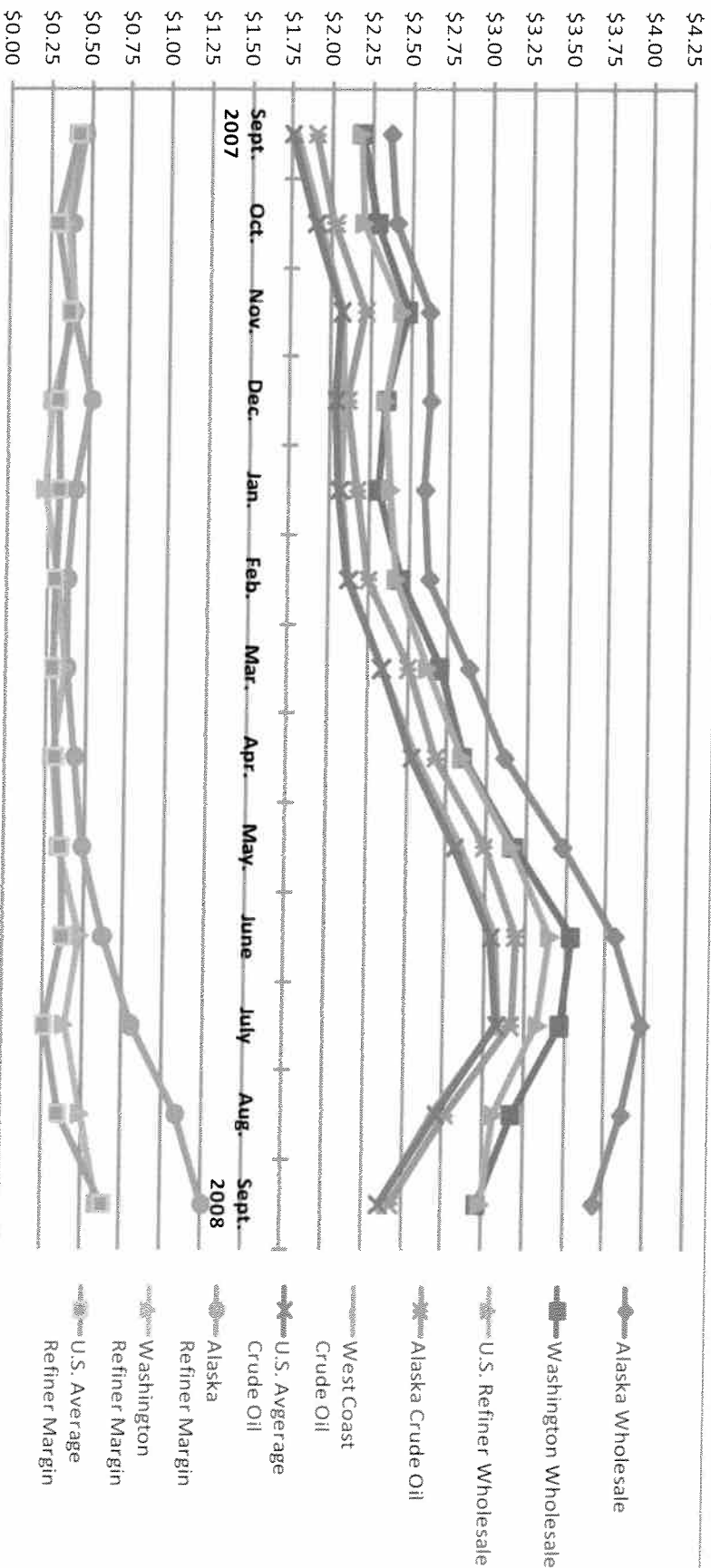
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<sup>1</sup> The major exception occurs in Southeast Alaska, where fuel retailers are able to patronize either in-state refiners or take advantage of the region's proximity to West Coast markets, as prices and shipping costs dictate. In addition, certain retailers—Safeway and Costco stores, in particular—sell high enough volumes of gasoline to make importing gasoline from refineries outside the state economical.

<sup>2</sup> We include, as Attachment A, *2007 Oil and Gas Report*, Alaska Department of Natural Resources, Division of Oil and Gas, Sec. Five, "Alaska Refining Sales and Consumption," <http://www.dog.dnr.state.ak.us/oil/products/publications/>.

<sup>3</sup> As a point of reference, according to a report by the Institute of Social and Economic Research (ISER), a standard 42 gallon barrel of oil produces between 44.6 and 48.4 gallons of refined product with the inclusion of various fuel additives. This output includes between 19 and 20 gallons of gasoline and about four gallons of jet fuel. The remaining output is divided among diesel fuel, heating oil, and "heavy oil" products such as industrial fuel and asphalt base. We include, as Attachment B, "Components of Delivered Fuel Prices in Alaska," *Institute of Social and Economic Research, University of Alaska Anchorage*, June 2008, pp 12-14; <http://www.iser.uaa.alaska.edu/Publications/>.

**Figure 2: Average Prices and Margins for Petroleum Refiners in Alaska, Washington and the U.S., September 2007 to September 2008**



**Notes:** All dollar amounts are per gallon.  
 1) Wholesale Gasoline is the average price charged by refiners to resellers.  
 2) "Alaska Crude Oil" is the "ANS Spot price," or the cost of Alaska North Slope crude oil on the commodity markets. We calculated this cost by dividing the price per barrel by 42 (the number of gallons in a standard barrel). Spot prices do not include the costs of transporting crude oil to refiners.  
 3) The "West Coast" and "U.S. Average" crude oil costs are "acquisition" costs—the prices refiners pay for crude oil delivered to their facilities.  
 4) We use the word "margin" to mean the proportion of gasoline costs attributable to a certain step in the process of bringing a gallon of gasoline to the retail market. In this context, only a percentage of the total margin is taken as profit.  
 5) "Refiner Margin" is refiner wholesale price minus ANS Spot price or acquisition costs, as applicable.  
**Sources:** U.S. Department of Energy, Energy Information Administration, <http://www.eia.doe.gov/>; ANS Spot prices are from the Alaska Department of Revenue, Tax Division, <http://www.tax.state.ak.us/>.