

**STATEMENT OF HOWARD GRUENSPECHT  
DEPUTY ADMINISTRATOR  
ENERGY INFORMATION ADMINISTRATION  
U.S. DEPARTMENT OF ENERGY**

**before the  
COMMITTEE ON ENERGY AND NATURAL RESOURCES  
UNITED STATES SENATE**

**September 12, 2006**

Mr. Chairman and Members of the Committee:

I appreciate the opportunity to appear before you today. The Energy Information Administration (EIA) is the independent statistical and analytical agency within the Department of Energy. We are charged with providing objective, timely, and relevant data, analysis, and projections for the use of the Congress, the Administration, and the public. While we do not take positions on policy issues, our work can assist energy policymakers in their energy policy deliberations. Because we have an element of statutory independence with respect to our activities, our views are strictly those of EIA and should not be construed as representing those of the Department of Energy or the Administration.

My testimony today focuses on the role of Alaska North Slope oil in U.S. energy markets. The recent reduction in crude oil production from Alaska's Prudhoe Bay Field due to concerns over pipeline integrity and the reductions in Gulf of Mexico production as a result of Hurricanes Ivan, Katrina, and Rita in 2004 and 2005 provide reminders that domestic supplies of crude oil, not just foreign supplies, are subject to unexpected interruptions.

### **Alaskan Crude Oil**

In 2005, Alaskan crude oil represented about 17 percent of total U.S. crude production and about 6 percent of all crude oil processed in the United States. While still an important part of U.S. supply, Alaskan oil production has declined from its 1988 peak of just over 2 million barrels per day to 864 thousand barrels per day in 2005, with all but 20 thousand barrels per day produced on the North Slope. The Prudhoe Bay Field, which has provided the bulk of North Slope production, averaged about 370 thousand barrels per day in 2005, down from a peak of almost 1.6 million barrels per day in 1988.

The Trans-Alaska Pipeline System (TAPS) conveys North Slope production 800 miles south to the ice-free port at Valdez, on the Prince William Sound. (**Figure 1**) TAPS is owned and operated by a consortium called the Alyeska Pipeline Service Company, the current shareholders of which are BP, ConocoPhillips, ExxonMobil, Koch, and Unocal, with ownership shares of 46.93, 28.29, 20.34, 3.08 and 1.36 percent respectively. While TAPS shipped as much

as 2.1 million barrels per day at peak flow in 1988, the average 2006 flow has been about 780 thousand barrels per day. Alyeska has stated that the pipeline can operate at rates as low as 400 thousand barrels per day.

On August 6, BP Exploration Alaska, Inc., which operates the Prudhoe Bay Field on behalf of itself and the other interest owners, announced that it would have to cut production from the field, pending acquisition of further information on the integrity of the transit pipelines that carry the produced oil to TAPS. (BP has a 26.3 percent ownership interest in the Prudhoe Bay Field, and its share of production in the field represented about one-third of BP's total Alaskan production in 2005.) Initially, concerns were raised that Prudhoe Bay production might be stopped altogether, but it was soon determined that only a part of production would have to be taken offline for an extended period. According to the State of Alaska, Prudhoe Bay production for the month of August averaged 189 thousand barrels per day, which is about half of its August 2005 level.

### **Markets for Alaskan Crude and Potential Disruption Impacts**

West Coast refineries in California and Washington have been the primary market for Alaskan crude since the inception of North Slope production. Before 1995, when the prohibition on the export of Alaskan crude was lifted by Congress, any Alaskan crude that was not used in Alaska, Hawaii, or the U.S. West Coast was shipped to other U.S. markets, mainly the U.S. Gulf Coast. Following the lifting of the export ban, the West Coast remained by far the dominant market for Alaskan crude, although some Alaska oil was exported through April 2000. Since 2000, with the exception of a single export shipment made in 2004, all Alaska crude not consumed within the state has been shipped to U.S. refiners on the West Coast and in Hawaii.

As production in Alaska has declined, the share of crude input to West Coast refineries that is supplied by Alaska oil has also fallen (**Figure 2**). In 2005, oil refineries in California and Washington received an average of 748 thousand barrels per day from Alaska, 32 percent of their total crude oil receipts of 2.368 million barrels per day. Other domestic production, primarily from California, provided 30 percent of crude receipts, and imports provided 38 percent. This reflects a substantial reduction in the role of Alaska crude compared to 1996, when refineries in these two states received an average of 1.164 million barrels per day of crude from Alaska,

accounting for 50 percent of their total crude supply. A decade ago, imports provided only 13 percent of crude supply to California and Washington refineries.

Given the current disposition of Alaskan oil, West Coast refineries are the most immediately impacted by a cutback in the flow of oil from Alaska, although loss of any crude supply has a ripple effect throughout the world market as supplies are shifted to fill gaps affecting a specific region. However, the cushion provided by relatively high crude oil inventories in advance of the recent production loss and the modest size of the reduction in flows has kept the present Alaskan supply shortfall from creating any major problems. Since the cutbacks of Alaskan crude oil production began in early August, we have not seen any significant impact on crude runs in California or Washington refineries.

West Coast (Petroleum Administration for Defense District V (PADD V)) crude oil inventories were at the high end of the typical range at the beginning of the month before the announcement, and would be expected to drop by 2.4 million barrels during August. In actuality, they fell 3.8 million barrels between July 28 and August 18, but remained within the typical range for that time of year. Because Alaskan crude oil produced prior to August would still have been arriving on the West Coast during part of this time, it is not clear that the inventory reduction was associated with the August Alaskan production reduction. From August 18 through September 1, West Coast inventories have increased slightly to a level in the middle of the typical range.

The response to an extended disruption in supply from Alaska will likely involve some increase in crude oil imports. One factor that would tend to mitigate the impacts of a disruption in supply from Alaska on West Coast petroleum product markets is that West Coast refineries are among the world's most sophisticated, in part due to the very stringent clean fuel requirements in the California market. These refineries have the capability to process different types of crude oil from many sources, providing them with more flexibility than so-called simple refineries, which require a relatively narrow range of crude oil types in order to produce their preferred product mix.

Current major import sources for California and Washington refineries are Saudi Arabia, Ecuador, Iraq, and Canada. **(Figure 3)** While increased imports could ultimately flow from a variety of sources, timing considerations might favor an initial surge in imports from nearby suppliers, such as Ecuador, Canada, and Colombia, with more distant makeup volumes arriving later as a result of companies taking precautions to cover their supply needs. Complete import data are not yet available for August, but there is some preliminary evidence of increased imports.

Although EIA has been asked to provide some insights into the possible impacts of a hypothetical disruption affecting more, or even all, of Alaska's crude oil supply, it is very difficult to generalize, because the extent of any impacts would depend on myriad factors, such as the level of PADD V crude and product stocks, world surplus capacity, seasonal factors, and the perceived duration of the hypothetical disruption. Looking just at the global upstream balance, EIA estimates the current excess production capacity worldwide is only about 1.0 to 1.5 million barrels per day, with all of this residing in Saudi Arabia. At the current low level of worldwide surplus production capacity, the loss of around 800 thousand barrels per day of supply from Alaska for an extended period could trigger a noticeable rise in the world oil price. Initial responses by West Coast refiners would likely include both some drawdown of crude oil stocks and efforts to increase crude imports, as described above.

### **Short-Term Energy Outlook**

To conclude my testimony, I would like to summarize the short-term outlook for petroleum markets, which we released today as part of our September *Short-Term Energy Outlook* (STEO).

While August began with a surge in petroleum prices, prices for both crude oil and gasoline have been falling steadily over the last five weeks. The U.S. average retail price of regular motor gasoline fell from \$3.04 per gallon on August 7, 2006, to \$2.73 per gallon on September 4, 2006, and prices are expected to fall to an average of \$2.55 per gallon in January 2007 before rising again into next summer. In 2006 and 2007, we expect the West Texas Intermediate (WTI) crude oil spot price to average around \$70 per barrel and we expect retail regular gasoline prices to average about \$2.66 per gallon in both 2006 and 2007.

Projected world petroleum consumption growth is 1.2 million barrels per day in 2006 and 1.7 million barrels per day in 2007, notwithstanding recent price levels. However, EIA has reduced expected oil demand for 2006 and 2007 downwards for the second consecutive monthly STEO in response to slower demand growth in the Organization for Economic Cooperation and Development (OECD) countries.

Surplus world crude oil production capacity is expected to increase slightly in 2007, but will remain low enough that existing and potential supply problems in Alaska, Iran, Iraq, Nigeria, and Venezuela may continue to raise concern. Because of these factors, as well as the continued tight supply-demand balance, EIA expects little relief from current pricing patterns.

First-half 2006 production data show non-OPEC production growth of around 0.3 million barrels per day compared to the same period last year, and annual growth for 2006 will likely total around 0.6 million barrels per day, reflecting both new projects and the recovery from hurricane impacts that affected production during the last four months of 2005. Non-OPEC production is projected to increase by 1.4 million barrels per day in 2007, with new projects in the Caspian Region, Africa, and Brazil expected to add more than 0.9 million barrels per day of new production.

OECD inventories began the second quarter 2006 at the upper end of their past 5-year range for this time of year. However, when measured on the basis of how many days of demand the current supply could meet, OECD inventories were only in the middle of their observed 5-year range. By the end of 2007, EIA projects days of supply of OECD inventories to finish at the bottom of their 5-year range for that time of year, which is expected to make the market even tighter.

Average domestic crude oil production is expected to decrease by 23 thousand barrels per day, or 0.4 percent in 2006, to a level slightly under 5.1 million barrels per day. For 2007, a 7.6 percent increase is expected, resulting in an average production rate of about 5.5 million barrels per day for the year.

Total U.S. petroleum consumption is projected to be unchanged in 2006 compared with 2005. In 2007, total consumption is expected to increase by 2.0 percent. While motor gasoline

consumption exhibited almost no growth in 2005, it is projected to grow 1.0 percent in 2006 and 1.2 percent in 2007, reflecting anticipated continued U.S. economic growth. Distillate (diesel fuel and heating oil) consumption, having increased 1.3 percent in 2005, is projected to increase 1.8 percent in 2006 and 2.2 percent in 2007.

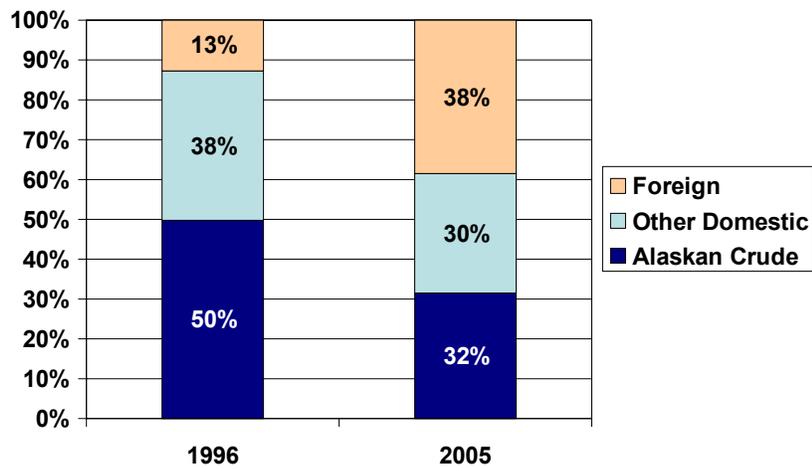
Total U.S. primary motor gasoline stocks at the end of August were 8 million barrels above the previous 5-year average. Total motor gasoline stocks, which fell by an average of 10 million barrels in August in the last 5-year period, fell by only 2 million barrels this August. The moderate decline in stocks, the expected seasonal decline in gasoline demand, and the changeover from summer-grade to winter-grade gasoline this month--which is less expensive to produce--all combined to lower gasoline prices in August. Although distillate stocks were 10 million barrels above the previous 5-year average at the end of August, diesel fuel prices have not fallen as much as gasoline prices have. Global demand for distillate fuels, particularly in Europe and Asia, are expected to keep this market tight. While diesel fuel prices are expected to decline over the next few months, heating oil prices are projected to increase as winter demand for this heating fuel grows.

Mr. Chairman and members of the Committee, this completes my testimony. I would be happy to answer any questions that you might have.

**Figure 1. Overview Of Alaska**



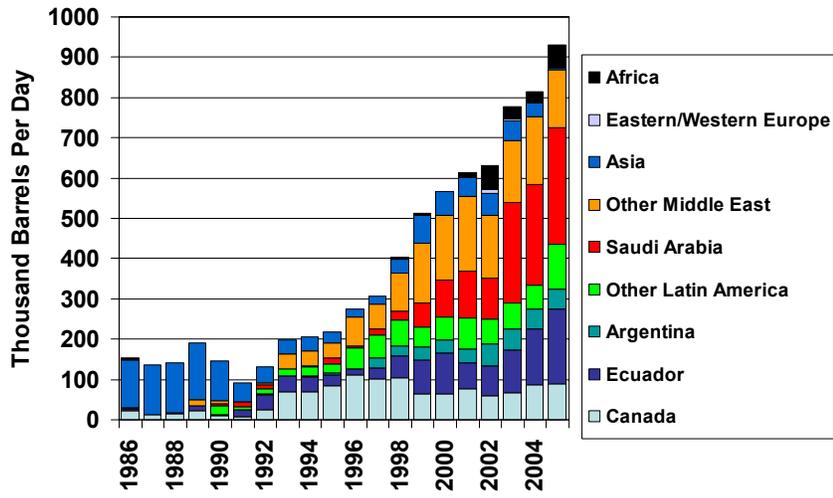
**Figure 2. CA and WA Refinery Crude Oil Receipts by Source**



Source: EIA (Percents may not add to 100 due to rounding.)



**Figure 3. Crude Imports into CA and WA**



Source: EIA

