

EXECUTIVE SUMMARY OF PIPELINES AND REFINED PRODUCTS REPORT
PRESENTED TO THE
NORTH DAKOTA INDUSTRIAL COMMISSION

April 22, 2008

1. There are current efforts supported by the State already underway to increase refinery capacity and fuel production.
 - a. The Oil and Gas Research Council provided funding for a study to determine the feasibility of a private refinery in the Williston area. The study is due out in September.
 - b. The Three Affiliated Tribes is working on permitting a refinery within the Reservation.
 - c. American Lignite Energy is exploring a coal-to-liquids plant that would produce over 1.38 million gallons of liquid fuel per day.
 - d. Tesoro is using State sales tax incentives to improve reliability and increase low sulfur diesel fuel production.
 - e. The Pipeline Authority is working to increase pipeline capacity.

2. North Dakota's Tesoro refinery produces more petroleum product than the State consumes. Any increased production through either refinery expansion or new construction would likely have to be exported to external markets outside North Dakota.
 - a. Tesoro currently produces approximately 881 million gallons of gas and diesel per year. In 2007, North Dakota consumed 828 million gallons of gas and diesel.
 - b. North Dakota has four refined product pipelines that either start in North Dakota, cross the State, or end in the State. Those pipelines bring competing product from regional refineries into North Dakota from Montana, Kansas, Minnesota, and Canada.

3. There are current efforts to expand and build refineries in the region.
 - a. The Coffeyville refinery in Kansas added 15,000 barrels per day.
 - b. The Flint Hills refinery in Rosemount, Minnesota added 50,000 barrels per day capacity at the end of last year.
 - c. Conoco-Phillips is considering a 10,000 barrel per day expansion in Billings, Montana.
 - d. Hyperion, a Texas energy group, is considering a 400,000 barrels per day refinery near Sioux Falls, South Dakota at an estimated cost of \$8 billion.

4. A local refinery does not necessarily translate to lower fuel prices. According to AAA, retail gasoline prices in Bismarck/Mandan, which has a refinery, are consistently three to eight cents higher than Fargo where there is no refinery. Montana has four refineries and their fuel prices are frequently higher than North Dakota.

5. The disruption experienced in the summer of 2007 was an anomaly.
 - a. Four large regional refineries that provide product to North Dakota were shutdown due to fires, floods, scheduled maintenance, and expansion projects.

- b. The shutdowns aggravated supply shortages that occurred during peak fuel consumption months.
 - c. Only a few times over the last several years has the price of ND fuels exceeded the national average
6. While there hasn't been a new refinery constructed in the last 30 years, there has been an increase in U.S. refining capacity.
- a. It is more cost effective to expand a refinery than to build new. API estimates it would cost at least \$24,000 per daily barrel of oil process for a new refinery and \$15,000 per daily barrel of oil process for the expansion of an existing refinery.
 - b. A new refinery with reasonable economy of scale would likely cost at least \$3 billion dollars, excluding pipeline infrastructure
 - c. Pipelines to carry refined products are very expensive. For example, a 10" pipeline from Bismarck to Minneapolis might cost upwards of \$225 million.
 - d. The permitting process for a new refinery could take at least 5 to 10 years.
 - e. Market uncertainty. Two refineries closed in North Dakota because they were not economically viable.