# **News Release**

February 16, 2004

# **Husky Energy Announces Plan to Build Major Ethanol Facility**

**Regina, Saskatchewan** – Husky Energy announced today that it would proceed with the construction of a major ethanol facility adjacent to its heavy oil Upgrader at Lloydminster, Saskatchewan. The plant is scheduled to be operational by the end of 2005. The new ethanol plant would be the largest in western Canada and have an annual production capacity of 130 million litres. The plant will cost approximately \$90-\$95 million to build.

"Husky Energy is committed to continually improving fuel quality and expanding its operations to meet consumer demand," said Mr. John C.S. Lau, President & Chief Executive Officer of Husky Energy. "Husky's goals for this expansion are to make cleaner fuels and to provide ethanol for the refining industry. This initiative will also support our current program of ethanol-blended fuels marketed under our Mother Nature's Fuel brand," said Mr. Lau.

Ethanol is an oxygenate derived from biologically renewable sources, such as grain, corn or wood waste. When added to gasoline, ethanol promotes fuel combustion, raises octane levels and prevents fuel line freezing. The use of ethanol-blended fuel also reduces carbon monoxide emissions, ozone precursors and net emissions of greenhouse gases. The federal government agency Environment Canada has designated ethanol-blended gasoline as an Environmental Choice product.

"This is a significant investment in Saskatchewan, in the region, and in Lloydminster," said The Honourable Lorne Calvert, Premier of Saskatchewan. "It is a major step towards our goal of growing the economy in a 'green' and sustainable way. In addition to the environmental benefits arising from ethanol use, this facility also provides a new market for Saskatchewan grain farmers. It means cleaner fuel and more jobs. We are extremely pleased to see this major expansion in our biofuels production."

Mr. Lau commended the Saskatchewan provincial government and the Federal government for demonstrating the commitment required to reduce Canada's greenhouse gas emissions. "Both levels of government should be congratulated for delivering on their commitment to the economy and the environment," Mr. Lau said.

Husky Energy has established itself in the market development of ethanol-blended fuel, and has received government recognition for the low combustion emissions in its ethanol-blended fuel. Ethanol-blended gasoline is available at Husky and Mohawk branded service stations across Canada.

Husky Energy is a Canadian-based integrated energy and energy related company headquartered in Calgary, Alberta. Husky Energy is publicly traded on the Toronto Stock Exchange under the symbol HSE.

Certain information in this release may contain forward-looking statements. Actual future results may differ materially. Husky's annual report to shareholders and other documents filed with securities regulatory authorities describe the risks, uncertainties and other factors, such as changes in business plans and in the estimated amounts and timing of capital expenditures, that could influence actual results. Husky assumes no obligation to update forward looking statements should circumstances or management's estimates or opinions change.

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### **HUSKY LLOYDMINSTER ETHANOL PLANT**

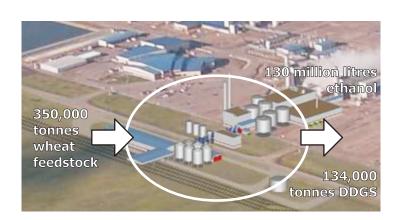
- The I30-million litre per year ethanol plant will be located adjacent to the existing Husky Upgrader complex in Lloydminster, Saskatchewan.
- Plant capacity is sufficient to supply the Saskatchewan gasoline blending demand.
- The ethanol plant will be another strategic asset for Husky in the Lloydminster region. Husky is active in the production of heavy oil and gas in the area, and owns and operates:
  - the 77,000 barrel per day Husky
    Lloydminster Upgrader used to upgrade heavy oil into synthetic crude oil,
  - ➤ a 2,050 kilometre pipeline infrastructure in the bitumen corridor,
  - ➤ a 25,000 barrels per day asphalt refinery, and
  - ➤ 50 percent of a 215 megawatt electricity cogeneration facility.
- The ethanol will be produced from grain-based feedstock utilizing proven technology converting starch into sugars and fermenting the sugars into alcohol compounds that are separated through distillation (see attached diagram).
- The grain will be primarily sourced locally with most of it delivered by truck.
- The production of ethanol and use of ethanolblended gasoline provides a number of benefits including:
  - ➤ for automobiles prevents pre-ignition, keeps engine clean
  - ► for the environment feedstock is a renewable resource, reduces air pollution
  - supports agricultural grain-based economy
- Distillers Dried Grain with Solubles will also be produced. DDGS is:
  - a high protein feed that can be utilized by dairy and beef cows, hogs and poultry,
  - produced solely from the fermentation of grains and does not include any animal byproducts, and
  - marketed to agricultural feed operations across Saskatchewan and North America.

#### **OPERATIONS AT A GLANCE**

- approximately 40-60 person-years of engineering during design and construction.
- during construction phase, over 200 person-years of employment will also be created.
- plant is expected to be operational in 2005.
- anticipated that approximately 15-20 new full-time permanent positions will be created.

#### **OPERATING STATISTICS**

- 130 million litres per year of fuel grade ethanol production.
- 350,000 tonnes per year of grain feedstock.
- 134,000 tonnes per year of Distillers Dried Grain with Solubles (DDGS) enough to feed about 100,000 cows per year, based upon a 20 percent DDGS ration of total feed.



#### SIMPLIFIED PROCESS DESCRIPTION

- The basic process is the enzymatic hydrolysis of starch to sugars and the fermentation of the sugars to ethanol via the addition of yeast. The ethanol solution is further distilled and dried to produce anhydrous ethanol.
- Grain is received into grain storage by rail and trucks and fed via conveyors into hammermills where it is ground into a fine powder.
- The resulting "meal" is then mixed with water and enzymes where it is then heated in cookers to liquefy the starches present in the grain. The addition of enzymes converts the starches to fermentable sugars.
- The sugars are then fermented to ethanol and CO<sub>2</sub> through the addition of yeast.
- Distillation columns are used to separate the ethanol from the mash and molecular sieves are used to further purify the ethanol.
- A small amount of gasoline from the denaturant storage tank is added to make the ethanol unfit for human consumption. Denatured ethanol is then sent to storage and subsequently to end markets by truck and rail.
- The bottoms off of the distillation columns are passed through centrifuges, evaporation systems and dryers to form the solid by-product Distillers Dried Grains with Solubles (DDGS). The DDGS is then sent to storage and markets by rail and truck.



## **Schematic of Proposed Facility Process**

