

FLINT HILLS RESOURCES PINE BEND – ECONOMIC IMPACT

Flint Hills Resources Pine Bend is a leading producer of the transportation fuels that power the Midwest.

Since it was established as the Great Northern Oil Company in 1955, the Flint Hills Resources Pine Bend refinery has played a major role in providing the transportation fuels used in Minnesota and throughout the Midwest. Today, Pine Bend is a leading producer of fuels and other petroleum-based products and is among the cleanest, most efficient and safest refineries in the country.

The refinery uses North American crude oil to produce gasoline, diesel, jet fuel, and other products such as asphalt and heating fuels. The refinery has a capacity of 339,000 barrels per day, or 14 million gallons.



- 1,300 full-time employees, including more than 600 members of the United Steelworkers Local 662 Union
- Largest continuous construction site in Minnesota, with an average of about 1,000 contractors working onsite on any given day
- Approximately \$200 million in annual maintenance work
- \$1.7 billion in upgrades and improvements to the refinery since 2010



- Pine Bend is the largest private employer in Rosemount, and represents a significant portion of the city's tax base

Job Creation. Statewide, Flint Hills Resources employs 1,300 full-time workers. Separate studies by Harrah Analytics and the Minnesota Department of Employment and Economic Development estimate that Flint Hills Resources is responsible for supporting more than 5,000 Minnesota jobs.

Investment. Flint Hills Resources recently completed work on approximately \$600 million in new projects at the Pine Bend refinery that are resulting in improved reliability and a reduction in key emissions. In the last 10 years, work at the refinery has been the equivalent of building at least two Vikings stadiums. During much of that time, Pine Bend's average daily construction workforce exceeded the number of people who worked at the Minnesota Vikings stadium during peak construction.



State-of-the-art innovation. Flint Hills Resources Pine Bend refinery is making several major investments to improve its efficiency and help lower emissions, including a state-of-the-art Combined Heat and Power system and an Ammonium Thiosulfate project that will convert sulfur to liquid fertilizer and help lower vehicle tailpipe emissions. The ATS project could be put into operation as early as 2018.

New work spaces. Flint Hills Resources opened two new buildings that provide additional work space for employees and contractors. A new 135,000-square-foot administration building provides space for 500 engineers, designers, and construction managers. A new high-tech test laboratory is used by scientists to perform about 35,000 product quality tests each month.

New technology and improved efficiency. Early in 2016, Flint Hills Resources announced several other projects it is considering that would improve Pine Bend refinery's efficiency. The projects include updating equipment with new technology, making the refinery more energy efficient, and improving other refinery process units, totaling about \$750 million. The projects are subject to regulatory review, require permits, and must also receive final approval from Flint Hills Resources' management. If approved, the refinery expects to begin construction in 2017.

Combined Heat and Power (CHP) system. The refinery is constructing a state-of-the-art CHP system that will allow it to operate more efficiently while reducing greenhouse gas emissions from Minnesota's current energy supply mix. The CHP system will use natural gas and a heat recovery process to produce approximately 50 megawatts of electricity, or roughly 40% of the energy required to power the refinery. The \$150 million system is expected to be operational by 2018.

