







## Price Projections

### Oil Prices

Oil prices are determined in the international markets and are difficult to project. Just as the historical data shows great swings in the price of oil, there is also considerable uncertainty about future prices. The future price of oil is linked to the unpredictability of world oil supplies and world economics.

Major factors affecting oil prices are a) political stability of producing countries, b) world environmental issues, c) industrialized countries conservation practices, d) weather-related demand for petroleum products, e) production curtailment by producing countries, f) economic changes in consumer nations, g) stability in the labor force, and h) new producing fields. If crude oil supply and demand for petroleum products is well balanced and refiners have sufficient downstream capacity to process difficult crudes, the price of crude oil will seek a stable market condition.

Oil prices started its most recent slide in the second half of 2014 as oil inventory built up. The buildup was caused by high production from oil shale plays; an increase from old fields using enhanced techniques; increased production in other producing countries; the slow recovery pace of the U.S. economy; and the regression of the Chinese economy. It appears that oil prices have bottomed out; the lowest point occurred on January 20, 2016 at \$27.49 per barrel, and prices recovered through 2019. 2020 saw the price per barrel on the spot market fall to -\$40.32 due to over speculation on the options, but finished the year at \$47.28 on December 28<sup>th</sup>. The WTI oil price on March 16, 2021 was \$64.82 per barrel.

Louisiana crude oil average price was \$48.32 per barrel in the spot market for FY 2019/20, with the pandemic eroding the price gains made over the previous years. Table 1 shows the historical Louisiana Crude Oil prices and the projection for the next five years.

Table 1: Louisiana Crude Oil Historical and Projected Prices

	Base Case		Low Case	High Case
FY2015/16	\$44.35	-41.82%	N/A	N/A
FY2016/17	\$46.94	5.84%	N/A	N/A
FY2017/18	\$59.66	27.10%	N/A	N/A
FY2018/19	\$63.85	7.02%	N/A	N/A
FY2019/20	\$48.32	-24.31%	N/A	N/A
FY2020/21	\$56.62	17.17%	\$52.26	\$63.28
FY2021/22	\$59.87	5.74%	\$54.82	\$64.64
FY2022/23	\$60.23	0.06%	\$55.76	\$66.59
FY2023/24	\$61.87	2.72%	\$54.29	\$71.07

### GAS PRICES

Louisiana natural gas average spot price was \$5.96 per MCF in February 2014, the price dropped to \$2.85 per MCF in February 2015, it dropped to \$2.18 per MCF in February 2016, and it recovered to \$3.16 per MCF in February 2019. 2020 saw the price of natural gas decline prior to the pandemic, bottomed out in

July at \$1.55/MCF, and ending the year in December at \$3.01/MCF. Table 2 shows the historical Louisiana Natural Gas prices and the projection over the next five years.

The physical relationship between the crude oil price and the natural gas price is the so-called “6-to-1” rule, where the price of one barrel of crude oil should be approximately six times the price of natural gas per million BTUs (MMBTUs). This is because the BTU content in a barrel of oil is about six times that of a million BTUs of natural gas. Natural gas prices recently started to diverge from this relationship, with the current ratio being 18:1. Oil prices are higher because Asian countries are consuming more oil than gas and the political unrest in Venezuela, African and Islamic countries are disrupting oil supplies more heavily than gas supplies. Gas has less mobility than oil in international trade because it requires special vessels and infrastructure (pipelines, compression stations, LNG terminals, etc.). Gas prices are cyclical, regional, controlled by supply and demand, and lack infrastructure for international trade. They are driven by factors such as weather, demand for gas not satisfied by pipeline systems, availability of spot supplies, and competing fuel prices. Others factors that could affect prices are storage levels, curtailments, market changes, new consumption, and the USMCA (United States-Mexico-Canada Agreement). Gas prices are also affected by psychological factors, often the expectation of soft prices is enough to bring them about, and a good dose of long, cold, winter weather will usually erase much of the psychological element of low gas prices and price increases.

Table 2: Louisiana Natural Gas

	Base Case		Low Case	High Case
FY2015/16	\$2.15	-35.45%	N/A	N/A
FY2016/17	\$3.02	31.02%	N/A	N/A
FY2017/18	\$2.82	-6.62%	N/A	N/A
FY2018/19	\$3.21	13.83%	N/A	N/A
FY2019/20	\$2.11	-34.27%	N/A	N/A
FY2020/21	\$2.62	24.17%	\$2.34	\$3.05
FY2021/22	\$2.87	9.54%	\$2.42	\$3.24
FY2022/23	\$3.01	4.88%	\$2.61	\$3.48
FY2023/24	\$3.19	5.98%	\$2.68	\$3.73

Historical and Projected Prices

Louisiana annual average gas price is expected to be around \$2.50 per MMBTU in the near future, and to increase to above \$3.00 per MMBTU when demand increases from newly built plants in the state and when more LNG export terminals become fully operational.