Crude Oil

U.S. crude oil prices increased by $0.72 to $45.20 per barrel in the past month and stand 45 percent lower compared to this time last year.

- The December futures contract settled at $45.20 per barrel on the October 21 trade day, a decrease of $1.09, or 2.4 percent from the prior settlement, falling to a 3-week low after the Energy Information Administration (EIA) reported a larger-than-expected increase in domestic crude stockpiles. A large draw-down in gasoline and distillates supplies prevented a steeper price slide.

- The domestic oil build was more than double the 3.9 million barrels (MMB) forecast by analysts. It was also above the 7.1 MMB build reported by the American Petroleum Institute. Oil stocks may continue to rise as US refineries continue with seasonal maintenance.

- Compared to this time last year, the U.S. crude oil futures settlement price of $45.20 is $36.58, or 45 percent, lower.

- According to the October 21 weekly EIA fuels report, U.S. crude inventories increased 8.0 MMB to 476.6 MMB. U.S. crude supplies are now 98.9 MMB higher compared to this time last year.
• Crude imports increased from the prior week at 7.5 MMB/D, unchanged compared to imports at this
time last year. Domestic crude production was unchanged from the prior week at 9.1 MMB/D. Last
year at this time, production stood at about 8.9 MMB/D.

• U.S. refinery crude runs increased from the prior week with refineries processing 15.5 MMB/D of
   crude. U.S. refinery capacity use was up on the week at 86.4 percent. Last year at this time, capacity
   use stood at 86.7 percent.

• The Midwest saw the lowest utilization of refining capacity at 73.5 percent, unchanged from the
   previous week and likely to hold in that neighborhood into early November. The East and West coasts
   saw declines in utilization last week as the result of maintenance issues.

• Gasoline output decreased on the week at 9.6 MMB/D. Gasoline production at this time last year
   averaged 9.3 MMB/D. Distillate output was higher from the prior week at 4.7 MMB/D. Last year at
   this time, production stood at about 4.6 MMB/D.

• Total petroleum products supplied to market, a measure of consumption, over the last four-week
   period stood at 19.4 MMB/D, up by 1.0 percent compared to the same period last year.

**Transportation Fuels**

On October 19, Missouri’s statewide average retail price for gasoline was about $2.10 per
gallon, up 5.8 cents in the past month and down 67.1 cents in the past year.

**Regular Unleaded Gasoline - Retail Prices (cents per gallon)**

<table>
<thead>
<tr>
<th></th>
<th>10-19-15</th>
<th>09-21-15</th>
<th>change</th>
<th>10-20-14</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>227.7</td>
<td>232.7</td>
<td>down 2%</td>
<td>312.0</td>
<td>down 27%</td>
</tr>
<tr>
<td>Missouri</td>
<td>210.0</td>
<td>204.2</td>
<td>up 3%</td>
<td>277.1</td>
<td>down 24%</td>
</tr>
</tbody>
</table>

**Diesel Fuel - Retail Prices (cents per gallon)**

<table>
<thead>
<tr>
<th></th>
<th>10-19-15</th>
<th>09-21-15</th>
<th>change</th>
<th>10-20-14</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>253.1</td>
<td>249.3</td>
<td>up 2%</td>
<td>365.6</td>
<td>down 31%</td>
</tr>
<tr>
<td>Missouri</td>
<td>237.8</td>
<td>230.6</td>
<td>up 3%</td>
<td>342.0</td>
<td>down 30%</td>
</tr>
</tbody>
</table>

• On October 19, Missouri’s average retail price for gasoline was about $2.10 per
gallon, up 5.8 cent in the past month.

• Missouri’s average price for diesel fuel was
   about $2.38 per gallon, up 7.2 cents per
gallon, or 3 percent, in the past month.

• Missouri’s average retail gasoline price is
   67.1 cents per gallon, or 24 percent, lower
   while the average retail diesel fuel price is
   104.2 cents per gallon, or 30 percent, lower
   for the comparable period in October 2014.
• At nearly $2.28, the U.S. average price for regular gasoline is 5.0 cents per gallon, or 2 percent, lower compared to last month.

• The U.S. average was down 84.3 cents per gallon, or 27 percent, compared to this time last year. In the past week, the U.S. average decreased by 6 cents per gallon.

• Gasoline imports decreased from the prior week at 0.7 MMB/D, about 0.3 MMB higher compared to last year at this time.

• Implied demand for gasoline increased at 9.2 MMB/D. At this time last year, demand stood at 8.8 MMB/D.

• In the past four weeks, U.S. gasoline demand has averaged 9.1 MMB/D; nearly 0.3 MMB/D higher compared to the same four-week period last year.

• U.S. gasoline supplies decreased 1.5 MMB on the week to 219.8 MMB. U.S. supplies are up 15.4 MMB compared to this time last year and continue to trend above the five-year average for this time of year.

• Distillate stocks decreased at 145.0 MMB and stand 19.3 MMB higher compared to the same period last year.

• Distillate demand increased on the week at 3.8 MMB/D. Demand stood at 3.3 MMB/D at this time last year. On a four-week average, distillate demand was lower at 3.8 MMB/D.

• On October 19, Missouri’s average retail price for E85 motor fuel, conventional motor fuel containing 85 percent ethanol, was about $2.06 per gallon, 3.7 cents or 1.8 percent lower than the average price for conventional motor gasoline.

• On October 19, Missouri’s average retail price for B20, diesel fuel containing 20 percent biofuel, was about $2.46 per gallon, 8.1 cents or 3.3 percent higher than the average retail price for conventional diesel fuel.
According to the October 6, 2015, *Short Term Energy Outlook*, regular gasoline retail prices are forecast to average $2.42 per gallon in 2015 compared with $3.36 per gallon in 2014. EIA projects U.S. regular gasoline retail prices to average $2.77 per gallon in 2016.

**Natural Gas**

Approximately 52 percent (1,236,651) of Missouri households use natural gas to heat their homes. (Data updated from the most recent U.S. Census report.) Natural gas is also used to produce goods and electricity.

On October 21, natural gas futures at the NYMEX closed at $2.40 per million British thermal units (MMBtu), down $0.17, or 7 percent, in the past month.

| Natural Gas - Near Month Future Prices (dollars per MMBtu) |
|------------------|------------------|--------------------|
| NYMEX            | 10-21-15         | 09-23-15           |
|                  | $2.40            | $2.57              |
| change           | down 7%          |                    |
| 10-22-14         |                  |                    |
| $3.66            | down 34%         |                    |

- The November NYMEX futures contract settled at $2.40 per MMBtu on the October 21 trade day, down 7.2 cents from the prior settlement. Futures are down 17 cents in the past month.
- In the past year, natural gas values have decreased by $1.26 per MMBtu, or 34 percent.
- For the reporting week, October 14 to October 21, the price of the near-month (November 2015) futures contract fell by 11 cents from $2.51 per MMBtu to $2.40 per MMBtu.

According to the EIA, U.S. consumption increased by 5.3 percent. Residential/commercial and industrial consumption increased this report period by 29.8 percent and 2.3 percent, respectively, while consumption of natural gas for power generation (power burn) fell 6.7 percent. Exports to Mexico were down 3 percent on the week, but remain 56 percent higher compared to last year.

Working gas in storage totaled 3,814 Bcf, 4.5 percent above the five-year average inventory level for the week, according to EIA’s October 22, 2015 *Weekly Natural Gas Storage Report*. U.S. natural gas supplies are 434 Bcf, or 12.8 percent, higher than last year at this time.

From April 3 (the beginning of the injection season) through October 16, net storage injections totaled 2,353 Bcf, or 194 Bcf lower than the 2,547 Bcf injected during the same 29 weeks in 2014. During these weeks for the years 2010-14, net injections into storage averaged 2,000 Bcf.

The estimated average unit value of the natural gas put into storage from April 3 to October 16 this year is $2.71 per MMBtu, 36 percent lower than the average value of $4.24 per MMBtu for the same 29 weeks last year. The highest winter-month NYMEX price (for the January 2016 contract) in trading for the week ending October 16 averaged $2.83 per MMBtu. This price is 37 cents per MMBtu more than the November NYMEX contract price. A year ago, the difference was 29 cents per MMBtu.
According to the October 6, 2015 *Winter Fuels Outlook*, EIA expects that Midwest households heating with natural gas will spend an average of $101, or 14.2 percent, less this winter than last winter, reflecting prices that are about 5.2 percent lower and consumption that is 9.5 percent lower.

**Propane**

Approximately 10 percent (227,100) of Missouri households use propane to heat their homes. (Data updated from the most recent U.S. Census report.) Propane is also used to support commercial operations, produce goods, dry grain harvests and fuel vehicles.

On October 19, the average Missouri retail price for residential propane was about $1.26 per gallon, 2.2 cents higher in the past month and down 57.8 cents in the past year.

<table>
<thead>
<tr>
<th>Propane - Retail Prices (cents per gallon)</th>
<th>10-19-15</th>
<th>10-05-15</th>
<th>change</th>
<th>10-20-14</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>125.6</td>
<td>123.4</td>
<td>up 2%</td>
<td>183.4</td>
<td>down 32%</td>
</tr>
</tbody>
</table>

According to the Division of Energy’s most recent statewide propane price survey conducted October 19, the average Missouri retail residential propane price was about $1.26 per gallon, 2.2 cents higher in the past month and down 57.8 cents compared to last year at this time.

According to the survey, the highest Missouri retail residential price for propane was $1.73 per gallon. The lowest retail price was $1.06 per gallon.

As of October 19, U.S. residential propane prices averaged $1.90 per gallon, less than 1 cent per gallon higher than the prior week's price and 49 cents lower than one year ago. U.S. wholesale propane prices averaged 54 cents per gallon, 4 cents per gallon lower than the prior week's price and 53 cents lower than the price on October 20, 2014.

U.S. propane stocks decreased by 0.6 MMB last week to 101.6 MMB as of October 16, 2015, 20.0 MMB (24.5%) higher than a year ago. Midwest inventories decreased by 0.3 MMB to 27.9 MMB, 0.5 MMB (0.2%) percent higher compared to last year at this time.

At 1.1 MMB/D, U.S. demand for propane is 0.1 MMB/D (-8.5%) lower compared to last year at this time.

According to the October 6, 2015 *Winter Fuels Outlook*, EIA expects that Midwest households heating with propane will spend an average of $1,234, or 20.6 percent, less this winter than last winter, reflecting prices that are about 13.1 percent lower and consumption that is 8.6 percent lower.
For more information on propane, please visit:
http://energy.mo.gov/energy/services/be-prepared-for-propane

To access previous issues of the Energy Bulletin, or to subscribe, please visit:
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To learn more about Missouri energy issues, please visit:
http://energy.mo.gov/energy

For more information about the Comprehensive State Energy Plan, visit:
http://energy.mo.gov/energy/about/comprehensive-state-energy-plan.

The Missouri Energy Bulletin is distributed twice a month by the Missouri Department of Economic Development’s Division of Energy. The Division of Energy collects transportation and propane heating fuel prices from several retail providers located throughout the state. To preserve confidentiality, price data are averaged and reported by region. The bulletin is a public resource made available to state government decision-makers, other interested individuals upon request and online at the division’s Web address. The department thanks each of the following in helping to provide accurate, timely data on fuel supplies and prices: the U.S. Department of Energy's Energy Information Administration; the National Association of State Energy Officials; the St. Louis AAA Auto Club; and Missouri's energy retailers. For more information, contact: MO Dept. of Economic Development, Division of Energy, P.O. Box 1766, Jefferson City, MO 65102-1766; Phone: 573-751-2254; Fax: 573-751-6860; Email: energy@ded.mo.gov; Web Address: http://energy.mo.gov/energy/stay-informed/missouri-energy-bulletins.