



FUEL PRICE OUTLOOK

2018

SUMMARY

About Our Annual Outlook

Accuracy, reliability, and neutrality are GasBuddy's mission with price forecasting, and it is achieved with the independent analysis featured in this outlook.

Note that this outlook is not indicative of what will happen but rather what we believe could happen given specific inputs, potential impacts on production as well as supply and demand.

Fuel markets are complex. This analysis is intended to take current factors and speculate on how today's events may impact gasoline prices in the future. GasBuddy works to make these forecasts as reliable as possible and to be understood by anyone with little or no background of oil and petroleum markets or economics.

About the Authors



Patrick DeHaan, head of petroleum analysis, has been called one of the most accurate fuel forecasters in the U.S. by the San Jose Mercury News and has been analyzing fuel prices and trends for over a decade. He provided expertise to authorities during Hurricane Harvey and Irma and is regularly cited in U.S. periodicals and news broadcasts for his knowledge on topics including oil, fuel prices, fuel taxation, pipelines and convenience stores.



The Honorable Dan McTeague, senior petroleum analyst, is a noted expert in the energy field. He is heralded as "Canada's gas guru" for helping motorists save money at the pump and offer insight into pricing and market dynamics. Dan has also been cited hundreds of times by virtually every Canadian news organization during his decades of experience.

GASOLINE FORECAST

2018 Gasoline Forecast

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GASOLINE FORECAST

2018 Gasoline Forecast

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| Month | Range | Average |
|---------------------------------|-----------------|---------------|
| January | \$2.28 - \$2.53 | \$2.41 |
| February | \$2.27 - \$2.57 | \$2.42 |
| March | \$2.35 - \$2.83 | \$2.59 |
| April | \$2.51 - \$2.89 | \$2.70 |
| May | \$2.57 - \$2.88 | \$2.73 |
| June | \$2.48 - \$2.77 | \$2.63 |
| July | \$2.43 - \$2.73 | \$2.58 |
| August | \$2.41 - \$2.83 | \$2.62 |
| September | \$2.40 - \$2.76 | \$2.58 |
| October | \$2.39 - \$2.68 | \$2.54 |
| November | \$2.38 - \$2.65 | \$2.52 |
| December | \$2.35 - \$2.62 | \$2.49 |
| <u><i>2018 U.S. Average</i></u> | | \$2.57 |

Numbers reflect range of national average by month, with monthly average in bold. (\$/gal)

GASOLINE FORECAST

2018 Gasoline Forecast

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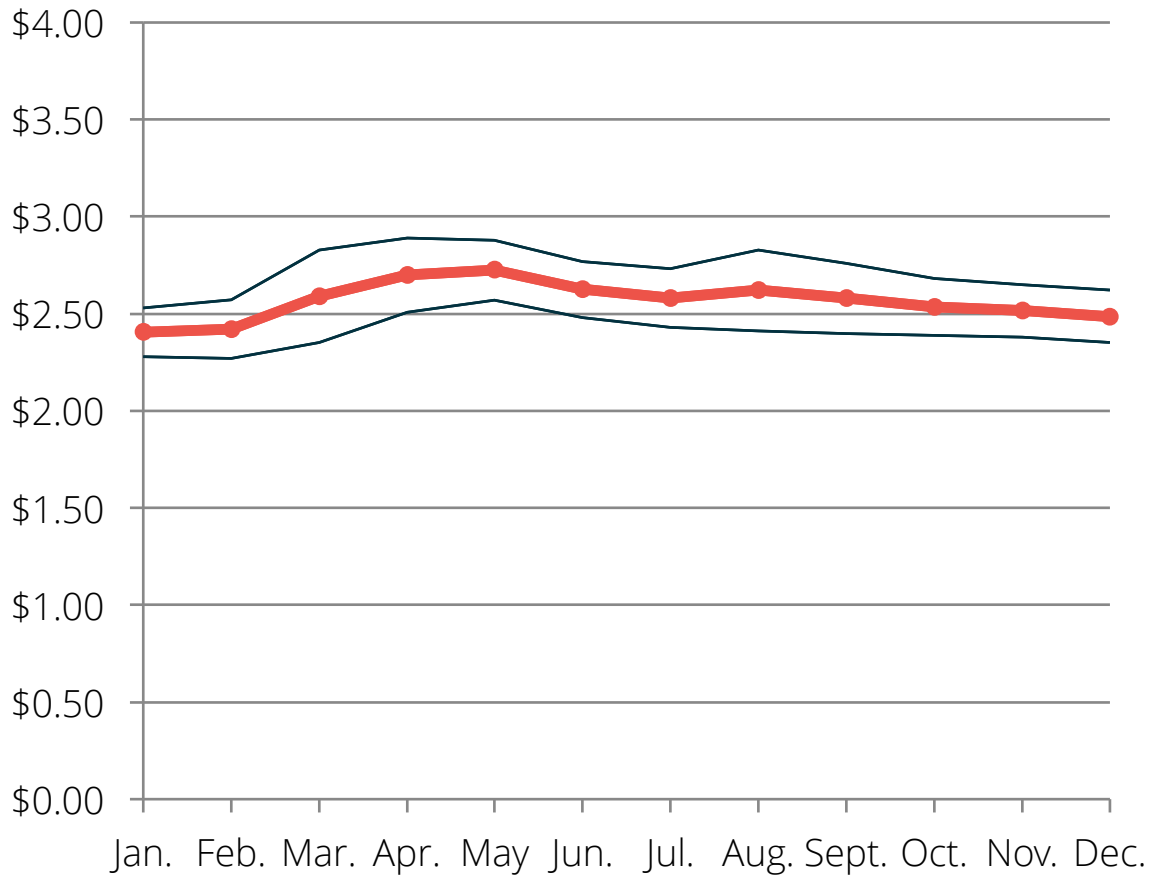


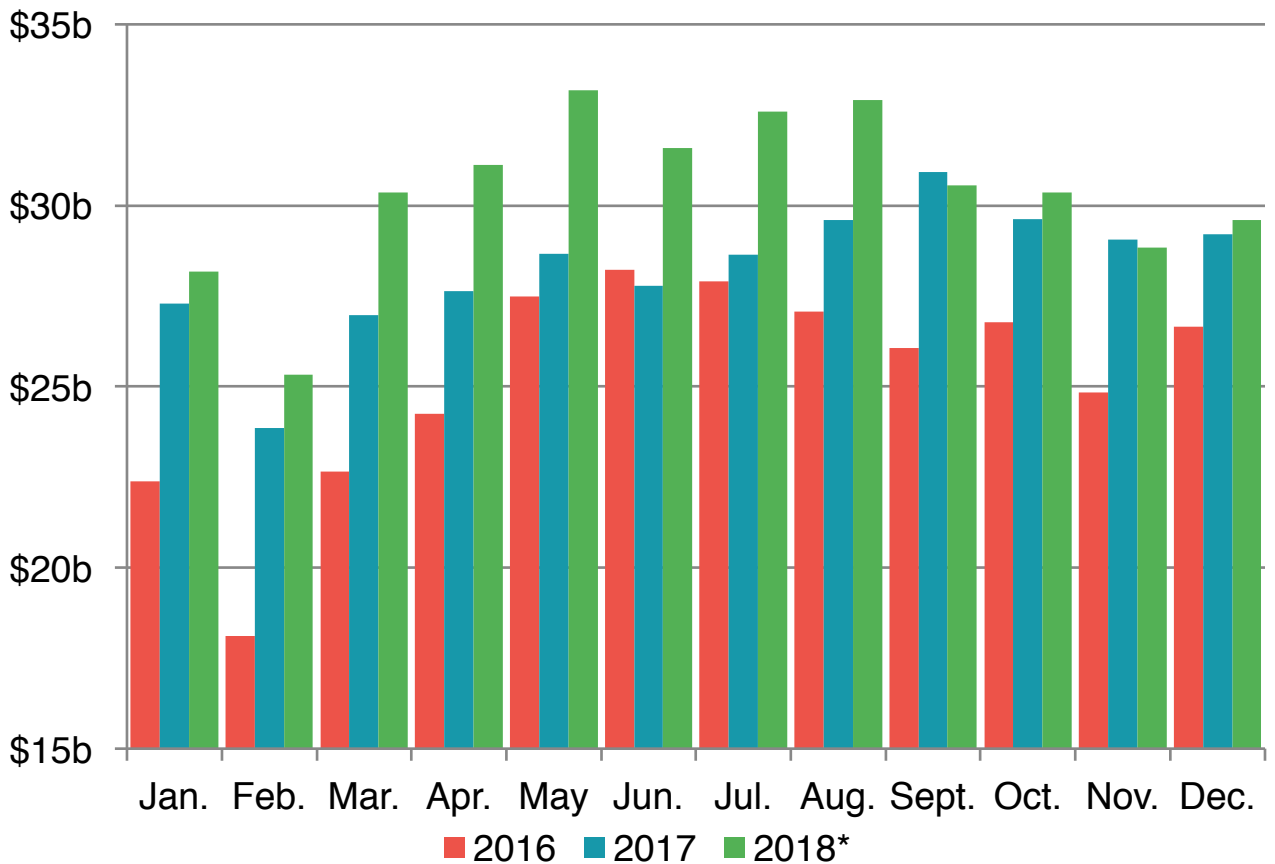
Chart reflects range of national average by month, with monthly average shown as red line.

GASOLINE FORECAST

2018 Gasoline Forecast

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Monthly Spending on Gasoline 2016-2017, 2018*
(*projected, in billions)



2018 Total U.S. Gasoline Spending: \$364.6 billion

2017 Total U.S. Gasoline Spending: \$339.2 billion

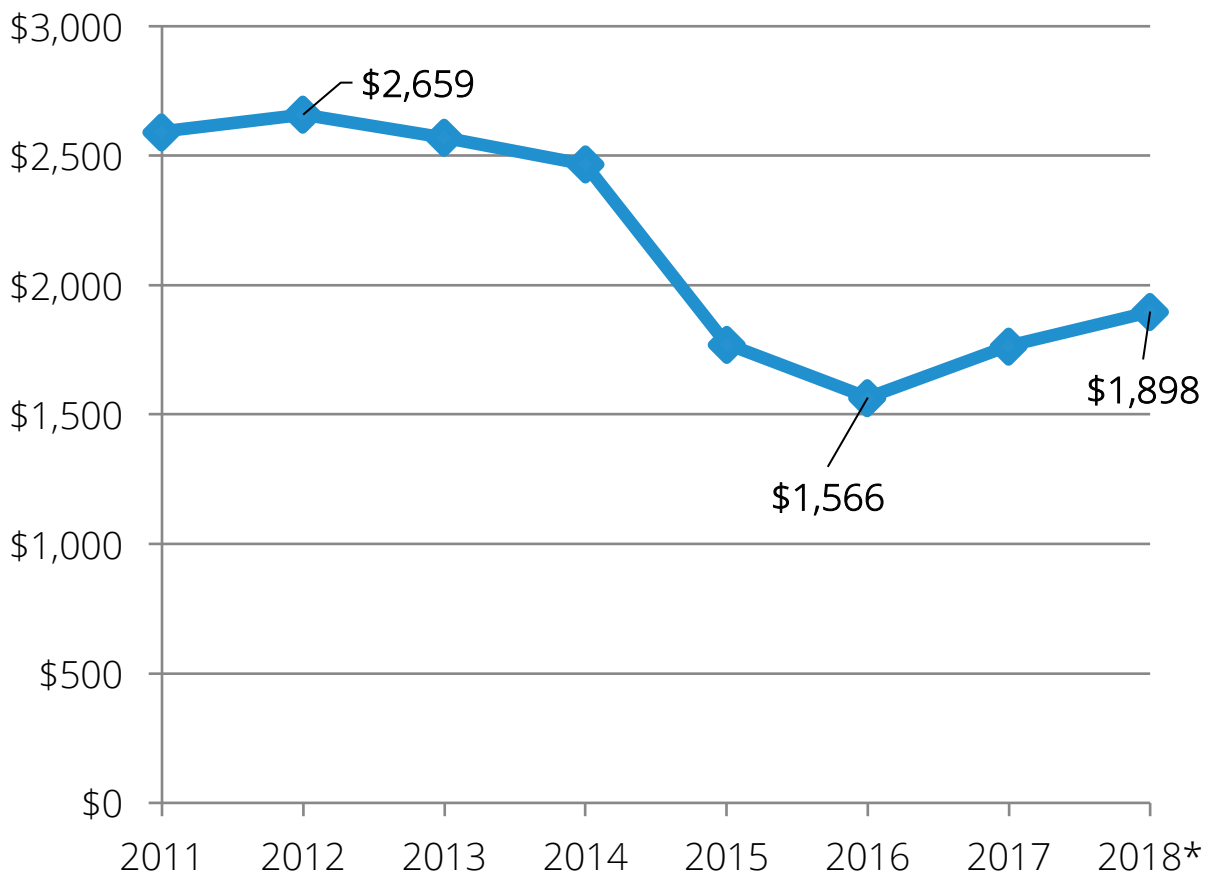
2016 Total U.S. Gasoline Spending: \$302.5 billion

GASOLINE FORECAST

2018 Gasoline Forecast

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Yearly Household Spending on Gasoline
(*projected)



2018* Average Household Gasoline Spending: \$1898

2017 Average Household Gasoline Spending: \$1765

2018* Average Household Gasoline Spending Increase: \$133

GASOLINE FORECAST

Highest Daily Average Gas Price Select Cities

| City | Highest Daily Average |
|------------------|-----------------------|
| Atlanta | \$2.55-\$2.75 |
| Boston | \$2.50-\$2.70 |
| Chicago | \$2.95-\$3.35 |
| Cleveland | \$2.75-\$2.95 |
| Dallas/Ft. Worth | \$2.45-\$2.70 |
| Denver | \$2.55-\$2.80 |
| Detroit | \$2.75-\$2.95 |
| Houston | \$2.35-\$2.65 |
| Los Angeles | \$3.25-\$3.65 |
| Miami | \$2.65-\$2.90 |
| Minneapolis | \$2.65-\$2.90 |
| New York City | \$2.75-\$3.15 |
| Orlando | \$2.65-\$2.95 |
| Philadelphia | \$2.75-\$3.00 |
| Phoenix | \$2.45-\$2.75 |
| Sacramento | \$2.95-\$3.45 |
| San Francisco | \$3.55-\$3.95 |
| Seattle | \$3.15-\$3.45 |
| St. Louis | \$2.75-\$2.95 |
| Tampa | \$2.65-\$2.95 |
| Washington, D.C. | \$3.10-\$3.40 |

Forecasting Volatility

Page 1

Unless something out of the ordinary or catastrophic occurs, little thought is given to the *process* by which gasoline arrives at our neighborhood convenience stores and gas stations. It is assumed that it's always available whenever we need it. More often than not, most of us pay little attention to the fuel we always use until prices at the pump surprise us. Such events, like Hurricane Harvey, remind us that gasoline is very much a just-in-time commodity.

When we take a closer look, we see that volatility is built into the price we pay at the pump because many components, both globally and locally, have a hand in simultaneously pressing those prices higher and/or lower. These components include: the specific time of year and the federal regulations that dictate whether 'summer blend' or 'winter blend' gasoline must be available, and how much; the strength of global economies; the relative value of major currencies; crude oil prices; supply and demand of oil and gasoline; refinery operations; pipeline logistics; state and local taxes; weather; OPEC policy; and, last but not least, politics.

Gasoline is a product derived from crude oil and retail gasoline prices are tied to a global basket (average) of crude oil prices and gasoline prices. We find that oil prices are especially sensitive to geopolitical events that can impact, the ample supply and timely delivery of these commodities. These events whether perceived or actual and whether positive or negative can influence this product.

Gasoline prices are also subject to seasonal increases and decreases tied directly to both refinery maintenance season (spring and fall) and the Clean Air Act. This Act guides EPA regulations mandating the production and sale of more expensive, but less volatile and cleaner burning "summer blend" gasoline at pumps from June 1 through September 15 (refiners must comply by May 1) in much of the country.

Forecasting Volatility

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The purpose of these regulations is to reduce smog and pollution, especially in large metro areas across the U.S. during the peak summer driving season. The transition from “winter blend” to “summer blend” gasoline which takes place as refiners perform seasonal maintenance results in a reduction in the amount of gasoline produced and can increase gas prices from 25 to 75 cents per gallon. This results in a rise in retail pricing that arrives every spring as refineries deplete their inventory of winter blend prior to the annual maintenance needed before they can begin production (in March and April) of the more expensive summer blend.

What is unpredictable are the unscheduled obstacles refineries may encounter. In areas such as the West Coast and Great Lakes region, where gasoline is produced by a few dominant refineries, motorists are most susceptible to severe price spikes that are triggered when their refineries hit unexpected snafus (even brief ones) especially during a time of year when refineries are transitioning to a larger slate of localized blends.

Weather always represents a potential threat too. Hurricanes Harvey and Irma prompted widespread fuel disruptions and shortages in Texas and Florida, respectively, but the impact was felt in every corner of the country due to the amount of gasoline production that was shut down after tremendous amounts of rain fell on Texas, the nation’s largest oil producing and refining state. Gasoline inventories plummeted and it took months to recover. There is no national emergency gasoline supply and significant events have the potential to challenge both fuel supply and prices.

2018 Diesel Forecast

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DIESEL FORECAST

2018 Diesel Forecast

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| Month | Range | Average |
|---------------------------------|-----------------|---------------|
| January | \$2.74 - \$2.98 | \$2.86 |
| February | \$2.68 - \$2.90 | \$2.79 |
| March | \$2.63 - \$2.85 | \$2.74 |
| April | \$2.51 - \$2.79 | \$2.65 |
| May | \$2.54 - \$2.75 | \$2.65 |
| June | \$2.51 - \$2.72 | \$2.62 |
| July | \$2.48 - \$2.69 | \$2.59 |
| August | \$2.45 - \$2.74 | \$2.60 |
| September | \$2.52 - \$2.77 | \$2.65 |
| October | \$2.58 - \$2.83 | \$2.71 |
| November | \$2.67 - \$2.89 | \$2.78 |
| December | \$2.71 - \$2.96 | \$2.84 |
| <i><u>2018 U.S. Average</u></i> | | \$2.70 |

Numbers reflect range of national average by month, with monthly average in bold.

2018 Diesel Forecast

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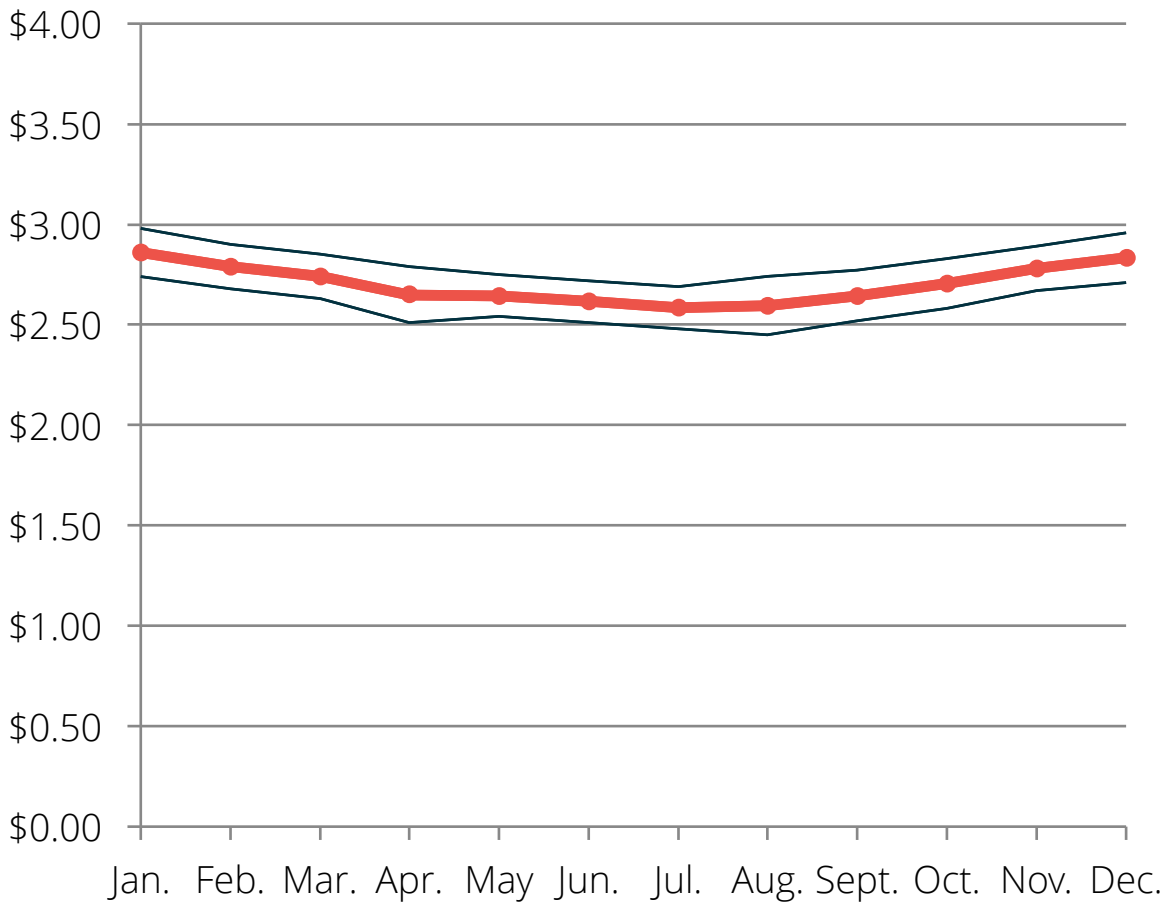


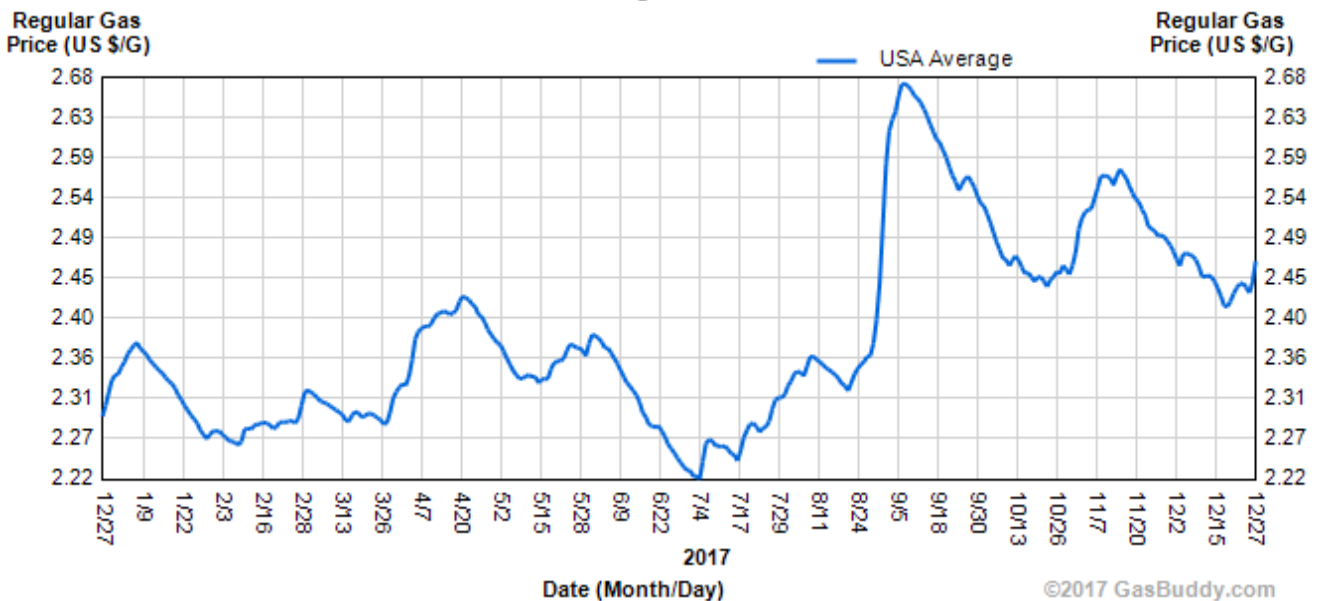
Chart reflects range of national average by month, with monthly average shown as red line.

Fuel Outlook Commentary

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The national average price of gasoline increased year-over-year for the first time since 2012 and saw the yearly average rise 9 cents versus 2011 (\$3.51). It ends a streak that saw the yearly national average fall for four straight years: 2012 (\$3.60), 2013 (\$3.48), 2014 (\$3.34), 2015 (\$2.40), 2016 (\$2.12) before rising in 2017 (\$2.39).

12 Month Average Retail Price Chart

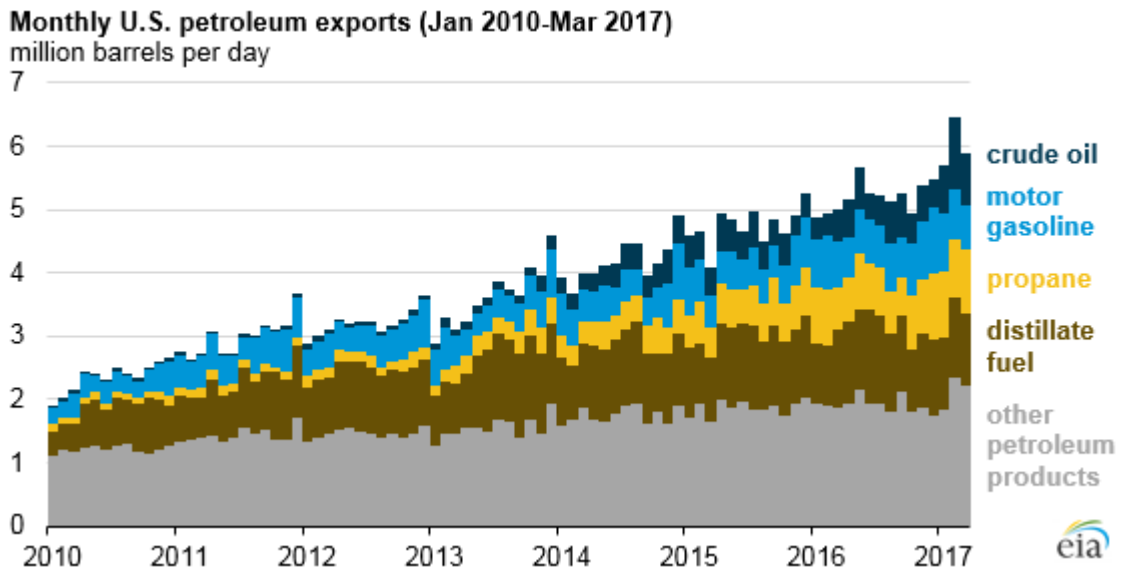


Why the increase? There are several factors, but the primary factor can be traced to OPEC's decision in November 2016 to cut oil production, effective January 1, 2017. That decision curbed excess supply and began soaking up brimming global inventories of crude oil, at the same time boosting oil prices, which was the major reason for OPEC's decision. In addition, some non-OPEC countries agreed to reign in production to tighten markets as 2017 wore on, and as the year wraps up, oil prices have flirted with \$60 per barrel. U.S. oil inventories are poised to begin 2018 nearly 50 million barrels lower than where they started the year. In addition, exports of crude oil and refined products have risen to record levels since restrictions were lifted in December 2015, contributing to less supply as exports rise.

Fuel Outlook Commentary

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A snapshot of U.S. petroleum exports from the Energy Information Administration (EIA) appears below:



The dramatic increase in exports coupled with cuts from OPEC have put pressure on crude oil, gasoline and distillate fuel prices in the United States. With new markets for U.S. petroleum continuing to open up, exports will likely continue to ramp up, contributing to smaller inventory gains in the United States, thus pressuring prices of all petroleum products.

The recent agreement by OPEC, Russia and non-OPEC oil producing countries to extend crude output curbs for all of 2018, appears to provide assurance that oil's 2017 price rebound wasn't a fluke. Provided that global demand remains robust, the cartel's assumption is that the elusive supply and demand balance will be achieved sometime in the year ahead. Clouding this plan is the ever growing output of U.S. shale oil, which Commerzbank believes will hit an all-time record of 10.2 million barrels a day sometime this year. Conspicuously, Canada is set to churn out a record 4.2 million b/d as well thus tipping the supply side of the equation back to a global oversupply of crude and effectively neutralizing OPEC's strategy of pushing oil prices higher than their current values of \$55 for WTI and \$60 for Brent.

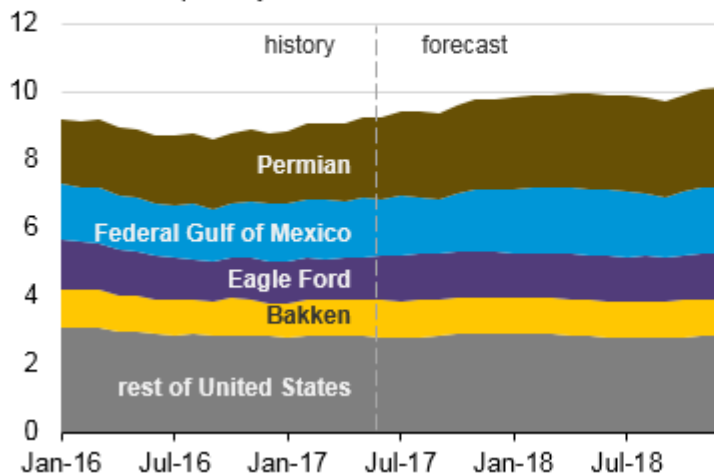
Fuel Outlook Commentary

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Assumptions about rising U.S. shale production noted by the U.S. EIA aren't a given. Considering faster decline rates of existing, easy-to-access shale wells and the apparent move to less productive areas, it is conceivable that output may struggle to reach those new heights. Coupled with pipeline infrastructure constraints and an uncertain future for a timely build of the Keystone XL pipeline, oil-by-rail bottlenecks which depreciate the value of Canada's heavy oil surge, North America oil producers could fall short in their attempt to backfill any global oil inventory shortfall caused by OPEC's extended production cuts.

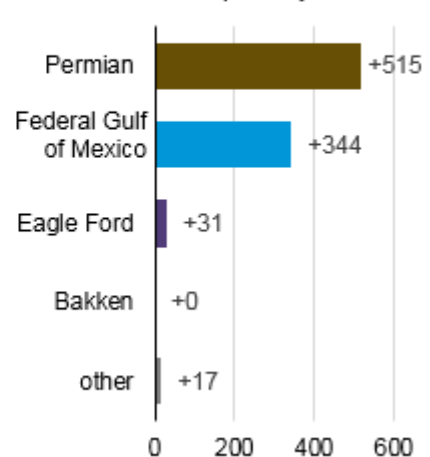
Monthly U.S. crude oil production by region

Jan 2016 - Dec 2018
million barrels per day



Forecasted change

Jun 2017 - Dec 2018
thousand barrels per day



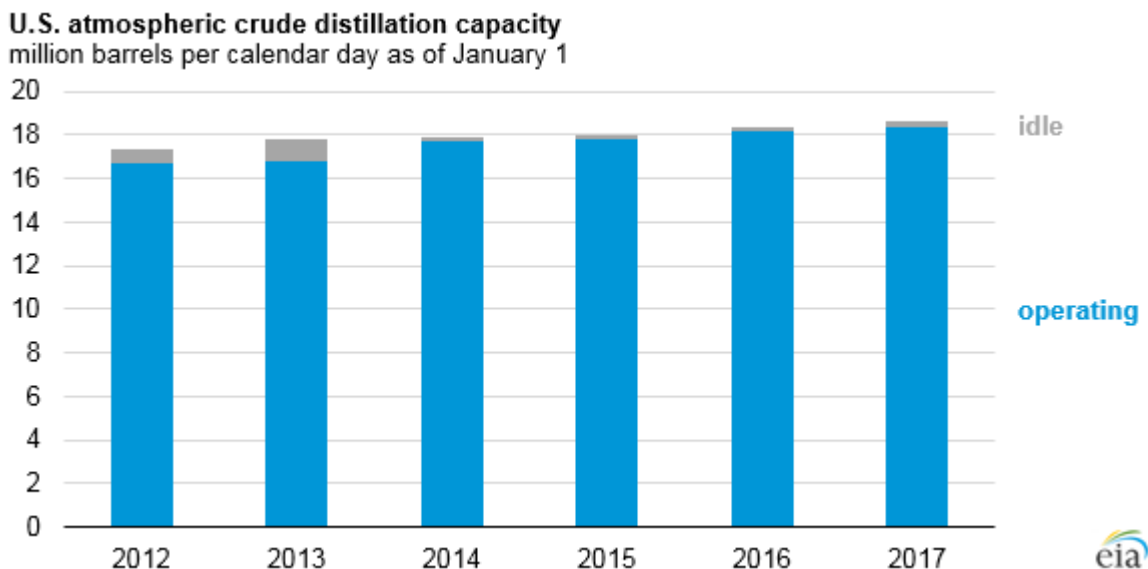
Reports suggesting OPEC will achieve a global balance of supply and demand by midyear also creates some intrigue as to how the agreement will unwind before it expires at the end of 2018. With global oil demand set to grow sharply again this year, by anywhere between 1.3 and 1.6 million b/d, it places total world demand at over 100 million barrels a day for the first time ever.

Therefore, see oil's average price trading higher in 2018 as was the case in 2017.

Fuel Outlook Commentary

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For gasoline, a stable benchmark price for oil is only part of the story. Seasonal price differences such as formulation changes from winter-to-summer and then summer-to-winter blends, are just the first of many factors influencing pump prices in both the U.S. and Canada. Propelled by a stronger economy, and greater exports, demand for petroleum products continued to rise at record-setting levels. Indeed, as noted last month by the API (American Petroleum Institute), consumer gasoline demand for November was the strongest for that month ever. If the demand for gasoline continues to reach or exceed previous records, it stands to reason that 2018 will be on course to see a corresponding rise in pump prices. But that's only part of the reason.



Refinery capacity has continued to grow in recent years, though as motorists have likely noticed, disruption or outages at refineries can quickly lead to shockwaves at pumps regionally. The number of refineries has fallen nearly in half in the last 35 years while capacity has increased, effectively doubling the capacity of refineries that have remained open. Such events are likely to happen again in 2018, creating temporary hotspots regionally.

Fuel Outlook Commentary

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Variables to the direction of gas prices are also likely to be influenced by fiscal and monetary policies, such as government budgetary moves in the area of taxation and the decisions of central banks, like the U.S. Federal Reserve or the Bank of Canada, on interest rates. Direct moves by governments to increase fuel taxes, as seen in California in November or carbon taxes introduced in Alberta and Ontario in 2017, also add to the prospect of higher prices for fuel in the year ahead.

A stronger economy that affords motorists more disposable income matched with greater vehicle fuel efficiency will continue to incentivize Americans to take to the roads and quite possibly lead to a fourth consecutive year of increasing demand for fuel.

This means that refineries need to operate at optimum levels of output at all times, something of a tall order, especially in areas of the U.S. Midwest, the Pacific Northwest, California and the Northeast, where gasoline can be exported to foreign markets, if the price environment abroad is more attractive. Known as an “arb” or price arbitration, the recent rise in U.S. petroleum product exports, reflects a new price challenge for American drivers. One that will contribute to higher costs for gasoline in 2018.

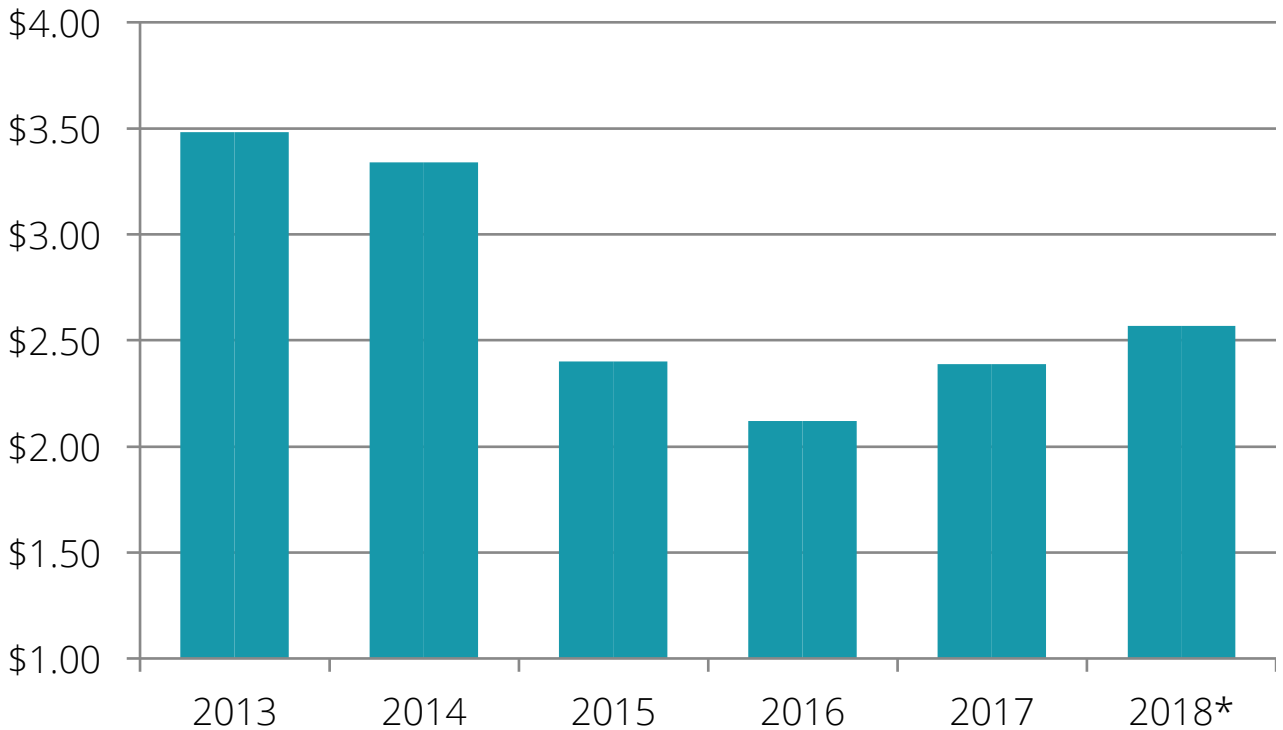
After taking into consideration all of the above, GasBuddy analysts constructed this forecast for the U.S. average price of gasoline, month-by-month, for 2018. We anticipate that consumers will see higher gas prices than in 2017, slightly higher than the levels seen in 2015, with a yearly average of \$2.57 per gallon, the highest since 2014.

Fuel Outlook Commentary

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GasBuddy projects that the yearly average gas price in 2018 will be \$2.57 per gallon. The month of January will see the lowest prices at an average \$2.41 per gallon, while May will average \$2.73 per gallon, making it the priciest month of the year.

On a yearly basis, a total of \$364.6 billion will be spent on gasoline in the United States, up \$25.4 billion from the \$339.2 billion spent in 2017.



*Projected

Forecast Quotes

"While many may think there's no way to feel like you win at the pump, there's certainly many things motorists can do to soften the blow of paying for gas. One can easily "outsmart the pump" by shopping around for the lowest price, using Pay with GasBuddy to chop the pump price down immediately, and by driving smarter to get more out of every tank. Most people complain about high gas prices, but everyone is empowered by these tools and others to spend less.

-Patrick DeHaan, head of petroleum analysis

"Circumstances beyond Canada's control, including a surging U.S dollar versus a weaker Loonie, increasing U.S. fuel demand and growing exports, will put a premium on what Canadians will pay at the pumps in 2018. We estimate pump prices will therefore rise an average of 5 cents a litre across the country."

-Dan McTeague, senior petroleum analyst

"Motorists probably won't be getting pumped up to pay more at the pump this year, but should find some solace in knowing we won't come anywhere near record prices this year while most of the country will continue to see plenty of prices in the \$2 per gallon range."

- Patrick DeHaan, head of petroleum analysis

"Government decisions to implement or increase carbon taxes, guarantees no driver will be spared a further hit to their pocketbooks. 2018 promises to be another year that petroleum products leads the way in pushing up the overall cost of living for Canadians, setting in motion inflationary pressures that could, in turn, lead to higher interest rates."

-Dan McTeague, senior petroleum analyst

About GasBuddy

GasBuddy is the technology company changing the way more than 70 million consumers find, purchase, and save money on gasoline. Founded in 2000, the original GasBuddy website was a pioneer in crowd-sourced information, leveraging technology, big data, and a passionate community that now connects more than 70 million users with real-time, accurate fuel pricing information as well as reliable reviews of gas station amenities and services. The app and website have the most accurate and real-time fuel prices at over 140,000 unique stations in the United States, Canada, and Australia and is the most comprehensive money-saving companion while on the road. GasBuddy is available on all mobile platforms. For more information, visit www.gasbuddy.com.

GasBuddy[®] is the only source of near real-time pricing data, 24 hours a day, 7 days a week at over 140,000 gas stations in the United States, Canada and Australia.

Market-specific and other custom forecasts are available from GasBuddy for a nominal charge. GasBuddy has provided forecasts for large end-users as well as smaller businesses, as well as publishing alerts before gas price spikes are expected.

To sign up to receive weekly gas price updates, alerts and other GasBuddy updates, e-mail the contact below with your state/province and e-mail address.

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