

## **Crude Oil Prices Forecast in the “Annual Energy Outlook” by US EIA**

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On April 14, the U.S. Energy Information Administration (EIA) released this year's long-term U.S. energy supply and demand outlook titled “Annual Energy Outlook (AEO) 2015”. The AEO published annually by the EIA forecasts supply, demand and prices for each energy source mainly in the U.S. market, aiming to provide neutral analyses and data for making U.S. energy policy. The AEO2015 forecasts U.S. energy market supply and demand through 2040, based on latest market trends.

As described above, the AEO2015 was released on April 14. The previous AEO, AEO2014 (full version) was published on May 7, 2014, after an early release version was put out in December 2013. The interval between the early AEO2014 and the AEO2015 was thus as long as 16 months. The latest important energy market change during the period was a substantial crude oil price plunge. After remaining above \$100 per barrel for more than three years, crude oil prices plunged fast enough to surprise all market participants. How to view the great change in a long-term energy supply and demand outlook should have been a key point. The AEO2015 was released behind the earlier scheduled date in March without any early release version, the reason of which may be explained the possibility that EIA needed enough time in an attempt to address the crude oil price plunge as a great change. Incidentally, the EIA indicated a plan to change the way of releasing the annual AEO. While maintaining a policy of compiling an outlook annually, it plans to publish a shorter version and a full version alternately. The AEO2015 is treated as a shorter version. The EIA explained that it would change the way in order to efficiently respond to the changing energy situation.

How the crude oil price plunge would influence the AEO attracted attention as the AEO was the first representative energy supply and demand outlook coming after the oil price plunge. Other major energy outlooks include the World Energy Outlook by the International Energy Agency and the World Oil Outlook by the Organization of the Petroleum Exporting Countries. In terms of schedule, the AEO came as the first long-term outlook responding to the oil price plunge. This is the reason the latest AEO attracted public interest. Particularly, how the AEO would assume crude oil prices over a long time was the focus of attention.

In conclusion, the AEO2015 lowers crude oil price forecasts steeply for the immediate future and more moderately for the medium future in response to the actual price plunge since the second half of 2014. The benchmark Brent crude oil price is forecast at an average \$56/barrel for 2015 in real terms for a reference scenario (the same hereinafter), down a sharp \$41/barrel from \$97/barrel in the AEO2014. But the AEO2015 does not view the present price levels as sustainable. But it predicts the benchmark price to rise back above \$70/barrel in and after 2016 and to \$79/barrel in 2020, based on a projected expansion in oil demand and a likely stagnation in high-cost oil production. The forecast for 2020 is about \$17/barrel lower than \$97/barrel in the AEO2014. The nearly \$20/barrel downward revision is made for the 2020s, indicating that the market change brought about by the actual crude oil price plunge has forced the AEO forecast to change over a medium term (in the downward direction).

Over a longer term, however, the recent oil price plunge's impact on price forecasts fades away. The forecast of \$106/barrel for 2030 in the AEO2015 represents a \$13/barrel downward revision, smaller than for 2020. The trend of narrowing revisions is sustained for later years, leading the forecast for 2040 to match \$141/barrel in the AEO2014. This means that high-cost oil supply will be required to meet a demand expansion with OPEC's market share still rising, leading crude oil prices to rise far beyond \$100/barrel. The recent crude oil price plunge is thus taken as bringing about a downward revision of oil price forecasts for a medium term while exerting no impact for the further future. This may mean that crude oil prices must not only decline but also stay low for a certain period of time to force long-term crude oil price assumptions to be changed. In fact, when crude oil prices remained in a slump in the 1990s, the EIA continued to revise oil price forecasts downward and projected that crude oil prices would level off over a long term.

In this sense, we may have to continue a close watch on future crude oil price trends and their impact on the EIA's market view. After the AEO2015 became the first major outlook to put forward a long-term crude oil price forecast in response to the recent oil price plunge, the IEA and OPEC will announce new outlooks toward autumn. In last year's outlooks, crude oil prices were projected by the IEA at \$123/barrel (the IEA import price) and by OPEC at \$99/barrel (the OPEC basket price) for 2030 and at \$132/barrel and \$102/barrel for 2040 respectively. These forecasts for the far future, though differing from the EIA projections, thus exceed \$100/barrel in common. We will have to pay attention to how the IEA and OPEC forecasts will be revised in response to the recent oil price plunge or whether they will be revised or not. This is because long-term crude oil price projections can exert a great impact on the entire energy policy, including energy security, as well as on the international oil market.

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