



Strategic Petroleum Reserve: Recent Developments

Updated May 12, 2020

Established through enacted legislation in 1975 (P.L. 94-163), the U.S. [Strategic Petroleum Reserve](#) (SPR, 42 U.S.C. §6231 et seq.) was created to reduce the impact of petroleum supply disruptions and to carry out obligations under the International Energy Program (IEP, a multilateral treaty—25 UST 1685—that requires signatories to maintain emergency petroleum reserves). The SPR is authorized to hold up to 1 billion barrels of petroleum products. Physical [storage capacity](#) is currently 714 million barrels of crude oil and SPR inventories were 635 million barrels as of April 17, 2020. As U.S. [net petroleum imports](#) started declining in the mid-2000s, IEP reserve volume requirements declined as well. As a result, Congress began selling SPR crude oil to pay for other legislative priorities. Since 2015, Congress has enacted seven laws that mandate the sale of 271 million barrels of SPR crude during the period of fiscal year (FY) 2017 through FY2028. Additionally, Congress has authorized SPR oil sales up to \$2 billion to pay for SPR facility modernization.

Steep and rapid oil price declines in early March motivated suspension of an FY2020 modernization sale. As [oil market oversupply](#) increased and prices continued declining, using the SPR to provide some degree of relief to the U.S. oil sector is one [policy option](#) that has been explored.

FY2020 Modernization Sale Suspended

Authorized by the Bipartisan Budget Act of 2015 (P.L. 114-74) and required by the Further Consolidated Appropriations Act, 2020 (P.L. 116-94) to sell up to \$450 million of crude oil in FY2020, the Department of Energy (DOE) released a Notice of Sale (NoS) on February 28 that offered to sell as much as 12 million barrels of SPR crude oil. Offers were due March 10 and deliveries were to begin as early as April 1. Price adjustment formulas in the NoS, along with recent oil price declines created challenges for DOE to realize potential revenues from the sale (see **Figure 1**).

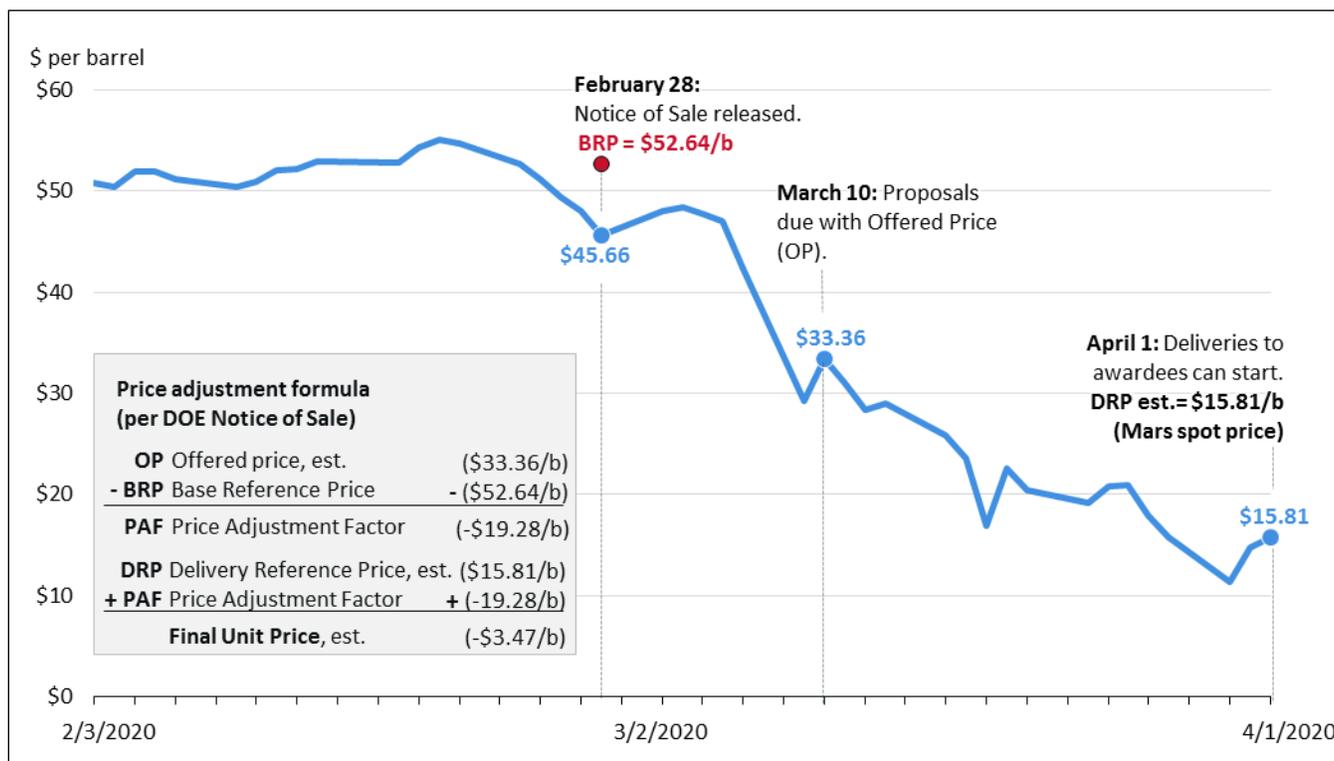
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Figure 1. Mars Crude Oil Spot Price and Selected Events

February 3, 2020–April 1, 2020



Source: Mars spot prices from Bloomberg L.P. Events and price adjustment formula from DOE Notice of Sale (NoS).

Notes: Est. = estimate. Mars crude oil, the NoS reference crude, is a U.S. Gulf Coast deepwater sour crude. BRP is calculated during the week prior to NoS release. Final Unit Price calculation includes estimates—based on spot prices—for OP and DRP.

The NoS stipulated that the price paid to purchase SPR crude oil is a function of three oil prices: (1) Base Reference Price (BRP), as specified in the NoS; (2) Offered Price (OP), as submitted; and (3) Delivery Reference Price (DRP), calculated when deliveries occur. Price adjustments reflect oil price changes between NoS release and offer submissions (see box in **Figure 1**). Final unit prices are calculated by applying the price adjustment to the DRP. When considering that prices steadily declined from the NoS release date up to the delivery period, the final unit price could have been negative as the calculations in **Figure 1** illustrate.

DOE suspended the NoS on March 10. Subsequently, the CARES Act (P.L. 116-136) amended P.L. 114-74 and P.L. 116-94 to allow this modernization sale to occur sometime during FY2020 through FY2022.

SPR Purchase Solicitation Withdrawn

In an effort to support U.S. oil producers as oil prices declined, DOE [announced a plan](#) in March to purchase 77 million barrels of crude oil with the goal of offsetting market oversupply and providing some degree of price support. A solicitation to purchase the first 30 million barrels was issued on March 19. The Secretary of Energy has authority [42 U.S.C. §6239(f)(5)] to acquire petroleum for SPR storage, consistent with statutory acquisition objectives [42 U.S.C. §6240(b)]. However, the SPR Petroleum Account—used for petroleum acquisitions—did not contain sufficient funds for the planned purchases. Further, budget transfer and emergency reprogramming authorities that might have provided necessary

funding were not identified. Citing a lack of appropriations, DOE withdrew the crude oil purchase solicitation on March 25.

Exchange-for-Storage Crude Oil Acquisition

On April 2, 2020, DOE [announced](#) that it would make SPR storage capacity available to U.S. oil producers in order to alleviate commercial storage constraints. A solicitation was released that allows up to 30 million barrels of crude oil to be temporarily stored at multiple SPR sites in exchange for a portion of those barrels (i.e., premium barrels) remaining in the SPR once the storage period ends. Crude oil must be returned to companies, less premium barrels, by March 31, 2021. This solicitation exercises the Secretary of Energy's authority [42 USC §6239(f)(5)] to acquire crude oil through an [exchange transaction](#). Current law does not provide explicit authority to lease SPR storage capacity to the commercial sector. However, the Secretary does have authority [42 USC §6247a(a)] to lease SPR facilities to [foreign governments](#).

Contracts resulting from the solicitation could provide awardees an opportunity to benefit from the current [oil futures](#) curve structure—known as contango—that values oil delivered in the future at a higher price. As an example, on April 9—the proposal due date—crude oil for May 2020 delivery was approximately \$23 per barrel (/b) and for March 2021 delivery was over \$35/b. Monthly futures prices change daily. Purchasing a May 2020 call option (the right to buy) and a March 2021 put option (the right to sell) could have secured the nearly \$12/b margin between the two delivery months. However, the contractor would have to make all logistical arrangements and incur transportation costs to deliver oil both to and from the SPR, pay for the cost of the options, and deduct premium barrels from return oil volumes. These costs and deductions would reduce net margins realized by the awardee.

DOE [announced](#) contract award negotiations with nine companies to store approximately 23 million barrels. As of May 8, 2020, 4.8 million barrels of exchange oil had been injected into the SPR.

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