

## Appendix to the October 2018 Short-Term Energy Outlook

This appendix is prepared in fulfillment of section 1245(d)(4)(A) of the National Defense Authorization Act (NDAA) for Fiscal Year 2012, as amended. The law requires the U.S. Energy Information Administration (EIA), the statistical and analytical agency within the U.S. Department of Energy, to submit to Congress a report on the availability and price of petroleum and petroleum products produced in countries other than Iran in the two-month period preceding the submission of the report. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government. The data in this appendix, therefore, should not be construed as representing those of the U.S. Department of Energy or other federal agencies.

EIA consulted with the U.S. Department of the Treasury, the U.S. Department of State, and the intelligence community in the process of developing the NDAA report, which was previously published as a stand-alone report. Detailed background and contextual information not repeated here can be found in [early editions of the NDAA report](#).

This appendix is published in the *Short-Term Energy Outlook* in even numbered months.

**Table a1. Summary of Estimated Petroleum and Other Liquids Quantities**

	August 2018	September 2018	August-September 2018 Average	August-September 2017 Average	2015 – 2017 Average
<b>Global Petroleum and Other Liquids (million barrels per day)</b>					
Global Petroleum and Other Liquids Production (a)	100.2	101.3	100.8	97.9	97.1
Global Petroleum and Other Liquids Consumption (b)	100.5	100.7	100.6	99.3	97.0
Biofuels Production (c)	3.0	3.0	3.0	2.9	2.3
Biofuels Consumption (c)	2.4	2.4	2.4	2.4	2.3
Iran Liquid Fuels Production	4.4	4.4	4.4	4.7	4.2
Iran Liquid Fuels Consumption	1.7	1.7	1.7	1.7	1.8
<b>Petroleum and Petroleum Products Produced and Consumed in Countries Other Than Iran (million barrels per day)</b>					
Production (d)	92.8	94.0	93.4	90.4	90.6
Consumption (d)	96.4	96.6	96.5	95.2	92.9
Production minus Consumption	-3.6	-2.6	-3.1	-4.8	-2.3
World Inventory Net Withdrawals Including Iran	0.3	-0.7	-0.2	1.4	-0.1
Estimated OECD Inventory Level (e) (million barrels)	2,812	2,831	2,822	2,980	2,968
OPEC Surplus Crude Oil Production Capacity (f)	1.4	1.3	1.4	1.9	1.6

Note: The term "petroleum and other liquids" encompasses crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gains, which are important to consider in concert due to the inter-related supply, demand, and price dynamics of petroleum, petroleum products, and related fuels.

(a) Production includes crude oil (including lease condensates), natural gas liquids, other liquids, and refinery processing gains.

(b) Consumption of petroleum by the OECD countries is synonymous with "products supplied," defined in the glossary of the EIA Petroleum Supply Monthly, DOE/EIA-0109. Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel, and loss, and bunkering.

(c) Biofuels production and consumption are based on EIA estimates as published in the International Energy Statistics. Biofuels production in the third quarter tends to be at its highest level in the year as ethanol production in Brazil reaches its seasonal peak and is typically lowest in the first quarter as seasonal production falls in the South/South-Central region of Brazil.

(d) Global production of petroleum and petroleum products outside of Iran is derived by subtracting biofuels production and Iran liquid fuels production from global liquid fuels production. The same method is used to calculate global consumption outside of Iran.

(e) Estimated inventory level is for OECD countries only.

(f) EIA defines surplus oil production capacity as potential oil production that could be brought online within 30 days and sustained for at least 90 days, consistent with sound business practices. This does not include oil production increases that could not be sustained without degrading the future production capacity of a field.

Source: U.S. Energy Information Administration.

**Table a2. Crude Oil and Petroleum Product Price Data**

Item	August 2018	September 2018	August-September 2018 Average	August-September 2017 Average	2015 – 2017 Average
Brent Front Month Futures Price (\$ per barrel)	73.84	79.11	76.22	53.56	51.16
WTI Front Month Futures Price (\$ per barrel)	67.85	70.08	68.86	48.91	47.69
Dubai Front Month Futures Price (\$ per barrel)	72.67	78.75	75.42	52.15	48.82
Brent 1st - 13th Month Futures Spread (\$ per barrel)	1.61	3.76	2.58	0.04	-3.90
WTI 1st - 13th Month Futures Spread (\$ per barrel)	3.98	2.95	3.51	-1.18	-4.26
RBOB Front Month Futures Price (\$ per gallon)	2.05	2.01	2.04	1.66	1.55
Heating Oil Front Month Futures Price (\$ per gallon)	2.15	2.25	2.20	1.71	1.56
RBOB - Brent Futures Crack Spread (\$ per gallon)	0.30	0.13	0.22	0.39	0.34
Heating Oil - Brent Futures Crack Spread (\$ per gallon)	0.40	0.37	0.38	0.43	0.34

(a) Brent refers to Brent crude oil traded on the Intercontinental Exchange (ICE).

(b) WTI refers to West Texas Intermediate crude oil traded on the New York Mercantile Exchange (NYMEX), owned by Chicago Mercantile Exchange (CME) Group.

(c) RBOB refers to reformulated blendstock for oxygenate blending traded on the NYMEX.

Source: U.S. Energy Information Administration, based on Chicago Mercantile Exchange (CME), Intercontinental Exchange (ICE), and Dubai Mercantile Exchange (DME).