

Sales of Fossil Fuels Produced from Federal and Indian Lands, FY 2003 through FY 2012

May 2013















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Summary

The U.S. Energy Information Administration (EIA) estimates that sales of fossil fuels from production on federal lands decreased by 4 percent during fiscal year¹ (FY) 2012. For the same period, EIA estimates that sales of fossil fuels from production on Indian lands were nearly unchanged.

EIA's estimates are based on data provided by the Department of the Interior's (DOI) Office of Natural Resources Revenue (ONRR) and include sales from federal onshore and offshore lands, and from Indian lands. ² EIA summarizes total sales of fossil fuels produced on federal and Indian lands in common energy units (British thermal units, or Btus) to allow for aggregation across fuels including crude oil and lease condensate, natural gas, natural gas plant liquids (NGPL), and coal (Tables 1-A and 1-B). The data previously reported by EIA³ for FY 2003 through FY 2011.

Sales from production on federal lands

The 4-percent decrease of fossil fuels sales from production on federal lands in FY 2012 (Table 1-A) was largely driven by declines in offshore oil and natural gas production and onshore coal production. In particular:

- Sales of crude oil⁴ from federal lands decreased 5 percent to 596 million barrels in FY 2012. An 8-percent decrease in federal offshore volumes was partially offset by an 8-percent increase in the much smaller federal onshore volumes (Table 2). Onshore crude oil production increases came mainly from New Mexico and North Dakota. Crude oil and lease condensate production on federal lands dropped to 26 percent of total U.S. production in FY 2012, down from 31 percent in FY 2011. In contrast, total U.S. crude oil production (from public and private lands) increased by 15 percent because of rapid growth in production of tight oil from resources on private lands.⁵
- Sales of natural gas from federal lands decreased 7 percent in FY 2012 to 4,262 billion cubic feet, with offshore volumes down 19 percent and onshore volumes virtually unchanged (Table 3).
 Onshore federal natural gas production increases in Wyoming and New Mexico offset decreases in Texas, Utah, Colorado, and other states. Natural gas production on federal lands dropped to 18 percent of the U.S. total in FY 2012, down from 20 percent in FY 2011 (Table 1-A).
- Sales of NGPL produced on federal lands decreased by 4 percent to 114 million barrels in FY 2012, following a 2-percent drop in FY 2011 from the level in FY 2010, which was the peak year of NGPL production over the FY 2003-FY 2012 period covered by this report (Table 4). An

¹ The U.S. government's fiscal year runs from October 1 through September 30. The fiscal year is designated by the calendar year in which it ends.

 $^{^2}$ Includes offshore and onshore areas the federal government owns or administers, including American Indian lands.

³ Sales of Fossil Fuels Produced from Federal and Indian Lands, FY 2003 through FY 2011, EIA, March 2012, found at http://www.eia.gov/analysis/requests/federallands/archive/2012/pdf/eia-federallandsales-031412.pdf

⁴ Includes lease condensate.

⁵ http://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbblpd_a.htm

increase of nearly 3 percent in federal onshore volumes, consistent with industry efforts to maximize recovery from liquids-rich areas, was more than offset by a 14-percent decrease in offshore volumes in FY 2012.

 Coal sales from production on federal lands decreased by 1 percent to 442 million short tons in FY 2012, contributing to a 8-percent decrease since its peak in FY 2008 (Table 5). Sales of coal produced on federal lands accounted for almost 42 percent of the U.S. total in FY 2012, up from 41 percent in FY 2011.

Sales from production on Indian lands

Total fossil fuels sales from production on Indian lands were virtually unchanged in FY 2012 (Table 1-B), but there were offsetting changes in the individual fuels:

- Sales of crude oil produced on Indian lands increased 56 percent to 31 million barrels in FY 2012 (Table 2), reaching the highest recorded level over the period for which data are available (FY 2003-FY 2012). Almost all of the FY 2012 increase came from North Dakota and, to a lesser extent, Utah.
- Sales of natural gas from Indian lands decreased by 1 percent to 251 billion cubic feet in FY 2012 (Table 3).
- Sales of natural gas plant liquids (NGPL) produced on Indian lands increased by 11 percent in FY 2012 to 4 million barrels (Table 4).
- Sales of coal from production on Indian lands dropped 14 percent to 19 million short tons in FY 2012 (Table 5).

DOI program offices continually collect sales and royalty payment data on fossil fuel sales of production from federal and Indian lands. Around February of each year, ONRR reports sales data it has collected. Sales are assigned to the fiscal year in which they occur, not necessarily the same year royalties were collected. Audits conducted by ONRR result in revisions to data previously reported.

This report is based on information reported to and processed by ONRR as of March 15, 2013. The recently updated data provided by ONRR for FY 2003 through FY 2011 generally fall within 2 percent of the volumes EIA reported previously, with some exceptions. The largest percentage revisions were 18 percent and 16 percent increases in federal onshore NGPL sales from production in FY 2010 and FY 2011, respectively. Non-revenue volumes, 6 which only occur from production on the federal offshore, had revisions ranging from -11 percent to 14 percent in FY 2010 and FY 2011 for natural gas and NGPL and an upward revision of 12 percent for crude oil in FY 2009.

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⁶ Non-revenue volumes are sales volumes reported where no royalty is due. This type of reporting is for specific programs that are authorized by statute. See http://statistics.onrr.gov/PDF/FAQs.pdf.

Additional data, background information, and discussions of methodology and key drivers contributing to trends in sales from production on federal lands during the FY 2003 through FY 2011 period are available in the <u>earlier EIA report</u> and on the ONRR website.⁷

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⁷ http://statistics.onrr.gov/

Table 1-A. Fossil fuel sales of production from federal lands, FY 2003 – FY 2012

Fiscal Year	Crude Oil and Lease Condensate			Natural Gas Plant Liquids ²		Natural Gas		Coal			Fossil Fuels			
	million barrels ¹	trillion btu	percent of U.S. total	million barrels ¹	trillion btu	percent of U.S. total	billion cubic feet ¹	trillion btu	percent of U.S. total	million short tons ¹	trillion btu	percent of U.S. total	trillion btu	percent of U.S. total
2003	679	3,940	33.0%	93	346	14.7%	6,799	6,982	35.7%	436	8,960	40.6%	20,229	36.1%
2004	670	3,884	33.3%	104	386	15.7%	6,374	6,543	34.0%	451	9,226	41.0%	20,040	35.8%
2005	638	3,698	32.8%	96	358	14.7%	6,054	6,221	33.1%	447	9,110	39.6%	19,388	34.8%
2006	571	3,314	31.3%	85	317	13.9%	5,372	5,523	29.6%	429	8,715	37.2%	17,869	32.4%
2007	618	3,586	33.3%	105	387	16.3%	5,559	5,711	29.2%	443	9,017	38.6%	18,700	33.3%
2008	565	3,278	30.7%	104	385	15.6%	5,545	5,695	27.7%	483	9,771	41.6%	19,128	33.3%
2009	647	3,752	33.9%	92	339	13.6%	5,393	5,531	26.2%	462	9,260	41.5%	18,881	33.0%
2010	723	4,192	36.4%	121	445	16.3%	5,088	5,208	24.4%	456	9,177	42.7%	19,022	33.2%
2011	629	3,650	31.0%	119	437	15.1%	4,584	4,686	20.4%	447	9,016	41.1%	17,789	29.8%
2012	596	3,455	26.2%	114	420	13.2%	4,262	4,356	17.8%	442	8,898	42.1%	17,129	27.6%

¹Includes sales volumes for production from federal lands including all classes of land owned by the federal government, including acquired military, Outer Continental Shelf, and public lands.

Notes: Total fossil fuels equals the sum of crude oil and lease condensate, natural gas plant liquids, natural gas, and coal. In addition, the sales volumes are reported for the fiscal year in which the sales occurred as opposed to the date of the royalty payment. Volumes include fossil fuels for which royalties were paid, as well as those amounts exempt from royalty payments, such as additions to the Strategic Petroleum Reserve.

Sources: Physical Data: U.S. Department of the Interior, Office of Natural Resources Revenue, "ONRR Statistical Information Site" (http://statistics.onrr.gov).

Btu Data: U.S. Energy Information Administration. Btu are calculated using average, calendar-year heat rates for production of each fossil fuel, as reported in the *Monthly Energy Review* (April 2013). The total Btu-content per fossil fuel is calculated by multiplying the physical data by the approximate heat content. The fossil fuel total is the sum of the total heat content for crude oil and lease condensate, natural gas plant liquids, natural gas, and coal.

Percent of Total: Percentages are calculated by dividing sales of production from federal by total U.S. production, then multiplying by 100. Fiscal year values for total U.S. production are the sum of October-September values from the *Monthly Energy Review* (April 2013) and reflect EIA's current data updates.

²Includes only those quantities for which the royalties were paid on the basis of the value of the natural gas plant liquids produced. Additional quantities of natural gas plant liquids were produced; however, the royalties paid were based on the value of natural gas processed. These latter quantities are included with natural gas.

Table 1-B. Fossil fuel sales of production from Indian lands, FY 2003 - FY 2012

Fiscal Year			Natural Gas Plant Liquids ²		Natural Gas Coal			Fossil Fuels						
roui	million barrels 1	trillion btu	percent of U.S. total	million barrels ¹	trillion btu	percent of U.S. total	billion cubic feet ¹	trillion btu	percent of U.S. total	million short tons ¹	trillion btu	percent of U.S. total	trillion btu	percent of U.S. total
2003	10	59	0.5%	2	6	0.3%	283	291	1.5%	30	616	2.8%	972	1.7%
2004	10	58	0.5%	2	7	0.3%	312	320	1.7%	33	667	3.0%	1,052	1.9%
2005	10	59	0.5%	2	7	0.3%	326	335	1.8%	34	698	3.0%	1,099	2.0%
2006	10	57	0.5%	2	7	0.3%	308	316	1.7%	29	593	2.5%	973	1.8%
2007	10	56	0.5%	3	10	0.4%	284	292	1.5%	27	558	2.4%	916	1.6%
2008	10	57	0.5%	3	11	0.4%	271	279	1.4%	26	527	2.2%	874	1.5%
2009	10	61	0.5%	3	10	0.4%	265	272	1.3%	26	521	2.3%	864	1.5%
2010	13	77	0.7%	3	11	0.4%	250	256	1.2%	22	435	2.0%	780	1.4%
2011	20	115	1.0%	3	12	0.4%	253	259	1.1%	22	444	2.0%	830	1.4%
2012	31	179	1.4%	4	14	0.4%	251	256	1.0%	19	382	1.8%	831	1.3%

¹Includes sales volumes for production from Indian lands.

Notes: Total fossil fuels equals the sum of crude oil and lease condensate, natural gas plant liquids, natural gas, and coal. In addition, the sales volumes are reported for the fiscal year in which the sales occurred as opposed to the date of the royalty payment. Volumes include fossil fuels for which royalties were paid, as well as those amounts exempt from royalty payments, such as additions to the Strategic Petroleum Reserve.

Sources: Physical Data: U.S. Department of the Interior, Office of Natural Resources Revenue, "ONRR Statistical Information Site" (http://statistics.onrr.gov).

Btu Data: U.S. Energy Information Administration. Btu are calculated using average, calendar-year heat rates for production of each fossil fuel, as reported in the *Monthly Energy Review* (April 2013). The total Btu-content per fossil fuel is calculated by multiplying the physical data by the approximate heat content. The fossil fuel total is the sum of the total heat content for crude oil and lease condensate, natural gas plant liquids, natural gas, and coal.

Percent of Total: Percentages are calculated by dividing sales of production from Indian lands by total U.S. production, then multiplying by 100. Fiscal year values for total U.S. production are the sum of October-September values from the *Monthly Energy Review* (April 2013) and reflect EIA's current data updates.

²Includes only those quantities for which the royalties were paid on the basis of the value of the natural gas plant liquids produced. Additional quantities of natural gas plant liquids were produced; however, the royalties paid were based on the value of natural gas processed. These latter quantities are included with natural gas.

Table 2. Sales of crude oil and lease condensate production from federal and Indian lands, FY 2003 – FY 2012 (million barrels)

Fiscal Year	Offshore Federal	Onshore Federal	Total Federal	Indian Lands
2003	579	101	679	10
2004	572	97	670	10
2005	541	96	638	10
2006	471	100	571	10
2007	514	105	618	10
2008	462	103	565	10
2009	542	105	647	10
2010	615	108	723	13
2011	516	113	629	20
2012	474	122	596	31

Notes: Totals may not equal sum of components because of independent rounding. Onshore federal excludes volumes on Indian Lands. Offshore federal only includes areas in federal waters.

Sources: U.S. Energy Information Administration and the U.S. Department of the Interior, Office of Natural Resources Revenue. "ONRR Statistical Information Site" (http://statistics.onrr.gov).

Table 3. Sales of natural gas production from federal and Indian lands, FY 2003 – FY 2012 (billion cubic feet)

Fiscal Year	Offshore Federal	Onshore Federal	Total Federal	Indian Lands
2003	4,522	2,277	6,799	283
2004	4,025	2,349	6,374	312
2005	3,523	2,532	6,054	326
2006	2,755	2,617	5,372	308
2007	2,706	2,853	5,559	284
2008	2,497	3,049	5,545	271
2009	2,215	3,179	5,393	265
2010	2,052	3,036	5,088	250
2011	1,660	2,925	4,584	253
2012	1,338	2,924	4,262	251

Notes: Totals may not equal sum of components because of independent rounding. Onshore federal excludes volumes on Indian lands. Offshore federal only includes areas in federal waters.

Sources: U.S. Energy Information Administration and the U.S. Department of the Interior, Office of Natural Resources Revenue. "ONRR Statistical Information Site" (http://statistics.onrr.gov).

Table 4. Sales of natural gas plant liquids production from federal and Indian lands, FY 2003 – FY 2012 (million barrels)

Fiscal Year	Offshore Federal	Onshore Federal	Total Federal	Indian Lands
2003	51	42	93	2
2004	62	41	104	2
2005	56	40	96	2
2006	46	40	85	2
2007	59	45	105	3
2008	53	51	104	3
2009	45	46	92	3
2010	57	64	121	3
2011	50	69	119	3
2012	43	71	114	4

Notes: Totals may not equal sum of components because of independent rounding. Onshore federal excludes volumes on Indian lands. Offshore federal only includes areas in federal waters.

Sources: U.S. Energy Information Administration and the U.S. Department of the Interior, Office of Natural Resources Revenue. "ONRR Statistical Information Site" (http://statistics.onrr.gov).

Table 5. Sales of coal production from federal and Indian lands, FY 2003 – FY 2012 (million short tons)

Fiscal Year	Offshore Federal	Onshore Federal	Indian Lands
2003	NA	436	30
2004	NA	451	33
2005	NA	447	34
2006	NA	429	29
2007	NA	443	27
2008	NA	483	26
2009	NA	462	26
2010	NA	456	22
2011	NA	447	22
2012	NA	442	19

Notes: NA=not applicable. Total may not equal sum of components because of independent rounding.

Onshore federal excludes volumes on Indian lands. Offshore federal only includes areas in federal waters.

Sources: U.S. Energy Information Administration and the U.S. Department of the Interior, Office of Natural Resources Revenue.

[&]quot;ONRR Statistical Information Site" (http://statistics.onrr.gov).