

Emissions from Coal, Oil, & Natural Gas produced on Federal Lands, Offshore & Onshore, 2003-2014

Climate Accountability Institute

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ONRR data on sales from production on leased Federal lands, Federal FY (Oct-Sep)

Deep Water Royalty Relief Act

1 ton = 0.90718 tonne

		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Sum
Coal														
Federal Onshore	tons CO2	819,883,664	846,388,800	839,647,281	802,268,958	827,044,292	897,063,341	857,504,823	849,105,474	829,302,894	822,095,722	747,629,588	748,325,902	9,886,260,738
	million tons CO2	820	846	840	802	827	897	858	849	829	822	748	748	9,886
	tonnes CO2	743,785,949	767,831,004	761,715,201	727,806,156	750,281,961	813,802,173	777,915,290	770,295,528	752,330,930	745,792,693	678,238,153	678,869,839	8,968,664,877
	million tonnes CO2	744	768	762	728	750	814	778	770	752	746	678	679	8,969
	MTC	203	210	208	199	205	222	212	210	205	204	185	185	2,448
Tribal Lands	tons CO2	63,846,120	69,455,657	72,877,742	62,153,533	58,444,122	55,400,530	55,389,589	46,013,199	46,935,903	40,375,740	40,746,948	40,102,220	651,741,302
	million tons CO2	64	69	73	62	58	55	55	46	47	40	41	40	652
	tons CO2	57,920,226	63,009,112	66,113,575	56,384,737	53,019,616	50,258,515	50,248,590	41,742,472	42,579,535	36,628,255	36,965,009	36,380,122	591,249,764
	million tonnes CO2	58	63	66	56	53	50	50	42	43	37	37	36	591
	MTC	16	17	18	15	14	14	14	11	12	10	10	10	161
Federal + Tribal Lands	tons CO2	883,729,784	915,844,457	912,525,023	864,422,491	885,488,414	952,463,871	912,894,413	895,118,673	876,238,796	862,471,461	788,376,535	788,428,122	10,538,002,040
	million tons CO2	884	916	913	864	885	952	913	895	876	862	788	788	10,538
	tonnes CO2	801,706,174	830,840,116	827,828,776	784,190,893	803,301,576	864,060,689	828,163,880	812,038,000	794,910,465	782,420,948	715,203,162	715,249,960	9,559,914,641
	million tonnes CO2	802	831	828	784	803	864	828	812	795	782	715	715	9,560
	MTC	219	227	226	214	219	236	226	222	217	214	195	195	2,609
Crude Oil & Liquids														
Emissions Onshore	tons CO2	58,340,673	56,644,606	55,804,880	57,125,242	60,690,558	62,845,694	62,148,541	74,113,111	78,736,717	86,119,197	82,005,610	89,196,495	823,771,326
	million tons CO2	58	57	56	57	61	63	62	74	79	86	82	89	824
	tonnes CO2	52,925,768	51,387,127	50,625,336	51,823,148	55,057,548	57,012,655	56,380,208	67,234,284	71,428,748	78,126,021	74,394,238	80,917,699	747,312,776
	million tonnes CO2	53	51	51	52	55	57	56	67	71	78	74	81	747
	MTC	14	14	14	14	15	16	15	18	19	21	20	22	204
Emissions: Offshore	tons CO2	257,712,738	259,895,160	244,582,319	211,535,982	234,603,234	210,658,762	241,288,923	276,009,660	239,007,893	213,310,787	213,592,071	224,930,228	2,827,127,758
	million tons CO2	258	260	245	212	235	211	241	276	239	213	214	225	2,827
	tonnes CO2	233,793,063	235,772,923	221,881,347	191,902,215	212,828,474	191,106,415	218,893,629	250,391,572	216,824,314	193,512,290	193,767,467	204,053,271	2,564,727,160
	million tonnes CO2	234	236	222	192	213	191	219	250	217	194	194	204	2,565
	MTC	64	64	61	52	58	52	60	68	59	53	53	56	700
Emissions: Onshore + Offshore	tons CO2	316,053,411	316,539,766	300,387,199	268,661,224	295,293,793	273,504,456	303,437,464	350,122,772	317,744,610	299,429,984	295,597,681	314,126,723	3,650,899,084
	million tons CO2	316	317	300	269	295	274	303	350	318	299	296	314	3,651
	tonnes CO2	286,718,831	287,160,046	272,506,683	243,725,363	267,886,023	248,119,069	275,273,837	317,626,035	288,253,062	271,638,312	268,161,706	284,970,970	3,312,039,936
	million tonnes CO2	287	287	273	244	268	248	275	318	288	272	268	285	3,312
	MTC	78	78	74	67	73	68	75	87	79	74	73	78	904
Natural Gas & CBM														
Emissions Onshore	tons CO2	134,024,689	138,458,467	149,269,462	154,232,776	168,263,808	179,566,410	186,528,845	177,037,290	170,584,183	170,060,318	155,341,767	146,181,090	1,929,549,105
	million tons CO2	134	138	149	154	168	180	187	177	171	170	155	146	1,930
	tonnes CO2	121,585,153	125,607,409	135,414,978	139,917,621	152,646,359	162,899,907	169,216,121	160,605,528	154,751,367	154,276,125	140,923,681	132,613,233	1,750,457,503
	million tonnes CO2	122	126	135	140	153	163	169	161	155	154	141	133	1,750
	MTC	33	34	37	38	42	44	46	44	42	42	38	36	478
Emissions: Offshore	tons CO2	266,353,372	237,085,692	207,482,395	162,216,994	159,054,631	146,259,487	130,375,665	122,535,970	99,662,721	80,903,828	70,543,368	62,963,271	1,745,437,395
	million tons CO2	266	237	207	162	159	146	130	123	100	81	71	63	1,745
	tonnes CO2	241,631,715	215,080,522	188,224,862	147,160,782	144,291,934	132,684,375	118,274,814	111,162,762	90,412,500	73,394,718	63,995,867	57,119,318	1,583,434,169
	million tonnes CO2	242	215	188	147	144	133	118	111	90	73	64	57	1,583
	MTC	66	59	51	40	39	36	32	30	25	20	17	16	432
Emissions: Onshore + Offshore	tons CO2	400,378,061	375,544,159	356,751,857	316,449,771	327,318,439	325,825,897	316,904,510	299,573,260	270,246,904	250,964,146	225,885,136	209,144,361	3,674,986,500
	million tons CO2	400	376	357	316	327	326	317	300	270	251	226	209	3,675
	tonnes CO2	363,216,868	340,687,930	323,639,841	287,078,403	296,938,293	295,584,282	287,490,935	271,768,290	245,163,867	227,670,844	204,919,548	189,732,502	3,333,891,673
	million tonnes CO2	363	341	324	287	297	296	287	272	245	228	205	190	3,334
	MTC	99	93	88	78	81	81	78	74	67	62	56	52	910
Coal, Crude Oil, Natural Gas														
Emissions Onshore	tons CO2	1,076,095,146	1,110,947,531	1,117,599,366	1,075,780,510	1,114,442,780	1,194,875,974	1,161,571,799	1,146,269,074	1,125,559,696	1,118,650,976	1,025,723,912	1,023,805,707	13,291,322,471
	million tons CO2	1,076	1,111	1,118	1,076	1,114	1,195	1,162	1,146	1,126	1,119	1,026	1,024	13,291
	tonnes CO2	976,217,096	1,007,834,647	1,013,869,090	975,931,662	1,011,005,484	1,083,973,250	1,053,760,210	1,039,877,812	1,021,090,580	1,014,823,095	930,521,081	928,780,914	12,057,684,920
	million tonnes CO2	976	1,008	1,014	976	1,011	1,094	1,054	1,040	1,021	1,015	931	929	12,058
	MTC	266	275	277	266	276	296	288	284	279	277	254	253	3,291
Emissions: Offshore	tons CO2	524,066,110	496,980,852	452,064,713	373,752,976	393,657,865	356,918,250	371,664,588	398,545,631	338,670,614	294,214,615	284,135,439	287,893,499	4,572,565,152
	million tons CO2	524	497	452	374	394	357	372	399	339	294	284	288	4,573
	tonnes CO2	475,424,778	450,853,445	410,106,210	339,062,997	357,120,408	323,790,790	337,168,443	361,554,514	307,236,813	266,907,009	257,763,335	261,172,589	4,148,161,329
	million tonnes CO2	475	451	410	339	357	324	337	362	307	267	258	261	4,148

Cell: B4

Comment: Rick Heede:

ONRR sales data are not audited, and are considered a "close proxy" to actual resource flows. ONRR uses the Federal Fiscal Year (Oct-Sep). Sales data exclude lessees use of produced fuels for on-site gen-sets, some re-injection of natural gas (though this is typically accounted for), flaring and vented natural gas is assumed to be all flared rather than vented as methane (flared quantities are not assessed royalties). Also, unknown, but probably fairly small, quantities of crude oil was diverted to the Strategic Petroleum Reserve (SPR) prior to the end of the "Royalty In Kind" system.
In our calculations we add Federal Onshore and Offshore Sales Volumes by type of fuel, and add Non Revenue Volumes -- chiefly from offshore regions in the Gulf of Mexico that are not subject to royalty payments per the Deep Water Royalty Relief Act.
Personal Communication with Patrick Etchart (Public Affairs, Denver; 303-231-3162, 800-525-7922 x3162, Patrick.Etchart@onrr.gov) 20 April 2015.

Cell: B6

Comment: Rick Heede:

The United States Deep Water Royalty Relief Act (DWRRA): quoted from wiki: "implemented a royalty-relief program that relieves eligible leases from paying royalties on defined amounts of deep-water petroleum production over Federal Outer Continental Shelf lands. After its expiration in 2000, the DWRRA was redefined and extended to promote continued interest in deep water. The Minerals Management Service (MMS) defines a "deep-water" lease as having a minimum water depth of 200 meters. The Energy Information Administration estimates there were 18,812 billion cubic feet (Bcf) of dry natural gas proved reserves and 4,144 million barrels (658,800,000 m3) of crude oil proved reserves in the Federal Gulf of Mexico as of the end of 2004. About 45 percent of the natural gas proved reserves and 79 percent of the crude oil proved reserves in the Federal Gulf of Mexico are in deepwater areas, although not all of this is subject to royalty relief. The following sections highlight provisions in several rules and regulations under which oil and natural gas production volumes may receive royalty relief."

Cell: C87

Comment: Rick Heede:

Source: U.S. Energy Information Administration
April 2015 Monthly Energy Review
Release Date: April 28, 2015
Next Update: May 22, 2015
Table 12.1 Carbon Dioxide Emissions From Energy Consumption by Source

Cell: C90

Comment: Rick Heede:

Global Carbon Project/CDIAC CO2 emissions from fossil fuel combustion, 2003 - 2013; 2014 is extrapolated by Heede, CAI.