

The Great Transition: Shifting from Fossil Fuels to Solar and Wind Energy Supporting Data - Natural Gas

[Proved Natural Gas Reserves, 2013](#)

GRAPH: Proved Natural Gas Reserves in Top Countries, 2013

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GRAPH: Natural Gas Prices, 1991-2014

A full listing of data for the entire book is on-line at:

http://www.earth-policy.org/books/tgt/tgt_data

This is part of a supporting dataset for **The Great Transition: Shifting from Fossil Fuels to Solar and Wind Energy**, by Lester R. Brown, with Janet Larsen, J. Matthew Roney, and Emily E. Adams (New York: W.W. Norton & Company, 2015).

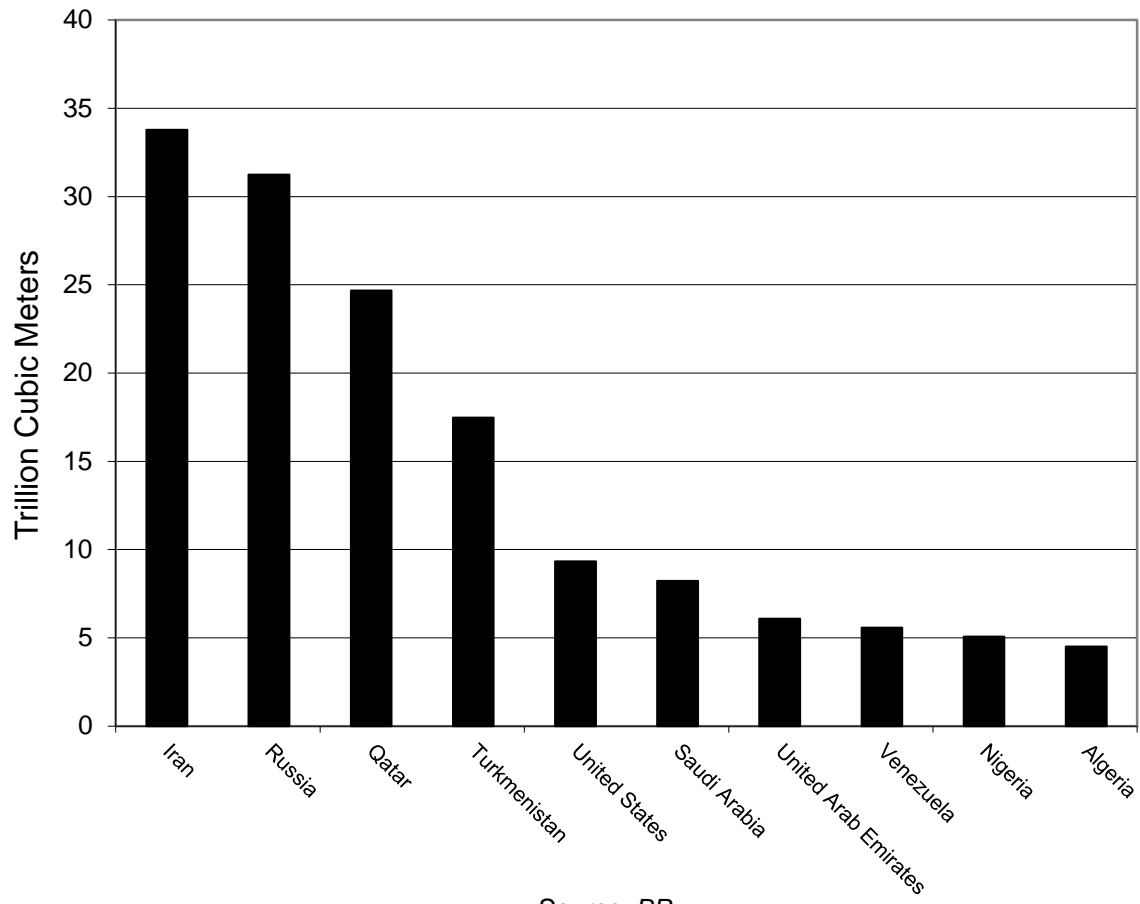
For more information, see Earth Policy Institute on-line at www.earth-policy.org.

Proved Natural Gas Reserves, 2013

Country	Reserves
	Trillion Cubic Meters
Iran	33.8
Russia	31.3
Qatar	24.7
Turkmenistan	17.5
United States	9.3
Saudi Arabia	8.2
United Arab Emirates	6.1
Venezuela	5.6
Nigeria	5.1
Algeria	4.5
Australia	3.7
Iraq	3.6
China	3.3
Indonesia	2.9
Norway	2.0
Canada	2.0
Egypt	1.8
Kuwait	1.8
European Union	1.6
Libya	1.5
Kazakhstan	1.5
India	1.4
Malaysia	1.1
Uzbekistan	1.1
Oman	0.9
Azerbaijan	0.9
Netherlands	0.9
Pakistan	0.6
Ukraine	0.6
Vietnam	0.6
Yemen	0.5
Brazil	0.5
Peru	0.4
Trinidad & Tobago	0.4
Mexico	0.3
Bolivia	0.3
Argentina	0.3
Brunei	0.3
Syria	0.3
Thailand	0.3
Myanmar	0.3
Bangladesh	0.3
United Kingdom	0.2
Other Middle East	0.2
Bahrain	0.2
Colombia	0.2
Papua New Guinea	0.2
Romania	0.1
Poland	0.1
Italy	0.1
Germany	< 0.05
Denmark	< 0.05
Total World	185.7

Source: Compiled by Earth Policy Institute from BP, *Statistical Review of World Energy June 2014* (London: 2014).

Proved Natural Gas Reserves in Top Countries, 2013



Earth Policy Institute - www.earth-policy.org

Source: BP

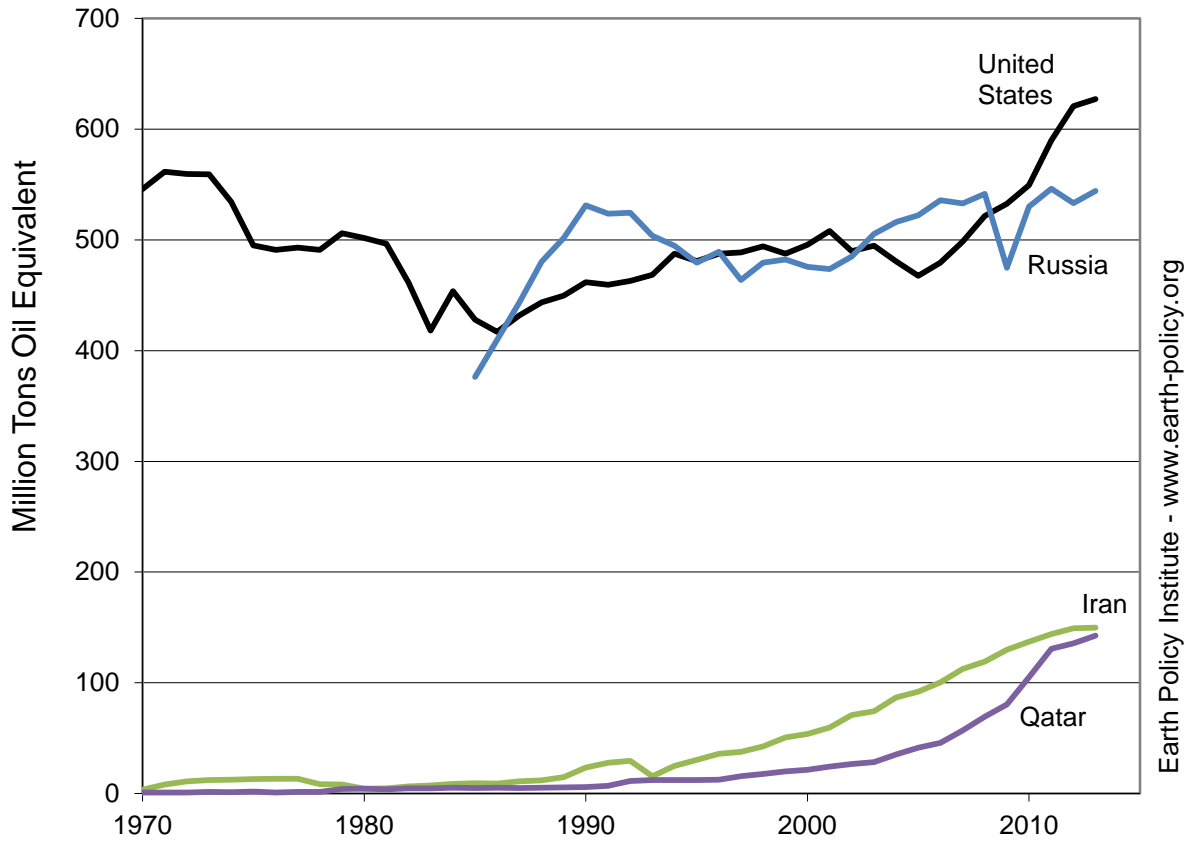
Natural Gas Production in Top Ten Countries and the World, 1970-2013

Year	United States	Russia	Iran	Qatar	Canada	China	Norway	Saudi Arabia	Algeria	Indonesia	World Total
Million Tons Oil Equivalent											
1970	546	n.a.	3	1	51	3	n.a.	1	2	1	903
1971	561	n.a.	8	1	56	3	n.a.	1	2	1	966
1972	560	n.a.	11	1	63	4	n.a.	1	3	1	1,011
1973	559	n.a.	12	1	68	5	n.a.	2	4	1	1,055
1974	534	n.a.	12	1	66	7	n.a.	2	5	1	1,074
1975	495	n.a.	13	2	68	8	n.a.	2	6	2	1,075
1976	491	n.a.	13	1	68	9	n.a.	3	7	2	1,118
1977	493	n.a.	13	1	72	11	2	4	7	5	1,165
1978	491	n.a.	8	1	69	12	13	5	11	10	1,202
1979	506	n.a.	8	4	73	13	19	6	18	14	1,281
1980	502	n.a.	4	4	67	13	23	9	13	17	1,296
1981	496	n.a.	5	4	65	11	22	10	15	17	1,318
1982	462	n.a.	6	5	68	11	22	11	20	17	1,320
1983	418	n.a.	7	5	64	11	21	11	28	20	1,323
1984	454	n.a.	9	5	70	11	23	16	28	26	1,441
1985	428	376	9	5	76	12	24	17	31	29	1,489
1986	417	410	9	5	71	12	23	23	33	30	1,530
1987	432	443	11	5	77	13	25	24	37	32	1,607
1988	443	480	12	5	89	13	25	26	39	35	1,678
1989	450	502	15	6	95	14	26	27	42	37	1,734
1990	462	531	24	6	98	14	23	30	44	39	1,793
1991	459	524	28	7	103	14	23	32	48	43	1,814
1992	463	525	29	11	113	14	23	34	50	46	1,831
1993	468	504	16	12	125	15	22	36	50	48	1,850
1994	488	495	25	12	135	16	24	38	46	54	1,879
1995	481	479	30	12	144	16	25	39	53	55	1,909
1996	487	489	36	12	149	18	34	40	56	58	2,001
1997	489	464	38	16	152	20	39	41	65	59	2,000
1998	494	479	42	18	156	21	40	42	69	58	2,032
1999	487	482	50	20	159	23	44	42	77	63	2,090
2000	495	476	54	21	164	24	45	45	76	59	2,156
2001	508	474	60	24	168	27	49	48	70	57	2,226
2002	490	485	71	27	169	29	59	51	72	63	2,278
2003	495	505	74	28	166	32	66	54	75	66	2,372
2004	481	516	87	35	165	37	71	59	74	63	2,448
2005	468	522	92	41	168	44	77	64	79	64	2,522
2006	479	536	100	46	170	53	80	66	76	63	2,622
2007	499	533	112	57	164	62	81	67	76	61	2,696
2008	522	542	119	69	159	72	90	72	77	63	2,786
2009	533	475	130	80	148	77	94	71	72	65	2,708
2010	549	530	137	105	144	85	97	79	72	74	2,891
2011	590	546	144	131	144	92	91	83	74	68	2,987
2012	621	533	149	136	140	96	103	89	73	64	3,035
2013	627	544	150	143	139	105	98	93	71	63	3,060

Note: "n.a." indicates data not available.

Source: Compiled by Earth Policy Institute from BP, *Statistical Review of World Energy June 2014* (London: 2014).

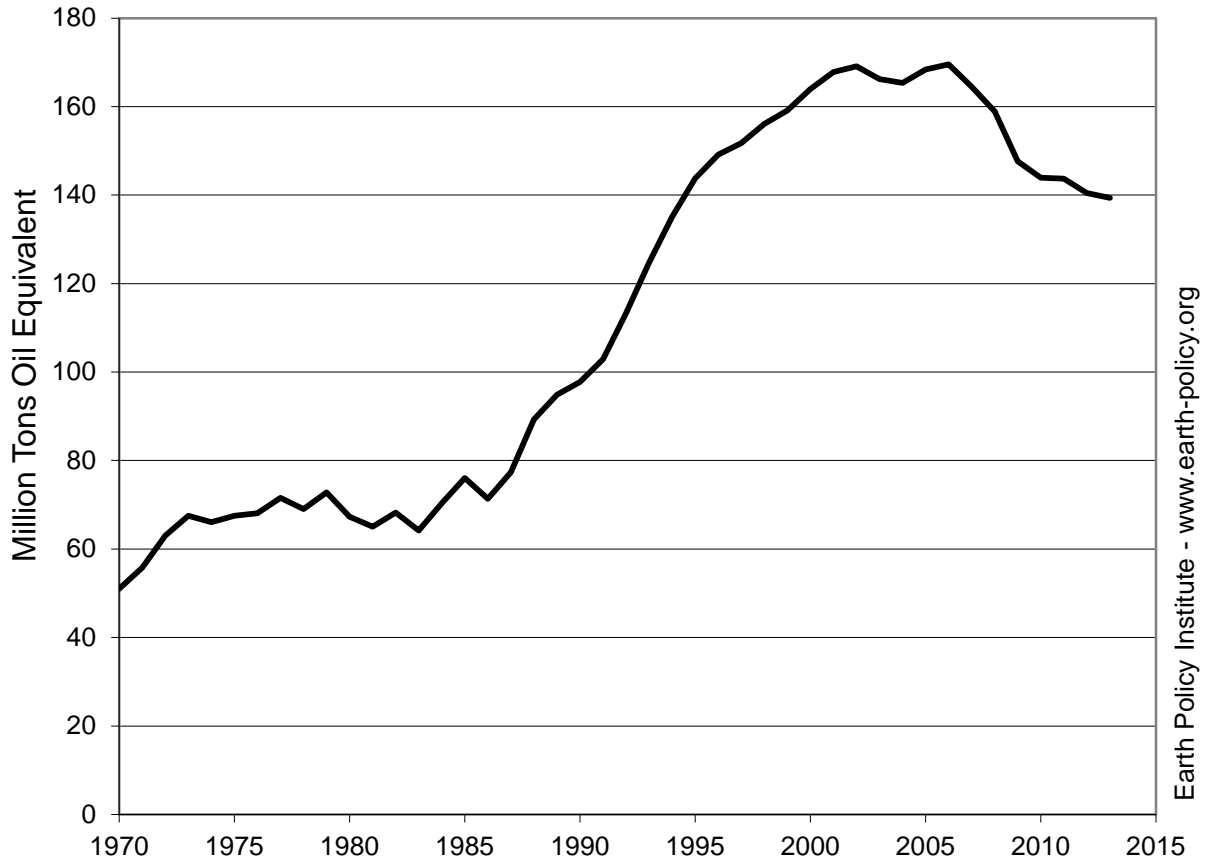
Natural Gas Production in Top Countries, 1970-2013



Source: BP

Earth Policy Institute - www.earth-policy.org

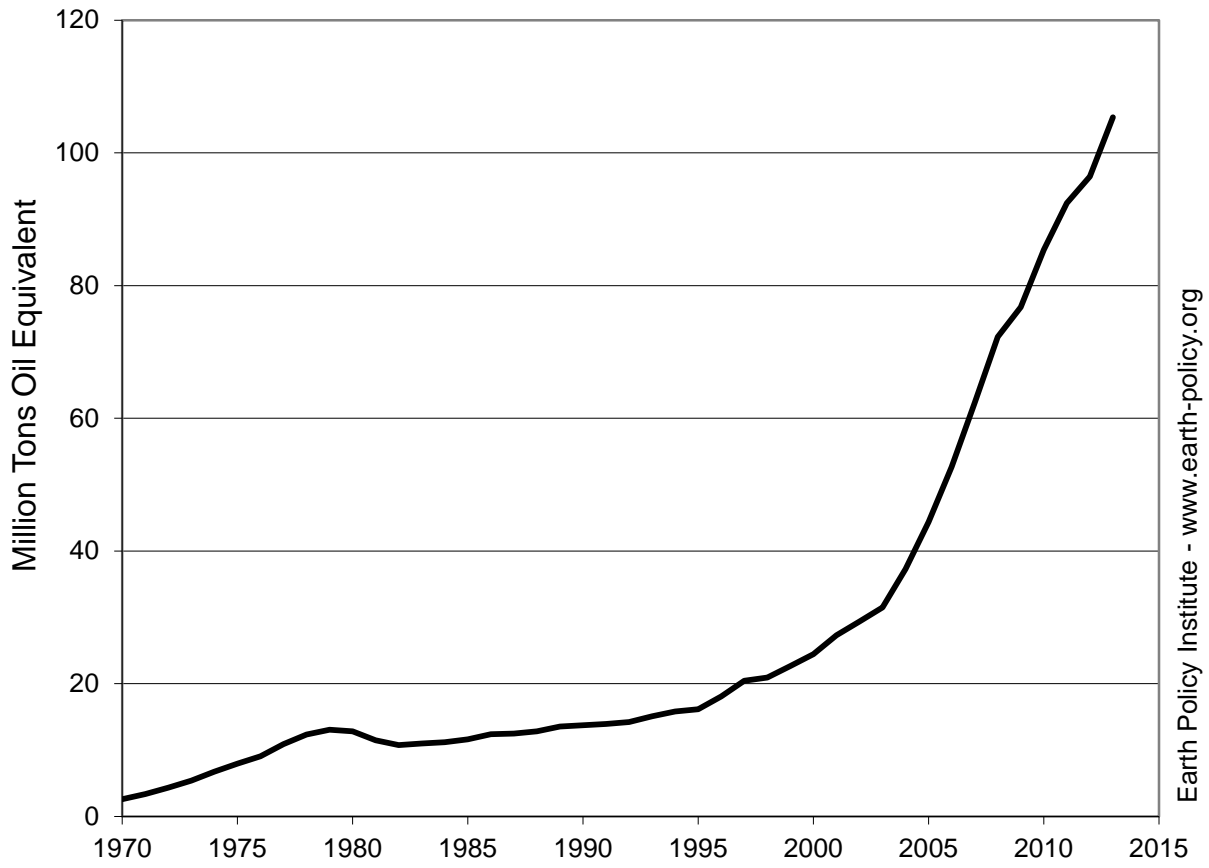
Natural Gas Production in Canada, 1970-2013



Source: BP

Earth Policy Institute - www.earth-policy.org

Natural Gas Production in China, 1970-2013



Source: BP

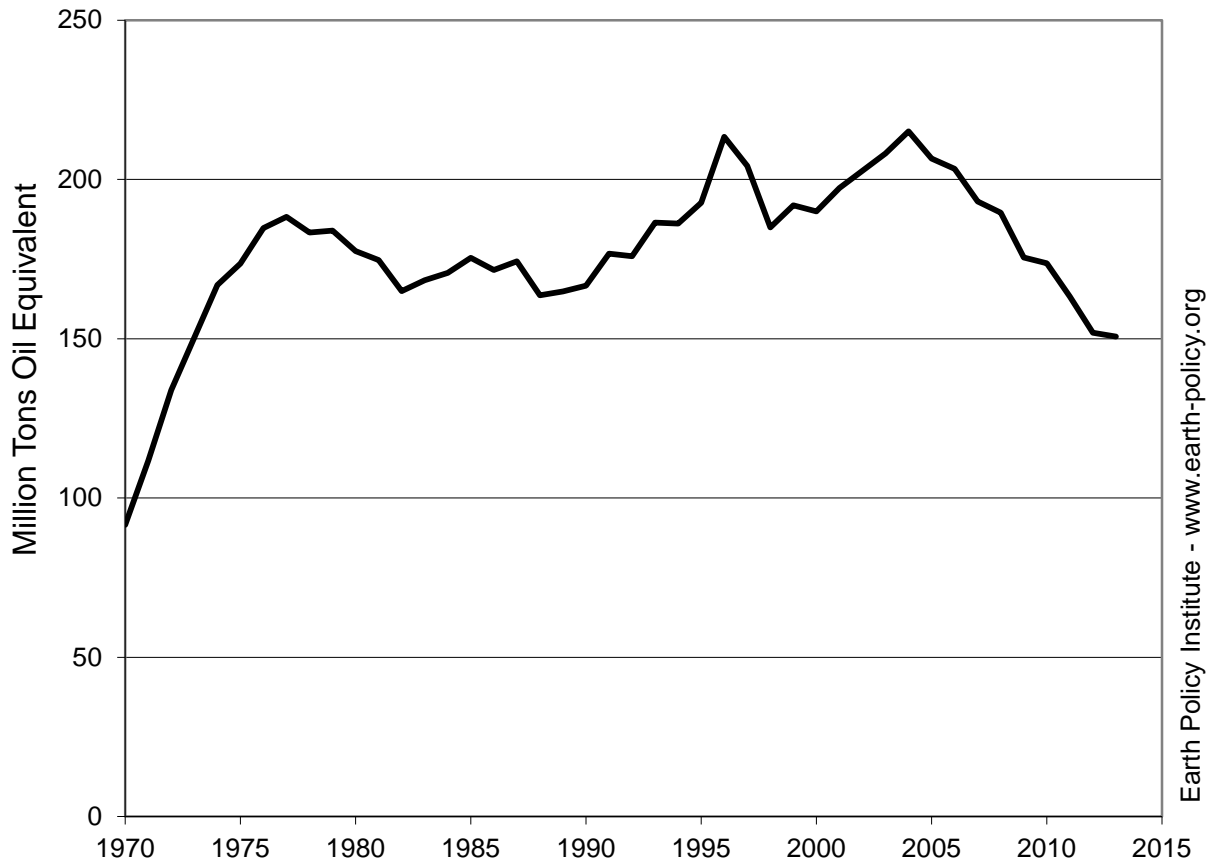
Earth Policy Institute - www.earth-policy.org

Natural Gas Production in the European Union, 1970-2013

Year	Production
	Million Tons Oil Equivalent
1970	92
1971	112
1972	134
1973	150
1974	167
1975	174
1976	185
1977	188
1978	183
1979	184
1980	177
1981	175
1982	165
1983	168
1984	171
1985	175
1986	172
1987	174
1988	164
1989	165
1990	167
1991	177
1992	176
1993	186
1994	186
1995	193
1996	213
1997	204
1998	185
1999	192
2000	190
2001	197
2002	203
2003	208
2004	215
2005	207
2006	203
2007	193
2008	190
2009	175
2010	174
2011	163
2012	152
2013	151

Source: Compiled by Earth Policy Institute from BP, *Statistical Review of World Energy June 2014* (London: 2014).

Natural Gas Production in the European Union, 1970-2013



Source: BP

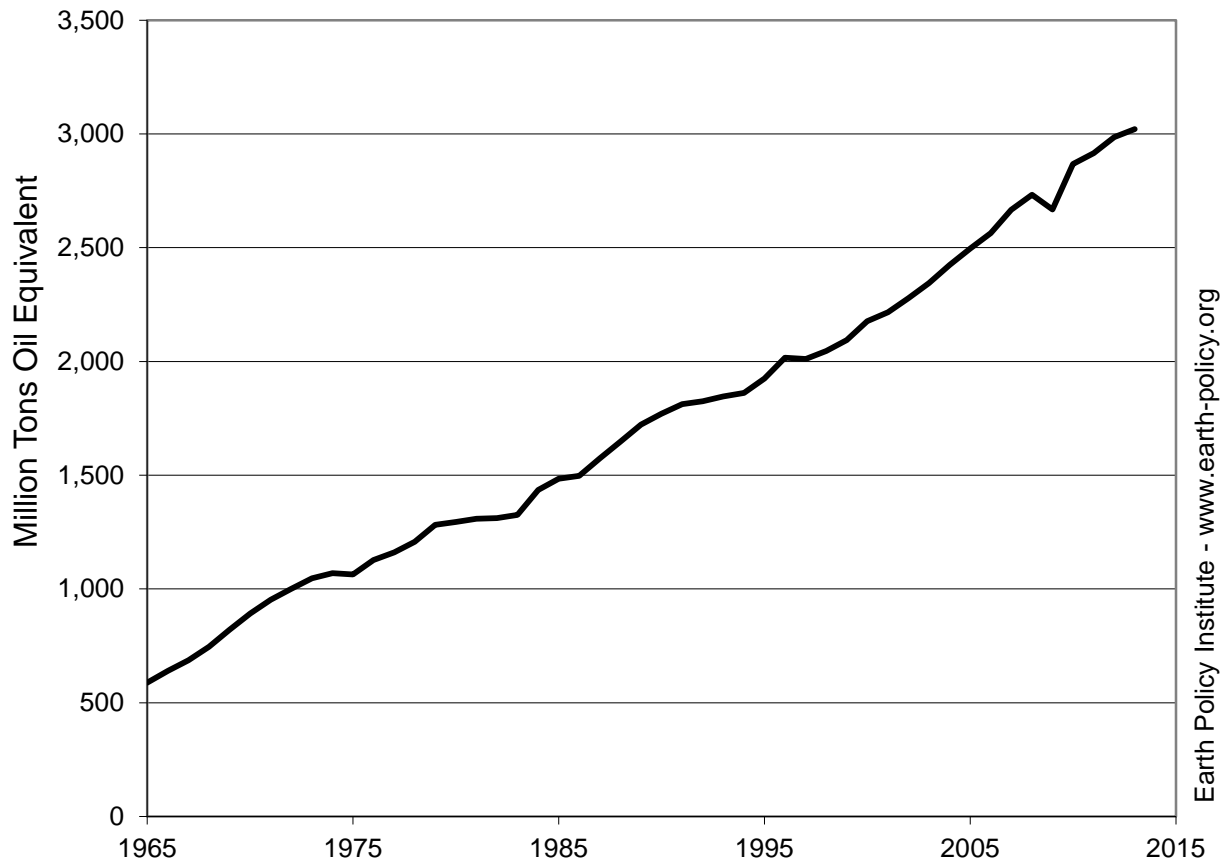
Earth Policy Institute - www.earth-policy.org

World Natural Gas Consumption, 1965-2013

Year	Consumption Million Tons Oil Equivalent
1965	588
1966	640
1967	686
1968	746
1969	820
1970	892
1971	952
1972	1,001
1973	1,046
1974	1,069
1975	1,064
1976	1,127
1977	1,161
1978	1,207
1979	1,281
1980	1,294
1981	1,308
1982	1,312
1983	1,325
1984	1,435
1985	1,485
1986	1,498
1987	1,575
1988	1,647
1989	1,723
1990	1,769
1991	1,812
1992	1,824
1993	1,845
1994	1,861
1995	1,925
1996	2,017
1997	2,010
1998	2,045
1999	2,094
2000	2,177
2001	2,216
2002	2,278
2003	2,345
2004	2,425
2005	2,495
2006	2,563
2007	2,666
2008	2,733
2009	2,668
2010	2,868
2011	2,915
2012	2,986
2013	3,020

Source: BP, *Statistical Review of World Energy June 2014* (London: 2014).

World Natural Gas Consumption, 1965-2013



Source: BP

Earth Policy Institute - www.earth-policy.org

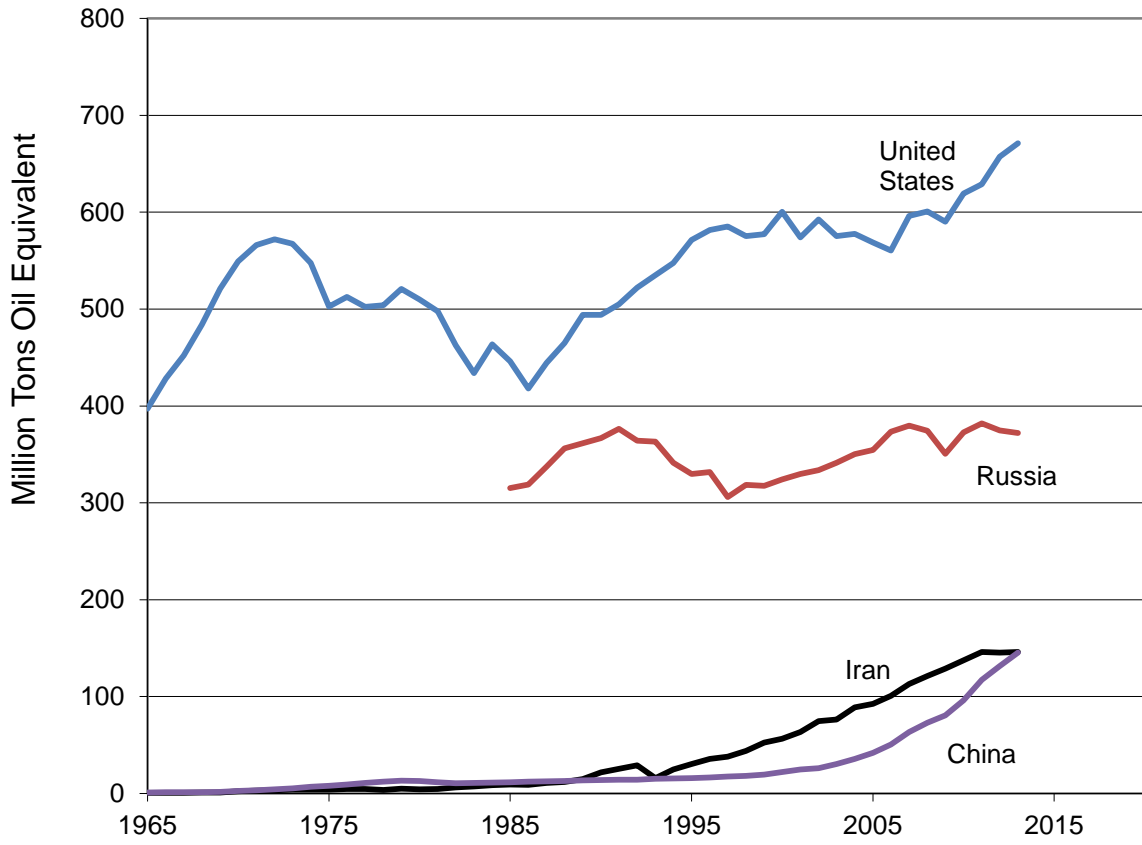
Natural Gas Consumption in Top Ten Countries and the World, 1965-2013

Year	United States	Russia	Iran	China	Japan	Canada	Saudi Arabia	Germany	Mexico	United Kingdom	World Total
Million Tons Oil Equivalent											
1965	397	n.a.	1	1	2	20	1	3	8	1	588
1966	428	n.a.	1	1	2	22	1	3	8	1	640
1967	452	n.a.	1	1	2	24	1	4	7	1	686
1968	484	n.a.	1	1	2	27	1	7	7	3	746
1969	521	n.a.	1	2	2	30	1	10	9	5	820
1970	549	n.a.	2	3	3	33	1	14	9	10	892
1971	566	n.a.	3	3	3	35	1	18	10	16	952
1972	572	n.a.	3	4	3	39	1	23	10	23	1,001
1973	567	n.a.	4	5	5	42	2	30	11	25	1,046
1974	548	n.a.	4	7	6	42	2	37	12	30	1,069
1975	503	n.a.	4	8	8	44	2	39	12	32	1,064
1976	513	n.a.	5	9	9	44	3	42	12	33	1,127
1977	502	n.a.	5	11	11	46	4	44	13	36	1,161
1978	504	n.a.	4	12	15	47	5	47	16	37	1,207
1979	521	n.a.	5	13	18	47	6	52	19	40	1,281
1980	510	n.a.	4	13	22	47	9	52	21	40	1,294
1981	498	n.a.	5	11	22	46	10	49	22	41	1,308
1982	463	n.a.	6	11	22	48	11	46	24	41	1,312
1983	434	n.a.	7	11	24	46	11	48	25	42	1,325
1984	464	n.a.	9	11	32	51	16	50	25	43	1,435
1985	446	315	9	12	34	54	17	49	26	47	1,485
1986	418	319	9	12	35	52	23	49	23	47	1,498
1987	445	337	11	13	36	52	24	53	23	49	1,575
1988	465	356	12	13	38	57	26	52	24	46	1,647
1989	494	361	15	14	40	62	27	54	23	45	1,723
1990	494	367	22	14	43	60	30	54	25	47	1,769
1991	505	376	25	14	46	61	32	57	26	51	1,812
1992	522	364	29	14	48	64	34	57	26	51	1,824
1993	535	363	16	15	48	68	36	60	27	58	1,845
1994	548	341	25	16	51	71	38	61	28	60	1,861
1995	571	330	30	16	52	74	39	67	28	63	1,925
1996	582	332	36	17	56	78	40	75	30	74	2,017
1997	585	306	38	18	58	78	41	71	32	76	2,010
1998	575	318	44	18	59	75	42	72	35	79	2,045
1999	577	317	52	19	62	79	42	72	35	84	2,094
2000	600	324	57	22	65	83	45	72	37	87	2,177
2001	574	330	63	25	67	79	48	75	38	87	2,216
2002	592	334	75	26	65	81	51	74	42	86	2,278
2003	575	342	76	31	72	88	54	77	46	86	2,345
2004	578	350	89	36	69	86	59	77	49	88	2,425
2005	569	355	93	42	71	88	64	78	55	85	2,495
2006	560	374	101	51	75	87	66	78	60	81	2,563
2007	596	380	113	63	81	87	67	75	57	82	2,666
2008	601	374	121	73	84	86	72	73	60	84	2,733
2009	590	351	129	81	79	85	71	70	65	78	2,668
2010	619	373	138	96	85	86	79	75	65	85	2,868
2011	629	382	146	117	95	91	83	67	69	70	2,915
2012	657	375	145	132	105	90	89	71	72	66	2,986
2013	671	372	146	145	105	93	93	75	74	66	3,020

Note: "n.a." indicates data not available.

Source: Compiled by Earth Policy Institute from BP, *Statistical Review of World Energy June 2014* (London: 2014).

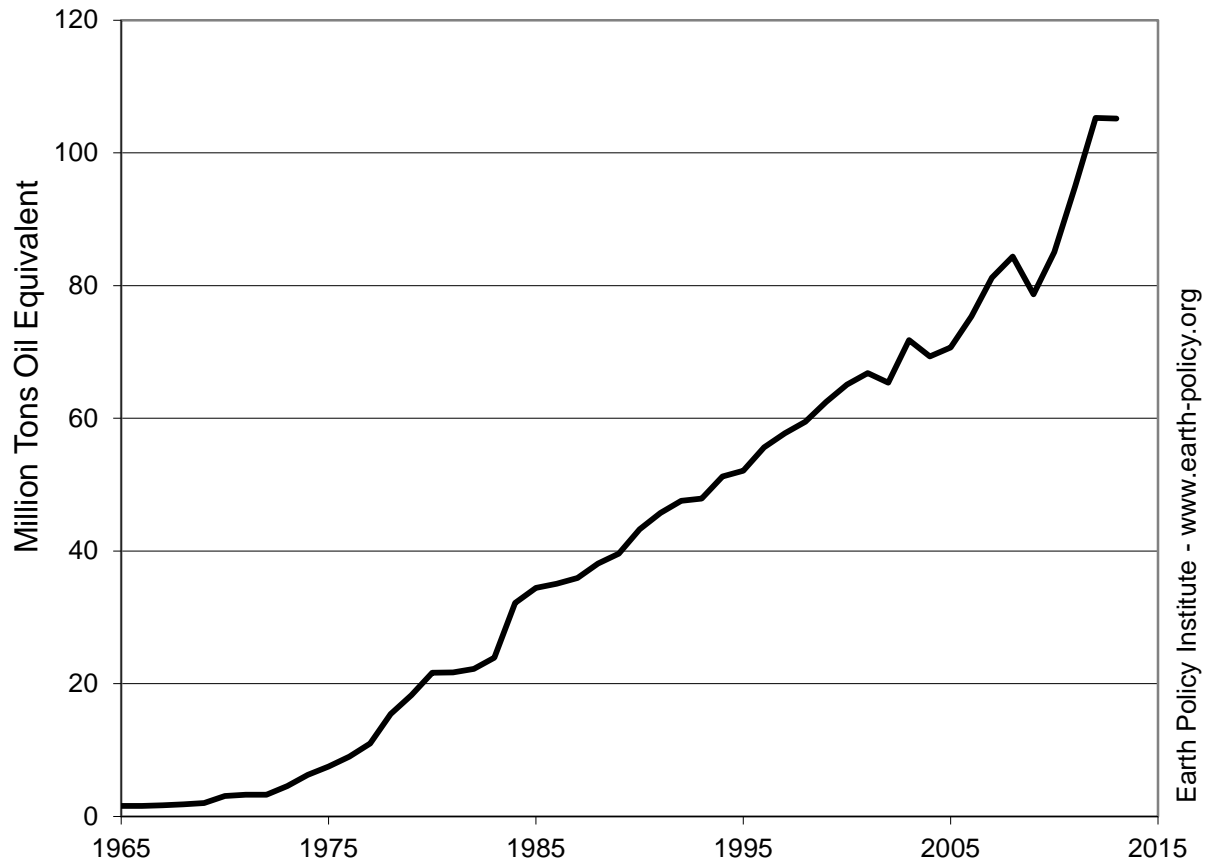
Natural Gas Consumption in Top Countries, 1965-2013



Source: BP

Earth Policy Institute - www.earth-policy.org

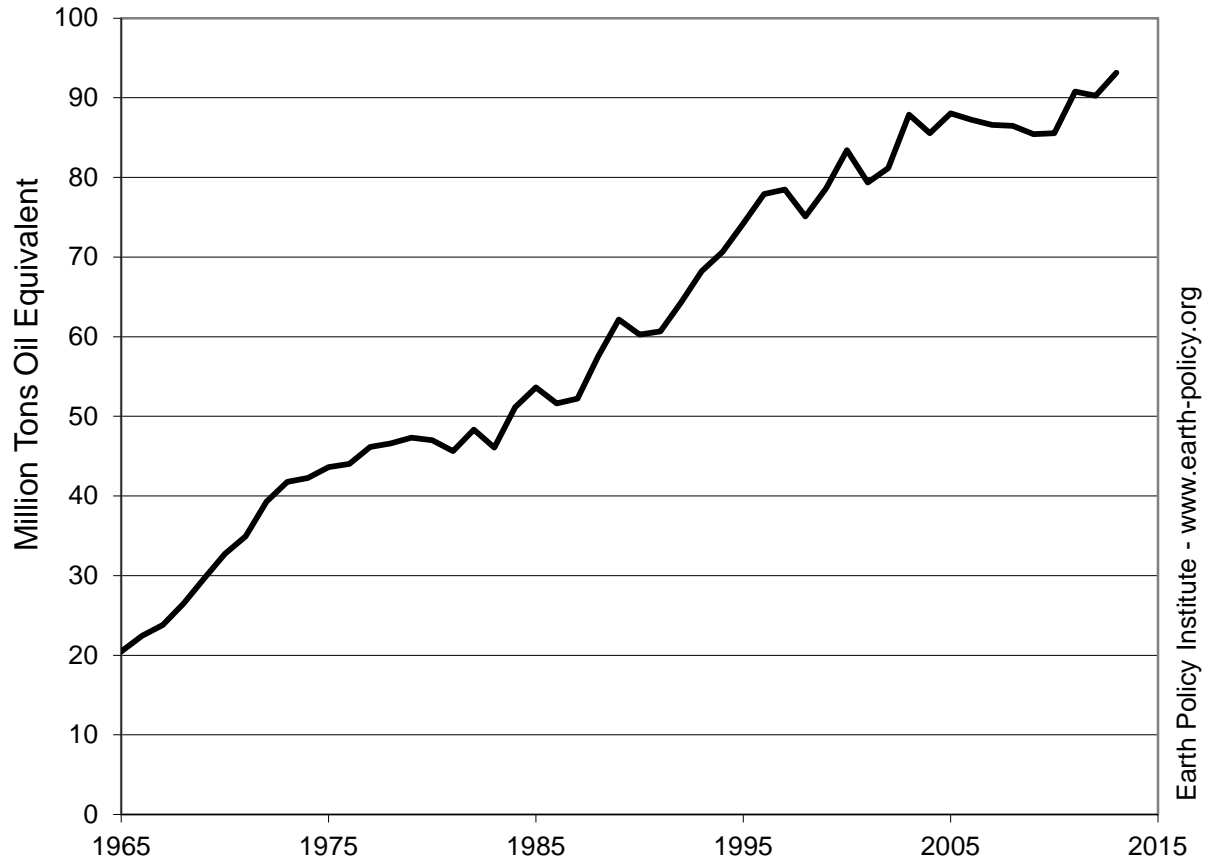
Natural Gas Consumption in Japan, 1965-2013



Source: BP

Earth Policy Institute - www.earth-policy.org

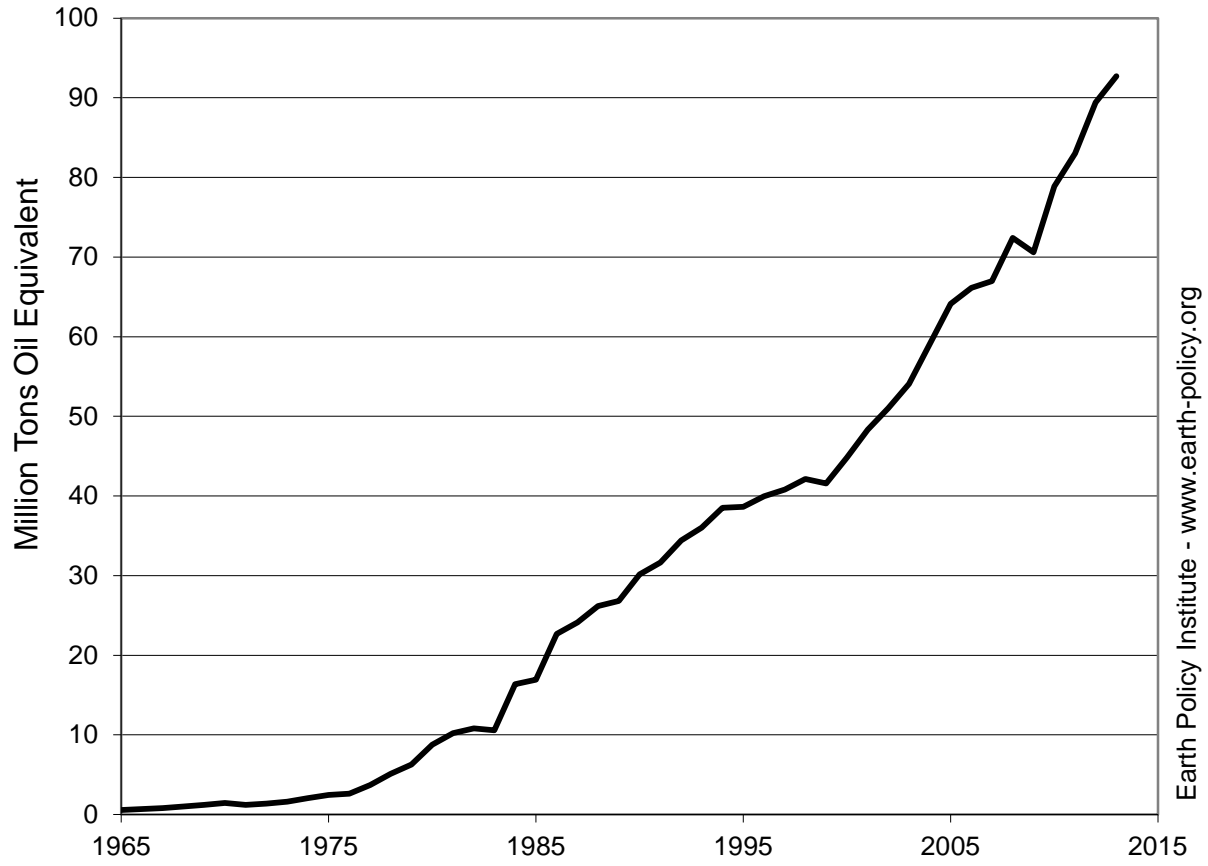
Natural Gas Consumption in Canada, 1965-2013



Source: BP

Earth Policy Institute - www.earth-policy.org

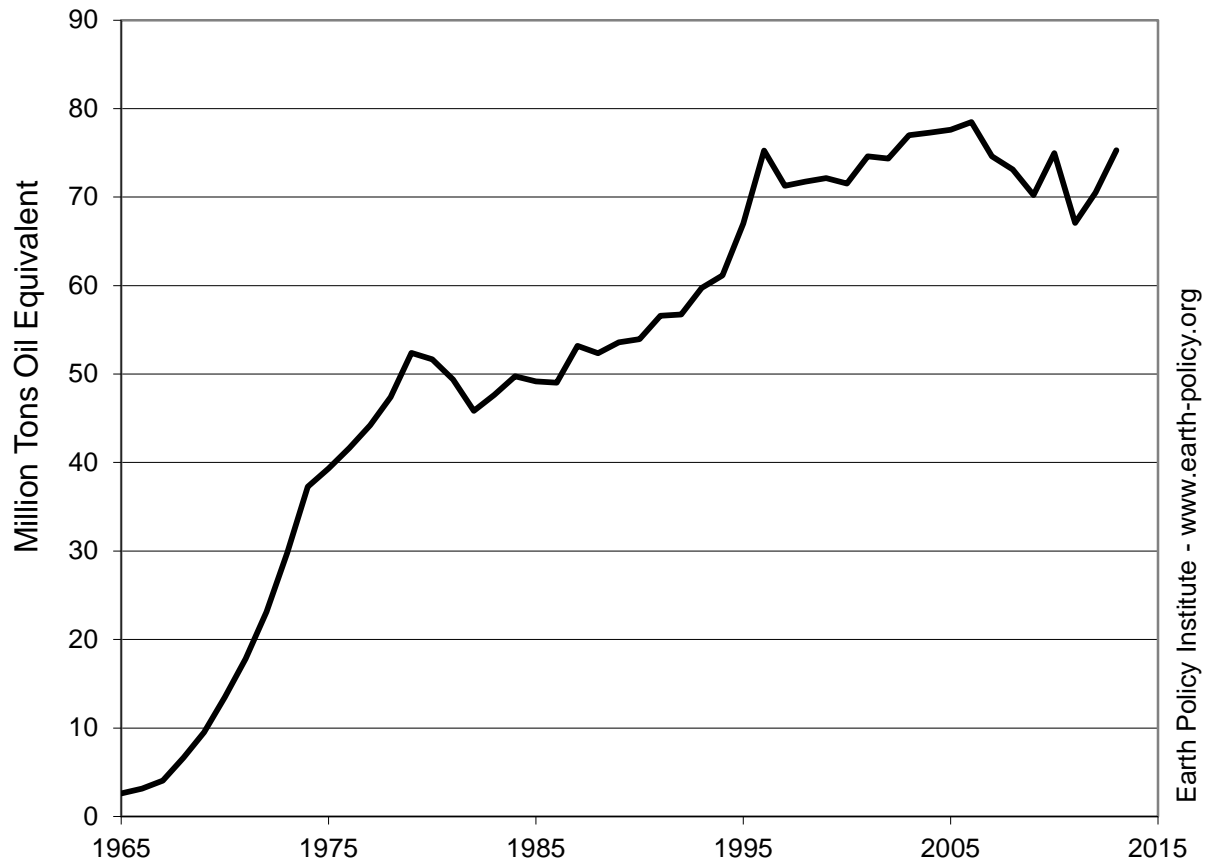
Natural Gas Consumption in Saudi Arabia, 1965-2013



Source: BP

Earth Policy Institute - www.earth-policy.org

Natural Gas Consumption in Germany, 1965-2013



Source: BP

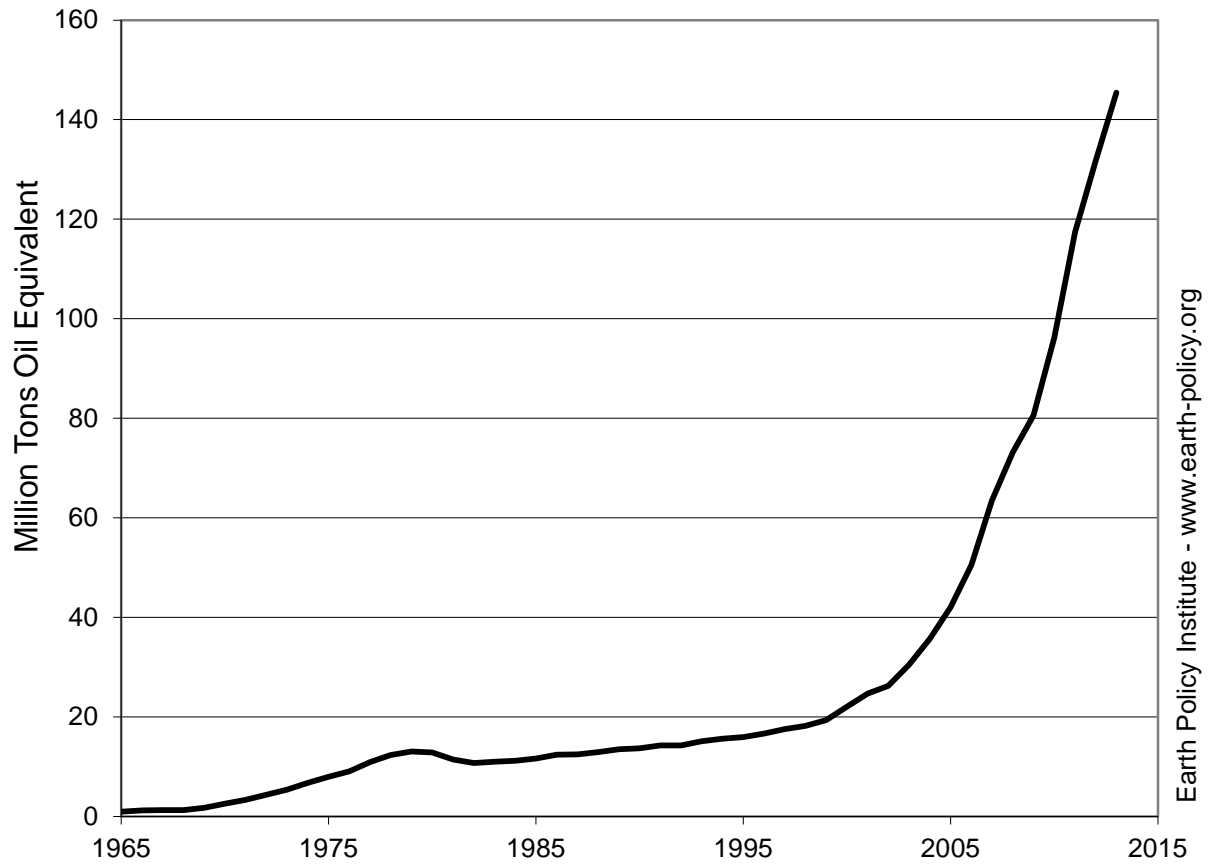
Earth Policy Institute - www.earth-policy.org

Natural Gas Consumption in China, 1965-2013

<u>Year</u>	<u>Consumption</u> Million Tons Oil Equivalent
1965	1.0
1966	1.2
1967	1.3
1968	1.3
1969	1.8
1970	2.6
1971	3.4
1972	4.4
1973	5.4
1974	6.8
1975	8.0
1976	9.1
1977	10.9
1978	12.4
1979	13.1
1980	12.8
1981	11.5
1982	10.7
1983	11.0
1984	11.2
1985	11.6
1986	12.4
1987	12.5
1988	12.9
1989	13.5
1990	13.7
1991	14.3
1992	14.3
1993	15.1
1994	15.6
1995	16.0
1996	16.6
1997	17.6
1998	18.2
1999	19.3
2000	22.1
2001	24.7
2002	26.3
2003	30.5
2004	35.7
2005	42.1
2006	50.5
2007	63.5
2008	73.2
2009	80.6
2010	96.2
2011	117.5
2012	131.7
2013	145.5

Source: BP, *Statistical Review of World Energy June 2014* (London: 2014).

Natural Gas Consumption in China, 1965-2013



Source: BP

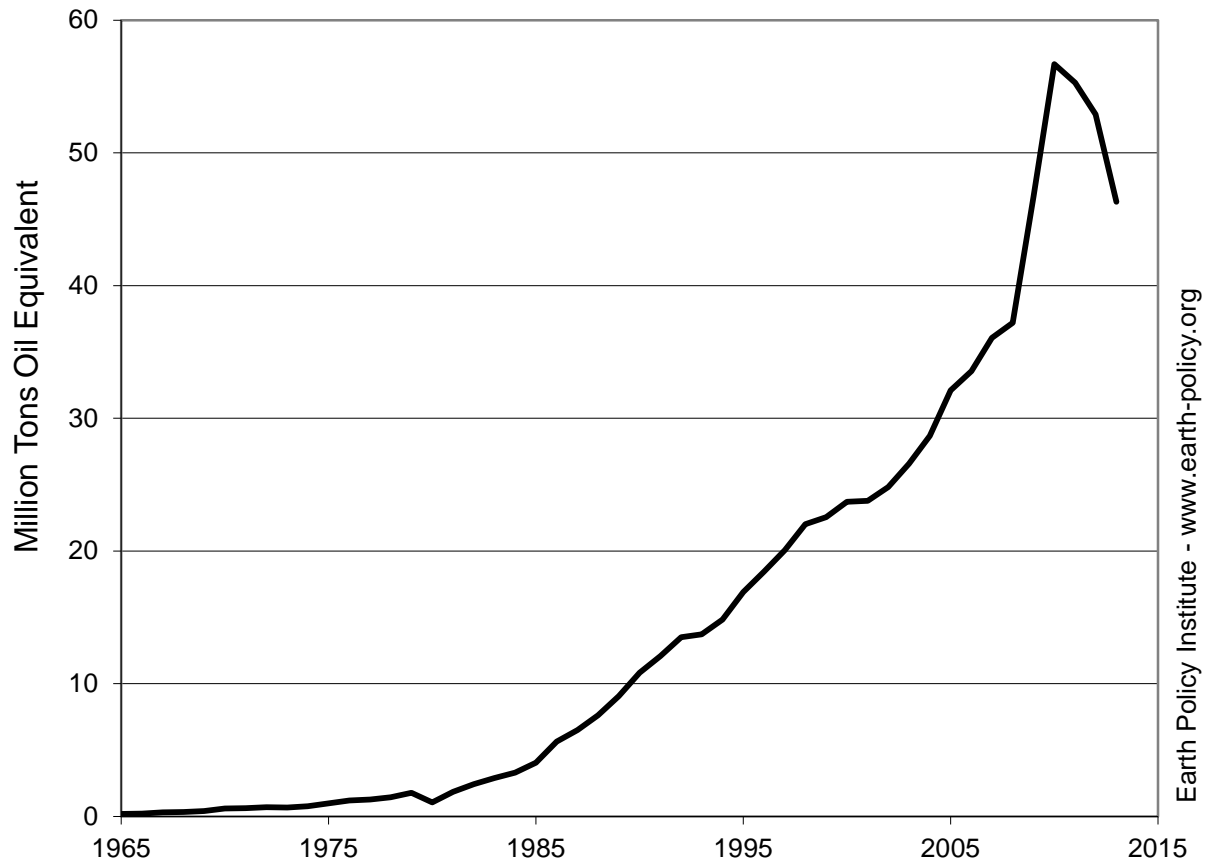
Earth Policy Institute - www.earth-policy.org

Natural Gas Consumption in India, 1965-2013

Year	Consumption Million Tons Oil Equivalent
1965	0.2
1966	0.2
1967	0.3
1968	0.3
1969	0.4
1970	0.6
1971	0.6
1972	0.7
1973	0.7
1974	0.8
1975	1.0
1976	1.2
1977	1.3
1978	1.4
1979	1.8
1980	1.1
1981	1.8
1982	2.4
1983	2.9
1984	3.3
1985	4.0
1986	5.6
1987	6.5
1988	7.6
1989	9.1
1990	10.8
1991	12.1
1992	13.5
1993	13.7
1994	14.8
1995	16.9
1996	18.5
1997	20.1
1998	22.0
1999	22.6
2000	23.7
2001	23.8
2002	24.8
2003	26.6
2004	28.7
2005	32.1
2006	33.5
2007	36.1
2008	37.2
2009	46.7
2010	56.7
2011	55.3
2012	52.9
2013	46.3

Source: BP, *Statistical Review of World Energy June 2014* (London: 2014).

Natural Gas Consumption in India, 1965-2013



Source: BP

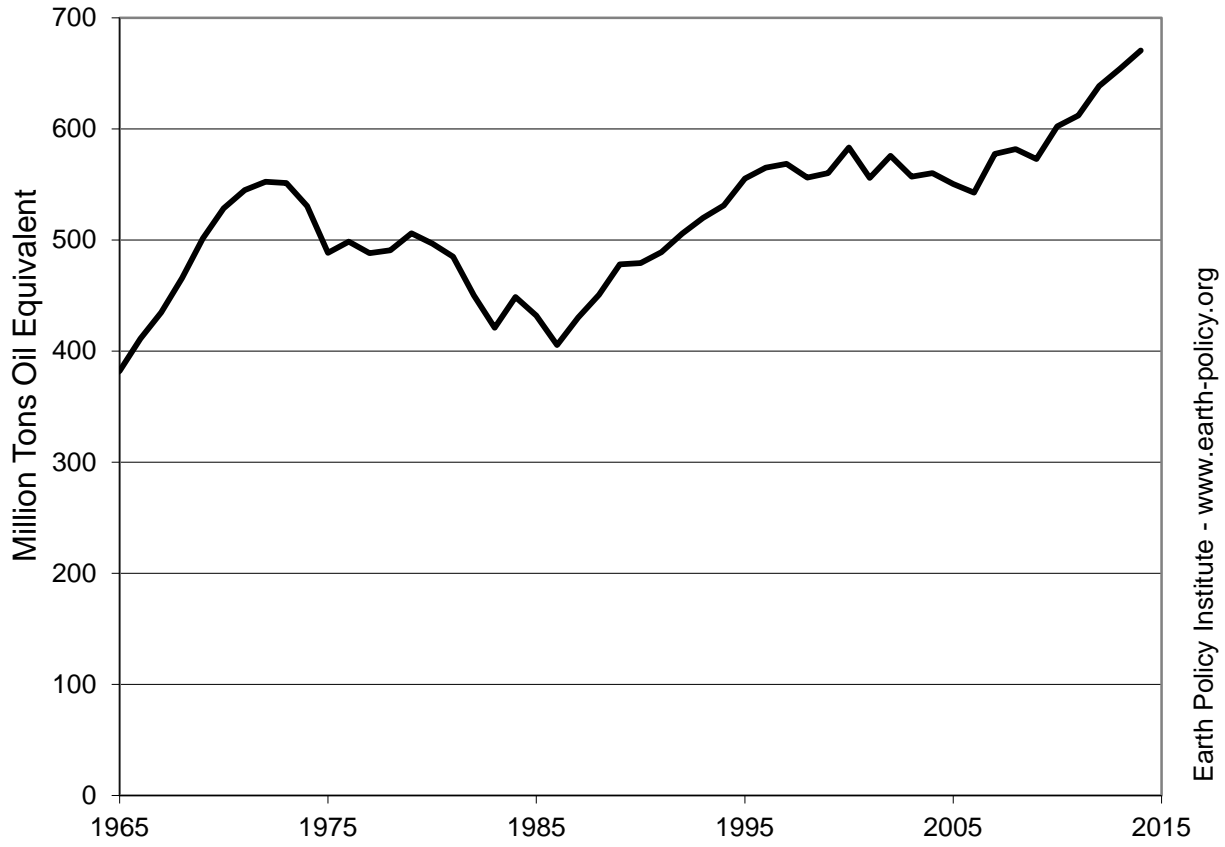
Earth Policy Institute - www.earth-policy.org

Natural Gas Consumption in the United States, 1950-2014

Year	Consumption Million Tons Oil Equivalent
1950	144
1951	170
1952	182
1953	191
1954	201
1955	217
1956	232
1957	246
1958	258
1959	283
1960	299
1961	312
1962	332
1963	349
1964	370
1965	382
1966	411
1967	435
1968	466
1969	501
1970	528
1971	545
1972	553
1973	551
1974	531
1975	488
1976	499
1977	488
1978	491
1979	506
1980	497
1981	485
1982	450
1983	421
1984	449
1985	432
1986	406
1987	430
1988	451
1989	478
1990	479
1991	489
1992	506
1993	520
1994	531
1995	555
1996	565
1997	568
1998	556
1999	560
2000	583
2001	556
2002	576
2003	557
2004	560
2005	550
2006	542
2007	578
2008	582
2009	573
2010	602
2011	612
2012	638
2013	654
2014	670

Source: Compiled by Earth Policy Institute with consumption data from "Natural Gas Consumption by Sector," Table 4.3 in U.S. Department of Energy, Energy Information Administration, "Monthly Energy Review," at www.eia.gov/totalenergy/data/monthly, updated 26 March 2015; billion cubic feet converted to million tons of oil equivalent using BP, "Conversion Factors, at www.bp.com/en/global/corporate/about-bp/energy-economics/statistical-review-of-world-energy/using-the-review/Conversionfactors.html, viewed 2 April 2015.

Natural Gas Consumption in the United States, 1950-2014



Source: EIA

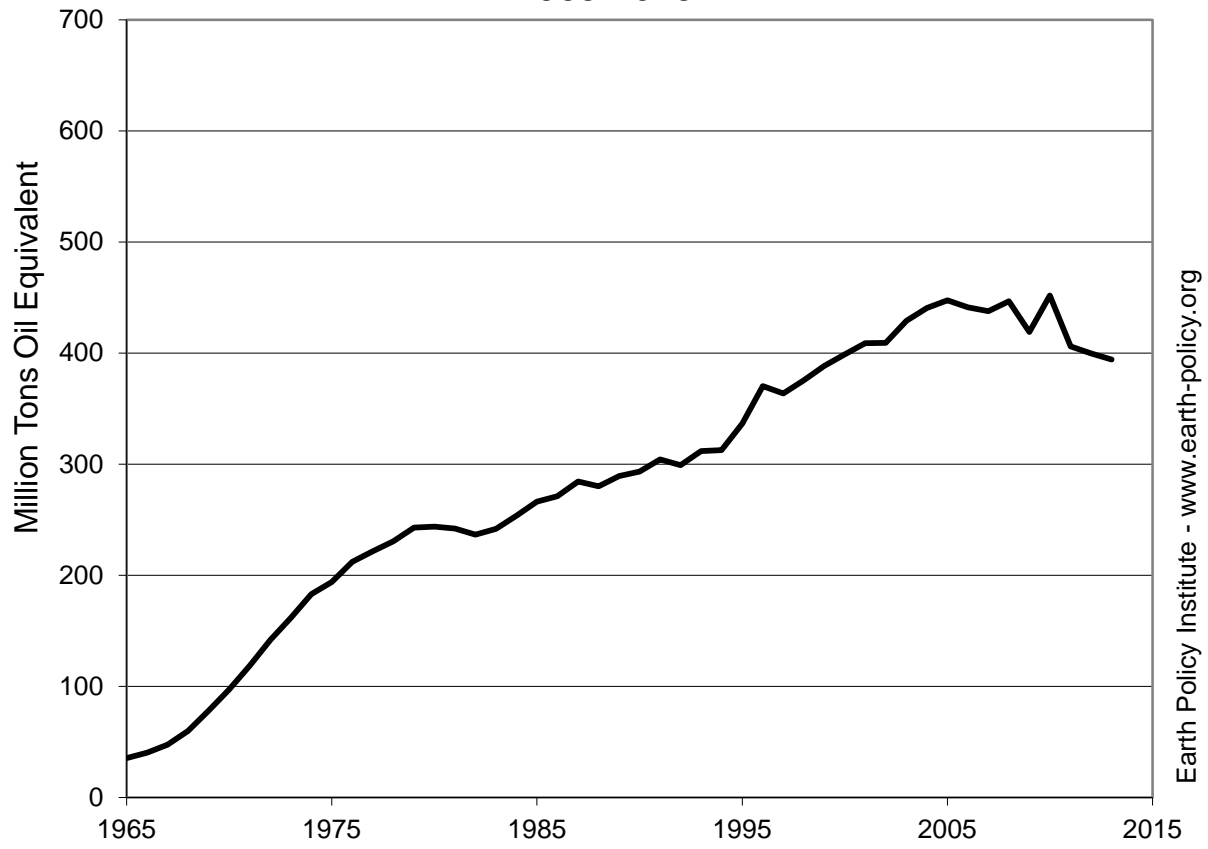
Earth Policy Institute - www.earth-policy.org

Natural Gas Consumption in the European Union, 1965-2013

<u>Year</u>	<u>Consumption</u> Million Tons Oil Equivalent
1965	35
1966	40
1967	47
1968	60
1969	78
1970	97
1971	119
1972	142
1973	162
1974	183
1975	194
1976	212
1977	222
1978	231
1979	243
1980	244
1981	242
1982	237
1983	242
1984	254
1985	266
1986	271
1987	284
1988	280
1989	289
1990	293
1991	304
1992	299
1993	312
1994	313
1995	336
1996	370
1997	364
1998	375
1999	389
2000	399
2001	409
2002	409
2003	429
2004	441
2005	447
2006	441
2007	438
2008	447
2009	419
2010	452
2011	406
2012	400
2013	394

Source: Compiled by Earth Policy Institute from BP, *Statistical Review of World Energy June 2014* (London: 2014).

Natural Gas Consumption in the European Union, 1965-2013



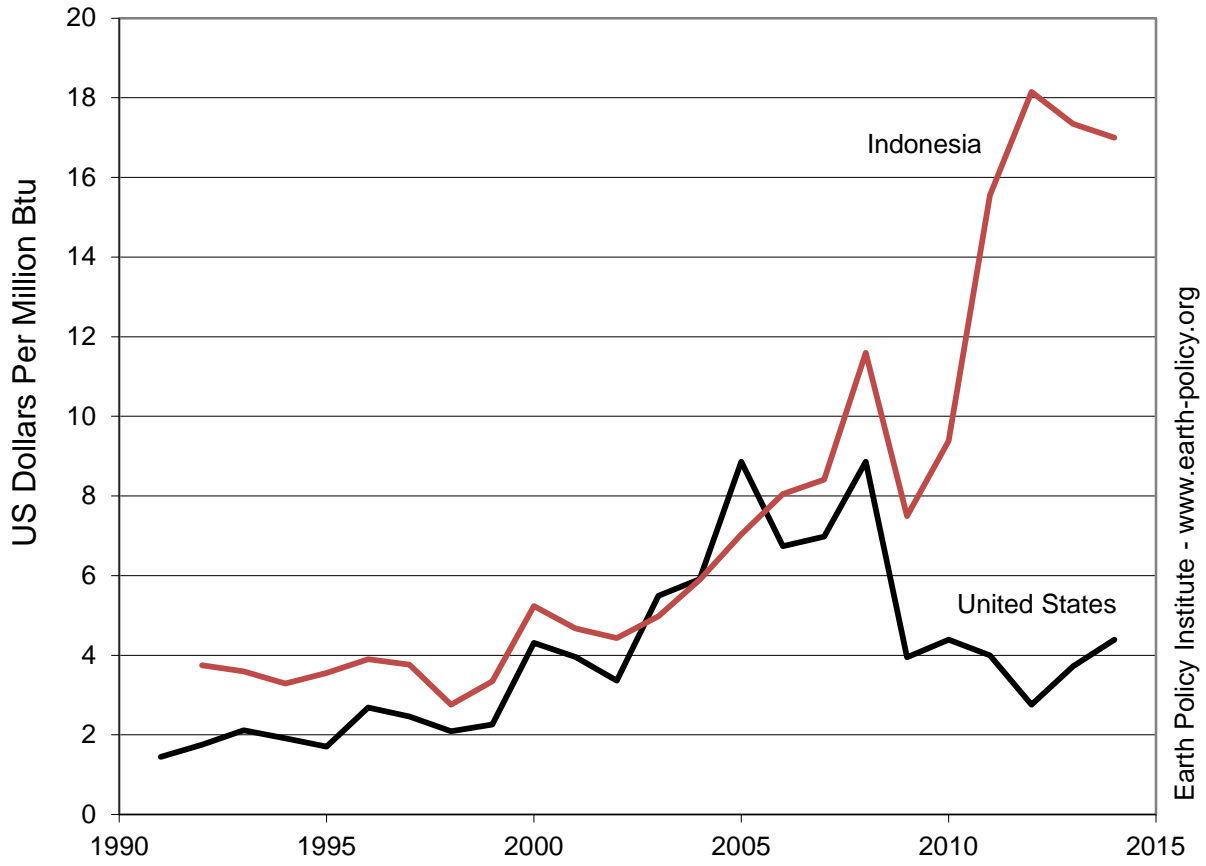
Source: BP

Natural Gas Prices, 1991-2014

Year	Indonesia	United States
	US Dollars per Million Btu	
1991	n.a.	1.5
1992	3.7	1.8
1993	3.6	2.1
1994	3.3	1.9
1995	3.6	1.7
1996	3.9	2.7
1997	3.8	2.5
1998	2.8	2.1
1999	3.3	2.3
2000	5.2	4.3
2001	4.7	4.0
2002	4.4	3.4
2003	5.0	5.5
2004	5.9	5.9
2005	7.0	8.9
2006	8.0	6.7
2007	8.4	7.0
2008	11.6	8.9
2009	7.5	3.9
2010	9.4	4.4
2011	15.6	4.0
2012	18.1	2.8
2013	17.3	3.7
2014	17.0	4.4

Source: Compiled by Earth Policy Institute from International Monetary Fund, *International Financial Statistics*, electronic database, at elibrary-data.imf.org, updated 24 February 2015.

Natural Gas Prices, 1991-2014



Source: IMF

Earth Policy Institute - www.earth-policy.org