

Energy 2005

Source: International Energy Agency, World Health Organization, BP plc

EarthTrends
Data Tables:
Energy
and Resources



	Energy Consumption								Population Relying on Solid Fuels (b) (percent)	Electricity		Proven Fossil Fuel Reserves (million metric toe)			Net Fuel Imports (c) (1000 metric toe)
	Total From All Sources (1000 metric toe)		Per Capita (kgoe)	Consumption by Source (percent), 2001						Con- sumption Per Capita (kWh)	Percent of Population With Access	Coal 2003	Oil 2003	Natural Gas 2003	
	1991	2001		Fossil	Solid	Nuclear	Hydro- electric	Other Renew- ables (a)							
			2001	Fuels	Biomass					2000	2001	2000	2003	2003		2003	2001
World	8,706,507	10,029,096	1,631	79.5	10.4	6.9	2.2	0.7	56	2,326	73	501,172	156,700	158,198	..
Asia (excl. Middle East)	2,215,374	3,145,549	890	75.3	18.2	4.2	1.6	0.5	75	1,087	70	..	..	..	684,754
Armenia	..	2,297	744	75.2	0.0	22.6	3.6	0.0	66	1,017	..	..	..	..	1,727
Azerbaijan	..	11,582	1,408	98.5	0.0	0.0	1.0	0.0	37	2,105	..	..	959	1,233	(7,955)
Bangladesh	12,572	20,410	145	61.7	37.9	0.0	0.4	0.0	> 95	99	20	..	..	306	4,276
Bhutan	..	..	..	..	..	..	..	..	< 5	..	..	..	..	..	..
Cambodia	..	..	..	..	..	..	..	..	> 95	..	16	..	..	..	..
China	873,087	1,139,369	887	78.6	18.8	0.4	2.1	0.1	80	1,069	99	58,900	3,238	1,641	3,583
Georgia	..	2,413	462	52.1	26.7	0.0	19.8	0.4	71	1,204	..	..	..	..	1,146
India	379,440	531,453	514	59.3	38.5	0.9	1.2	0.0	81	408	43	55,597	741	769	90,862
Indonesia	99,944	152,304	711	66.2	31.6	0.0	0.6	1.7	50	423	53	2,053	613	2,301	(80,835)
Japan	446,399	520,729	4,091	80.9	0.7	16.0	1.4	0.7	< 5	8,096	100	515	..	..	417,093
Kazakhstan	..	40,324	2,596	97.4	0.2	0.0	1.7	0.0	51	3,312	..	21,667	1,233	1,710	(43,679)
Korea, Dem People's Rep	31,299	20,440	912	90.6	4.9	0.0	4.5	0.0	68	760	20	300	..	..	1,291
Korea, Rep	100,390	194,780	4,132	83.6	0.1	15.0	0.2	0.0	< 5	5,607	100	52	..	..	164,442
Kyrgyzstan	..	2,235	447	59.1	0.2	0.0	47.8	0.0	> 95	1,439	..	..	..	..	983
Lao People's Dem Rep	..	..	..	..	..	..	..	..	95	..	..	..	..	..	..
Malaysia	26,222	51,608	2,197	94.2	4.7	0.0	1.2	0.0	29	2,824	97	..	524	2,165	(25,719)
Mongolia	..	..	..	..	..	..	..	..	67	..	90	..	..	..	..
Myanmar	10,505	12,159	252	21.3	77.4	0.0	1.3	0.0	> 95	94	5	..	..	328	(3,108)
Nepal	5,999	8,416	350	12.8	84.9	0.0	1.9	0.4	> 95	67	15	..	..	..	1,070
Pakistan	44,819	64,506	441	59.3	37.2	0.9	2.5	0.0	76	379	53	755	..	675	16,331
Philippines	28,268	42,151	546	54.1	23.1	0.0	1.4	21.3	85	517	87	..	..	..	21,935
Singapore	14,464	29,158	7,103	99.8	0.0	0.0	0.0	0.0	< 5	7,677	100	..	..	..	47,477
Sri Lanka	5,600	7,923	423	43.7	52.9	0.0	3.4	0.0	89	288	62	..	..	..	3,577
Tajikistan	..	3,036	494	56.4	0.0	0.0	39.8	0.0	> 95	2,172	..	..	..	..	1,655
Thailand	46,447	75,542	1,227	81.9	17.1	0.0	0.7	0.0	72	1,563	82	423	90	393	35,782
Turkmenistan	..	15,309	3,243	101.0	0.0	0.0	0.0	0.0	50	1,400	..	..	75	2,610	(34,979)
Uzbekistan	..	50,650	2,001	98.8	0.0	0.0	1.0	0.0	79	1,796	..	..	81	1,665	(5,068)
Viet Nam	24,824	39,356	497	37.8	58.3	0.0	4.0	0.0	> 95	332	76	100	338	207	(11,157)
Europe	..	3,606,369	3,621	84.2	2.0	10.5	2.4	0.3	16	5,598	..	..	..	..	44,742
Albania	1,862	1,715	549	65.8	7.5	0.0	17.8	0.1	76	1,123	..	..	..	..	808
Austria	26,701	30,721	3,790	77.5	9.0	0.0	11.7	0.6	< 5	7,419	100	..	..	..	20,034
Belarus	..	24,415	2,445	92.7	3.7	0.0	0.0	0.0	11	2,995	..	..	..	..	20,152
Belgium	51,651	59,001	5,743	76.5	0.6	20.5	0.1	0.1	< 5	8,272	100	..	..	..	51,174
Bosnia and Herzegovina	..	4,359	1,072	88.0	4.1	0.0	10.0	0.0	74	1,876	..	..	..	..	1,174
Bulgaria	22,631	19,476	2,424	73.3	2.8	26.2	0.8	0.0	31	3,854	..	908	..	..	9,666
Croatia	..	7,904	1,778	86.1	3.7	0.0	6.8	0.0	16	2,938	..	..	..	..	3,850
Czech Rep	42,916	41,396	4,036	90.6	0.9	9.3	0.4	0.2	< 5	5,891	100	2,597	..	..	11,485
Denmark	19,854	19,783	3,706	88.7	5.0	0.0	0.0	2.3	< 5	6,492	100	..	170	85	(6,111)
Estonia	..	4,697	3,472	89.7	11.4	0.0	0.0	0.0	34	4,766	..	..	..	..	1,763
Finland	29,582	33,815	6,518	56.9	18.7	17.6	3.4	0.1	< 5	15,687	100	..	..	..	18,319
France	239,982	265,570	4,459	53.9	3.6	41.3	2.4	0.3	< 5	7,401	100	19	..	..	139,392
Germany	349,219	351,092	4,263	84.1	1.3	12.7	0.5	0.6	< 5	6,852	100	29,667	..	186	216,864
Greece	22,286	28,704	2,622	94.5	3.3	0.0	0.6	0.7	< 5	4,686	100	958	..	..	21,866
Hungary	27,362	25,340	2,542	82.7	1.3	14.6	0.1	0.0	26	3,426	100	366	..	..	13,511
Iceland	2,123	3,363	11,800	27.1	0.0	0.0	16.8	56.0	< 5	26,947	100	..	..	..	956
Ireland	10,604	14,981	3,876	98.4	1.0	0.0	0.3	0.4	< 5	5,917	100	..	..	..	13,792
Italy	156,817	171,998	2,990	91.9	1.0	0.0	2.3	2.0	< 5	5,318	100	..	106	198	142,337
Latvia	..	4,297	1,828	61.3	29.3	0.0	5.7	0.0	19	2,193	..	..	..	..	2,607
Lithuania	..	8,023	2,303	58.3	8.2	37.2	0.3	0.0	42	2,687	..	..	..	..	4,113
Macedonia, FYR	..	2,608	1,282	89.9	5.7	0.0	2.1	0.9	58	2,799	..	..	..	..	979
Moldova, Rep	..	3,140	734	92.1	1.9	0.0	0.2	0.0	72	940	..	..	..	..	2,908
Netherlands	70,332	77,214	4,831	95.0	0.7	1.3	0.0	0.3	< 5	6,659	100	..	..	1,500	30,064
Norway	22,188	26,607	5,921	54.3	5.0	0.0	38.9	0.1	< 5	25,595	100	..	1,350	2,215	(201,565)
Poland	98,482	90,570	2,343	95.6	4.2	0.0	0.2	0.0	37	3,227	100	14,153	..	104	10,151
Portugal	17,301	24,732	2,465	86.2	7.6	0.0	4.9	0.5	< 5	4,145	100	..	..	..	22,013
Romania	51,476	36,841	1,642	86.6	5.8	3.9	3.5	0.0	45	2,041	..	486	123	280	9,246
Russian Federation	..	621,349	4,289	90.9	0.6	5.8	2.4	0.0	7	5,319	..	68,699	9,500	42,300	(365,972)
Serbia and Montenegro	..	16,061	1,523	86.6	5.0	0.0	6.2	0.0	70	2,869	..	..	..	..	5,033
Slovakia	19,147	18,717	3,470	73.3	1.4	24.1	2.3	0.2	24	5,005	100	..	..	..	11,856
Slovenia	..	6,838	3,440	70.8	5.9	20.0	4.8	0.1	< 5	6,007	..	..	..	..	3,623
Spain	94,662	127,381	3,116	80.3	2.9	13.0	2.8	0.7	< 5	5,501	100	287	..	..	100,320
Sweden	48,185	51,054	5,762	34.5	14.9	36.8	13.3	0.3	< 5	16,021	100	..	..	..	18,477
Switzerland	25,317	28,019	3,906	59.1	1.9	25.0	12.7	0.7	< 5	8,026	100	..	..	..	16,379
Ukraine	..	141,577	2,872	85.2	0.2	14.0	0.7	0.0	56	2,767	..	16,809	..	999	58,412
United Kingdom	218,742	235,158	3,994	88.5	0.4	10.0	0.1	0.4	< 5	6,171	100	833	595	567	(22,602)
Middle East & N. Africa	378,681	577,251	1,487	96.9	1.8	0.0	0.8	0.3	17	1,848	87	..	..	..	(1,016,784)
Afghanistan	..	..	..	..	..	..	..	..	> 95	..	2	..	..	..	..
Algeria	25,217	29,438	957	99.7	0.3	0.0	0.0	0.0	< 5	723	98	..	1,425	4,071	(115,502)
Egypt	32,425	48,012	695	94.7	2.8	0.0	2.5	0.0	23	1,114	94	..	508	1,580	(7,438)
Iran, Islamic Rep	75,352	120,000	1,785	99.0	0.7	0.0	0.4	0.0	< 5	1,689	98	..	17,952	24,021	(126,024)
Iraq	15,545	28,476	1,193	99.7	0.1	0.0	0.2	0.0	< 5	1,471	95	..	15,520	2,798	(94,820)
Israel	12,102	21,193	3,433	97.6	0.0	0.0	0.0	3.0	< 5	6,459	100	20,865
Jordan	3,538	5,116	987	98.1	0.1	0.0									

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	Total From All Sources (1000 metric toe)		Per Capita (kgoe)	Consumption by Source (percent), 2001						Con- sumption Per Capita (kWh) 2000	Percent of Population With Access 2000	Coal 2003	Oil 2003	Natural Gas 2003	
	1991	2001		Fossil Fuels	Solid Biomass	Nuclear	Hydro- electric	Other Renew- ables (a)							
	1991	2001	2001	Fossil Fuels	Solid Biomass	Nuclear	Hydro- electric	Other Renew- ables (a)		2000	2001	2000	2003	2003		2003
Sub-Saharan Africa	..	..	..	..	..	..	..	..	76	..	24	..	..	..	..
Angola	6,361	8,454	662	30.3	68.7	0.0	1.0	0.0	> 95	101	12	..	1,201	..	(34,979)
Benin	1,703	2,028	318	..	71.2	0.0	0.0	0.0	89	65	22	..	..	..	511
Botswana	..	..	..	..	..	..	..	..	65	..	22	..	..	..	..
Burkina Faso	..	..	..	..	..	..	..	..	> 95	..	13	..	..	..	..
Burundi	..	..	..	..	..	..	..	..	> 95	..	..	..	..	..	..
Cameroon	5,079	6,445	418	16.3	79.0	0.0	4.6	0.0	77	173	20	..	31	..	(6,046)
Central African Rep	..	..	..	..	..	..	..	..	> 95	..	..	..	..	..	..
Chad	..	..	..	..	..	..	..	..	95	..	..	..	..	..	..
Congo	1,082	931	263	29.2	64.9	0.0	3.1	0.0	67	134	21	..	214	..	(12,763)
Congo, Dem Rep	12,116	15,039	302	4.4	93.0	0.0	3.3	0.0	> 95	82	7	..	..	..	(562)
Côte d'Ivoire	4,543	6,497	404	32.5	66.6	0.0	..	0.0	93	194	50	..	..	..	509
Equatorial Guinea	..	..	..	..	..	..	..	..	83	..	..	..	..	..	..
Eritrea	..	771	200	..	68.9	0.0	0.0	0.0	> 95	46	17	..	..	..	244
Ethiopia	15,614	19,161	285	..	93.1	0.0	0.8	0.0	> 95	25	5	..	..	..	1,171
Gabon	1,359	1,702	1,327	39.9	55.7	0.0	4.5	0.0	34	907	31	..	324	..	(13,071)
Gambia	..	..	..	..	..	..	..	..	> 95	..	..	..	..	..	..
Ghana	5,512	8,180	408	26.5	66.3	0.0	6.9	0.0	95	348	45	..	..	..	2,172
Guinea	..	..	..	..	..	..	..	..	> 95	..	..	..	..	..	..
Guinea-Bissau	..	..	..	..	..	..	..	..	95	..	..	..	..	..	..
Kenya	12,535	15,377	495	17.7	78.2	0.0	1.3	2.7	85	118	8	..	..	..	2,801
Lesotho	..	..	..	..	..	..	..	..	85	..	5	..	..	..	..
Liberia	..	..	..	..	..	..	..	..	83	..	..	..	..	..	..
Madagascar	..	..	..	..	..	..	..	..	> 95	..	8	..	..	..	..
Malawi	..	..	..	..	..	..	..	..	> 95	..	5	..	..	..	..
Mali	..	..	..	..	..	..	..	..	> 95	..	..	..	..	..	..
Mauritania	..	..	..	..	..	..	..	..	69	..	..	..	..	..	..
Mozambique	7,167	7,687	422	6.0	88.3	0.0	9.8	0.0	87	272	7	..	..	..	473
Namibia	652	1,159	601	65.5	15.2	0.0	10.2	0.0	83	1,334	34	..	..	..	759
Niger	..	..	..	..	..	..	..	..	> 95	..	..	..	..	..	..
Nigeria	74,241	95,444	810	21.9	77.5	0.0	0.6	0.0	67	86	40	..	4,635	4,497	(110,304)
Rwanda	..	..	..	..	..	..	..	..	> 95	..	..	..	..	..	..
Senegal	2,235	3,179	330	44.5	55.5	0.0	0.0	0.0	79	137	30	..	..	..	1,446
Sierra Leone	..	..	..	..	..	..	..	..	92	..	..	..	..	..	..
Somalia	..	..	..	..	..	..	..	..	< 5	..	..	..	..	..	..
South Africa	95,393	107,738	2,426	85.5	11.9	2.6	0.2	0.0	28	4,546	66	33,013	..	..	(32,589)
Sudan	10,583	13,525	421	18.9	80.3	0.0	0.8	0.0	< 5	68	30	..	94	..	(8,025)
Tanzania, United Rep	10,007	13,917	391	6.9	91.5	0.0	1.6	0.0	> 95	61	11	..	..	..	938
Togo	1,005	1,422	303	..	74.3	0.0	0.0	0.0	> 95	109	9	..	..	..	323
Uganda	..	..	..	..	..	..	..	..	> 95	..	4	..	..	..	..
Zambia	5,597	6,423	608	10.2	81.5	0.0	10.9	0.0	87	591	12	..	..	..	575
Zimbabwe	9,768	9,882	775	36.3	57.4	0.0	2.6	0.0	67	813	40	335	..	..	886
North America	2,152,179	2,529,598	7,929	85.3	2.5	9.1	1.8	0.8	< 5	13,416	100	..	..	..	510,372
Canada	208,832	248,184	7,999	77.0	4.2	8.1	11.5	0.0	< 5	16,787	100	3,350	2,308 e	1,498	(129,563)
United States	1,943,347	2,281,414	7,921	86.2	2.3	9.2	0.8	0.9	< 5	13,053	100	121,962	4,184	4,711	639,935
C. America & Caribbean	175,649	214,218	1,265	82.7	11.1	1.1	1.7	3.2	37	1,409	85	..	..	..	(53,415)
Belize	..	..	..	..	..	..	..	..	< 5	..	..	..	..	..	..
Costa Rica	2,097	3,481	867	50.8	11.0	0.0	14.0	24.8	58	1,598	96	..	..	..	1,783
Cuba	13,530	13,651	1,215	75.6	24.0	0.0	0.4	4.2	42	1,153	97	..	..	..	7,467
Dominican Rep	4,164	7,810	920	81.0	18.4	0.0	0.6	0.0	48	897	67	..	..	..	6,325
El Salvador	2,797	4,269	676	44.7	32.7	0.0	2.3	19.4	65	579	71	..	..	..	1,886
Guatemala	4,656	7,313	624	44.7	53.3	0.0	2.3	0.0	73	365	67	..	..	..	2,149
Haiti	1,580	2,088	257	..	72.7	0.0	1.1	0.0	82	31	34	..	..	..	547
Honduras	2,431	3,236	489	51.8	41.1	0.0	6.3	0.0	66	524	55	..	..	..	1,836
Jamaica	2,955	4,009	1,540	87.9	11.9	0.0	0.2	0.0	47	2,352	90	..	..	..	3,557
Mexico	129,294	152,273	1,516	88.3	5.4	1.5	1.6	3.2	22	1,809	95	690	2,285	374	(76,813)
Nicaragua	2,184	2,792	537	44.8	48.2	0.0	0.6	6.3	72	335	48	..	..	..	1,274
Panama	1,610	3,180	1,058	78.9	14.6	0.0	6.8	0.0	37	1,358	76	..	..	..	2,653
Trinidad and Tobago	5,730	8,693	6,718	99.7	0.3	0.0	0.0	0.0	< 5	3,982	99	..	265	663	(9,185)
South America	290,832	382,156	1,089	70.9	14.9	1.5	11.3	1.6	25	1,639	90	..	..	..	(181,696)
Argentina	46,421	57,601	1,535	85.8	5.2	3.2	5.5	0.0	< 5	2,126	95	..	440	598	(24,854)
Bolivia	2,878	4,271	504	78.9	16.8	0.0	4.4	0.0	61	411	60	..	..	732	(2,667)
Brazil	134,792	185,083	1,064	60.3	20.3	2.0	12.4	3.3	27	1,794	95	3,976	1,456	221	37,916
Chile	14,106	23,801	1,544	74.4	17.7	0.0	7.8	0.0	15	2,648	99	..	..	..	15,737
Colombia	25,254	29,245	683	72.8	17.9	0.0	9.4	0.0	36	781	81	4,305	206	101	(44,296)
Ecuador	6,289	8,727	692	84.6	8.4	0.0	7.0	0.0	28	654	80	..	649	..	(13,460)
Guyana	..	..	..	..	..	..	..	..	< 5	..	..	..	..	..	..
Paraguay	3,161	3,756	670	27.8	57.9	0.0	103.8 f	0.1	64	841	75	..	..	..	1,063
Peru	9,770	12,113	459	68.4	18.7	0.0	12.5	0.4	40	704	73	..	129	222	2,677
Suriname	..	..	..	..	..	..	..	..	69	..	..	..	..	..	..
Uruguay	2,441	2,703	803	59.1	15.5	0.0	29.3	0.0	< 5	1,940	98	..	..	..	1,953
Venezuela	45,720	54,856	2,216	89.5	1.0	0.0	9.5	0.0	< 5	2,729	94	319	11,239	3,735	(155,765)
Oceania	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Australia	86,717	115,627	5,975	94.2	4.1	0.0	1.2	0.3	< 5	10,316	100	41,547	560	2,294	(134,092)
Fiji	..	..	..	..	..	..	..	..	< 5	..	..	..	..	..	..
New Zealand	13,671	18,294	4,795	70.3	4.4	0.0	10.1	13.0	< 5	8,828	100	202	..	..	3,308
Papua New Guinea	..	..	..	..	..	..	..	..	> 95	..	..	..	51	385	..
Solomon Islands	..	..	..	..	..	..	..	..	< 5	..	..	..	..	..	..
Developed	..	6,112,050	4,600	83.9	2.4	10.4	2	0.7	14	7578.3	..	..	..	..	1,105,717
Developing	2,789,194	3,911,044	828	73.6	21.7	1.4	2	0.7	67	896.2	67	..	..	..	(1,071,719)

One toe equals one ton of oil equivalent; one kgoe equals one kilogram of oil equivalent.

a. Other renewables refer to biogas, liquid biomass, geothermal, solar, wind, and wave energy. b. Solid fuels include biomass and fossil fuels burned directly by a household. c. Net Fuel Imports are equal to imports minus exports and includes crude oil, petroleum products, coal and coal products, and natural gas. d. World totals are calculated by WRI. e. Includes an official estimate of oil sands under active development. f. Paraguay exports significant amounts of the hydroelectricity listed here to neighboring countries.

DEFINITIONS AND METHODOLOGY

Total Energy Consumption is the amount of primary energy from all sources (coal, nuclear, hydroelectric, etc.) used annually by a particular country or region. Consumption equals indigenous production plus imports minus exports, stock changes, and energy delivered to international marine bunkers. Energy losses from transportation, friction, heat, and other inefficiencies are included here. The original source material published by the International Energy Agency (IEA) refers to these values as Total Primary Energy Supply (TPES). To facilitate comparisons among different sources of energy, the heat content of all energy commodities is presented in metric tons of oil equivalent (toe), which measures the energy contained in a metric ton (1000 kg) of crude oil. One toe is equal to 10^7 kilocalories, 41.868 gigajoules, or 11,628 kilowatt-hours (kWh).

Basic energy statistics are collected by the IEA from a variety of sources. In OECD member countries, national administrations fill out five annual questionnaires. In non-OECD countries, statistics are collected from the distribution of questionnaires, communication with international organizations such as the United Nations, co-operation with national statistical bodies, and direct contact with energy consultants and companies. If data are not available from any of these sources, they are estimated by the IEA. The energy produced by fossil fuels is calculated using conversion factors per unit mass of fuel (e.g., 10,000 kcal/kg of oil). Since energy sources such as coal and crude oil may vary in quality, the IEA uses specific conversion factors supplied by national administrations for the main categories of energy sources and uses (i.e., production, imports, exports). The energy produced by non-fossil fuels is more complicated to measure; the IEA must first assume a primary form of energy to measure using global or regional efficiency averages, and then calculate the primary energy equivalent. Please refer to the original source for further information on the variables and collection methodologies.

Energy Consumption Per Capita is the amount of energy, as defined above, consumed on average by each person, expressed in kilograms of oil equivalent (kgoe). This variable was calculated by dividing total consumption by population figures from the United Nations Population Division.

Energy Consumption by Source data show the amount of energy consumed in five different categories as a percentage of total consumption:

Fossil Fuels include crude oil and natural gas liquids, petroleum products, coal and coal products, and natural gas. Coal and coal products include hard coal, lignite, patent fuel, coke, blast furnace gas, coke-oven gas, brown coal briquettes (BKB), and peat. Oil and natural gas products include crude oil, natural gas liquids, refinery feedstocks, petroleum products, natural gas, gas works gas, and other hydrocarbons. The inclusion of petroleum products accounts for domestic processing of crude oil as well as assorted petroleum imports. Petroleum products refer to refinery gas, ethane, liquified petroleum gas, aviation gasoline, motor gasoline, jet fuels, kerosene, gas/diesel oil, heavy fuel oil, naphtha, white spirit, lubricants, bitumen, paraffin waxes, petroleum coke, and other products.

Solid Biomass includes any plant matter used directly as a fuel or converted into other forms before combustion, including wood; vegetal waste including wood waste and crop waste used for energy; animal materials and wastes; sulphite lyes (also known as black liquor, this is a sludge that contains the lignin digested from wood for paper making); and other solid biomass. Inputs to charcoal production are included here. However, since charcoal is a secondary product, the IEA excludes final charcoal production numbers to avoid double counting.

Nuclear includes all energy produced by nuclear power plants from nuclear fission. The consumption data shown here assume an average thermal efficiency of 33 percent.

Hydroelectric shows the energy content of the electricity produced in hydro power plants. The output from pumped storage plants is not included in these values.

Other Renewables include energy from biogas, liquid biomass, geothermal, solar, ocean, and wave systems. *Biogas* energy is produced by the fermentation of animal dung, human sewage or crop residues. *Liquid biomass* energy is produced from bio-additives such as ethanol (alcohol). *Geothermal* technologies use the heat of the earth to generate energy. *Solar energy* includes the production of electricity from solar photovoltaic cells as well as the production of both electricity and heat from solar thermal energy. Passive solar energy for the direct heating, cooling, and lighting of dwellings or other buildings is not included here.

Ocean energy includes the production of electricity from the mechanical energy of ocean waves and tides or from the thermal energy (heat) stored in the ocean. *Wind energy* uses the mechanical energy of the wind for generating electricity.

Population Relying on Solid Fuels measures the percentage of the total population that burn solid fuels in their households. Solid fuels include coal or biomass such as dung, charcoal, wood, or crop residues. The World Health Organization (WHO) measures the prevalence of solid fuel usage because the burning of solid fuels in traditional stoves causes high levels of indoor air pollution, emitting dangerous pollutants such as carbon monoxide and particulates.

Electricity Consumption per Capita measures the average kilowatt-hours (kWh) of electrical power generated per person in a particular country or region. Public electricity plants, private electricity plants, and combined heat and power (CHP) plants are all included. Electricity output from crude oil and natural gas liquids is not included here. Electricity consumption equals production and imports minus exports and distribution losses.

Population with Access to Electricity is defined as the percentage of the total population that has electrical power in their home. It includes commercially sold electricity, both on and off the grid. For those countries where access to electricity has been assessed through government surveys, it also includes self-generated electricity.

Proved Fossil Fuel Reserves are generally measured as quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known reservoirs under existing economic and operating conditions. In order to facilitate comparisons among different sources of energy, fossil fuel reserves estimates have been converted to metric tons of oil equivalent (toe). A toe measures the energy contained in a metric ton (1000 kg) of crude oil. **Coal** reserves include anthracite, bituminous, sub-bituminous, and lignite coal. The standard conversion factors for one ton of oil equivalent are 1.5 tons of anthracite and bituminous coal and 3 tons of sub-bituminous and lignite coal. **Oil** includes gas condensate and natural gas liquids (NGLs) as well as crude oil. Estimates were converted to metric tons of oil equivalent by BP, the data provider, using individual country conversion factors. **Natural Gas** was converted using the standard conversion factor of 0.9 million metric tons of oil equivalent per billion cubic meters of natural gas.

Net Fuel Imports measures the amount of fossil fuel that enters the national territorial boundaries of a country, whether or not customs clearance has taken place, minus the amount that leaves via export. Fossil fuel includes crude oil and natural gas liquids, petroleum products, coal and coal products, and natural gas. Quantities of crude oil and oil products imported under processing agreements (i.e., refining on account) are included. Quantities of oil in transit are excluded. Re-exports of oil imported for processing within bonded areas are shown as exports of product from the processing country to the final destination. Petroleum products refer to refinery gas, ethane, liquified petroleum gas, aviation gasoline, motor gasoline, jet fuels, kerosene, gas/diesel oil, heavy fuel oil, naphtha, white spirit, lubricants, bitumen, paraffin waxes, petroleum coke, and other petroleum products. Natural gas and gas-works gas are included. Natural gas is reported as coming from the country of origin. Coal imports includes all coal, both primary (including hard coal and lignite/brown coal) and derived fuels (including patent fuel, coke-oven coke, gas coke, BKB, coke oven gas, and blast furnace gas). Peat is also included. In most cases, coal in transit is not included. Regional totals include goods imported from other countries belonging to the same region. Consequently, these totals by no means represent a region's net imports or net exports.

FREQUENCY OF UPDATE BY DATA PROVIDERS

IEA and BP update their energy data annually. WHO updates their information every two years. These updates also often include revisions of past data. Data may therefore differ from those reported in past editions of the *World Resources Report*.

DATA RELIABILITY AND CAUTIONARY NOTES

Energy

The data on energy balances are based primarily on well-established and institutionalized accounting methodologies and are therefore considered reliable. One exception is fuelwood and other biomass fuels, which are estimated by the IEA based on small sample surveys or other incomplete information. Energy production estimates from nuclear power and renewable sources (hydroelectric, solar, geothermal, and wind power) are calculated using a number of assumptions about primary energy forms and plant efficiencies. As a result, these values may be less reliable than estimates of energy produced from fossil fuels, and the share of renewables in total energy consumption may appear different here than it would from other providers.

IEA data do not distinguish between "no data" (denoted in these tables with "..") and zero values. WRI has distinguished between the two where possible, but some values represented as zero should probably be indicated by ".." and vice versa.

Proven Fossil Fuel Reserves

Every effort is made to come up with a consistent series for reserves based on a common definition, however, in reality, different countries use different methodologies, and the data have varying levels of reliability. Since energy sources such as coal may vary in quality, converting the estimates into toe using standard conversion factors, rather than country specific conversion factors, introduces a level of uncertainty to the reserve estimates shown here.

Percent of Population Relying on Solid Fuels

The estimates of household solid fuel use were compiled with the help of several studies conducted over the past decade. It has been assumed that patterns in solid fuel use have not changed dramatically over this time period.

SOURCES

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