

Annex I

Energy balance: Net Calorific Values

Aggregate energy balance (Table I.1)

I.1 These tables show the flows of energy in the United Kingdom from production to final consumption through conversion into secondary fuels such as coke, petroleum products, secondary electricity and heat sold using Net Calorific Values (NCV). The NCVs used are detailed in annex A of DUKES.

I.2 A key reason for showing these balances on a NCV basis is to enable comparisons with EU statistics, which use this method. This approach has been used when comparing EU Member States' shares of renewables in final energy consumption, as set out on pages 78 to 88 of the December 2010 Energy Trends article, Renewable energy: Statistics used for the EU 2020 renewables target, available at:

www.decc.gov.uk/en/content/cms/statistics/publications/trends/articles_issue/articles_issue.a.spx

I.3 The principles behind the presentation used in the Digest are explained in Annex A. The figures are presented on an energy supplied basis, in tonnes of oil equivalent.

I.4 These energy balance tables have been used in the calculation of the percentage of energy derived from renewable sources, detailed in table 6B on page 167 of DUKES. The contribution of renewables has continued to grow in recent years, with the share reaching 3.8 per cent in 2011.

Contact: *Iain MacLeay*
iain.macleay@decc.gsi.gov.uk
0300 068 5048

Anwar Annut
anwar.annut@decc.gsi.gov.uk
0300 068 5060

I.1 Aggregate energy balance 2011

Net calorific values

Thousand tonnes of oil equivalent

	Coal	Manufactured fuel(1)	Primary oils	Petroleum products	Natural gas(2)	Bioenergy & waste(3)	Primary electricity	Electricity	Heat	Total
Supply										
Indigenous production	11,001	-	53,998	-	40,759	4,865	17,468	-	-	128,092
Imports	20,329	34	59,751	23,582	45,225	1,691	-	747	-	151,359
Exports	-351	-356	-35,042	-28,628	-14,215	-155	-	-212	-	-78,958
Marine bunkers	-	-	-	-2,268	-	-	-	-	-	-2,268
Stock change(4)	+508	-385	+634	+198	-1,751	-	-	-	-	-796
Primary supply	31,487	-707	79,341	-7,116	70,019	6,401	17,468	535	-	197,429
Statistical difference(5)	+24	-14	-298	-105	-131	-	-	-27	-	-552
Primary demand	31,463	-693	79,639	-7,011	70,150	6,401	17,468	562	-	197,980
Transfers	-	+5	-2,195	+2,181	-5	-	-1,843	+1,843	-	-14
Transformation	-29,855	2,266	-77,444	76,037	-25,610	-4,099	-15,625	29,532	1,365	-43,433
Electricity generation	-24,719	-618	-	-843	-23,778	-4,099	-15,625	29,532	-	-40,150
Major power producers	-23,960	-	-	-323	-21,327	-1,059	-15,625	26,839	-	-35,455
Autogenerators	-759	-618	-	-520	-2,451	-3,040	-	2,693	-	-4,694
Heat generation	-277	-48	-	-63	-1,832	-	-	-	1,365	-854
Petroleum refineries	-	-	-77,444	76,943	-	-	-	-	-	-502
Coke manufacture	-3,915	3,697	-	-	-	-	-	-	-	-217
Blast furnaces	-721	-980	-	-	-	-	-	-	-	-1,701
Patent fuel manufacture	-224	214	-	-	-	-	-	-	-	-10
Other	-	-	-	-	-	-	-	-	-	-
Energy industry use	2	623	-	4,871	4,645	-	-	2,171	94	12,407
Electricity generation	-	-	-	-	-	-	-	1,415	-	1,415
Oil and gas extraction	-	-	-	537	4,114	-	-	50	-	4,701
Petroleum refineries	-	-	-	4,334	338	-	-	387	94	5,153
Coal extraction	2	-	-	-	7	-	-	73	-	82
Coke manufacture	-	353	-	-	-	-	-	7	-	360
Blast furnaces	-	270	-	-	35	-	-	22	-	326
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-
Pumped storage	-	-	-	-	-	-	-	81	-	81
Other	-	-	-	-	151	-	-	138	-	289
Losses	-	144	-	-	1,126	-	-	2,423	-	3,693
Final consumption	1,605	811	-	66,336	38,763	2,302	-	27,344	1,271	138,433
Industry	1,055	605	-	4,263	9,631	465	-	8,804	839	25,663
Unclassified	-	169	-	2,268	2	465	-	-	-	2,903
Iron and steel	36	437	-	4	446	-	-	330	-	1,253
Non-ferrous metals	13	-	-	22	208	-	-	599	-	842
Mineral products	662	-	-	133	1,248	-	-	603	-	2,646
Chemicals	47	-	-	99	2,089	-	-	1,505	420	4,160
Mechanical engineering etc	7	-	-	63	514	-	-	634	-	1,217
Electrical engineering etc	3	-	-	30	268	-	-	550	-	852
Vehicles	35	-	-	73	600	-	-	446	-	1,154
Food, beverages etc	30	-	-	188	1,789	-	-	976	2	2,985
Textiles, leather etc	43	-	-	71	418	-	-	257	-	789
Paper, printing etc	67	-	-	34	1,181	-	-	938	1	2,222
Other industries	105	-	-	1,172	695	-	-	1,834	417	4,222
Construction	6	-	-	105	174	-	-	132	-	417
Transport (6)	11	-	-	50,758	-	1,063	-	351	-	52,182
Air	-	-	-	12,162	-	-	-	-	-	12,162
Rail	11	-	-	613	-	-	-	349	-	972
Road	-	-	-	36,481	-	1,063	-	2	-	37,546
National navigation	-	-	-	1,501	-	-	-	-	-	1,501
Pipelines	-	-	-	-	-	-	-	-	-	-
Other	539	206	-	3,812	28,509	775	-	18,189	431	52,461
Domestic	513	206	-	2,536	22,672	495	-	9,595	52	36,068
Public administration	17	-	-	344	2,412	101	-	1,591	376	4,842
Commercial	4	-	-	407	2,159	19	-	6,663	3	9,255
Agriculture	1	-	-	282	142	159	-	339	-	923
Miscellaneous	5	-	-	243	1,125	-	-	-	-	1,372
Non energy use	-	-	-	7,504	623	-	-	-	-	8,127

(1) Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

(2) Includes colliery methane.

(3) Includes geothermal and solar heat.

(4) Stock fall (+), stock rise (-).

(5) Primary supply minus primary demand.

(6) See paragraphs 5.11 regarding electricity use in transport and 6.24 regarding renewables use in transport.

I.1 Aggregate energy balance 2010

Net calorific values

Thousand tonnes of oil equivalent

	Coal	Manufactured fuel(1)	Primary oils	Petroleum products	Natural gas(2)	Bioenergy & waste(3)	Primary electricity	Electricity	Heat	Total
Supply										
Indigenous production	10,897	-	65,450	-	51,468	4,350r	15,117r	-	-	147,282r
Imports	16,243r	88r	56,620	24,731r	45,619	1,731r	-	614	-	145,645r
Exports	-511	-369r	-43,812	-26,822	-13,651	-164r	-	-385	-	-85,714r
Marine bunkers	-	-	-	-2,116	-	-	-	-	-	-2,116
Stock change(4)	+4,377r	-153r	-39	+621	+1,182	-	-	-	-	+5,988r
Primary supply	31,007r	-434r	78,219	-3,587r	84,618	5,917r	15,117r	229	-	211,085r
Statistical difference(5)	-12r	-14	+24	+176r	-5r	-	-	-33r	-	+136r
Primary demand	31,019r	-420r	78,194	-3,763r	84,623r	5,917r	15,117r	262r	-	210,949r
Transfers	-	+20r	-2,298	+2,293	-20	-	-1,192r	+1,192r	-	-5r
Transformation	-29,388r	2,103r	-75,897	74,074r	-30,745r	-3,648r	-13,925r	31,364r	1,361r	-44,702r
Electricity generation	-24,278r	-651	-	-1,099r	-28,910r	-3,648r	-13,925r	31,364r	-	-41,148r
Major power producers	-23,535r	-	-	-592	-26,478	-846	-13,925r	28,701	-	-36,676r
Autogenerators	-743r	-651	-	-507r	-2,433r	-2,802r	-	2,663r	-	-4,472r
Heat generation	-275r	-48	-	-63r	-1,835r	-	-	-	1,361r	-859r
Petroleum refineries	-	-	-75,897	75,239	-	-	-	-	-	-657
Coke manufacture	-3,918r	3,677r	-	-	-	-	-	-	-	-240r
Blast furnaces	-678	-1,110r	-	-4r	-	-	-	-	-	-1,793r
Patent fuel manufacture	-240	235	-	-	-	-	-	-	-	-5
Other	-	-	-	-	-	-	-	-	-	-
Energy industry use	3	644	-	4,934	5,383r	-	-	2,222r	94r	13,280r
Electricity generation	-	-	-	-	-	-	-	1,385r	-	1,385r
Oil and gas extraction	-	-	-	501r	4,730	-	-	48	-	5,279r
Petroleum refineries	-	-	-	4,433r	337r	-	-	433r	94r	5,297r
Coal extraction	3	-	-	-	7	-	-	82	-	92
Coke manufacture	-	362	-	-	-	-	-	8	-	369
Blast furnaces	-	282	-	-	50	-	-	25	-	357
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-
Pumped storage	-	-	-	-	-	-	-	91	-	91
Other	-	-	-	-	260	-	-	150r	-	409r
Losses	-	163	-	-	1,450	-	-	2,325	-	3,937r
Final consumption	1,627	897r	-	67,671r	47,025r	2,268r	-	28,270r	1,266r	149,025r
Industry	1,079	659r	-	4,806r	9,415r	415r	-	8,987r	822r	26,183r
Unclassified	-	184	-	2,262r	2	415r	-	-	-	2,863r
Iron and steel	41	475r	-	4r	451	-	-	330r	-	1,302r
Non-ferrous metals	14	-	-	32	203	-	-	578r	-	828r
Mineral products	667	-	-	154	1,220r	-	-	625r	-	2,665r
Chemicals	48	-	-	122	2,004r	-	-	1,587r	415r	4,176r
Mechanical engineering etc	8	-	-	74	524r	-	-	658r	-	1,264r
Electrical engineering etc	3	-	-	35	263	-	-	572r	-	874r
Vehicles	34	-	-	86	583r	-	-	454r	-	1,157r
Food, beverages etc	28	-	-	220	1,734r	-	-	991r	1	2,974r
Textiles, leather etc	45	-	-	80	409	-	-	262r	-	796r
Paper, printing etc	67	-	-	47r	1,160r	-	-	942r	1	2,217r
Other industries	121	-	-	1,568r	694r	-	-	1,848r	405r	4,635r
Construction	3	-	-	120	169	-	-	139r	-	432r
Transport (6)	13	-	-	50,645r	-	1,147	-	350r	-	52,156r
Air	-	-	-	11,673	-	-	-	-	-	11,673
Rail	13	-	-	619r	-	-	-	349r	-	981r
Road	-	-	-	36,971r	-	1,147	-	2	-	38,120r
National navigation	-	-	-	1,381	-	-	-	-	-	1,381
Pipelines	-	-	-	-	-	-	-	-	-	-
Other	536r	238	-	4,414r	36,980r	706r	-	18,933r	444r	62,250r
Domestic	509	238	-	3,241r	30,149	439r	-	10,217r	52	44,845r
Public administration	19	-	-	293r	2,966r	95r	-	1,642r	382r	5,397r
Commercial	2	-	-	357	2,459r	16r	-	6,727r	10r	9,572r
Agriculture	1	-	-	290r	152	156r	-	346	-	946r
Miscellaneous	4	-	-	233r	1,253r	-	-	-	-	1,491r
Non energy use	-	-	-	7,805r	630r	-	-	-	-	8,436r

(1) Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

(2) Includes colliery methane.

(3) Includes geothermal and solar heat.

(4) Stock fall (+), stock rise (-).

(5) Primary supply minus primary demand.

(6) See paragraphs 5.11 regarding electricity use in transport and 6.24 regarding renewables use in transport.

I.1 Aggregate energy balance 2009

Net calorific values

Thousand tonnes of oil equivalent

	Coal	Manufactured fuel(1)	Primary oils	Petroleum products	Natural gas(2)	Bioenergy & waste(3)	Primary electricity	Electricity	Heat	Total
Supply										
Indigenous production	10,487	-	70,905	-	53,763	4,150r	16,481r	-	-	155,787r
Imports	23,454r	131r	56,413	22,881r	35,272	1,197r	-	568	-	139,916r
Exports	-465	-127r	-46,943	-26,457	-10,610	-38r	-	-322	-	-84,961r
Marine bunkers	-	-	-	-2,458	-	-	-	-	-	-2,458
Stock change(4)	-3,998r	-	+565	+344	-377	-	-	-	-	-3,466r
Primary supply	29,478r	5	80,940	-5,689r	78,048	5,308r	16,481r	246	-	204,818r
Statistical difference(5)	-386r	-11	+83	-37r	+6	-	-	+13r	-	-332r
Primary demand	29,863r	16r	80,857	-5,651r	78,042	5,308r	16,481r	233r	-	205,150r
Transfers	-	+27r	-2,864	+2,866	-27	-	-1,252r	+1,252r	-	+2r
Transformation	-28,214r	1,489r	-77,993	75,728r	-29,566	-3,303r	-15,229	30,828r	1,301	-44,960r
Electricity generation	-23,413r	-749	-	-1,432r	-27,805	-3,303r	-15,229	30,828r	-	-41,105r
Major power producers	-22,586r	-	-	-965r	-25,402	-618	-15,229	28,159r	-	-36,641r
Autogenerators	-828	-749	-	-467	-2,403	-2,685r	-	2,668r	-	-4,464r
Heat generation	-281	-48	-	-61	-1,761	-	-	-	1,301	-851
Petroleum refineries	-	-	-77,993	77,284r	-	-	-	-	-	-709r
Coke manufacture	-3,654	3,363r	-	-	-	-	-	-	-	-292r
Blast furnaces	-631	-1,301r	-	-62r	-	-	-	-	-	-1,994r
Patent fuel manufacture	-235	224	-	-	-	-	-	-	-	-11
Other	-	-	-	-	-	-	-	-	-	-
Energy industry use	3	660	-	4,800	5,345	-	-	2,236r	94	13,139r
Electricity generation	-	-	-	-	-	-	-	1,425r	-	1,425r
Oil and gas extraction	-	-	-	457	4,729	-	-	51	-	5,237
Petroleum refineries	-	-	-	4,343	303	-	-	389	94	5,129
Coal extraction	3	-	-	-	7	-	-	80	-	90
Coke manufacture	-	344	-	-	-	-	-	8	-	352
Blast furnaces	-	316	-	-	35	-	-	40	-	391
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-
Pumped storage	-	-	-	-	-	-	-	100	-	100
Other	-	-	-	-	271	-	-	144	-	415
Losses	-	68	-	-	1,266	-	-	2,411r	-	3,745r
Final consumption	1,646	803r	-	68,142r	41,838	2,006	-	27,665r	1,206	143,307r
Industry	1,094	597r	-	4,741r	9,008	384r	-	8,576r	763	25,163r
Unclassified	-	192r	-	2,237	2	384r	-	-	-	2,815
Iron and steel	41	404r	-	51	390	-	-	311	-	1,197r
Non-ferrous metals	16	-	-	41	192	-	-	522r	-	772r
Mineral products	676	-	-	161	1,172	-	-	603	-	2,612
Chemicals	46	-	-	131	1,985	-	-	1,522r	347	4,031r
Mechanical engineering etc	9	-	-	82	497	-	-	661	-	1,249
Electrical engineering etc	3	-	-	38	253	-	-	555	-	849
Vehicles	31	-	-	96	561	-	-	431	-	1,119
Food, beverages etc	32	-	-	227	1,624	-	-	924	1	2,807
Textiles, leather etc	46	-	-	85	402	-	-	259r	-	793r
Paper, printing etc	67	-	-	55	1,115	-	-	952r	-	2,189r
Other industries	124	-	-	1,406r	651	-	-	1,700r	415	4,295r
Construction	3	-	-	130	165	-	-	136	-	434
Transport (6)	13	-	-	51,682r	-	988	-	347r	-	53,030r
Air	-	-	-	12,114	-	-	-	-	-	12,114
Rail	13	-	-	611r	-	-	-	346r	-	969r
Road	-	-	-	37,430r	-	988	-	2	-	38,420r
National navigation	-	-	-	1,527	-	-	-	-	-	1,527
Pipelines	-	-	-	-	-	-	-	-	-	-
Other	539	207	-	4,016	32,211	634	-	18,742	444	56,791
Domestic	488	207	-	2,850	25,731	402r	-	10,193	52	39,923r
Public administration	16	-	-	348	2,870	87	-	1,672	382	5,375
Commercial	33	-	-	338	2,268	11r	-	6,551	9	9,209r
Agriculture	-	-	-	265	144	133r	-	327	-	869r
Miscellaneous	2	-	-	214	1,198	0	-	-	-	1,415
Non energy use	-	-	-	7,704	619	-	-	-	-	8,323

(1) Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

(2) Includes colliery methane.

(3) Includes geothermal and solar heat.

(4) Stock fall (+), stock rise (-).

(5) Primary supply minus primary demand.

(6) See paragraphs 5.11 regarding electricity use in transport and 6.24 regarding renewables use in transport.

I.1 Aggregate energy balance 2008

Net calorific values

Thousand tonnes of oil equivalent

	Coal	Manufactured fuel(1)	Primary oils	Petroleum products	Natural gas(2)	Bioenergy & waste(3)	Primary electricity	Electricity	Heat	Total
Supply										
Indigenous production	10,740	-	74,538	-	62,713	3,838r	12,964r	-	-	164,792r
Imports	26,989	500	62,282	24,950	31,500	885r	-	1,057	-	148,164r
Exports	-434	-141	-50,286	-29,542	-9,493	-	-	-109	-	-90,006
Marine bunkers	-	-	-	-2,564	-	-	-	-	-	-2,564
Stock change(4)	-1,872	+162	+245	+129r	-239	-	-	-	-	-1,575r
Primary supply	35,423	520	86,779	-7,027r	84,481	4,723r	12,964r	948	-	218,811r
Statistical difference(5)	-192	-7	+198	+107r	+1	-	-	+29	-	+136r
Primary demand	35,615	527	86,581	-7,134r	84,480	4,723r	12,964r	919r	-	218,675r
Transfers	-	-127	-2,870	+2,879	-5	-	-1,055r	+1,055r	-	-123
Transformation	-33,859	1,586	-83,712	81,111r	-31,127	-2,954r	-11,909	32,041	1,537	-47,286r
Electricity generation	-28,446	-839	-	-1,501r	-29,160	-2,954r	-11,909	32,041	-	-42,768r
Major power producers	-27,524	-	-	-1,044r	-26,656	-668	-11,909	29,367r	-	-38,433r
Autogenerators	-923	-839	-	-458	-2,504	-2,286r	-	2,673r	-	-4,335r
Heat generation	-298	-48	-	-62	-1,968	-	-	-	1,537	-839
Petroleum refineries	-	-	-83,712	82,878	-	-	-	-	-	-833
Coke manufacture	-4,066	3,967	-	-	-	-	-	-	-	-99
Blast furnaces	-810	-1,718	-	-204	-	-	-	-	-	-2,732
Patent fuel manufacture	-238	223	-	-	-	-	-	-	-	-15
Other	-	-	-	-	-	-	-	-	-	-
Energy industry use	4	805	-	5,199	5,593	-	-	2,227r	72	13,900r
Electricity generation	-	-	-	-	-	-	-	1,405r	-	1,405r
Oil and gas extraction	-	-	-	479	4,743	-	-	51	-	5,274
Petroleum refineries	-	-	-	4,720	385	-	-	374	72	5,550
Coal extraction	4	-	-	-	7	-	-	84	-	95
Coke manufacture	-	391	-	-	-	-	-	7	-	398
Blast furnaces	-	414	-	-	56	-	-	39	-	508
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-
Pumped storage	-	-	-	-	-	-	-	110	-	110
Other	-	-	-	-	403	-	-	156	-	559
Losses	-	232	-	-	1,054	-	-	2,395r	-	3,682r
Final consumption	1,753	948	-	71,657r	46,699	1,769r	-	29,391r	1,465	153,684r
Industry	1,231	722	-	5,230r	10,733	387r	-	9,815r	1,021	29,139r
Unclassified	-	222	-	2,251	3	387r	-	-	-	2,863
Iron and steel	47	500	-	58	535	-	-	400r	-	1,541r
Non-ferrous metals	19	-	-	44	231	-	-	636	-	930
Mineral products	721	-	-	209	1,421	-	-	682	-	3,033
Chemicals	62	-	-	165	2,413	-	-	1,744r	592	4,976r
Mechanical engineering etc	9	-	-	92	596	-	-	741	4	1,442
Electrical engineering etc	4	-	-	44	301	-	-	636r	-	985r
Vehicles	33	-	-	108	667	-	-	500	-	1,308
Food, beverages etc	27	-	-	274	1,885	-	-	1,054	10	3,250
Textiles, leather etc	51	-	-	97	472	-	-	292r	-	912r
Paper, printing etc	99	-	-	61	1,285	-	-	1,106	1	2,552
Other industries	135	-	-	1,679r	733	-	-	1,868r	413	4,828r
Construction	25	-	-	149	190	-	-	156	-	520
Transport (6)	13	-	-	53,913r	-	806	-	339r	-	55,070r
Air	-	-	-	12,832	-	-	-	-	-	12,832
Rail	13	-	-	614r	-	-	-	337	-	964r
Road	-	-	-	38,815r	-	806	-	2	-	39,622r
National navigation	-	-	-	1,652	-	-	-	-	-	1,652
Pipelines	-	-	-	-	-	-	-	-	-	-
Other	509	227	-	4,195	35,225	576r	-	19,237	445	60,413r
Domestic	489	227	-	2,868	27,824	369	-	10,301	52	42,131r
Public administration	9	-	-	441	3,294	81	-	1,750	387	5,962
Commercial	7	-	-	375	2,581	9r	-	6,836	6	9,815r
Agriculture	3	-	-	283	167	116r	-	350	-	919r
Miscellaneous	1	-	-	227	1,358	-	-	-	-	1,586
Non energy use	-	-	-	8,319r	742	-	-	-	-	9,061r

(1) Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

(2) Includes colliery methane.

(3) Includes geothermal and solar heat.

(4) Stock fall (+), stock rise (-).

(5) Primary supply minus primary demand.

(6) See paragraphs 5.11 regarding electricity use in transport and 6.24 regarding renewables use in transport.

I.1 Aggregate energy balance 2007

Net calorific values

Thousand tonnes of oil equivalent

	Coal	Manufactured fuel(1)	Primary oils	Petroleum products	Natural gas(2)	Bioenergy & waste(3)	Primary electricity	Electricity	Heat	Total
Supply										
Indigenous production	10,162r	-	79,610	-	64,912	3,696r	14,927r	-	-	173,307r
Imports	26,785	732	59,475	26,043r	26,159	390	-	741	-	140,325r
Exports	-398	-170	-52,936	-30,822r	-9,531	-108	-	-292	-	-94,257r
Marine bunkers	-	-	-	-2,356	-	-	-	-	-	-2,356
Stock change(4)	+1,850	-22	+813	+1,114	+424	-	-	-	-	+4,180
Primary supply	38,399	540	86,963	-6,020r	81,964	3,977r	14,927r	448	-	221,198r
Statistical difference(5)	+12r	-14	+15	-190r	+14	-	-	-34	-	-196r
Primary demand	38,388	554	86,947	-5,831r	81,950	3,977r	14,927r	482r	-	221,394r
Transfers	-	-127	-2,462	+2,491	-6	-	-891r	+891r	-	-104
Transformation	-36,686	1,618	-84,485	82,357	-29,369	-2,877r	-14,036	32,898r	1,406	-49,175r
Electricity generation	-31,259	-942	-	-1,090	-27,540	-2,877r	-14,036	32,898r	-	-44,844r
Major power producers	-30,376	-	-	-663	-24,751	-559	-14,036	30,073r	-	-40,312r
Autogenerators	-883r	-942	-	-427	-2,789	-2,318r	-	2,825r	-	-4,532r
Heat generation	-289	-48	-	-61	-1,829	-	-	-	1,406	-822
Petroleum refineries	-	-	-84,485	83,704r	-	-	-	-	-	-781r
Coke manufacture	-4,103	4,072	-	-	-	-	-	-	-	-30
Blast furnaces	-859	-1,633	-	-197	-	-	-	-	-	-2,689
Patent fuel manufacture	-176	168	-	-	-	-	-	-	-	-9
Other	-	-	-	-	-	-	-	-	-	-
Energy industry use	3	837	-	5,019r	5,883	-	-	2,468r	68	14,278r
Electricity generation	-	-	-	-	-	-	-	1,521	-	1,521
Oil and gas extraction	-	-	-	411	4,970	-	-	48	-	5,429r
Petroleum refineries	-	-	-	4,608r	403	-	-	484	68	5,563r
Coal extraction	3	-	-	-	7	-	-	85	-	95
Coke manufacture	-	388	-	-	0	-	-	8	-	396
Blast furnaces	-	449	-	-	56	-	-	41	-	546
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-
Pumped storage	-	-	-	-	-	-	-	104	-	104
Other	-	-	-	-	447	-	-	176	-	623
Losses	-	213	-	-	935	-	-	2,427r	-	3,574r
Final consumption	1,698	995	-	73,998r	45,756	1,101r	-	29,377r	1,338	154,263r
Industry	1,205	811	-	5,714r	10,319	242	-	9,699r	896	28,887r
Unclassified	-	221	-	2,490	3	242	-	-	-	2,956
Iron and steel	52	590	-	63	567	-	-	425	-	1,696
Non-ferrous metals	21	-	-	45	222	-	-	635	-	923
Mineral products	721	-	-	223	1,306	-	-	672	-	2,922
Chemicals	72	-	-	180	2,332	-	-	1,737	480	4,801
Mechanical engineering etc	7	-	-	100	594	-	-	727	3	1,430
Electrical engineering etc	4	-	-	33	289	-	-	627	-	953
Vehicles	33	-	-	115	660	-	-	492	-	1,300
Food, beverages etc	23	-	-	265	1,778	-	-	1,039	2	3,106
Textiles, leather etc	49	-	-	111	470	-	-	288	-	919
Paper, printing etc	96	-	-	62r	1,200	-	-	1,096	1	2,455r
Other industries	127	-	-	1,869r	714	-	-	1,808r	411	4,929r
Construction	0	-	-	158	184	-	-	155	-	497
Transport (6)	13	-	-	55,836r	-	349	-	341	-	56,538r
Air	-	-	-	13,211	-	-	-	-	-	13,211
Rail	13	-	-	604r	-	-	-	339	-	956r
Road	-	-	-	40,507r	-	349	-	2	-	40,857r
National navigation	-	-	-	1,515	-	-	-	-	-	1,515
Pipelines	-	-	-	-	-	-	-	-	-	-
Other	480	184	-	4,123	34,645	510r	-	19,338	442	59,723r
Domestic	463	184	-	2,722	27,307	340	-	10,583	52	41,650
Public administration	9	-	-	456	3,285	80r	-	1,727	383	5,940r
Commercial	4	-	-	382	2,561	14	-	6,679	7	9,647
Agriculture	3	-	-	274	155	76r	-	349	-	855r
Miscellaneous	2	-	-	290	1,338	-	-	-	-	1,630
Non energy use	-	-	-	8,324	792	-	-	-	-	9,116

(1) Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

(2) Includes colliery methane.

(3) Includes geothermal and solar heat.

(4) Stock fall (+), stock rise (-).

(5) Primary supply minus primary demand.

(6) See paragraphs 5.11 regarding electricity use in transport and 6.24 regarding renewables use in transport.

I.1 Aggregate energy balance 2006

Net calorific values

Thousand tonnes of oil equivalent

	Coal	Manufactured fuel(1)	Primary oils	Petroleum products	Natural gas(2)	Bioenergy & waste(3)	Primary electricity	Electricity	Heat	Total
Supply										
Indigenous production	10,847	-	79,644	-	72,011	3,379	17,889	-	-	183,770
Imports	31,034	691	61,628	27,775r	18,884	470	-	884	-	141,367r
Exports	-325	-119	-52,099	-29,627r	-9,332	-96	-	-238	-	-91,835r
Marine bunkers	-	-	-	-2,331	-	-	-	-	-	-2,331
Stock change(4)	-768	-152	-370	-882r	-498	-	-	-	-	-2,670r
Primary supply	40,789	420	88,804	-5,065r	81,065	3,754	17,889	646	-	228,302r
Statistical difference(5)	-143r	-5	-107	+119r	+11	-	-	+9	-	-116r
Primary demand	40,932r	425	88,911	-5,185r	81,054	3,754	17,889	637	-	228,418r
Transfers	-	-105	-2,617	+2,661	-4	-	-759	+759	-	-65
Transformation	-39,384	1,705	-86,294	83,868r	-25,803	-2,919	-17,130	33,070	1,305	-51,583r
Electricity generation	-34,054	-948	-	-1,235r	-24,099	-2,919	-17,130	33,070	-	-47,314
Major power producers	-33,197	-	-	-792	-21,525	-648	-17,130	30,412	-	-42,880r
Autogenerators	-857	-948	-	-443	-2,574	-2,271	-	2,658	-	-4,435r
Heat generation	-272	-48	-	-61	-1,704	-	-	-	1,305	-780
Petroleum refineries	-	-	-86,294	85,388	-	-	-	-	-	-906
Coke manufacture	-4,099	4,150	-	-	-	-	-	-	-	51
Blast furnaces	-775	-1,642	-	-224	-	-	-	-	-	-2,640
Patent fuel manufacture	-184	192	-	-	-	-	-	-	-	8
Other	-	-	-	-	-	-	-	-	-	-
Energy industry use	3	826	-	5,274r	6,335	-	-	2,425	60	14,922r
Electricity generation	-	-	-	-	-	-	-	1,591	-	1,591
Oil and gas extraction	-	-	-	437	5,359	-	-	47	-	5,843
Petroleum refineries	-	-	-	4,837r	399	-	-	401	60	5,697r
Coal extraction	3	-	-	-	9	-	-	89	-	100
Coke manufacture	-	377	-	-	-	-	-	8	-	386
Blast furnaces	-	448	-	-	47	-	-	43	-	538
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-
Pumped storage	-	-	-	-	-	-	-	92	-	92
Other	-	-	-	-	520	-	-	155	-	675
Losses	-	173	-	-	930	-	-	2,357	-	3,460
Final consumption	1,546	1,026	-	76,070r	47,982	835	-	29,684	1,245	158,389r
Industry	1,105	820	-	5,716r	11,185	186	-	9,879	809	29,702r
Unclassified	-	213	-	2,625r	4	186	-	-	-	3,028r
Iron and steel	1	607	-	18	649	-	-	504	-	1,779
Non-ferrous metals	35	-	-	50	240	-	-	647	-	972
Mineral products	656	-	-	187	1,378	-	-	677	-	2,898
Chemicals	80	-	-	176	2,657	-	-	1,753	371	5,036
Mechanical engineering etc	9	-	-	99	633	-	-	730	2	1,473
Electrical engineering etc	4	-	-	79	304	-	-	631	-	1,018
Vehicles	35	-	-	116	733	-	-	494	-	1,378
Food, beverages etc	16	-	-	264	1,835	-	-	1,042	1	3,158
Textiles, leather etc	47	-	-	123	514	-	-	289	-	972
Paper, printing etc	94	-	-	55	1,278	-	-	1,110	22	2,560
Other industries	128	-	-	1,761r	763	-	-	1,844	414	4,911r
Construction	-	-	-	162	198	-	-	158	-	518
Transport (6)	13	-	-	55,747r	-	180	-	344	-	56,285r
Air	-	-	-	13,299	-	-	-	-	-	13,299
Rail	13	-	-	590	-	-	-	342	-	945
Road	-	-	-	40,162r	-	180	-	2	-	40,344r
National navigation	-	-	-	1,696	-	-	-	-	-	1,696
Pipelines	-	-	-	-	-	-	-	-	-	-
Other	427	206	-	4,502	36,184	469	-	19,461	436	61,686
Domestic	405	206	-	3,075	28,395	303	-	10,723	52	43,159
Public administration	12	-	-	458	3,545	75	-	1,721	376	6,187
Commercial	4	-	-	368	2,652	14	-	6,673	8	9,719
Agriculture	3	-	-	284	156	76	-	345	-	864
Miscellaneous	3	-	-	317	1,437	-	-	-	-	1,758
Non energy use	-	-	-	10,104	612	-	-	-	-	10,717

(1) Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

(2) Includes colliery methane.

(3) Includes geothermal and solar heat.

(4) Stock fall (+), stock rise (-).

(5) Primary supply minus primary demand.

(6) See paragraphs 5.11 regarding electricity use in transport and 6.24 regarding renewables use in transport.

I.1 Aggregate energy balance 2005

Net calorific values

Thousand tonnes of oil equivalent

	Coal	Manufactured fuel(1)	Primary oils	Petroleum products	Natural gas(2)	Bioenergy & waste(3)	Primary electricity	Electricity	Heat	Total
Supply										
Indigenous production	12,078	-	88,110	-	79,397	3,116	19,044	-	-	201,745
Imports	27,107	623	61,042	23,226r	13,413	419	-	960	-	126,791r
Exports	-399	-89	-56,175	-30,495	-7,443	-	-	-244	-	-94,845
Marine bunkers	-	-	-	-2,044	-	-	-	-	-	-2,044
Stock change(4)	-1,335	-98	-396	+1,976r	+102	-	-	-	-	249r
Primary supply	37,451	437	92,581	-7,337r	85,470	3,534	19,044	715	-	231,895r
Statistical difference(5)	+22	-7	-103	+448r	+9	-	-	+20	-	+388r
Primary demand	37,429	444	92,684	-7,785r	85,461	3,534	19,044	696	-	231,507r
Transfers	-	-114	-3,380	+3,389	-4	-	-674	+674	-	-109
Transformation	-35,815	1,654	-89,304	86,934r	-27,406	-2,843	-18,370	33,327	1,366	-50,458r
Electricity generation	-30,788	-971	-	-1,264	-25,666	-2,843	-18,370	33,327	-	-46,576
Major power producers	-29,952	-	-	-777	-22,879	-674	-18,370	30,564	-	-42,088
Autogenerators	-836	-971	-	-487	-2,787	-2,169	-	2,764	-	-4,488
Heat generation	-272	-48	-	-62r	-1,740	-	-	-	1,366	-756r
Petroleum refineries	-	-	-89,304	88,525r	-	-	-	-	-	-779r
Coke manufacture	-3,851	3,930	-	-	-	-	-	-	-	79
Blast furnaces	-718	-1,446	-	-265	-	-	-	-	-	-2,429
Patent fuel manufacture	-187	190	-	-	-	-	-	-	-	3
Other	-	-	-	-	-	-	-	-	-	-
Energy industry use	4	777	-	6,078	6,745	-	-	2,337	98	16,038r
Electricity generation	-	-	-	-	-	-	-	1,537	26	1,563
Oil and gas extraction	-	-	-	484	5,678	-	-	43	-	6,205
Petroleum refineries	-	-	-	5,594r	400	-	-	383	71	6,448r
Coal extraction	4	-	-	-	9	-	-	92	-	104
Coke manufacture	-	359	-	-	-	-	-	8	-	367
Blast furnaces	-	418	-	-	73	-	-	44	-	535
Patent fuel manufacture	-	-	-	-	-	-	-	-	-	-
Pumped storage	-	-	-	-	-	-	-	67	-	67
Other	-	-	-	-	586	-	-	162	-	748
Losses	-	207	-	-	848	-	-	2,380	-	3,435
Final consumption	1,610	1,001	-	76,460r	50,458	691	-	29,981	1,268	161,468r
Industry	1,121	787	-	5,887	11,719	176	-	9,976	831	30,496r
Unclassified	-	209	-	2,516	4	176	-	-	-	2,905
Iron and steel	-	578	-	16	654	-	-	432	-	1,679
Non-ferrous metals	23	-	-	50	245	-	-	661	-	980
Mineral products	702	-	-	206	1,416	-	-	686	-	3,010
Chemicals	80	-	-	191	2,792	-	-	1,816	392	5,271
Mechanical engineering etc	9	-	-	111	664	-	-	742	3	1,529
Electrical engineering etc	3	-	-	34	320	-	-	638	-	995
Vehicles	36	-	-	131	771	-	-	502	-	1,441
Food, beverages etc	18	-	-	307	1,929	-	-	1,055	1	3,309
Textiles, leather etc	47	-	-	104	544	-	-	292	-	987
Paper, printing etc	93	-	-	86	1,369	-	-	1,137	31	2,715
Other industries	110	-	-	1,956r	805	-	-	1,848	405	5,124r
Construction	-	-	-	177	207	-	-	166	-	551
Transport (6)	3	-	-	55,203r	-	69	-	349	-	55,624r
Air	-	-	-	13,163	-	-	-	-	-	13,163
Rail	3	-	-	592r	-	-	-	347	-	942r
Road	-	-	-	40,165r	-	69	-	2	-	40,236r
National navigation	-	-	-	1,283	-	-	-	-	-	1,283
Pipelines	-	-	-	-	-	-	-	-	-	-
Other	486	214	-	4,581	38,126	446	-	19,655	437	63,946
Domestic	450	214	-	2,926	29,552	269	-	10,809	52	44,272
Public administration	25	-	-	507	3,894	95	-	1,722	376	6,619
Commercial	4	-	-	363	2,956	14	-	6,780	10	10,126
Agriculture	6	-	-	355	175	69	-	344	-	948
Miscellaneous	1	-	-	430	1,549	-	-	-	-	1,980
Non energy use	-	-	-	10,790	612	-	-	-	-	11,402

(1) Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

(2) Includes colliery methane.

(3) Includes geothermal and solar heat.

(4) Stock fall (+), stock rise (-).

(5) Primary supply minus primary demand.

(6) See paragraphs 5.11 regarding electricity use in transport and 6.24 regarding renewables use in transport.

I.1 Aggregate energy balance 2004

Net calorific values

Thousand tonnes of oil equivalent

	Coal	Manufactured fuel(1)	Primary oils	Petroleum products	Natural gas(2)	Bioenergy & waste(3)	Primary electricity	Electricity	Heat	Total
Supply										
Indigenous production	14,814	-	99,180	-	86,770	2,525	18,746	-	-	222,035
Imports	22,285	724	64,803	19,109	10,295	337	-	841	-	118,396
Exports	-425	-123	-66,942	-31,265	-8,831	-	-	-197	-	-107,784
Marine bunkers	-	-	-	-2,088	-	-	-	-	-	-2,088
Stock change (4)	-53	-84	-140	-307	-483	-	-	-	-	-1,067
Primary supply	36,621	517	96,900	-14,551	87,751	2,862	18,746	644	-	229,492
Statistical difference (5)	+1	-52	-156	-46	+54	-	-	+211	-	+12
Primary demand	36,620	569	97,057	-14,505	87,697	2,862	18,746	433	-	229,480
Transfers	-	-118	-3,905	+3,894	-3	-	-583	+583	-	-132
Transformation	-34,727	1,617	-93,152	91,832	-28,065	-2,320	-18,163	33,061	1,273	-48,642
Electricity generation	-29,799	-908	-	-604	-26,375	-2,320	-18,163	33,061	-	-45,108
Major power producers	-28,948	-	-	-144	-23,564	-441	-18,163	30,246	-	-41,013
Autogenerators	-852	-908	-	-460	-2,811	-1,878	-	2,815	-	-4,095
Heat generation	-282	-48	-	-67	-1,690	-	-	-	1,273	-814
Petroleum refineries	-	-	-93,152	92,794	-	-	-	-	-	-358
Coke manufacture	-3,797	3,886	-	-	-	-	-	-	-	89
Blast furnaces	-619	-1,541	-	-290	-	-	-	-	-	-2,451
Patent fuel manufacture	-229	229	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-
Energy industry use	5	804	-	5,437	6,846	-	-	2,291	16	15,399
Electricity generation	-	-	-	-	-	-	-	1,464	2	1,466
Oil and gas extraction	-	-	-	-	5,957	-	-	48	-	6,005
Petroleum refineries	-	-	-	5,435	238	-	-	402	14	6,090
Coal extraction	5	-	-	-	12	-	-	88	-	105
Coke manufacture	-	360	-	1	-	-	-	8	-	369
Blast furnaces	-	441	-	-	56	-	-	40	-	537
Patent fuel manufacture	-	3	-	-	-	-	-	-	-	3
Pumped storage	-	-	-	-	-	-	-	73	-	73
Other	-	-	-	-	583	-	-	167	-	750
Losses	-	194	-	-	635	-	-	2,642	-	3,472
Final consumption	1,888	1,070	-	75,785	52,147	543	-	29,144	1,258	161,835
Industry	1,173	815	-	6,506	11,914	228	-	9,584	832	31,053
Unclassified	-	239	-	2,477	5	228	-	-	-	2,949
Iron and steel	-	575	-	33	752	-	-	465	-	1,825
Non-ferrous metals	7	-	-	49	248	-	-	642	-	946
Mineral products	713	-	-	189	1,037	-	-	648	-	2,587
Chemicals	89	-	-	191	3,250	-	-	1,714	394	5,637
Mechanical engineering etc.	10	-	-	110	666	-	-	723	2	1,511
Electrical engineering etc.	3	-	-	36	322	-	-	568	-	929
Vehicles	53	-	-	103	791	-	-	480	-	1,427
Food, beverages, etc.	25	-	-	324	2,185	-	-	1,036	2	3,572
Textiles, leather, etc.	55	-	-	69	551	-	-	287	-	962
Paper, printing etc.	92	-	-	55	1,074	-	-	1,132	27	2,380
Other industries	127	-	-	2,724	806	-	-	1,734	407	5,797
Construction	-	-	-	147	227	-	-	155	-	529
Transport (6)	-	-	-	53,950	-	-	-	349	-	54,298
Air	-	-	-	12,263	-	-	-	-	-	12,263
Rail	-	-	-	658	-	-	-	347	-	1,005
Road	-	-	-	39,904	-	-	-	2	-	39,906
National navigation	-	-	-	1,124	-	-	-	-	-	1,124
Pipelines	-	-	-	-	-	-	-	-	-	-
Other	715	255	-	4,439	39,458	314	-	19,211	425	64,818
Domestic	696	255	-	3,090	30,677	143	-	10,679	52	45,592
Public administration	9	-	-	474	4,019	95	-	1,733	368	6,698
Commercial	3	-	-	392	2,909	14	-	6,451	5	9,775
Agriculture	5	-	-	258	182	63	-	348	-	855
Miscellaneous	1	-	-	226	1,671	-	-	-	-	1,898
Non energy use	-	-	-	10,890	775	-	-	-	-	11,665

(1) Includes all manufactured solid fuels, benzole, tars, coke oven gas and blast furnace gas.

(2) Includes colliery methane.

(3) Includes geothermal and solar heat.

(4) Stock fall (+), stock rise (-).

(5) Primary supply minus primary demand.

(6) See paragraphs 5.11 regarding electricity use in transport and 6.24 regarding renewables use in transport.