

STATS WINDOW

The Pacific Business Review International has taken an initiative to start a section which will provide a snapshot of major Global & Indian economic indicators and industry review alternatively.

A snapshot of the section in upcoming issues is hereunder:

- November 2013** Economy at a Glance (Global & Indian)
- December 2013** Pharmaceutical Sector: Global Scenario
- January 2013** Economy at a Glance (Global & Indian)
- February 2013** Automobile Industry (World): Statistical Review
- March 2013** Economy at a Glance (Global & Indian)
- April 2013** Healthcare Sector: Global Scenario

The current issue covers a brief overview of World Energy Resources. The data covers various sources of energy and their Balance of Trade, Production and Consumption for World as well as for different nation groups.

INDUSTRY REVIEW AT A GLANCE

World Energy Resources: A Snapshot

Global Energy Scenario:

The supply of energy in the form of heat or power (mechanical or electrical) is the major reason for burning fuels. Fuels of various kinds like coal, petroleum, natural gas, nuclear, etc are used for generation of energy for different sectors like industries, transportation, agriculture, commercial and public services, etc.

It has been predicted that the energy consumption will increase at a rate of 1.4 percent per year till 2035. The global recession that started in 2008 had a significant impact on the GDP and energy consumption throughout the world. Due to the same, growth in global energy consumption slowed to 1.2 % in 2008 and declined by around 2.2% in 2009. Historically the Organization for Economic Co-operation and Development (OECD) member countries have accounted for the largest share of current world energy consumption, but lately the energy use among non-OECD nations exceeded that among OECD nations.

Natural gas remains an important fuel for electricity generation worldwide. Electricity generation based on natural gas is less expensive than with oil as the primary energy source, and natural-

gas-fired generating plants are less capital-intensive than plants that use coal, nuclear, or most renewable energy sources. But coal still provides the largest share of world electricity generation,

The energy requirement has been continuously increasing which puts a lot of pressure on the conventional energy sources. But since the fossil fuels are limited and also cause environmental issues, alternative sources need to be explored for sustained energy supply.

Hydroelectricity and wind provides the largest share of the increase in total renewable generation.

Many OECD countries, particularly those in Europe, have government policies (including feed-in tariffs, tax incentives, and market-share quotas) that encourage the construction of wind and other non hydroelectric renewable electricity facilities.

Data regarding various sources of energy and their Balance of Trade, Production and Consumption is provided for different nation groups below. Also the overall world statistics are provided.

Exhibit-1 Total Energy**A) Total Energy Balance of Trade (Mtoe)**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
World	-1.5	45.6	20.5	20.3	-48.5	5.6	51.2	20.1	26.8	-11.9	-2.2	-41.2
OECD	1609.2	1597.2	1698.5	1793.2	1858.2	1897.9	1866.6	1822.1	1652.1	1671.4	1626.8	1551.9
G7	1402.0	1384.6	1455.1	1540.8	1584.6	1584.0	1537.5	1469.5	1332.4	1337.3	1253.1	1212.1
BRICS	-272.3	-300.9	-324.9	-294.1	-311.2	-262.8	-219.2	-163.9	-55.8	-53.8	16.1	95.0
Europe	728.5	727.4	780.9	824.4	880.3	921.9	903.6	929.9	857.4	884.8	888.9	874.3
European Union	853.3	854.1	899.3	934.8	979.3	1004.4	981.2	1009.7	939.0	950.4	939.5	926.8
America	286.7	262.8	301.4	314.7	322.2	316.9	338.9	288.8	213.0	187.0	107.2	55.0
North America	513.3	492.5	532.0	578.7	601.9	588.4	562.1	490.6	416.7	384.4	298.0	224.7
Latin America	-226.6	-229.7	-230.6	-263.9	-279.7	-271.5	-223.3	-201.8	-203.7	-197.4	-190.9	-169.6
Asia	763.4	807.7	847.5	959.6	940.6	974.3	1045.2	1067.4	1121.4	1234.2	1307.2	1435.0
Middle-East	-900.5	-822.8	-910.3	-965.3	-998.1	-997.2	-986.1	-1021.0	-935.6	-1001.9	-1075.5	-1081.3

Compiled from: www.enerdata.net
www.cia.gov

From the table it is evident that the BRICS confirm their role as net energy importers for the second year in 2012. The Balance of Trade for Latin American nations and Middle East is negative.

B) Total Energy Consumption (Mtoe)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	10368	10748	11209	11503	11804	12078	12227	12124	12714	12981	13157	1.4
OECD	5313	5383	5484	5518	5509	5553	5479	5238	5412	5339	5270	-1.3
G7	4006	4039	4114	4127	4093	4110	4021	3823	3930	3847	3784	-1.6
BRICS	2691	2915	3127	3286	3501	3661	3799	3960	4224	4474	4636	3.6
Europe	1883	1929	1952	1957	1968	1954	1950	1853	1923	1877	1865	-0.6
European Union	1719	1759	1776	1778	1777	1756	1749	1655	1713	1658	1643	-0.9
America	3116	3146	3230	3279	3278	3338	3302	3164	3260	3270	3239	-0.9
North America	2505	2524	2576	2592	2566	2610	2544	2418	2470	2456	2408	-2.0
Latin America	611	622	654	687	712	728	758	746	790	813	831	2.2
Asia	3121	3339	3595	3758	3968	4130	4225	4430	4707	4940	5096	3.1
Middle-East	425	437	483	510	535	544	587	608	633	666	697	4.7

Compiled from: www.enerdata.net
www.cia.gov

The table shows that the demand of total energy continues to be driven by the BRICS (+3.7%), despite the slowdown in China. Overall the World Consumption for Energy has increased by 1.4% from year 2011 to 2012.

C) Total Energy Primary Production (Mtoe)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	10299	10736	11203	11562	11870	12044	12315	12212	12772	13127	13399	2.1
OECD	3858	3830	3867	3844	3859	3858	3869	3801	3886	3892	3899	0.2
G7	2692	2652	2669	2641	2657	2654	2662	2614	2666	2693	2679	-0.5
BRICS	3016	3283	3456	3646	3805	3945	4067	4129	4434	4629	4752	2.7
Europe	1242	1233	1225	1186	1163	1143	1145	1105	1117	1081	1076	-0.5
European Union	946	937	935	902	883	861	855	818	836	808	796	-1.5
America	2899	2896	2981	3013	3069	3066	3098	3054	3130	3233	3261	0.9
North America	2041	2022	2044	2033	2066	2087	2108	2077	2124	2206	2243	1.7
Latin America	858	874	937	980	1002	980	989	976	1006	1027	1018	-0.9
Asia	2386	2575	2736	2928	3094	3208	3316	3480	3708	3878	3965	2.3
Middle-East	1267	1372	1470	1533	1563	1565	1638	1565	1642	1788	1849	3.4

Compiled from: www.enerdata.net
www.eia.gov

The table shows that the world primary production of Total Energy increased by 2.1% in 2012. Share of the BRICS in the global primary production is 35 %.

Exhibit 2: Crude Oil**A) Crude Oil Production (Mt)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	3596	3739	3912	3964	3981	3956	3992	3899	3976	4020	4146	3.1
OECD	1008	1001	973	927	903	897	860	859	861	858	896	4.4
G7	610	598	580	552	546	552	538	554	568	578	626	8.2
BRICS	663	709	754	774	795	809	814	825	861	871	879	0.9
Europe	325	311	290	267	247	242	230	218	203	184	168	-8.4
European Union	162	153	142	130	119	118	111	105	98	85	77	-10.3
America	1007	996	1030	1023	1025	994	979	995	1018	1046	1095	4.6
North America	481	479	471	454	456	462	453	474	494	515	570	10.7
Latin America	527	517	558	570	569	532	526	520	525	532	525	-1.2
Asia	345	346	353	357	357	354	360	357	374	371	377	1.6
Middle-East	1042	1128	1199	1241	1246	1227	1275	1185	1210	1310	1342	2.5

Compiled from: www.eia.gov
www.enerdata.net

The above statistics reveal that the global crude oil production increased by 3% in 2012, faster than the annual average since 2001 (+1%/yr) The North American crude oil production has increased considerably as compared to other nations. The main contribution to the North American crude oil production is of USA, where 12 % growth in production was observed.

B) Crude Oil Balance of Trade (Mt)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	3596	3739	3912	3964	3981	3956	3992	3899	3976	4020	4146	3.1
OECD	1008	1001	973	927	903	897	860	859	861	858	896	4.4
G7	610	598	580	552	546	552	538	554	568	578	626	8.2
BRICS	663	709	754	774	795	809	814	825	861	871	879	0.9
Europe	325	311	290	267	247	242	230	218	203	184	168	-8.4
European Union	162	153	142	130	119	118	111	105	98	85	77	-10.3
America	1007	996	1030	1023	1025	994	979	995	1018	1046	1095	4.6
North America	481	479	471	454	456	462	453	474	494	515	570	10.7
Latin America	527	517	558	570	569	532	526	520	525	532	525	-1.2
Asia	345	346	353	357	357	354	360	357	374	371	377	1.6
Middle-East	1042	1128	1199	1241	1246	1227	1275	1185	1210	1310	1342	2.5

Compiled from: www.eia.gov
www.enerdata.net

The table reveals that Crude oil exports from the Middle-East are stable in 2012. Also, the Asian countries import almost twice as much crude oil as European nations.

C) Crude Oil Input to Refineries (Mt)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	3574	3660	3790	3837	3866	3862	3887	3820	3893	3904	3973	1.8
OECD	2094	2127	2156	2156	2148	2120	2092	1980	1984	1980	1971	-0.4
G7	1494	1518	1541	1537	1525	1523	1498	1408	1410	1401	1379	-1.6
BRICS	635	668	715	751	794	826	857	919	991	1022	1083	6.0
Europe	775	789	803	802	800	768	762	710	702	693	683	-1.5
European Union	721	732	746	745	742	710	708	660	653	641	630	-1.8
America	1210	1221	1259	1250	1255	1251	1255	1209	1207	1209	1209	0.0
North America	904	920	936	927	930	928	921	875	890	893	891	-0.3
Latin America	306	301	323	323	325	323	335	334	317	316	319	0.8
Asia	873	922	986	1013	1039	1071	1071	1114	1177	1194	1252	4.8
Middle-East	291	302	314	324	326	320	335	328	336	328	343	4.7

Compiled from: www.eia.gov
www.enerdata.net

The above table shows that there is an overall increase in the Crude Oil Refinery activity by 1.8 % from year 2011 to 2012, which is mainly pulled by Asian countries G7 nations registered a 1379 Mt crude oil refinery activity in the year 2012

Exhibit 3: Natural Gas**A) Natural Gas Balance of Trade (bcm)**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
World	3.1	5.7	12.6	2.7	-9.6	6.8	21.7	15.3	31.7	-0.5	5.3	-2.2
OECD	278.3	291.2	319.3	333.8	356.9	379.4	390.4	387.8	375.5	397.7	402.5	388.6
G7	230.3	241.3	255.9	277.6	294.4	309.6	321.2	320.5	320.1	330.1	325.0	329.3
BRICS	-171.6	-171.9	-174.1	-179.8	-182.1	-173.7	-155.3	-157.4	-129.5	-144.5	-139.0	-117.2
Europe	197.0	203.7	220.9	230.2	256.7	268.2	266.0	271.9	258.2	265.1	258.8	238.8
European Union	226.0	245.3	265.2	277.9	305.7	316.4	309.7	324.9	317.5	323.4	308.4	299.9
America	-2.4	0.8	-1.8	0.9	0.9	-0.5	3.9	-7.4	-4.9	0.5	-3.2	-5.6
North America	-2.2	-2.0	0.6	2.0	5.5	5.8	13.1	-1.9	1.3	0.8	-7.4	-15.6
Latin America	-0.2	2.9	-2.5	-1.1	-4.6	-6.3	-9.2	-5.6	-6.2	-0.2	4.2	10.0
Asia	43.4	43.5	49.7	52.3	55.4	76.0	93.0	100.0	99.1	122.6	159.7	191.9
Middle-East	-27.2	-30.6	-33.9	-39.4	-46.0	-53.2	-56.8	-58.2	-67.2	-99.8	-122.7	-131.9

Compiled from: www.eia.gov
<http://www.worldbank.org/>

From the table, rapid trade movements are observed in North and South America Net Imports of natural gas increased in the Asian Economy, especially in Japan.

B) Natural Gas Domestic Consumption (bcm)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	2614	2711	2798	2864	2940	3071	3147	3073	3297	3372	3466	2.8
OECD	1426	1449	1472	1471	1473	1541	1558	1513	1600	1596	1636	2.5
G7	1135	1142	1146	1135	1125	1181	1189	1152	1202	1201	1238	3.1
BRICS	473	498	518	534	557	585	599	598	665	699	710	1.5
Europe	524	558	571	581	578	578	592	555	592	545	537	-1.4
European Union	493	523	534	540	533	527	539	505	538	485	472	-2.5
America	886	878	891	892	900	954	962	943	989	1022	1061	3.8
North America	743	726	726	715	704	754	757	742	769	795	825	3.7
Latin America	143	151	165	176	196	201	205	201	220	227	236	4.2
Asia	318	341	364	388	420	452	473	493	544	584	626	7.3
Middle-East	208	225	248	264	287	310	333	349	375	403	417	3.4

Compiled from: www.eia.gov
<http://www.worldbank.org/>

An increase in the consumption of natural gas is observed in American economy mainly because of development of unconventional gas in the USA Also the Gas consumption continues to rise in Latin American and Asian countries.

C) Natural Gas Production (bcm)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	2600	2701	2786	2867	2956	3029	3143	3048	3274	3380	3455	2.2
OECD	1115	1120	1118	1097	1108	1122	1155	1146	1178	1201	1235	2.8
G7	874	874	850	828	832	839	851	838	850	884	903	2.2
BRICS	658	686	705	721	742	749	778	721	819	843	826	-2.0
Europe	330	332	342	330	321	310	322	306	315	290	296	2.0
European Union	258	252	258	239	228	214	216	196	201	180	172	-4.6
America	864	878	878	883	909	931	951	951	979	1029	1059	3.0
North America	724	725	710	699	713	730	747	748	764	812	838	3.2
Latin America	140	153	168	184	196	201	204	203	215	217	221	2.0
Middle-East	239	259	289	311	340	366	394	415	474	524	558	6.3

Compiled from: www.eia.gov
<http://www.worldbank.org/>

Soaring unconventional gas production in the North America as 24 % of natural gas is produced by USA There is a 6.3 % change in the production of natural gas in the middle east countries from year 2011 to year 2012.

Exhibit 4: Coal and Lignite**A) Coal and Lignite Balance of Trade (Mt)**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
World	-9.8	15.1	0.9	24.0	-15.4	-26.2	-9.3	-12.4	-2.8	-41.1	-45.1	5.0
OECD	188.6	196.3	221.7	246.6	227.0	256.8	251.9	227.9	170.8	150.5	151.7	125.3
G7	238.1	243.6	257.4	286.4	283.9	304.5	293.9	269.9	226.5	223.5	184.8	190.1
BRICS	-150.2	-141.0	-162.9	-152.4	-139.7	-112.9	-91.1	-67.1	56.6	66.5	117.5	184.4
Europe	182.1	180.4	199.9	215.4	216.5	234.7	240.7	238.8	200.0	198.4	224.7	245.1
European Union	172.2	167.4	183.1	197.6	196.6	212.0	216.7	218.1	178.4	173.9	196.4	212.5
America	-52.3	-39.2	-42.2	-49.6	-53.3	-54.6	-70.1	-93.0	-90.6	-112.5	-149.9	-160.7
North America	-28.9	-22.2	-20.2	-20.3	-23.6	-16.6	-31.6	-53.2	-49.5	-76.9	-110.8	-130.9
Latin America	-23.4	-17.1	-22.0	-29.4	-29.7	-38.1	-38.5	-39.8	-41.1	-35.6	-39.1	-29.7
Asia	146.1	172.7	158.5	190.3	187.0	158.7	198.5	221.5	290.1	344.8	349.8	448.9
Middle-East	12.3	13.9	13.6	14.0	14.1	14.2	14.9	14.4	13.5	14.9	15.8	15.9

Compiled from: www.enerdata.net
<http://www.worldbank.org/>

B) Coal and Lignite Domestic Consumption (Mt)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	4999	5388	5708	6003	6308	6606	6690	6624	6896	7264	7356	1.3
OECD	2277	2326	2337	2360	2367	2418	2360	2172	2261	2229	2146	-3.7
G7	1549	1581	1596	1610	1604	1631	1595	1428	1504	1450	1382	-4.7
BRICS	2270	2564	2871	3130	3395	3610	3744	3893	4045	4391	4547	3.5
Europe	965	990	985	969	990	1016	966	896	911	959	979	2.1
European Union	838	861	854	831	843	852	802	730	747	780	801	2.7
America	1079	1105	1111	1128	1117	1134	1128	1004	1063	1019	919	-9.9
North America	1032	1055	1062	1075	1064	1080	1075	954	1004	955	853	-10.7
Latin America	47	50	49	53	53	55	52	50	59	64	66	2.4
Asia	2288	2600	2919	3208	3482	3728	3830	4009	4218	4589	4753	3.6
Middle-East	15	15	16	16	16	17	16	16	16	17	18	2.8

Compiled from: www.enerdata.net
<http://www.worldbank.org/>

C) Coal and Lignite Production (Mt)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	4962	5313	5682	6029	6361	6578	6754	6851	7217	7635	7790	2.0
OECD	2085	2053	2103	2139	2178	2179	2178	2074	2084	2097	2041	-2.7
G7	1303	1273	1322	1331	1353	1345	1356	1252	1265	1275	1212	-4.9
BRICS	2388	2725	3003	3273	3474	3669	3824	3994	4293	4593	4792	4.3
Europe	781	780	766	756	757	759	747	719	702	738	733	-0.7
European Union	666	667	655	639	631	620	599	573	563	588	590	0.3
America	1123	1107	1162	1188	1226	1217	1241	1144	1157	1174	1096	-6.7
North America	1059	1034	1085	1104	1134	1122	1144	1050	1064	1068	998	-6.5
Latin America	64	72	77	84	92	95	97	93	93	107	98	-8.4
Asia	2105	2421	2734	3017	3284	3488	3622	3876	4172	4524	4712	4.2
Middle-East	1	2	2	2	2	2	2	2	1	2	2	10.7

Compiled from: www.enerdata.net
<http://www.worldbank.org/>

The above statistics reveal that there is a sharp slowdown in global growth of coal mainly due to the slackening pace of China. The tables reveal doubling of US coal exports to Europe. It is also observed that Asian Markets, especially China remains a major consumer of Coal and Lignite. There is a sharp drop in consumption of coal and lignite in USA as more number of people are switching to natural gas.

Exhibit 5: Renewable Energy**A) Share of Renewables in Electricity Production (incl hydro) (%)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	18.5	18.1	18.5	18.6	18.7	18.4	19.0	19.7	20.0	20.1	20.9	3.9
OECD	16.1	16.0	16.2	16.2	16.6	16.4	17.2	18.4	18.6	19.9	20.6	3.6
G7	14.1	14.2	14.2	14.0	14.6	14.3	15.0	16.3	16.1	18.1	18.4	2.0
BRICS	22.3	20.9	21.8	21.8	21.1	20.7	21.2	21.5	21.9	20.4	21.8	6.8
Europe	19.4	18.5	19.8	20.1	20.2	21.0	22.2	24.1	25.7	25.7	28.3	10.4
European Union	14.3	14.1	15.1	15.2	15.8	16.7	17.8	19.9	21.4	21.8	24.0	10.2
America	23.7	23.9	23.7	24.1	24.8	24.4	24.9	26.5	25.8	28.1	27.6	-1.7
North America	16.1	16.0	15.7	15.8	16.2	15.6	16.3	17.7	17.0	19.4	19.1	-1.5
Latin America	59.0	59.0	58.3	59.4	60.2	59.3	58.3	58.9	57.6	58.0	55.7	-4.0
Asia	13.5	13.2	13.7	13.7	13.9	13.5	14.7	14.7	15.4	14.4	15.9	10.5
Middle-East	2.2	2.8	2.8	4.4	4.3	3.9	1.6	1.6	2.1	2.3	2.5	8.1

Compiled from : www.prayasapune.org/peg
www.semi.org

B) Share of Renewables in Primary Consumption (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	12.5	12.3	12.2	12.2	12.2	12.3	12.5	12.8	12.8	12.8	12.9	0.9
OECD	6.0	6.1	6.3	6.4	6.6	6.9	7.3	7.8	8.1	8.5	8.7	3.0
G7	5.0	5.2	5.3	5.4	5.7	5.9	6.3	6.8	7.1	7.7	7.8	1.7
BRICS	18.6	17.4	16.8	16.3	15.7	15.5	15.3	14.8	14.5	13.7	13.7	-0.3
Europe	7.4	7.5	7.9	8.2	8.5	9.3	9.8	10.7	11.5	11.6	12.4	6.6
European Union	6.3	6.5	7.0	7.2	7.7	8.5	9.0	10.1	10.9	11.2	11.8	6.1
America	9.2	9.6	9.6	9.8	10.1	10.3	10.8	11.3	11.5	12.1	12.0	-0.1
North America	5.6	5.8	5.8	6.0	6.2	6.1	6.6	7.0	7.2	7.8	7.7	-1.1
Latin America	23.9	24.8	24.4	24.1	24.5	25.1	25.2	25.4	25.2	24.9	24.5	-1.3
Asia	18.2	17.3	16.4	15.9	15.4	15.0	15.0	14.5	14.2	13.7	13.7	-0.1
Middle-East	0.3	0.4	0.4	0.6	0.6	0.6	0.3	0.3	0.3	0.4	0.4	7.2

Compiled from : www.prayasipune.org/peg
www.semi.org

Renewable energy is generally defined as energy that comes from resources which are continually replenished on a human timescale such as rain, tides, sunlight, wind and geothermal heat. The above table shows that there has been a sharp increase in wind (20%) and solar (50%) power production in the year 2012. The share of renewables in electricity production in the EU (incl. hydro) is 24%. A strong diffusion in OECD countries in primary consumption of renewable energy is revealed. Also, EU consumes 12% of world renewable energy (incl. hydro).

Exhibit 6: Refined Oil Products**A) Refined Oil Products Production (Mt)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	3615	3701	3838	3882	3907	3908	3931	3852	3939	3948	4015	1.7
OECD	2118	2154	2191	2188	2176	2143	2119	2000	2009	2004	1994	-0.5
G7	1519	1544	1574	1571	1554	1550	1528	1431	1438	1428	1405	-1.6
BRICS	620	652	702	733	775	812	839	894	968	998	1058	6.0
Europe	767	781	796	795	792	761	757	702	694	685	674	-1.7
European Union	712	723	739	738	733	703	702	653	646	633	621	-2.0
America	1252	1266	1311	1300	1302	1298	1301	1248	1252	1252	1252	-0.1
North America	937	956	977	970	968	964	959	904	923	925	923	-0.3
Latin America	315	310	334	330	334	333	342	344	329	327	329	0.5
Middle-East	318	330	342	351	353	348	360	356	368	359	376	4.8

Compiled from : www.njenergydatacenter.org
www.doe.gov/data/open-energy-data

B) Refined Oil Products Balance of Trade (Mt)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
World	-69.5	-71.1	-69.9	-65.3	-67.6	-45.9	-38.2	-60.3	-82.6	-57.3	-42.5	-89.8
OECD	103.7	111.9	112.9	109.9	133.3	122.7	97.2	67.2	61.0	57.4	35.8	-6.3
G7	88.6	79.2	79.5	76.4	87.0	81.8	43.6	10.6	5.0	4.6	-11.1	-31.8
BRICS	-41.7	-55.6	-53.7	-50.1	-72.7	-73.0	-81.2	-79.6	-107.3	-112.3	-103.1	-120.5
Europe	39.9	43.2	37.5	23.1	33.3	37.3	25.8	32.6	45.8	46.5	38.9	17.3
European Union	30.6	31.8	27.9	12.4	21.6	24.2	12.5	16.7	23.6	24.8	18.7	-2.7
America	3.6	-3.0	9.4	12.3	32.6	32.6	34.1	4.3	-26.5	-8.3	-20.1	-38.6
North America	21.4	14.0	21.0	34.2	49.9	38.9	26.1	-6.7	-26.2	-39.4	-59.6	-85.7
Latin America	-17.8	-17.0	-11.6	-21.9	-17.3	-6.2	8.0	10.9	-0.3	31.0	39.5	47.1
Asia	81.9	101.3	93.9	106.8	77.7	74.5	76.3	67.7	58.3	76.5	89.4	80.6
Middle-East	-108.2	-107.3	-116.7	-114.3	-109.3	-99.9	-85.0	-80.1	-80.2	-85.4	-73.2	-71.4

Compiled from : www.njenergydatacenter.orgwww.doe.gov/data/open-energy-data

Refined petroleum products are derived from crude oils through different processes. Some example of refined oil products are Gasoline, Kerosene and lubricating oil. The above tables reveal that the production of refined oil has increased the most in Middle eastern countries. European economy show a favourable BOT as compared to any other economy in the world as far as refined oil products are concerned.

Exhibit 7: Electricity**A) Electricity Balance of Trade (TWh)**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
World	7.3	12.6	-0.7	-1.1	-2.3	1.8	11.3	5.8	6.9	10.0	20.8	28.1
OECD	11.0	18.1	13.8	14.9	15.9	14.3	0.4	7.5	9.0	10.9	1.2	-3.0
G7	-7.1	-5.2	-16.9	-10.9	-6.5	-28.5	-21.6	-15.7	10.0	1.4	-7.9	-8.8
BRICS	17.1	19.8	16.0	21.9	19.7	18.2	25.7	22.2	23.9	14.2	17.4	28.5
Europe	10.5	11.7	10.2	6.3	10.0	12.4	10.1	13.8	8.8	12.3	15.2	13.6
European Union	4.5	12.5	-3.2	-7.3	11.3	3.5	10.5	17.1	15.1	3.5	1.0	16.7
America	-0.2	4.0	-3.0	0.2	1.4	1.1	1.8	2.7	3.2	0.0	-2.0	-0.5
North America	-1.1	2.8	-0.4	0.5	0.9	-0.7	0.3	1.3	0.4	0.3	-0.2	0.0
Latin America	0.9	1.2	-2.7	-0.3	0.5	1.8	1.5	1.4	2.7	-0.3	-1.8	-0.6
Asia	0.7	0.7	0.4	1.5	0.5	3.1	3.1	1.4	4.1	11.4	22.3	29.8
Middle-East	-0.2	-0.4	-0.2	0.6	-0.6	1.2	0.9	-8.9	-7.6	-6.7	-9.5	-12.7

Compiled from : www.doe.gov/data/open-energy-datawww.enerdata.com

B) Electricity Domestic Consumption (TWh)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	13821	14347	14989	15636	16277	17091	17401	17296	18498	19054	19462	2.1
OECD	8801	8929	9128	9326	9399	9623	9603	9209	9649	9563	9516	-0.5
G7	6681	6750	6863	7000	7003	7145	7087	6758	7070	6960	6886	-1.1
BRICS	3005	3284	3604	3938	4367	4854	5093	5325	5872	6395	6688	4.6
Europe	3059	3130	3208	3264	3316	3359	3391	3233	3384	3335	3335	0.0
European Union	2722	2788	2847	2886	2926	2951	2964	2817	2939	2879	2863	-0.6
America	4963	5047	5150	5288	5321	5477	5494	5280	5515	5550	5525	-0.4
North America	4144	4187	4248	4351	4343	4455	4435	4216	4390	4366	4301	-1.5
Latin America	818	860	901	937	978	1021	1059	1064	1125	1183	1224	3.4
Asia	3711	4003	4383	4758	5191	5708	5905	6192	6839	7337	7660	4.4
Middle-East	440	471	497	518	562	590	623	662	729	759	813	7.0

Compiled from : www.doe.gov/data/open-energy-data
www.enerdata.com

C) Electricity Production (TWh)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2011 - 2012 (%/year)
World	16184	16759	17550	18304	19002	19860	20250	20179	21479	22141	22619	2.2
OECD	9958	10056	10326	10575	10649	10854	10864	10458	10922	10844	10824	-0.2
G7	7529	7585	7739	7919	7942	8042	8011	7648	7987	7884	7838	-0.6
BRICS	3710	4061	4435	4802	5292	5825	6085	6357	6982	7594	7903	4.1
Europe	3539	3618	3704	3761	3809	3854	3880	3702	3861	3802	3812	0.3
European Union	3132	3220	3288	3311	3355	3367	3371	3203	3347	3280	3256	-0.7
America	5654	5709	5878	6070	6100	6236	6309	6107	6357	6421	6432	0.2
North America	4652	4671	4775	4921	4914	4989	5009	4802	4986	4980	4941	-0.8
Latin America	1001	1037	1103	1149	1186	1247	1299	1304	1371	1441	1491	3.5
Asia	4429	4775	5204	5624	6110	6684	6890	7227	7937	8504	8835	3.9
Middle-East	526	556	591	635	678	721	775	816	882	922	988	7.1

Compiled from : www.doe.gov/data/open-energy-data
www.enerdata.com

The above tables reveal that the total electricity in Asian Countries is highest as compared to other nations. The consumption of electricity in the Middle East countries has increased by 7 % from year 2011 to 2012, which is highest among all nations. The growth in electricity generation for non-OECD countries increases by an average annual rate of 3.3 percent, as rising standards of living increases the demand. In OECD nations, where infrastructures are more mature and population growth is relatively slow, growth in generation is much slower.