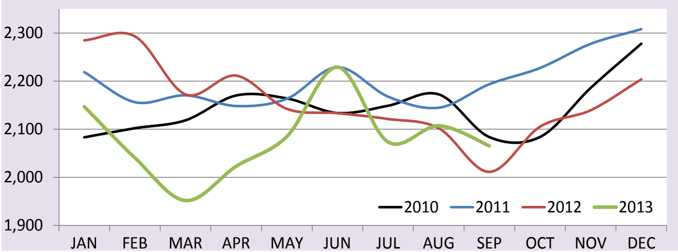
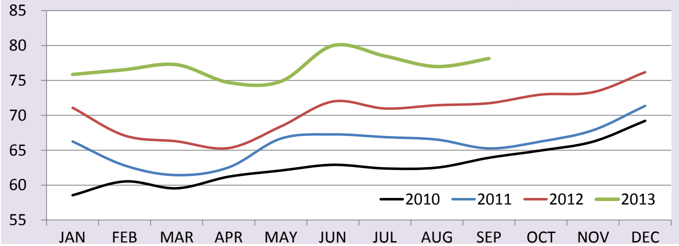
Monthly Energy Bulletin

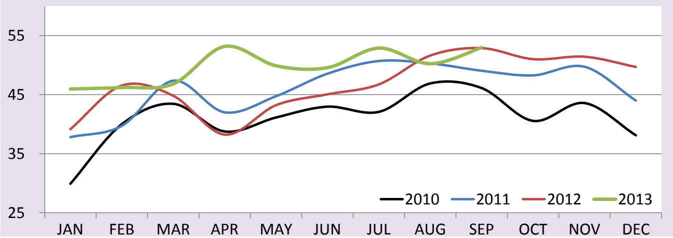
Reference Month: September 2013



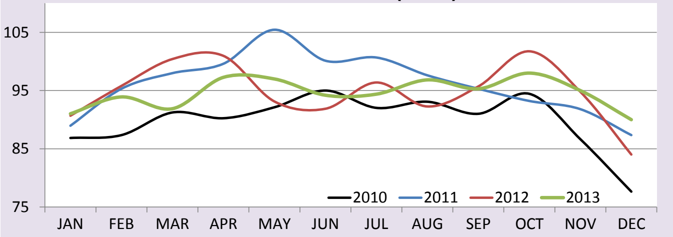
OIL PRODUCTION (10³ bbl/d)



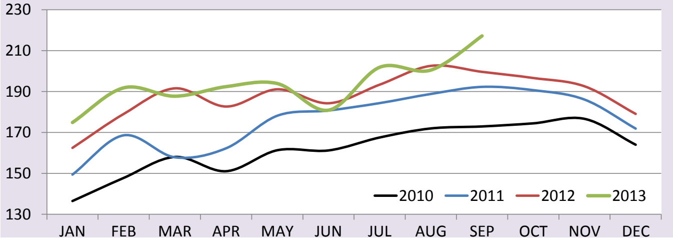
NATURAL GAS PRODUCTION (million m³/d)



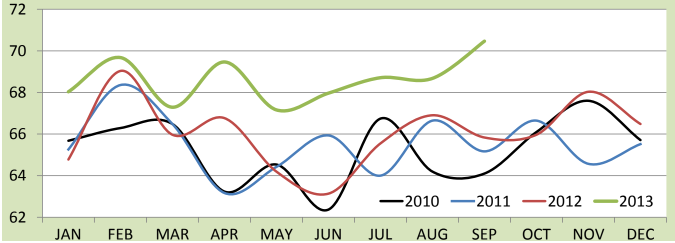
BIODIESEL PRODUCTION (10³ bbl/d)



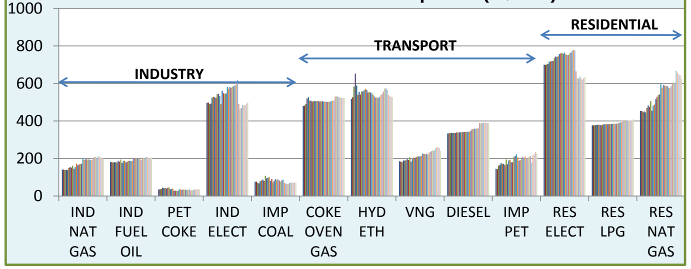
STEEL PRODUCTION (10³ t/d)



CEMENT PRODUCTION (10³ t/d)



PAPER AND PULP PRODUCTION (10³ t/d)



CONSUMER PRICES - Jan 2011 to Sep 2013 (R$/boe)

Note: For a better visualization, the minimum scale of the graphs was raised to the level close to the lowest value of the curves.

Methodological Remarks

The *purpose of this bulletin* is to follow up a set of energy and non-energy variables that provide a reasonable estimate of the behavior both monthly as cumulative of the total energy demand in Brazil.

Total demand of natural gas = domestic production (+) import (-) unused (-) reinjection.

Apparent consumption of oil derivatives = distributors' sales (+) Petrobras' own consumption (including refinery gas) (+) Petrobras' direct sales. The monthly data published in the press and on the ANP website do not consider the own consumption and direct sales of Petrobras, whose volume is about 20% of the total oil products consumption.

(*) *Domestic Energy Supply* (DES), or Total Energy Demand, is the energy required to move the economy of a country or region, and includes final energy consumption in the residential sector and in the other economic sectors, includes losses in transmission and distribution, and losses on power transformation.

toe (ton of oil equivalent) = 10 Gcal (Gigacaloria). The firewood releases 3,100 cal / g, or 3.1 Gcal / t when combustion. The gasoline releases 10.4 Gcal / t. The ratio between the indicator of wood and oil, resulting in 0.31 toe / t, a factor that converts tons of firewood to toe. The factor of gasoline was 1.04 toe / t. This criterion enables the sum of all forms of energy on standard "toe".

N3E Office of Strategic Energy Studies / SPE/MME
www.mme.gov.br / ben@mme.gov.br
(55 61) 2032-5967 and 2032-5764

Total Primary Energy Supply

The economic and energy indicators of September 2013 raise slightly the annual energy demand trends, observed in the previous month. The hydraulic generation keeps its weak performance, which should result in an increase of slightly more than 4 million toe in thermal losses of thermoelectric plants. The 6.3% growth (until this month) in residential electricity consumption and 6.0% in the Otto cycle fuels consumption, show that domestic demand for goods and services remains strong. Thus, the growth rate of Domestic Energy Supply (DES) (*), accumulated until the month was estimated at 5.0% over the same period of 2012.

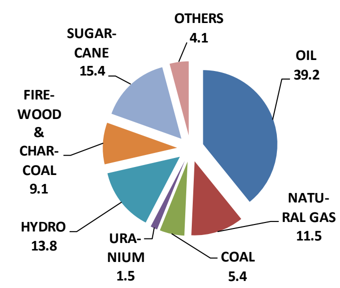
Total energy demand in 2013 can grows up between 3.5% and 4.5%

For the full year of 2013, the DES growth estimations are within 3.5% and 4.5% (3% and 4% in the previous edition). The premises are supported on restrictions for a larger hydro generation, on the maintenance of weak performance of commodities and on the good performances of sugarcane products, natural gas and oil products.

According to the information available at the elaboration of this bulletin, the growth rate of DES for 2013 was estimated at 4.3% (4.0% in the previous edition). Slightly more than 1 percentage point of this rate will be due to the increase in thermal losses in thermoelectric generation.

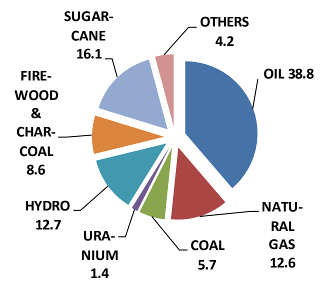
Renewable sources will suffer a small decrease of participation in the 2013 energy matrix. An above average behavior of sugarcane products should be neutralized by lower performances of the firewood and hydro generation uses.

DES 2012 (%)



283.6 million toe
42.4% renewables

DES (Trend for 2013)



295 million toe
41.5% renewables

MME
MINISTRY OF MINES AND ENERGY - MME
SECRETARIAT OF ENERGY PLANNING AND DEVELOPMENT
OFFICE OF STRATEGIC ENERGY STUDIES

Highlights up to September 2013

Steel production pulls back 0.6%

Steel production declined 0.4% in September 2013 over the same month in 2012, and for the year shows a decrease of 0.6% (the same rate recorded up to August). Iron ore exports rose 5% in September and 5.9% in the year-to-date (6% to August). The pellet exports continue to decline, with reductions of 9.7% in the year (-1.2% until August).

Oil production grows in this month

The oil production, of 2.07 million b/d in September, grew 2.7% over the same month of 2012. The accumulated in the year shows a decrease of 3.9%.

Hydro supply retreats about 9%

The hydropower supply decreased 9.1% until September, with Itaipu import staying 1.3% below the level of 2012 (Paraguayan share). Under these conditions, the national hydro generation declined by 10% in the year, over the same period of 2012.

Oil products demand cools down

The apparent consumption of oil products increased by 1.5% in September over the same period of 2012 (5.2% in August) and 3.7% in the year-to-date (4% up to August). Diesel consumption, with an increase of 7.1% in September, continues to keep high growth rates (7.5 % in the accumulated of the year). Gasoline C increased 3.6% in September, with a positive rate of 2.3% in the year (2.1% until August), while automotive ethanol consumption grew 26.4% until September. The total demand of natural gas grew 24.3%, having on thermal generation an increase of 127%, and a decline in industrial consumption of 2.3%.

Energy use in Otto cycle transport (gasoline + ethanol + gas), remains high, with a rate of 6% in the year, but does not repeat the last year rate, of 8.3%.

Electricity consumption remains the same

Electricity consumption (excluding captive self-producer) grew 2.7% in September. In the year, the accumulated rate is 3.2%. Industrial consumption fell 0.1% in September and has zero rate for the year. The consumption of commercial and residential sectors accumulate positive rates of 6.3% and 5.4% respectively.

Electricity tariffs recoil

The Brazilian electricity average tariff of the residential sector fell 14.4% in the year, the commercial tariff fell 12.6% and the industrial tariff fell 12.1%.

Biodiesel production remains high

Biodiesel production grew 0.2% in September, and in the year the rate at 9.7% (rate of 1.7% in the period of 2012).

Cement production grew 8.8% in September, over the same month of 2012. In the year, the growth is 3.2% (2.9 % to August). Pulp production grew by 11.1% in September (1% in August), with 6% in the year-to-date.

Main Figures

SPECIFICATION	SEPTEMBER						
	IN THE MONTH			ACCUMULATED IN THE YEAR			
	2013	2012	% 13/12	2013	2012	% 13/12	% 2013
OIL							
PRODUCTION - with Shale Oil and NGL(10^3 b/d)	2,065	2,011	2.7	2,080	2,163	-3.8	-
IMPORTS AVERAGE PRICE (US$/bbl FOB)	116	110	5.3	113	118	-4.1	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10^3 b/day)	2,653	2,613	1.5	2,643	2,549	3.7	**100.0**
hereof: DIESEL with biodiesel - (10^3 b/day)	1,102	1,029	7.1	1,029	957	7.5	37.0
hereof: GASOLINE C (10^3 b/day)	705	681	3.6	676	661	2.3	20.5
CONSUMER PRICE - DIESEL (R$/l)	2.33	2.14	9.1	2.31	2.07	11.8	-
CONSUMER PRICE - GASOLINE C (R$/l)	2.83	2.72	4.1	2.85	2.73	4.2	-
CONSUMER PRICE - LPG (R$/13 kg)	41.5	39.4	5.5	40.8	39.1	4.3	-
NATURAL GAS							
PRODUCTION (10^6 m^3/day)	78.1	71.7	8.9	77.0	69.4	10.9	-
IMPORTS (10^6 m^3/day)	46.9	41.7	12.4	46.4	32.9	41.1	-
NON-UTILIZED AND REINJECTION (10^6 m^3/day)	14.0	13.7	2.3	13.5	13.8	-2.6	-
AVAILABILITY FOR CONSUMPTION (10^6 m^3/day)	111.0	99.8	11.3	109.9	88.5	24.3	**100.0**
INDUSTRIAL CONSUMPTION (10^6 m^3/day)	41.7	43.0	-3.1	41.0	41.9	-2.3	37.3
POWER GENERATION CONS. (10^6 m^3/day)	34.8	30.7	13.6	40.4	17.8	127.1	36.7
INDUSTRIAL PRICE PS (US$/MMBtu) - consumption range of 20,000 m^3/day	15.8	17.0	-7.1	17.2	16.9	1.3	-
MOTOR PRICE PS (US$/MMBtu)	19.1	19.5	-2.2	20.6	19.9	3.8	-
RESIDENTIAL PRICE PS (US$/MMBtu)	49.8	51.3	-2.8	52.1	52.0	0.1	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	63,573	60,462	5.1	62,253	60,187	3.4	**100.0**
LOAD - SOUTHEAST/MID-WEST (MWavg)	38,244	37,360	2.4	37,637	36,981	1.8	60.5
LOAD - SOUTH (MWavg)	10,415	9,844	5.8	10,524	10,170	3.5	16.9
LOAD - NORTHEAST (MWavg)	9,675	9,076	6.6	9,616	8,906	8.0	15.4
LOAD - NORTH (MWavg)	5,239	4,183	25.2	4,477	4,130	8.4	7.2
TOTAL CONSUMPTION (TWh) (*)	38.7	37.7	2.7	344.7	333.9	3.2	**100.0**
RESIDENTIAL (TWh)	10.3	9.7	5.7	93.0	87.5	6.3	27.0
INDUSTRIAL (TWh)	15.6	15.6	-0.1	137.7	137.6	0.0	39.9
COMMERCIAL (TWh)	6.8	6.5	4.3	61.7	58.5	5.4	17.9
OTHER SECTORS (TWh)	6.0	5.8	3.4	52.4	50.3	4.1	15.2
PLANTS ENTRY INTO OPERATING (MW)	391	162	141.9	4,542	2,553	77.9	-
RESIDENTIAL PRICE (R$/MWh)	385	461	-16.6	393	459	-14.4	-
COMMERCIAL PRICE (R$/MWh)	375	431	-13.0	372	426	-12.6	-
INDUSTRIAL PRICE (R$/MWh)	302	354	-14.6	302	343	-12.1	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10^3 b/d)	53	53	0.2	50	45	9.7	-
MOTOR ETHANOL CONSUMPTION (10^3 b/d)	459	343	33.9	399	316	26.4	-
ETHANOL EXPORTS (10^3 b/d)	62	95	-34.4	53	41	29.8	-
HYDRATED ETHANOL PRICE (R$/l)	1.90	1.89	0.4	1.97	1.95	1.0	-
COAL							
ELECTRICITY GENERATION (MWavg)	1,724	1,044	65.1	1,546	827	86.9	-
IMPORT PRICE (US$ FOB/t)	132.1	161.8	-18.4	136.7	184.1	-25.8	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	1,363	1,404	-2.9	11,140	11,741	-5.1	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10^3 t/day)	95	96	-0.4	95	95	-0.6	-
ALUMINIUM PRODUCTION (10^3 t/day)	3.5	3.9	-10.1	3.6	4.0	-8.0	-
IRON ORE EXPORTS (10^3 t/day)	839	798	5.0	733	692	5.9	-
PELLETS EXPORTS (10^3 t/day)	129	124	3.7	121	134	-9.7	-
CEMENT PRODUCTION (10^3 t/day)	217	200	8.8	193	187	3.2	-
PAPER PRODUCTION (10^3 t/day)	28.7	28.3	1.7	28.2	27.7	1.9	-
PULP PRODUCTION (10^3 t/day)	41.7	37.6	11.1	40.3	38.1	6.0	-
SUGAR PRODUCTION (10^3 t/daY)	190	187	1.8	94	94	-0.2	-
SUGAR EXPORTS (10^3 t/day)	84	88	-4.4	72	55	29.9	-

(*) Classic Self Producers not included. (not use public network)