

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.

(**) The Cycle 2014 National Energy Balance, initiated by the Energy Research Company (EPE), set up to end of April the final data OIE 2013. OIE 2013 this bulletin reflects a more refined evaluation regarding bulletin December 2013.

Monthly Energy Bulletin - Brazil

Reference Month: February 2014

Domestic Energy Supply – DES

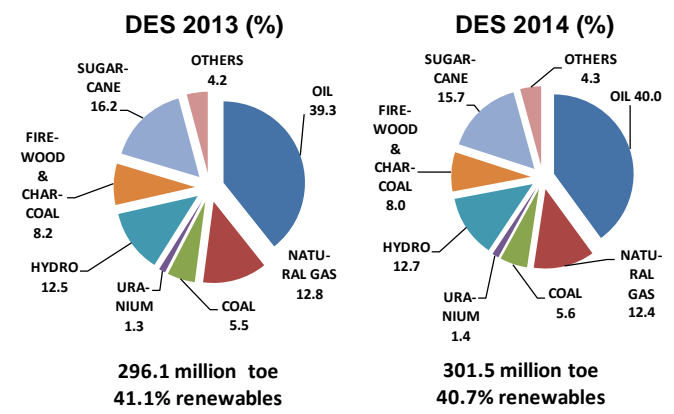
The low performance of some export products (such as steel, aluminum, pellets and sugar, for example) is the same of January. In February, in terms of social welfare, the high rates in the energy consumption in particular transport and electricity in homes and commerce draws attention. In energy supply, the recovery from hydroelectricity and nuclear energy generations until February 2014 reduced the demand for natural gas in thermal generation. In terms of cane products, there is a forecast of lower performance in 2014. Under these conditions, the growth rate of Domestic Energy Supply (DES) (*) (**) to the month was estimated at 3.3% over the same period of 2013.

Total energy demand in 2014 can grow between 1.5% and 2.5%

For the full year 2014, the estimates for the DES growth are in the range of 1.5% to 2.5% (the same as the previous month). The premises are based on the little recovery of the hydroelectricity – reducing energy losses in thermal power generation –, and in the poor performance of sugar-alcohol sector and of the commodities.

Based on the available information at the date of this report, the DES's growth rate for 2014 was estimated at 1.8%. Given the uncertainties in the early months of each year, in each new bulletin energy forecasts are reviewed and based on the information of that time.

Renewable sources should maintain participation the 40% in 2014 in the DES matrix. The predicted increases for hydro and wind generation, and the production of biodiesel, should be nullified by smaller performances of sugarcane products and firewood.



Highlights until February 2014

Steel production recoils

Until February, steel production declined 1.1%, the production of aluminum retreated 12%, iron ore exports increased by 7.6% (3.6% for the whole year of 2013), and pellets exports declined 11.9% (with a decrease of 8.8% throughout 2013).

Hydro Supply is on the rise

The hydraulic energy supply increased by 10% year to date, taking in the imports of Itaipu a decline of 5%. In those circumstances, the national hydro generation grew 11.5% until February, over the same period of 2013.

Consumption of oil products recovers high rates

The apparent consumption of petroleum products increased by 10.3% in February and 6% in the year, while diesel rose 15% in February, after falling 1.9% in January (use in thermoelectric plants explains these variations). Gasoline C, with a growth of 15.1% in February and 7.2% in January, had a strong recovery in automotive use, in comparison to average rate of 2.7% in 2013. The total demand for natural gas decreased 9.4% until February, influenced by the recoil of 15% in thermal generation.

The performance of energy use in the Otto Cycle transportation (gasoline, ethanol and natural gas) continues to astonish, with an increase of 7.5% in January and 10.6% in February. The average increase was 5.8% in 2013 and 7.6% in 2012.

Electricity consumption grows about 7%

Electricity consumption (excluding captive self-producer) had a meaningful growth, of 8.7%, in February 2014, and 6.8% year to date (3.5% throughout 2013). In February, commercial consumption increased 16.5% and residential consumption grew 13.3%, as a result of greater use of air conditioning. Industrial consumption remains low, with a rate of only 1.3% until February (0.6% across 2013). The decrease in the production of aluminum explains part of the low industrial performance.

Biodiesel production grows near 12%

Biodiesel production increased 16,5% in February. In 2013, the rate was 7.3%.

Electricity tariffs attenuate decline

The national average residential electricity tariff retreated 8.4%, the commercial tariff retreated 4.6% and industrial tariff retreated 6.5%.

The cement production starts the year with a high growth rates, of 20.8% in January and 10.8% in February (3.1% throughout 2013). Pulp production continues to maintain good performance, of 5.4% in year date (7.4% throughout 2013).

Basic Data

SPECIFICATION	FEBRUARY			ACCUMULATED IN THE YEAR			
	2014	2013	%14/13	2014	2013	%14/13	%2014
OIL							
PRODUCTION - with Shale Oil and NGL (10 ³ b/d)	2.111	2.041	3,4	2.130	2.096	1,7	-
IMPORTS AVERAGE PRICE (US\$/bbl FOB)	118	117	0,5	115	116	-1,1	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10 ³ b/day)	2.809	2.546	10,3	2.682	2.529	6,0	100,0
hereof: DIESEL with biodiesel - (10 ³ b/day)	1.104	960	15,0	1.035	950	9,0	36,7
hereof: GASOLINE C (10 ³ b/day)	771	670	15,1	748	674	11,0	22,3
CONSUMER PRICE - DIESEL (R\$/l)	2,49	2,33	7,0	2,49	2,24	11,0	-
CONSUMER PRICE - GASOLINE C (R\$/l)	2,96	2,88	2,6	2,96	2,82	4,7	-
CONSUMER PRICE - LPG (R\$/13 kg)	42,6	40,6	5,1	42,5	40,4	5,4	-
NATURAL GAS							
PRODUCTION (10 ⁶ m ³ /day)	83,2	76,5	8,8	81,8	76,2	7,3	-
IMPORTS (10 ⁶ m ³ /day)	38,5	50,4	-23,5	38,5	49,3	-22,0	-
NON-UTILIZED AND REINJECTION (10 ⁶ m ³ /day)	18,9	13,6	39,3	18,7	13,5	38,8	-
AVAILABILITY FOR CONSUMPTION (10 ⁶ m ³ /day)	102,9	113,3	-9,2	101,5	112,0	-9,4	100,0
INDUSTRIAL CONSUMPTION (10 ⁶ m ³ /day)	43,1	38,8	11,2	42,0	38,7	8,5	41,4
POWER GENERATION CONS. (10 ⁶ m ³ /day)	45,1	43,3	4,3	40,0	42,6	-6,0	39,4
INDUSTRIAL PRICE SP (*) (US\$/MMBtu) - consumption range of 20,000 m ³ /day	17,0	18,6	-8,6	17,1	18,4	-6,7	-
MOTOR PRICE SP (US\$/MMBtu)	19,4	21,6	-10,2	19,2	21,2	-9,5	-
RESIDENTIAL PRICE SP (US\$/MMBtu)	48,0	53,9	-10,9	48,0	53,1	-9,6	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	69.637	64.497	8,0	69.233	63.458	9,1	100,0
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	42.188	39.220	7,6	41.782	38.574	8,3	60,3
SOUTH POWER LOAD (MWavg)	12.624	11.295	11,8	12.352	11.031	12,0	17,8
NORTHEAST POWER LOAD (MWavg)	10.251	9.838	4,2	10.176	9.766	4,2	14,7
NORTH POWER LOAD (MWavg)	4.334	4.144	4,6	4.803	4.088	17,5	6,9
TOTAL CONSUMPTION (TWh) (**)	41,4	38,1	8,7	81,7	76,5	6,8	100,0
RESIDENTIAL	11,8	10,5	13,3	23,6	21,4	10,6	28,9
INDUSTRIAL	15,0	14,8	1,5	29,5	29,1	1,3	36,1
COMMERCIAL	8,2	7,0	16,5	15,9	14,2	12,0	19,5
OTHER SECTORS	6,4	5,9	9,0	12,6	11,8	7,3	15,5
PLANTS ENTRY INTO OPERATING (MW)	542	666	-18,6	666	1.362	-51,1	-
RESIDENTIAL PRICE (R\$/MWh)	0	403	-100,0	0	436	-100,0	-
COMMERCIAL PRICE (R\$/MWh)	0	342	-100,0	0	368	-100,0	-
INDUSTRIAL PRICE (R\$/MWh)	0	297	-100,0	0	336	-100,0	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10 ³ b/d)	54	46	16,5	52	46	11,8	-
MOTOR ETHANOL CONSUMPTION (10 ³ b/d)	488	348	40,5	459	364	26,1	-
ETHANOL EXPORTS (10 ³ b/d)	14	45	-68,7	27	59	-53,7	-
HYDRATED ETHANOL PRICE (R\$/l)	2,07	2,00	3,7	2,06	1,98	4,2	-
COAL							
ELECTRICITY GENERATION (MWavg)	2.087	1.444	44,6	1.977	1.437	37,6	-
IMPORT PRICE (US\$ FOB/t)	111,0	138,3	-19,8	111,8	140,4	-20,4	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	1.328	899	47,8	2.792	1.941	43,8	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10 ³ t/day)	93	94	-0,8	91	92	-1,1	-
ALUMINIUM PRODUCTION (10 ³ t/day)	3,2	3,8	-14,8	3,3	3,8	-12,0	-
IRON ORE EXPORTS (10 ³ t/day)	702	624	12,5	693	644	7,6	-
PELLETS EXPORTS (10 ³ t/day)	106	115	-7,2	110	125	-11,9	-
CEMENT PRODUCTION (10 ³ t/day)	213	192	10,8	213	183	16,2	-
PAPER PRODUCTION (10 ³ t/day)	30,1	29,3	2,7	29,2	28,7	1,7	-
PULP PRODUCTION (10 ³ t/day)	43,0	41,0	5,1	42,9	40,7	5,4	-
SUGAR PRODUCTION (10 ³ t/day)	28	16	71,7	25	20	26,3	-
SUGAR EXPORTS (10 ³ t/day)	64	64	1,3	67	69	-3,3	-

(*) SP is the acronym of the state of São Paulo.

(**) The traditional self-producers (consumers that do not use public grid) are not included.

