

**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.

(\*\*) 2014 data reflect the 2015 cycle of the National Energy Balance, completed in May by the Energy Research Company (EPE), with the support of MME and its institutions.

# Monthly Energy Bulletin - Brazil

Reference Month: June 2015

## Domestic Energy Supply – DES

2015 began with the expectation that the total energy demand in Brazil could have a future expansion of 2% over the next twelve months. Nowadays, expectations are already very different, indicating that there could be a decline in energy demand in the year. The vectors of this tendency inversion are the continuous high in: interest rates, inflation, unemployment and administered prices.

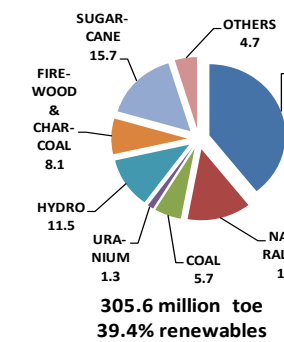
Economic and energetic indicators until June indicates that **Domestic Energy Supply (DES) (\*) (\*\*)** increased by 0.2%.

**DES may recoil in 2015**

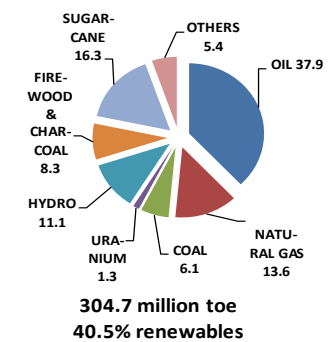
For the full year 2015, the DES evolution rate may stand between -1 and 0%. A good performance of some commodities and a stronger retraction in domestic energy demand associated with the population welfare are expected. Renewable sources should maintain their participation near 40% in the DES matrix of 2015.

Until the elaboration date of this report, the estimated DES' rate for 2015 was -0.3%.

**DES 2014 (%)**

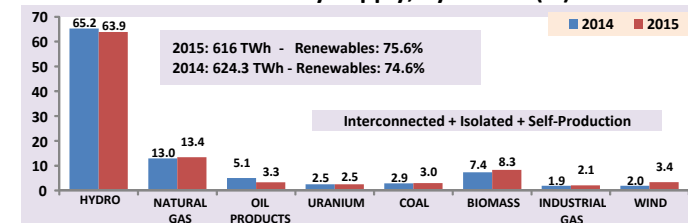


**DES 2015 (%)**



The **Domestic Electricity Supply** was estimated at 616 TWh for 2015(\*\*), with a decrease of 1.3% over 2014. Until August, the National Interconnected System (SIN) load was 1.1% negative.

**Domestic Electricity Supply, by Source (%)**



## Highlights of June 2015

### Oil and Gas production on the up

In June 2015, oil production grew by 6.2% and natural gas production, 10.3%. Year to date, the rates are 10.9% and 13.9%, respectively.

### Recovery of minerals exports

Steel production increased by 2% in June, compared to the same month of 2014 (3.8% in May) and accumulated a 1.9% growth in the year. Iron ore exports rose 0.2% in the month and have accumulated a positive rate of 4% in the year. Pellets exports increased 75% in June, accumulating 26.6% in the year.

### Hydraulic energy supply low

The hydro power supply declined 6.6% in June (-4.3% in May). Itaipu generation recoiled 7.7% in June. Up this month, the hydraulic supply is 6.3% negative (the same until May).

### Oil products consumption low

The oil products apparent consumption recoiled 0.2% in June and in the year it accumulates a decrease of 3.6%. The C gasoline retreated 3.3% in June (-12.2% in May and -8.6% in April) and diesel oil increased 3.5%. During the year, the rates are 5.2% negative for gasoline and 2.4% negative for diesel.

The gas consumption increased by 1% in June and accumulates 3.9% in the year. Electricity generation sales no longer repeat the high growth rates recorded in previous years.

The energy consumption in gasoline equivalent of the Otto cycle transport – gasoline, ethanol and natural gas – accumulates 1.7% in the year, much lower than the expressive rate (8.6%) recorded in the same period of 2014.

### Electricity consumption declining

Electricity consumption (excluding captive self-production) reduced 1.3% in June (1.9% negative in May), accumulating -0.9% in the year. Industrial consumption, with a negative rate of 3% in June, accumulates a recoil of 3.9% in the year. The industrial sector is in large part affected by strong decline in aluminum production, which is energy-intensive. Residential consumption, with a negative rate of 1% in June, still accumulates a positive rate of 0.5% in the year. The commercial sector accumulates 1.8% in the year.

### Biodiesel production still high

Biodiesel production stood at 66 kbb/d in June, with an expressive high of 25.1% over the same month of 2014. In the year, it accumulates an increase of 23.6%.

## Electricity rates continues in high

In the year to date, the national average residential electricity tariff increased 40.8%, the commercial tariff grew 43.6%, and the industrial, 51.5%.

### Basic data of 2014 and 2015

SPECIFICATION	JUNE				ACCUMULATED IN THE YEAR			
	IN THE MONTH		% 15/14		2015		% 2015	
	2015	2014		2015	2014			
<b>OIL</b>								
PRODUCTION - with Shale Oil and NGL(10 <sup>3</sup> b/d)	2,490	2,344	6.2	2,479	2,235	10.9	-	
IMPORTS AVERAGE PRICE (US\$/bbl FOB)	64	112	-42.8	62	114	-45.8	-	
<b>OIL PRODUCTS</b>								
TOTAL CONSUMPTION (10 <sup>3</sup> b/day)	2,761	2,767	-0.2	2,642	2,742	-3.6	100.0	
hereof: DIESEL with biodiesel - (10 <sup>3</sup> b/day)	1,076	1,039	3.5	1,027	1,052	-2.4	36.9	
hereof: GASOLINE C (10 <sup>3</sup> b/day)	700	724	-3.3	710	748	-5.2	21.5	
CONSUMER PRICE - DIESEL (R\$/l)	2.81	2.50	12.3	2.77	2.50	11.1	-	
CONSUMER PRICE - GASOLINE C (R\$/l)	3.30	2.97	11.3	3.26	2.97	9.8	-	
CONSUMER PRICE - LPG (R\$/13 kg)	45.9	42.7	7.6	45.4	42.6	6.5	-	
<b>NATURAL GAS</b>								
PRODUCTION (10 <sup>6</sup> m <sup>3</sup> /day)	95.5	86.6	10.3	95.1	83.5	13.9	-	
IMPORTS (10 <sup>6</sup> m <sup>3</sup> /day)	51.0	51.9	-1.8	53.1	53.6	-0.9	-	
NON-UTILIZED AND REINJECTION (10 <sup>6</sup> m <sup>3</sup> /day)	26.6	19.8	34.6	26.0	19.5	33.3	-	
AVAILABILITY FOR CONSUMPTION (10 <sup>6</sup> m <sup>3</sup> /day)	119.9	118.7	1.0	122.2	117.6	3.9	100.0	
INDUSTRIAL CONSUMPTION (10 <sup>6</sup> m <sup>3</sup> /day)	44.2	42.5	4.1	43.4	42.9	1.0	35.5	
POWER GENERATION CONS. (10 <sup>6</sup> m <sup>3</sup> /day)	46.6	46.5	0.3	48.6	45.8	6.0	39.8	
INDUSTRIAL PRICE SP(*) (US\$/MMBtu) - consumption range of 20,000 m <sup>3</sup> /day	14.4	18.0	-19.9	14.1	17.5	-19.8	-	
MOTOR PRICE SP (US\$/MMBtu)	15.8	20.7	-23.8	16.1	20.0	-19.6	-	
RESIDENTIAL PRICE SP (US\$/MMBtu)	41.0	52.7	-22.2	41.2	50.1	-17.8	-	
<b>ELECTRICITY</b>								
NATIONAL INTERCONNECTED SYSTEM	59,871	60,708	-1.4	63,837	64,768	-1.4	100.0	
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	34,389	36,096	-4.7	37,902	39,109	-3.1	59.4	
SOUTH POWER LOAD (MWavg)	10,253	10,366	-1.1	11,257	11,208	0.4	17.6	
NORTHEAST POWER LOAD (MWavg)	10,068	9,225	9.1	10,429	9,895	5.4	16.3	
NORTH POWER LOAD (MWavg)	5,160	5,021	2.8	5,120	5,233	-2.2	8.0	
TOTAL CONSUMPTION (TWh) (**)	37.2	37.7	-1.3	235.9	238.0	-0.9	100.0	
RESIDENTIAL	10.2	10.3	-1.0	67.2	66.8	0.5	28.5	
INDUSTRIAL	14.1	14.6	-3.0	85.8	89.2	-3.9	36.4	
COMMERCIAL	7.0	6.9	1.3	46.2	45.4	1.8	19.6	
OTHER SECTORS	5.9	5.9	-0.8	36.7	36.5	0.6	15.6	
PLANTS ENTRY INTO OPERATING (MW)	544	268	102.8	2,968	3,476	-14.6	-	
RESIDENTIAL PRICE (R\$/MWh)	620	410	51.1	562	399	40.8	-	
COMMERCIAL PRICE (R\$/MWh)	559	365	53.0	502	349	43.6	-	
INDUSTRIAL PRICE (R\$/MWh)	538	326	64.8	475	313	51.5	-	
<b>ETHANOL AND BIODIESEL</b>								
BIODIESEL PRODUCTION (10 <sup>3</sup> b/d)	66	53	25.1	65	52	23.6	-	
MOTOR ETHANOL CONSUMPTION (10 <sup>3</sup> b/d)	500	414	20.6	466	413	12.7	-	
ETHANOL EXPORTS (10 <sup>3</sup> b/d)	19	35	-45.4	19	27	-30.9	-	
HYDRATED ETHANOL PRICE (R\$/l)	2.11	2.07	2.0	2.16	2.11	2.1	-	
<b>COAL</b>								
ELECTRICITY GENERATION (MWavg)	1,988	1,982	0.3	2,073	2,049	1.2	-	
IMPORT PRICE (US\$/FOB/t)	94.8	104.3	-9.1	95.6	111.7	-14.4	-	
<b>NUCLEAR ENERGY</b>								
ELECTRICITY GENERATION - (GWh)	984	1,391	-29.3	7,455	7,980	-6.6	-	
<b>INDUSTRIAL SECTORS</b>								
STEEL PRODUCTION (10 <sup>3</sup> t/day)	93	91	2.0	94	93	1.9	-	
ALUMINIUM PRODUCTION (10 <sup>3</sup> t/day)	2.0	2.4	-14.7	2.2	3.0	-27.6	-	
IRON ORE EXPORTS (10 <sup>3</sup> t/day)	880	878	0.2	777	747	4.0	-	
PELLETS EXPORTS (10 <sup>3</sup> t/day)	187	107	75.5	150	118	26.6	-	
PAPER PRODUCTION (10 <sup>3</sup> t/day)	28.8	28.6	0.9	28.3	28.6	-1.3	-	
PULP PRODUCTION (10 <sup>3</sup> t/day)	47.7	40.9	16.5	45.2	40.9	10.4	-	
SUGAR PRODUCTION (10 <sup>3</sup> t/day)	139	163	-14.9	56	66	-14.5	-	
SUGAR EXPORTS (10 <sup>3</sup> t/day)	67	62	7.7	59	56	6.1	-	

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

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

