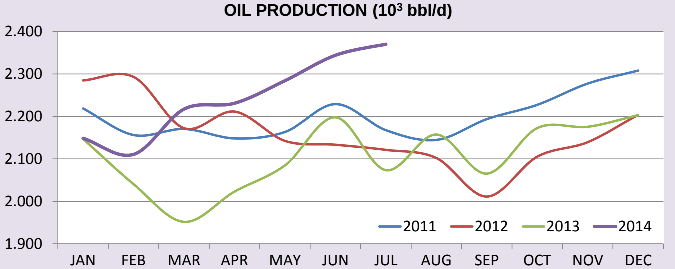
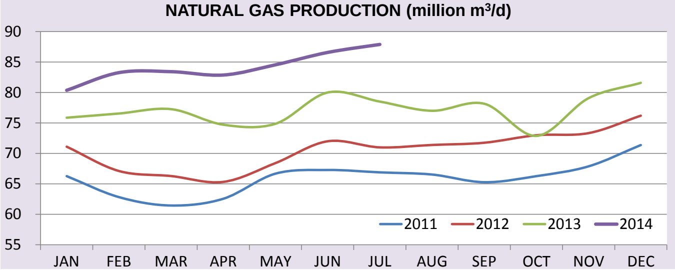
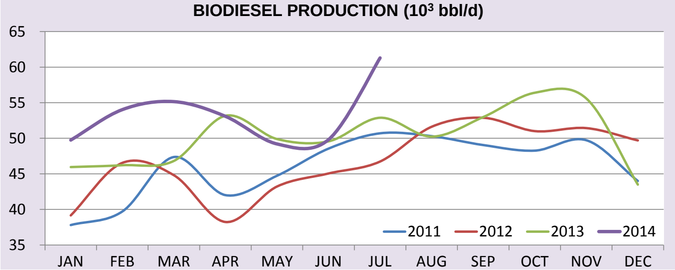
OIL PRODUCTION (10³ bbl/d)



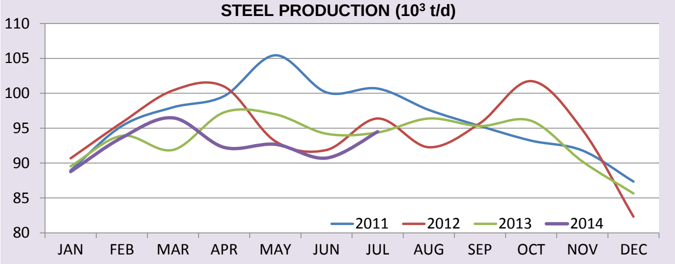

NATURAL GAS PRODUCTION (million m³/d)



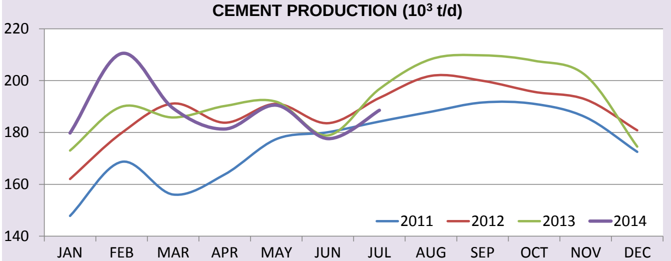

BIODIESEL PRODUCTION (10³ bbl/d)




STEEL PRODUCTION (10³ t/d)

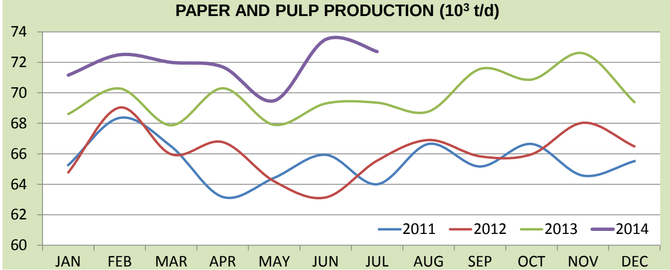



CEMENT PRODUCTION (10³ t/d)

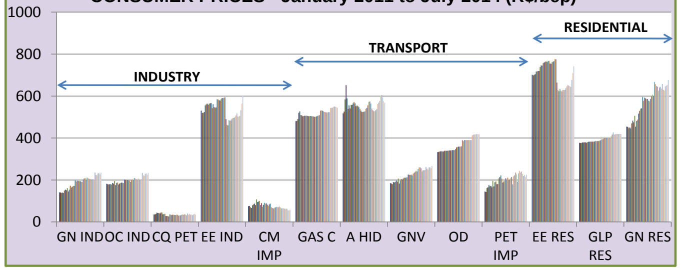





PAPER AND PULP PRODUCTION (10³ t/d)




CONSUMER PRICES - January 2011 to July 2014 (R$/bep)




**Note: For a better visualization, the graphs minimum scale 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.

"Tonne of oil equivalent" (toe) = 10 Gigacalorias (Gcal), is the standard unit used to consolidate power data. Firewood releases 3,100 cal / g, or 3.1 Gcal / t, when the combustion. The ratio of firewood indicator and oil indicator results in 0.31 toe / t, a factor that converts tons of firewood to toe. The same goes for the other combutíveis.

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(55 61) 2032-5967 and 2032-5764

# Monthly Energy Bulletin - Brazil

**Reference Month: July 2014**

## Domestic Energy Supply

The July indicators do not change the trends observed until the past month, of weak performances of some export products, such as steel, aluminum, pellets and sugar. In the aspect of population welfare, persists the good performance in energy consumption, mainly on individual transport sector and on residential and commercial electricity. In terms of energy supply, continues the decline of hydroelectric generation, which increases the thermal generation and their losses. For the sugar cane products, the forecast of a lower performance in 2014 persists. So, up to July, the available data shows a growth rate of 3.1% on the Domestic Energy Supply (DES) (*), over the same period of 2013.

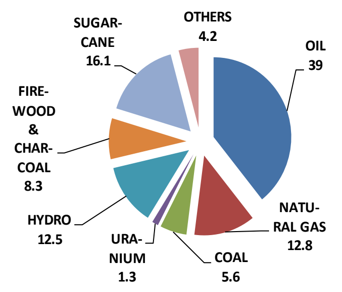
***Total energy demand in 2014 can grow between 2.5% and 3.5%***

For the full year 2014, the estimates for the DES growth are in the range of 2.5% to 3.5% (the same as the previous month). The reasons are: a) reduction of hydraulic generation and increase in thermal generation and their losses; b) poor performance of sugar-alcohol sector and commodities; c) good performances of the Otto cycle transportation and electricity consumption.

Based on the available information at the date of this report, the DES's growth rate for 2014 was estimated at 2.9% (2.7% in the previous bulletin).

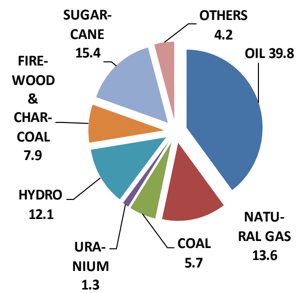
Renewable energy sources should maintain its participation near to 40% in the 2014 DES Matrix, but below the indicator of 2013. Wind generation, biodiesel production and biomass use in the upward cellulose production do not outweigh the negative effects of hydro generation, cane products and residential sector firewood.

**DES 2013 (%)**




**296.2 million toe**
**41.0% renewables**

**DES 2014 (%)**




**304.7 million toe**
**39.6% renewables**

# Highlights until July 2014

## Oil and Gas Production is upwards

Oil production increased 14.3% in July (over the same month in 2013) and 8.2% in the year (including shale oil). The natural gas production increased 12% in July and 9.5% in the year.

## Steel production still downwards

Until July, steel production retreated 1.4% (reduction of 1.8% until June), the aluminum production retreated 21% (reductions of 18.5% until June and 16% until May), iron ore exports grew 9% (3.6% in 2013), and pellets exports increased 1.6%, the first accumulated rate in the year (reduction of 8.8% in 2013).

## Hydro supply is declining

The hydraulic energy supply fell 9.8% over the same month of 2013, and grew up 0.3% over the previous month. In the year to date, the rate became -0.4%, the first negative in the year (1.1% until June).

## Oil Products consumption remains high

The apparent consumption of petroleum products increased by 2.5% in July over the same month of 2013, and increased 5.1% in the year date (5.5% until June). Diesel oil retreated 0.2% in July (the third negative rate on the year), but in the year date, the rate is positive, 0.8%. Gasoline C grew by 5.3% in July and 12.3% in the year (2.7% in 2013). The total natural gas demand grew 8.3% in July, and 6.2% in the year.

The energy use in the Otto Cycle transport (gasoline, ethanol and natural gas) remains high, with a cumulative growth of 6.9% in the year. In 2013, the average increase was 6.1%, and 8.7% in 2012.

## Electricity consumption is cooling down

Electricity consumption (excluding captive self-producer) grew only 0.1% in July (0% in June, 1.5% in May, 2.2% in April and 4.6% in March). In the year, the rate was 3.2% (3.7% until June and 4.4% until May), just below the 3.5% rate of entire 2013. In July, residential consumption grew 5.7%, the same rate of commercial sector. Industrial consumption reduced at an expressive rate of 7% (-4.9% in June, -4.2 in May and -2.7% in April), and accumulates -2.4% in the year. The reduction of 21% in the annual aluminum production explains part of the low industrial performance.

## Biodiesel production in high

Biodiesel production grew up 15.9% in July, and 8.1% in the year date. In 2013 the rate was 7.4%.



## Electricity tariffs for high

The national average residential electricity tariff accumulates a rise of 3.2% in the year to date. The commercial tariff accumulates 14.9% high, and the industrial, 6.8% high.

## Basic Data

| SPECIFICATION | JULY | | | | | | |
|---|---|---|---|---|---|---|---|
| | IN THE MONTH | | | ACCUMULATED IN THE YEAR | | | |
| | 2014 | 2013 | % 14/13 | 2014 | 2013 | % 14/13 | %2014 |
| **OIL** | | | | | | | |
| PRODUCTION - with Shale Oil and NGL($10^3$ b/d) | 2,370 | 2,073 | 14.3 | 2,245 | 2,074 | 8.2 | - |
| IMPORTS AVERAGE PRICE (US$/bbl FOB) | 114 | 111 | 2.5 | 114 | 113 | 0.8 | - |
| **OIL PRODUCTS** | | | | | | | |
| TOTAL CONSUMPTION ($10^3$ b/day) | 2,720 | 2,653 | 2.5 | 2,739 | 2,608 | 5.1 | **100.0** |
| hereof: DIESEL with biodiesel - ($10^3$ b/day) | 1,086 | 1,089 | -0.2 | 1,018 | 1,009 | 0.8 | 35.3 |
| hereof: GASOLINE C ($10^3$ b/day) | 740 | 703 | 5.3 | 747 | 665 | 12.3 | 21.8 |
| CONSUMER PRICE - DIESEL (R$/l) | 2.50 | 2.33 | 7.1 | 2.50 | 2.30 | 8.4 | - |
| CONSUMER PRICE - GASOLINE C (R$/l) | 2.96 | 2.84 | 4.2 | 2.97 | 2.85 | 4.1 | - |
| CONSUMER PRICE - LPG (R$/13 kg) | 42.7 | 40.9 | 4.3 | 42.6 | 40.7 | 4.8 | - |
| **NATURAL GAS** | | | | | | | |
| PRODUCTION ($10^6$ $m^3$/day) | 87.9 | 78.5 | 12.0 | 84.1 | 76.8 | 9.5 | - |
| IMPORTS ($10^6$ $m^3$/day) | 52.0 | 46.9 | 10.9 | 53.4 | 47.6 | 12.1 | - |
| NON-UTILIZED AND REINJECTION ($10^6$ $m^3$/day) | 19.1 | 13.8 | 37.8 | 19.4 | 13.2 | 46.8 | - |
| AVAILABILITY FOR CONSUMPTION ($10^6$ $m^3$/day) | 120.8 | 111.5 | 8.3 | 118.1 | 111.2 | 6.2 | **100.0** |
| INDUSTRIAL CONSUMPTION ($10^6$ $m^3$/day) | 43.4 | 42.6 | 1.9 | 43.0 | 40.8 | 5.5 | 36.4 |
| POWER GENERATION CONS. ($10^6$ $m^3$/day) | 48.5 | 36.1 | 34.1 | 46.2 | 41.3 | 12.0 | 39.1 |
| INDUSTRIAL PRICE SP(*) (US$/MMBtu) - consumption range of 20,000 $m^3$/day | 18.4 | 15.9 | 15.7 | 17.9 | 17.6 | 1.6 | - |
| MOTOR PRICE SP (US$/MMBtu) | 20.9 | 20.2 | 3.7 | 20.1 | 21.0 | -4.3 | - |
| RESIDENTIAL PRICE SP (US$/MMBtu) | 53.0 | 50.3 | 5.4 | 50.5 | 53.0 | -4.6 | - |
| **ELECTRICITY** | | | | | | | |
| NATIONAL INTERCONNECTED SYSTEM | 61,496 | 60,980 | 0.8 | 62,800 | 61,420 | 2.2 | **100.0** |
| SOUTHEAST/MIDWEST POWER LOAD (MWavg) | 36,672 | 36,490 | 0.5 | 38,761 | 37,530 | 3.3 | 61.7 |
| SOUTH POWER LOAD (MWavg) | 10,613 | 10,594 | 0.2 | 11,123 | 10,553 | 5.4 | 17.7 |
| NORTHEAST POWER LOAD (MWavg) | 9,169 | 9,217 | -0.5 | 9,792 | 9,658 | 1.4 | 15.6 |
| NORTH POWER LOAD (MWavg) | 5,042 | 4,679 | 7.8 | 4,928 | 4,261 | 15.7 | 7.8 |
| TOTAL CONSUMPTION (TWh) (**) | 37.8 | 37.8 | 0.1 | 275.8 | 267.3 | 3.2 | **100.0** |
| RESIDENTIAL | 10.6 | 10.0 | 5.7 | 77.4 | 72.4 | 7.0 | 28.1 |
| INDUSTRIAL | 14.4 | 15.5 | -7.0 | 103.7 | 106.2 | -2.4 | 37.6 |
| COMMERCIAL | 6.8 | 6.5 | 5.7 | 52.3 | 48.3 | 8.3 | 19.0 |
| OTHER SECTORS | 5.9 | 5.8 | 3.1 | 42.4 | 40.4 | 4.9 | 15.4 |
| PLANTS ENTRY INTO OPERATING (MW) | 763 | 128 | 496.1 | 4,239 | 3,920 | 8.1 | - |
| RESIDENTIAL PRICE (R$/MWh) | 450 | 377 | 19.4 | 409 | 396 | 3.3 | - |
| COMMERCIAL PRICE (R$/MWh) | 435 | 366 | 19.0 | 384 | 372 | 3.1 | - |
| INDUSTRIAL PRICE (R$/MWh) | 365 | 294 | 24.4 | 323 | 300 | 7.7 | - |
| **ETHANOL AND BIODIESEL** | | | | | | | |
| BIODIESEL PRODUCTION ($10^3$ b/d) | 61 | 53 | 15.9 | 53 | 49 | 8.1 | - |
| MOTOR ETHANOL CONSUMPTION ($10^3$ b/d) | 325 | 456 | -28.6 | 397 | 381 | 4.3 | - |
| ETHANOL EXPORTS ($10^3$ b/d) | 18 | 72 | -74.3 | 26 | 45 | -42.2 | - |
| HYDRATED ETHANOL PRICE (R$/l) | 2.04 | 1.92 | 6.5 | 2.10 | 2.00 | 5.3 | - |
| **COAL** | | | | | | | |
| ELECTRICITY GENERATION (MWavg) | 1,815 | 1,670 | 8.7 | 2,015 | 1,488 | 35.4 | - |
| IMPORT PRICE (US$ FOB/t) | 107.8 | 128.8 | -16.3 | 0.0 | 138.2 | -100.0 | - |
| **NUCLEAR ENERGY** | | | | | | | |
| ELECTRICITY GENERATION - (GWh) | 929 | 1,306 | -28.9 | 8,889 | 8,422 | 5.5 | - |
| **INDUSTRIAL SECTORS** | | | | | | | |
| STEEL PRODUCTION ($10^3$ t/day) | 94 | 94 | 0.1 | 93 | 94 | -1.4 | - |
| ALUMINIUM PRODUCTION ($10^3$ t/day) | 2.3 | 3.6 | -36.5 | 2.9 | 3.7 | -21.0 | - |
| IRON ORE EXPORTS ($10^3$ t/day) | 835 | 847 | -1.4 | 760 | 698 | 9.0 | - |
| PELLETS EXPORTS ($10^3$ t/day) | 171 | 111 | 53.9 | 126 | 124 | 1.6 | - |
| CEMENT PRODUCTION ($10^3$ t/day) | 189 | 197 | -4.2 | 193 | 187 | 3.2 | - |
| PAPER PRODUCTION ($10^3$ t/day) | 28.3 | 28.2 | 0.3 | 28.6 | 28.4 | 0.5 | - |
| PULP PRODUCTION ($10^3$ t/day) | 44.4 | 41.2 | 7.9 | 43.3 | 40.6 | 6.5 | - |
| SUGAR PRODUCTION ($10^3$ t/daY) | 118 | 159 | -25.8 | 72 | 72 | -0.4 | - |
| SUGAR EXPORTS ($10^3$ t/day) | 80 | 74 | 8.3 | 59 | 65 | -8.1 | - |

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

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