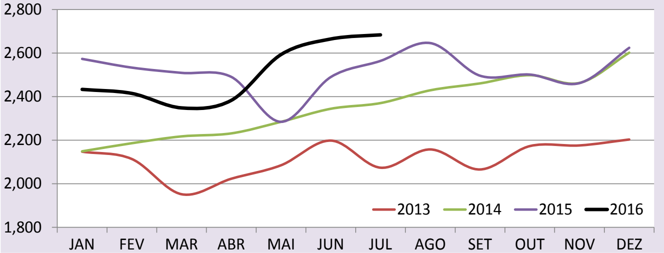
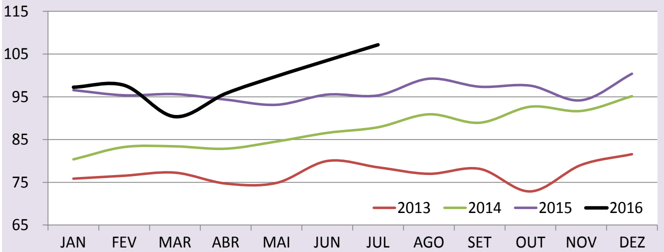
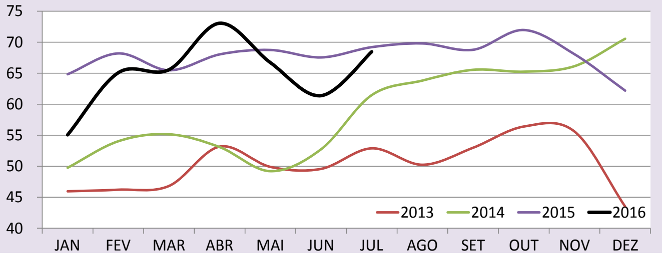
OIL PRODUCTION (10^3 bbl/d)



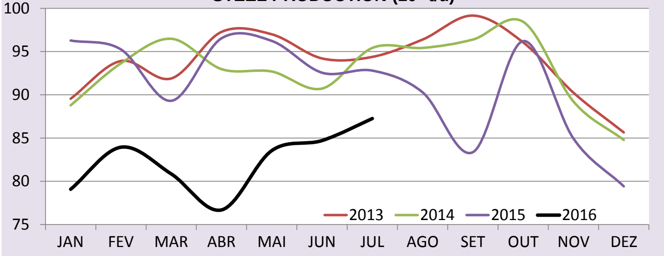
NATURAL GAS PRODUCTION (million m^3/d)



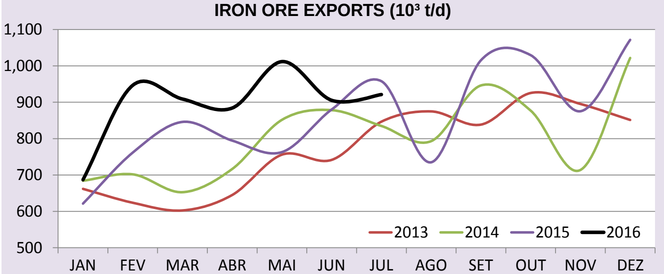
BIODIESEL PRODUCTION (10^3 bbl/d)



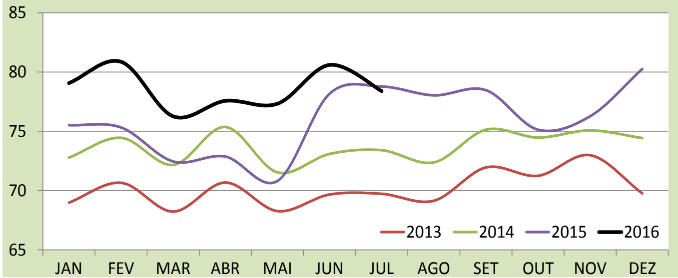
STEEL PRODUCTION (10^3 t/d)



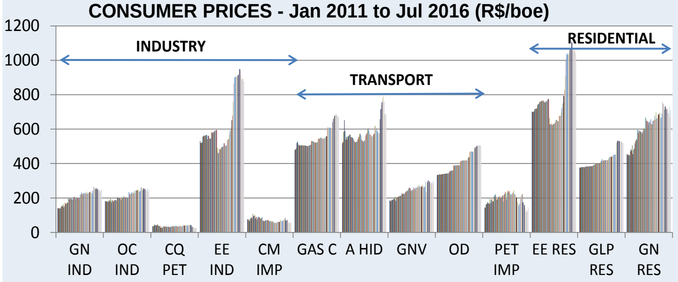
IRON ORE EXPORTS (10^3 t/d)



PAPER AND PULP PRODUCTION (10^3 t/d)



CONSUMER PRICES - Jan 2011 to Jul 2016 (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 is equal to domestic production (+) import (-) unused (-) reinjection.

Apparent consumption of oil derivatives is equal 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**, 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. 2015 data reflect the **2016 cycle** of the **National Energy Balance**, elaborated in June by the Energy Research Company (EPE), with the support of MME and its institutions.

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Monthly Energy Bulletin - Brazil

Reference Month: July 2016

Domestic Energy Supply

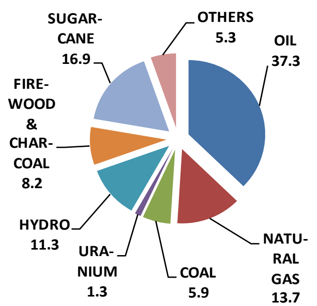
The industrial production and energy consumption indicators of July 2016 do not change the recessionary predictions of the previous bulletin. The low performances of household consumption, services and much of durable goods persist.

The Domestic Energy Supply (DES)* estimated by this month shows a recoil of 2.8% over the same period of 2015. There are still sharp decreases on the oil, natural gas and transports demands, as well as on the production of metallurgy products.

For the full year 2016, the estimated rate for the DES is in the range of -2.5 to -1.5%. At the date of this report, the estimated rate was -1.8% (the same of the previous bulletin).

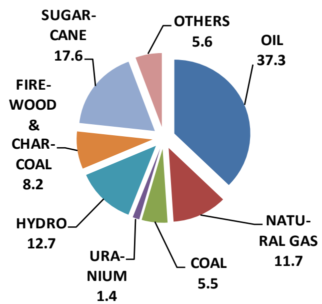
Total energy demand in 2016 July June recede between 1.5 and 2.5%

DES 2015 (%)



299.2 million toe
41.2% renewables

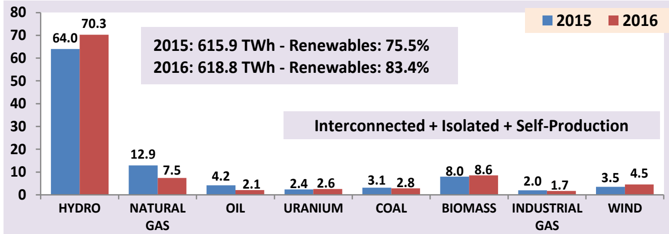
DES 2016 (%)



293.7 million toe
43.6% renewables

The Domestic Electricity Supply (DELS) in 2016 was estimated at 618.8 TWh, showing an increase of 0.5% over 2015 (the same of the previous bulletin). Renewable sources should increase participation, due to good performances of hydro, wind and biomass generations.

Domestic Electricity Supply, by Source (%)



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

Highlights of July 2016

Oil production grows

The oil production of July 2016 rose 4.7% over July 2015 and for the first time in this year it accumulates an increase of 0.5% (-0.2% up to June). The natural gas production grew 12.4% in July and accumulates a positive rate of 3.9% in the year.

Steel production is falling

Steel production fell 6.0% in July over the same month of 2015, accumulating a drop of 13% in the year. Iron ore exports are positive in 11.3% in the year. In contrast, pellets exports accumulate fall of 46%.

Hydraulic supply on the up

The hydraulic energy supply rose 9.6% in July, over the same month of 2015, having Itaipu a decrease of 1% (Paraguayan part). In the year, the national hydro generation is 10% positive (9.9 to June).

Drop in Oil Products consumption cools

The apparent consumption of petroleum products fell 1.5% in July, accumulating a decrease of 3.5% in the year (-3.9% to June). The diesel fell 2.7% and the C gasoline grew by 0.7% in the month. In the year, the diesel indicator is negative 2.7% (-2.7% to June), and the C gasoline is positive at 1.6% (1.7% to June). The total demand for natural gas shows decrease of 17.9% in the year, with strong influence on the recoil of 40.3% in thermoelectric consumption.

The consumption in the Otto cycle transport (gasoline, ethanol and natural gas) accumulates a recoil of 1.4% in the year (-1.1% to June, + 0.8% in the whole year of 2015 and + 6.2% in 2014).

Electricity consumption stable

Electricity consumption (excluding captive self-producer) grew 0.6% in July (0% in June), and in the year, accumulates a decrease of 1.5% (-1.9% to June). The industry showed the greatest reduction in July, 1.4% (-3.4% in June). Residential consumption grew by 1% in the year (0.8 to June), and commercial consumption decreased 1.4% in the year (-1.5% to June).

The fact of the Interconnected System load be 0.6% positive in the year indicates that the drop in electricity consumption is influenced by the increase in commercial losses, which is explained by the Brazilian economic recession.

Biodiesel production fall again

Biodiesel production recoiled 1.1% in July and accumulates -3.5% in the year to date (-4.0 to June). In 2015, the rate was 15% positive.

The pulp production continues with high performance, showing an increase of 0.3% in July and 8.4% in the year to date. Throughout 2015, the expansion was 8.5%, and 9.2% in 2014.

Electricity rates falling down

The national average residential electricity tariff accumulates a rise of 12.5% in the year, the commercial tariff, 15.1% and the industrial tariff, 12.2%.

Basic data of 2015 and 2016

SPECIFICATION	JULY - IN THE MONTH 2016	JULY - IN THE MONTH 2015	JULY - IN THE MONTH %16/15	ACCUMULATED IN THE YEAR 2016	ACCUMULATED IN THE YEAR 2015	ACCUMULATED IN THE YEAR %16/15	ACCUMULATED IN THE YEAR %2015
OIL							
PRODUCTION - with Shale Oil and NGL(10^3 b/d)	2,684	2,564	4.7	2,503	2,491	0.5	-
IMPORTS AVERAGE PRICE (US$/bbl FOB)	52	66	-21.9	45	67	-33.7	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10^3 b/day)	2,552	2,591	-1.5	2,472	2,563	-3.5	**100.0**
hereof: DIESEL with biodiesel - (10^3 b/day)	1,005	1,034	-2.7	976	1,003	-2.7	37.5
hereof: GASOLINE C (10^3 b/day)	698	694	0.7	718	707	1.6	23.2
CONSUMER PRICE - DIESEL (R$/l)	3.02	2.81	7.5	3.02	2.78	8.6	-
CONSUMER PRICE - GASOLINE C (R$/l)	3.65	3.30	10.6	3.66	3.27	11.9	-
CONSUMER PRICE - LPG (R$/13 kg)	52.8	46.0	14.9	53.3	45.5	17.1	-
NATURAL GAS							
PRODUCTION (10^6 m^3/day)	107.2	95.3	12.4	98.8	95.1	3.9	-
IMPORTS (10^6 m^3/day)	29.7	46.7	-36.5	34.8	52.1	-33.2	-
NON-UTILIZED AND REINJECTION (10^6 m^3/day)	39.6	27.8	42.4	0.0	26.1	-100.0	-
AVAILABILITY FOR CONSUMPTION (10^6 m^3/day)	97.2	114.2	-14.9	99.4	121.1	-17.9	**100.0**
INDUSTRIAL CONSUMPTION (10^6 m^3/day)	41.5	44.4	-6.5	41.0	44.6	-8.1	41.2
POWER GENERATION CONS. (10^6 m^3/day)	23.1	40.7	-43.2	28.3	47.5	-40.3	28.5
INDUSTRIAL PRICE SP(*) (US$/MMBtu) - consumption range of 20,000 m^3/day	13.7	13.9	-1.6	12.9	13.8	-6.2	-
MOTOR PRICE SP (US$/MMBtu)	16.2	15.5	4.5	15.4	15.7	-1.6	-
RESIDENTIAL PRICE SP (US$/MMBtu)	38.9	39.6	-1.6	37.4	40.2	-6.8	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	61,499	60,083	2.4	64,424	64,047	0.6	**100.0**
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	35,047	36,490	-4.0	37,272	37,459	-0.5	57.9
SOUTH POWER LOAD (MWavg)	10,767	10,443	3.1	11,333	11,140	1.7	17.6
NORTHEAST POWER LOAD (MWavg)	10,396	9,744	6.7	10,495	10,331	1.6	16.3
NORTH POWER LOAD (MWavg)	5,289	5,098	3.7	5,324	5,117	4.0	8.3
TOTAL CONSUMPTION (TWh) (**)	37.0	36.8	0.6	268.5	272.7	-1.5	**100.0**
RESIDENTIAL	10.4	10.1	2.5	78.1	77.3	1.0	29.1
INDUSTRIAL	13.9	14.1	-1.4	94.9	99.8	-5.0	35.3
COMMERCIAL	6.7	6.8	-1.0	52.3	53.0	-1.4	19.5
OTHER SECTORS	6.1	5.8	3.9	43.3	42.5	1.7	16.1
PLANTS ENTRY INTO OPERATING (MW)	1,520	591	157.4	5,327	3,576	49.0	-
RESIDENTIAL PRICE (R$/MWh)	630	632	-0.5	648	576	12.5	-
COMMERCIAL PRICE (R$/MWh)	565	571	-1.0	499	434	15.1	-
INDUSTRIAL PRICE (R$/MWh)	532	551	-3.4	550	491	12.2	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10^3 b/d)	68	69	-1.1	65	67	-3.5	-
MOTOR ETHANOL CONSUMPTION (10^3 b/d)	459	496	-7.5	450	470	-4.2	-
ETHANOL EXPORTS (10^3 b/d)	45	43	2.9	38	22	72.0	-
HYDRATED ETHANOL PRICE (R$/l)	2.45	2.08	17.9	2.53	2.15	18.1	-
COAL							
ELECTRICITY GENERATION (MWavg)	1,826	2,111	-13.5	1,940	2,078	-6.7	-
IMPORT PRICE (US$ FOB/t)	72.8	87.2	-16.5	71.0	94.4	-24.8	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	1,144	1,358	-15.8	9,681	8,813	9.8	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10^3 t/day)	87	93	-6.0	82	95	-13.0	-
ALUMINIUM PRODUCTION (10^3 t/day)	2.2	2.0	6.6	2.1	2.2	-1.1	-
IRON ORE EXPORTS (10^3 t/day)	921	958	-3.8	894	803	11.3	-
PELLETS EXPORTS (10^3 t/day)	55	139	-60.7	80	148	-46.0	-
PAPER PRODUCTION (10^3 t/day)	28.2	28.7	-1.9	28.2	28.4	-0.6	-
PULP PRODUCTION (10^3 t/day)	50.2	50.1	0.3	50.3	46.4	8.4	-
SUGAR PRODUCTION (10^3 t/daY)	189	127	49.3	85	67	27.6	-
SUGAR EXPORTS (10^3 t/day)	87	76	14.2	68	62	10.3	-

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

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