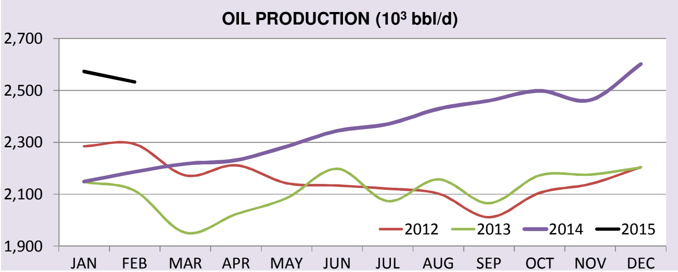

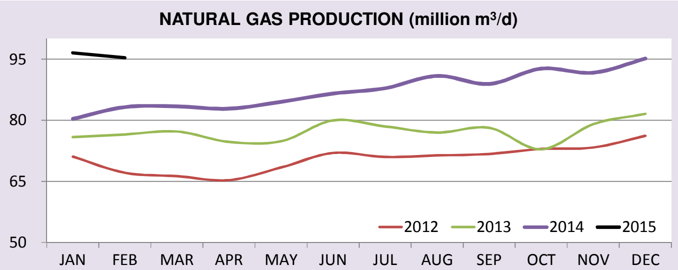

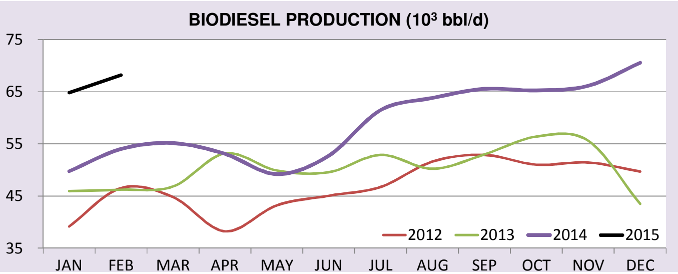

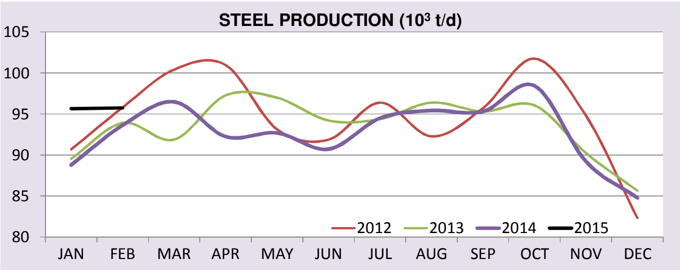

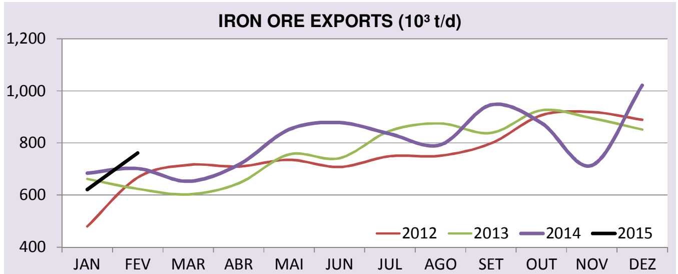

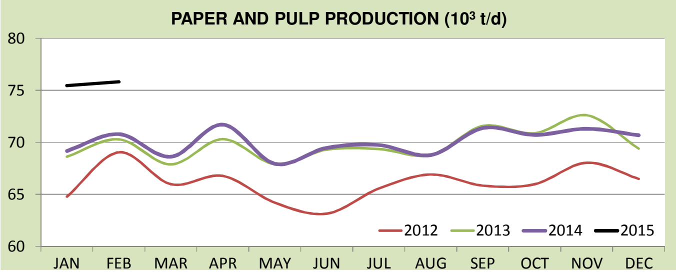

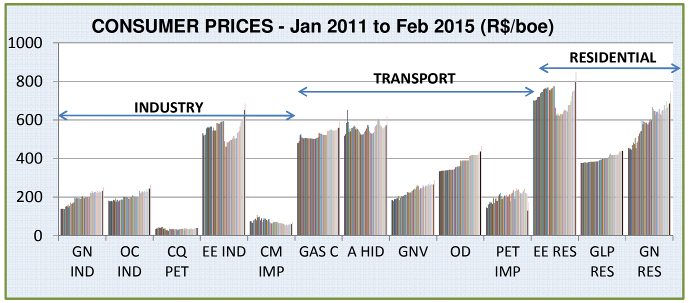

Note: For a better visualization, the minimum scale of the graphs was raised to the level close to the lowest value of the curves.

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 2015 of the National Energy Balance, initiated by the Energy Research Company (EPE), will define the 2014 DES final data until April 2015.

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(55 61) 2032-5967 and 2032-5764

Monthly Energy Bulletin - Brazil

Reference Month: February 2015

Domestic Energy Supply – DES

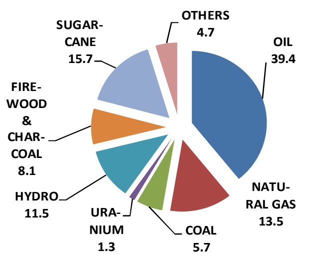
Data from 2014 of **Domestic Energy Supply (DES) (*) (**)** reflect the final results of EPE for the cycle 2015 of the Brazil's National Energy Balance. The DES's value of the December 2014 Monthly Energy Bulletin was of 306.4 Mtoe, with a deviation of only 0.26% of the final result, gives the adequacy's dimension of this vehicle on the information dissemination.

In February the good performances were held in oil production, natural gas, biodiesel, steel and pulp. A sharp drop in demand for oil products was the remarkable fact in the month. Thus, the DES growth rate estimated by this month was only 1.2%.

DES may grow between 1.5 and 2.5% in 2015

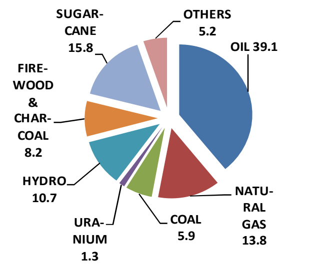
For the full year 2015, the estimates for the DES growth are in the range of 1.5% to 2.5%. It is expected a good performance of commodity production and a low of the internal energy demand, associated with the population welfare. Renewable sources should maintain their participation near 40% of the DES matrix in 2015.

DES 2014 (%)



305.6 million toe
39.4% renewables

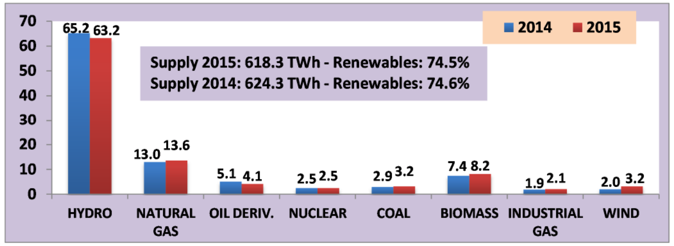
DES 2015 (%)



312.3 million toe
39.3% renewables

The **Domestic Electricity Supply** was estimated at 618 TWh in 2015 (**), with a decrease of 1% over 2014. Renewables should maintain their participation close to 75%.

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 February 2015

Oil and Gas production on the up

In February 2015, oil production grew expressive 15.9%, and the natural gas, 14.9%. Year to date, the rates are 17.9% and 17.4%, respectively.

Steel production rising

Steel production grew 2.3% in February, compared to the same month of 2014. Iron ore exports, up 8.5% in February, reverse the January retreat. Pellets exports remain high, showing rate of 23.3% in the year.

Hydro supply reduces 10%

The hydro power supply fell 9.9% in February, taking Itaipu imports a similar reduction. Year to date, the rate is -9

Oil products consumption recoil more than 10%

Apparent consumption of petroleum products shows recoils of 10.9% in February and 3.7% in the year to date. C gasoline retreated 9.4% in February and diesel, 10.2%. In the year the rates are: positive 0.1% for diesel and negative 0.8% for gasoline.

The consumption of natural gas grew by 3.7% in February and 9.9% in the year, no longer repeating the previous high rates arising from use in thermoelectric generation.

The energy consumption, in gasoline equivalent, of the OTTO cycle transport (gasoline + ethanol + natural gas) remained with a high growth rate of 6.2% in 2014 (5.8% in 2013).

Electricity consumption grows slowly

Electricity consumption (excluding captive self-producer) grew 2.2% in 2014 (3.6% in 2013), standing the industrial consumption with a negative rate of 3.4% (in 2013 and 2012, the rates were already low, respectively, 0.6% and 0.1% positive). The industrial sector has been affected by the low performance of steel, ferroalloys and aluminum mainly. Commercial consumption had significant increase of 7.3%, and residential, 5.8%. Government programs, such as My Best Home and My Home My Life, are contributing to this reality.

Biodiesel production rise above 16%

The biodiesel production stood at 58 kbbl/day in 2014, an amount 16.1% higher than verified in 2013, of 50 kbbl/day.

Electricity tariffs in high

The national average residential electricity tariff increased 7.1% in 2014 (-15.2% in 2013), the commercial tariff grew 8.8% (-13.3% in 2013), and the industrial, 11.3% (- 12.9% in 2013).

Basic data of 2014 and 2015

SPECIFICATION	FEBRUARY – IN THE MONTH 2015	IN THE MONTH 2014	IN THE MONTH %15/14	ACCUMULATED IN THE YEAR 2015	ACCUMULATED 2014	ACCUMULATED %15/14	ACCUMULATED %2015
OIL							
PRODUCTION - with Shale Oil and NGL(10^3 b/d)	2,533	2,186	15.9	2,554	2,166	17.9	-
IMPORTS AVERAGE PRICE (US$/bbl FOB)	69	118	-41.1	62	115	-45.5	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10^3 b/day)	2,504	2,809	-10.9	2,579	2,680	-3.7	**100.0**
hereof: DIESEL with biodiesel - (10^3 b/day)	966	1,076	-10.2	1,023	1,022	0.1	37.7
hereof: GASOLINE C (10^3 b/day)	699	771	-9.4	743	749	-0.8	23.0
CONSUMER PRICE - DIESEL (R$/l)	2.79	2.49	11.9	2.70	2.49	8.5	-
CONSUMER PRICE - GASOLINE C (R$/l)	3.30	2.96	11.7	3.17	2.96	7.1	-
CONSUMER PRICE - LPG (R$/13 kg)	44.9	42.6	5.4	44.8	42.5	5.3	-
NATURAL GAS							
PRODUCTION (10^6 m^3/day)	95.4	83.2	14.5	96.0	81.7	17.4	-
IMPORTS (10^6 m^3/day)	51.5	54.1	-4.9	51.1	48.6	5.1	-
NON-UTILIZED AND REINJECTION (10^6 m^3/day)	24.0	18.9	26.7	24.4	18.7	30.3	-
AVAILABILITY FOR CONSUMPTION (10^6 m^3/day)	122.9	118.4	3.7	122.7	111.7	9.9	**100.0**
INDUSTRIAL CONSUMPTION (10^6 m^3/day)	44.0	43.1	2.0	44.0	42.0	4.7	35.9
POWER GENERATION CONS. (10^6 m^3/day)	52.0	46.4	12.1	51.8	40.5	27.8	42.2
INDUSTRIAL PRICE SP(*) (US$/MMBtu) - consumption range of 20,000 m^3/day	15.5	16.9	-8.2	15.5	16.9	-8.1	-
MOTOR PRICE SP (US$/MMBtu)	17.8	19.4	-8.1	17.8	19.2	-7.5	-
RESIDENTIAL PRICE SP (US$/MMBtu)	45.8	48.0	-4.6	45.8	48.0	-4.7	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	67,899	70,367	-3.5	68,481	69,598	-1.6	**100.0**
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	40,038	42,188	-5.1	40,616	41,782	-2.8	59.3
SOUTH POWER LOAD (MWavg)	12,287	12,624	-2.7	12,269	12,352	-0.7	17.9
NORTHEAST POWER LOAD (MWavg)	10,564	10,251	3.1	10,590	10,176	4.1	15.5
NORTH POWER LOAD (MWavg)	5,010	5,304	-5.5	5,006	5,288	-5.3	7.3
TOTAL CONSUMPTION (TWh) (**)	40.5	41.4	-2.2	81.1	81.7	-0.6	**100.0**
RESIDENTIAL	11.7	11.8	-0.8	24.2	23.6	2.7	29.9
INDUSTRIAL	14.3	15.0	-4.6	28.1	29.5	-4.7	34.7
COMMERCIAL	8.1	8.2	-0.9	16.2	15.9	1.5	19.9
OTHER SECTORS	6.3	6.4	-0.7	12.6	12.6	0.0	15.6
PLANTS ENTRY INTO OPERATING (MW)	656	726	-9.7	1,085	849	27.8	-
RESIDENTIAL PRICE (R$/MWh)	513	394	30.2	498	395	26.1	-
COMMERCIAL PRICE (R$/MWh)	435	342	27.2	427	342	24.8	-
INDUSTRIAL PRICE (R$/MWh)	415	305	36.0	405	310	30.9	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10^3 b/d)	68	54	26.2	66	52	28.3	-
MOTOR ETHANOL CONSUMPTION (10^3 b/d)	460	444	3.8	464	436	6.5	-
ETHANOL EXPORTS (10^3 b/d)	15	14	9.1	24	27	-12.9	-
HYDRATED ETHANOL PRICE (R$/l)	2.22	2.07	7.2	2.14	2.06	4.0	-
COAL							
ELECTRICITY GENERATION (MWavg)	2,119	2,087	1.5	2,230	1,977	12.8	-
IMPORT PRICE (US$ FOB/t)	99.8	111.0	-10.1	97.7	111.8	-12.6	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	1,146	1,328	-13.7	2,596	2,792	-7.0	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10^3 t/day)	96	94	2.3	96	91	5.1	-
ALUMINIUM PRODUCTION (10^3 t/day)	2.3	3.3	-31.4	2.3	3.3	-31.9	-
IRON ORE EXPORTS (10^3 t/day)	762	702	8.5	688	693	-0.7	-
PELLETS EXPORTS (10^3 t/day)	141	106	32.2	135	110	23.3	-
PAPER PRODUCTION (10^3 t/day)	29.2	29.5	-1.0	28.6	28.9	-1.0	-
PULP PRODUCTION (10^3 t/day)	46.6	41.3	12.9	47.0	41.0	14.6	-
SUGAR PRODUCTION (10^3 t/daY)	17	22	-22.3	19	20	-6.3	-
SUGAR EXPORTS (10^3 t/day)	37	64	-42.0	58	67	-13.5	-

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

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