

MONTHLY ENERGY BULLETIN

BRAZIL



MINISTRY OF MINES AND ENERGY - MME
SECRETARIAT OF ENERGY PLANNING AND DEVELOPMENT - SPE
DEPARTMENT OF INFORMATION AND STUDIES ON ENERGY - DIE

REFERENCE MONTH

JUNE
2021

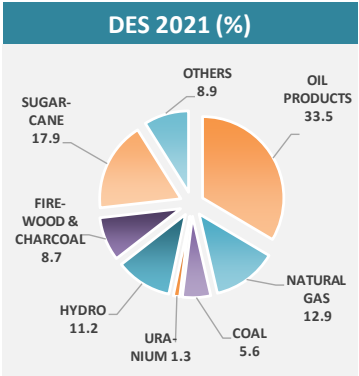
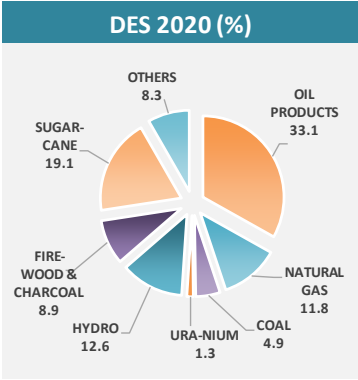
DOMESTIC ENERGY SUPPLY

Several indicators from June 2021 over June 2020 (month still very affected by COVID-19 pandemic) show good recovery: an increase of 123% in aviation kerosene sales, 40% in total natural gas demand, 14.3% in oil derivatives sales, 12.7% in electricity consumption and 11.8% in light vehicle consumption. In the industry, steel production rose 44% and cement sales, 4%. In the accumulated of the year over the

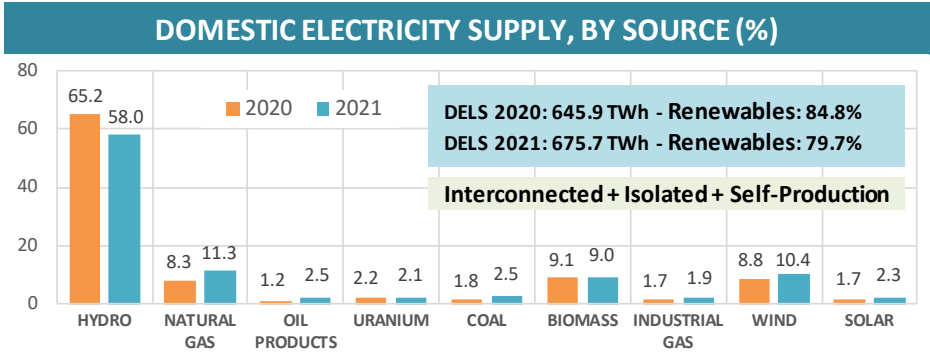
same previous period aviation kerosene still shows a decline of 6.4%.

For Domestic Energy Supply – DES¹, until June, an increase of 7.2% was estimated, but for the whole year of 2021 is estimated an increase between 4% and 5%. With the current information, the indicator was estimated at 4.5% (4.3% in the previous edition).

INCREASE IN 2021 OF TOTAL ENERGY DEMAND IS ESTIMATED AT 4.5%



For the 2021’s Domestic Electricity Supply (DELS)² an increase of 4 to 5% is expected. With the current information, the indicator was estimated at 4.6% (4.2% in the previous edition). The share of renewables should be near 80%.



HIGHLIGHTS IN JUNE 2021

■ *Oil production falling down*

Oil production recoiled by 4.1% in June 2021 over the same month of 2020, accumulating -3.6% in the year. Gas production grew 5.7% in June and accumulated 5.2% in the year (-0.5% to February).

■ *Mining and metallurgy in high*

Steel production grew by 43.7% over June 2020, accumulating 24.8% in the year (9.1% to February). Iron ore exports grew by 8.9% in the month, accumulating 15.8% in the year (11.7% to February). Pellets exports rose 14.1% in the year's accumulated.

■ *Hydraulic supply downward*

The supply of hydraulic energy shows a decrease of 2.6% in the year's accumulated (-7% is expected for this year). The Itaipu's supply is negative at 28.2% in the year's accumulated.

■ *Oil derivatives in recovery*

Oil derivatives apparent consumption grew by 14.3% in June (excluding ethanol and biodiesel) and has accumulated 8.6% in the year (-0.5% to February). The diesel consumption (included biodiesel) rose by 8.4% in the month (10.8% in the year), and gasoline, by 17.4% in the month (8.8% in the year). The automotive ethanol consumption grew 3.4% in the month (5.2% in the year). Total natural gas demand accumulated an increase of 17.9% in the year, with a power generation expansion of 164% in the month and 60.5% in the year.

The Otto's cycle (gasoline, ethanol and natural gas) light vehicles energy consumption accumulates an increase of 6.7% in the year (in 12 months: -9.3% in 2020, 4.5% in 2019, -1.2% in 2018, +1.7% in 2017, -1.1% in 2016 and +6.2% in 2014).

■ *Electricity consumption on the rise*

Electricity consumption, without self-producers, grew 12.7% over June 2020, and accumulated an increase of 7.8% in the year (2.2% to February). Still in the year's accumulated, residential consumption increased by 4.9%, industrial increased by 14.8% and commercial consumption already shows up 4.1% (-10.6% throughout the year 2020).

■ *Biodiesel production recoils*

Biodiesel production fell by 3.9% over the same month of 2020, but accumulates a rise of 13.3% in the year. The annual rate has been greater than 9% in the last four years.

Pulp production is estimated to increase 7.0% in the year (+43% from 2013 to 2020). Cement consumption accumulated 18.2% in the year (10% in twelve months of 2020).

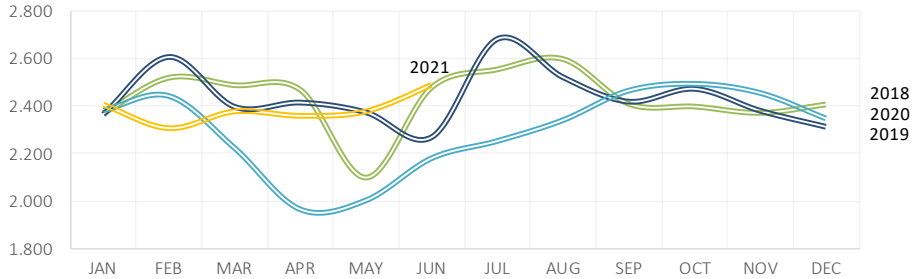
■ *Electricity tariffs in high*

The national average tariff for residential electricity accumulates 8.5% high in the year (-3.1% in 2020, 8% in 2019 and 12.6% in 2018). Commercial tariff accumulates 8.3% high (-1.6% in 2020, 7.4% in 2019 and 12.4% in 2018) and industrial, 7.3% high (-0.3% in 2020, 5.7% in 2019 and 13.4% in 2018).

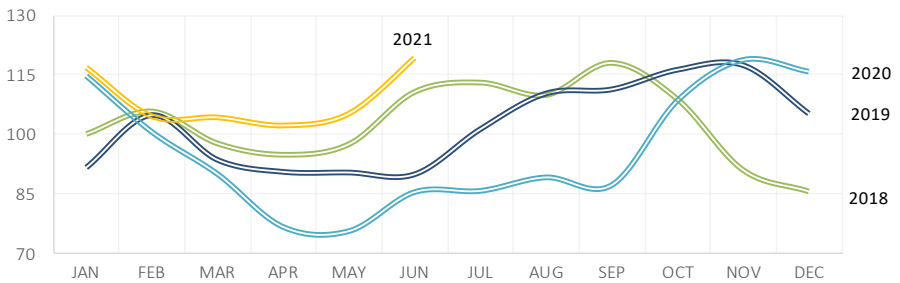
SPECIFICATION	JUNE						
	IN THE MONTH			ACCUMULATED IN THE YEAR			
	2021	2020	%21/20	2021	2020	%21/20	%
OIL							
PRODUCTION - with Shale Oil and NGL(10 ³ b/d)	2,989	3,117	-4.1	2,969	3,078	-3.6	-
IMPORTS AVERAGE PRICE (US\$/bbl FOB)	62	47	32.7	60	57	5.1	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10 ³ b/day)	2,490	2,179	14.3	2,386	2,197	8.6	100.0
hereof: DIESEL with biodiesel - (10 ³ b/day)	1,125	1,038	8.4	1,080	975	10.8	43.0
hereof: GASOLINE C (10 ³ b/day)	670	571	17.4	618	568	8.8	20.7
CONSUMER PRICE - DIESEL (R\$/l)	4.51	3.06	47.0	4.18	3.41	22.5	-
CONSUMER PRICE - GASOLINE C (R\$/l)	5.69	3.96	43.5	5.30	4.24	25.0	-
CONSUMER PRICE - LPG (R\$/13 kg)	87.4	69.6	25.7	82.9	69.8	18.9	-
NATURAL GAS							
PRODUCTION (106 m3/day)	135.8	128.5	5.7	132.6	126.0	5.2	-
IMPORTS (106 m ³ /day)	47.0	14.8	216.5	38.8	20.8	86.5	-
NON-UTILIZED AND REINJECTION (106 m ³ /day)	63.5	57.8	9.8	62.7	56.3	11.3	-
AVAILABILITY FOR CONSUMPTION (106 m ³ /day)	119.3	85.5	39.5	106.6	90.5	17.9	100.0
INDUSTRIAL CONSUMPTION (106 m ³ /day)	42.1	34.6	21.6	40.1	33.8	18.5	37.6
POWER GENERATION CONS. (106 m ³ /day)	44.8	17.0	163.6	36.3	22.6	60.5	34.0
INDUSTRIAL PRICE SP(*) (US\$/MMBtu) - consumption range of 20,000 m ³ /day	15.4	10.4	48.3	12.4	12.8	-3.2	-
MOTOR PRICE SP (US\$/MMBtu)	16.6	15.1	9.6	13.8	16.6	-16.6	-
RESIDENTIAL PRICE SP (US\$/MMBtu)	38.9	33.0	17.8	32.9	36.2	-9.3	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	65,807	60,175	9.4	69,284	64,550	7.3	100.0
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	37,553	34,690	8.3	39,983	37,200	7.5	57.7
SOUTH POWER LOAD (MWavg)	11,593	10,467	10.8	12,310	11,515	6.9	17.8
NORTHEAST POWER LOAD (MWavg)	10,747	9,594	12.0	11,140	10,444	6.7	16.1
NORTH POWER LOAD (MWavg)	5,914	5,424	9.0	5,851	5,391	8.5	8.4
TOTAL CONSUMPTION (TWh) (**)	40.2	35.6	12.7	249.7	231.6	7.8	100.0
RESIDENTIAL	12.0	11.4	4.9	76.8	73.2	4.9	30.8
INDUSTRIAL	15.0	12.5	19.6	89.8	78.2	14.8	36.0
COMMERCIAL	6.7	5.6	19.0	43.4	41.7	4.1	17.4
OTHER SECTORS	6.5	6.1	7.2	39.6	38.4	3.1	15.9
PLANTS ENTRY INTO OPERATING (MW)	440	133	230.7	1,865	3,054	-38.9	-
RESIDENTIAL PRICE (R\$/MWh)	825	696	18.5	799	737	8.5	-
COMMERCIAL PRICE (R\$/MWh)	755	657	14.9	725	669	8.3	-
INDUSTRIAL PRICE (R\$/MWh)	717	637	12.5	692	645	7.3	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10 ³ b/d)	108	112	-3.9	116	102	13.3	-
MOTOR ETHANOL CONSUMPTION (10 ³ b/d)	449	434	3.4	487	463	5.2	-
ETHANOL EXPORTS (10 ³ b/d)	61	60	2.3	35	28	23.1	-
HYDRATED ETHANOL PRICE (R\$/l)	4.36	2.66	63.8	3.86	2.94	31.1	-
COAL							
ELECTRICITY GENERATION (MWavg)	2,200	848	159.3	1,622	1,075	50.8	-
IMPORT PRICE (US\$ FOB/t)	112.0	101.8	10.0	92.8	98.0	-5.3	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	580	1,038	-44.1	6,761	7,267	-7.0	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10 ³ t/day)	102	71	43.7	99	79	24.8	-
ALUMINIUM PRODUCTION (10 ³ t/day)	2.0	1.7	15.2	2.0	1.8	14.2	-
IRON ORE EXPORTS (10 ³ t/day)	1,060	973	8.9	876	756	15.8	-
PELLETS EXPORTS (10 ³ t/day)	58	27	114.5	47	41	14.1	-
PAPER PRODUCTION (10 ³ t/day)	30.0	25.8	16.0	29.2	27.6	5.9	-
PULP PRODUCTION (10 ³ t/day)	58.3	53.8	8.4	60.3	56.4	7.0	-
SUGAR PRODUCTION (10 ³ t/day)	163	181	-9.9	75	78	-4.0	-
SUGAR EXPORTS (10 ³ t/day)	91	97	-5.7	71	65	9.5	-

(*) SP is the acronym of the state of São Paulo. (**) The traditional self-producers (consumers that do not use public grid) is not included.

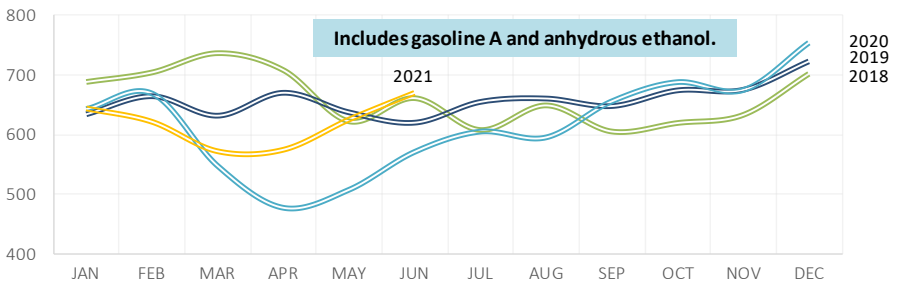
OIL PRODUCTS TOTAL CONSUMPTION (10³ bbl/d)



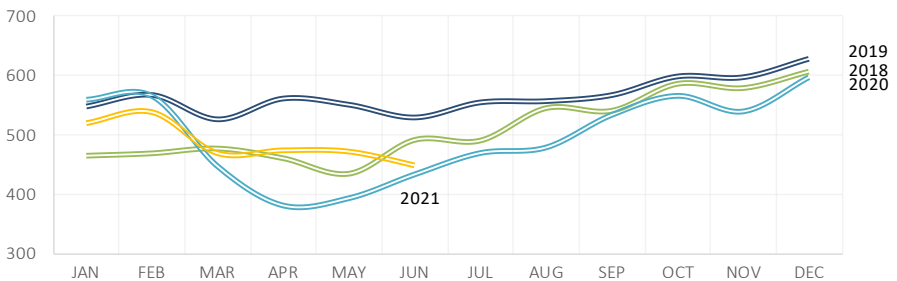
NATURAL GAS TOTAL DEMAND (million m³/d)



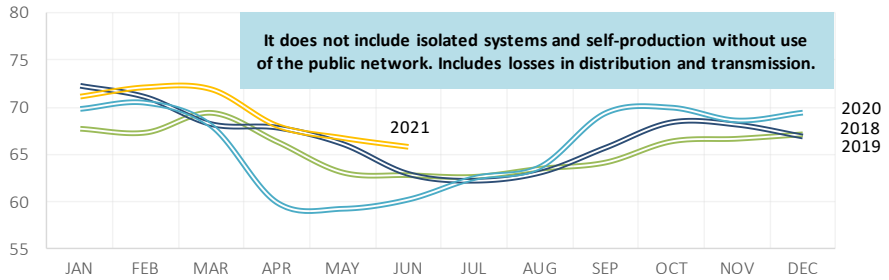
C GASOLINE CONSUMPTION (10³ bbl/d)



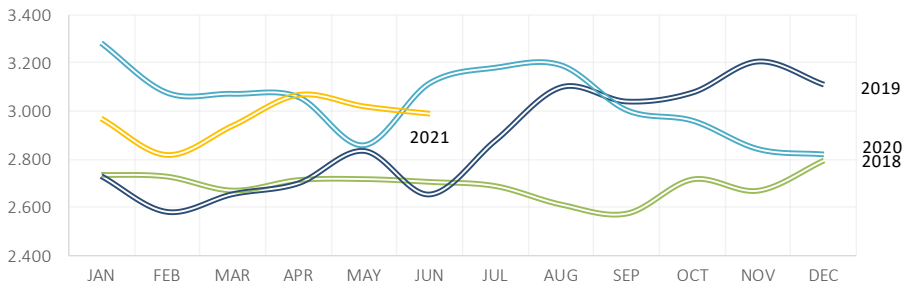
MOTOR ETHANOL TOTAL CONSUMPTION (10³ bbl/d)



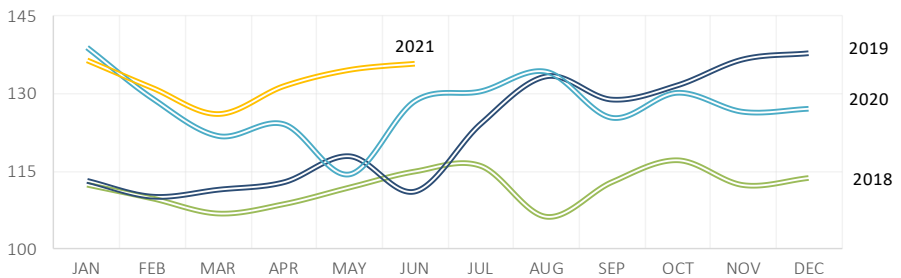
NATIONAL INTERCONNECTED SYSTEM POWER LOAD (GWavg)



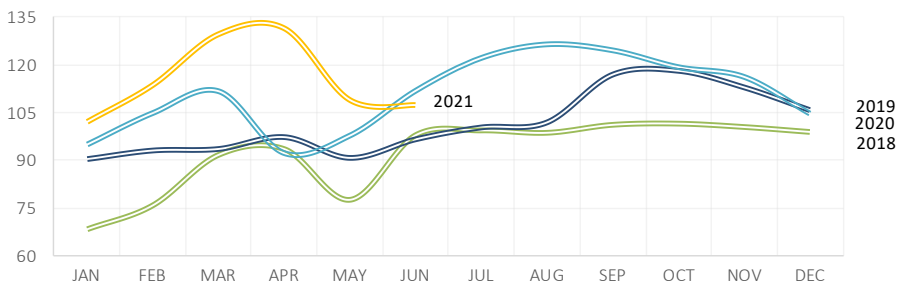
OIL PRODUCTION (10³ bbl/d)



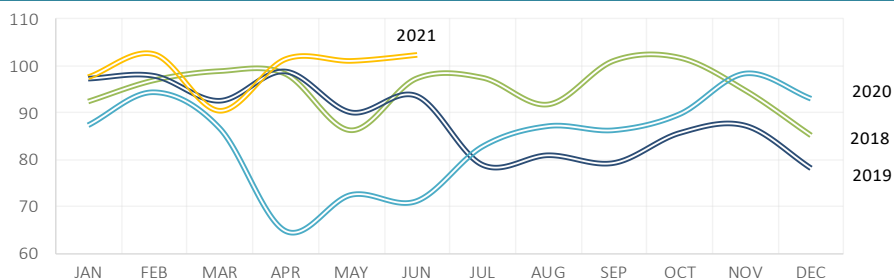
NATURAL GAS PRODUCTION (million m³/d)



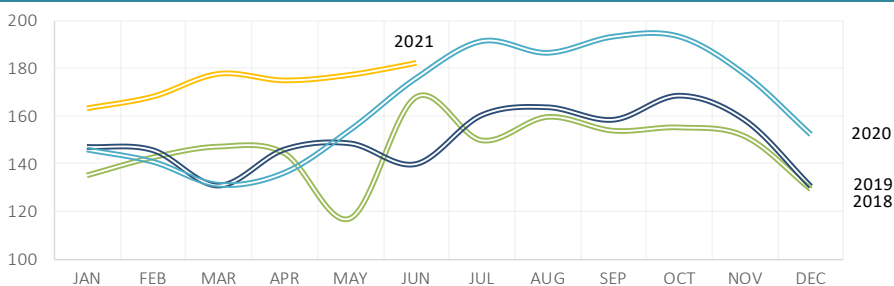
BIODIESEL PRODUCTION (10³ bbl/d)



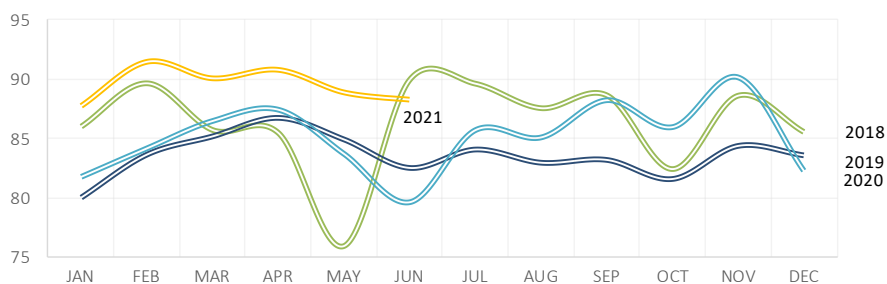
STEEL PRODUCTION (10³ t/d)



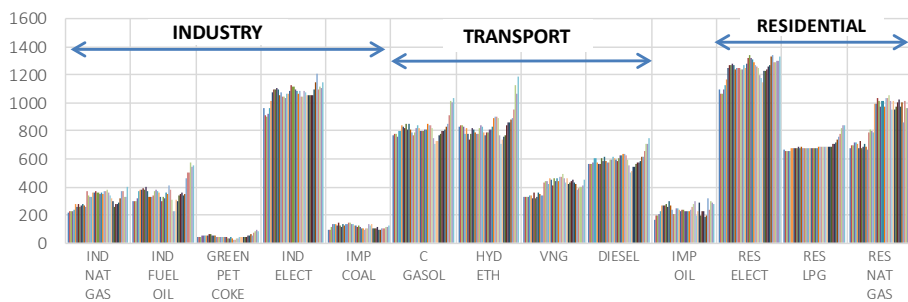
CEMENT SALES (10³ t/d)



PAPER AND PULP PRODUCTION (10³ t/d)



CONSUMER PRICES - Jan 2018 to Jun 2021 (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 NOTES

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.

¹ Domestic Energy Supply (DES), or Brazilian Energy Demand, represents the energy necessary to move the economy of a country or region over a period of time. Includes final energy consumption in the residential sector and in the other economic sectors, includes losses in transmission and distribution, losses on power transformation and the own consumption of the energy sector.

² 2020 data from DES and DELS reflect the results of the 2021 Brazilian Energy Balance cycle, concluded by the Energy Research Company, with a partnership between SPE/MME and energy sector companies and agencies.

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