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
OCTOBER 2020

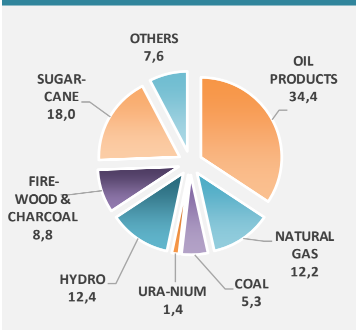
DOMESTIC ENERGY SUPPLY

Up to October, the energy consumption associated with families was greatly affected by COVID 19. Social isolation entailed increases of 4% in power energy residential consumption and 3.5% in cooking gas consumption. On the other hand there were strong decreases on power energy commercial consumption (-10.7%), light vehicles energy (-10.5%) and aviation kerosene consumption (-55%). Another highlight is the 9% increase in cement consumption, due to the emergency aid from the government (low-income families doing small works in their homes).

For the total energy demand (or DES1) of 2020 a decrease of 3.5% is expected, a fact that will place the indicator 7% below of 2014's (historical record).

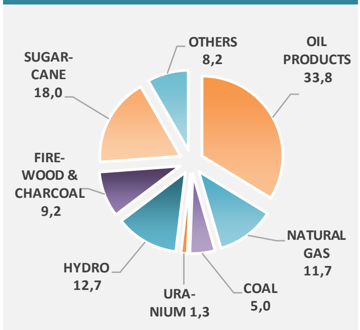
TOTAL ENERGY DEMAND IN 2020 MAY RECOIL 3.5%

DES 2019 (%)



294.0 million toe - 46.1% renewables

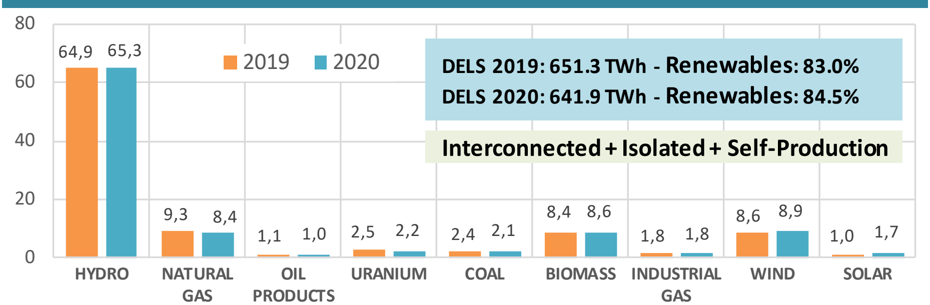
DES 2020 (%)



283.8 million toe - 47.5% renewables

For the 2020's Domestic Electricity Supply (DELS)[2] is expected a decrease of 1.5%. As well as in DES, renewables share slightly rises and should stay above 85% (seasonal sources little affected by the pandemic).

DOMESTIC ELECTRICITY SUPPLY, BY SOURCE (%)



HIGHLIGHTS IN OCTOBER 2020

Oil production slow down

Oil production decreased 3.7% in October 2020 compared to October 2019, but accumulates an increase of 9.0% in the year. The natural gas production accumulated an increase of 6.7%. These indicators will provide Brazil's energy surplus above 10% in 2020.

Mining and metallurgy in recovery

Steel production accumulated a 8,2% drop in the year (-12% up to August). Iron ore exports accumulated -0.9% (-7.3 until July) in this year and pellets, -38.2%.

Hydraulic supply in recovery

Hydraulic energy supply accumulated a drop of 0.7% in the year (-6.5% to June) and Itaipu accumulated 5.8% down (-8.2% up to April).

Oil derivatives in recovery

Apparent consumption of oil products accumulated a 6.6% drop in the year excluding bioenergy (-8.6% up to August). Diesel consumption (including biodiesel) recoiled 1.8% and gasoline dropped by 8.3%. Automotive ethanol consumption reduced 13.3% in the year. The total demand for natural gas decreased by 9.0% in the year, due to 18.3% decreases in electricity generation and 4.8% in industry.

The Otto cycle (gasoline, ethanol and natural gas) light vehicles energy consumption accumulate a decrease of 10.5% in the year (record of -13.3 until June). In previous years the rates were: 4.5% in 2019, -1.2% in 2018, 1.7% in 2017, -1.1% in 2016 and 6.2% in 2014.

Electricity consumption in recovery

Electricity consumption without self-producers accumulated 2.2% down in the year (-4% up to July). Commercial consumption accumulated -10.7%, the residential consumption accumulated +4% and industrial consumption, -2.5% in the year.

Biodiesel production slows down

Biodiesel production increased by 0.9% in October and accumulated an increase of 10.1% in the year (12.8% until August). The rates for the previous three years were positive in double digits.

Cement consumption grew 14% over October 2019 and accumulates 9.3% high in the year. Pulp production accumulated an increase of 3.5% in the year (-6.0% in 2019, +7.1% in 2018, +3.8% in 2017, +7.8% in 2016, +8.5% in 2015 and +9.2% in 2014).

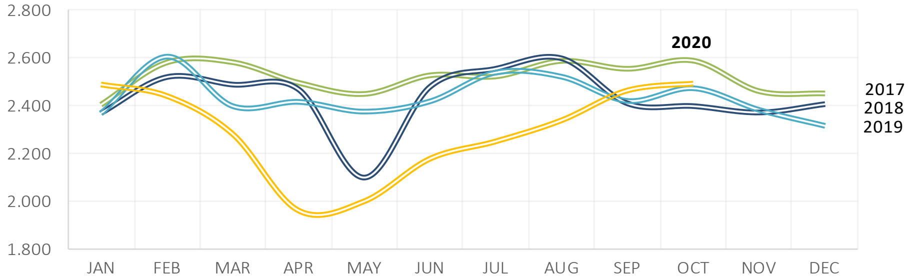
Electricity tariffs recoil

The national average tariff for residential electricity accumulates a reduction of 3.6% in the year (8.0% in 2019, 12.6% in 2018, stable in 2017 and 5.8% in 2016). Commercial fell 2.3% (7.4% in 2019, 12.4% in 2018, 0.7% in 2017 and 5.7% in 2016) and industrial dropped by 0.8% (5.7% in 2019, 13.4% in 2018, 1.2% in 2017 and 3.6% in 2016).

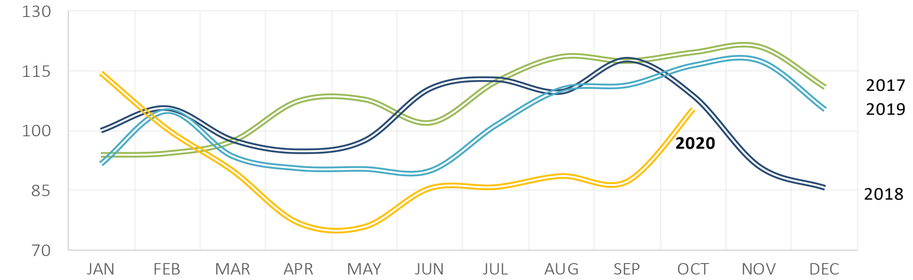
SPECIFICATION	OCTOBER						
	IN THE MONTH			ACCUMULATED IN THE YEAR			
	2020	2019	%20/19	2020	2019	%20/19	%
OIL							
PRODUCTION - with Shale Oil and NGL(10^3 b/d)	2.961	3.075	-3,7	3.081	2.827	9,0	-
IMPORTS AVERAGE PRICE (US$/bbl FOB)	44	66	-33,4	54	68	-20,5	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10^3 b/day)	2.493	2.472	0,8	2.290	2.451	-6,6	100,0
hereof: DIESEL with biodiesel - (10^3 b/day)	1.134	1.149	-1,3	1.034	1.053	-1,8	42,9
hereof: GASOLINE C (10^3 b/day)	688	674	2,1	595	649	-8,3	20,8
CONSUMER PRICE - DIESEL (R$/l)	3,45	3,71	-6,9	3,40	3,56	-4,6	-
CONSUMER PRICE - GASOLINE C (R$/l)	4,36	4,38	-0,5	4,25	4,36	-2,4	-
CONSUMER PRICE - LPG (R$/13 kg)	71,6	68,8	4,1	70,2	69,1	1,6	-
NATURAL GAS							
PRODUCTION (106 m3/day)	130,1	131,6	-1,2	127,6	119,6	6,7	-
IMPORTS (106 m³/day)	38,7	35,4	9,4	22,0	26,1	-15,9	-
NON-UTILIZED AND REINJECTION (106 m³/day)	63,2	50,6	24,8	58,5	45,7	28,1	-
AVAILABILITY FOR CONSUMPTION (106 m³/day)	105,5	116,3	-9,3	91,0	100,0	-9,0	100,0
INDUSTRIAL CONSUMPTION (106 m³/day)	38,3	36,5	4,9	35,5	37,3	-4,8	39,0
POWER GENERATION CONS. (106 m³/day)	34,8	42,3	-17,6	22,2	27,2	-18,3	24,4
INDUSTRIAL PRICE SP(*) (US$/MMBtu) - consumption range of 20,000 m³/day	8,7	15,6	-44,0	11,3	15,5	-27,3	-
MOTOR PRICE SP (US$/MMBtu)	13,9	19,7	-29,2	15,5	19,6	-20,6	-
RESIDENTIAL PRICE SP (US$/MMBtu)	31,5	43,2	-27,1	34,4	40,3	-14,5	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	69.897	68.349	2,3	65.258	66.742	-2,2	100,0
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	40.562	39.836	1,8	37.720	38.874	-3,0	57,8
SOUTH POWER LOAD (MWavg)	11.737	11.550	1,6	11.420	11.491	-0,6	17,5
NORTHEAST POWER LOAD (MWavg)	11.572	11.312	2,3	10.547	10.827	-2,6	16,2
NORTH POWER LOAD (MWavg)	6.026	5.651	6,6	5.571	5.549	0,4	8,5
TOTAL CONSUMPTION (TWh) (**)	42,4	41,1	3,3	391,1	399,7	-2,2	100,0
RESIDENTIAL	13,1	12,0	9,5	122,1	117,4	4,0	31,2
INDUSTRIAL	15,1	14,4	4,9	136,4	139,9	-2,5	34,9
COMMERCIAL	7,3	7,8	-6,1	67,8	76,0	-10,7	17,3
OTHER SECTORS	6,9	7,0	-0,4	64,8	66,5	-2,6	16,6
PLANTS ENTRY INTO OPERATING (MW)	323	187	72,6	3.802	5.230	-27,3	-
RESIDENTIAL PRICE (R$/MWh)	783	798	-1,8	744	771	-3,6	-
COMMERCIAL PRICE (R$/MWh)	686	712	-3,7	672	688	-2,3	-
INDUSTRIAL PRICE (R$/MWh)	674	662	1,8	646	651	-0,8	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10^3 b/d)	119	118	0,9	110	100	10,1	-
MOTOR ETHANOL CONSUMPTION (10^3 b/d)	565	599	-5,7	482	556	-13,3	-
ETHANOL EXPORTS (10^3 b/d)	77	43	80,4	44	33	32,0	-
HYDRATED ETHANOL PRICE (R$/l)	3,08	2,91	5,8	2,92	2,87	1,8	-
COAL							
ELECTRICITY GENERATION (MWavg)	2.002	2.000	0,1	1.040	1.450	-28,3	-
IMPORT PRICE (US$ FOB/t)	84,3	120,5	-30,0	91,9	141,6	-35,1	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	1.381	1.455	-5,1	11.333	13.204	-14,2	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10^3 t/day)	90	86	4,6	82	89	-8,2	-
ALUMINIUM PRODUCTION (10^3 t/day)	2,0	2,0	-1,6	1,8	1,7	5,0	-
IRON ORE EXPORTS (10^3 t/day)	957	986	-3,0	872	879	-0,9	-
PELLETS EXPORTS (10^3 t/day)	47	90	-47,7	43	70	-38,2	-
PAPER PRODUCTION (10^3 t/day)	28,3	29,1	-2,8	27,7	28,7	-3,4	-
PULP PRODUCTION (10^3 t/day)	54,2	52,5	3,1	56,7	54,8	3,5	-
SUGAR PRODUCTION (10^3 t/daY)	158	131	21,3	113	89	27,9	-
SUGAR EXPORTS (10^3 t/day)	128	62	107,6	85	48	76,5	-

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

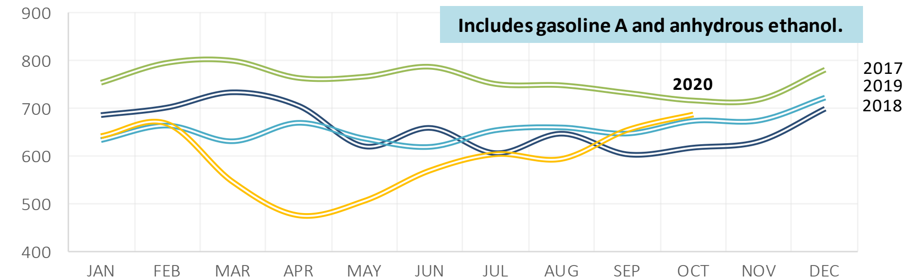
OIL PRODUCTS TOTAL CONSUMPTION (10^3 bbl/d)



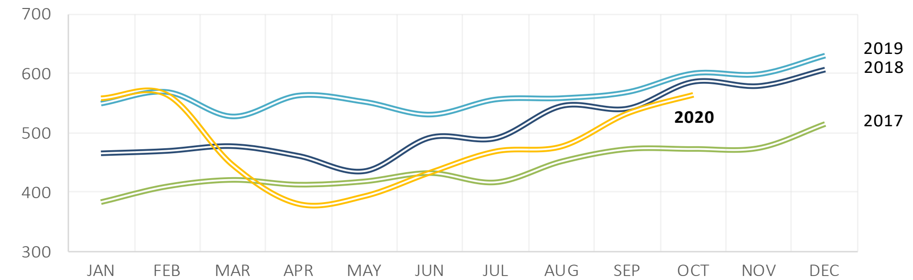
NATURAL GAS TOTAL DEMAND (million m^3/d)



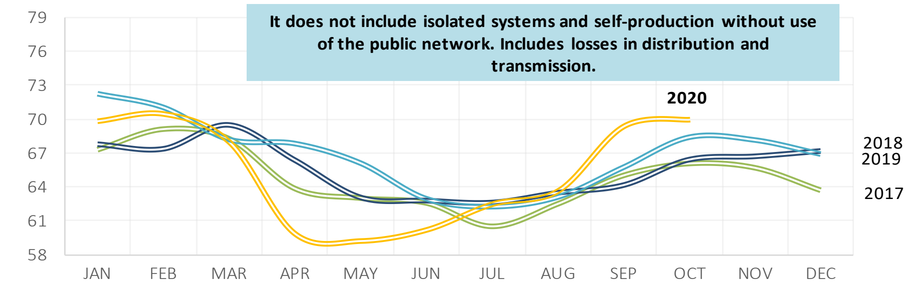
C GASOLINE CONSUMPTION (10^3 bbl/d)



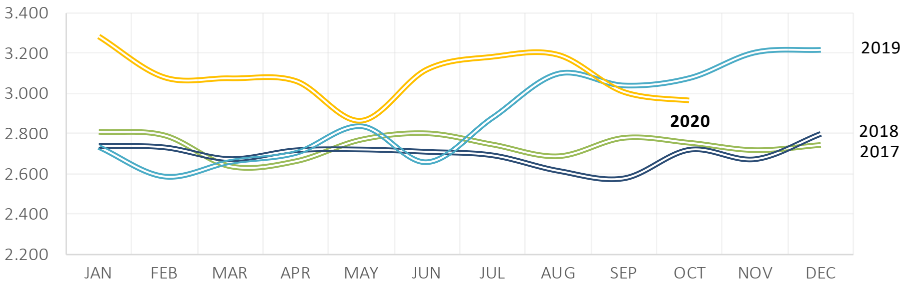
MOTOR ETHANOL TOTAL CONSUMPTION (10^3 bbl/d)



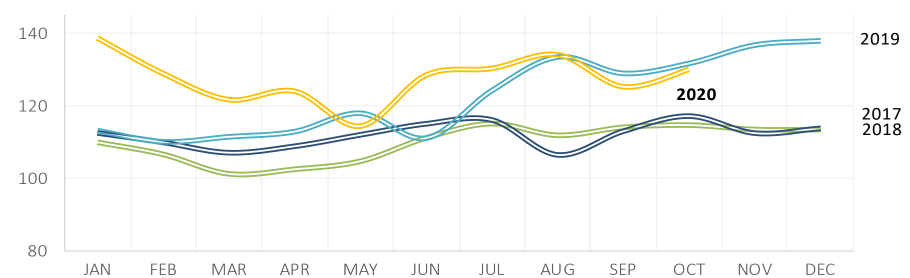
NATIONAL INTERCONNECTED SYSTEM POWER LOAD (GWavg)



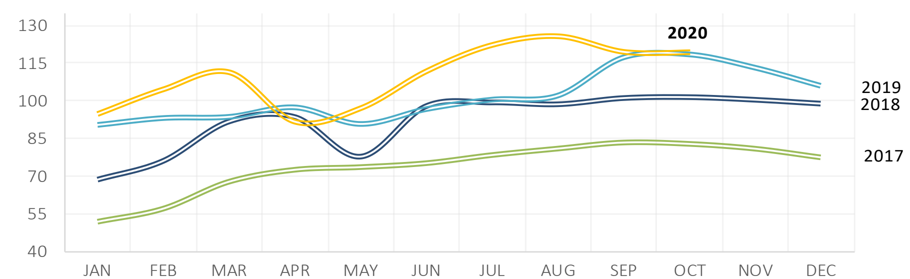
OIL PRODUCTION (10^3 bbl/d)



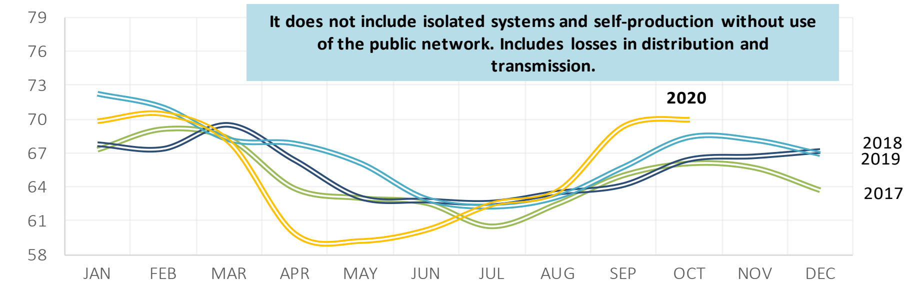
NATURAL GAS PRODUCTION (million m^3/d)



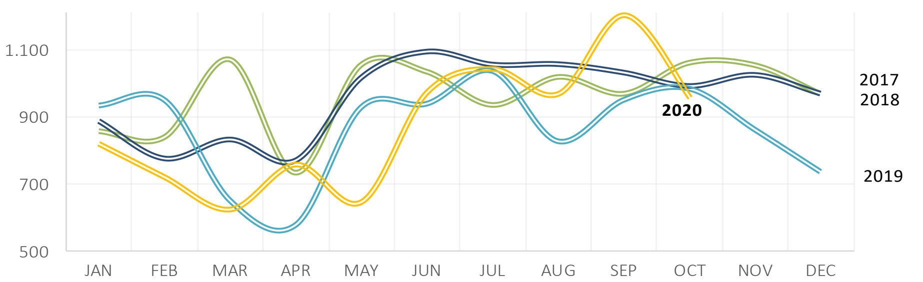
BIODIESEL PRODUCTION (10^3 bbl/d)



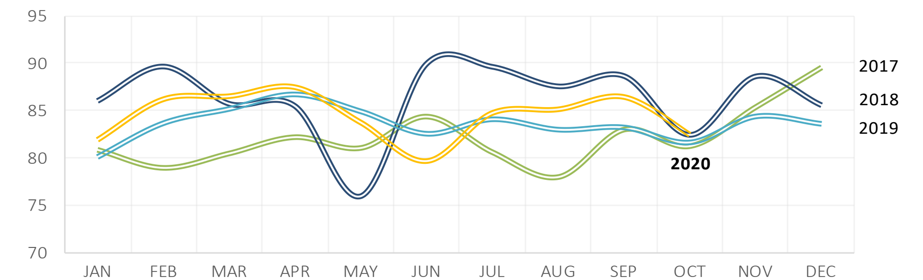
NATIONAL INTERCONNECTED SYSTEM POWER LOAD (GWavg)



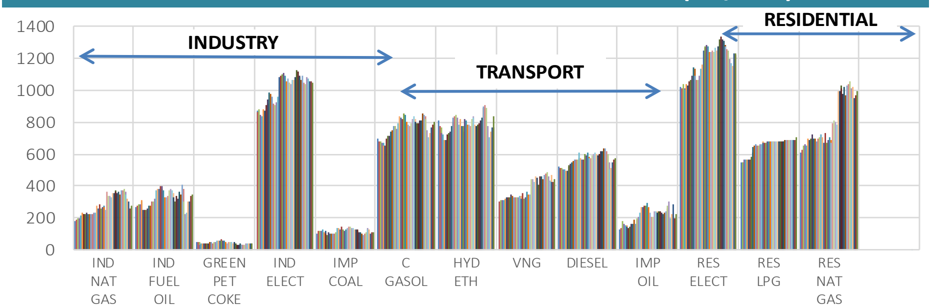
IRON ORE EXPORTS (10^3 t/d)



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



CONSUMER PRICES - Jan 2017 to Oct 2020 (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] 2019 data from DEL and DELS reflect the final results of the National Energy Balance (BEB), cycle 2020, concluded in May by the Energy Research Company (EPE), in partnership with MME and its companies and agencies.

MINISTÉRIO DE
MINAS E ENERGIA

PÁTRIA AMADA
BRASIL
GOVERNO FEDERAL

www.mme.gov.br

Direction: André Osório   *Coordination:* Rodolfo Zamian

Team: João Patusco, Gilberto Kwitko, Mônica Manhães, Daniele Bandeira, Ana Carolina e Azenaite Roriz

Department of Information and Studies on Energy – DIE/SPE/MME

die.spe@mme.gov.br

+55 61 2032 5967 / 2032 5764