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
AUGUST
2020

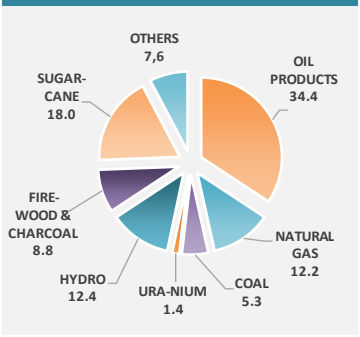
DOMESTIC ENERGY SUPPLY

August's indicators aim at a slightly lower sugarcane harvest and bit higher hydraulic generation. With this movement, the projection for the total energy demand (or DES1) of 2020 is a decrease of 3.8% (-3.5% in the previous edition). Energy losses in thermoelectric plants will be lower in 2020, due to the greater hydraulic generation.

In this context, the final energy consumption in the economic sectors will be less affected, with a 2.7% decrease. The DES, in monthy terms, fell 4.3% in August over the same month of 2019, having beaten the record in April (down above two digits). The DES of 2020 will be 7% lower than that of 2014 (historical record).

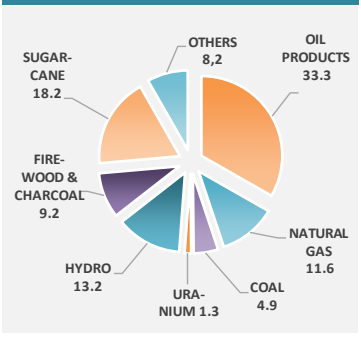
2020 TOTAL ENERGY DEMAND MAY RECOIL 3.8%

DES 2019 (%)



294.0 million toe - 46.1% renewables

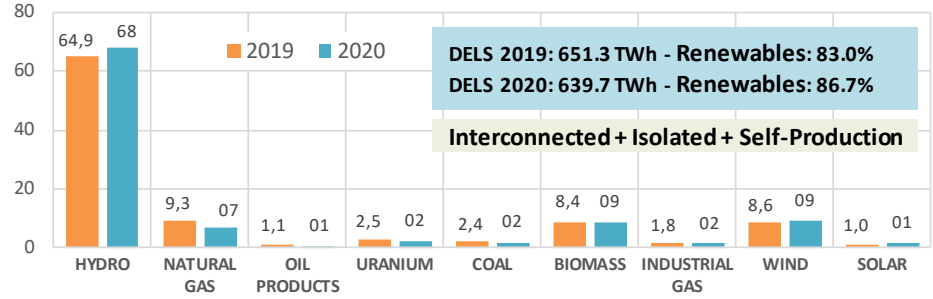
DES 2020 (%)



282.9 million toe - 48.2% renewables

For the 2020 Domestic Electricity Supply (DELS)[2] is expected a decrease of 1.8% (-2% in the previous bulletim). The renewables share rises and should stay above 85% (seasonal sources little affected by the pandemic).

DOMESTIC ELECTRICITY SUPPLY, BY SOURCE (%)



HIGHLIGHTS IN AUGUST 2020

Oil production slow down

Oil production grew 3.0% in August 2020 over August 2019, accumulating an increase of 12.2% in the year. Natural gas production is up 9.2% in the year. These indicators will provide energy surplus in Brazil nearly 10% in 2020.

Mining and metallurgy in recovery

Steel production accumulated a 12.0% drop in the year (-17.8% until June). Iron ore exports accumulated a reduction of 4.3%, and pellets, down 38%.

Hydraulic supply in recovery

Hydraulic energy supply accumulated a drop of 2.5% in the year (-6.5% to June) and Itaipu accumulated -6.1% (-8.2% up to April).

Oil derivatives stable

Apparent consumption of oil products accumulated a decline of 8.6% in the year, excluding bioenergy (-8.8% up to July). Diesel consumption (including biodiesel) decreased by 2.9% and gasoline, by 10.9%. Automotive ethanol consumption fell 15.3% in the year. Total natural gas demand fell by 7.2% in the year, reaching 11.0% drop in electricity generation (-0.7% up to July and + 10.2% up to June) and keeping a negative rate in the industry, with -7.6% (-8.7% up to July).

The Otto cycle (gasoline, ethanol and natural gas) light vehicles energy consumption accumulate a decrease of 12.5% in the year (-13.1 to July and -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 -3.4% in the year. Commercial consumption accumulated -11.6%, and residential consumption accumulated +2.9% and industrial consuption, -4.4% in the year.

Biodiesel production keeps high

Biodiesel production rose 23.0% in August and accumulates an increase of 12.8% in the year. The rates for the previous three years were positive in double digits.

Cement consumption grew 13.9% over August 2019, and accumulates an increase of 6.8% in the year. Pulp production accumulated an high of 1.4% in the year (-6.0% in 2019, and positive of 7.1% in 2018, 3.8% in 2017, 7.8% in 2016, 8.5% in 2015 and 9.2% in 2014).

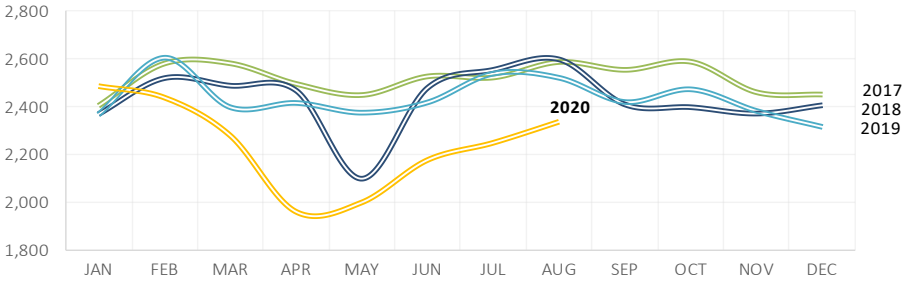
Electricity tariffs recoil

The national average tariff for residential electricity accumulates a reduction of 3.1% in the year (8.0% in 2019, 12.6% in 2018, stable in 2017 and 5.8% in 2016). Commercial fell 1.6% (7.4% in 2019, 12.4% in 2018, 0.7% in 2017 and 5.7% in 2016), and industrial reduced 0.4% (5.7% in 2019, 13.4% in 2018, 1.2% in 2017 and 3.6% in 2016).

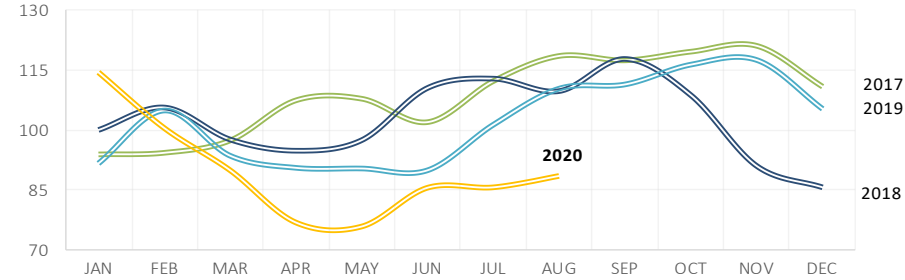
SPECIFICATION	AUGUST						
	IN THE MONTH			ACCUMULATED IN THE YEAR			
	2020	2019	%20/19	2020	2019	%20/19	%
OIL							
PRODUCTION - with Shale Oil and NGL(10^3 b/d)	3,191	3,097	3.0	3,106	2,769	12.2	-
IMPORTS AVERAGE PRICE (US$/bbl FOB)	41	66	-38.1	56	69	-17.6	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10^3 b/day)	2,340	2,521	-7.2	2,242	2,453	-8.6	100.0
hereof: DIESEL with biodiesel - (10^3 b/day)	1,098	1,120	-2.0	1,008	1,038	-2.9	42.7
hereof: GASOLINE C (10^3 b/day)	595	660	-9.9	576	646	-10.9	20.5
CONSUMER PRICE - DIESEL (R$/l)	3.36	3.52	-4.7	3.38	3.54	-4.4	-
CONSUMER PRICE - GASOLINE C (R$/l)	4.24	4.32	-1.8	4.23	4.36	-3.0	-
CONSUMER PRICE - LPG (R$/13 kg)	70.0	68.8	1.7	69.8	69.1	1.0	-
NATURAL GAS							
PRODUCTION (106 m3/day)	134.1	133.3	0.6	127.6	116.9	9.2	-
IMPORTS (106 m^3/day)	18.6	30.4	-38.9	20.0	24.5	-18.3	-
NON-UTILIZED AND REINJECTION (106 m^3/day)	64.2	53.4	20.2	57.9	44.9	29.1	-
AVAILABILITY FOR CONSUMPTION (106 m^3/day)	88.5	110.3	-19.8	89.6	96.5	-7.2	100.0
INDUSTRIAL CONSUMPTION (106 m^3/day)	36.8	36.8	0.0	34.5	37.4	-7.6	38.5
POWER GENERATION CONS. (106 m^3/day)	17.3	37.0	-53.1	21.3	23.9	-11.0	23.8
INDUSTRIAL PRICE SP(*) (US$/MMBtu) - consumption range of 20,000 m^3/day	10.1	15.8	-36.5	12.1	15.5	-21.9	-
MOTOR PRICE SP (US$/MMBtu)	14.3	17.7	-19.1	16.0	19.6	-18.2	-
RESIDENTIAL PRICE SP (US$/MMBtu)	30.9	44.2	-30.2	35.1	39.5	-11.2	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	63,620	63,058	0.9	64,171	66,673	-3.8	100.0
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	36,688	36,351	0.9	36,976	38,798	-4.7	57.6
SOUTH POWER LOAD (MWavg)	10,890	10,876	0.1	11,373	11,569	-1.7	17.7
NORTHEAST POWER LOAD (MWavg)	10,217	10,218	0.0	10,358	10,794	-4.0	16.1
NORTH POWER LOAD (MWavg)	5,825	5,613	3.8	5,463	5,512	-0.9	8.5
TOTAL CONSUMPTION (TWh) (**)	39.1	38.8	0.8	308.4	319.2	-3.4	100.0
RESIDENTIAL	11.9	11.0	7.8	96.8	94.1	2.9	31.4
INDUSTRIAL	14.5	14.3	1.6	106.6	111.5	-4.4	34.6
COMMERCIAL	6.3	7.0	-10.0	53.9	61.0	-11.6	17.5
OTHER SECTORS	6.5	6.6	-0.9	51.1	52.7	-3.0	16.6
PLANTS ENTRY INTO OPERATING (MW)	173	818	-78.8	3,319	4,164	-20.3	-
RESIDENTIAL PRICE (R$/MWh)	752	801	-6.1	740	763	-3.1	-
COMMERCIAL PRICE (R$/MWh)	670	721	-7.1	670	681	-1.6	-
INDUSTRIAL PRICE (R$/MWh)	638	683	-6.6	644	646	-0.4	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10^3 b/d)	126	102	23.0	108	96	12.8	-
MOTOR ETHANOL CONSUMPTION (10^3 b/d)	478	557	-14.2	465	550	-15.3	-
ETHANOL EXPORTS (10^3 b/d)	68	63	7.8	38	30	23.7	-
HYDRATED ETHANOL PRICE (R$/l)	2.77	2.83	-2.2	2.89	2.87	0.8	-
COAL							
ELECTRICITY GENERATION (MWavg)	690	2,000	-65.5	978	1,307	-25.2	-
IMPORT PRICE (US$ FOB/t)	82.9	117.5	-29.4	94.3	145.6	-35.3	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	873	1,500	-41.8	8,610	10,299	-16.4	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10^3 t/day)	83	81	2.5	80	91	-12.0	-
ALUMINIUM PRODUCTION (10^3 t/day)	1.9	1.9	0.0	1.8	1.7	6.2	-
IRON ORE EXPORTS (10^3 t/day)	969	829	16.9	820	857	-4.3	-
PELLETS EXPORTS (10^3 t/day)	40	84	-52.9	42	68	-37.8	-
PAPER PRODUCTION (10^3 t/day)	27.4	29.1	-5.8	27.5	28.7	-4.2	-
PULP PRODUCTION (10^3 t/day)	53.9	53.9	0.0	55.9	55.1	1.4	-
SUGAR PRODUCTION (10^3 t/daY)	203	148	37.1	106	77	37.4	-
SUGAR EXPORTS (10^3 t/day)	107	50	112.9	76	45	67.6	-

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

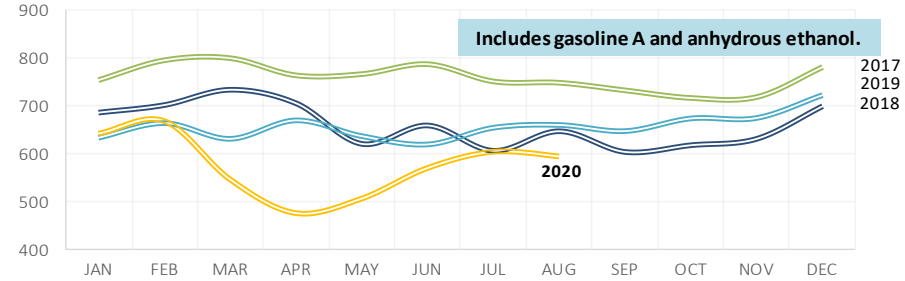
OIL PRODUCTS TOTAL CONSUMPTION (10^3 bbl/d)



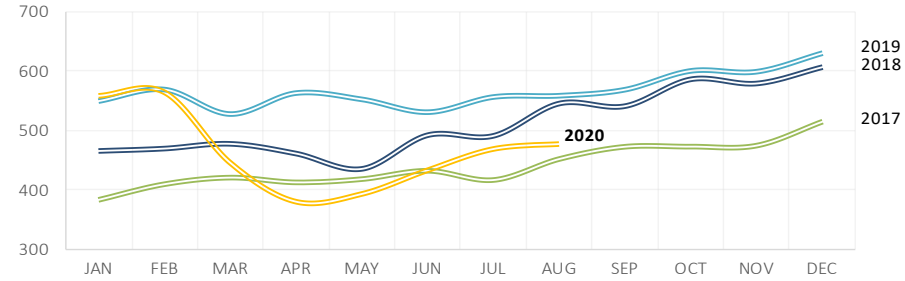
NATURAL GAS TOTAL DEMAND (million m^3/d)



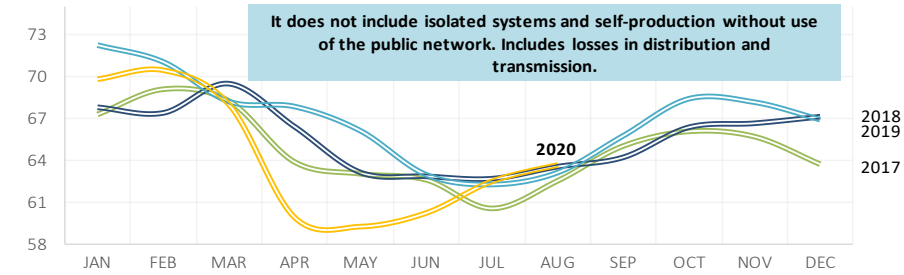
C GASOLINE CONSUMPTION (10^3 bbl/d)



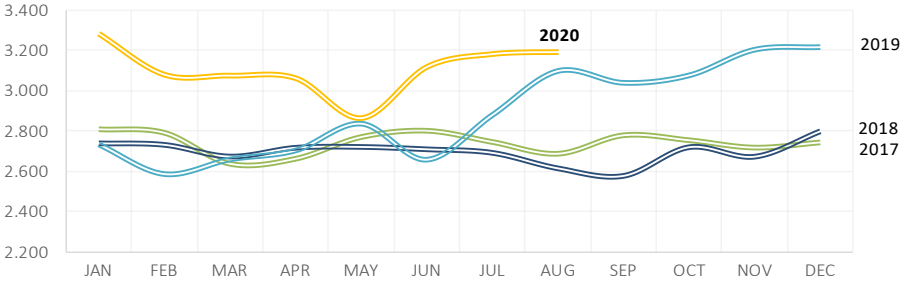
MOTOR ETHANOL TOTAL CONSUMPTION (10^3 bbl/d)



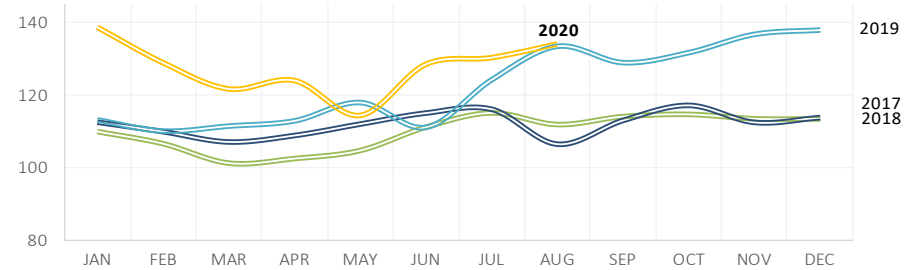
NATIONAL INTERCONNECTED SYSTEM POWER LOAD (GWavg)



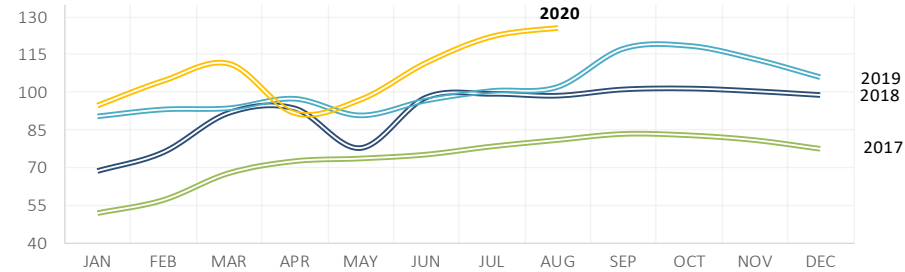
OIL PRODUCTION (10^3 bbl/d)



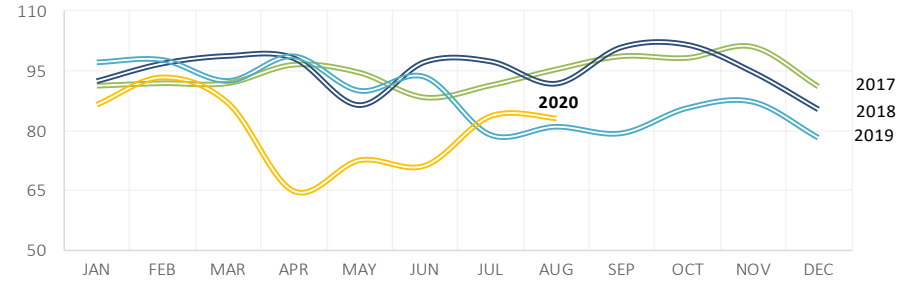
NATURAL GAS PRODUCTION (million m^3/d)



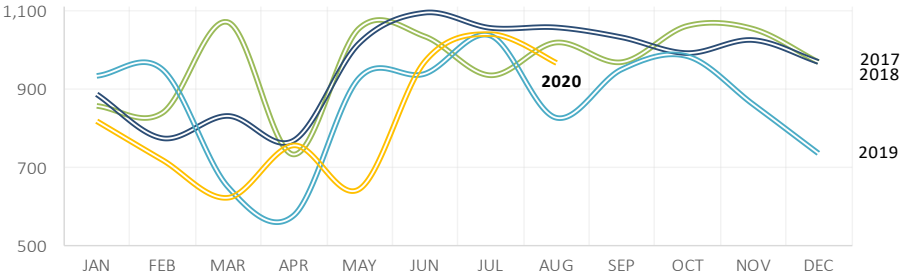
BIODIESEL PRODUCTION (10^3 bbl/d)



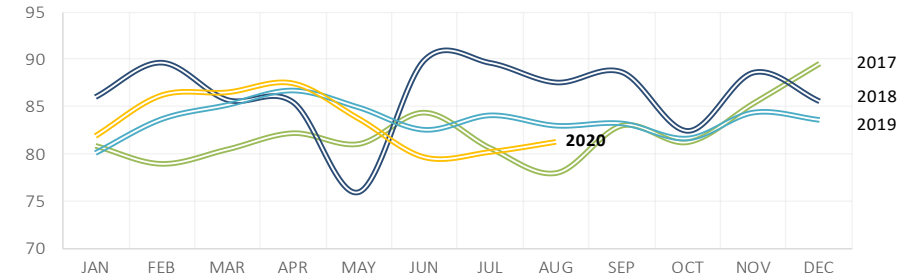
STEEL PRODUCTION (10^3 t/d)



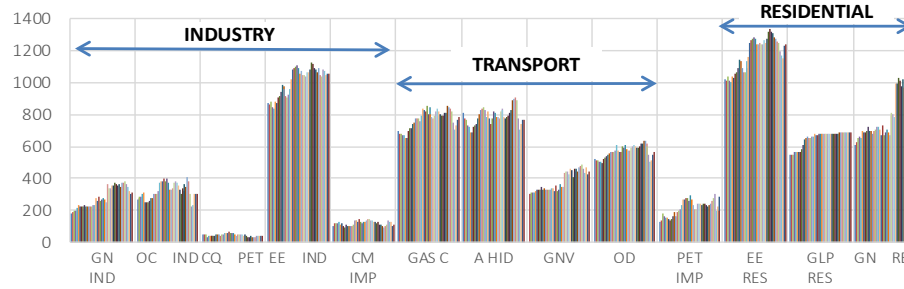
IRON ORE EXPORTS (10^3 t/d)



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



CONSUMER PRICES - Jan 2017 to Aug 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.

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