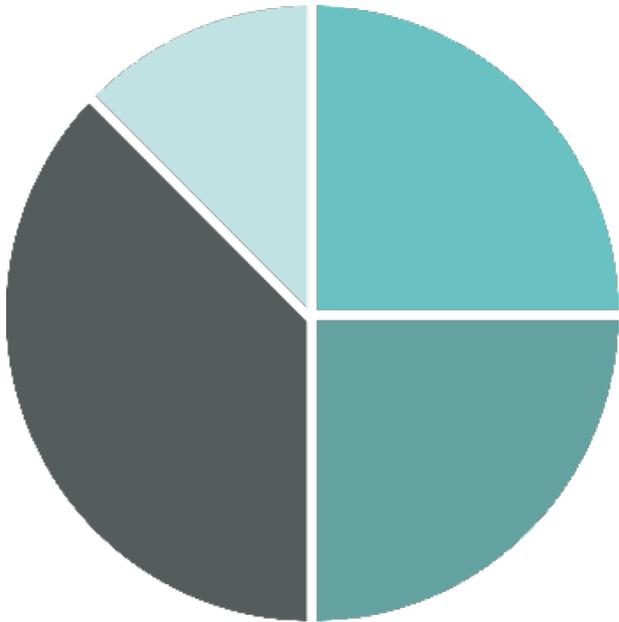


MONTHLY ENERGY BULLETIN

BRAZIL



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

REFERENCE MONTH

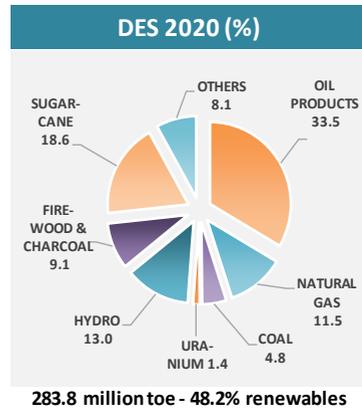
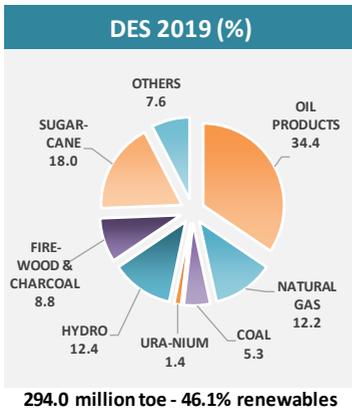
JULY
2020

DOMESTIC ENERGY SUPPLY

July indicators show a slowdown on oil products consumption recovery. Thus, for the total energy demand (or DES1) of 2020, the previous forecast of a 2.8% decline was changed to a 3.5% decrease. Energy losses in thermoelectric plants will be lower in 2020, due to greater hydraulic generation. In this context, the energy final consumption in the economic sectors will not be as affected as the DES.

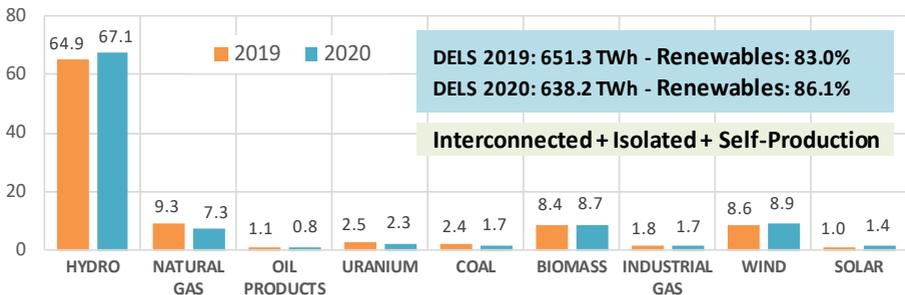
Accumulated DES until July recoiled 5% reaching the record, before expected for June. April's DES decreased 13.8% over April 2019 (record), and July's decreased 5.9%, showing a good recovery. The DES of 2020 will be 7% lower than that of 2014 (historical record).

TOTAL ENERGY DEMAND IN 2020 MAY RECOIL 3.5%



For the 2020 Domestic Electricity Supply (DELS)² is expected a decrease of 2.0% (-1,9% in the previous bulletin). The share of renewables rises and should stay above 85% (seasonal sources little affected by the pandemic).

DOMESTIC ELECTRICITY SUPPLY, BY SOURCE (%)



HIGHLIGHTS IN JULY 2020

■ Oil production keeps high

Oil production grew 10.6% in July 2020, compared to July 2019, accumulating an increase of 13.7% in the year. The natural gas production accumulated an increase of 10.6% in the year. These indicators will provide Brazil's energy surplus of about 10% in 2020.

■ Mining and metallurgy in recovery

Steel production accumulated a 13.9% drop in the year (-17.8% until June). Iron ore exports accumulated a reduction of 7.3%, and pellets, down 35%.

■ Hydraulic supply in recovery

Hydraulic energy supply accumulated a drop of 4.5% in the year (-6.5% up to June) and Itaipu accumulated -7.8% (-8.2% up to April).

■ Oil derivatives down

Oil products apparent consumption fell 16% in July (-4% in June), compared to the same month of 2019 and accumulated a decrease of 8.8% in the year (excluding ethanol and biodiesel). Diesel consumption (including biodiesel) fell by 3.0%, and gasoline, by 11.0%. Automotive ethanol consumption fell 15.5% in the year. Natural gas total demand has fallen by 5.0% in the year, already exceeding -0.7% in electricity generation (+ 10.2% until June) and maintaining -8, 7% in the industry.

The Otto cycle (gasoline, ethanol and natural gas) light vehicles energy consumption decreased 13.1% in the year (-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 keeps recoil

Electricity consumption without self-producers accumulated -4.0% in the year. Commercial consumption accumulated -11.8%, and residential consumption, +2.3%. Industrial consumption accumulated -5.3% in the year.

■ Biodiesel production keeps high

Biodiesel production rose 21.5% in July and accumulates an increase of 10.7% in the year. The rates for the previous three years were positive in double digits.

Cement consumption grew 19% over July 2019, and accumulates an increase of 5.6% in the year. Pulp production accumulated a high of 1.7% 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).

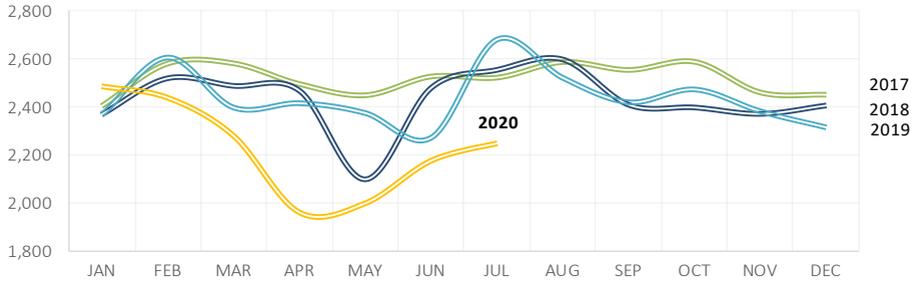
■ Electricity tariffs recoil

The national average tariff for residential electricity recoiled 3,5% in July (8.0% in 2019, 12.6% in 2018, stable in 2017 and 5.8% in 2016). Commercial fell 3.1% (7.4% in 2019, 12.4% in 2018, 0.7% in 2017 and 5.7% in 2016), and industrial reduced 2.7% (5.7% in 2019, 13.4% in 2018, 1.2% in 2017 and 3.6% in 2016).

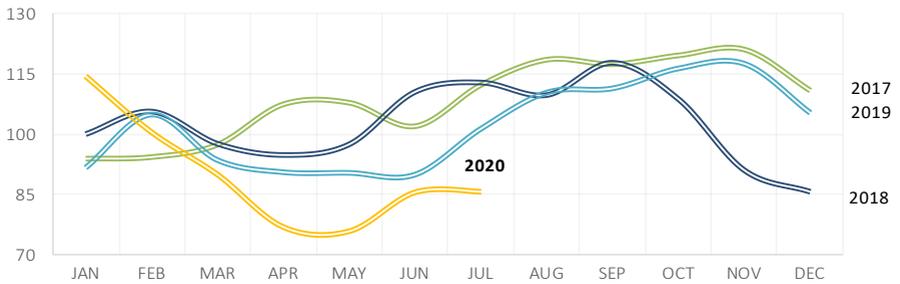
SPECIFICATION	JULY						
	IN THE MONTH			ACCUMULATED IN THE YEAR			
	2020	2019	%20/19	2020	2019	%20/19	%
OIL							
PRODUCTION - with Shale Oil and NGL(10 ³ b/d)	3,181	2,877	10.6	3,093	2,721	13.7	-
IMPORTS AVERAGE PRICE (US\$/bbl FOB)	64	70	-9.5	59	69	-14.8	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10 ³ b/day)	2,252	2,681	-16.0	2,228	2,443	-8.8	100.0
hereof: DIESEL with biodiesel - (10 ³ b/day)	1,114	1,104	1.0	995	1,026	-3.0	42.4
hereof: GASOLINE C (10 ³ b/day)	605	655	-7.6	573	644	-11.0	20.6
CONSUMER PRICE - DIESEL (R\$/l)	3.25	3.54	-8.3	3.39	3.54	-4.3	-
CONSUMER PRICE - GASOLINE C (R\$/l)	4.14	4.35	-4.8	4.23	4.37	-3.2	-
CONSUMER PRICE - LPG (R\$/13 kg)	70.0	69.1	1.3	69.8	69.2	0.9	-
NATURAL GAS							
PRODUCTION (106 m ³ /day)	130.3	124.2	5.0	126.6	114.5	10.6	-
IMPORTS (106 m ³ /day)	16.5	25.8	-36.0	20.2	23.6	-14.4	-
NON-UTILIZED AND REINJECTION (106 m ³ /day)	61.3	48.7	25.9	57.0	43.6	30.7	-
AVAILABILITY FOR CONSUMPTION (106 m ³ /day)	85.6	101.3	-15.5	89.7	94.5	-5.0	100.0
INDUSTRIAL CONSUMPTION (106 m ³ /day)	36.0	36.6	-1.4	34.2	37.4	-8.7	38.1
POWER GENERATION CONS. (106 m ³ /day)	16.5	29.9	-44.7	21.9	22.0	-0.7	24.4
INDUSTRIAL PRICE SP(*) (US\$/MMBtu) - consumption range of 20,000 m ³ /day	10.3	16.8	-39.1	12.4	15.5	-19.8	-
MOTOR PRICE SP (US\$/MMBtu)	14.5	21.3	-32.2	16.3	19.8	-18.1	-
RESIDENTIAL PRICE SP (US\$/MMBtu)	32.5	47.1	-30.9	35.7	38.8	-8.1	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	62,446	62,208	0.4	64,249	67,189	-4.4	100.0
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	35,925	35,786	0.4	37,018	39,147	-5.4	57.6
SOUTH POWER LOAD (MWavg)	11,002	10,897	1.0	11,442	11,667	-1.9	17.8
NORTHEAST POWER LOAD (MWavg)	9,985	10,088	-1.0	10,378	10,877	-4.6	16.2
NORTH POWER LOAD (MWavg)	5,534	5,437	1.8	5,412	5,498	-1.6	8.4
TOTAL CONSUMPTION (TWh) (**)	37.7	38.4	-1.8	269.3	280.4	-4.0	100.0
RESIDENTIAL	11.7	10.9	7.1	84.9	83.1	2.3	31.5
INDUSTRIAL	13.9	14.1	-1.6	92.1	97.2	-5.3	34.2
COMMERCIAL	5.9	7.0	-14.8	47.6	54.0	-11.8	17.7
OTHER SECTORS	6.2	6.4	-3.4	44.6	46.2	-3.3	16.6
PLANTS ENTRY INTO OPERATING (MW)	92	25	259.7	3,146	3,346	-6.0	-
RESIDENTIAL PRICE (R\$/MWh)	745	772	-3.5	738	758	-2.6	-
COMMERCIAL PRICE (R\$/MWh)	670	691	-3.1	669	675	-0.8	-
INDUSTRIAL PRICE (R\$/MWh)	638	656	-2.7	644	641	0.5	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10 ³ b/d)	122	100	21.5	105	95	10.7	-
MOTOR ETHANOL CONSUMPTION (10 ³ b/d)	470	555	-15.4	464	548	-15.5	-
ETHANOL EXPORTS (10 ³ b/d)	62	42	47.7	33	26	29.3	-
HYDRATED ETHANOL PRICE (R\$/l)	2.74	2.78	-1.3	2.91	2.88	1.2	-
COAL							
ELECTRICITY GENERATION (MWavg)	682	2,072	-67.1	1,019	1,208	-15.6	-
IMPORT PRICE (US\$ FOB/t)	83.3	139.6	-40.3	95.9	149.6	-35.9	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	470	1,490	-68.5	7,737	8,799	-12.1	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10 ³ t/day)	84	79	5.8	80	93	-13.9	-
ALUMINIUM PRODUCTION (10 ³ t/day)	1.6	1.8	-10.7	1.7	1.6	3.0	-
IRON ORE EXPORTS (10 ³ t/day)	1,043	1,038	0.4	798	861	-7.3	-
PELLETS EXPORTS (10 ³ t/day)	54	57	-5.7	43	66	-34.9	-
PAPER PRODUCTION (10 ³ t/day)	27.0	28.7	-6.0	27.5	28.6	-3.9	-
PULP PRODUCTION (10 ³ t/day)	53.2	55.4	-3.8	56.2	55.3	1.7	-
SUGAR PRODUCTION (10 ³ t/day)	213	150	41.8	98	67	46.1	-
SUGAR EXPORTS (10 ³ t/day)	112	56	99.8	71	45	60.1	-

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

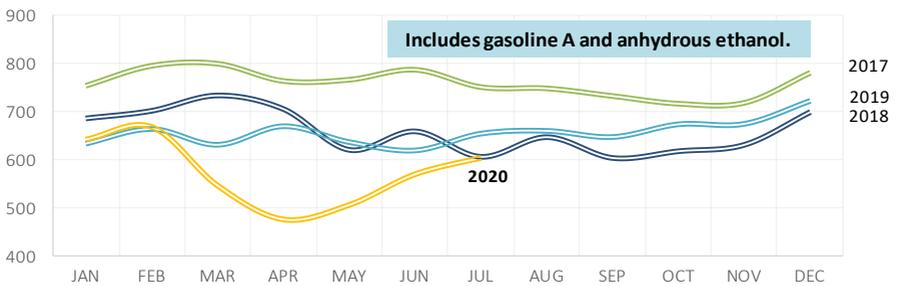
OIL PRODUCTS TOTAL CONSUMPTION (10³ bbl/d)



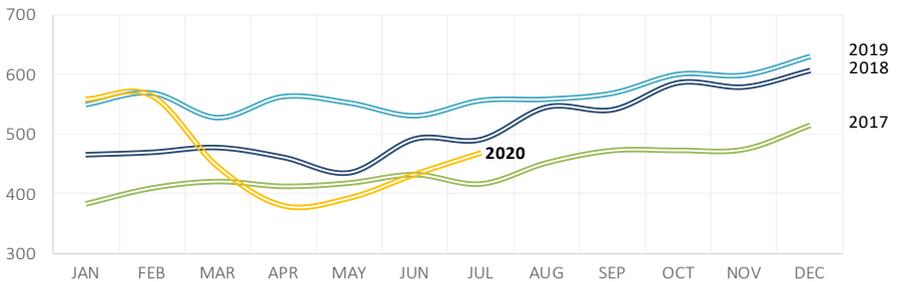
NATURAL GAS TOTAL DEMAND (million m³/d)



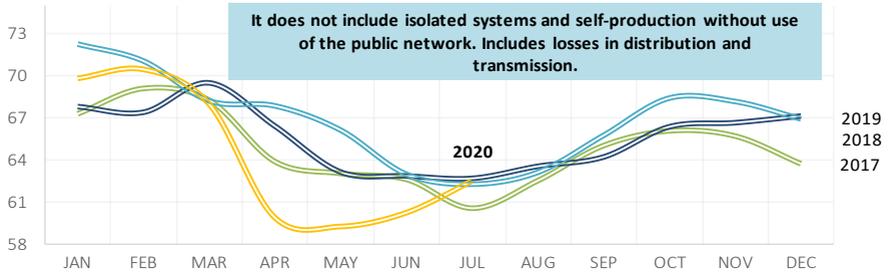
C GASOLINE CONSUMPTION (10³ bbl/d)



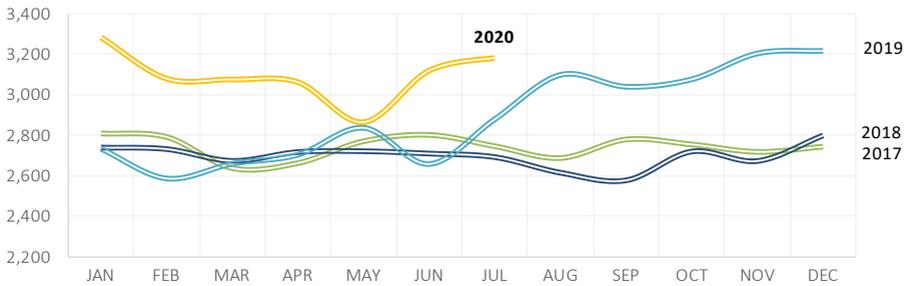
MOTOR ETHANOL TOTAL CONSUMPTION (10³ bbl/d)



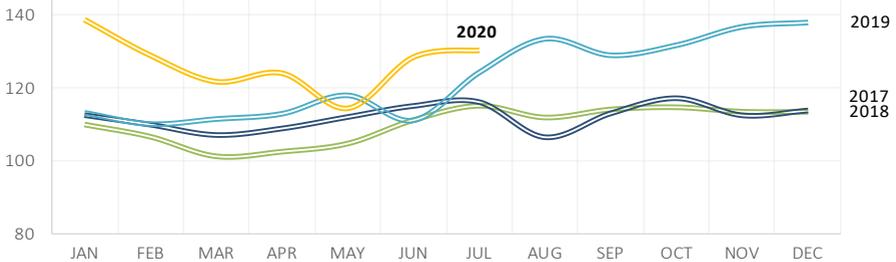
NATIONAL INTERCONNECTED SYSTEM POWER LOAD (GWavg)



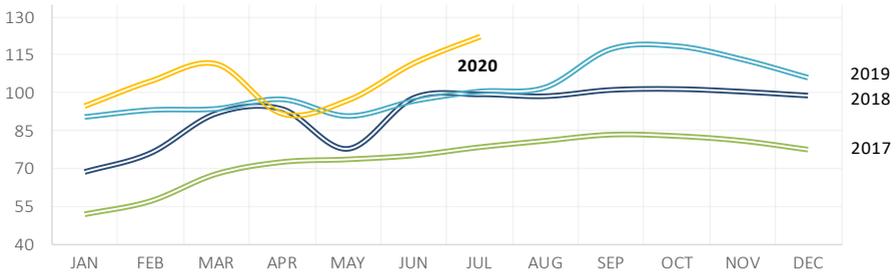
OIL PRODUCTION (10³ bbl/d)



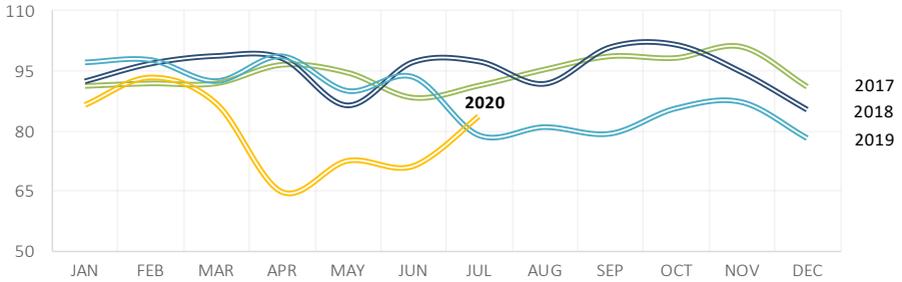
NATURAL GAS PRODUCTION (million m³/d)



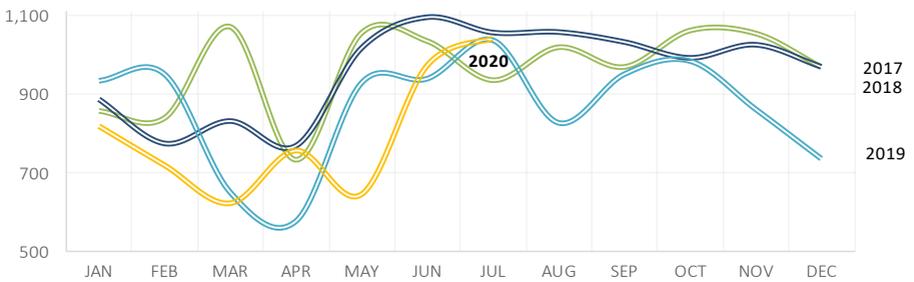
BIODIESEL PRODUCTION (10³ bbl/d)



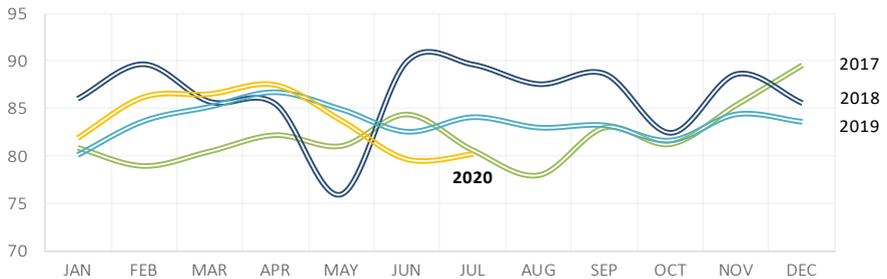
STEEL PRODUCTION (10³ t/d)



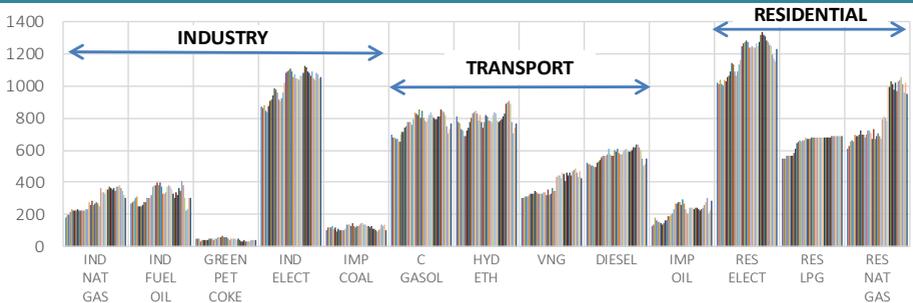
IRON ORE EXPORTS (10³ t/d)



PAPER AND PULP PRODUCTION (10³ t/d)



CONSUMER PRICES - Jan 2017 to Jul 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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