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 2021

DOMESTIC ENERGY SUPPLY

The greater severity of the drought affected even more the hydraulic generation in July, with consequences also for agricultural production. The sugarcane crop review shows a much greater drop than the previous one and the greater fossil thermoelectric generation affects the share of renewables in the energy matrix, increasing thermal losses. For Domestic Energy Supply – DES¹ for the entire year of 2021, non-renewable sources are expected to grow 12%, while renewable sources are expected to decline by 3%, leaving the total with a 4.6% increase. Thus, the share of renewables is expected to decline by 3.6 percentage points in 2021.

INCREASE IN TOTAL ENERGY DEMAND OF 2021 IS ESTIMATED AT 4.6%







^{300.7} million toe - 44.8% renewables

For the Domestic Electricity Supply (DELS)² of 2021 an increase of 5.2% is expected, with non-renewables growing 50% and renewables reducing 3%. Under these conditions, the share of renewables should fall by more than 6 percentage points.



HIGHLIGHTS IN JULY 2021

Oil production falling down

Oil production decreased by 1.7% in July 2021, compared to the same month in 2020, accumulating -3.3% in the year (-3.6% until July). The production of natural gas grew 6.8% in July, and accumulated an increase of 5.4% in the year (-0.5% until February).

Mining and metallurgy in high

Steel production grew 17% over July 2020, and accumulated 23.6% in the year (9.1% until February). Iron ore exports dropped 7.8% in the month, but accumulated 11.3% in the year. Pellets exports show an increase of 12.8% in the year.

Hydraulic supply downward

Hydraulic energy supply shows a decrease of 5.4% in the accumulated result for the year (-8% is estimated for the whole year). Itaipu's supply is -29.6% in the year.

Oil derivatives in recovery

Apparent consumption of oil products grew 13.6% in July (excluding ethanol and biodiesel), and has already accumulated 9.4% in the year (-0.5% until February). Diesel consumption (biodiesel included) increased 6.9% in the month (10.1% in the year), and gasoline C consumption increased 17.9% in the month (10.2% in the year). Automotive ethanol consumption was stable in the month (4.4% in the year). Gas total demand accumulates 24.4% in the year, with power generation expanding 213% in the month and 77.5% in the year.

The Otto's cycle (gasoline, ethanol and natural gas) light vehicles energy consumption has already increased by 7.3% 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 5.9% over July 2020 and accumulates an increase of 7.5% in the year (2.2% until February). Still in the year, residential consumption rose 4.2%, industrial consumption grew 14.1% and commercial consumption showed an increase of 4.8% (-10.6% in the entire year of 2020).

Biodiesel production recoils

Biodiesel production dropped 10.2% over the same month in 2020, but accumulates an 8.6% increase in the year. The annual rate has been over 9% for the past four years.

Pulp production is estimated to grow 8.5% year-to-date (+43% from 2013 to 2020). Cement consumption accumulates an increase of 14.9% in the year (10% in the twelve months of 2020).

Electricity tariffs in high

The national average tariff for residential electricity accumulates 9.9% high in the year (-3.1% in 2020, 8% in 2019 and 12.6% in 2018). Commercial tariff accumulates 9.9% high (-1.6% in 2020, 7.4% in 2019 and 12.4% in 2018) and industrial, 8.9% high (-0.3% in 2020, 5.7% in 2019 and 13.4% in 2018).

JULY							
SPECIFICATION	IN THE MONTH			ACCUMULATED IN THE YEAR			
SPECIFICATION	2021	2020	%21/20	2021	2020	%21/20	%
OIL							
PRODUCTION - with Shale Oil and NGL(10 ³ b/d)	3,126	3,181	-1.7	2,992	3,093	-3.3	-
IMPORTS AVERAGE PRICE (US\$/bbl FOB)	69	63	8.6	61	58	5.6	-
OIL PRODUCTS							
TOTAL CONSUMPTION (10 ³ b/day)	2,558	2,252	13.6	2,411	2,205	9.4	100.0
hereof: DIESEL with biodiesel - (10 ³ b/day)	1,191	1,114	6.9	1,096	995	10.1	43.2
hereof: GASOLINE C (10 ³ b/day)	713	605	17.9	631	573	10.2	21.0
CONSUMER PRICE - DIESEL (R\$/I)	4.65	3.25	43.0	4.30	3.39	26.9	-
CONSUMER PRICE - GASOLINE C (R\$/I)	5.81	4.14	40.1	5.37	4.23	27.1	-
CONSUMER PRICE - LPG (R\$/13 kg)	91.9	70.0	31.4	84.2	69.8	20.7	-
NATURAL GAS							
PRODUCTION (106 m3/day)	139.2	130.3	6.8	133.5	126.7	5.4	-
IMPORTS (106 m ³ /day)	56.6	16.7	238.6	41.4	20.2	104.8	-
NON-UTILIZED AND REINJECTION (106 m ³ /day)	66.8	61.3	9.1	63.3	57.0	10.9	-
AVAILABILITY FOR CONSUMPTION (106 m ³ /day)	128.9	85.8	50.3	111.7	89.8	24.4	100.0
INDUSTRIAL CONSUMPTION (106 m³/day)	42.5	36.6	16.2	40.5	34.2	18.2	36.2
POWER GENERATION CONS. (106 m³/day)	51.7	16.5	212.7	38.5	21.7	77.5	34.5
INDUSTRIAL PRICE SP(*) (US\$/MMBtu) - consump-	15.9	10.3	55.2	12.9	12.4	3.6	-
tion range of 20,000 m ³ /day							
MOTOR PRICE SP (US\$/MMBtu)	17.0	14.5	18.0	14.3	16.3	-12.2	-
RESIDENTIAL PRICE SP (US\$/MMBtu)	40.1	32.5	23.3	33.9	35.7	-5.1	-
ELECTRICITY							
NATIONAL INTERCONNECTED SYSTEM	64,638	62,446	3.5	68,620	64,249	6.8	100.0
SOUTHEAST/MIDWEST POWER LOAD (MWavg)	36,357	35,925	1.2	39,465	37,018	6.6	57.5
SOUTH POWER LOAD (MWavg)	11,488	11,002	4.4	12,192	11,442	6.6	17.8
NORTHEAST POWER LOAD (MWavg)	10,854	9,985	8.7	11,099	10,378	6.9	16.2
NORTH POWER LOAD (MWavg)	5,939	5,534	7.3	5,863	5,412	8.3	8.5
TOTAL CONSUMPTION (TWh) (**)	40.0	37.7	5.9	289.6	269.3	7.5	100.0
RESIDENTIAL	11.7	11.7	-0.4	88.5	84.9	4.2	30.5
INDUSTRIAL	15.3	13.9	10.1	105.1	92.1	14.1	36.3
COMMERCIAL	6.5	5.9	9.8	49.9	47.6	4.8	17.2
OTHER SECTORS	6.5	6.2	4.8	46.1	44.6	3.4	15.9
PLANTS ENTRY INTO OPERATING (MW)	480	92	424.2	2,332	3,146	-25.9	-
RESIDENTIAL PRICE (R\$/MWh)	883	745	18.6	811	738	9.9	-
COMMERCIAL PRICE (R\$/MWh)	800	670	19.5	736	670	9.9	-
INDUSTRIAL PRICE (R\$/MWh)	760	638	19.1	702	644	8.9	-
ETHANOL AND BIODIESEL							
BIODIESEL PRODUCTION (10 ³ b/d)	110	122	-10.2	115	106	8.6	-
MOTOR ETHANOL CONSUMPTION (10 ³ b/d)	470	470	0.0	484	464	4.4	-
ETHANOL EXPORTS (10 ³ b/d)	42	62	-32.3	36	33	7.9	-
HYDRATED ETHANOL PRICE (R\$/I)	4.32	2.74	57.6	3.93	2.91	34.8	-
COAL							
ELECTRICITY GENERATION (MWavg)	2,087	682	206.1	1,688	1,019	65.7	-
IMPORT PRICE (US\$ FOB/t)	112.0	83.3	34.4	94.2	95.9	-1.8	-
NUCLEAR ENERGY							
ELECTRICITY GENERATION - (GWh)	789	470	67.9	7,550	7,737	-2.4	-
INDUSTRIAL SECTORS							
STEEL PRODUCTION (10 ³ t/day)	97	83	17.0	99	80	23.6	-
ALUMINIUM PRODUCTION (10 ³ t/day)	2.1	1.8	18.5	2.1	1.8	19.6	-
IRON ORE EXPORTS (10 ³ t/day)	961	1,043	-7.8	888	798	11.3	-
PELLETS EXPORTS (10 ³ t/day)	57	54	6.9	48	43	12.8	-
PAPER PRODUCTION (10 ³ t/day)	29.1	27.0	7.6	29.2	27.5	6.2	-
PULP PRODUCTION (10 ³ t/day)	61.9	58.7	5.4	61.5	56.7	8.5	-
SUGAR PRODUCTION (10 ³ t/daY)	197	213	-7.5	92	97	-5.1	-
SUGAR EXPORTS (10 ³ t/day)	80	112	-29.1	72	71	0.7	-
(*) SP is the acronym of the state of São Paulo. (**) The traditi	ional self-pro	ducers (cor	sumers that	do not use p	ublic grid) is	s not included	Ι.



NATURAL GAS TOTAL DEMAND (million m³/d)



C GASOLINE CONSUMPTION (10³ bbl/d) 800 2020 2019 2018 2021 700 600 500 Includes gasoline A and anhydrous ethanol. 400 FEB APR JUN JUL AUG SEP NOV DEC JAN MAR MAY OCT



MOTOR ETHANOL TOTAL CONSUMPTION (10³ bbl/d)





NATURAL GAS PRODUCTION (million m³/d) 145 2021 2019 130 2020 115 2018 100 JAN APR MAY JUN JUL AUG SEP OCT DEC FEB MAR NOV





CEMENT SALES (10³ t/d)







IND

IND

GREEN

IND

IMP

NAT FUEL ELECT COAL GASOL ETH OIL ELECT LPG NAT PET GAS GAS OIL COKE Note: For a better visualization, the minimum scale of the graphs was raised to the level close to the lowest value of the curves.

HYD

VNG

DIESEL

IMP

RES

RES

RES

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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