

# India electricity generation and coal production

## Selected indicators

**JOHN KEMP**

**REUTERS**

27 September 2022

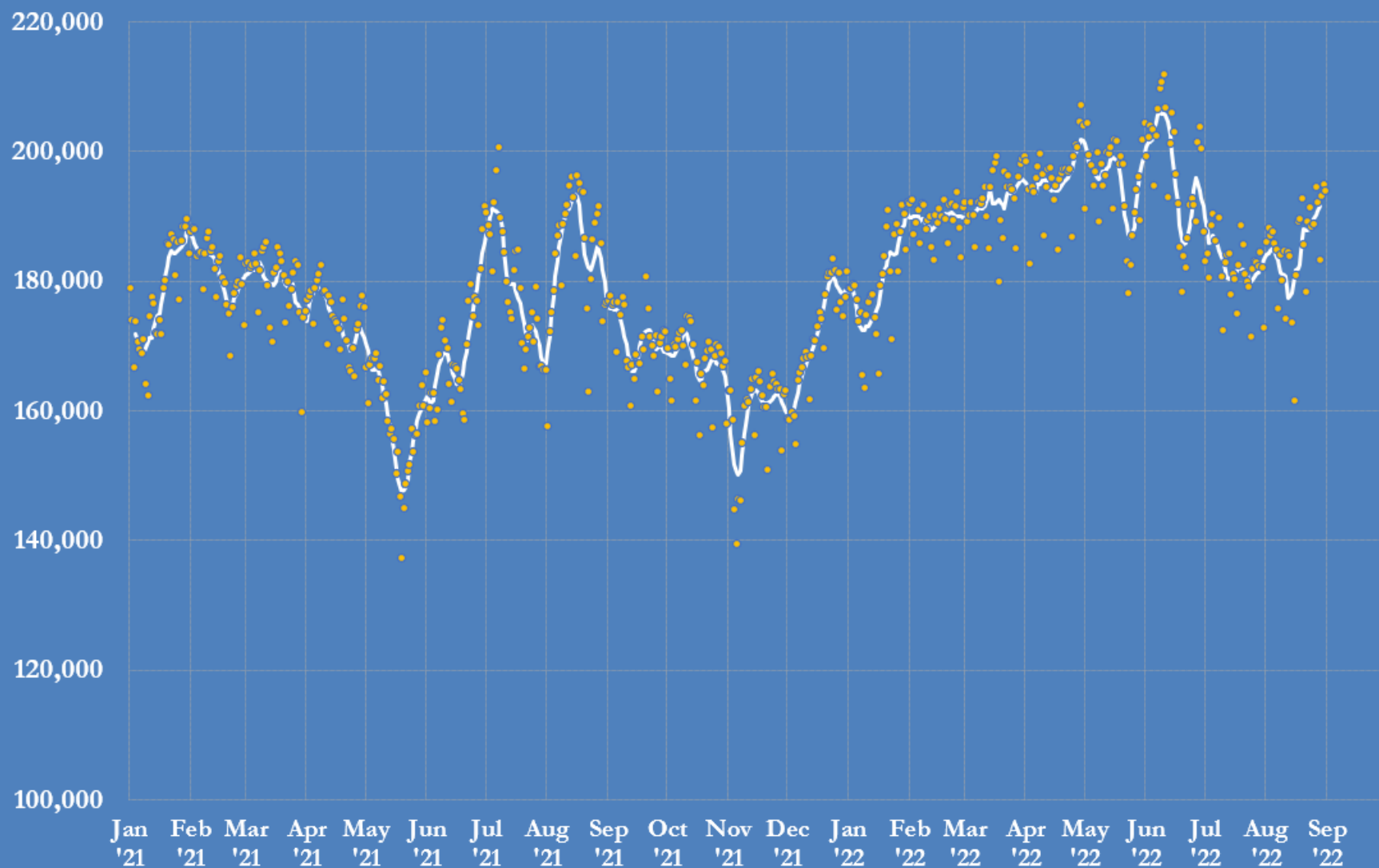
India electricity summary		Jun 2021	Jul 2021	Aug 2021	Jun 2022	Jul 2022	Aug 2022
Peak demand (met)	MW	191,514	200,570	196,246	211,856	190,386	194,948
Average frequency	Hz	50.00	50.01	50.00	49.99	50.00	50.00
Time below target (<49.90)	%	6.1	5.4	7.7	12.5	7.8	8.8
Total demand (met)	million kWh	115,397	125,505	129,516	134,135	128,389	130,354
Hydro	million kWh	17,524	20,528	22,230	15,222	21,064	24,725
Wind	million kWh	9,191	10,815	8,831	9,521	10,079	8,763
Solar	million kWh	5,398	4,887	5,296	7,805	6,449	6,989
Other	million kWh	83,284	89,275	93,159	101,587	90,797	89,877
Total demand met by all	%	100.0	100.0	100.0	100.0	100.0	100.0
Hydro	%	15.2	16.4	17.2	11.3	16.4	19.0
Wind	%	8.0	8.6	6.8	7.1	7.9	6.7
Solar	%	4.7	3.9	4.1	5.8	5.0	5.4
Other	%	72.2	71.1	71.9	75.7	70.7	68.9
Total installed capacity	MW	384,116	386,888	388,134	403,760	404,133	405,773
Coal	MW	202,005	202,805	202,205	204,080	204,080	204,080
Lignite	MW	6,620	6,620	6,620	6,620	6,620	6,620
Gas	MW	24,924	24,924	24,924	24,856	24,856	24,856
Diesel	MW	510	510	510	510	510	510
Nuclear	MW	6,780	6,780	6,780	6,780	6,780	6,780
Hydro	MW	46,322	46,367	46,412	46,850	46,850	46,850
Renewables	MW	96,956	98,883	100,683	114,064	114,437	116,078

Source: National Load Despatch Centre, Power System Operation Corporation of India

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## India daily peak electricity demand met, 2021/22

megawatts, daily and seven-day centred average



Source: National Load Despatch Centre, Power System Operation Corporation

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## India evening peak electricity demand met, 2021/22 megawatts, daily and seven-day centred average

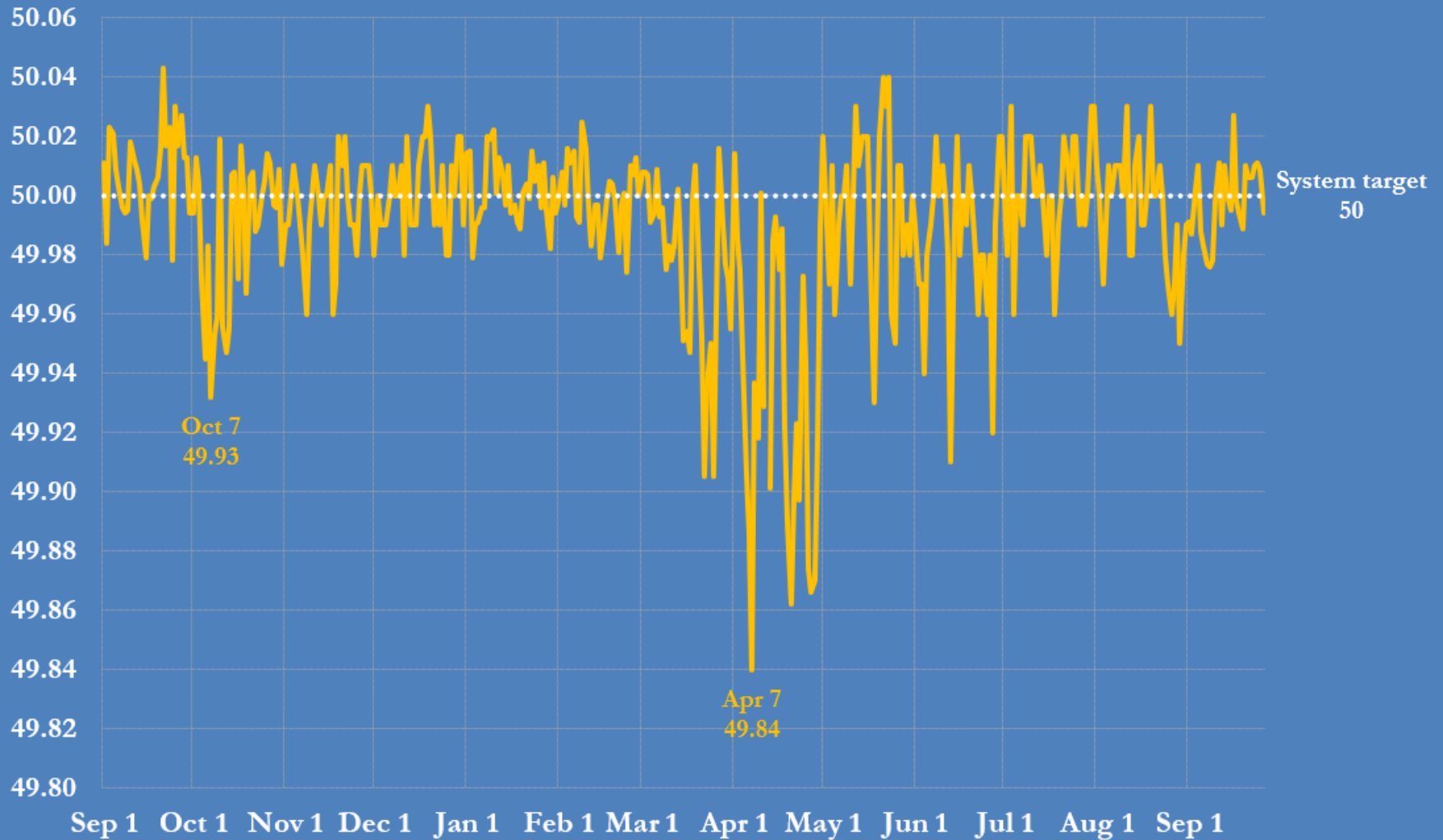


Source: National Load Despatch Centre, Power System Operation Corporation

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# India power grid frequency, 2021/22

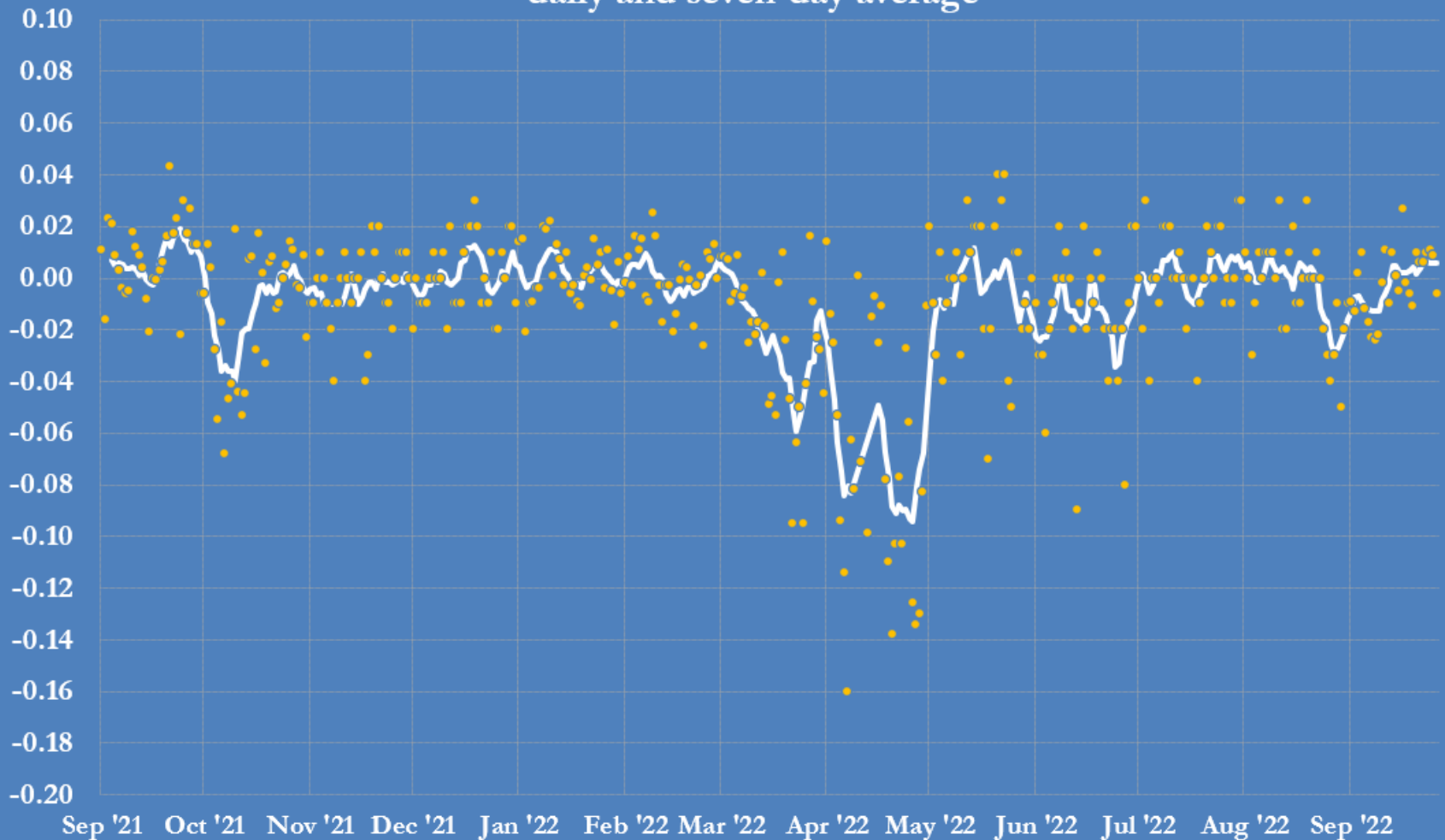
## daily average, cycles per second (Hz)



Source: National Load Despatch Centre, Power System Operation Corporation of India  
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# India power grid frequency, 2021/22

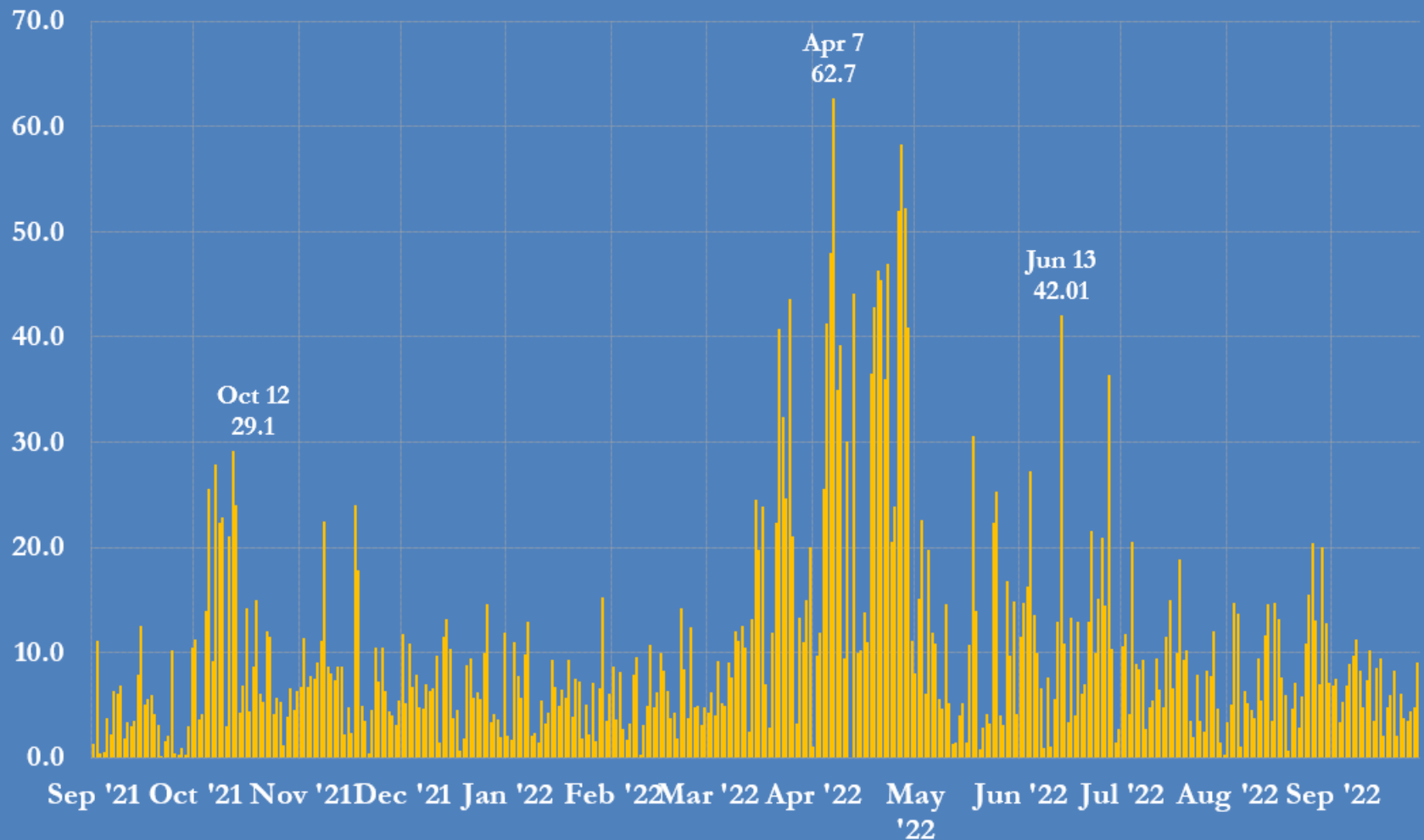
deviation from target (50) in cycles per second (Hz)  
daily and seven-day average



Source: National Load Despatch Centre, Power System Operation Corporation of India  
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# India power grid frequency, 2021/22

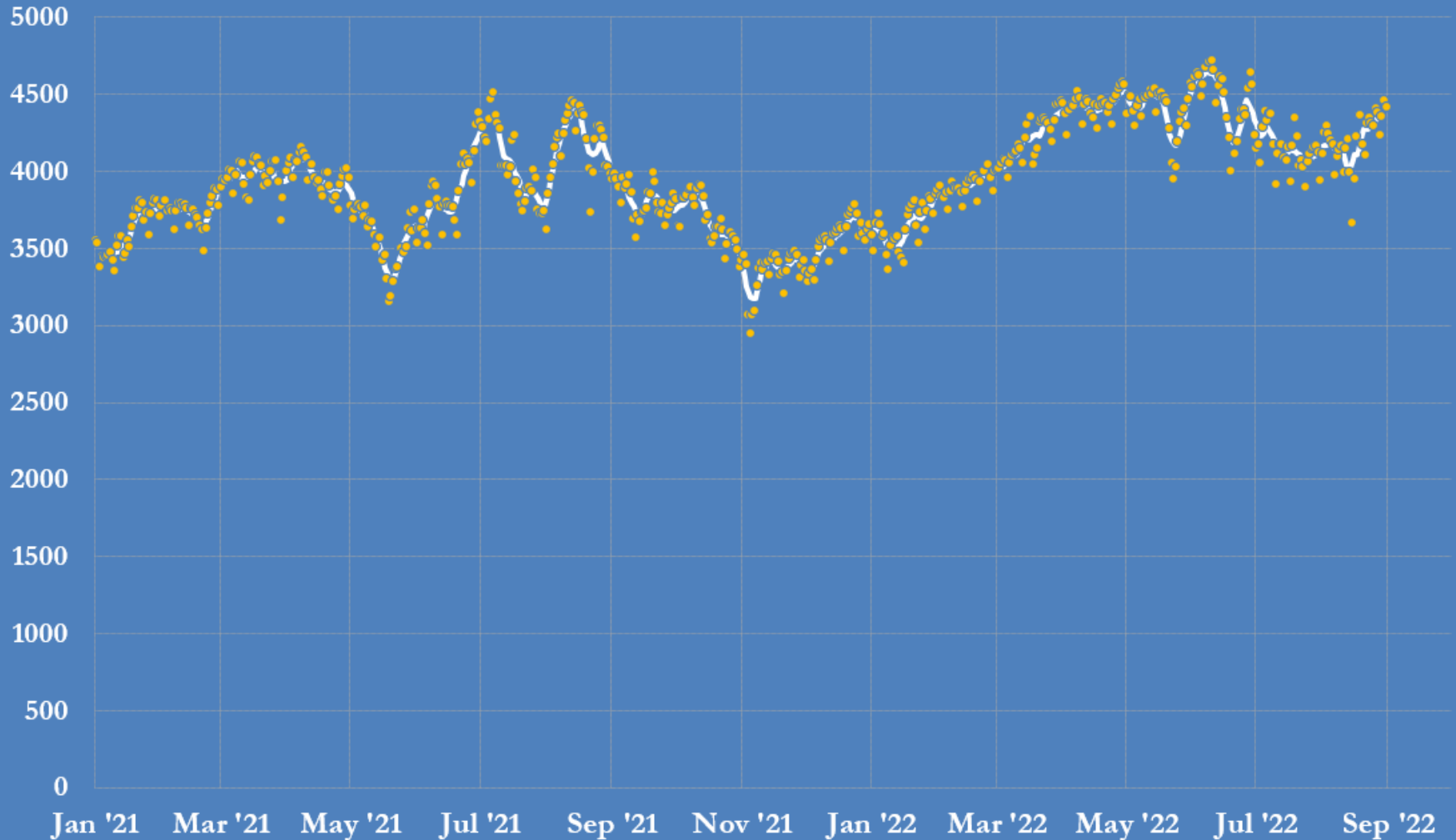
## daily, percent of day spent below minimum target of 49.9 Hz



Source: National Load Despatch Centre, Power System Operation Corporation of India  
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## India electricity grid - energy demand met, 2021/22

million kilowatt-hours, daily and seven-day centred average



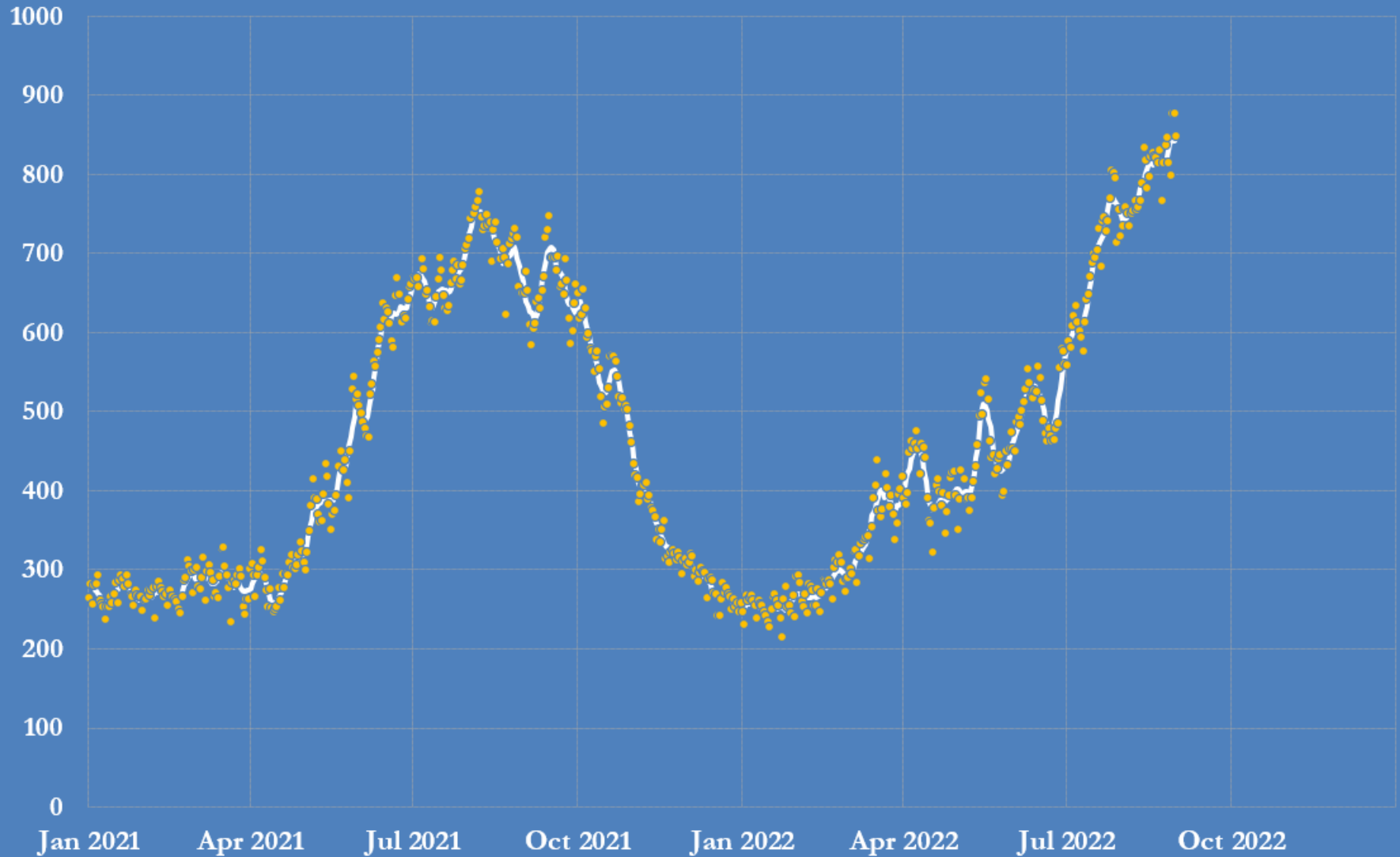
Source: National Load Despatch Centre, Power System Operation Corporation

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# India hydroelectric generation, 2021-2022

million kilowatt-hours, daily and seven-day centred average

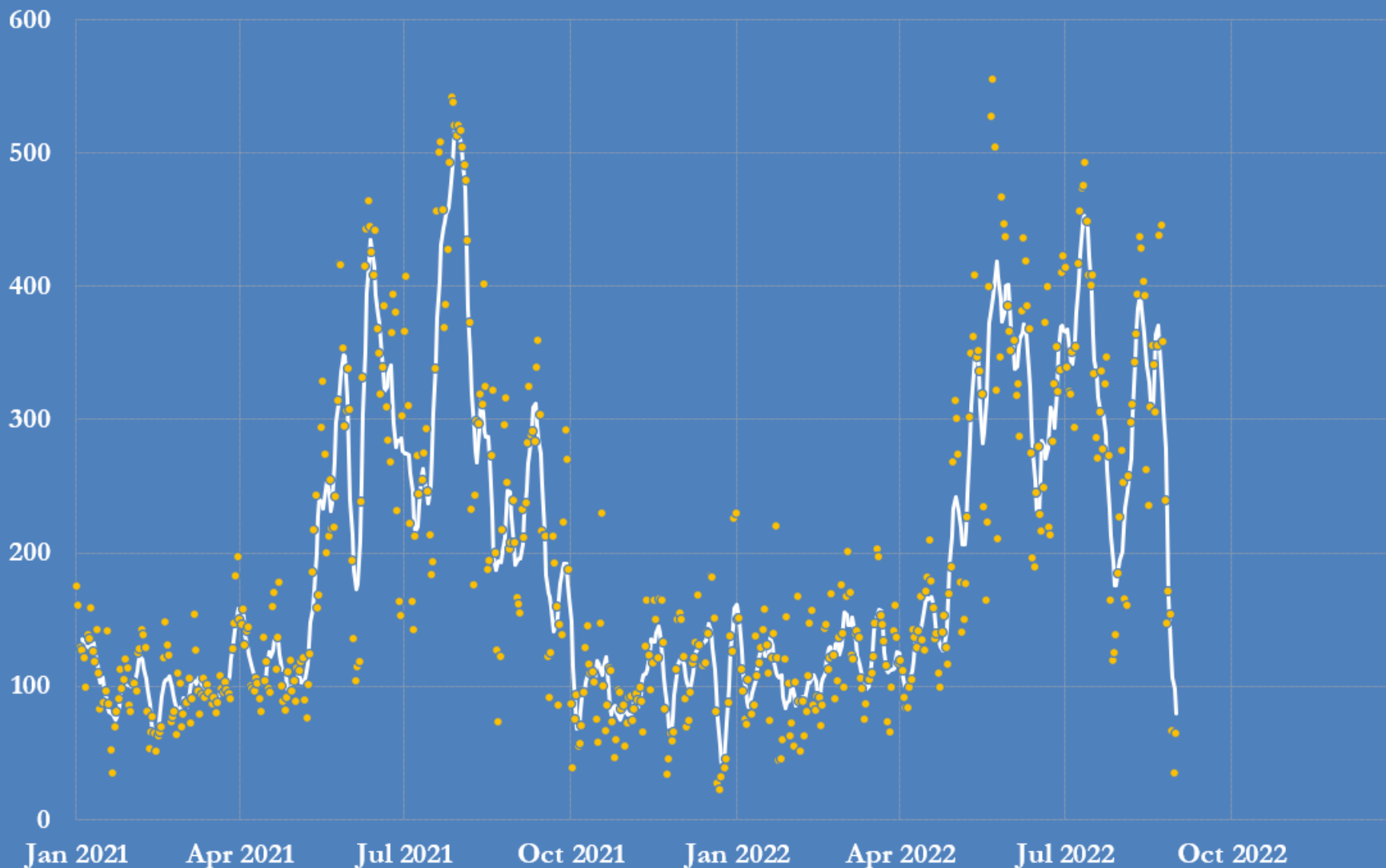


Source: Power System Operation Corporation of India

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# India wind turbine generation, 2021-2022

million kilowatt-hours, daily and seven-day centred average

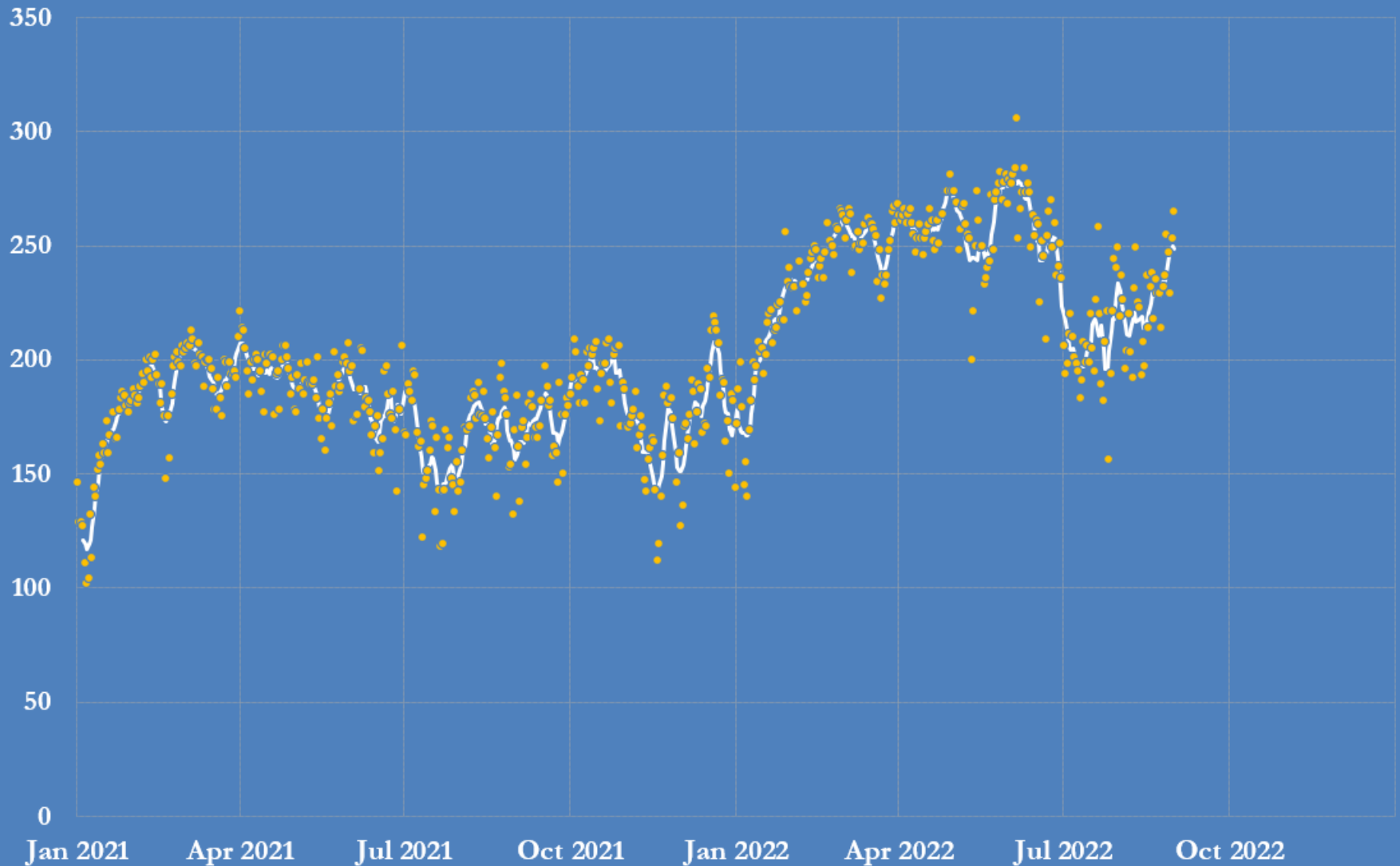


Source: Power System Operation Corporation of India

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# India solar generation, 2021-2022

million kilowatt-hours, daily and seven-day centred average

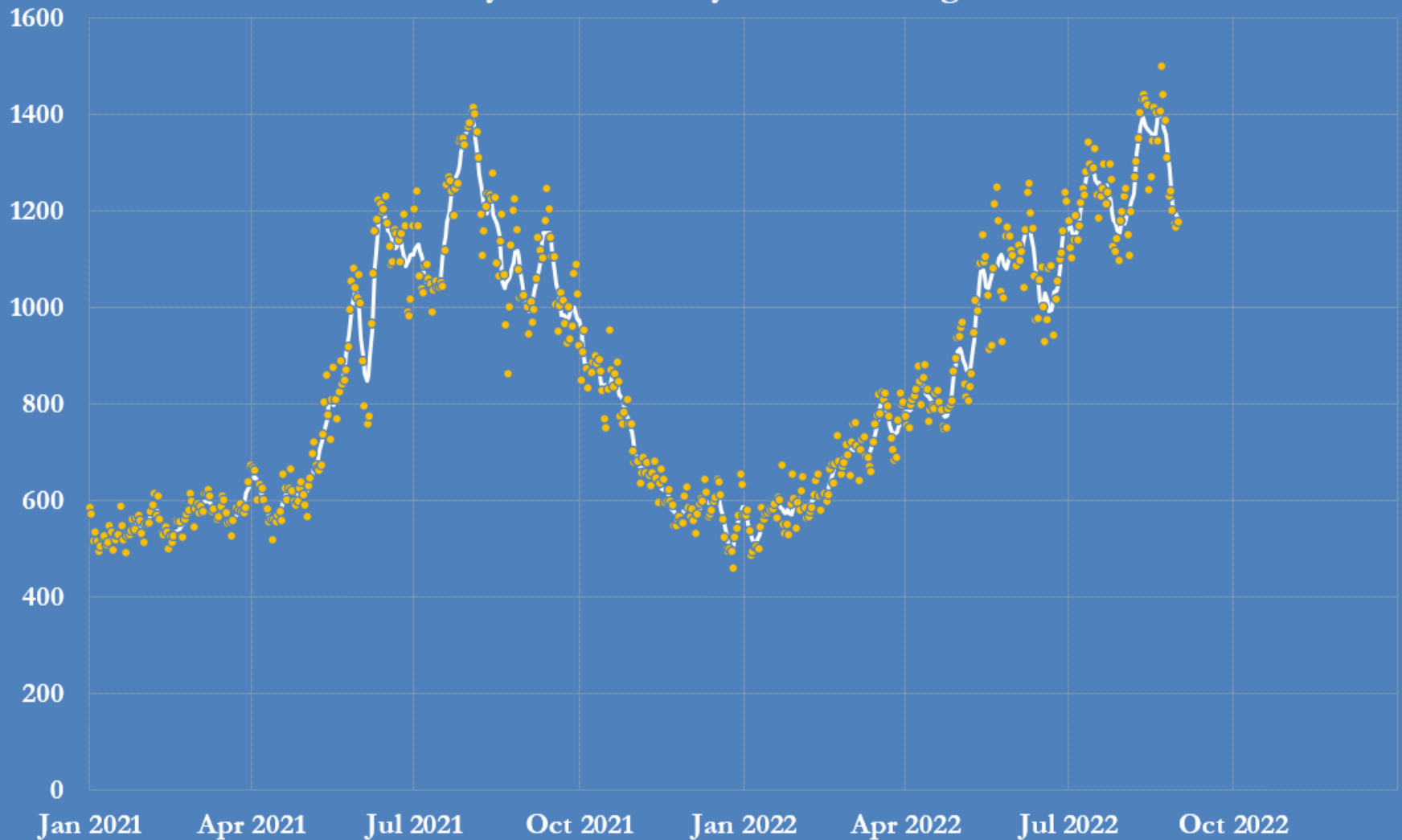


Source: Power System Operation Corporation of India

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# India renewables generation, 2021-2022

million kilowatt-hours, hydro plus wind plus solar  
daily and seven-day centred average

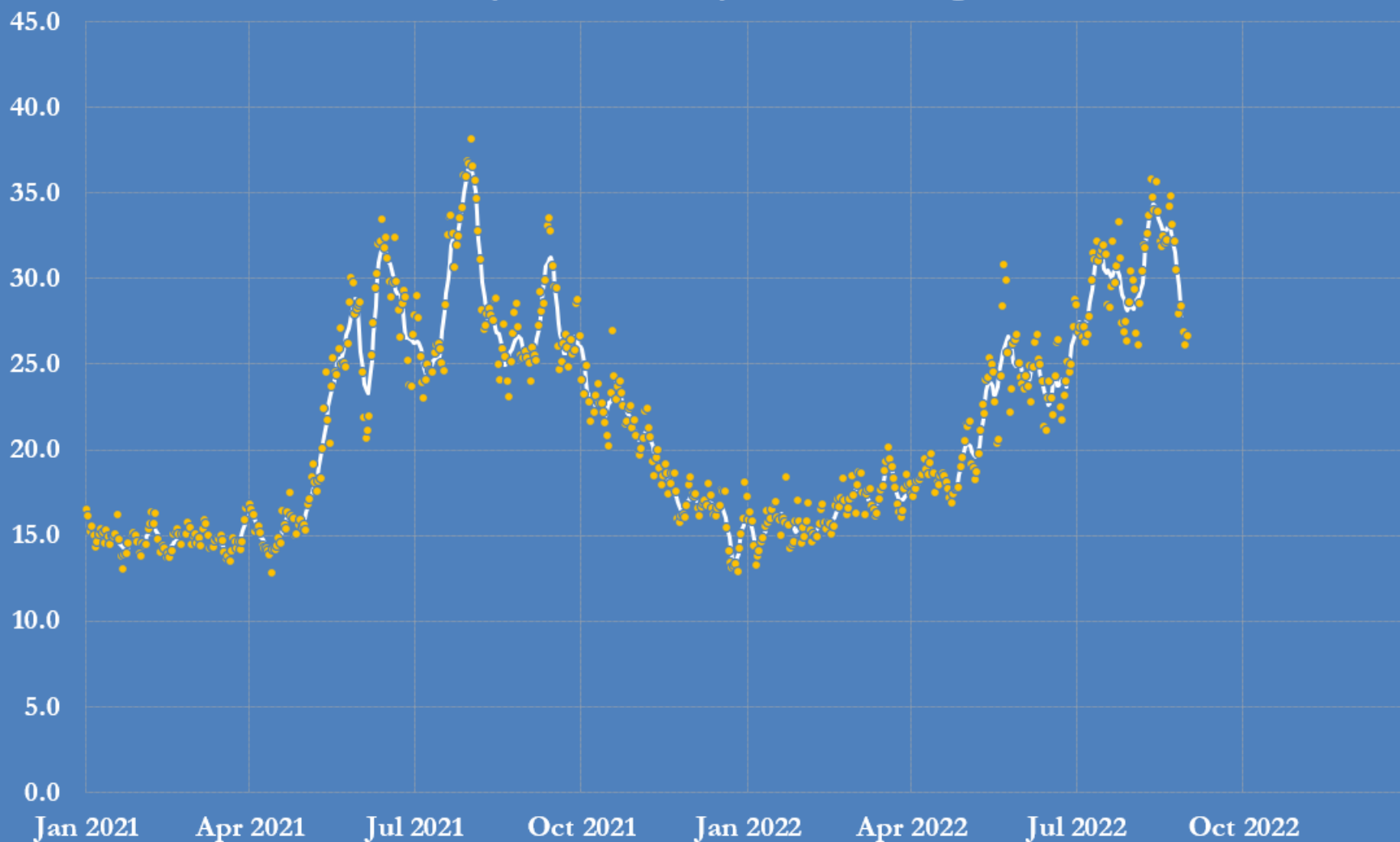


Source: Power System Operation Corporation of India

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# India renewables generation, 2021-2022

percent of all demand met by hydro plus wind plus solar  
daily and seven-day centred average

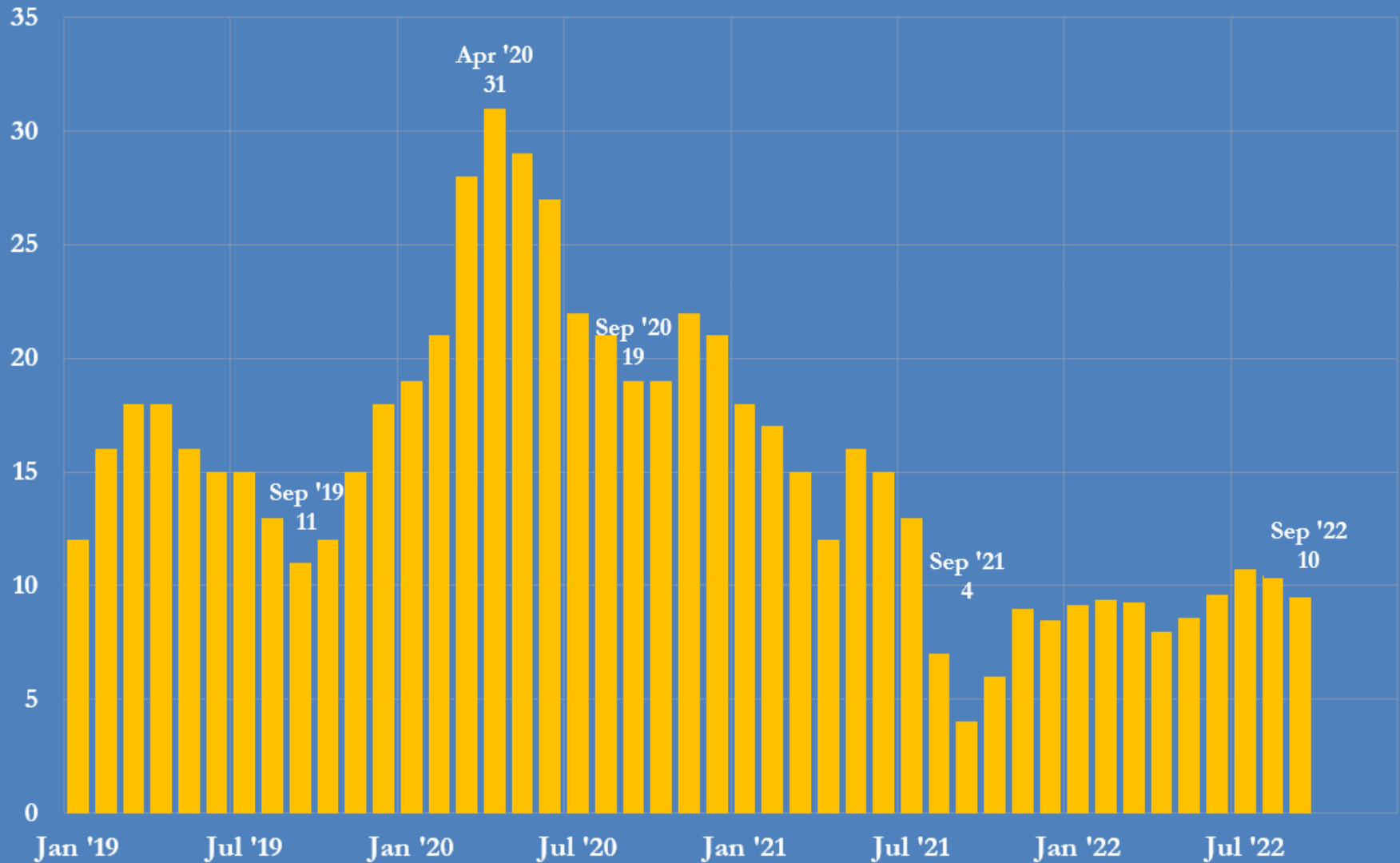


Source: Power System Operation Corporation of India

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# India coal stocks at power plants, 2019-2022

stocks in days of consumption, month-end except most recent month

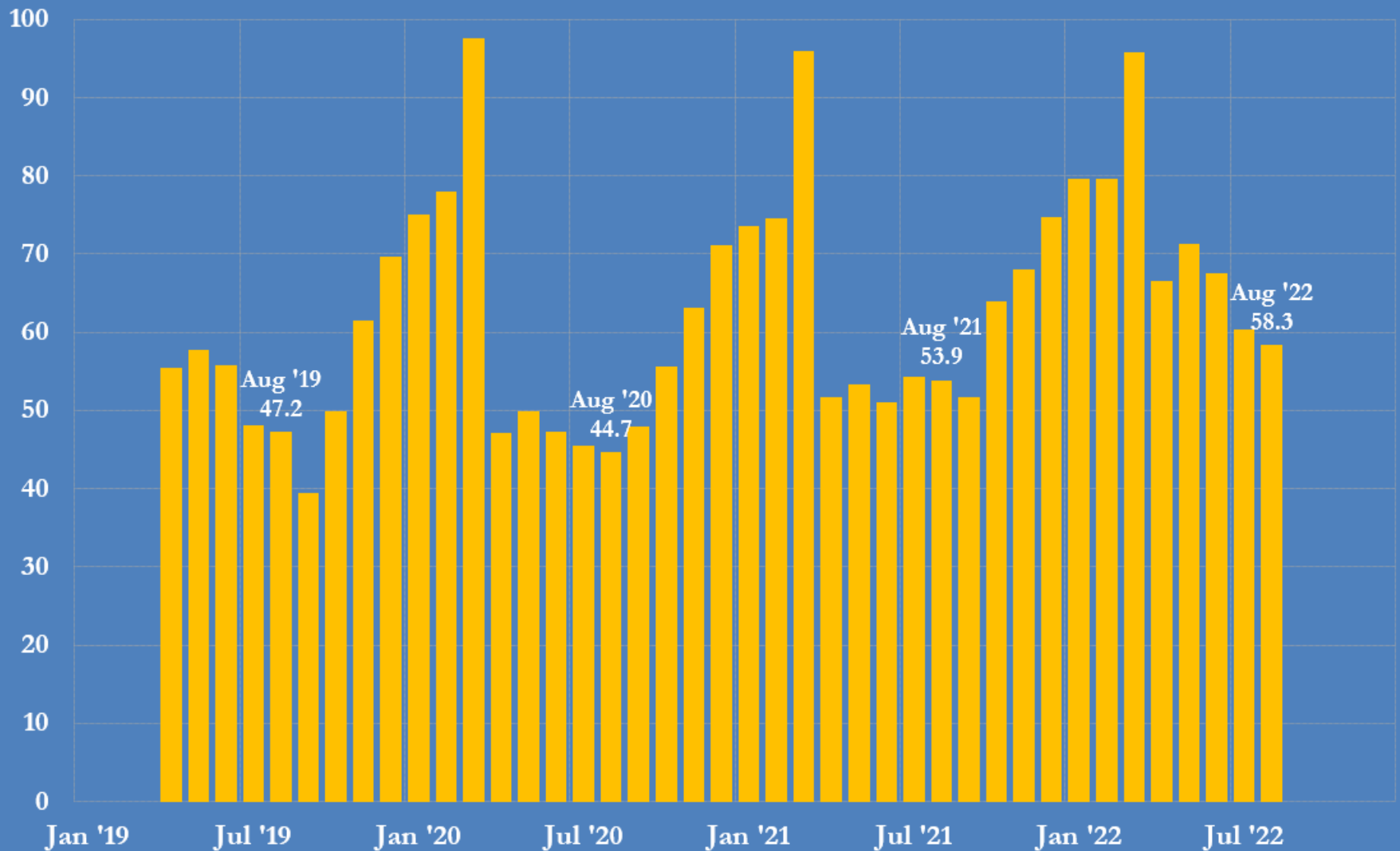


Source: India Central Electricity Authority / National Power Portal

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## India coal production, 2019-2022

monthly, million tonnes

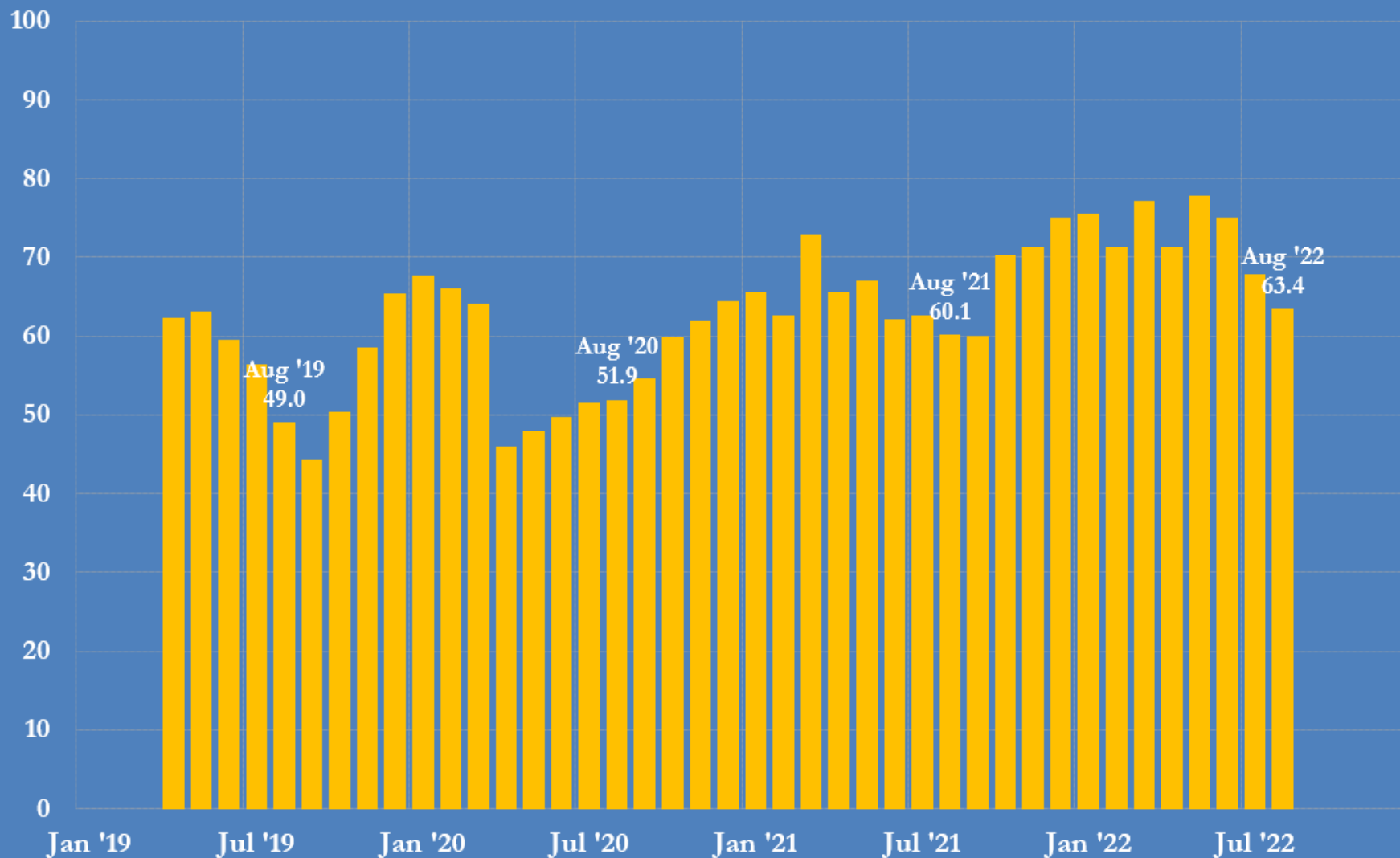


Source: Ministry of Coal, Government of India

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# India coal despatch, 2019-2022

monthly, million tonnes



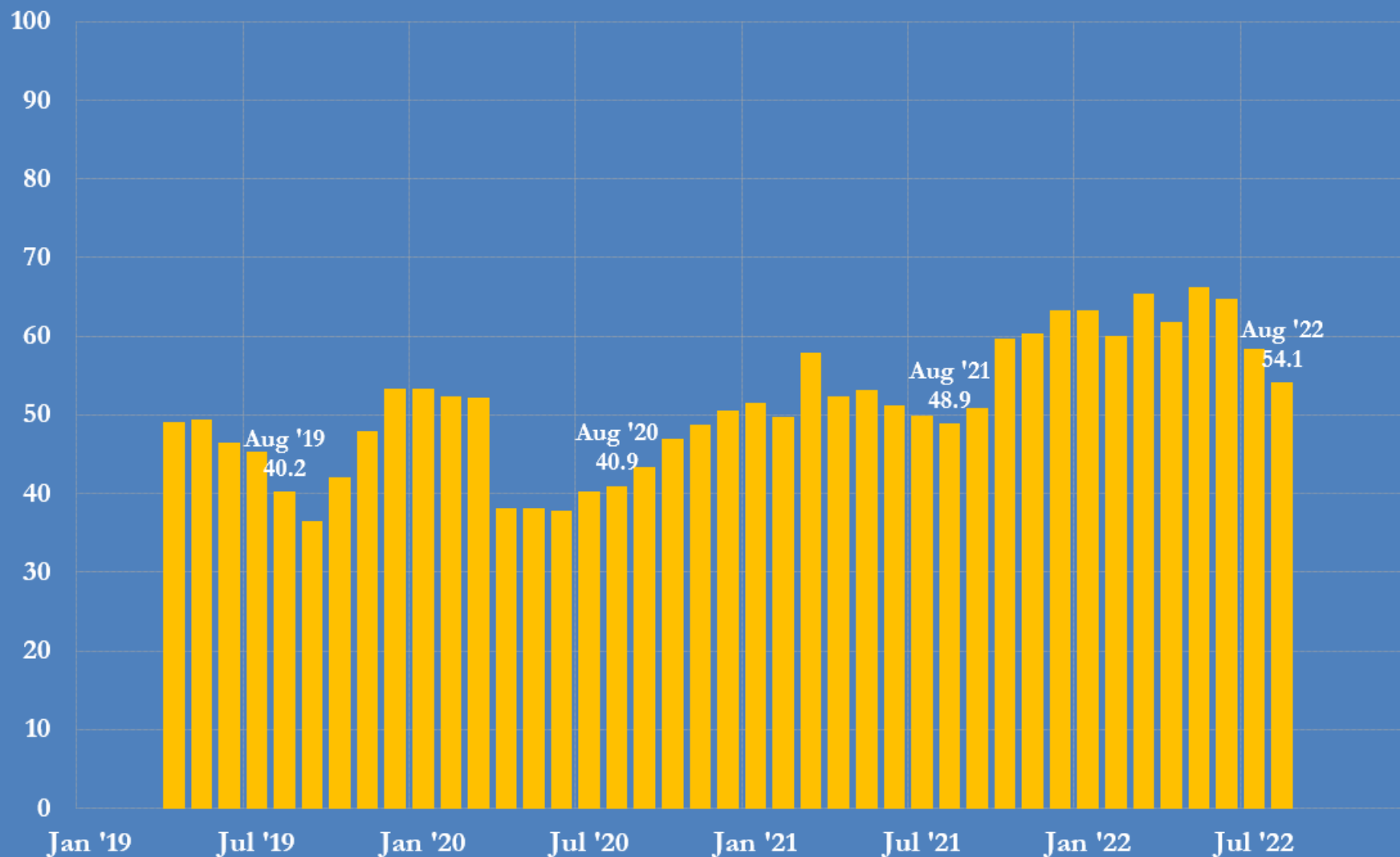
Source: Ministry of Coal, Government of India

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## India coal despatched to power producers, 2019-2022

monthly, million tonnes

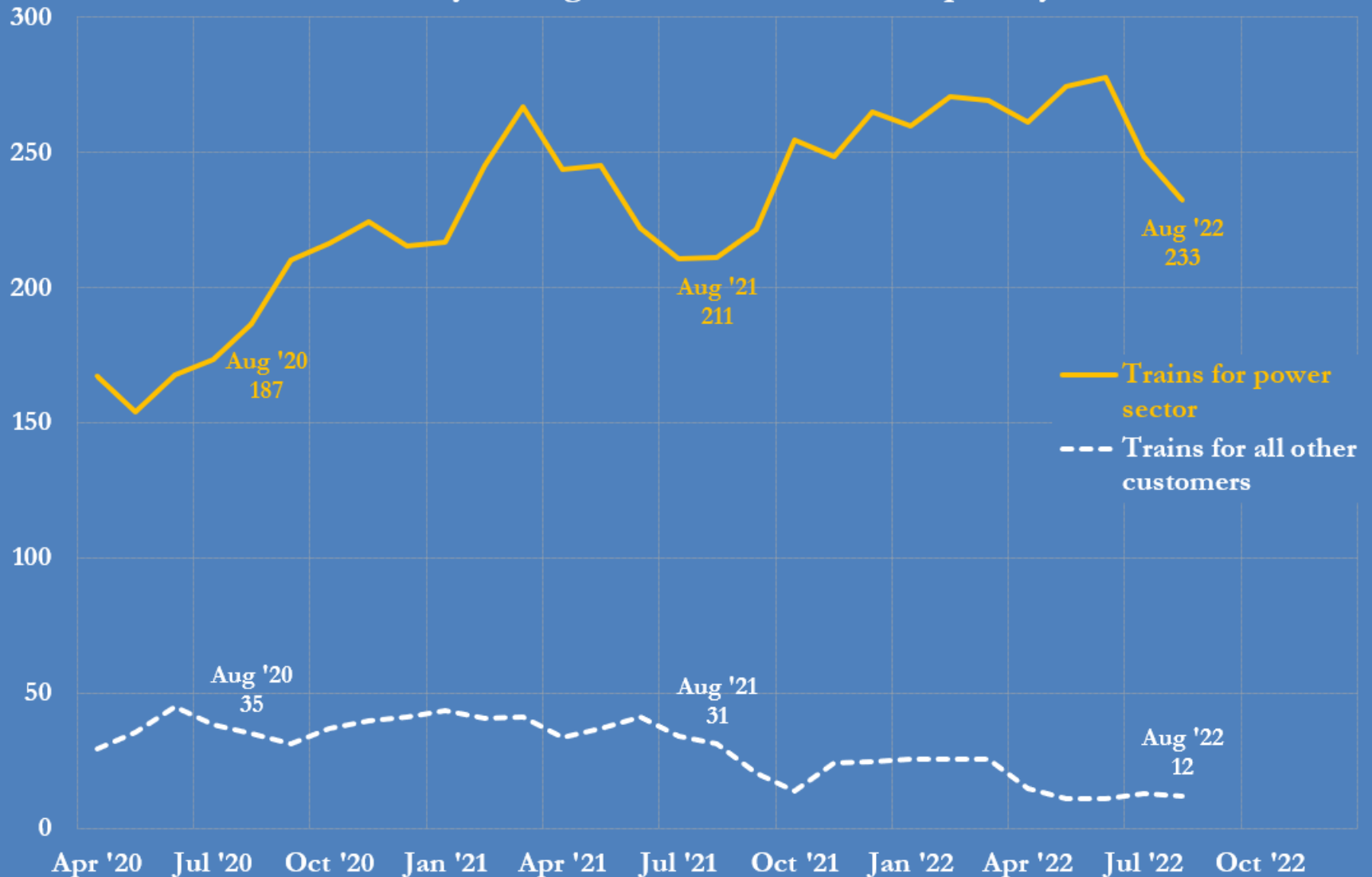


Source: Ministry of Coal, Government of India

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## India daily coal trains, 2020-2022

monthly, average number of coal trains per day

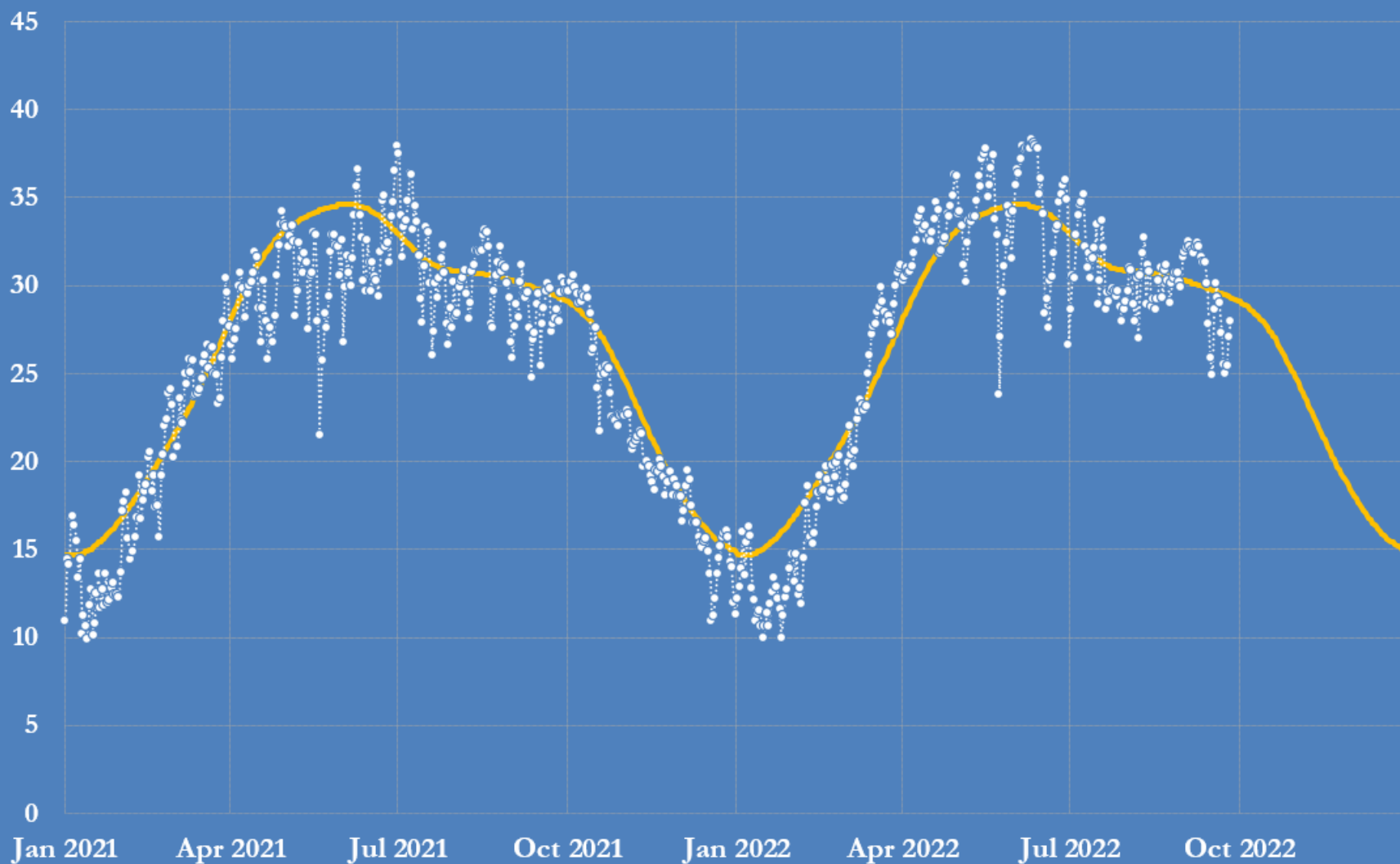


Source: Ministry of Coal, Government of India

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# New Delhi (Palam) temperatures, 2021-2022

°C, daily average compared with long-term normal (1981-2010)

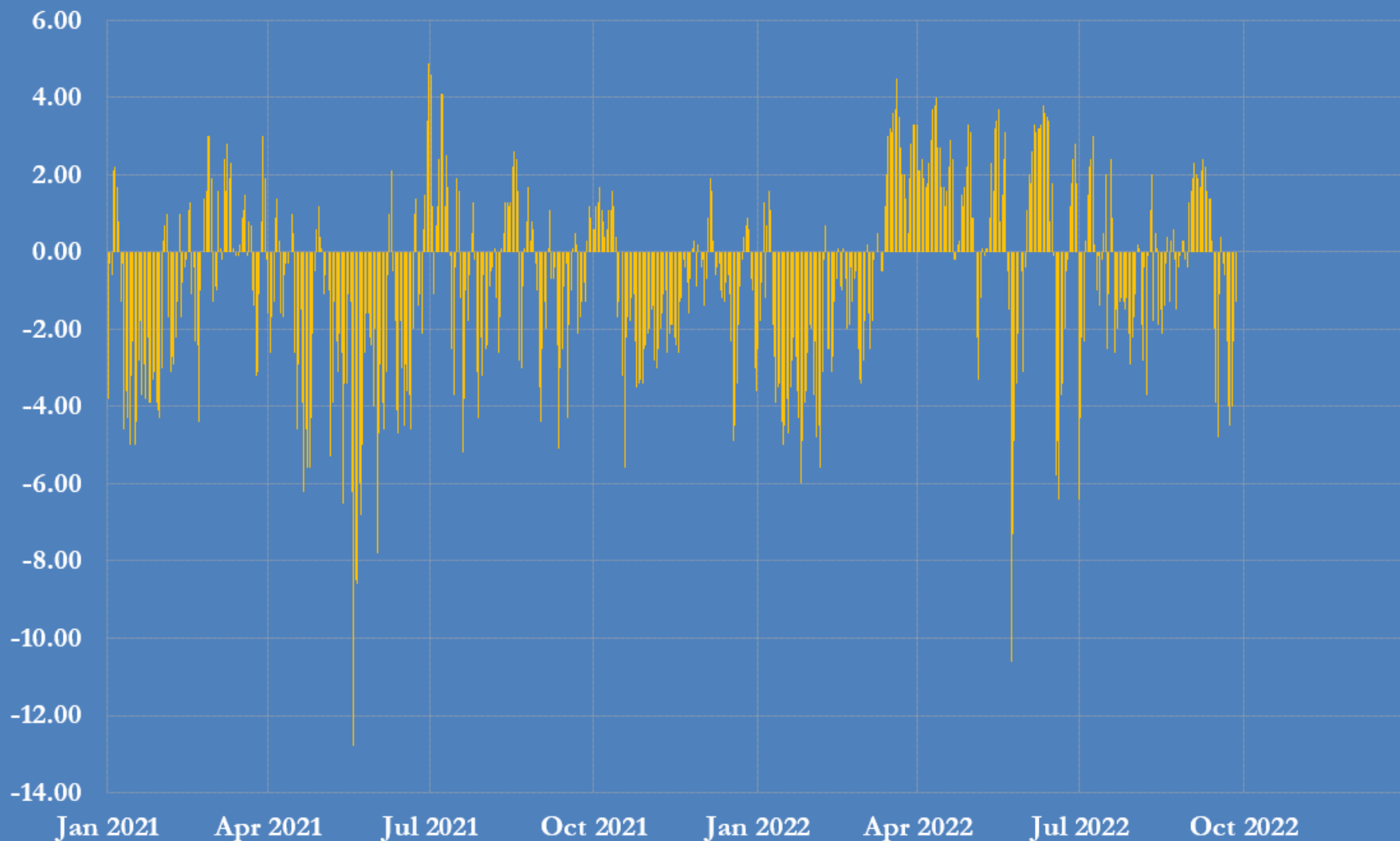


Source: U.S. Climate Assessment Database

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# New Delhi (Palam) temperatures, 2021-2022

°C, daily average, deviation from long-term normal (1981-2010)



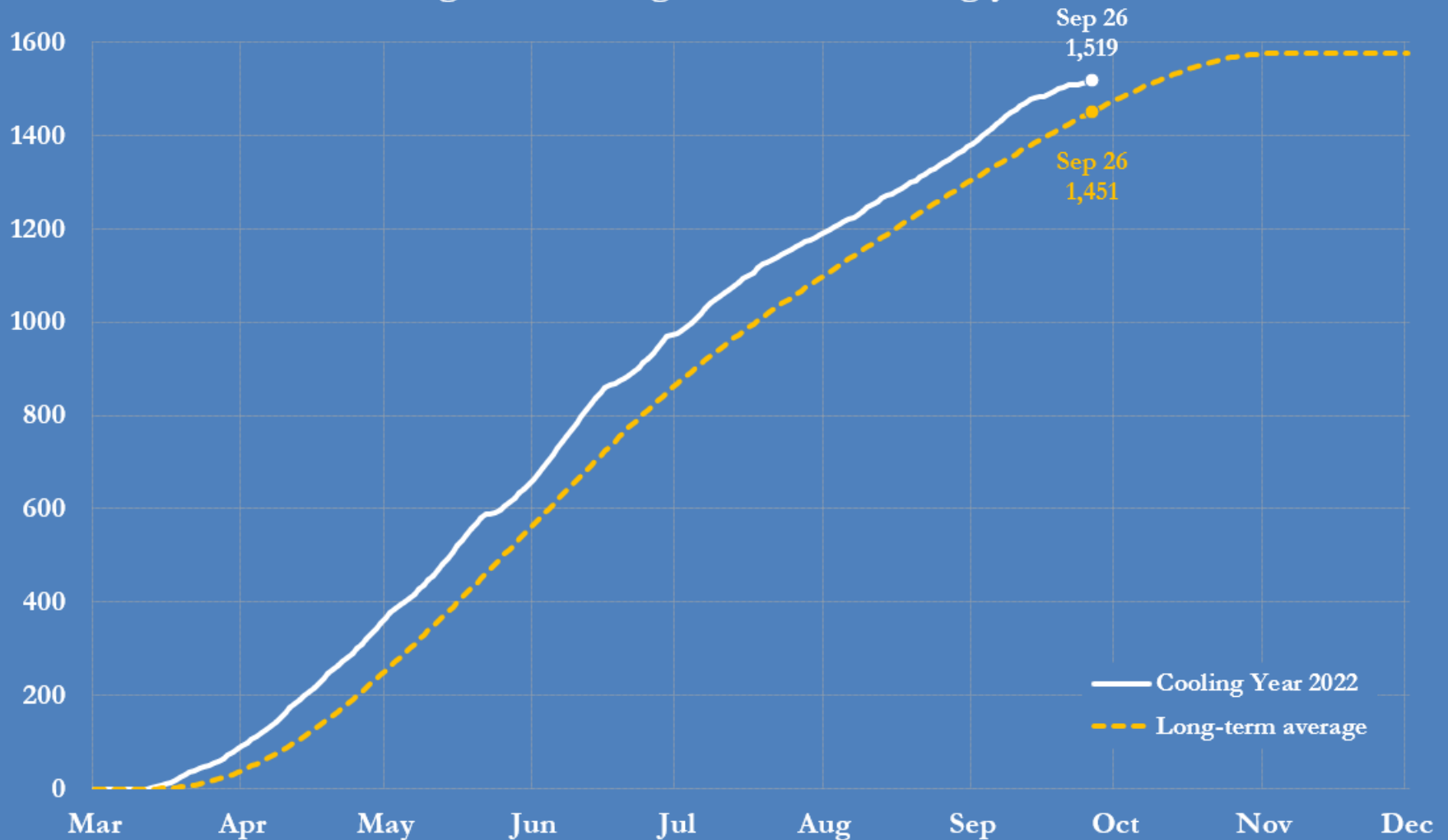
Source: U.S. Climate Assessment Database

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# India annual cooling demand, 2022

## New Delhi-Palam, cooling degree days, cumulative

### long-term average and 2022 cooling year



Source: U.S. Climate Assessment Database

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