

India power generation

Selected indicators

JOHN KEMP

REUTERS

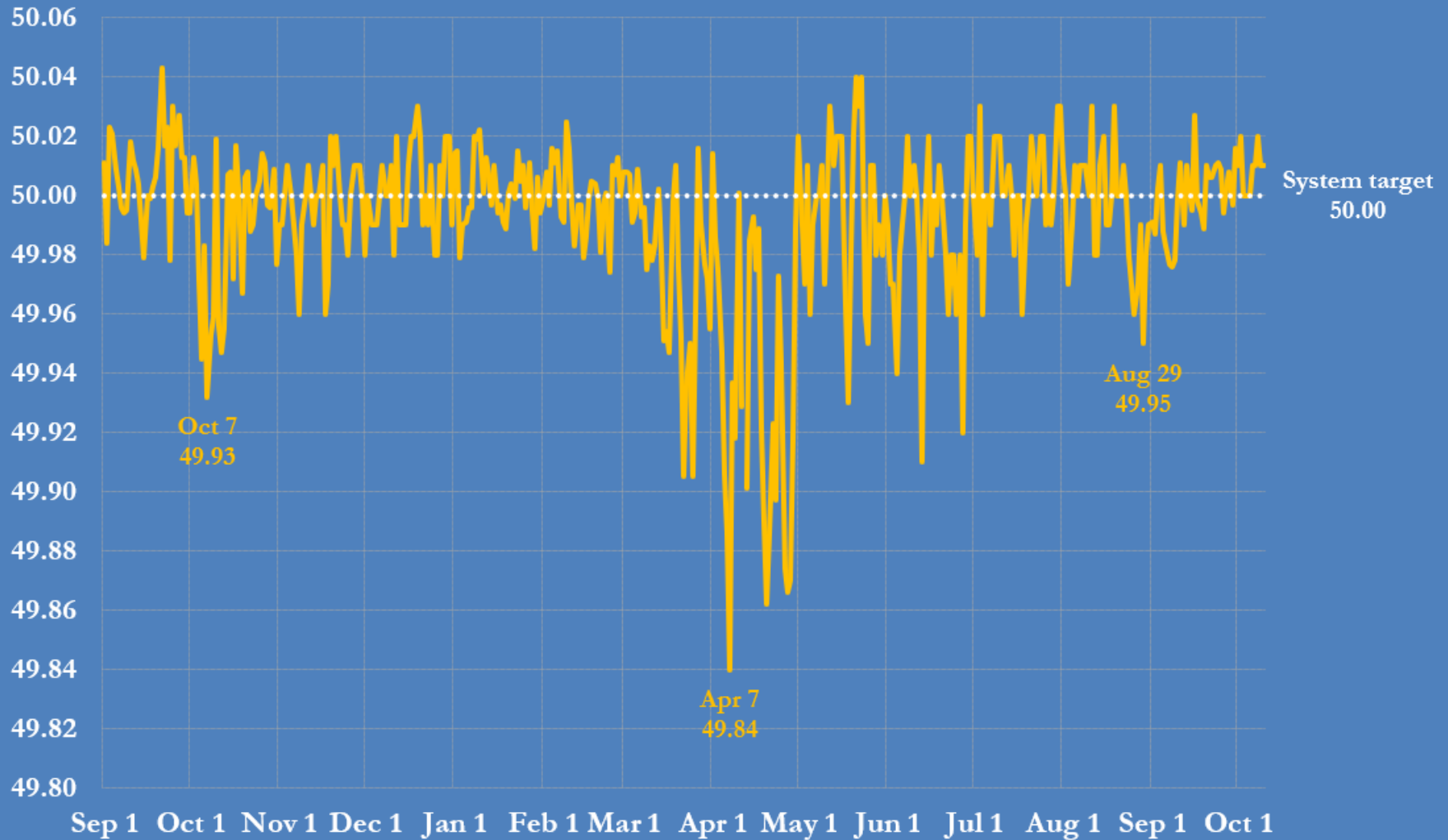
25 November 2022

India electricity summary		Aug 2021	Sep 2021	Oct 2021	Aug 2022	Sep 2022	Oct 2022
Peak demand (met)	MW	196,246	180,749	174,600	194,948	199,472	186,909
Average frequency	Hz	50.00	50.01	49.99	50.00	50.00	50.01
Time below target (<49.90)	%	7.7	4.2	11.1	8.8	5.9	4.9
Total demand (met)	million kWh	129,516	114,479	114,368	130,354	127,391	114,768
Hydro	million kWh	22,230	19,699	17,133	24,725	24,048	17,807
Wind	million kWh	8,831	6,514	2,860	8,763	6,444	3,205
Solar	million kWh	5,296	5,171	6,047	6,989	7,749	8,105
Other	million kWh	93,159	83,095	88,328	89,877	89,150	85,651
Total demand met by all	%	100.0	100.0	100.0	100.0	100.0	100.0
Hydro	%	17.2	17.2	15.0	19.0	18.9	15.5
Wind	%	6.8	5.7	2.5	6.7	5.1	2.8
Solar	%	4.1	4.5	5.3	5.4	6.1	7.1
Other	%	71.9	72.6	77.2	68.9	70.0	74.6
Total installed capacity	MW	388,134		390,791	405,773	407,797	408,715
Coal	MW	202,205	201,995	202,415	204,080	204,079	203,985
Lignite	MW	6,620	6,620	6,620	6,620	6,620	6,620
Gas	MW	24,924	24,900	24,900	24,856	24,824	24,824
Diesel	MW	510	510	510	510	562	562
Nuclear	MW	6,780	6,780	6,780	6,780	6,780	6,780
Hydro	MW	46,412	46,512	46,512	46,850	46,850	46,850
Renewables	MW	100,683	101,533	103,055	116,078	118,080	119,093

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

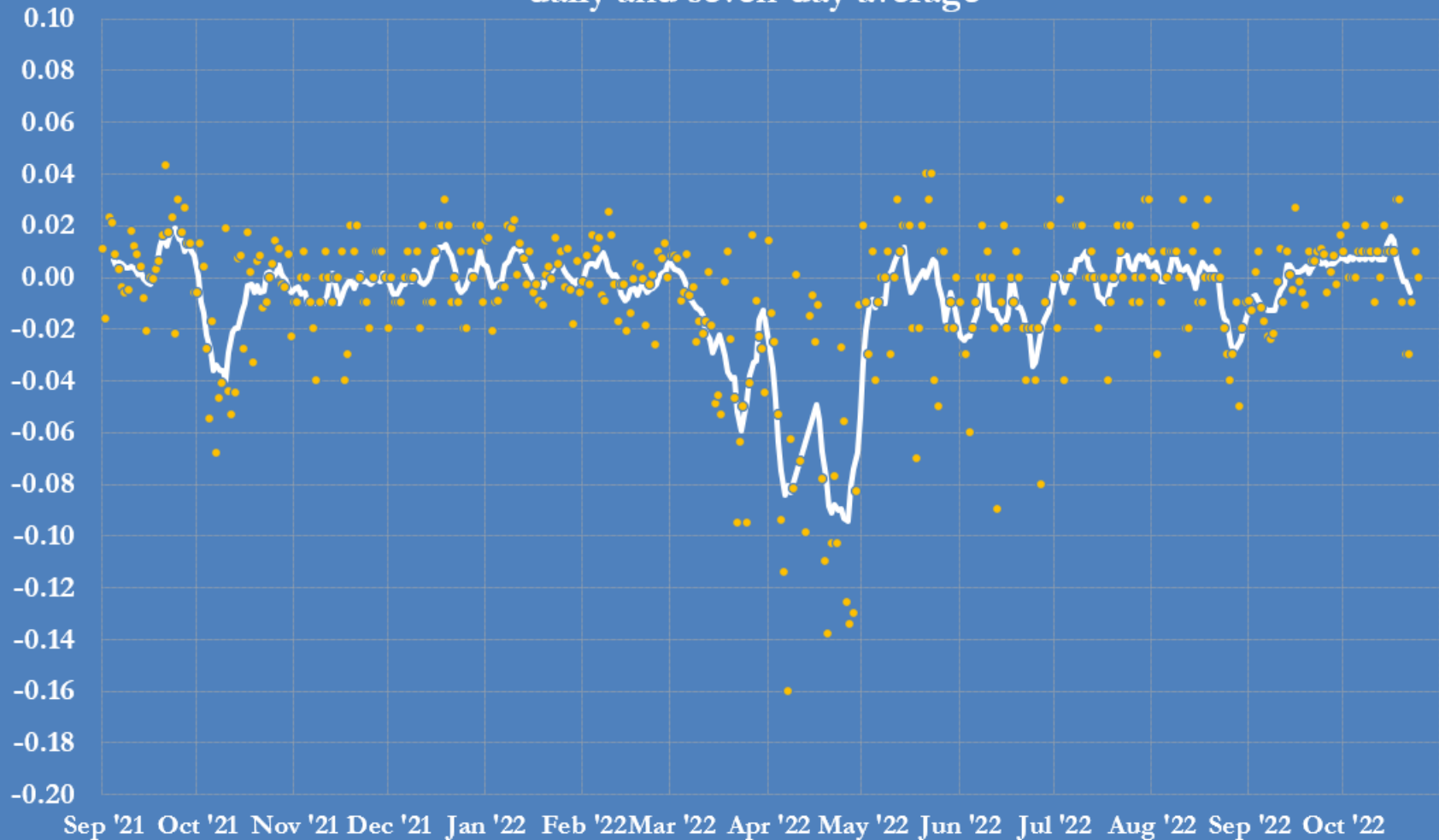
daily average, cycles per second (Hz)



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

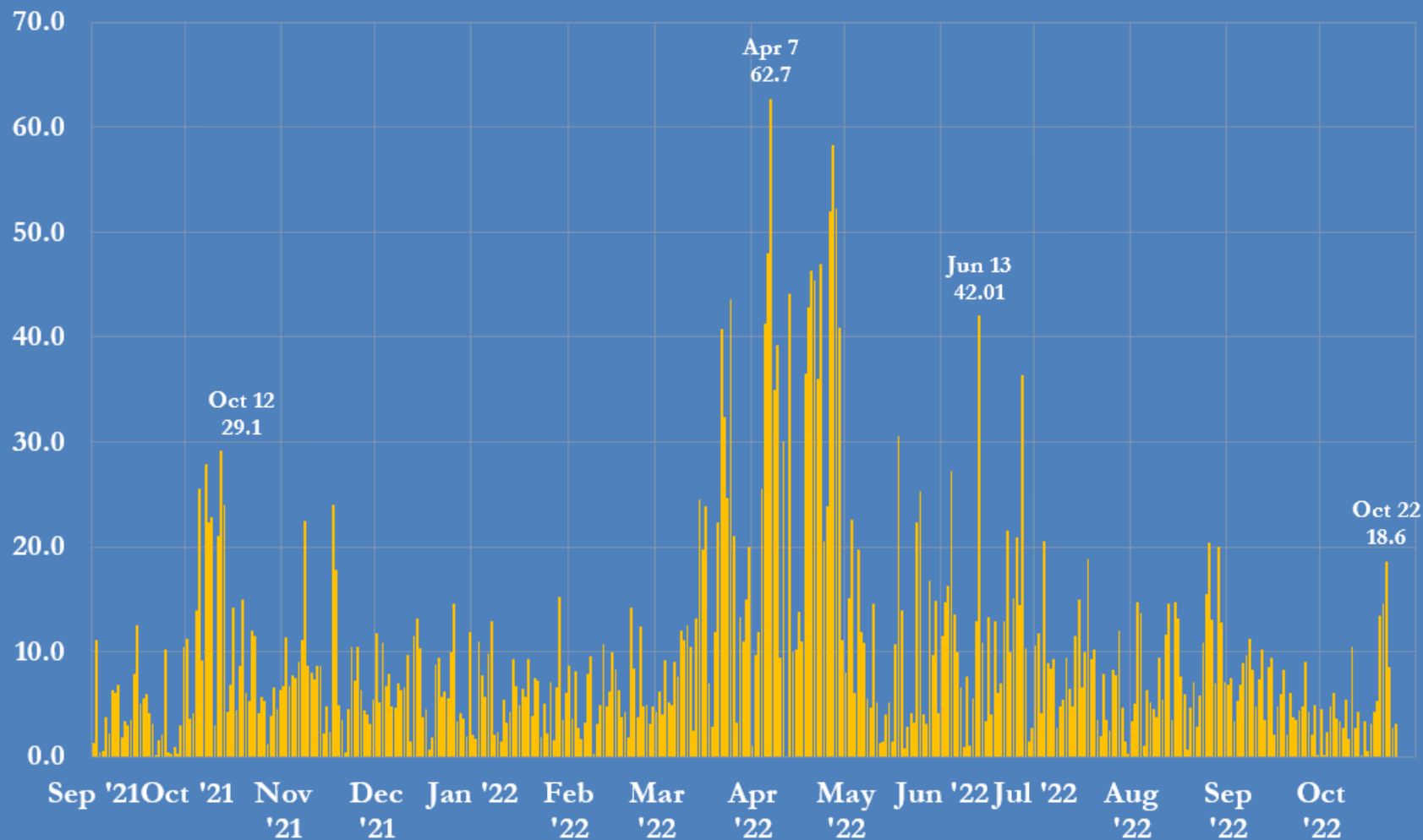
deviation from target (50) in cycles per second (Hz)
daily and seven-day average



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

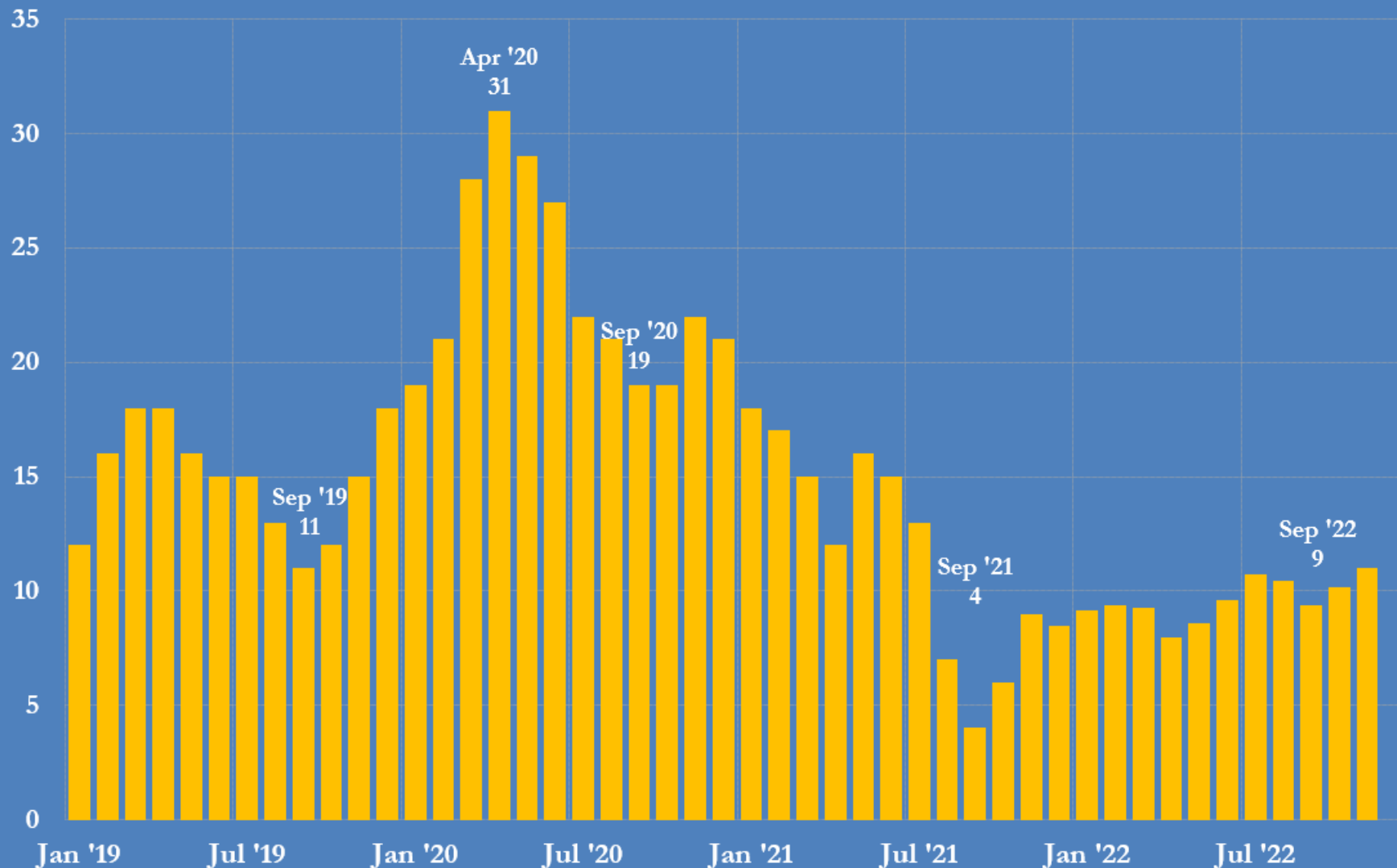
daily, percent of day spent below minimum target of 49.9 Hz



Source: National Load Despatch Centre, Power System Operation Corporation of India
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India coal stocks at power plants, 2019-2022

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

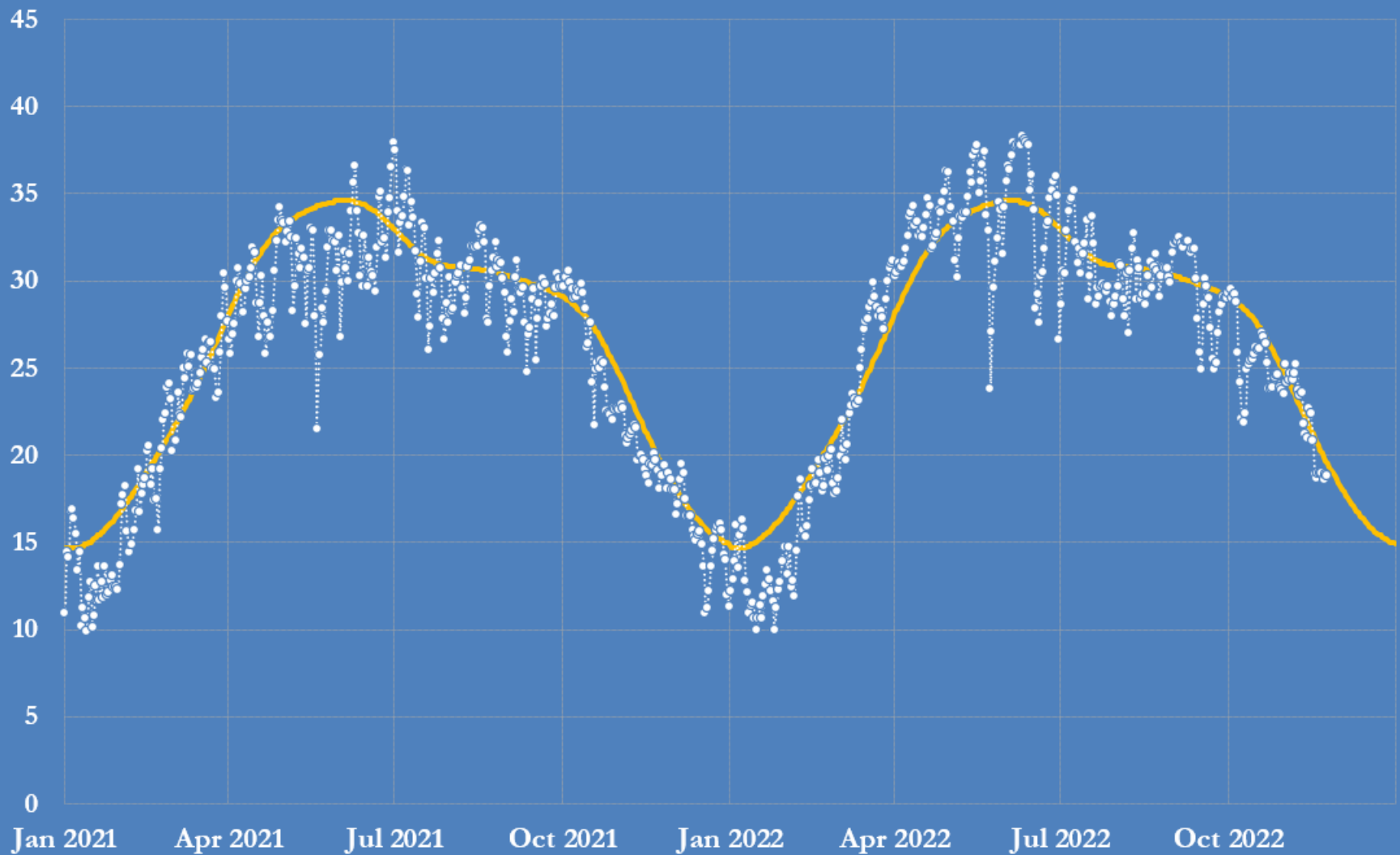


Source: India Central Electricity Authority / National Power Portal

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New Delhi (Palam) temperatures, 2021-2022

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

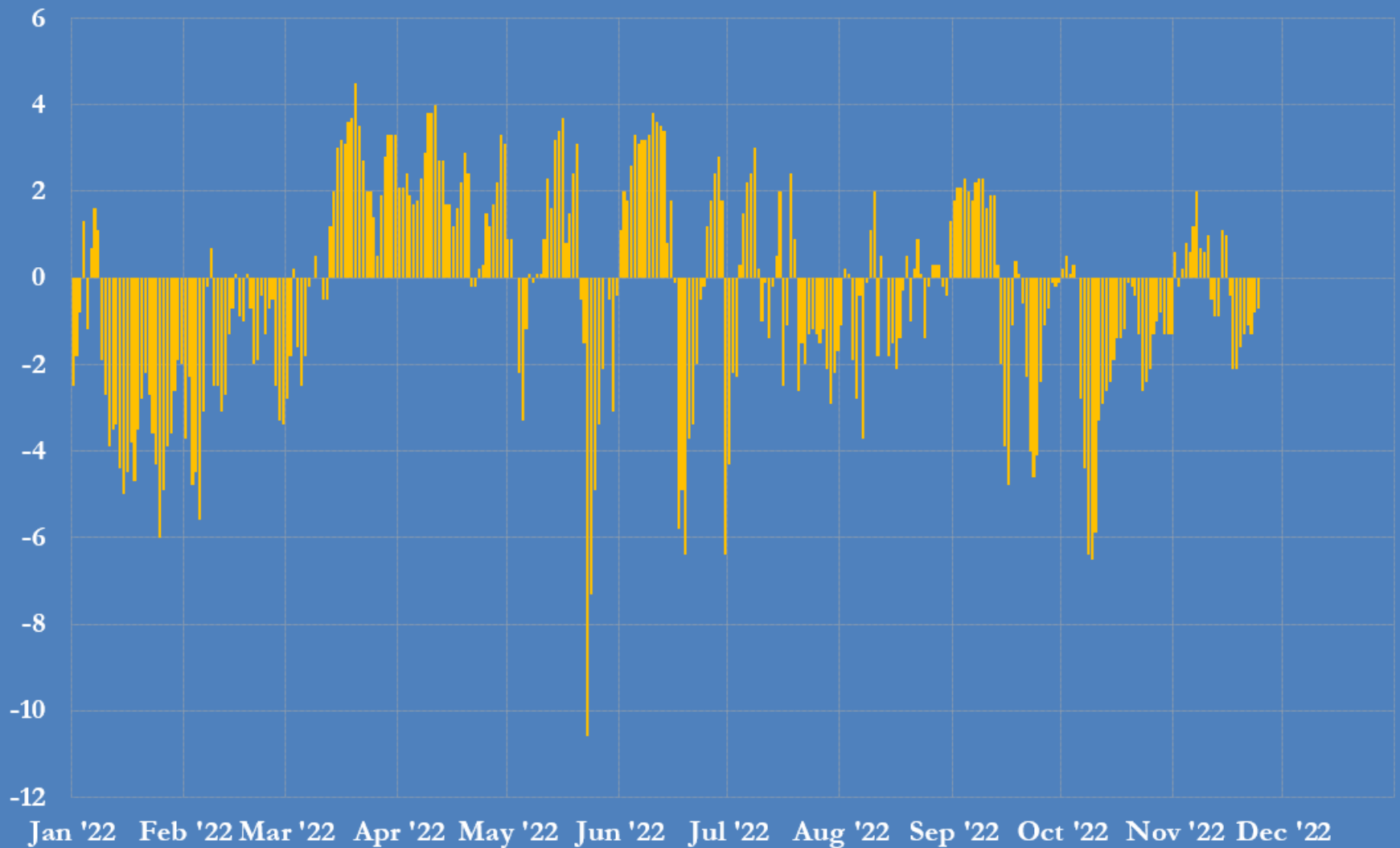


Source: U.S. Climate Assessment Database

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New Delhi (Palam) temperatures, 2022

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



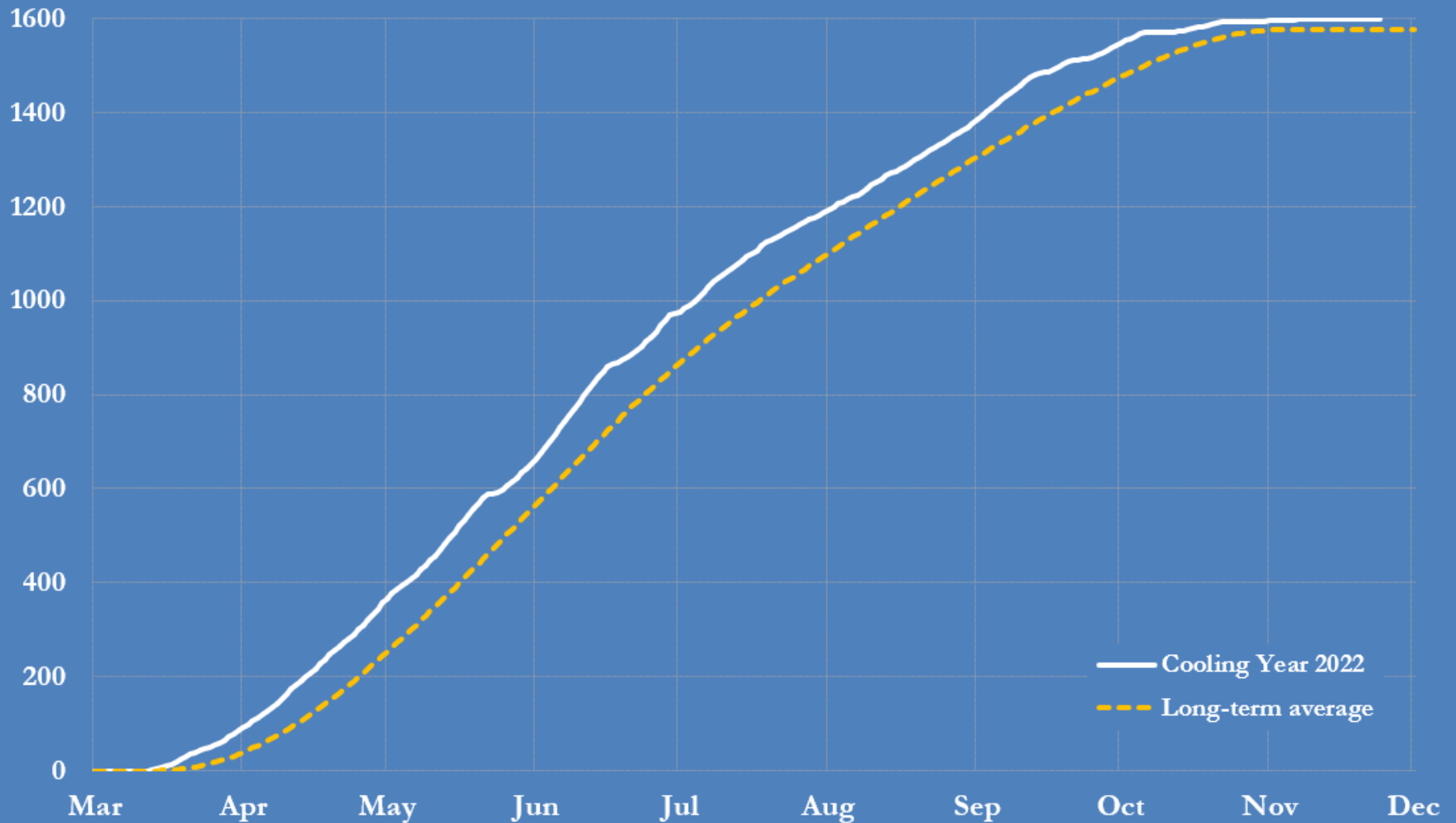
Source: U.S. Climate Assessment Database

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India annual cooling demand, 2022

New Delhi-Palam, cooling degree days, cumulative

long-term average and 2022 cooling year

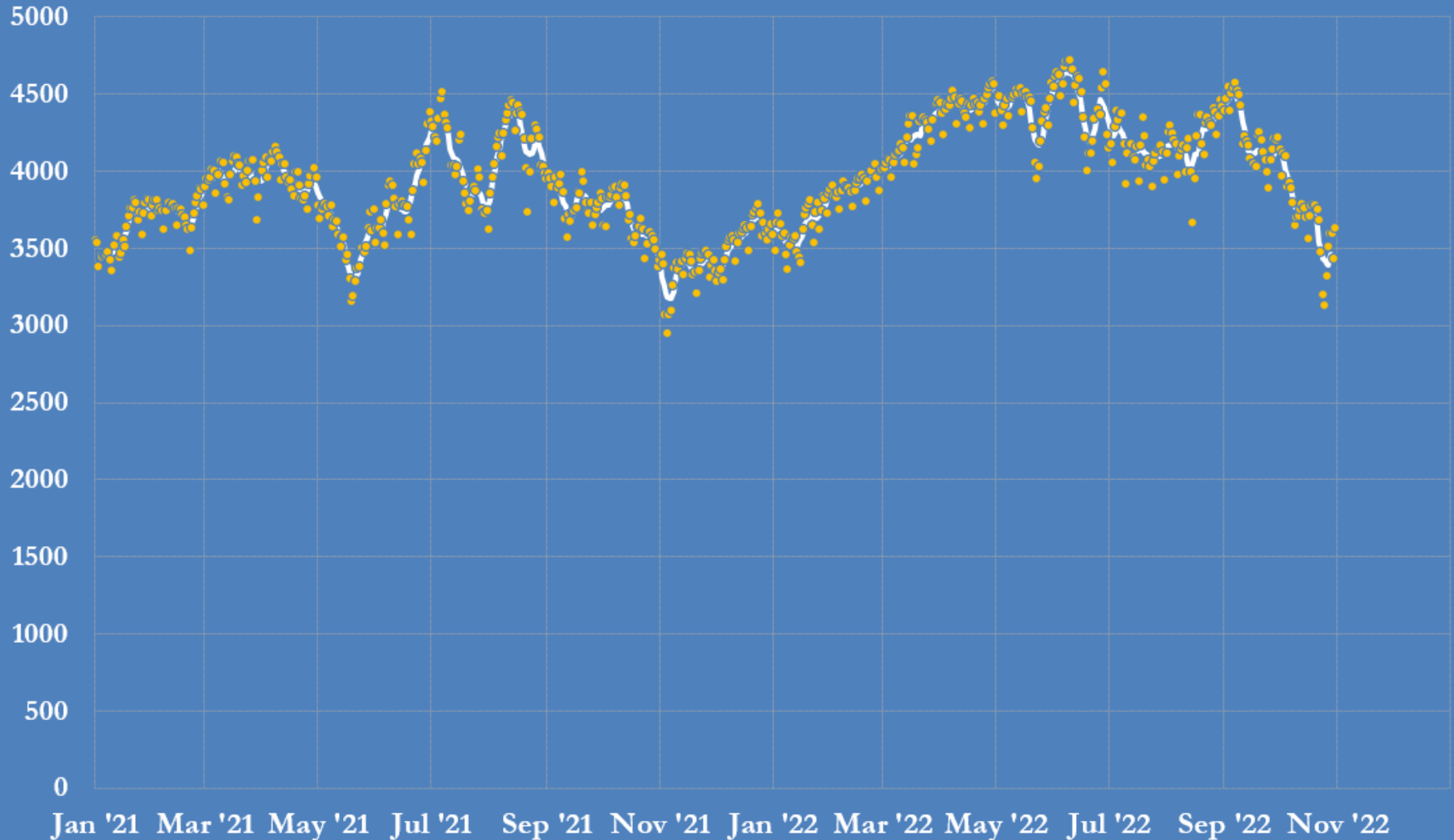


Source: U.S. Climate Assessment Database

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India electricity grid - energy demand met, 2021/22

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

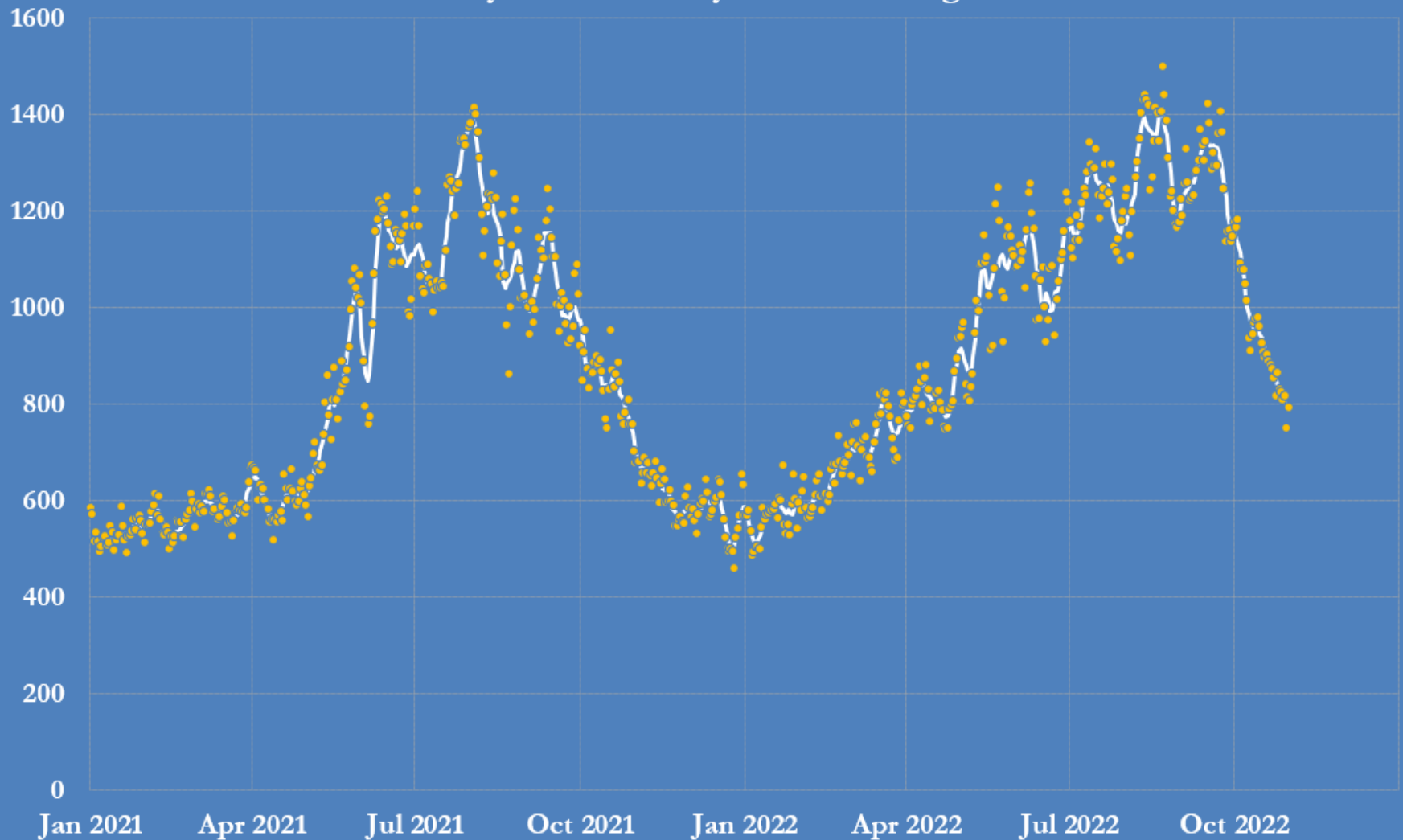


Source: National Load Despatch Centre, Power System Operation Corporation

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India renewables generation, 2021-2022

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

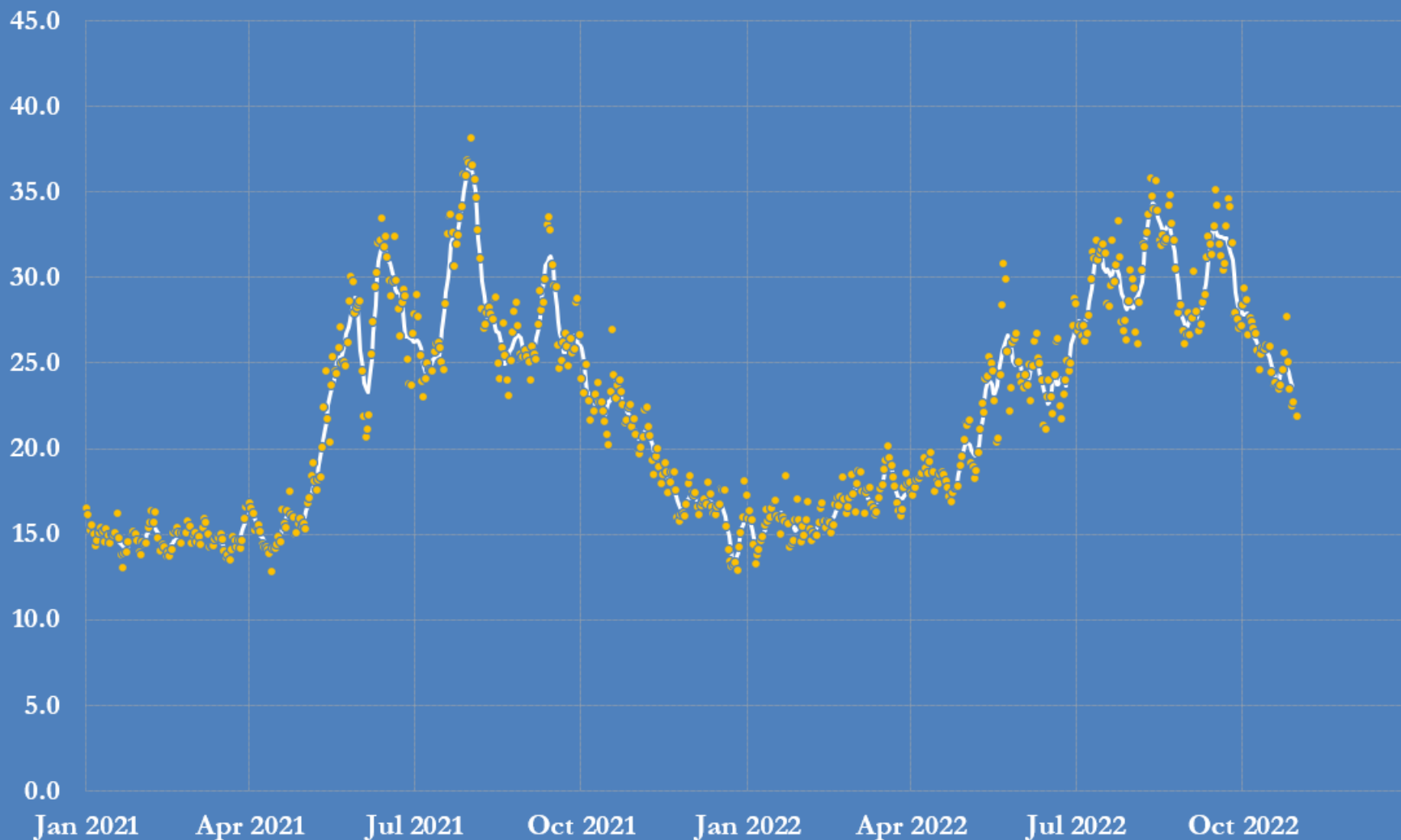


Source: Power System Operation Corporation of India

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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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