

India's Energy Overview

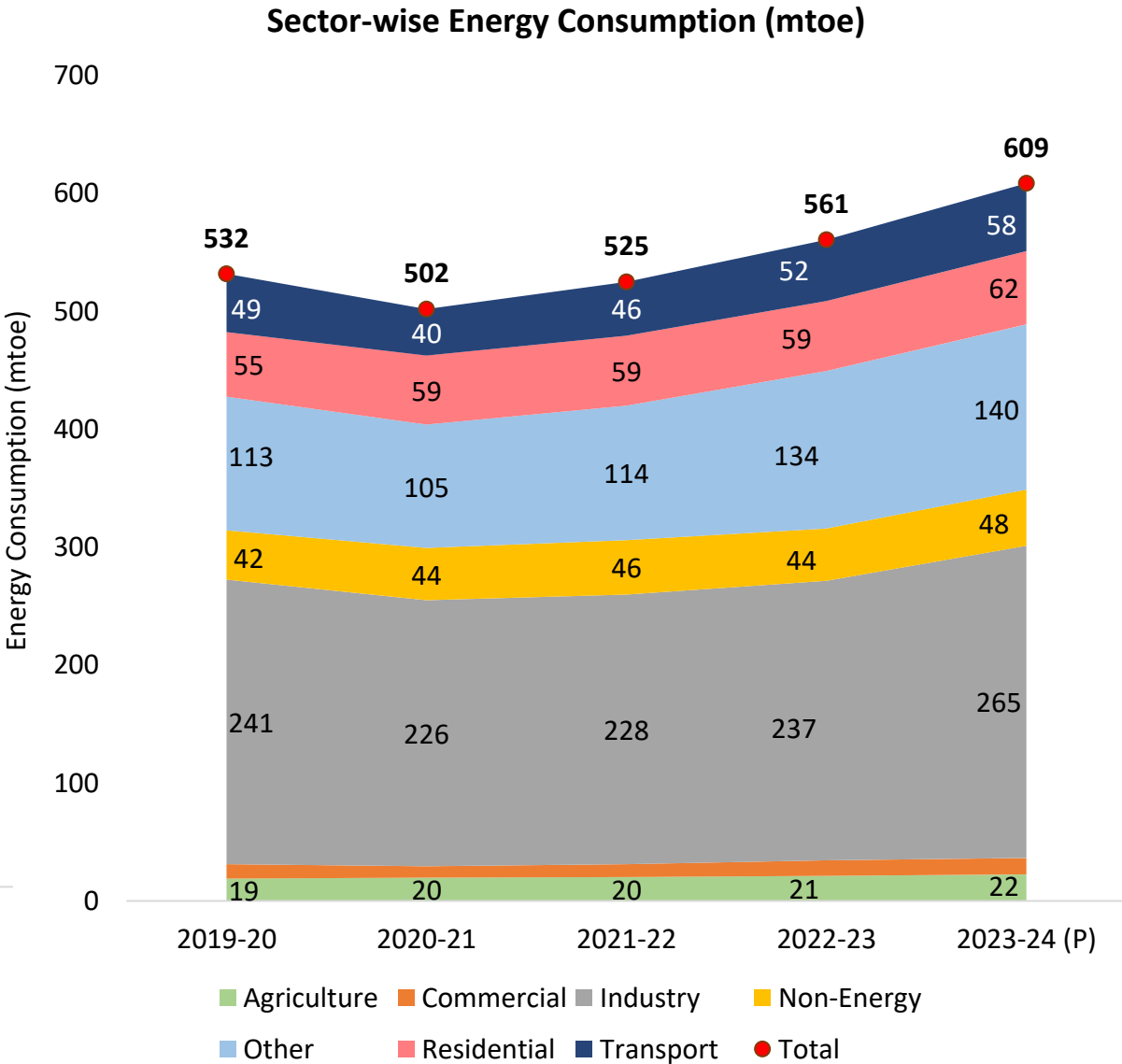
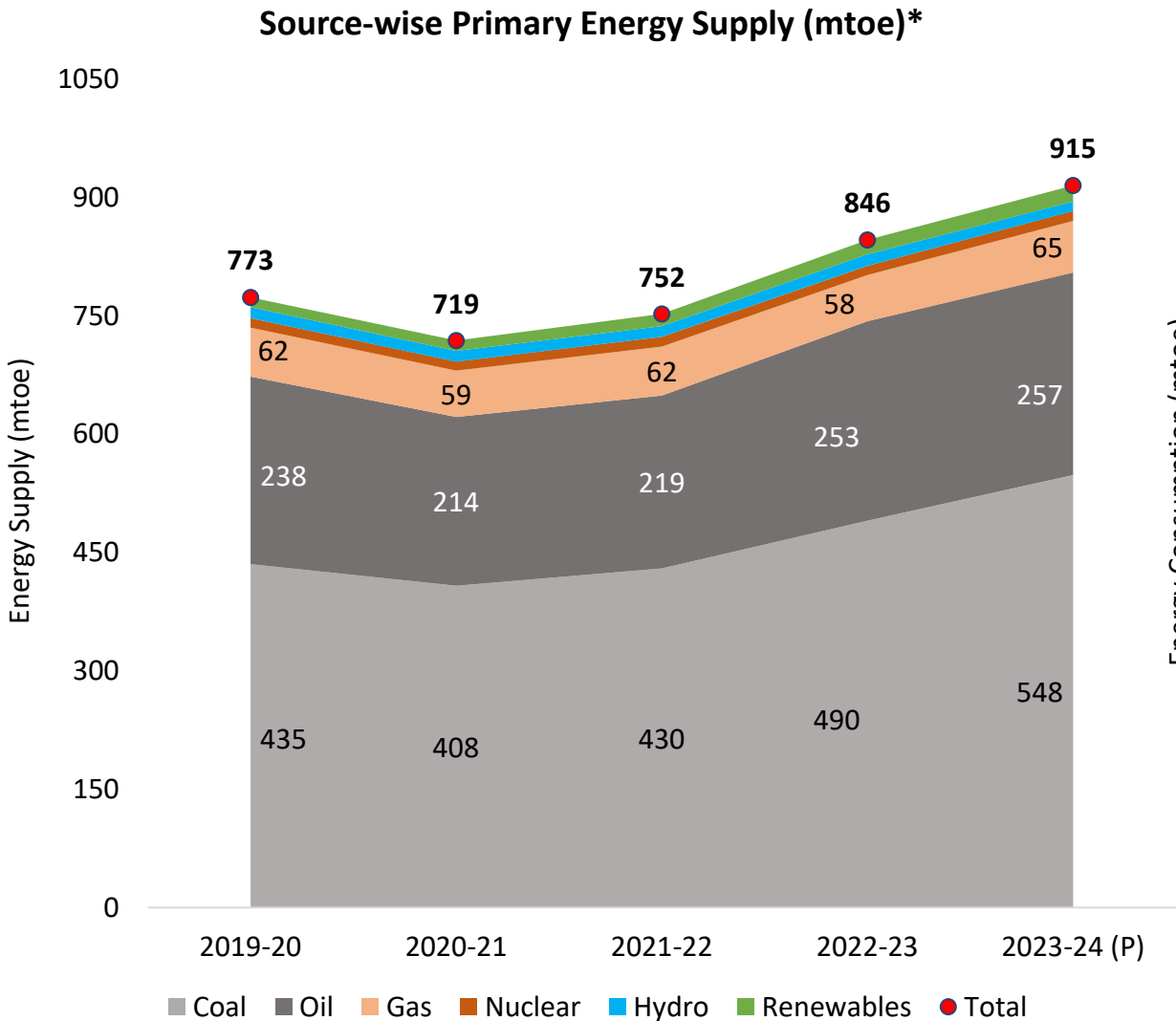
July 2025



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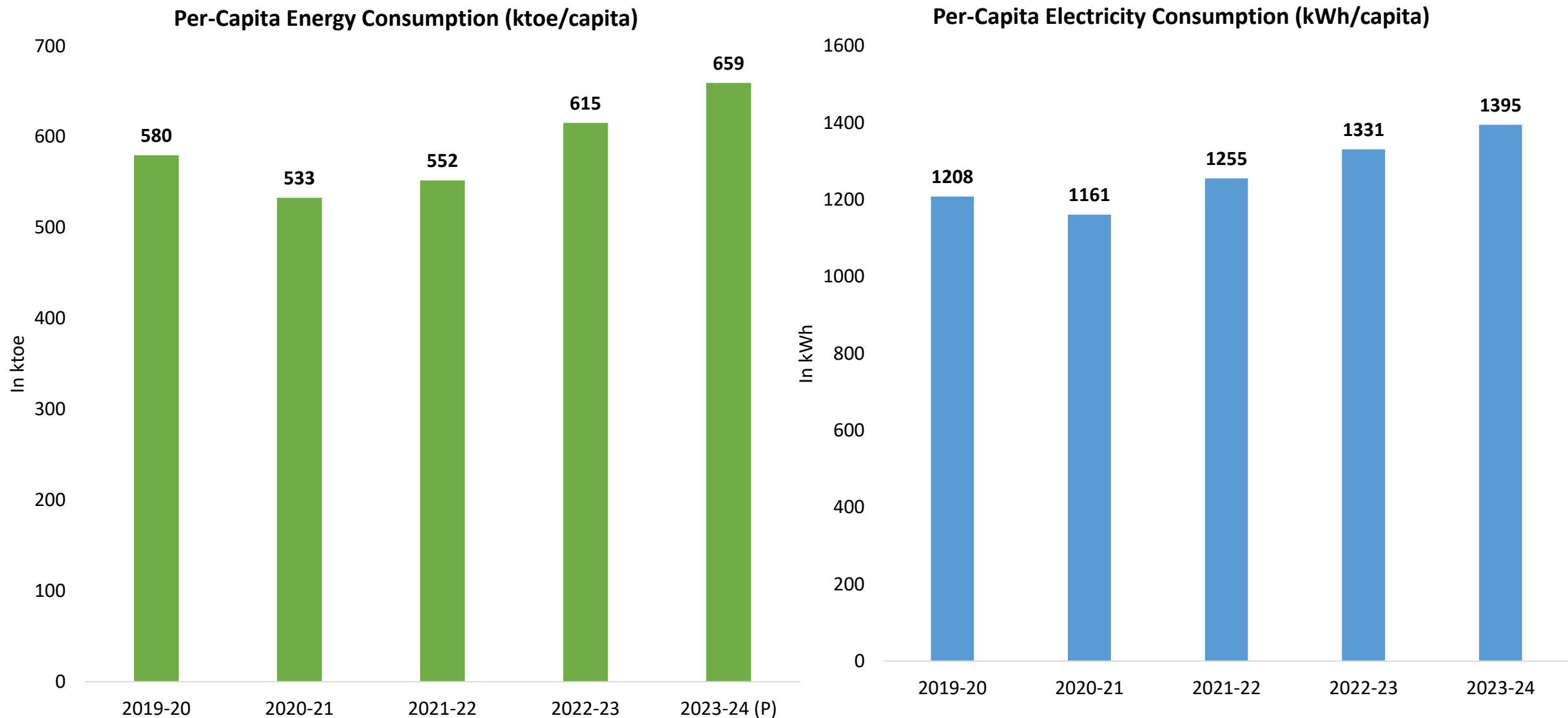
Primary* and Final Energy Mix in India



*Excluding biofuels, waste, and other non-commercial source of energy

Source: ICED

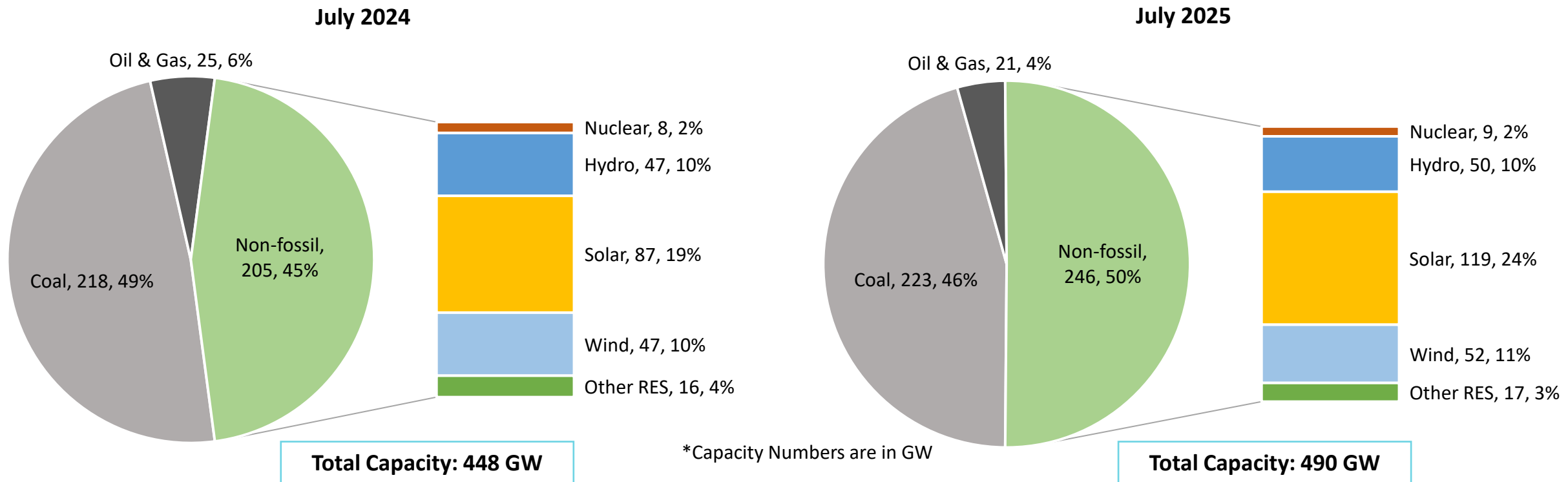
Per-Capita Energy and Electricity Consumption



Note: Per Capita energy consumption is calculated on energy supply basis.

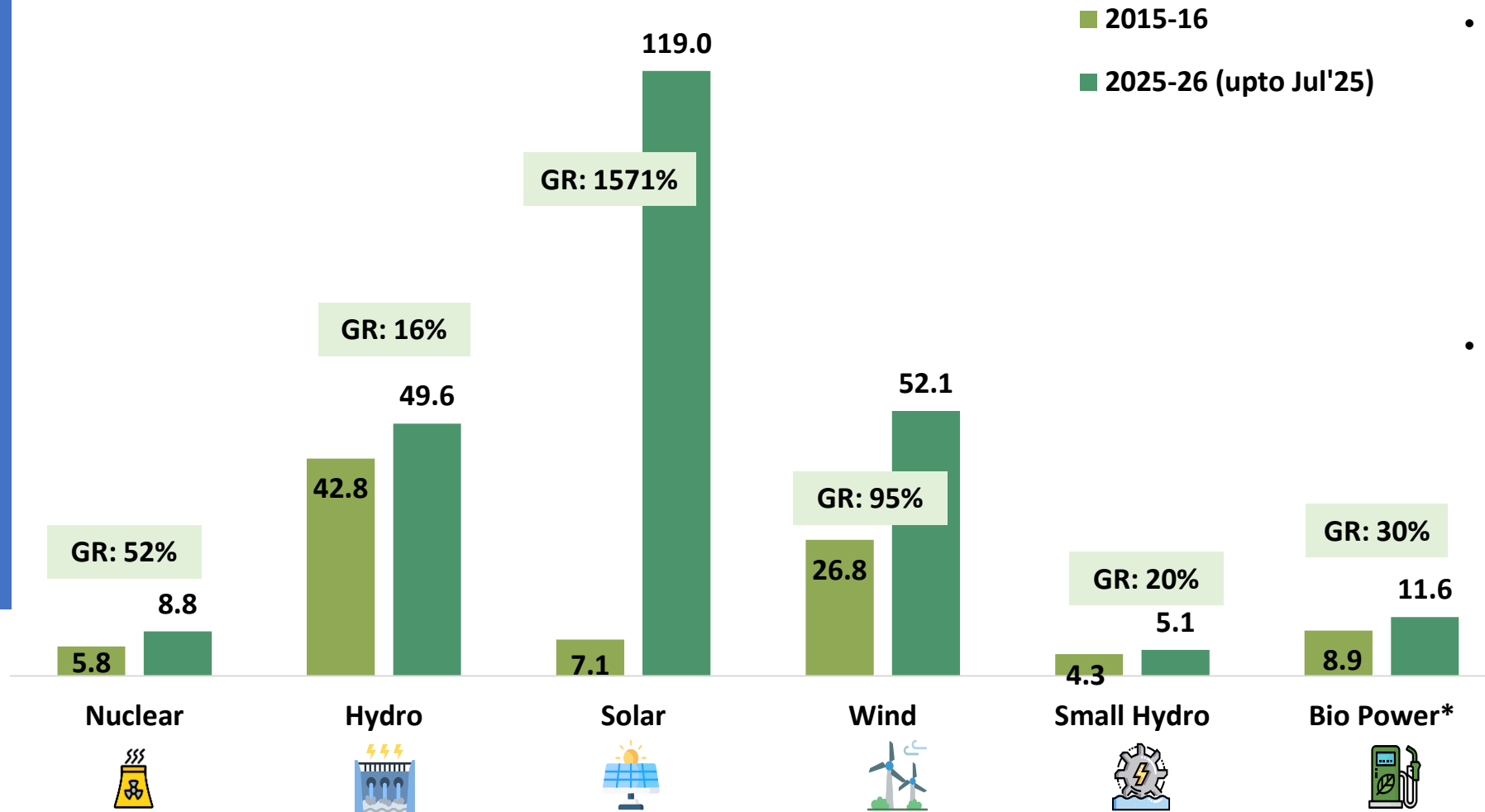
Source: ICED & CEA

India's Electricity Capacity Mix (Utility-scale)



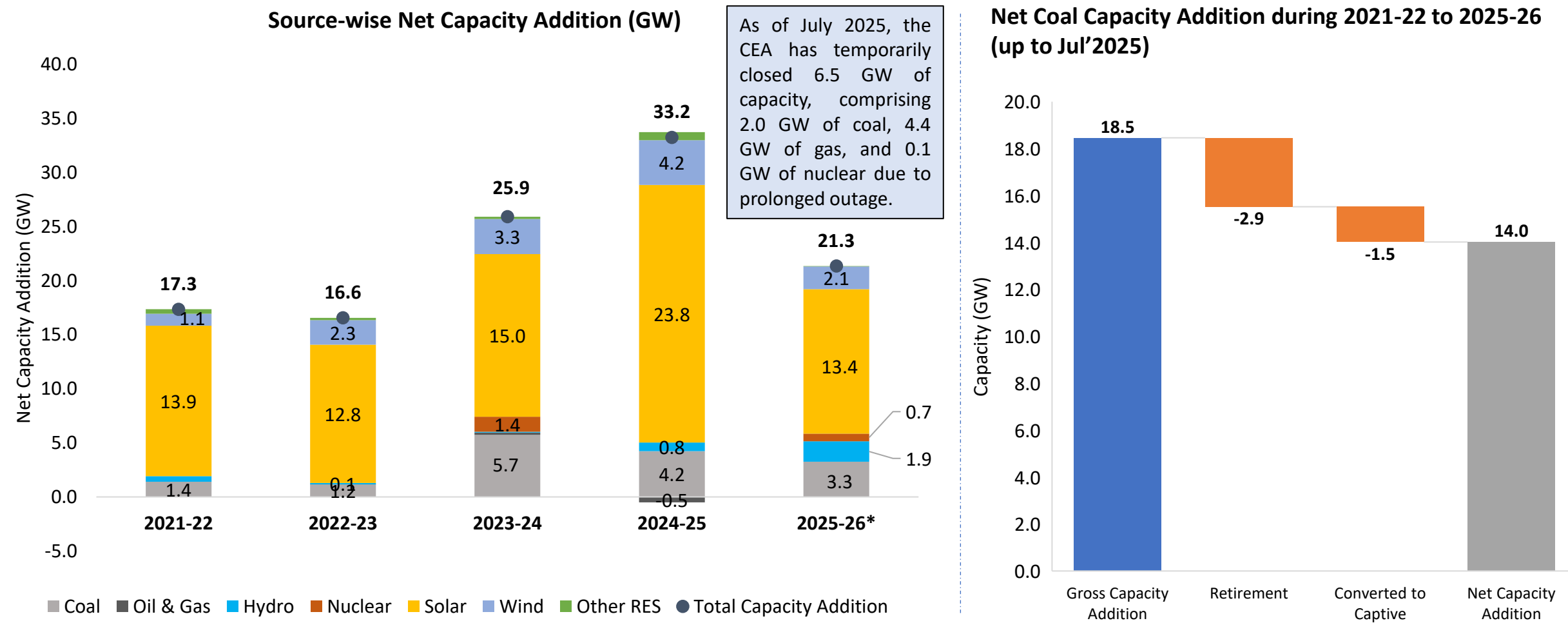
- India's electricity generating capacity is 489 GW as on Jun'2025 [coal 223 GW (46%), solar 119 GW (24%), wind 52 GW (11%), and hydro 50 (10%)].
- India has achieved its NDC target of 50% non-fossil capacity, 5 years ahead of the originally set in 2030.
- As on Jul'2025, India's renewable energy capacity (including large hydro) stood at 237 GW out of 490 GW.

Non-Fossil Energy Capacity (in GW) Growth Post-2015 Paris Agreement



- As of July 31, 2025, **50% (246 GW)** of India's total power capacity (**490 GW**) is now non-fossil fuel-based, meeting the updated NDC target.
- Post-2015 Paris Agreement Growth:**
 - solar capacity increased **17-folds**
 - wind power **doubled**
 - nuclear energy **doubled**.

India's Electricity Capacity Addition in last 5 years



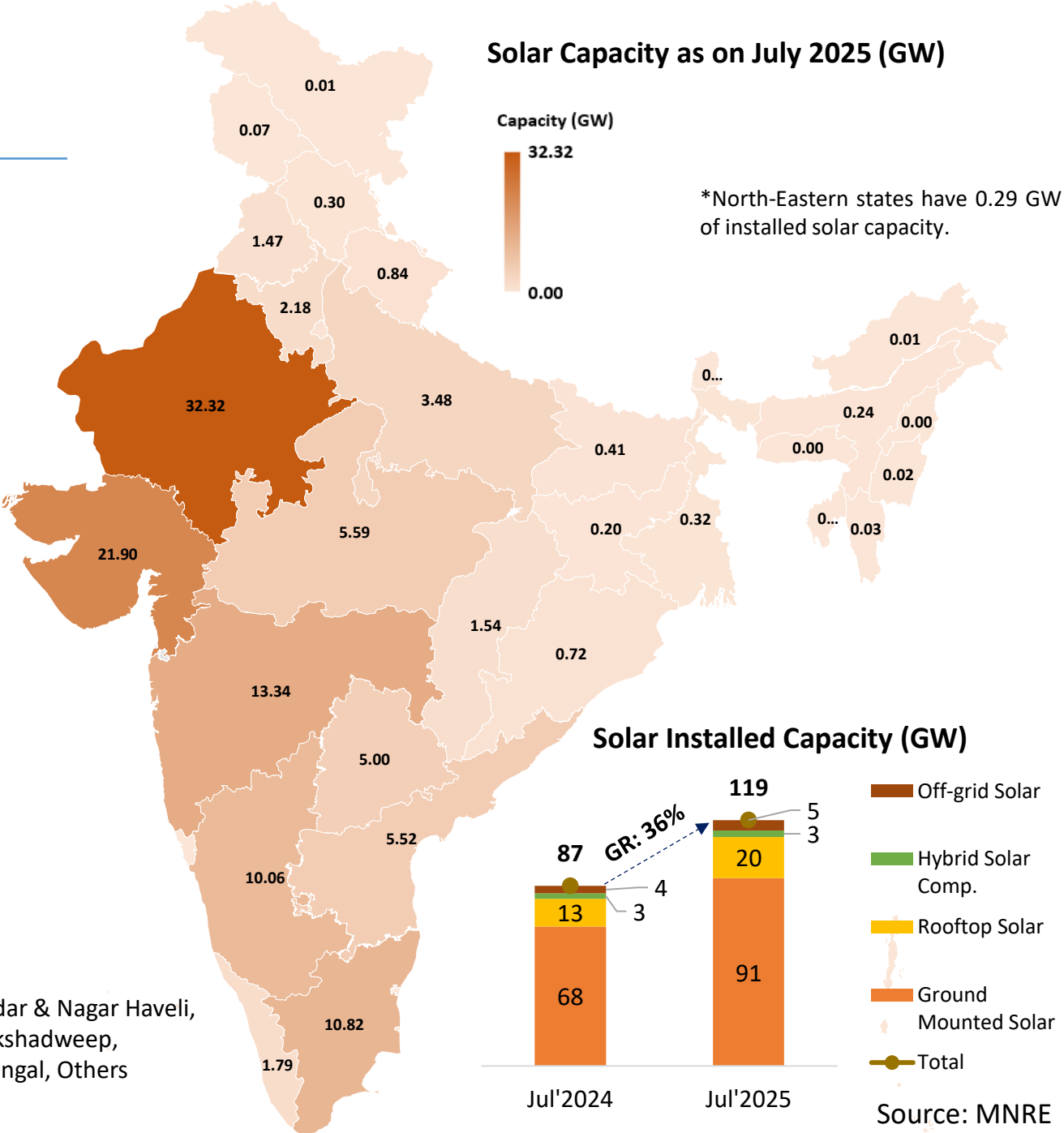
- A total of 97 GW of generation capacity has been added in RE (Hydro, solar, wind, and other RES) over the past 5 years (2021-22 to 2025-26*), whereas the net coal capacity addition during the same period was 16 GW, mostly in the central sector.

State-wise Solar Capacity

as on July 2025

State-wise installed capacity of Solar Power (GW)					
States	Ground Mounted	Rooftop	Solar Component in Hybrid	Off Grid	Total Solar Power
Rajasthan	27.82	1.71	1.98	0.81	32.32
Gujarat	15.03	5.84	0.87	0.17	21.90
Maharashtra	7.98	3.75	0.00	1.61	13.34
Tamil Nadu	9.62	1.13	0.00	0.07	10.82
Karnataka	9.05	0.76	0.21	0.04	10.06
Madhya Pradesh	4.87	0.63	0.00	0.10	5.59
Andhra Pradesh	5.01	0.43	0.00	0.09	5.52
Telangana	4.36	0.63	0.00	0.01	5.00
Uttar Pradesh	2.78	0.38	0.00	0.32	3.48
Haryana	0.27	0.89	0.00	1.02	2.18
Kerala	0.32	1.44	0.00	0.02	1.79
Chhattisgarh	1.00	0.15	0.00	0.39	1.54
Punjab	0.89	0.50	0.00	0.08	1.47
Uttarakhand	0.54	0.27	0.00	0.02	0.84
Others	1.46	1.37	0.00	0.33	3.16
All India	90.99	19.88	3.06	5.09	119.02

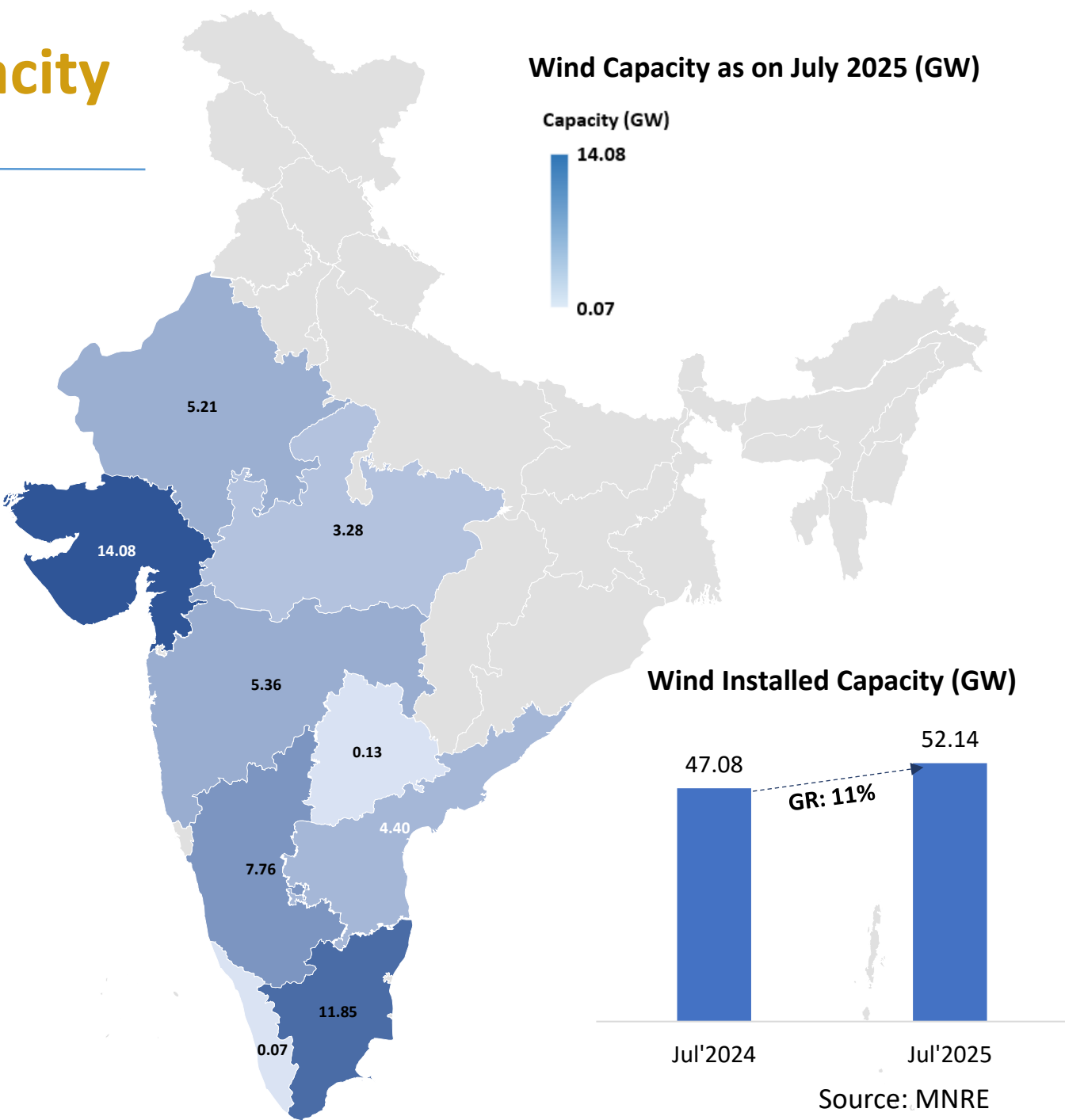
Others include- Andaman & Nicobar, Arunachal Pradesh, Assam, Bihar, Chandigarh, Dadar & Nagar Haveli, Daman & Diu, Delhi, Goa, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Ladakh, Lakshadweep, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Puducherry, Sikkim, Tripura, West Bengal, Others



State-wise Wind Onshore Capacity

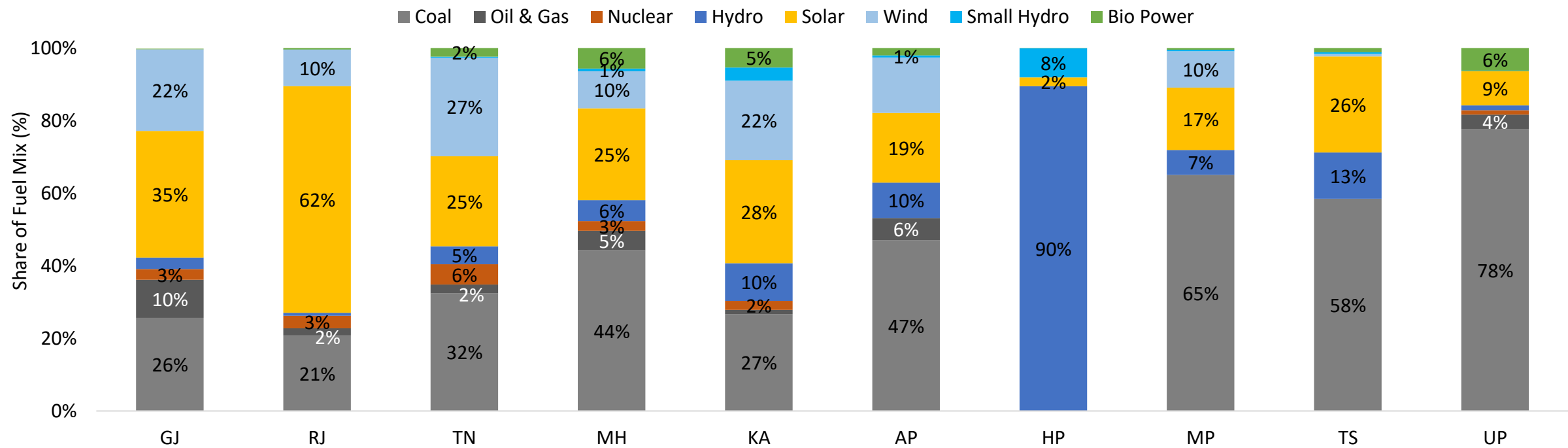
as on July 2025

State-wise installed capacity of Wind (Onshore) Power	
States	Installed Capacity (GW)
Gujarat	14.08
Tamil Nadu	11.85
Karnataka	7.76
Maharashtra	5.36
Rajasthan	5.21
Andhra Pradesh	4.40
Madhya Pradesh	3.28
Telangana	0.13
Kerala	0.07
India Total	52.14



Top 10 High RE (incl. Large Hydro) States and Their Capacity Mix

as on July 2025



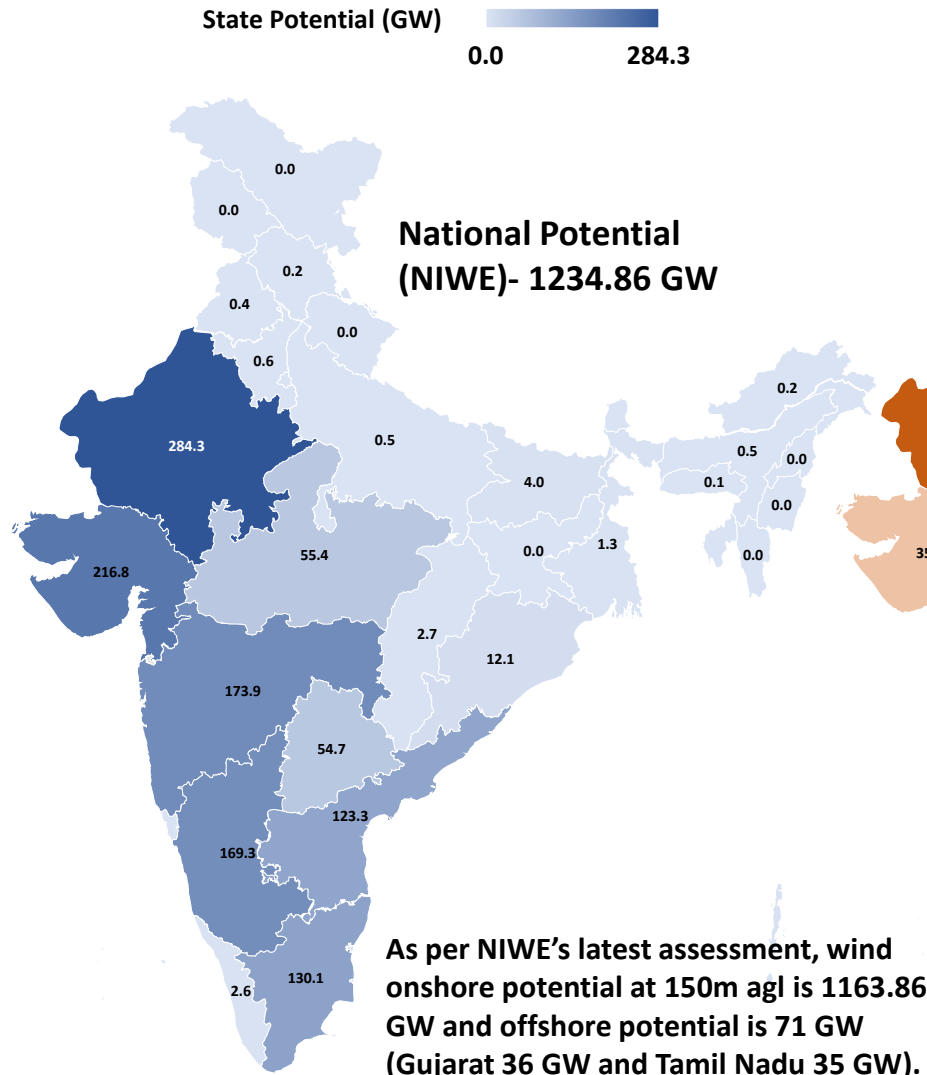
Numbers are in GW

Parameters	GJ	RJ	TN	MH	KA	AP	HP	MP	TS	UP
Total Installed Capacity	62.73	51.75	43.68	52.66	35.47	28.80	12.49	32.56	18.89	36.97
Total RE Capacity	38.22	38.17	26.02	25.13	24.71	13.49	12.49	11.39	7.85	6.35
RE Share	61%	74%	60%	48%	70%	47%	100%	35%	42%	17%

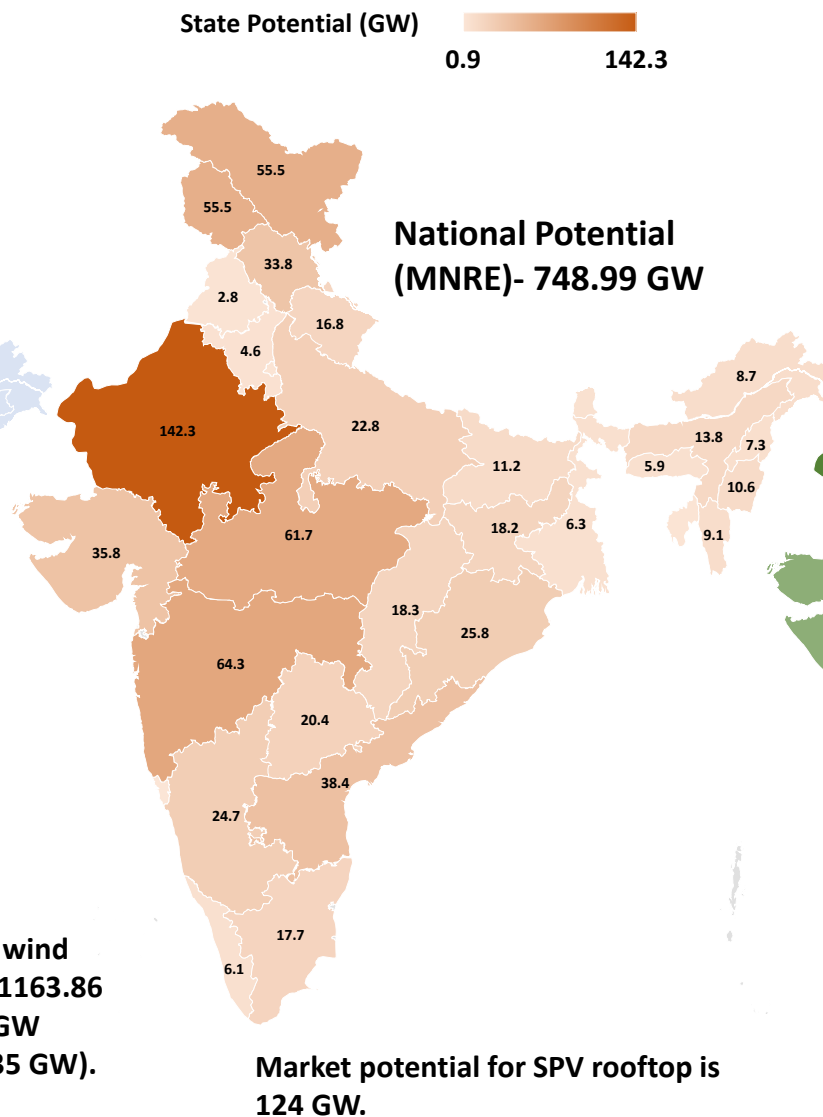
RE Potential and Installed Capacity (1/2)

RE potential in the state

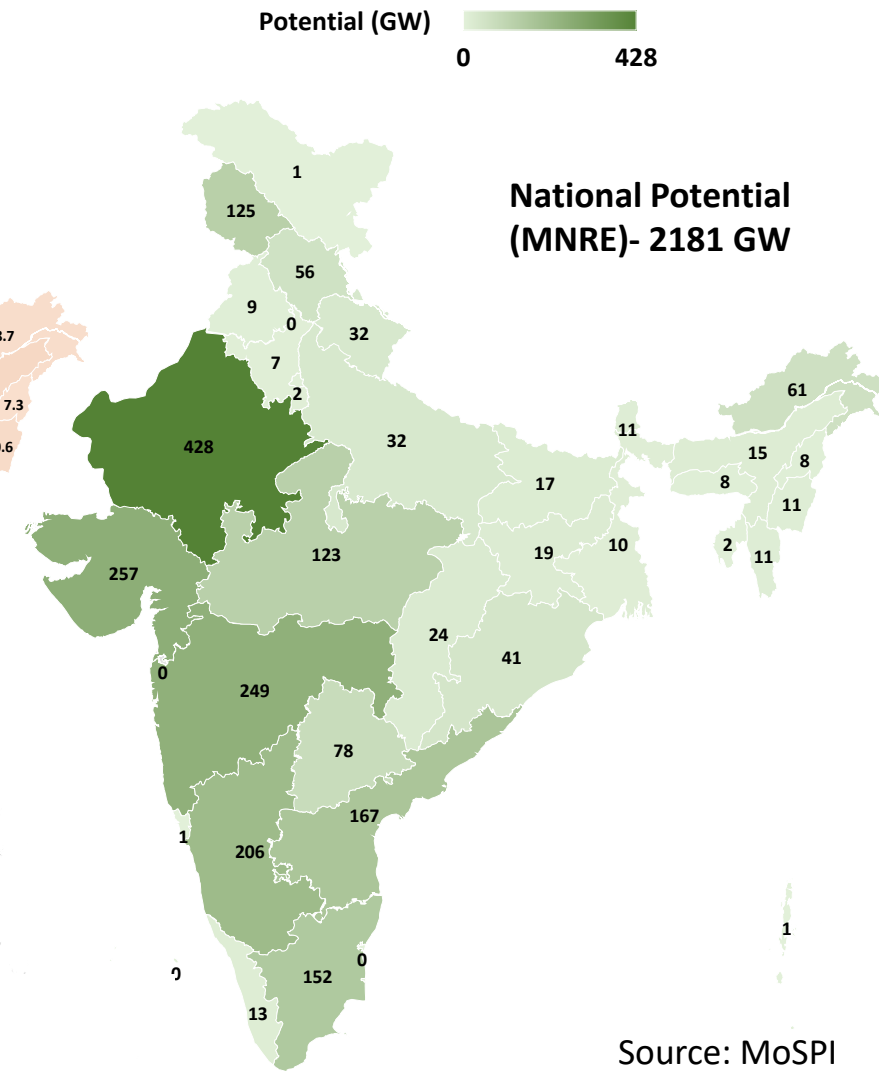
Wind Onshore (at 150m agl) and Offshore Potential



Solar Potential

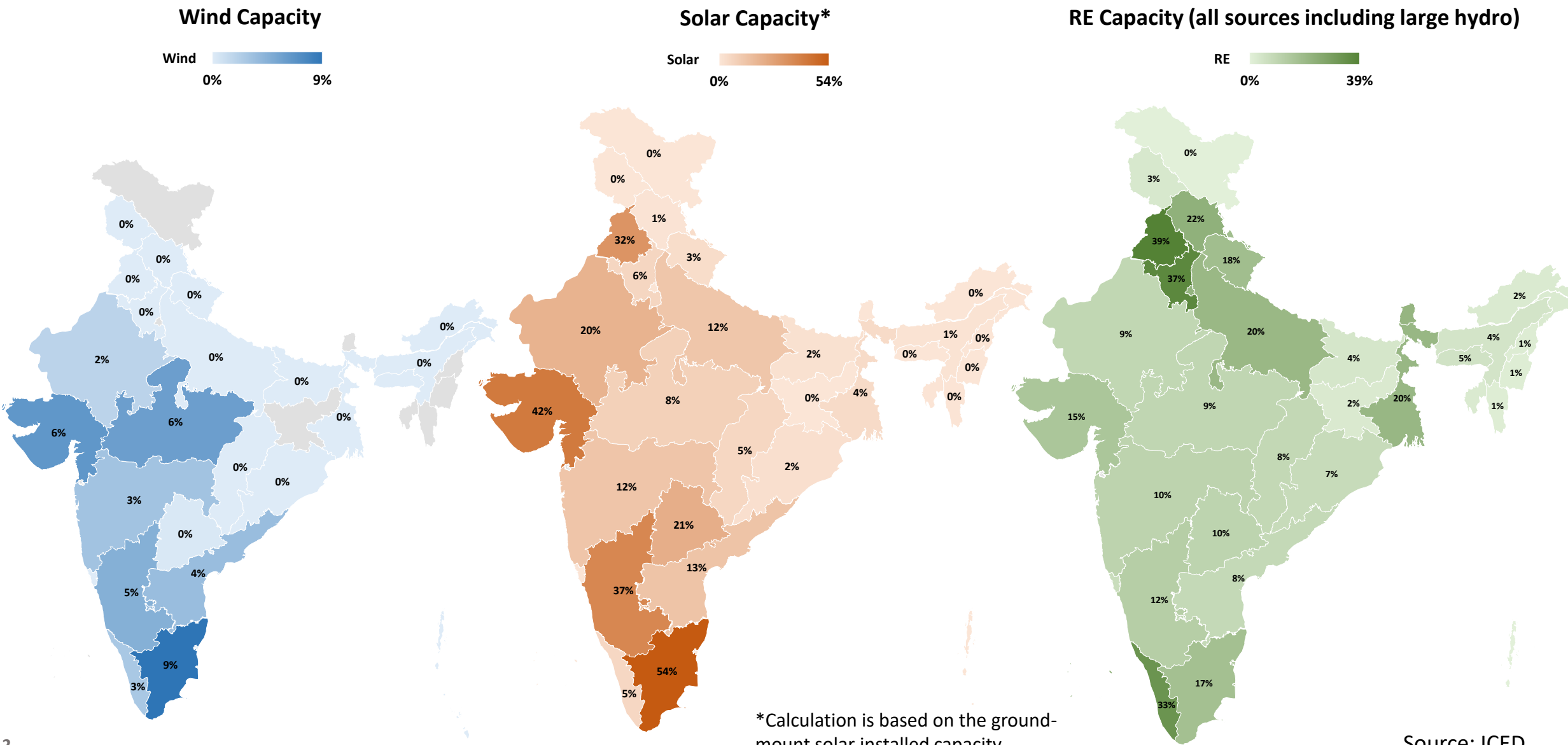


Renewable Energy Potential (all sources incl. large Hydro)



Renewable Energy (RE) Potential and Installed Capacity (2/2)

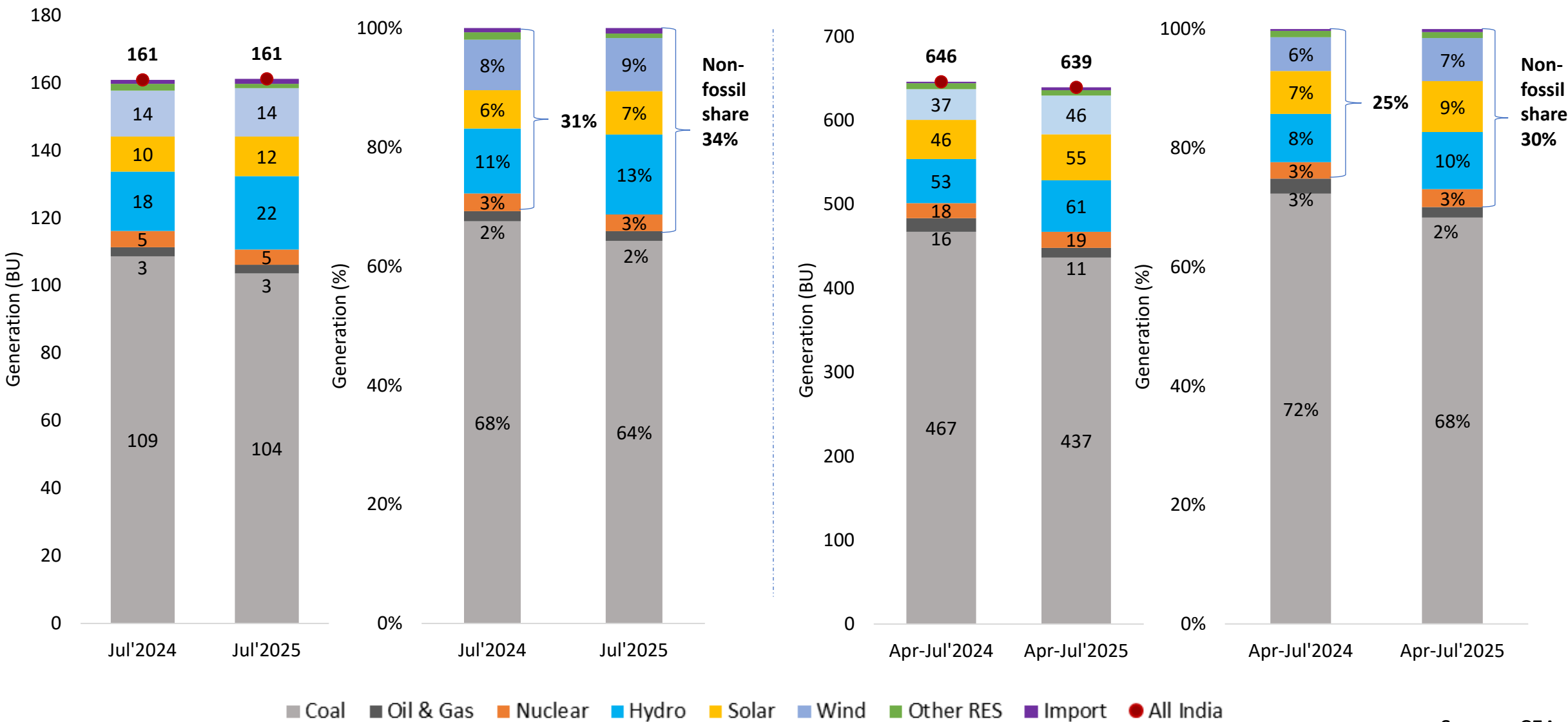
RE Installed capacity as a Percentage of the total resource potential in the state as on July 2025



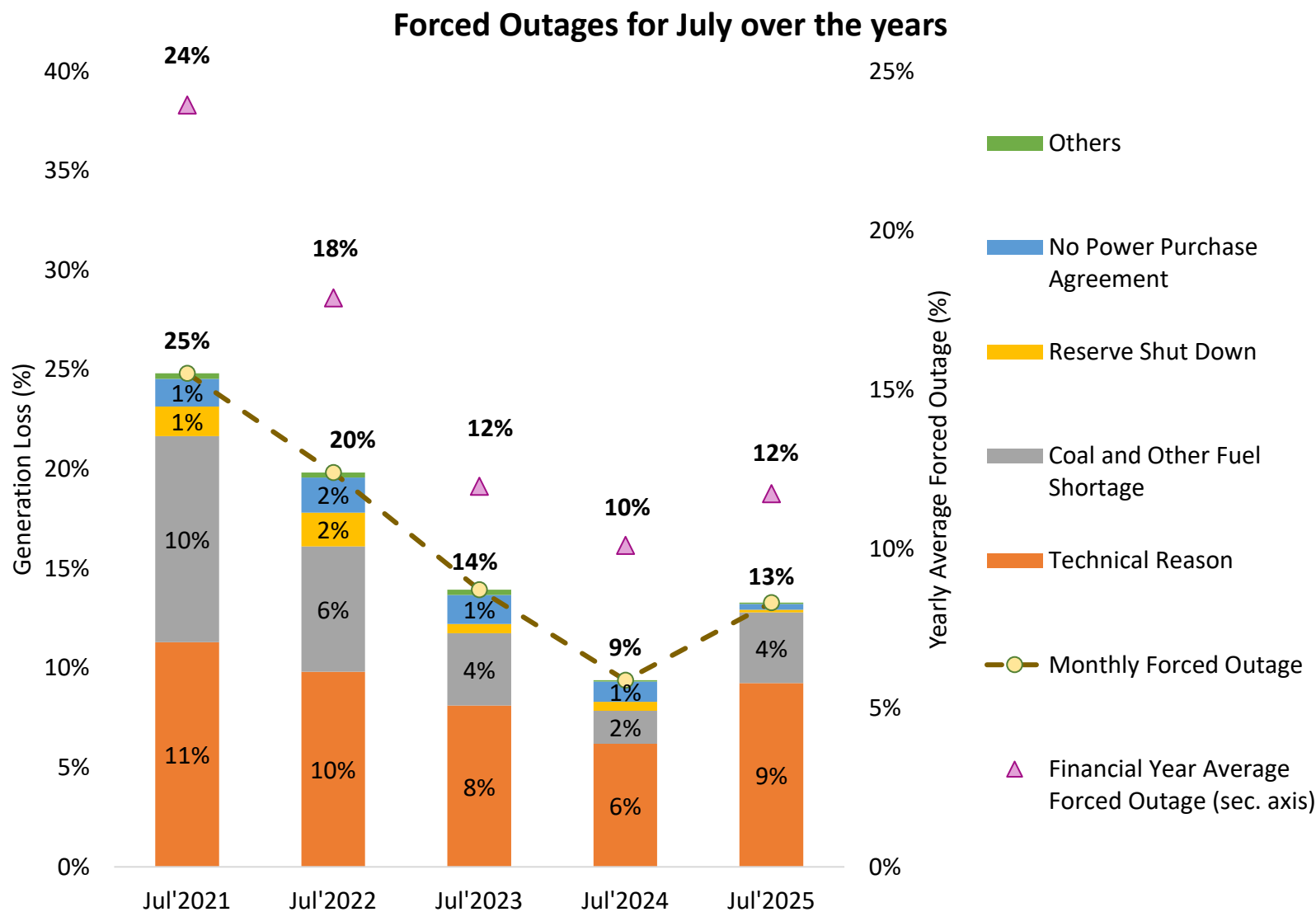
*Calculation is based on the ground-mount solar installed capacity.

India's Electricity Generation Mix

Source-wise Generation Mix



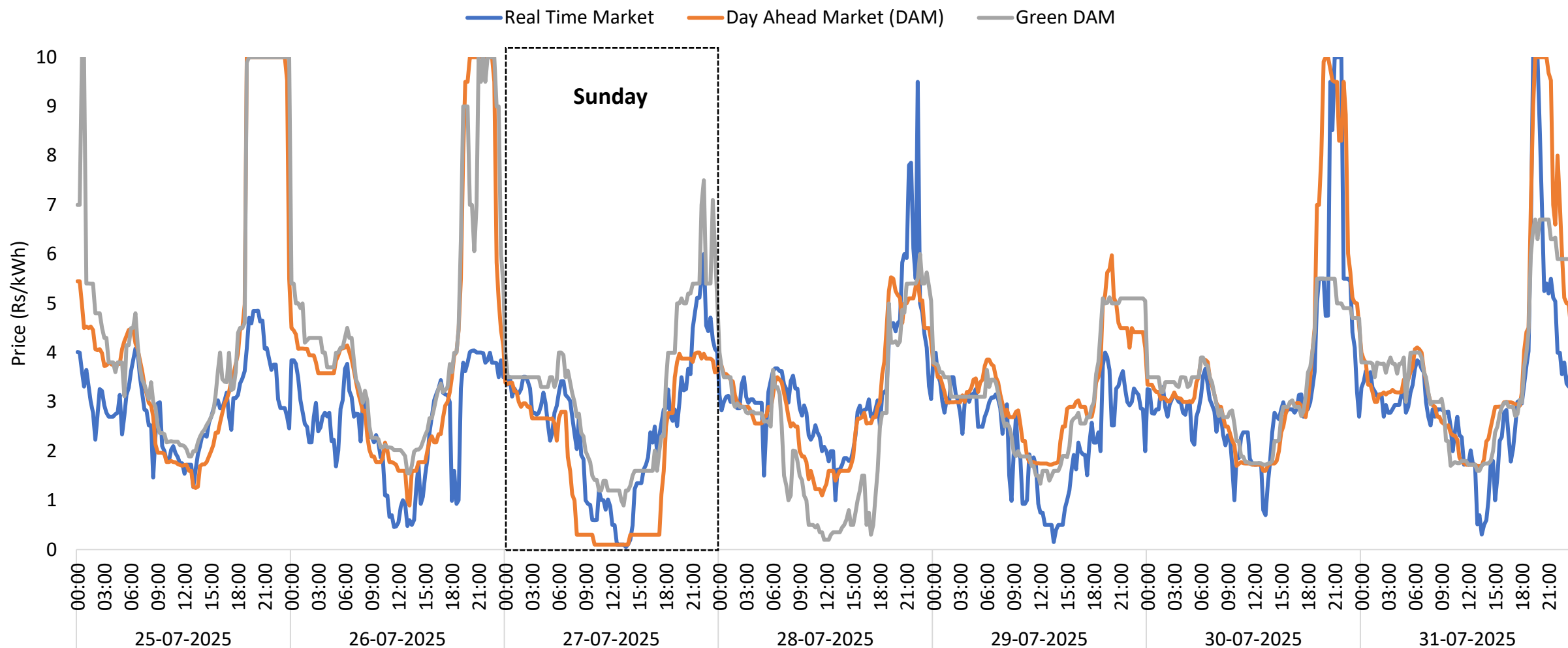
Thermal Generation Loss and Reasons for Forced Outages



Year/ Month		Average Forced Outage Share
Yearly	FY 2023-24	12%
	FY 2024-25	10%
	FY 2025-26 (up to July'25)	12%
Monthly	Jul'2023	14%
	Jul'2024	9%
	Jul'2025	13%

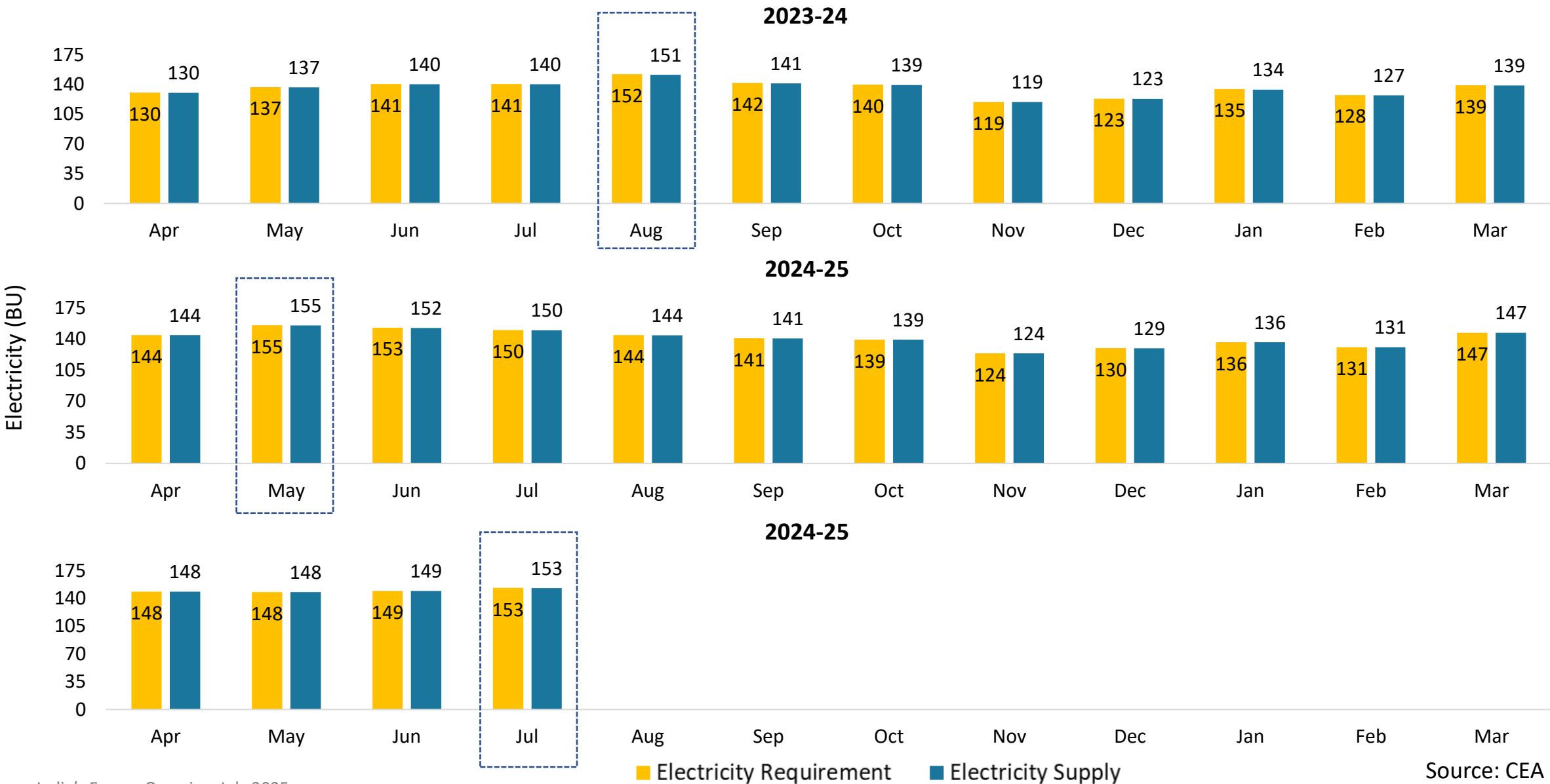
Indian Electricity Exchange (IEX) Market Snapshot

Market Clearing Prices of last 7 days of July 2025

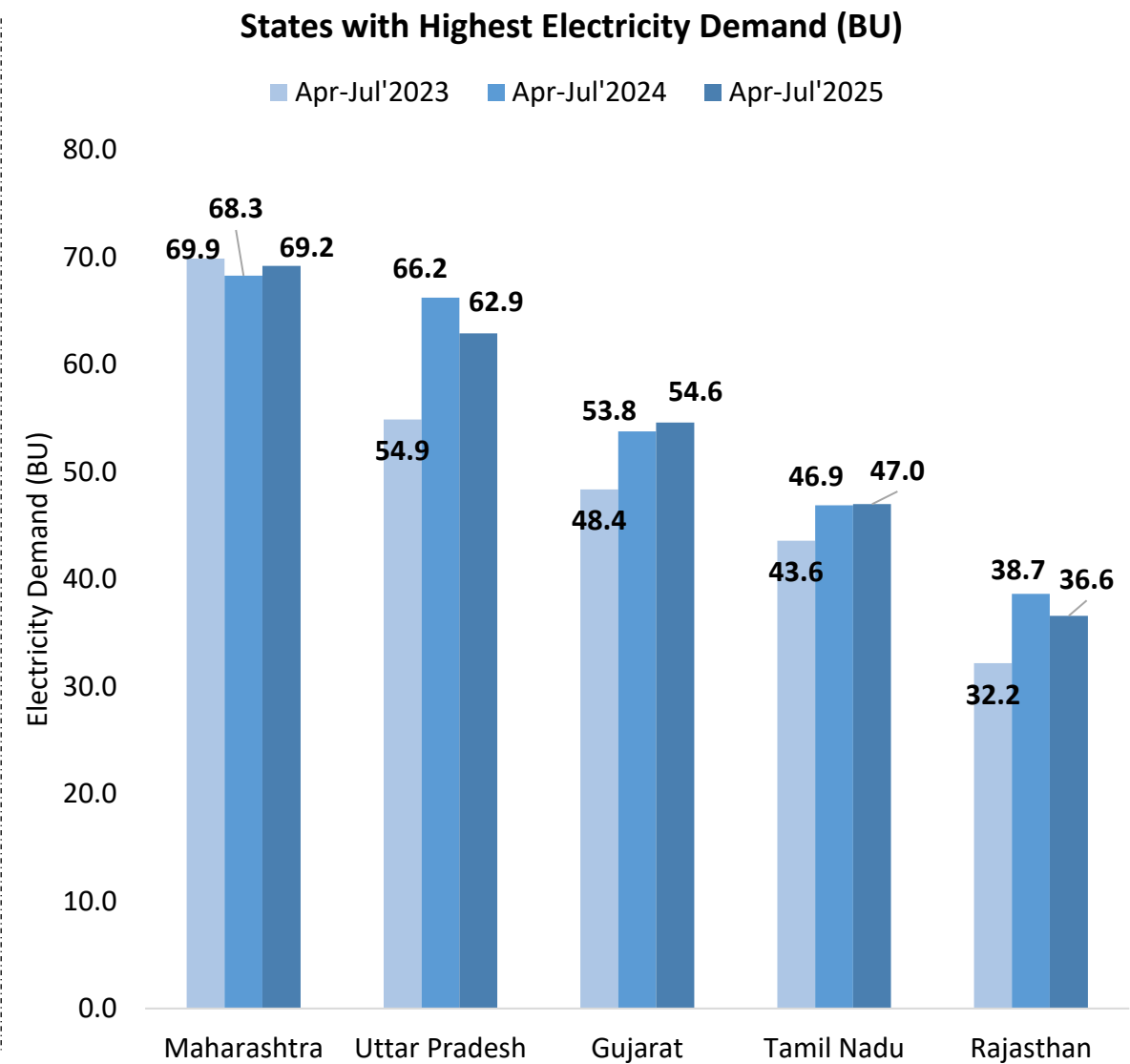
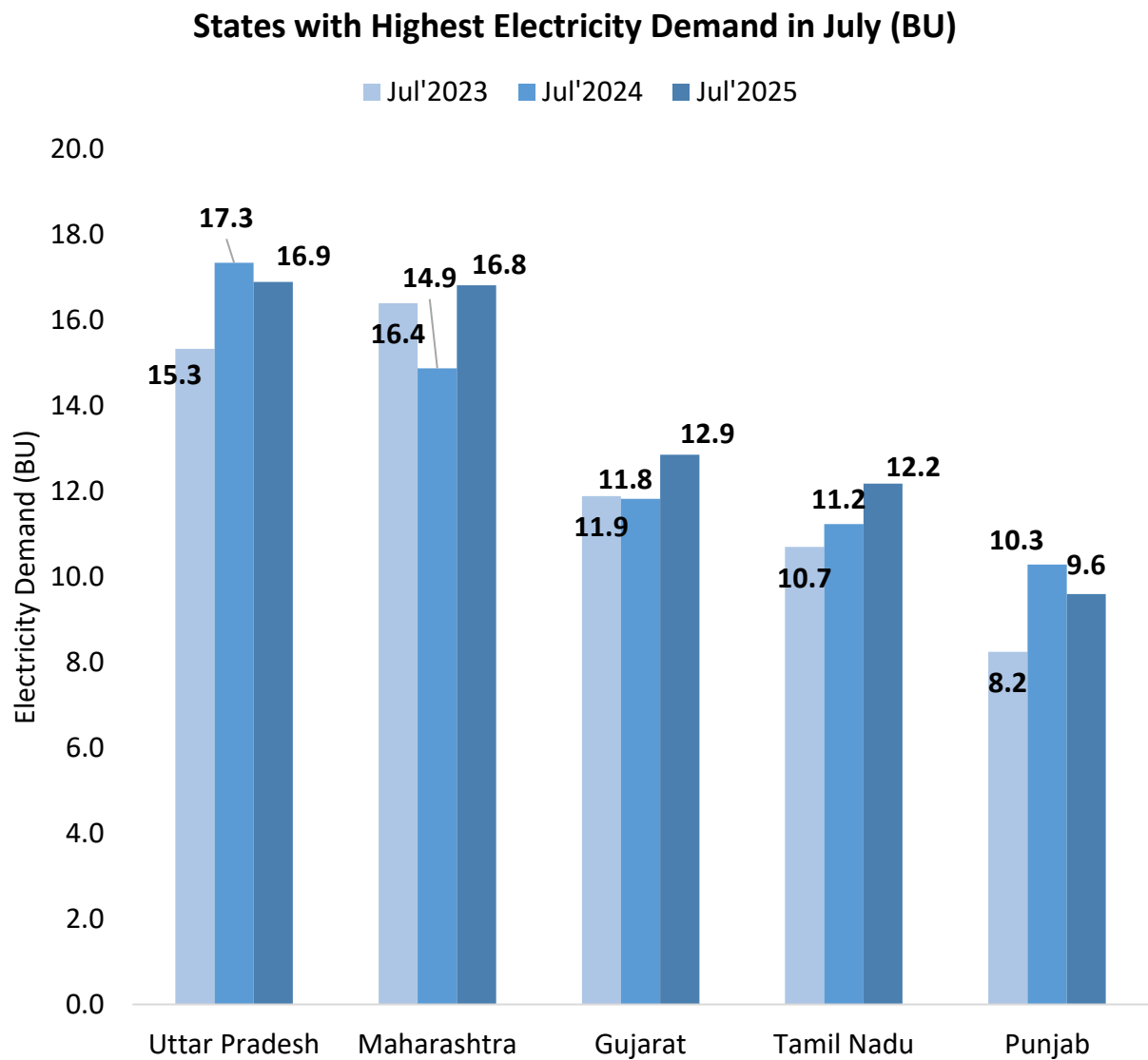


In April 2023, CERC revised the price ceiling from ₹12/kWh to ₹10/kWh in the power exchange market.

India's Monthly Electricity Requirement and Supply



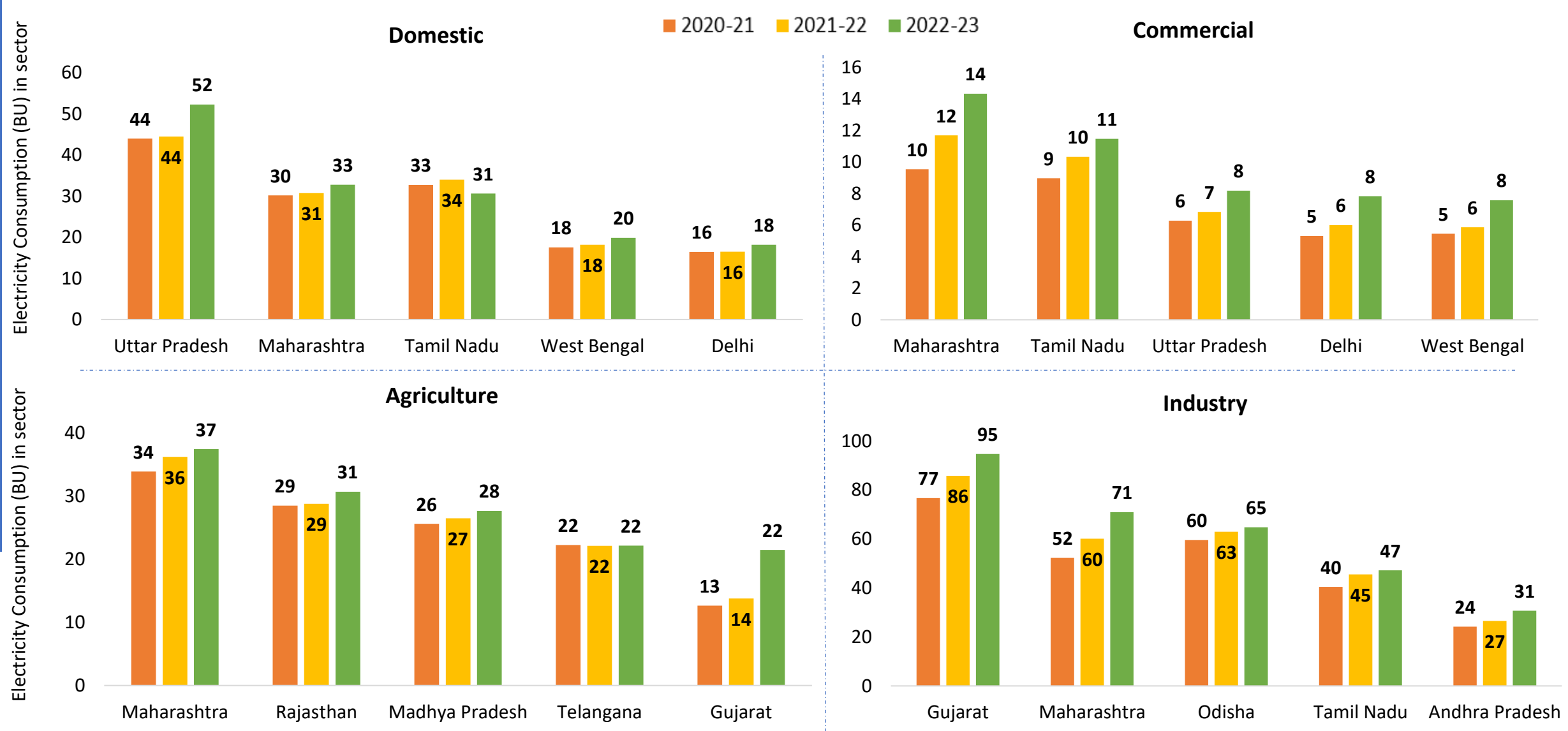
Monthly Electricity Demand of the top 5 states



Note: The electricity demand data for Jul'25 is Provisional.

Source: CEA

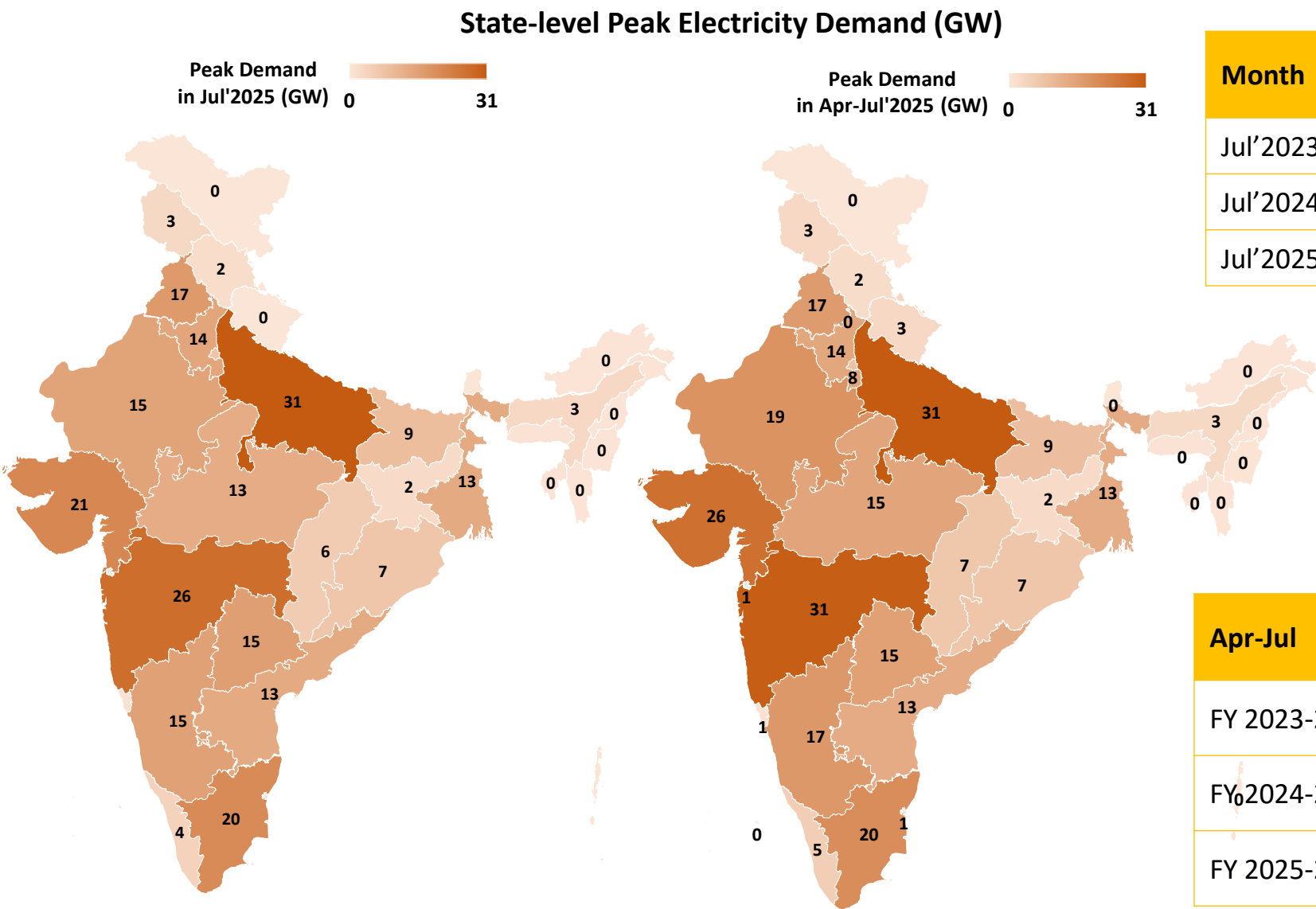
Electricity Consumer-category wise top 5 States



NOTE: Top 5 States under consumer-categories are selected on the basis of 2022-23

Source: CEA

National and State level Peak Electricity Demand



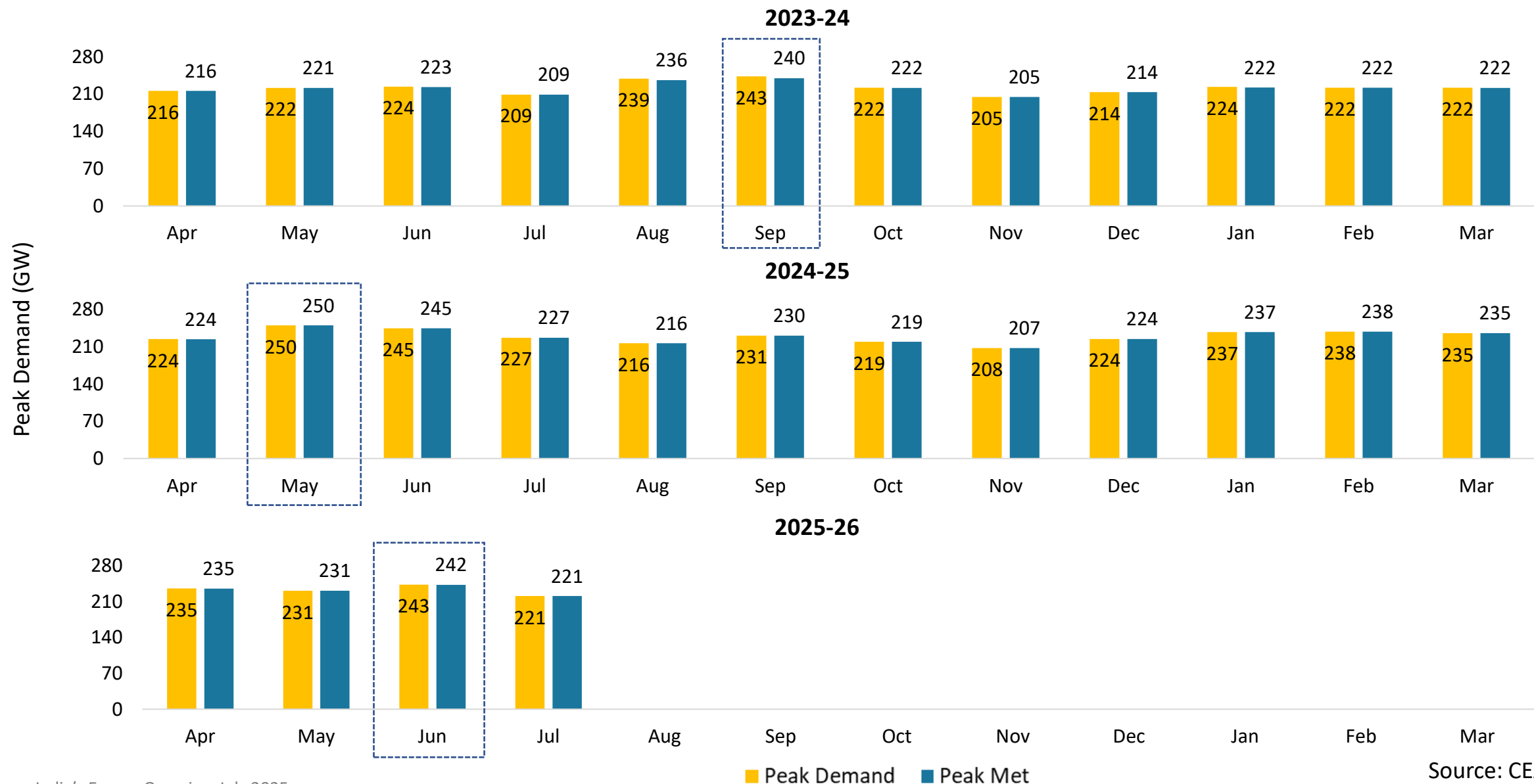
Month	Peak Demand (GW)	Peak Supply (GW)	Gap(GW) (+/-)
Jul'2023	209	209	0.1
Jul'2024	227	227	0.2
Jul'2025	221	221	0.0

Apr-Jul	Peak Demand (GW)	Peak Supply (GW)	Gap (GW) (+/-)
FY 2023-24	224	223	0.8
FY 2024-25	250	250	0.0
FY 2025-26	243	242	0.3

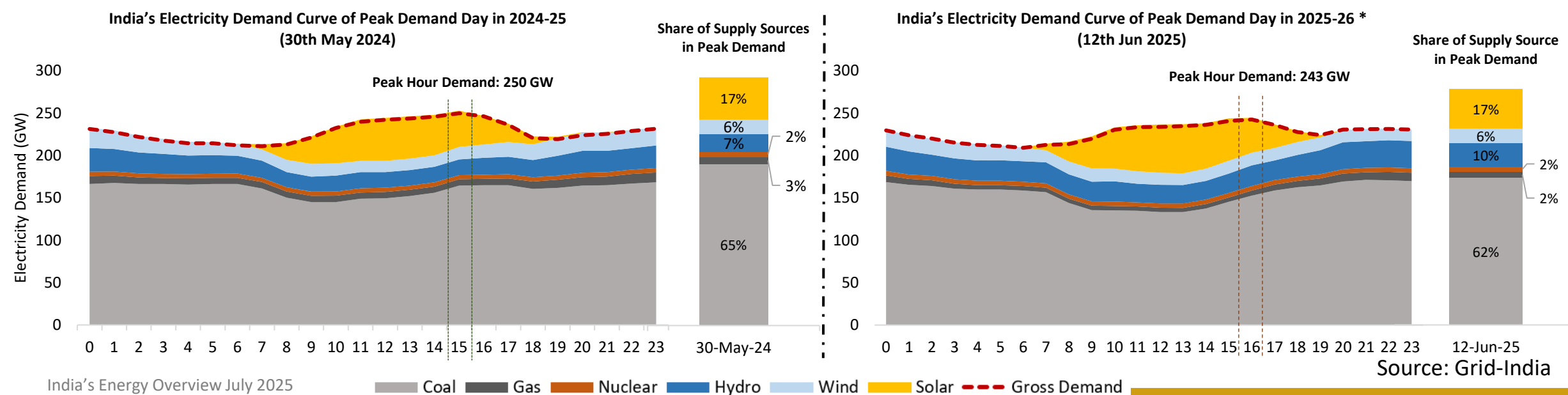
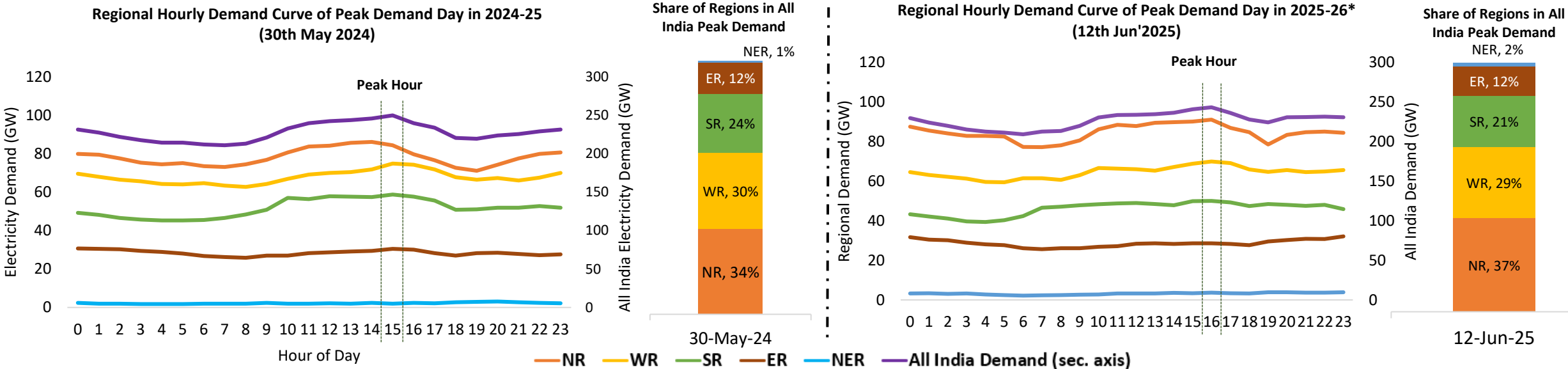
Note: The peak electricity demand data for Jul'25 is Provisional.

Source: CEA

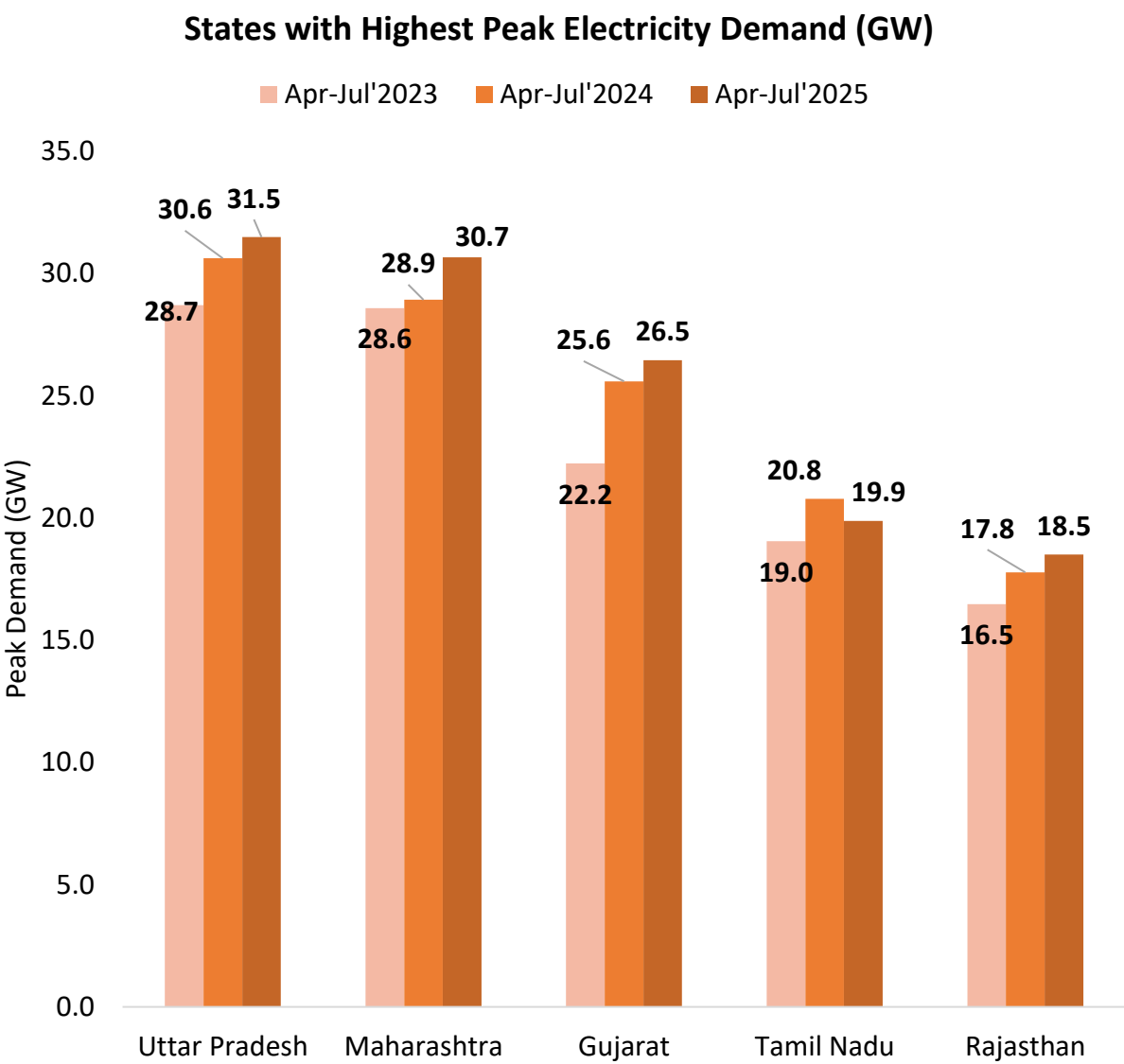
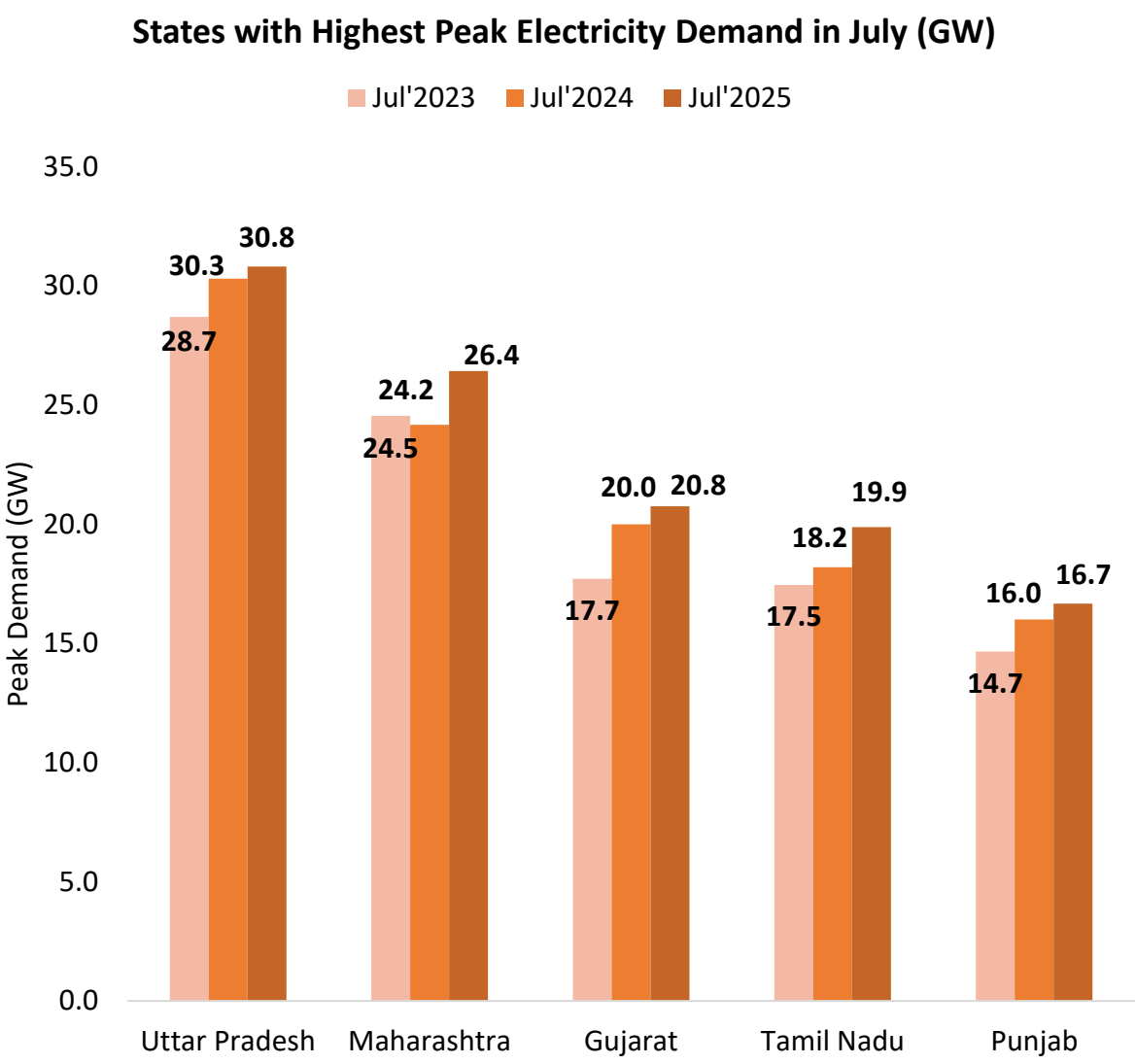
India's Monthly Peak Electricity Demand and Supply



All India, Regional, and Seasonal Electricity Demand Curve of Peak Demand Day



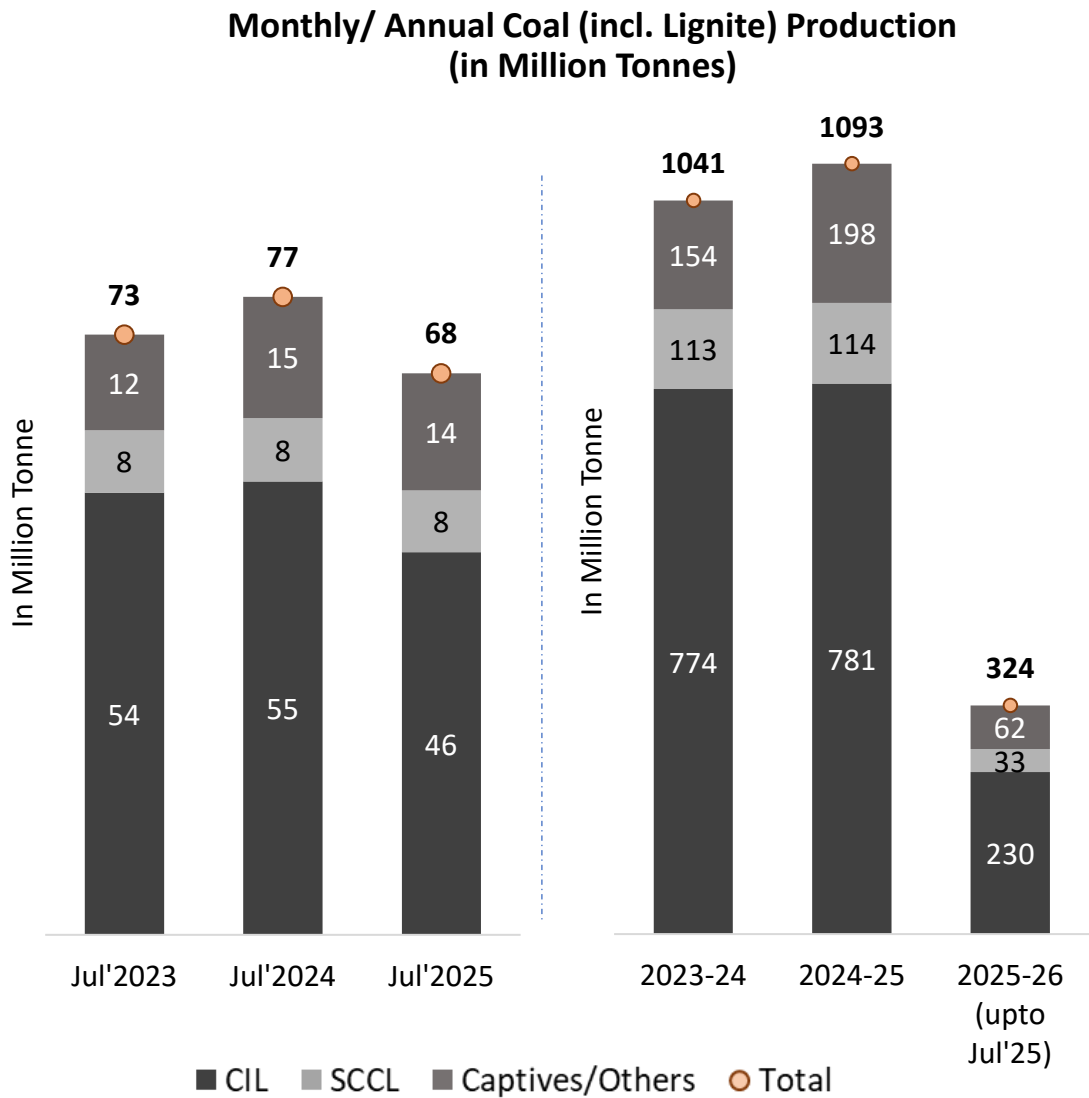
Monthly Peak Electricity Demand of the top 5 states



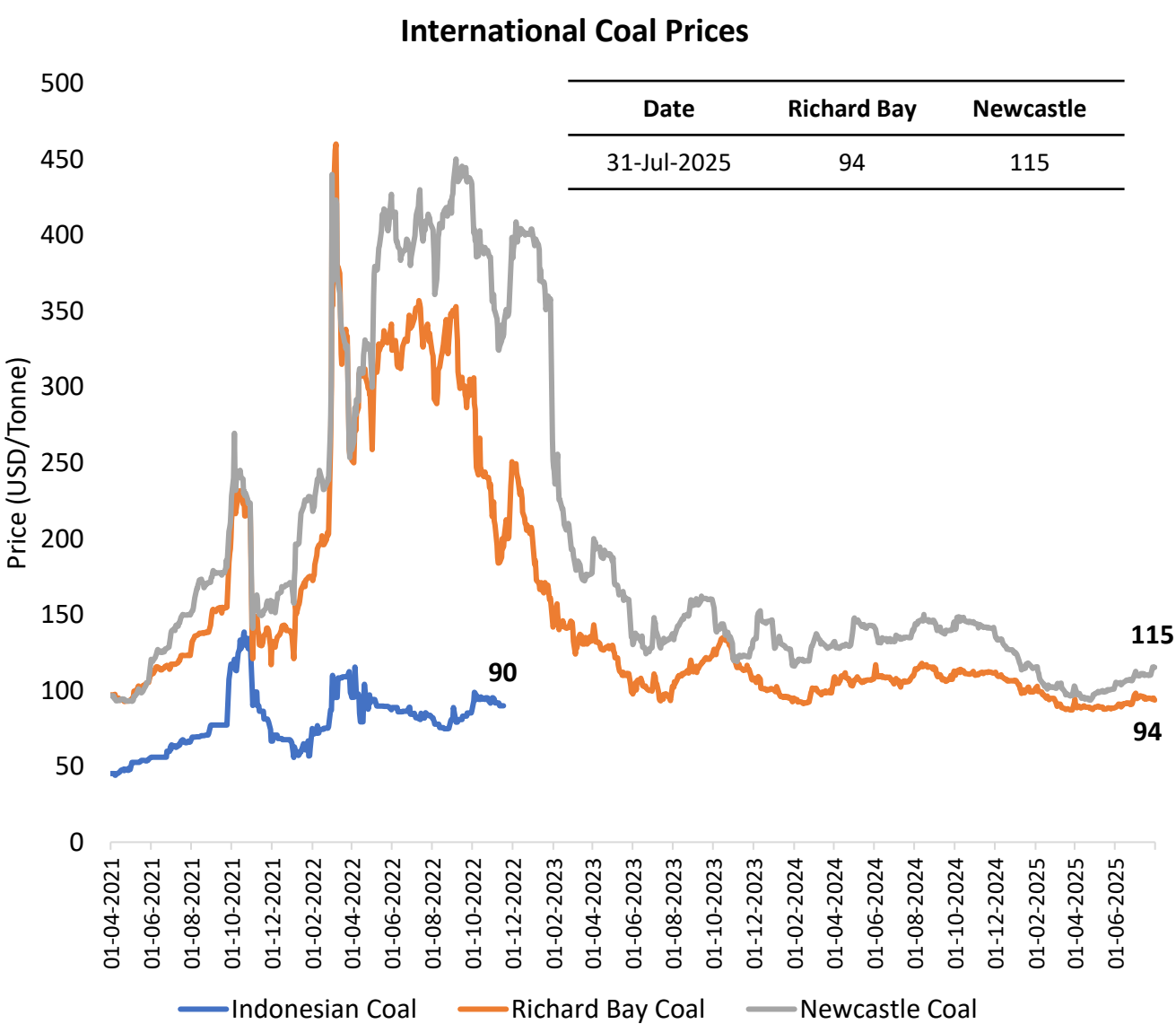
Note: The peak electricity demand data for Jul'25 is Provisional.

Source: CEA

Monthly Coal Statistics



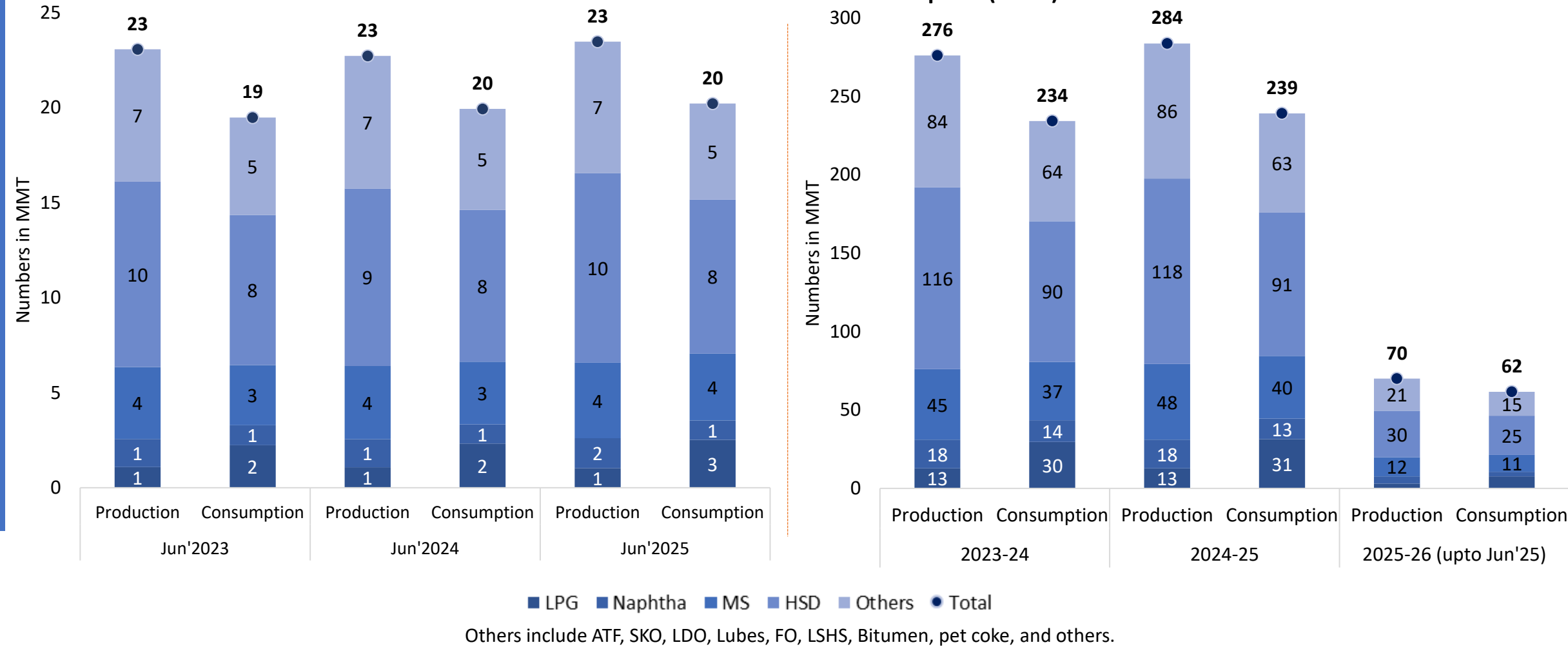
Source: Ministry of Coal



Source: Investing.com

Petroleum Products Market Scenario (1/3)

Petroleum Product-wise Production & Consumption (MMT)



Abbreviations: ATF- Aviation Turbine Fuel, FO- Furnace Oil, HSD- High-Speed Diesel, LDO- Light Diesel Oil, MS- Motor Spirit (Petrol), SKO- Superior Kerosene Oil, LSHS- Low Sulphur Heavy Stock, LPG- Liquefied Petroleum Gas, MMT- Million Metric Tonne

Petroleum Products Market Scenario (2/3)

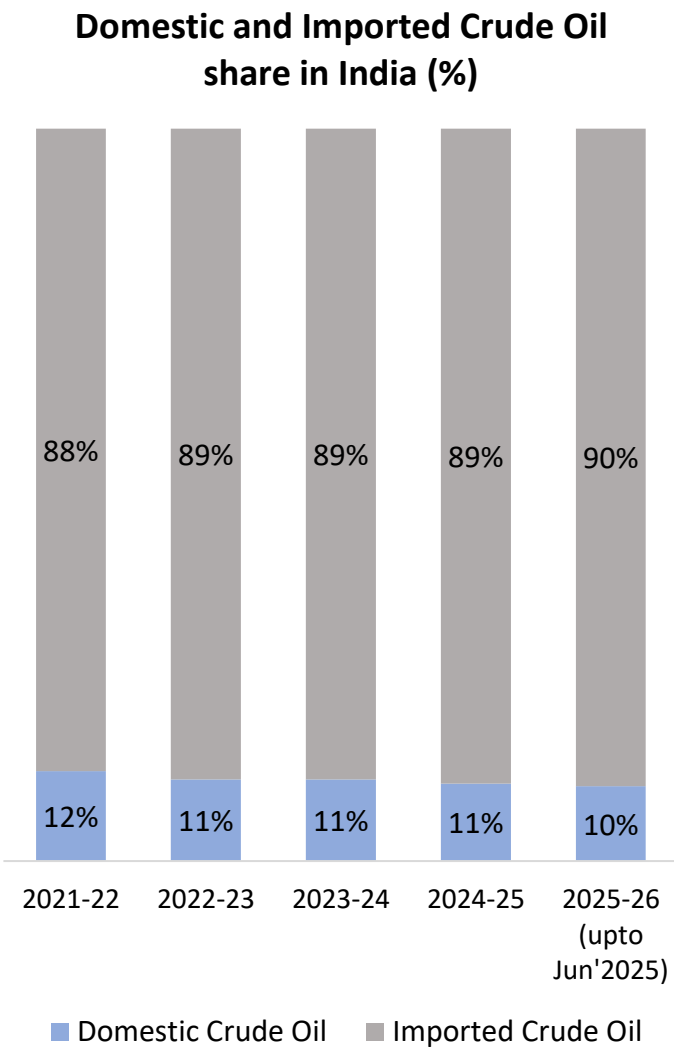
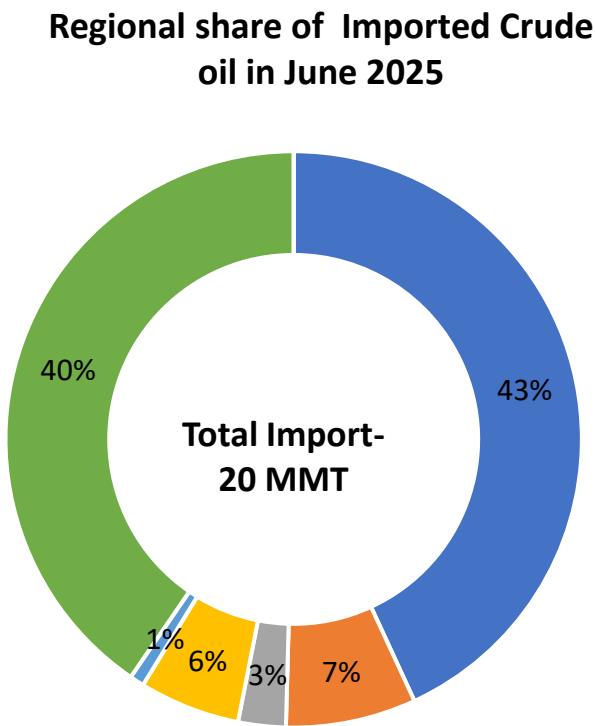
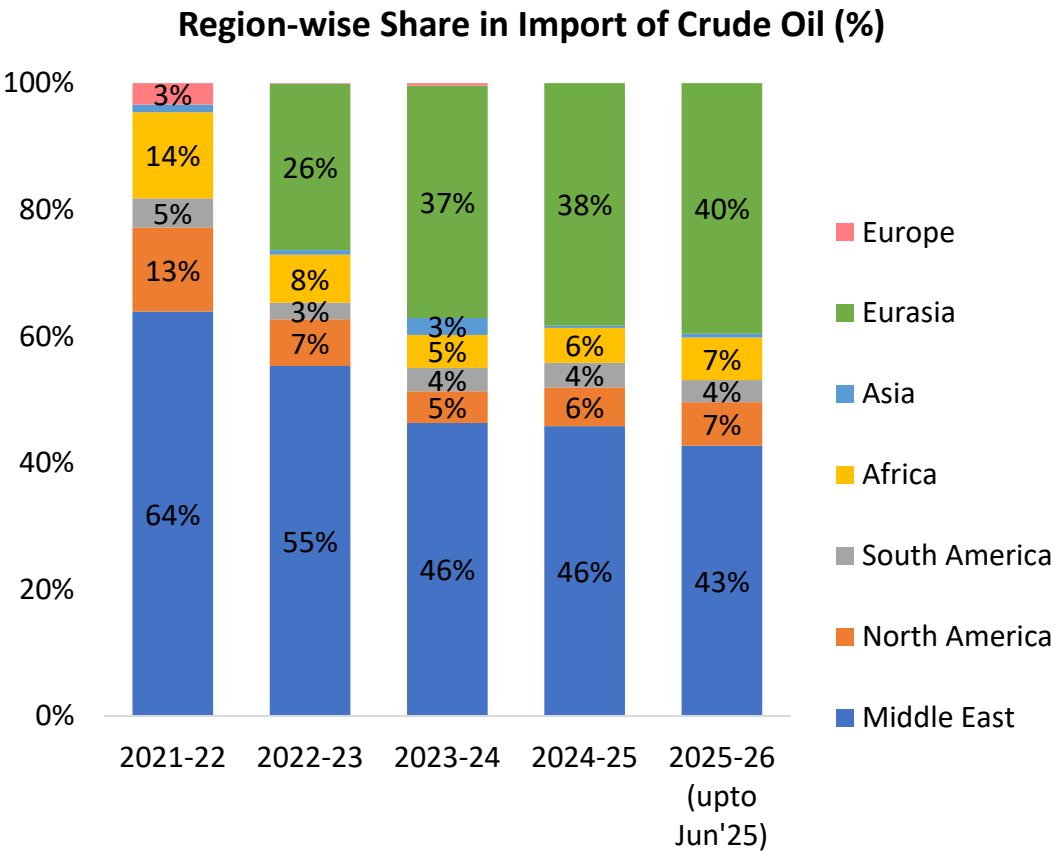
Import/Export of Crude Oil and Petroleum Products ('000 Tonnes)							
Petroleum Products	Import/ Export	Monthly			Yearly		
		Jun'23	Jun'24	Jun'25	2023-24	2024-25	2025-26 (up to Jun'25)
Crude Oil	Import	19879	18813	20315	234262	243225	62629
	Export	0	0	0	0	0	0
	Net Import	19879	18813	20315	234262	243225	62629
LPG	Import	1320	1323	1862	18514	20667	5132
	Export	41	46	47	525	551	145
	Net Import	1279	1278	1815	17989	20116	4987
Diesel	Import	1	2	3	42	42	8
	Export	1951	1944	2245	28204	28027	5889
	Net Import	-1951	-1942	-2242	-28162	-27985	-5881
Petrol	Import	146	0	0	717	235	0
	Export	1225	1239	1270	13472	15830	3944
	Net Import	-1079	-1239	-1270	-12755	-15596	-3944
Others	Import	2310	2294	2469	29419	29960	7321
	Export	1800	1748	1773	20391	20667	5026
	Net Import	510	546	696	9029	9293	2295

*Others include ATF, Naphtha, SKO, LDO, Lubes, FO, LSHS, Bitumen, pet coke, and others.

NOTE: The data is available latest up to June 2025.

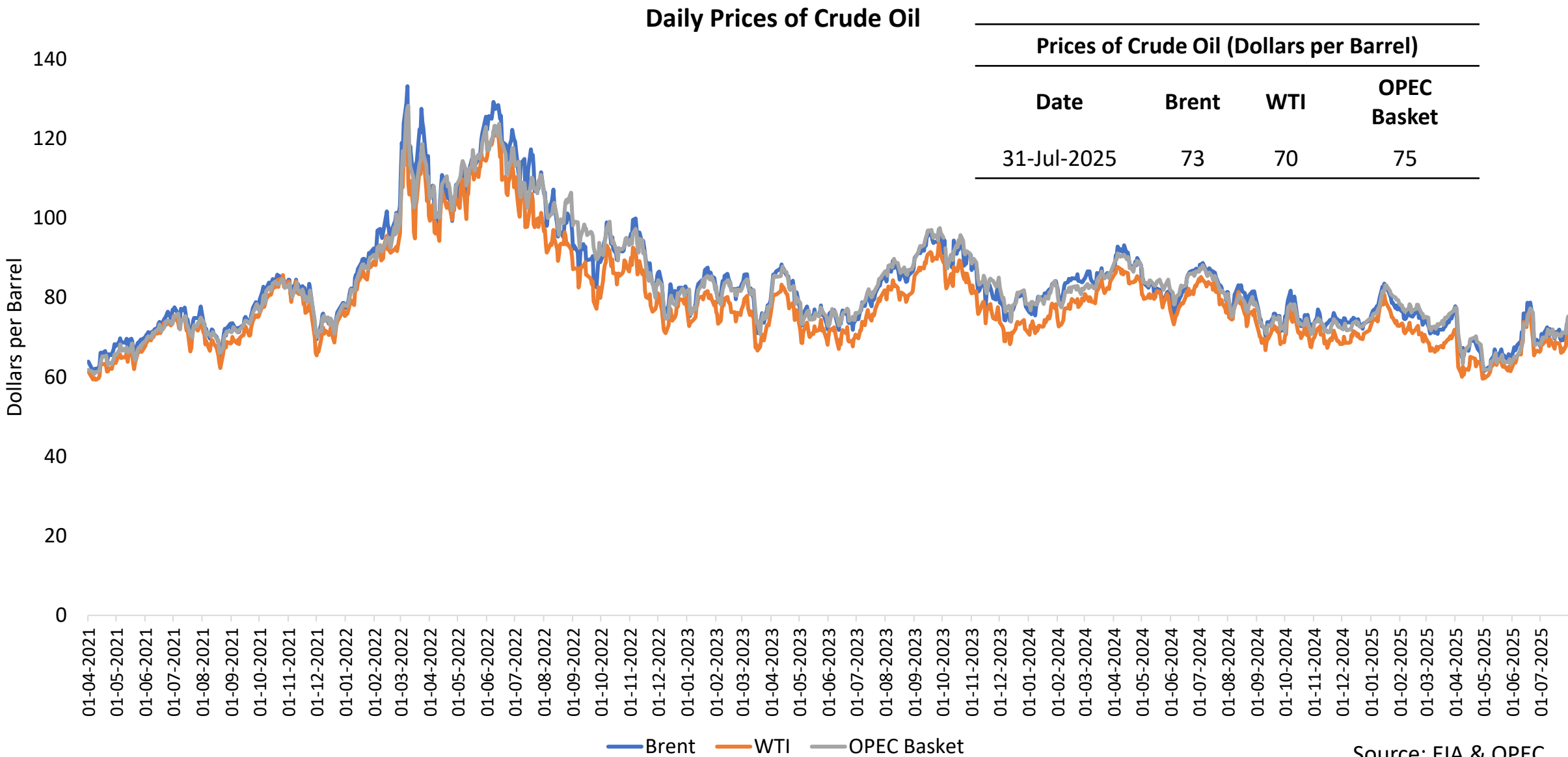
Source: PPAC

Petroleum Products Market Scenario (3/3)

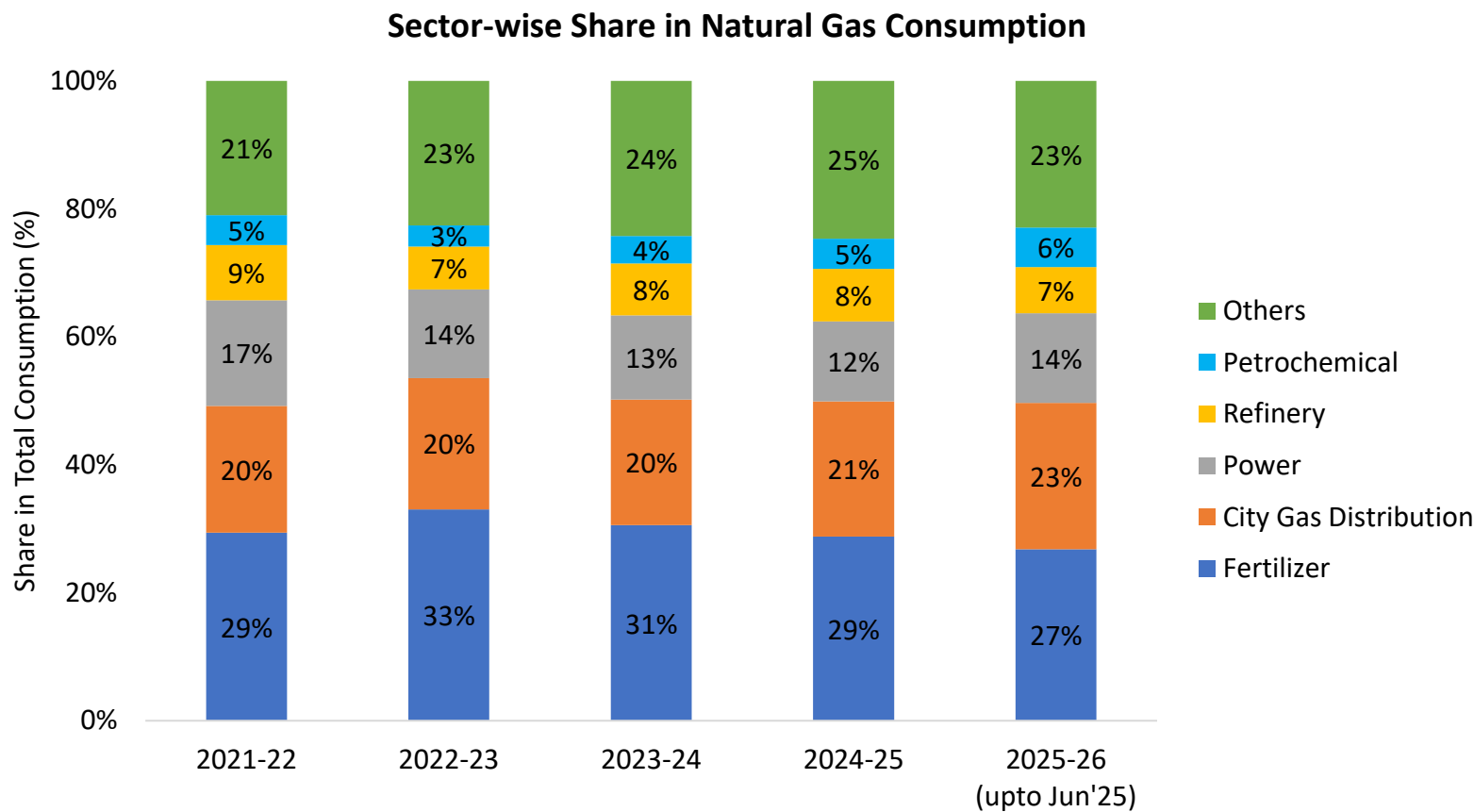


Total Import of Crude Oil (MMT)			
Total Import	2023-24	2024-25	2025-26 (upto Jun'25)
Crude Oil	234	243	63

Daily Prices of Crude Oil

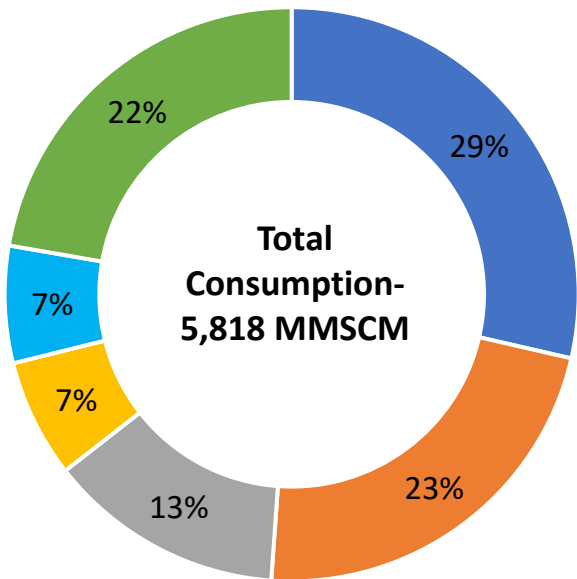


Gas Market Scenario (1/2)



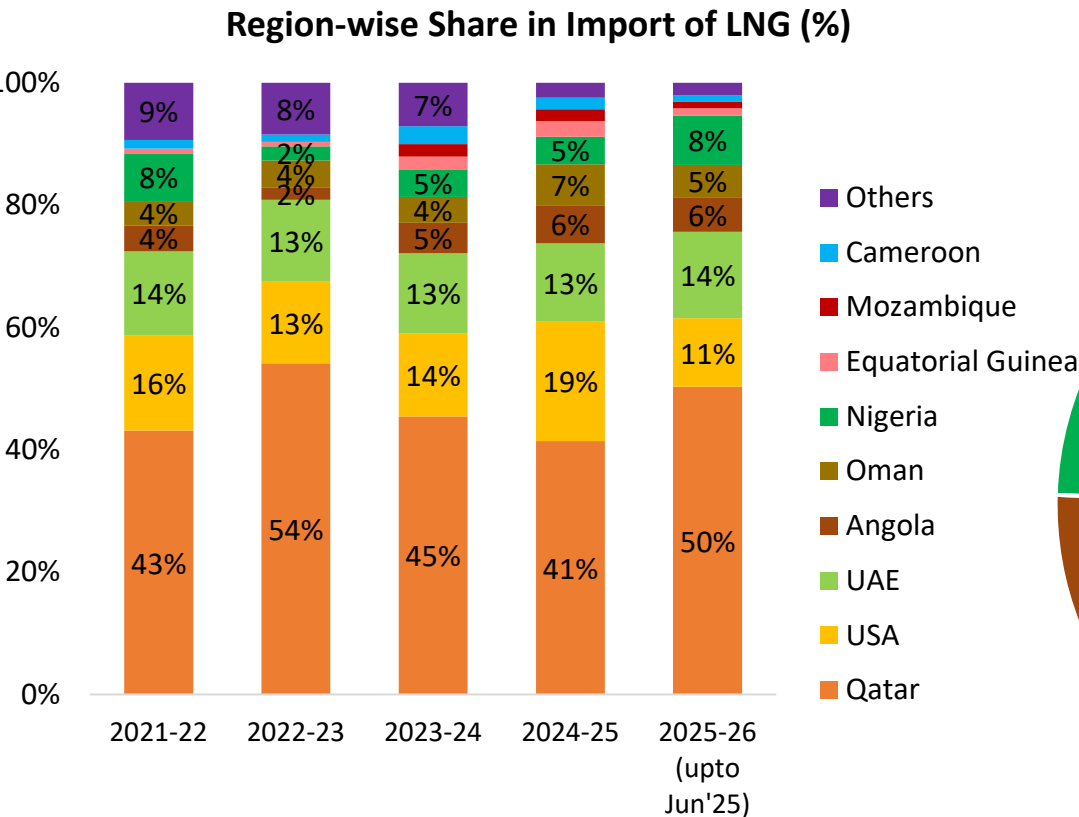
Total Consumption of Natural Gas (NG) (MMSCM)					
Total Consumption	2021-22	2022-23	2023-24	2024-25	2025-26 (upto Jun'25)
Natural Gas	61,491	58,702	68,809	71,196	17,179

Sector-wise share in Natural Gas Consumption in June 2025



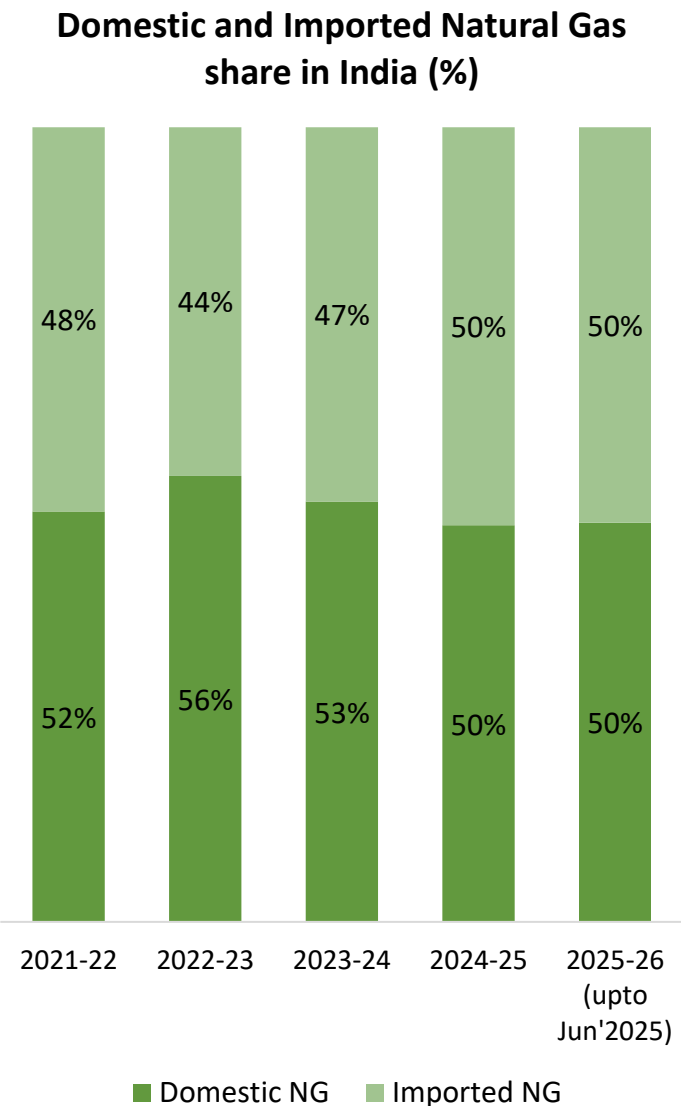
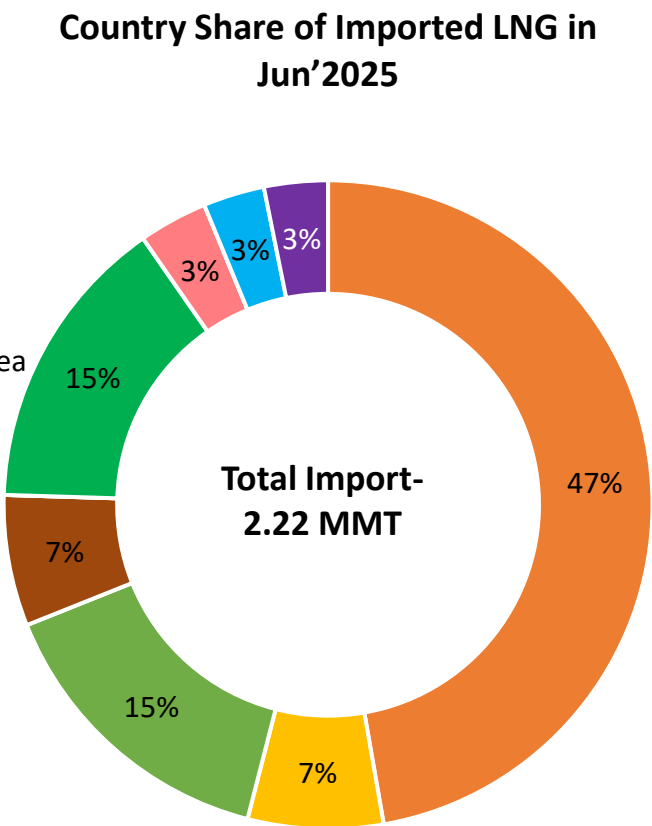
Others include- Internal Combustion of Pipeline System, Industrial, Sponge iron/steel, LPG shrinkage, Manufacturing, Agriculture (tea plantation), Others

Gas Market Scenario (2/2)



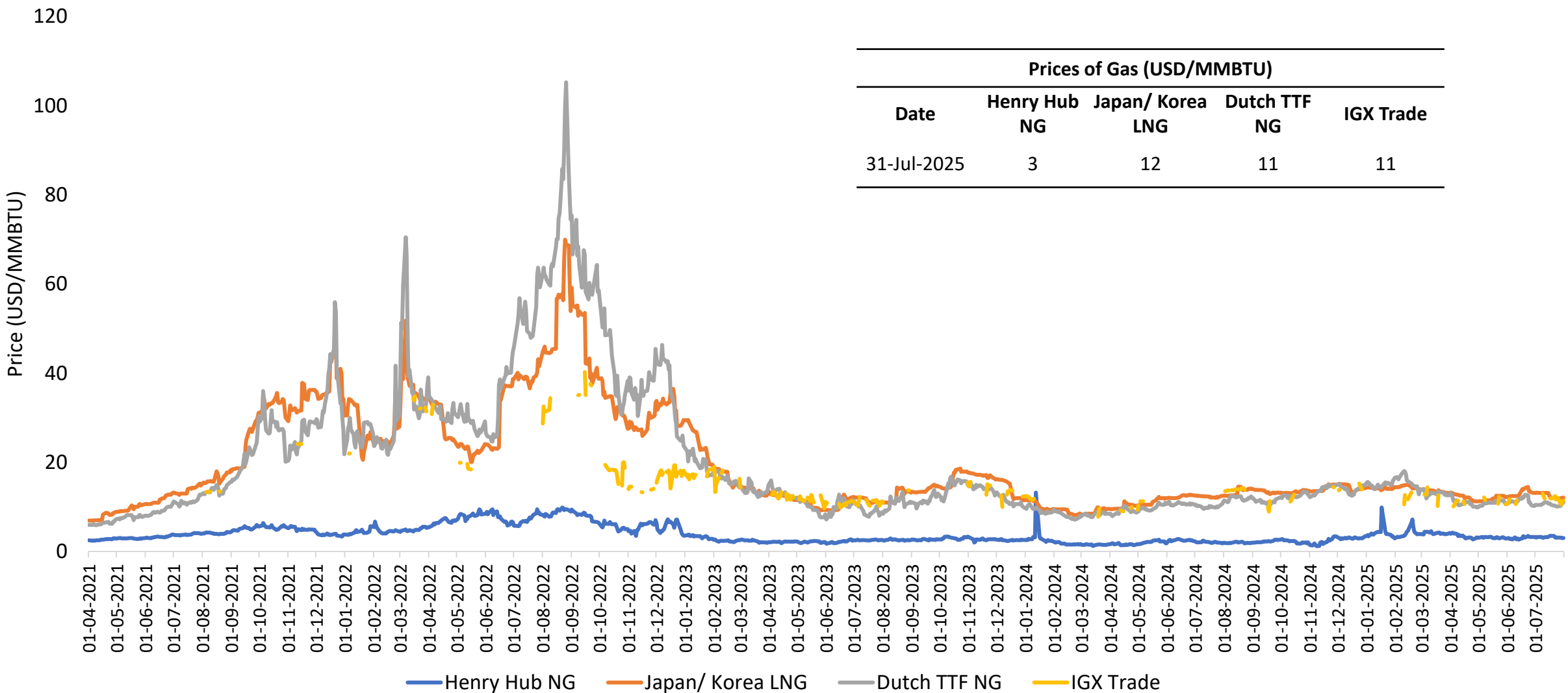
Others include- Trinidad, Cameroon, Egypt, France, Algeria, Belgium, Indonesia, Turkey, Russia, Spain, Malaysia, Brunei, Netherlands, Norway, and others.

Total Import of Liquified Natural Gas (LNG) (MMT)			
Total Import	2023-24	2024-25	2025-26 (up to Jun'25)
LNG	24.00	26.96	6.48



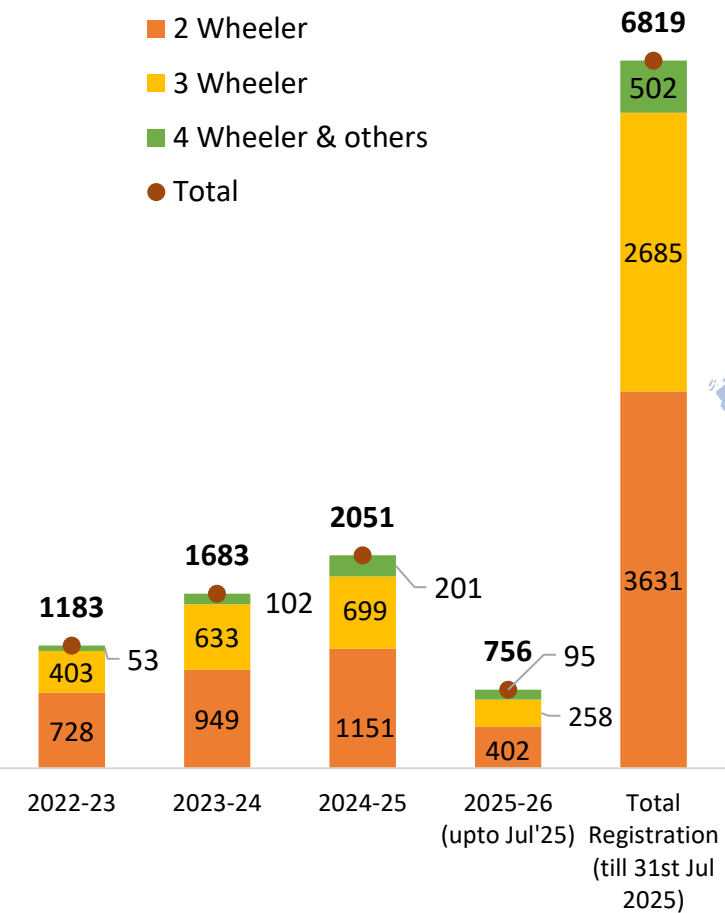
Daily Prices of Gas

Gas Daily Market Price

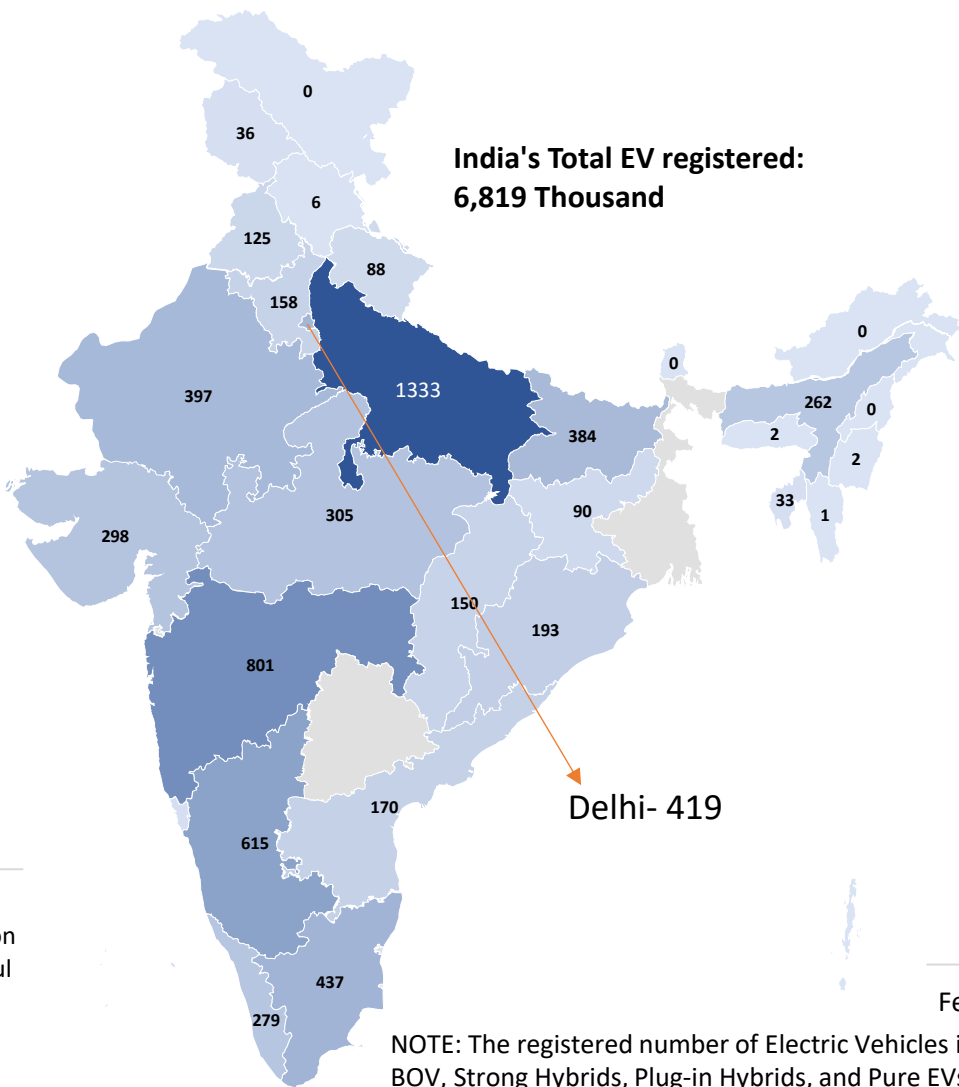


Status of Electric Mobility in India

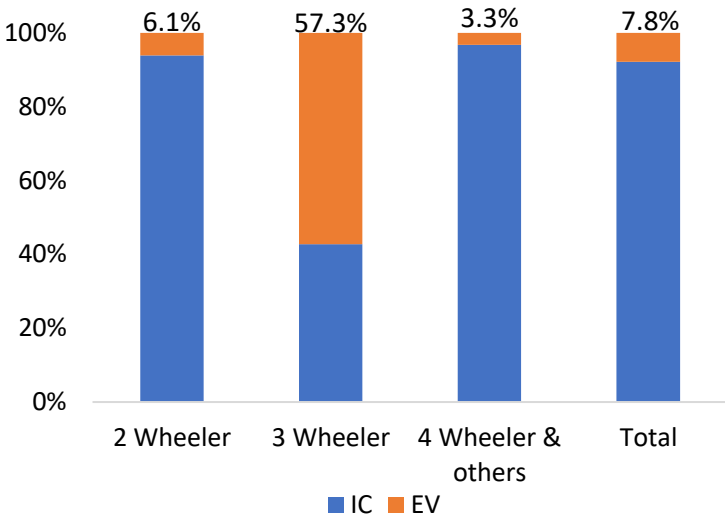
National EV registration
(Number in Thousands)



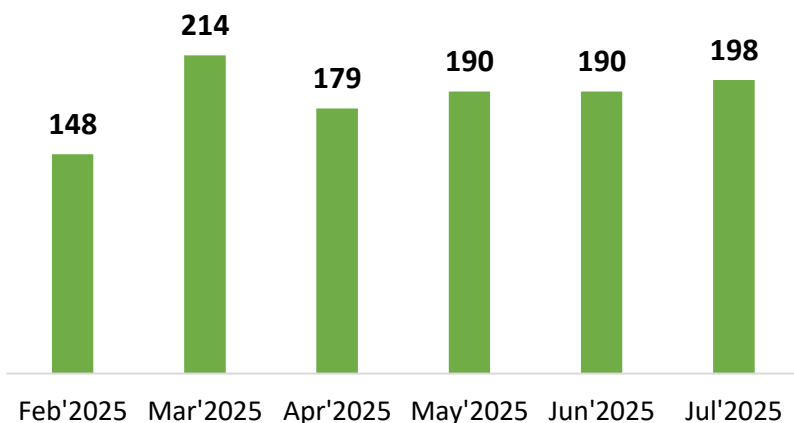
Cumulative State-wise EV registration
as on 31st July 2025 (in Thousands)



EV and ICE sale composition in 2024-25



Provisional Monthly EV registered
(in Thousands)

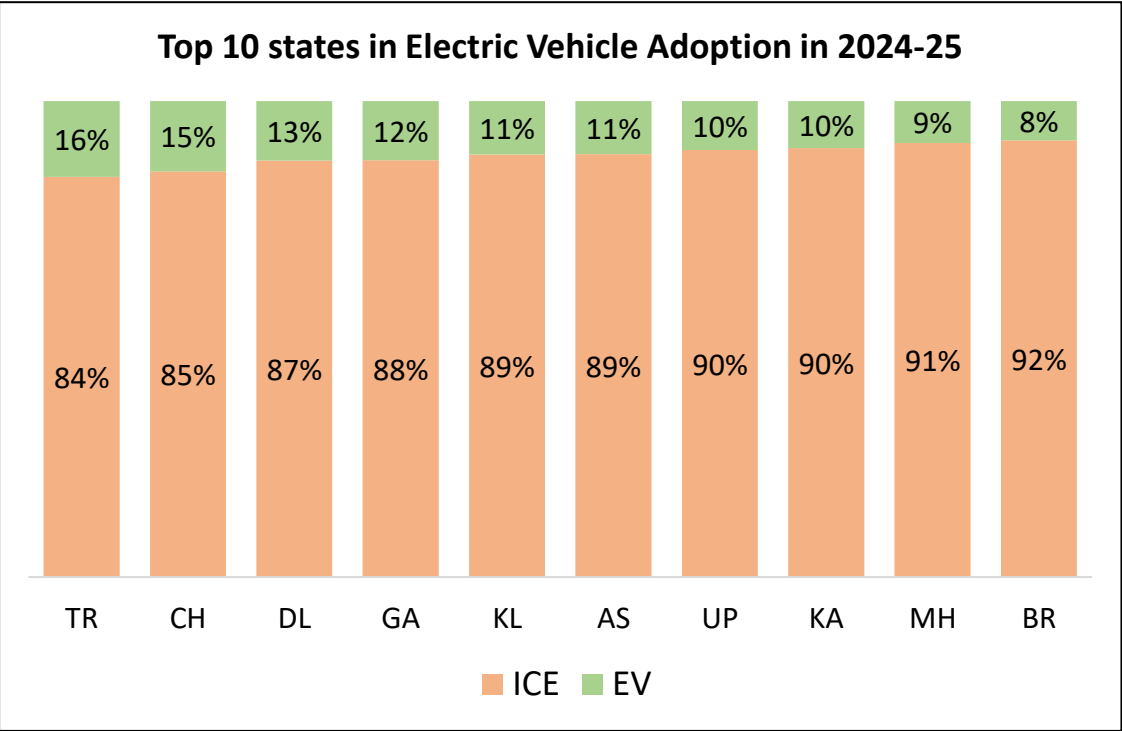
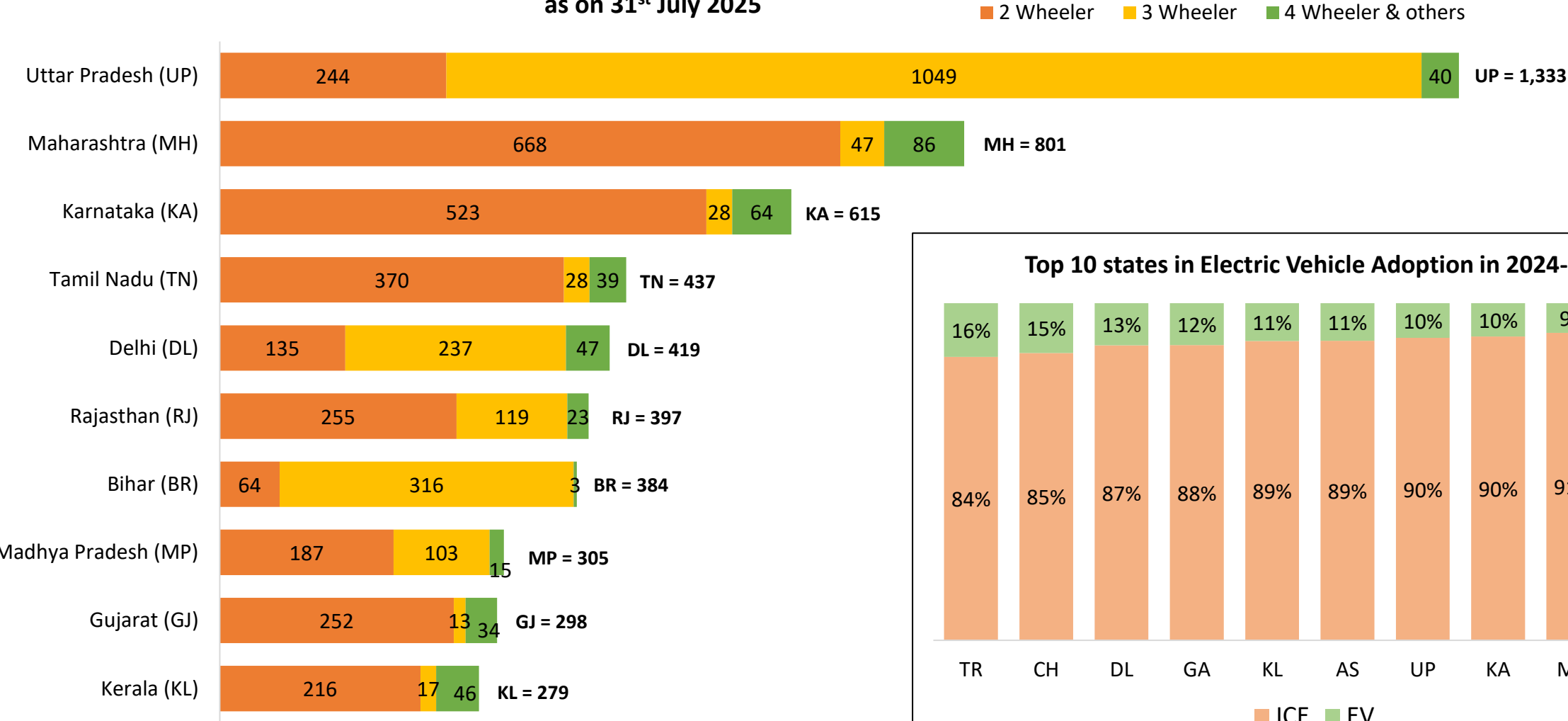


NOTE: The registered number of Electric Vehicles includes Electric BOV, Strong Hybrids, Plug-in Hybrids, and Pure EVs.

Source: VAHAN Dashboard

Status of Electric Mobility in India

Top 10 States for Electric Vehicles (in Thousands)
as on 31st July 2025



Recent Interventions to promote Renewable Energy

Solar

Under the [PLI scheme](#), the GOI has announced INR 19,500 crores to incentivize the manufacturing of domestic solar PV modules.

[PM-Surya Ghar: Muft Bijli Yojana](#) released with a total outlay of Rs. 75,021 crore for installing rooftop solar (RTS) for one crore households. The scheme provides a CFA of Rs 30,000 for a 1 kW RTS system, Rs 60,000 for a 2kW RTS system, and Rs 78,000 for a 3kW RTS system.

The [inter-state transmission charges](#) are waived for 25 years for the projects being commissioned before 30th June 2025.

The [updated RPO](#) compliance supports solar integration of up to 33.57% of the electricity purchased by DISCOMs/states till the year 2029-30.

[PM KUSUM scheme](#) has been extended till Mar'26 to install pump sets up to 15 HP in selected areas.

Wind

[Reverse auctions have been scrapped](#) for wind projects. A traditional two-part (technical and financial) bid system has been put in place.

To support [off-shore wind](#), SECI will invite bids for up to 4GW to set up offshore wind plants off the coast of Tamil Nadu and Gujarat.

The ISTS charges are waived for 25 years for the [onshore projects](#) being commissioned before 30th June 2025 and for [off-shore projects](#) on or before 31st December 2032.

The [updated RPO](#) compliance supports WIND integration of up to 6.94% of the electricity purchased by DISCOMs/states till the year 2029-30.

The [National Repowering & Life Extension Policy for Wind Power Projects- 2023](#), for wind power projects is released for the optimum utilization of wind energy resources by maximizing energy (kWh) yield per sq. km of the wind project areas.

The GoI has decided to invite bids for 50 GW of RE annually, which includes up to [10 GW of wind](#) capacity.

Energy Storage

Ministry of Power has released the [guidelines for the development of PSP](#) with the target of 26.7 GW of PSP and 47.2 GW of BESS to integrate with RE capacity till 2032.

[PLI scheme](#) unveiled for setting up 50 GWh ACC battery storage with an outlay of ₹18,100 crores.

Under the [Waste Management Rules 2022](#), the disposal of waste batteries in landfills and incineration is prohibited and the recycling of waste batteries is made mandatory.

[CERC](#), under RRAS regulation, has allowed the use of energy storage in secondary and tertiary ancillary support.

[The Energy Storage Obligation](#) of DISCOMs is pegged at 4.0% up to 2029-30.

India's [first 20 MW/40MWh BESS project](#) is going to go live at the 33/11 kV Kilokari sub-station belonging to BRPL, Delhi.

Under the aegis of MNRE, SECI has successfully commissioned [India's largest BESS plant, featuring a 40 MW/120 MWh](#) BESS alongside a solar PV plant with a installed capacity of 152 MWh, located in Rajnandgaon, Chhattisgarh.

Green Hydrogen (H₂)

[National Green Hydrogen Mission](#) (NGHM) aims to meet the target of 5 million metric tonnes of green hydrogen production by 2030. The initial outlay for the Mission will be INR 19,744 crores. [NGHM portal](#) to track the recent initiatives and developments.

India's [first Green Hydrogen Hub to be build in Andhra Pradesh](#) by NTPC at an estimated cost of ₹1.85 Lakh Crore with a capacity of producing 1500 TPD Green Hydrogen and 7500 TPD Green Hydrogen derivative

MNRE has sanctioned [pilot projects on Hydrogen Fuelled Buses and Trucks](#) consisting total of 37 vehicles and 9 hydrogen refueling stations.

MNRE has sanctioned [3 pilot projects in steel sector](#) for use of green Hydrogen in steel production to be commissioned in next 3 years with total financial outlay of ₹347 Crore from GoI.

Indian Railways to run [35 Hydrogen trains under "Hydrogen for Heritage"](#) at an estimated cost of ₹ 80 crores per train and ground infrastructure of ₹ 70 crores per route on various heritage/hill routes.

Key Highlights or Announcements of July 2025

- On 31st July 2025, the Union Minister of Ports, Shipping & Waterways, Shri Sarbananda Sonowal, inaugurated a [1 MW Green Hydrogen Power Plant at the Deendayal Port Authority \(DPA\), Kandla](#). With an annual production capacity of around 140 metric tonnes of green hydrogen, the facility is set to play a pivotal role in advancing maritime decarbonisation and promoting sustainable port operations.
- On 24th July 2025, the Ministry of Power issued a press release on the [status of the Revamped Distribution Sector Scheme \(RDSS\)](#), stating that 20.33 crore smart meters have been sanctioned across 28 States/UTs, of which 2.41 crore have been installed as of 15th July 2025. In Gujarat, 1.67 crore smart meters have been sanctioned under RDSS, with 20.94 lakh installed by the same date.
- The Ministry of Power released [the status of hydro pumped storage projects \(PSPs\)](#) as of 30th June 2025:
 - 10 PSPs with a total installed capacity of 6.2 GW have been commissioned.
 - 8 PSPs with an aggregate capacity of 8.5 GW are under construction.
 - 5 PSPs with a combined capacity of 5.8 GW have received concurrence from CEA.
 - 46 PSPs with a total capacity of 64.8 GW are under survey and investigation for DPR preparation.



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