

India's Energy Overview

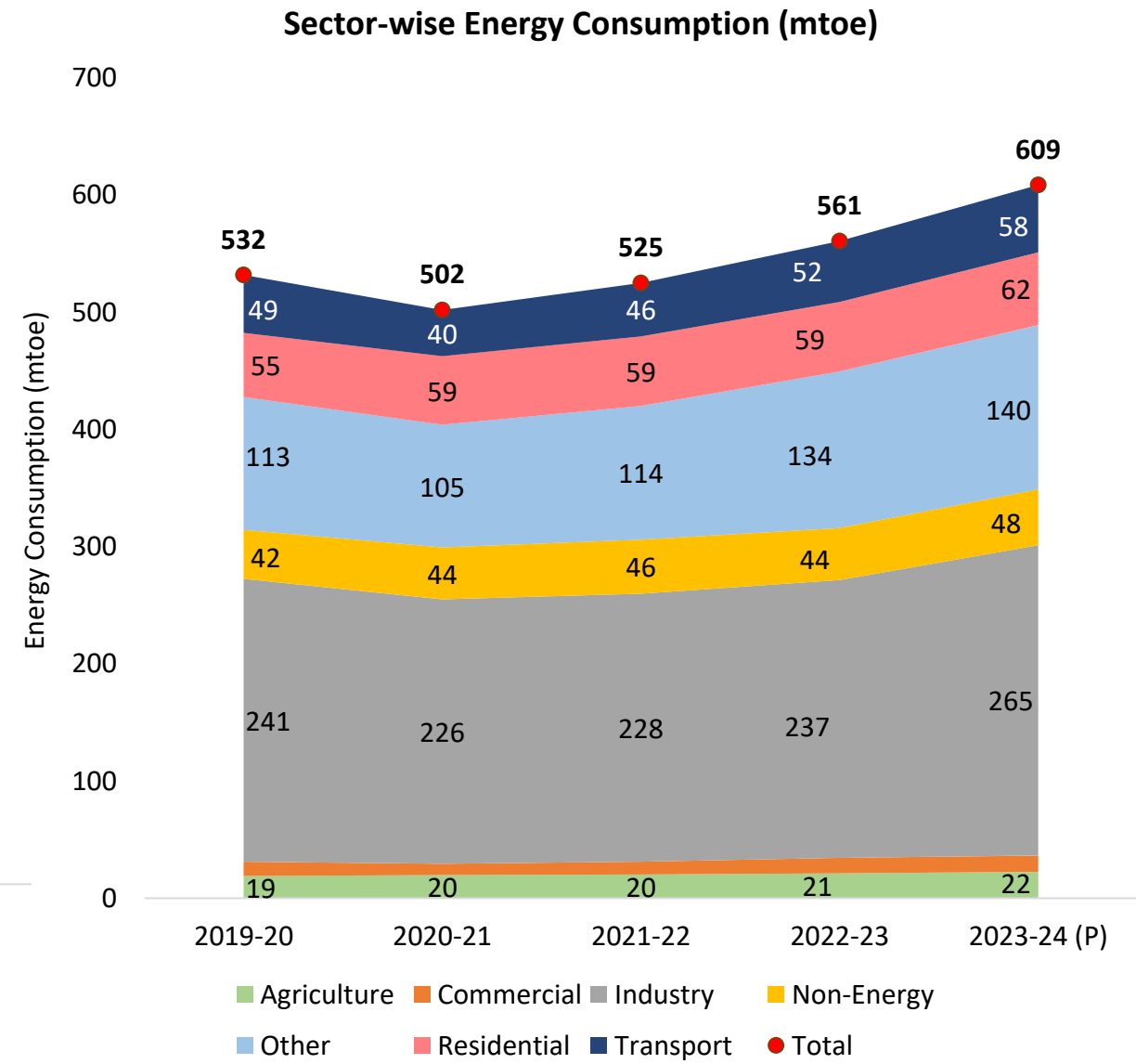
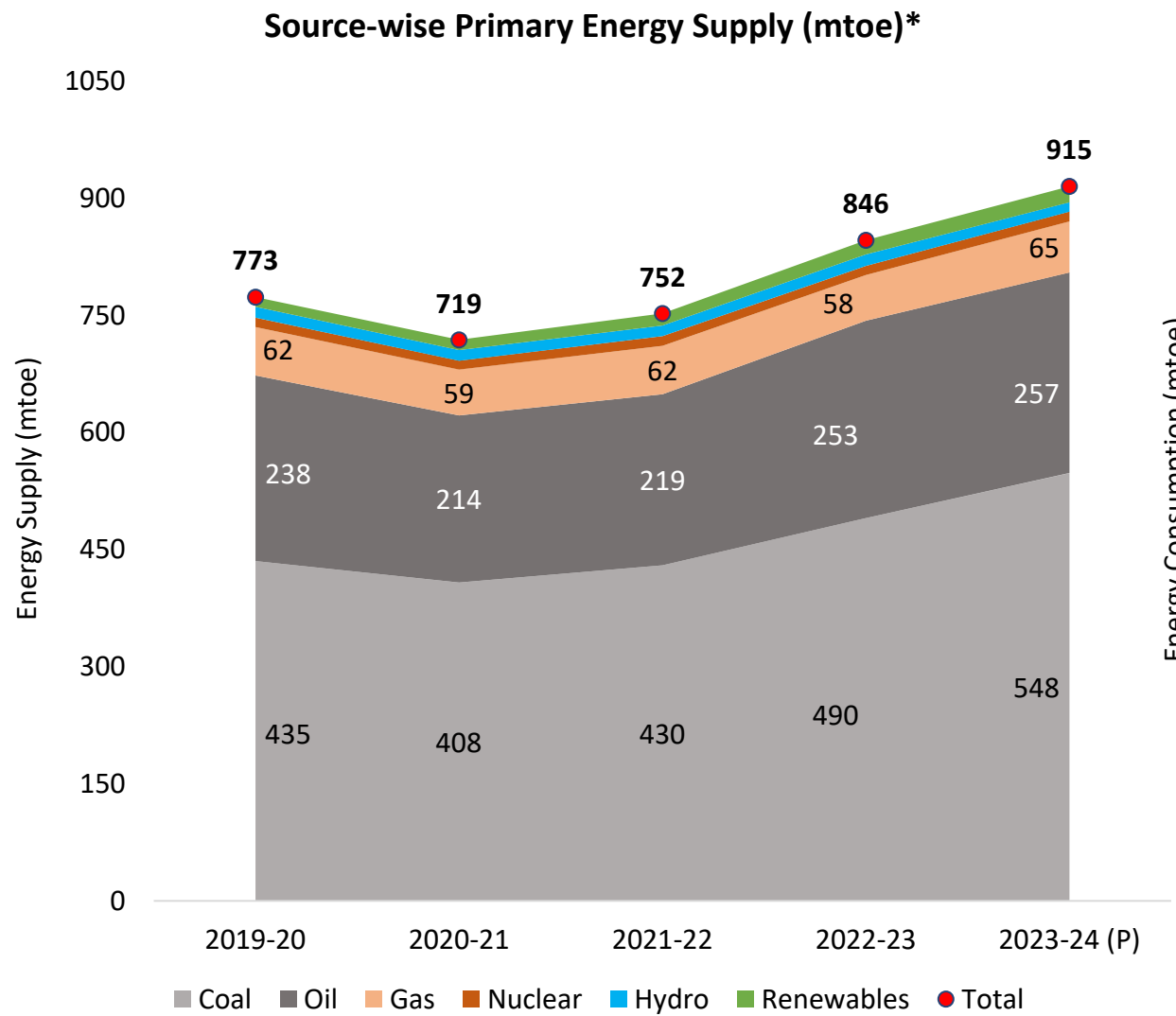
December 2025



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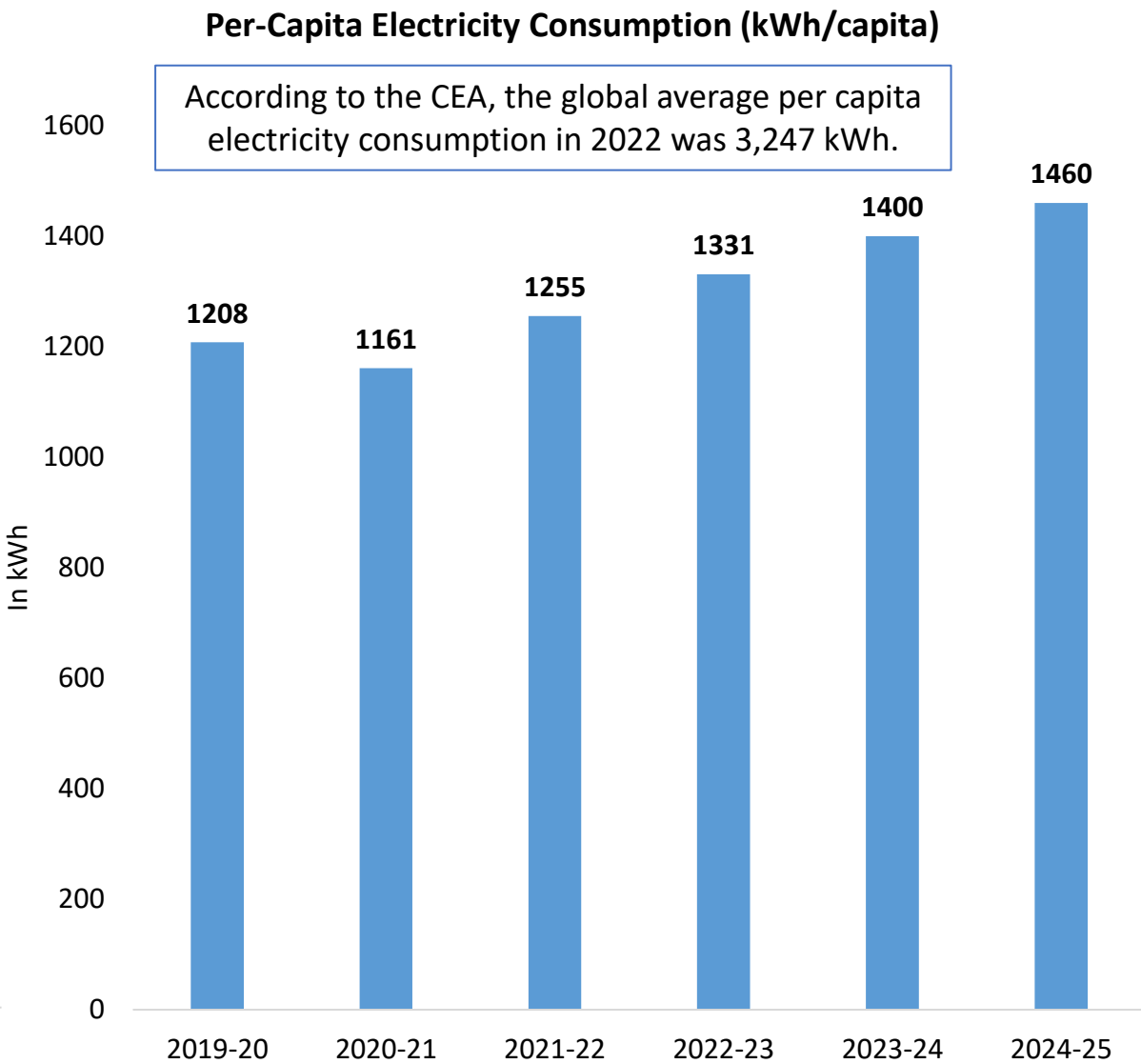
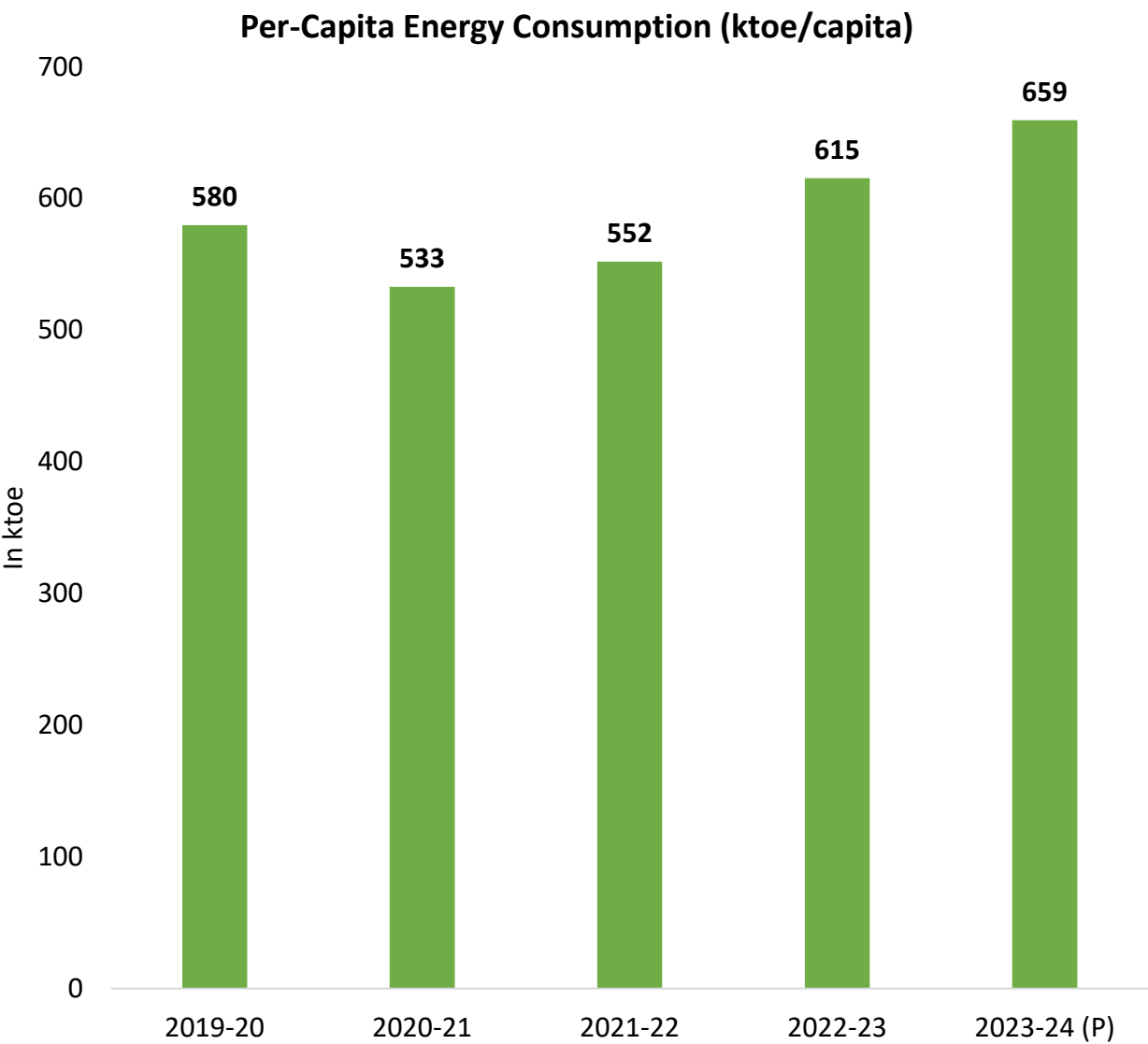
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Primary* and Final Energy Mix in India



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

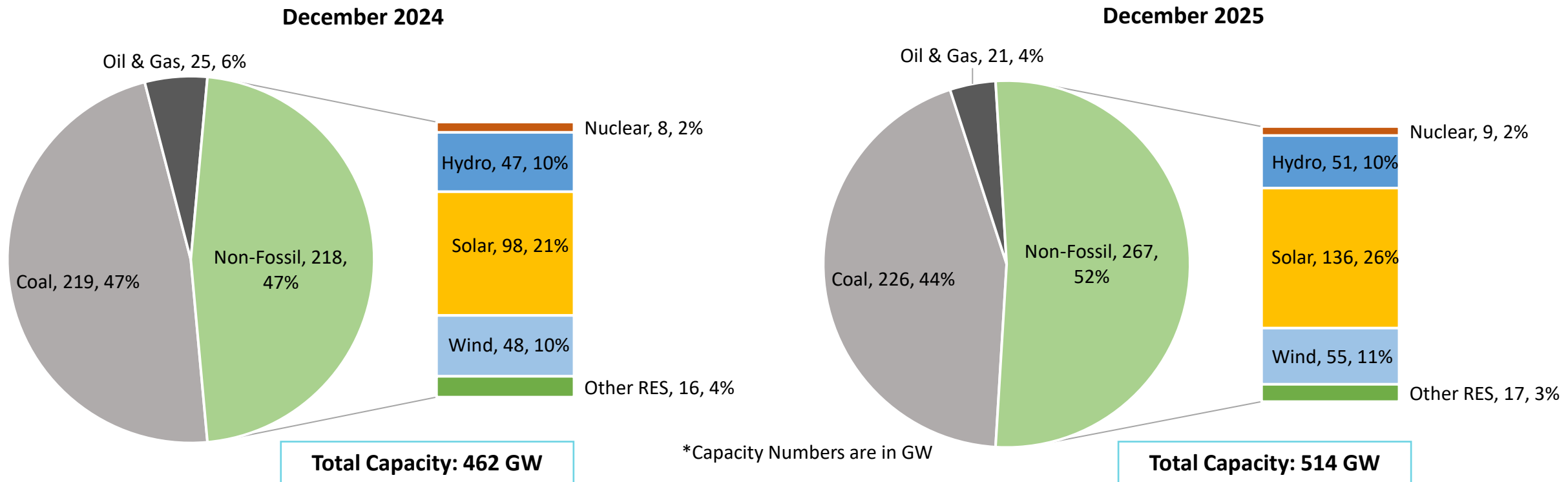
Per-Capita Energy and Electricity Consumption



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

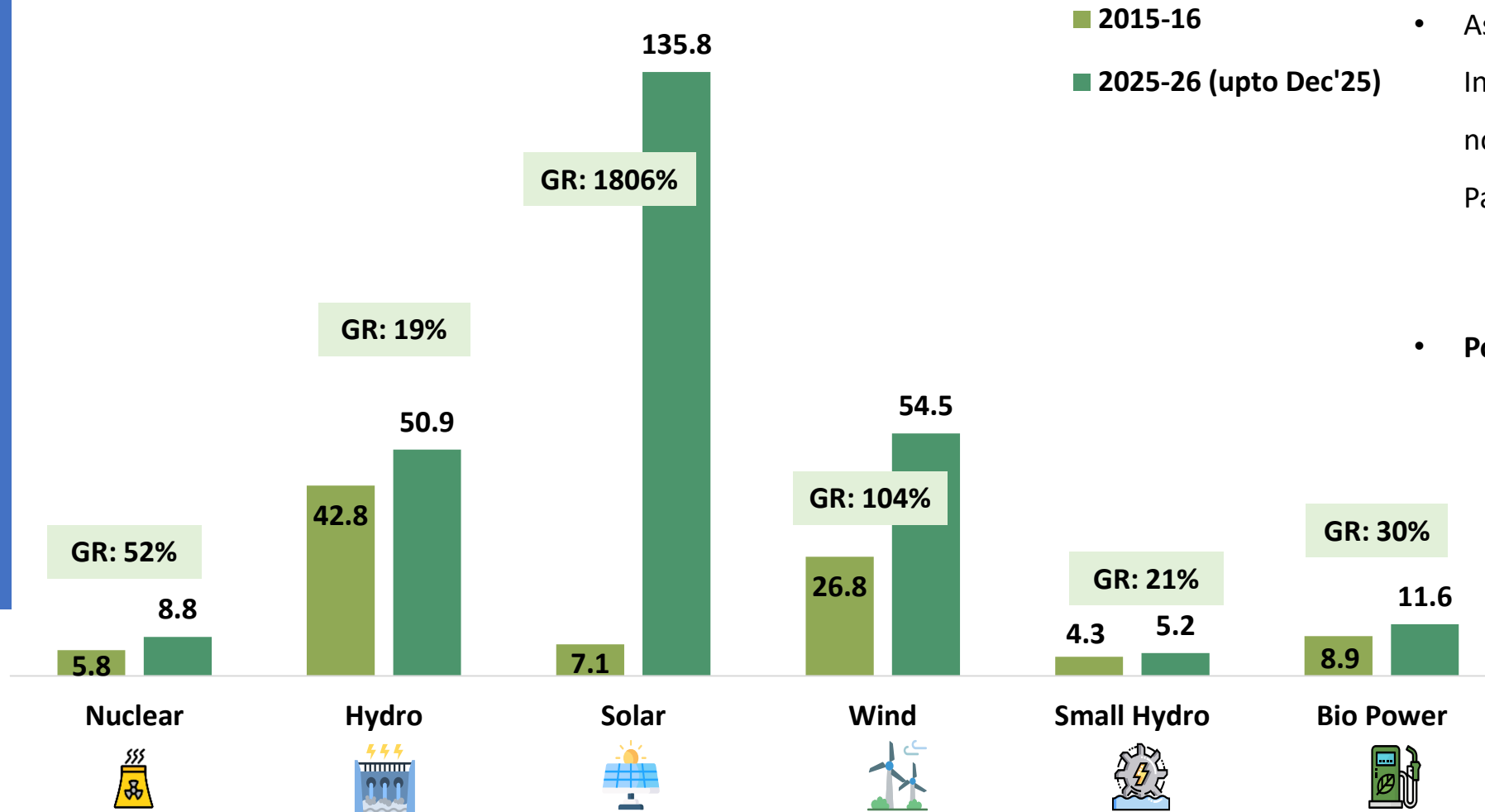
Source: ICED & CEA

India's Electricity Capacity Mix (Utility-scale)



- India's electricity generating capacity is 514 GW as on Dec'2025 [coal 226 GW (44%), solar 136 GW (26%), wind 55 GW (11%), and hydro 51 (10%)].
- India has achieved its NDC target of 52% non-fossil capacity, 5 years ahead of the originally set in 2030.
- As on Dec'2025, India's renewable energy capacity (including large hydro) stood at 258 GW out of 514 GW.

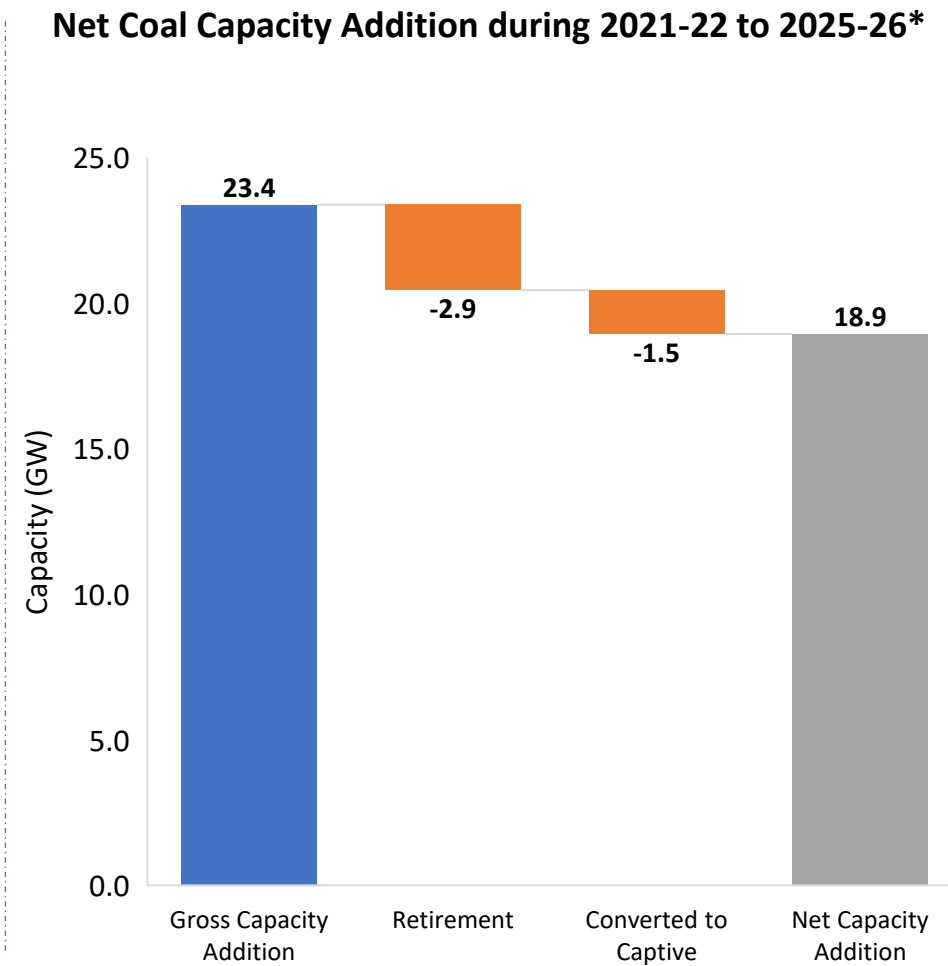
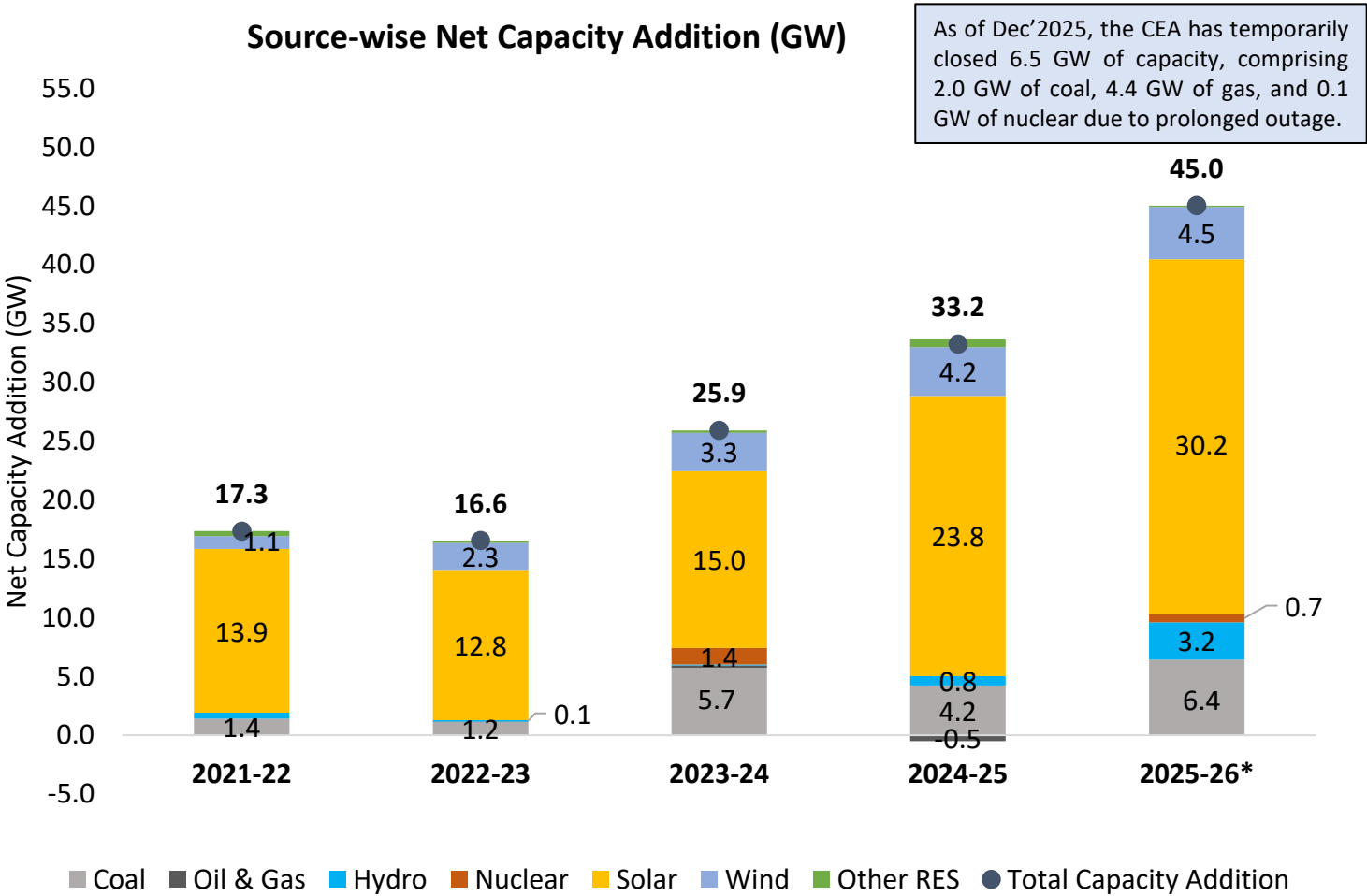
Non-Fossil Energy Capacity (in GW) Growth Post-2015 Paris Agreement



- As of December 31, 2025, **52% (267 GW)** of India's total power capacity (**514 GW**) is now non-fossil fuel-based, meeting the Paris Agreement pledge.

- Post-2015 Paris Agreement Growth:**
 - solar capacity increased **19-folds**
 - wind power **doubled**
 - nuclear energy **doubled**.

India's Electricity Capacity Addition in last 5 years



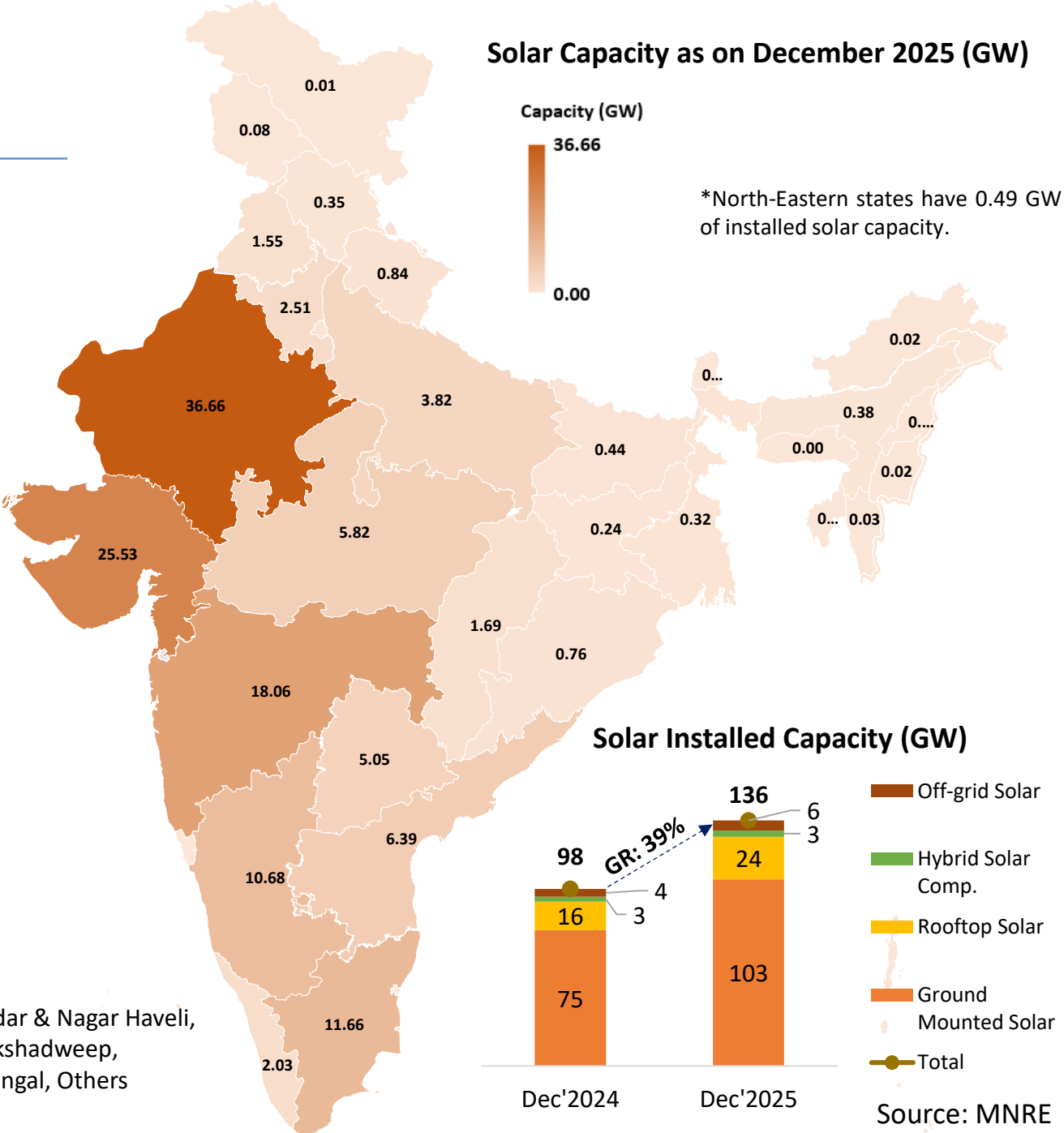
- A total of 117 GW of generation capacity has been added in RE (Hydro, solar, wind, and other RES) over the past 5 years (2021-22 to 2025-26*), whereas the net coal capacity addition during the same period was 19 GW, mostly in the central sector.

State-wise Solar Capacity

as on December 2025

State-wise installed capacity of Solar Power (GW)					
States	Ground Mounted	Rooftop	Solar Component in Hybrid	Off Grid	Total Solar Power
Rajasthan	31.83	2.03	1.98	0.82	36.66
Gujarat	17.77	6.41	1.17	0.17	25.53
Maharashtra	11.42	4.80	0.00	1.85	18.06
Tamil Nadu	10.32	1.27	0.00	0.07	11.66
Karnataka	9.61	0.81	0.21	0.04	10.68
Andhra Pradesh	5.57	0.74	0.00	0.09	6.39
Madhya Pradesh	4.91	0.80	0.00	0.10	5.82
Telangana	4.36	0.68	0.00	0.01	5.05
Uttar Pradesh	2.79	0.67	0.00	0.36	3.82
Haryana	0.27	1.10	0.00	1.14	2.51
Kerala	0.32	1.68	0.00	0.02	2.03
Chhattisgarh	1.13	0.17	0.00	0.39	1.69
Punjab	0.89	0.56	0.00	0.10	1.55
Uttarakhand	0.54	0.27	0.00	0.02	0.84
Others	1.51	1.61	0.00	0.39	3.51
All India	103.24	23.62	3.36	5.59	135.81

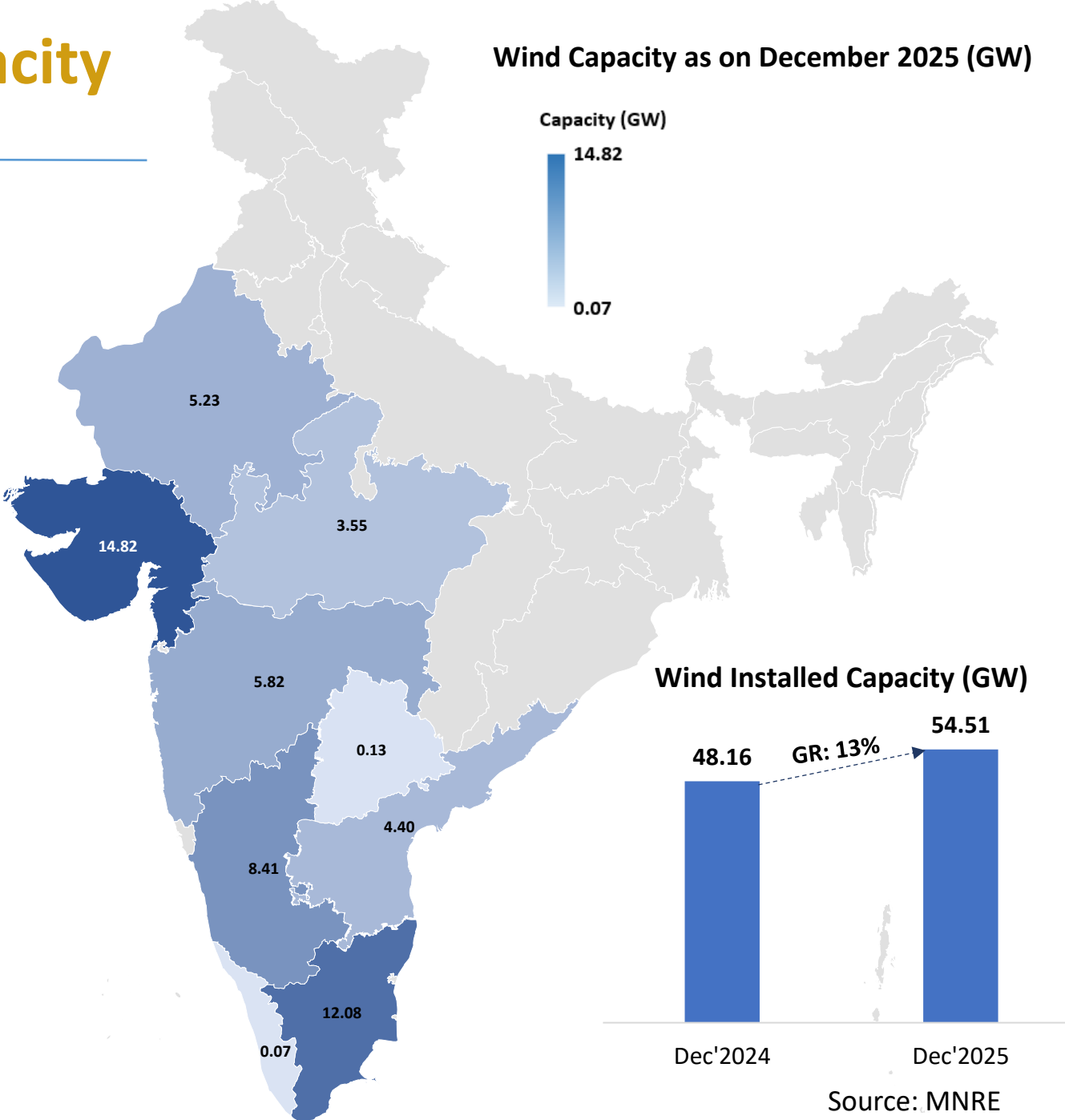
Others include- Andaman & Nicobar, Arunachal Pradesh, Assam, Bihar, Chandigarh, Dadar & Nagar Haveli, Daman & Diu, Delhi, Goa, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Ladakh, Lakshadweep, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Puducherry, Sikkim, Tripura, West Bengal, Others



State-wise Wind Onshore Capacity

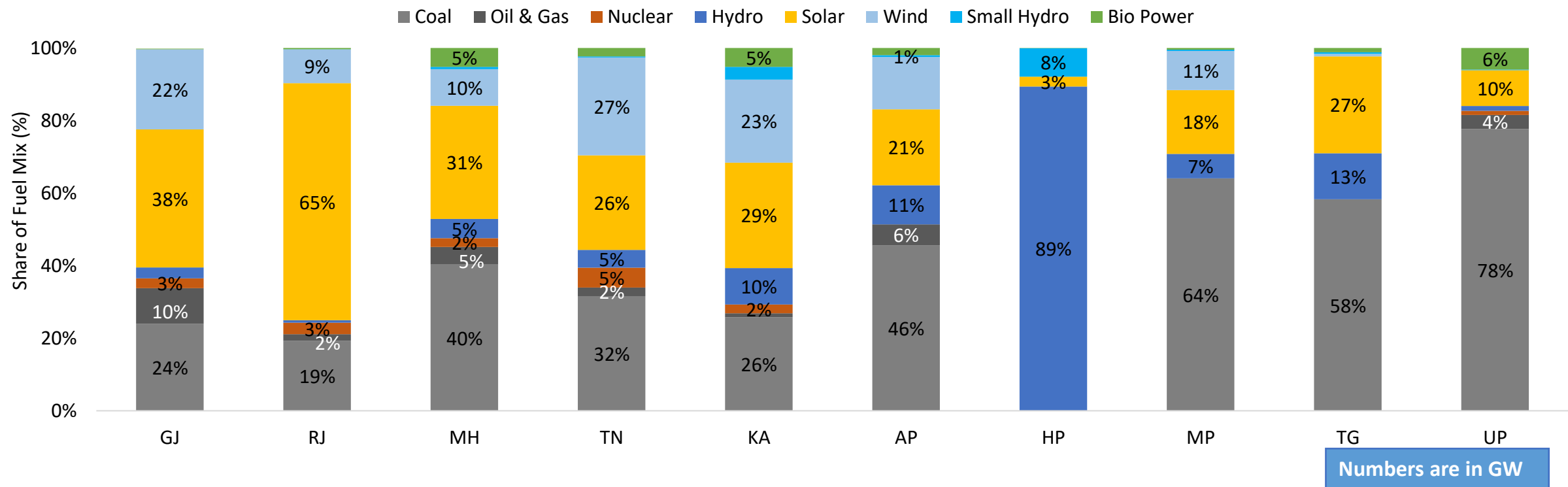
as on December 2025

State-wise installed capacity of Wind (Onshore) Power	
States	Installed Capacity (GW)
Gujarat	14.82
Tamil Nadu	12.08
Karnataka	8.41
Maharashtra	5.82
Rajasthan	5.23
Andhra Pradesh	4.40
Madhya Pradesh	3.55
Telangana	0.13
Kerala	0.07
India Total	54.51



Top 10 High RE* States and Their Capacity Mix

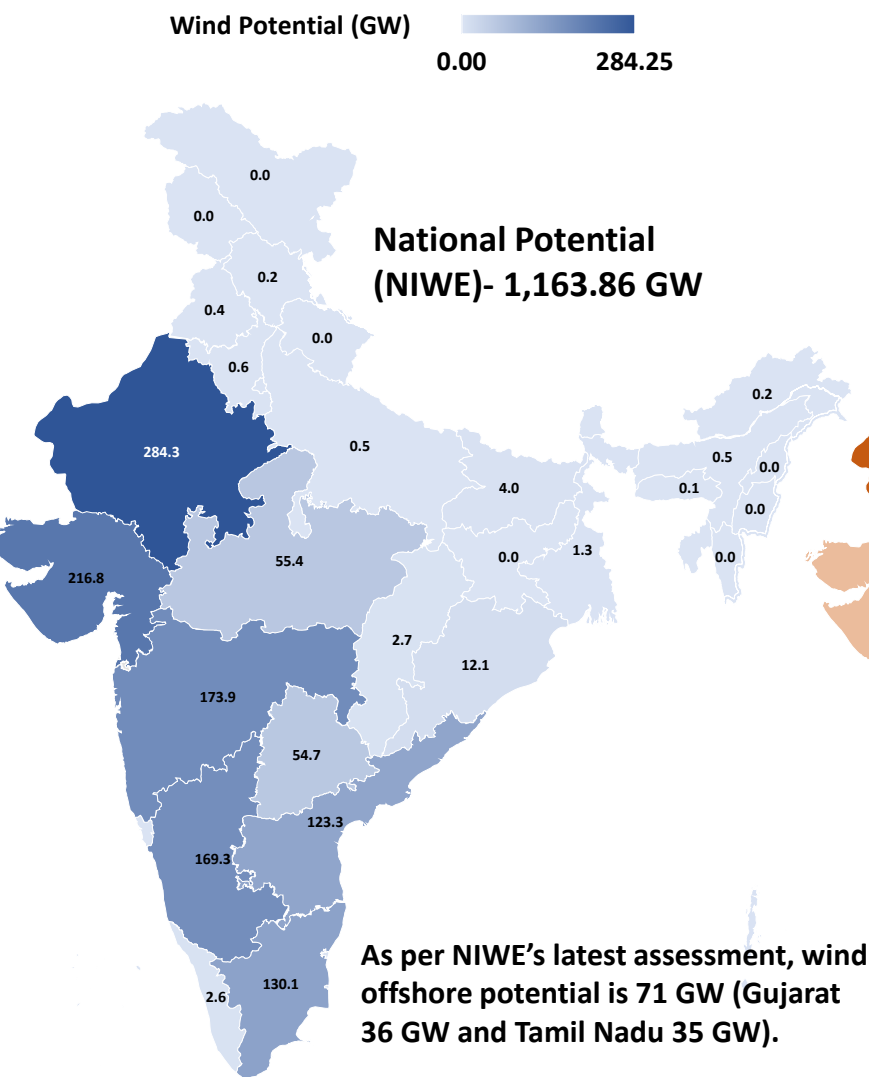
as on December 2025



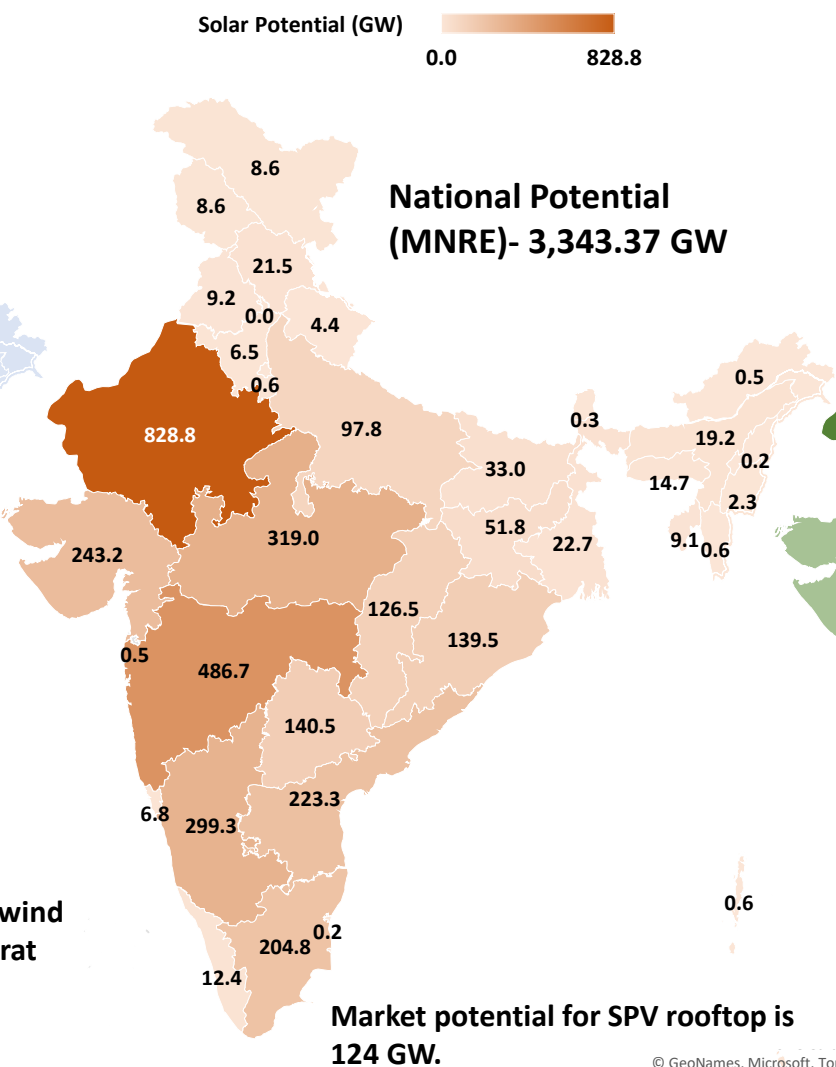
Parameters	GJ	RJ	MH	TN	KA	AP	HP	MP	TG	UP
Total Installed Capacity	67.10	56.16	57.85	44.77	36.74	30.50	12.78	33.05	18.94	38.63
Total RE Capacity	42.58	42.53	30.31	27.11	25.98	14.84	12.78	11.88	7.90	6.69
RE Share	63%	76%	52%	61%	71%	49%	100%	36%	42%	17%

Renewable Energy (RE) Potential

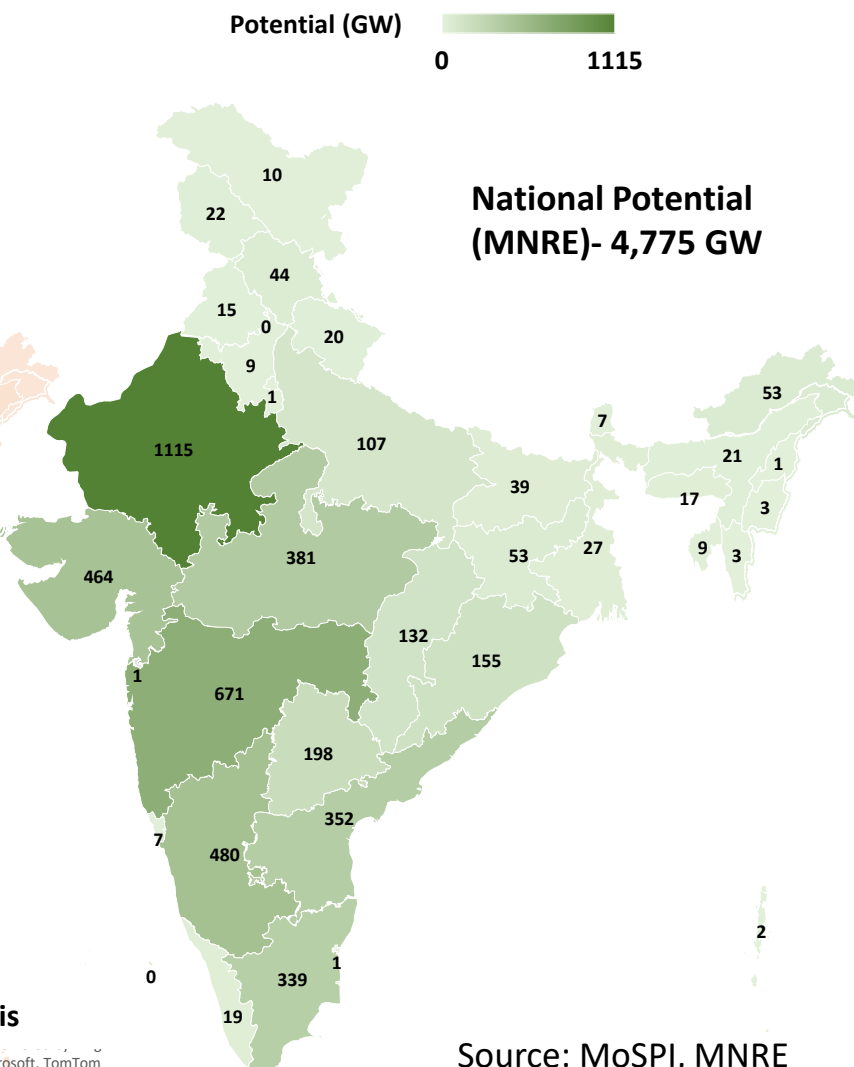
Wind Onshore (at 150m agl) and Offshore Potential



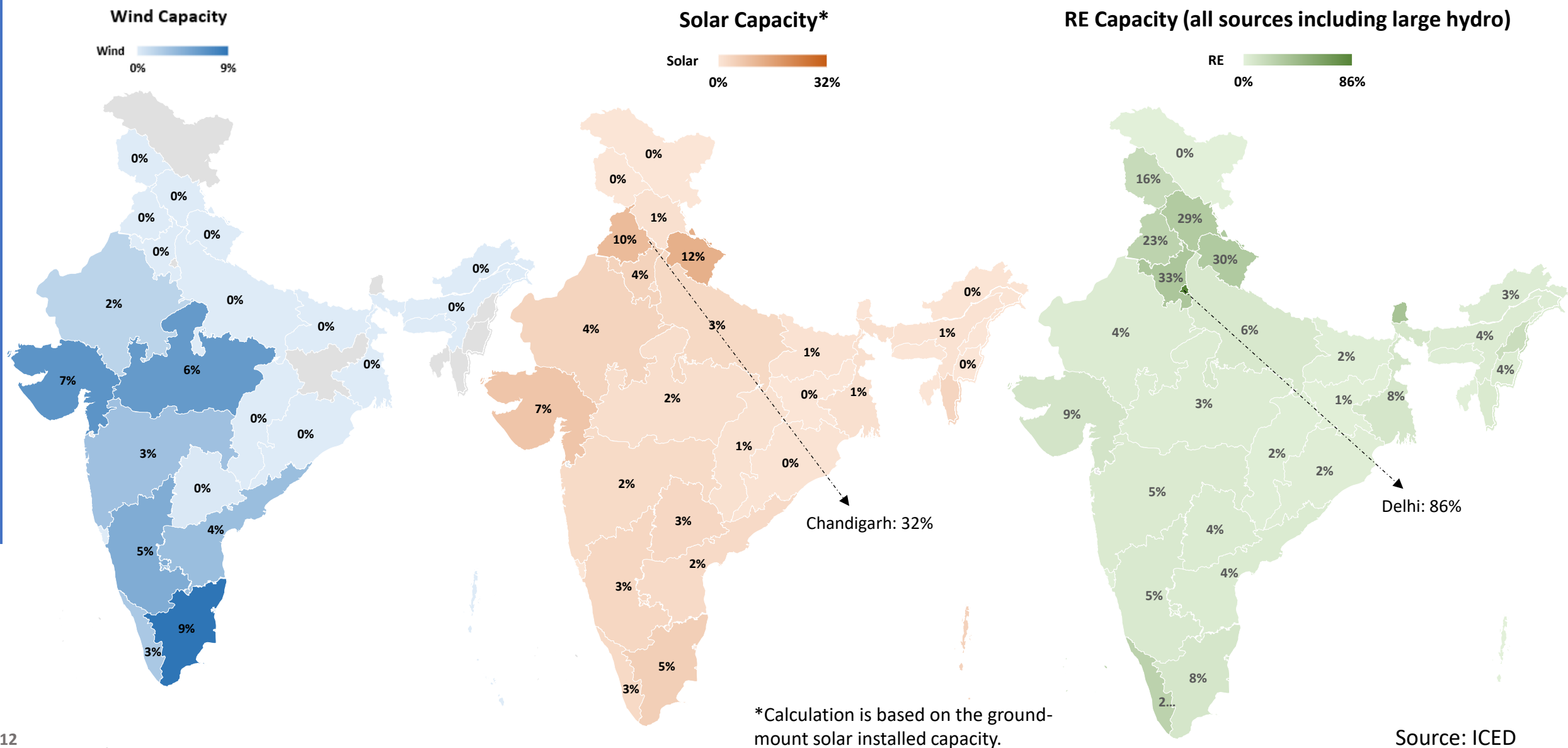
Solar Ground Mounted Potential (at 6.69% wasteland)



Renewable Energy Potential (all sources incl. large Hydro)

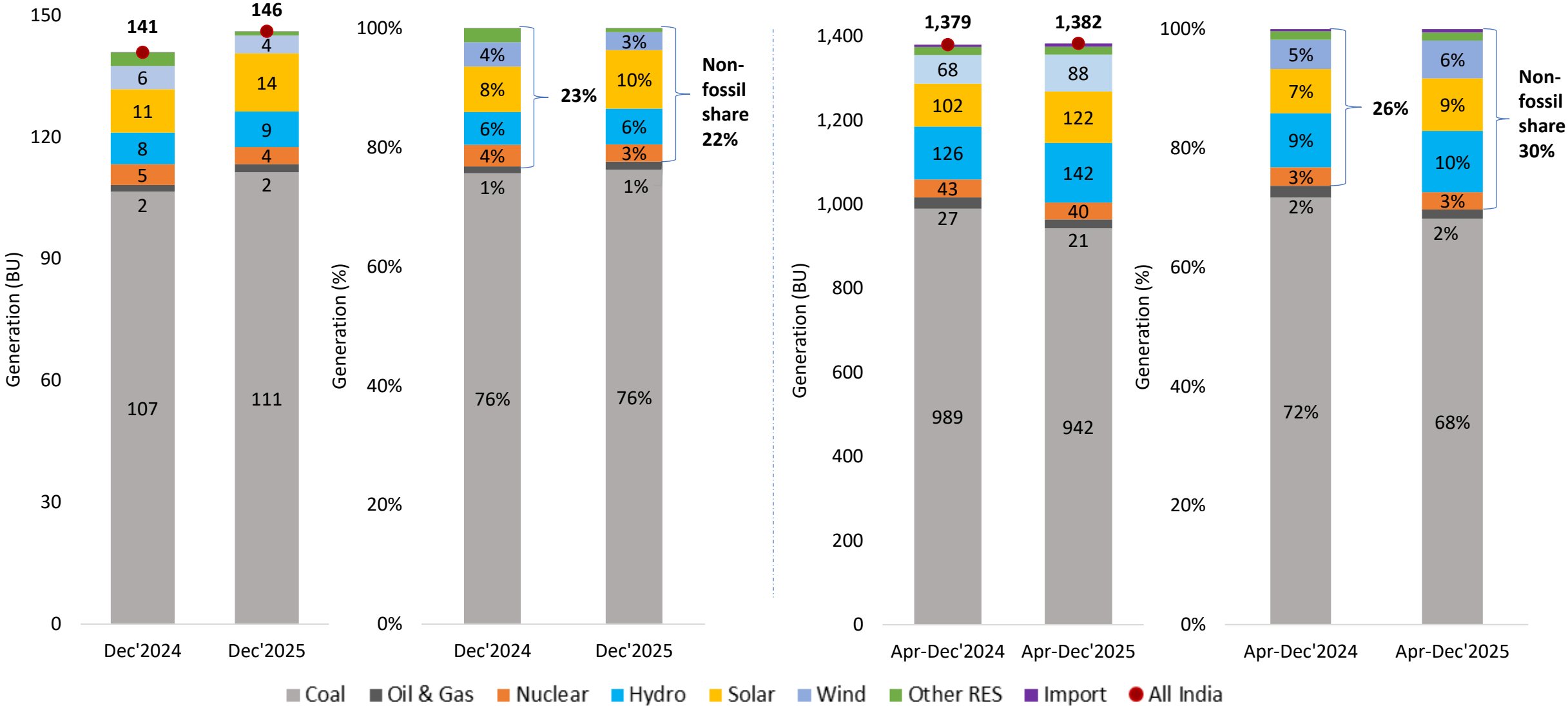


RE Installed capacity as a Percentage of the total resource potential in the state as on December 2025

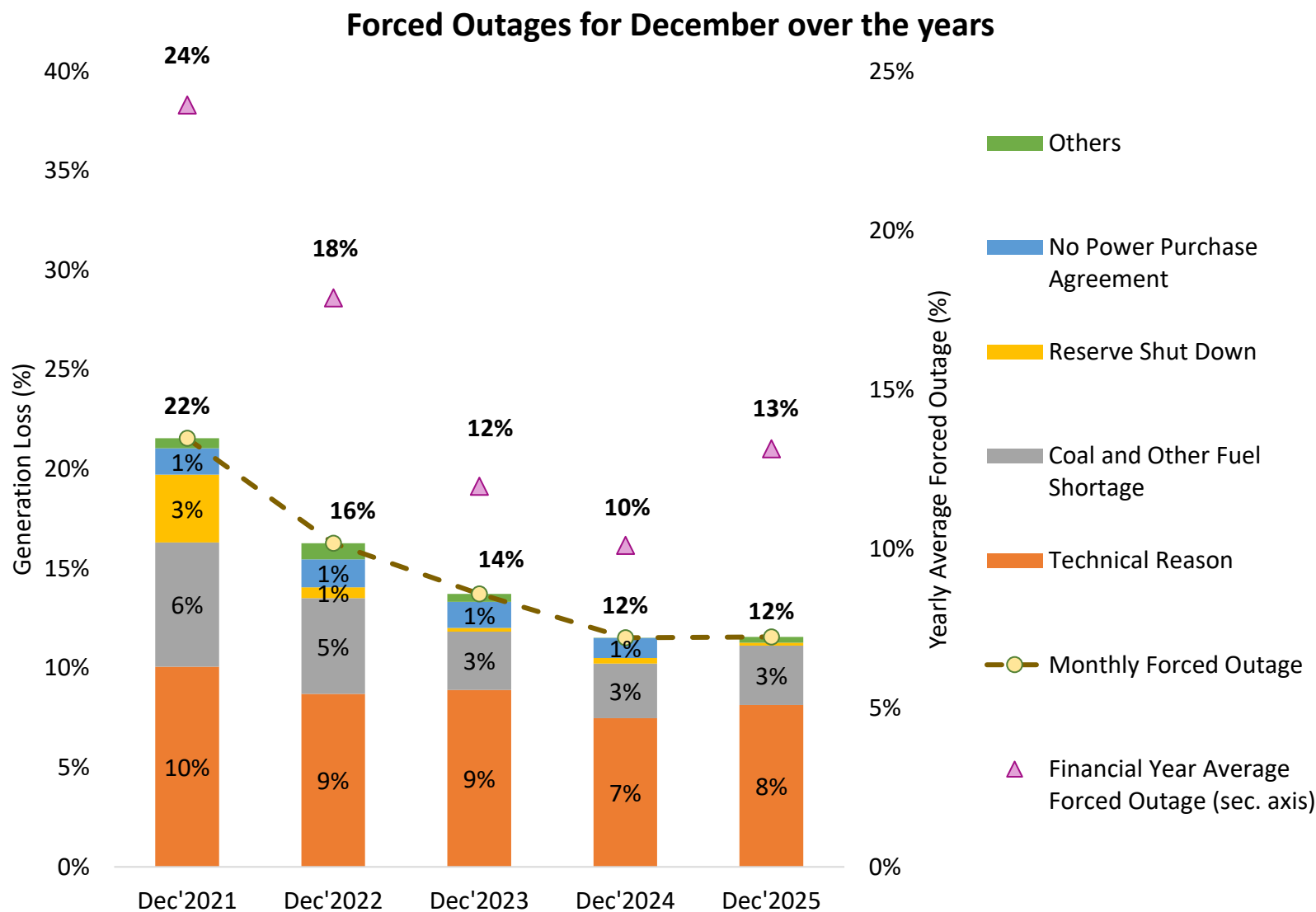


India's Electricity Generation Mix

Source-wise Generation Mix



Thermal Generation Loss and Reasons for Forced Outages

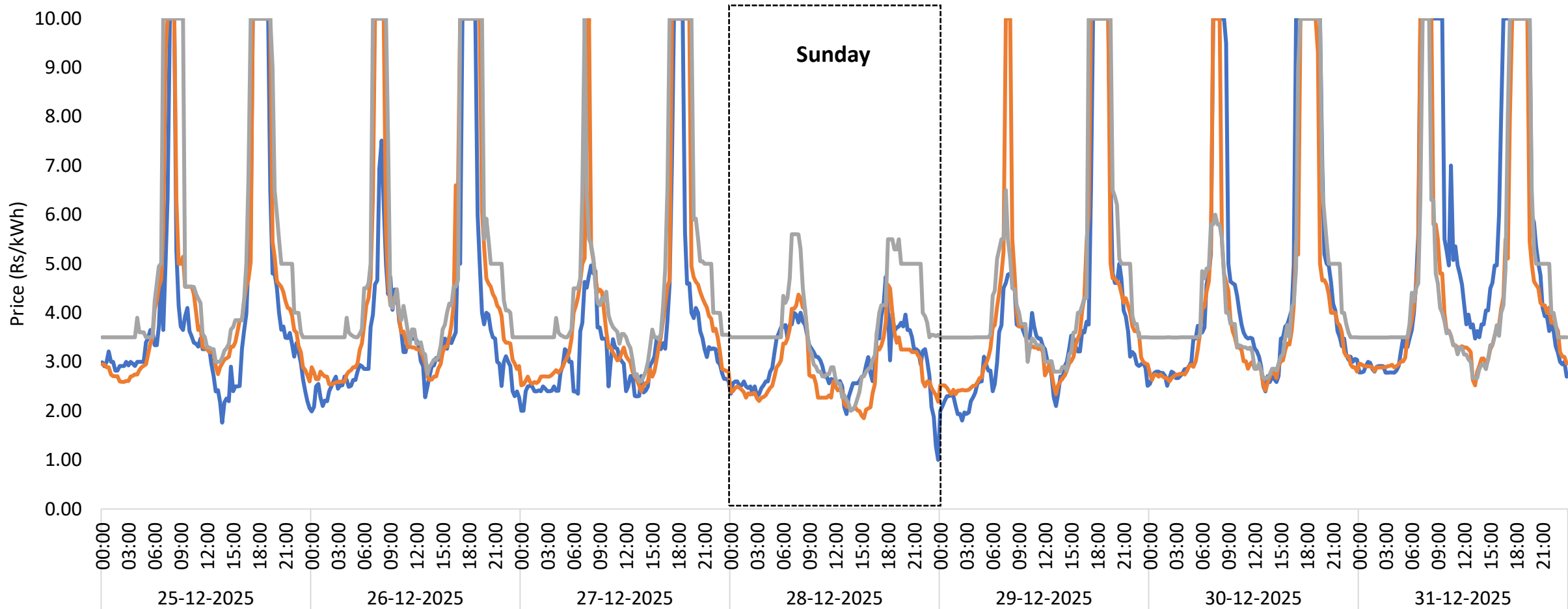


Year/ Month		Average Forced Outage Share
Yearly	FY 2023-24	12%
	FY 2024-25	10%
	FY 2025-26 (up to Dec'25)	13%
Monthly	Dec'2023	14%
	Dec'2024	12%
	Dec'2025	12%

Indian Electricity Exchange (IEX) Market Snapshot

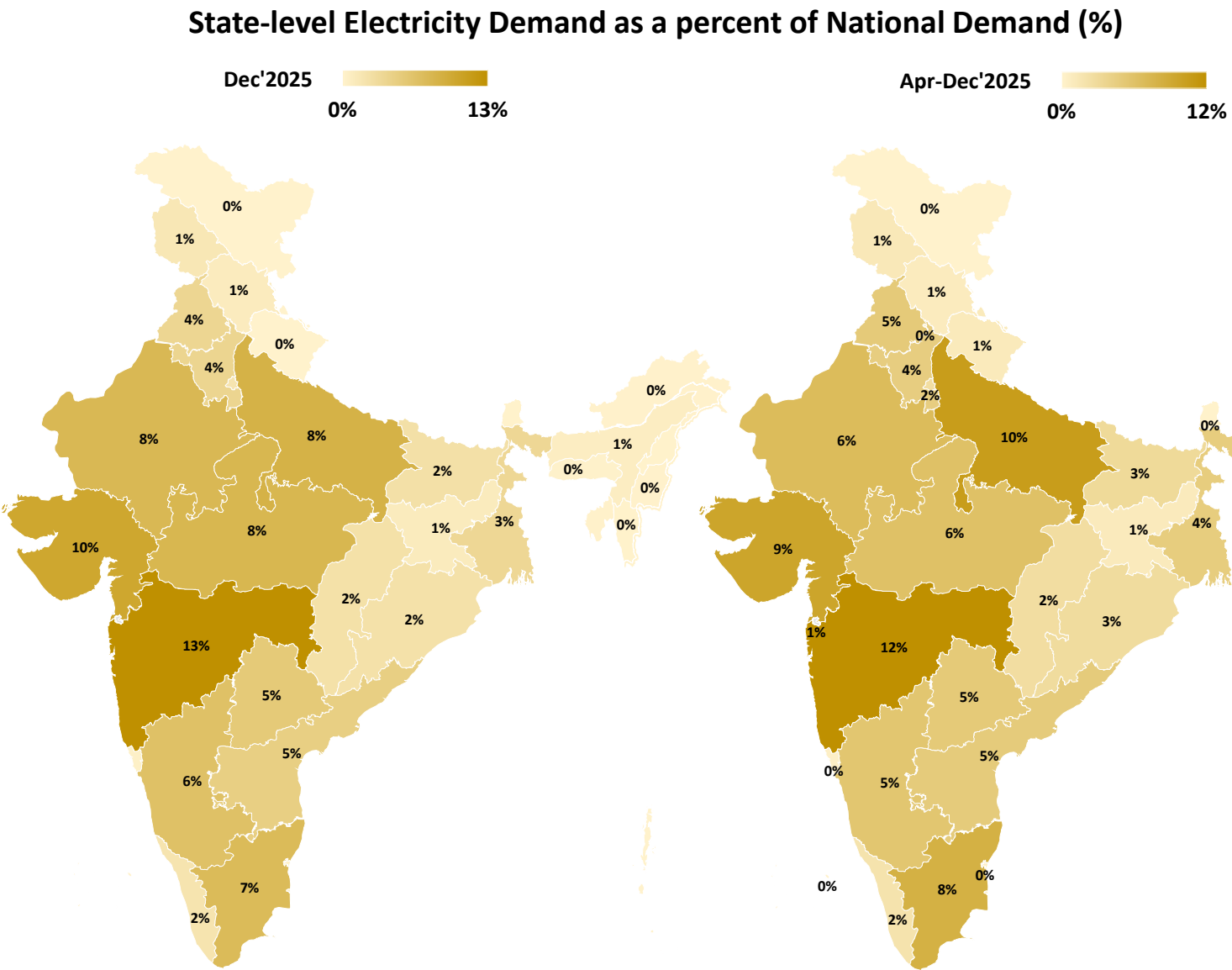
Market Clearing Prices of last 7 days of December 2025

Real Time Market Day Ahead Market (DAM) Green DAM



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

National and State level Electricity Demand



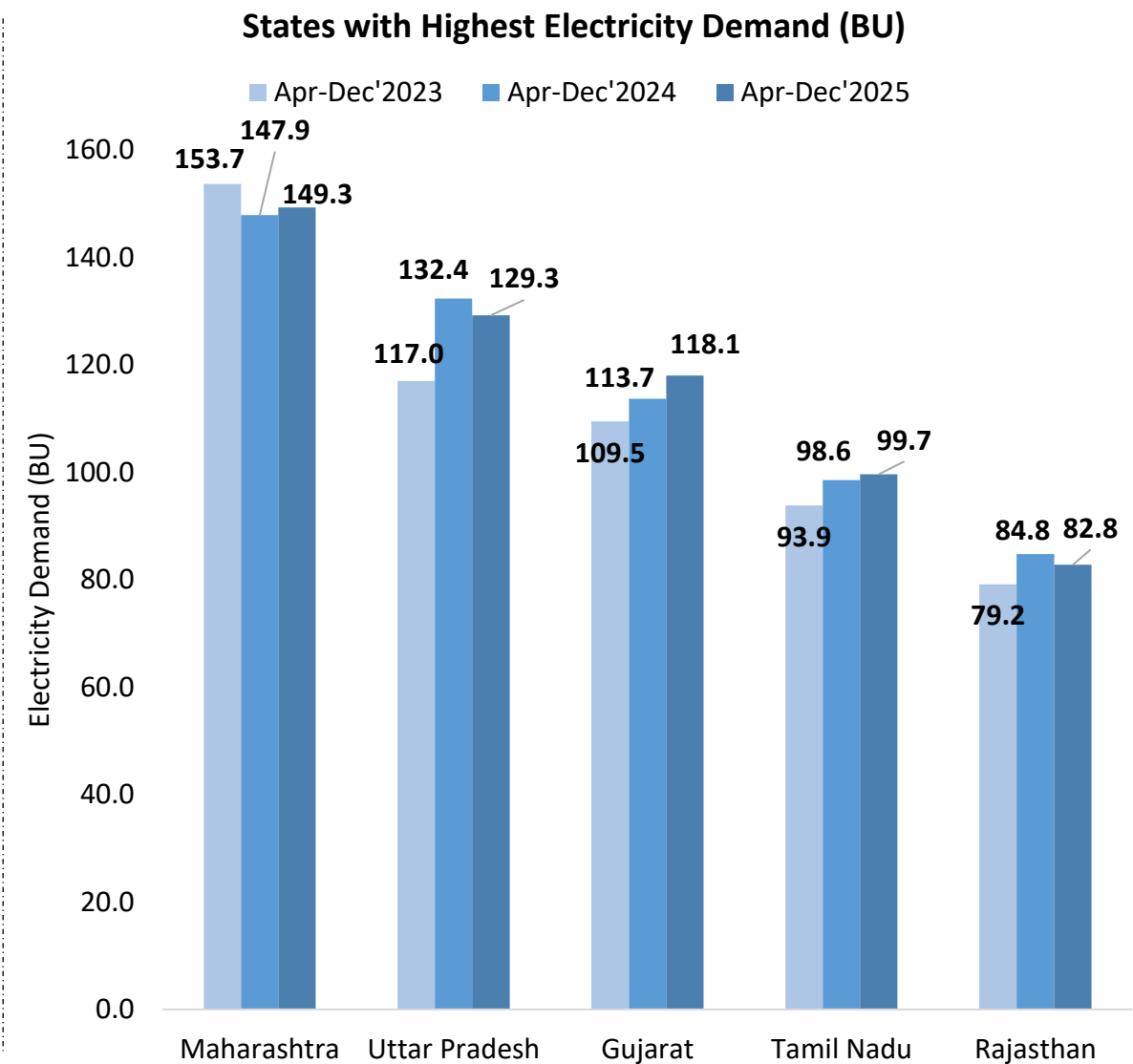
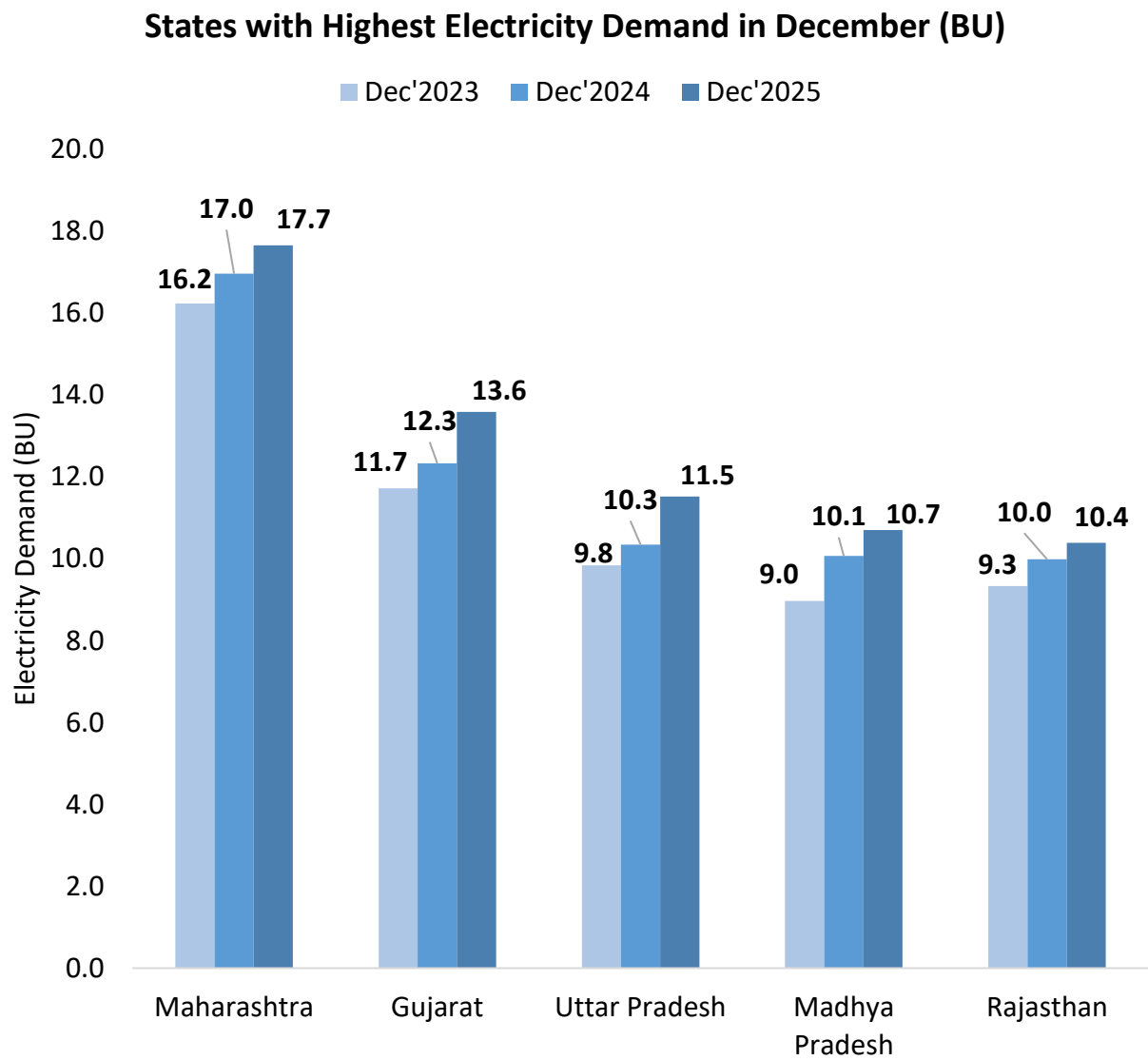
Month	Electricity Demand (BU)	Electricity Supply (BU)	Gap (BU) (+/-)
Dec'2023	123	123	0.1
Dec'2024	130	129	0.2
Dec'2025	138	138	0.0

Apr-Dec	Electricity Demand (BU)	Electricity Supply (BU)	Gap (BU) (+/-)
FY 2023-24	1,225	1,222	3.1
FY 2024-25	1,280	1,279	1.5
FY 2025-26	1,287	1,286	0.4

India's Monthly Electricity Requirement and Supply



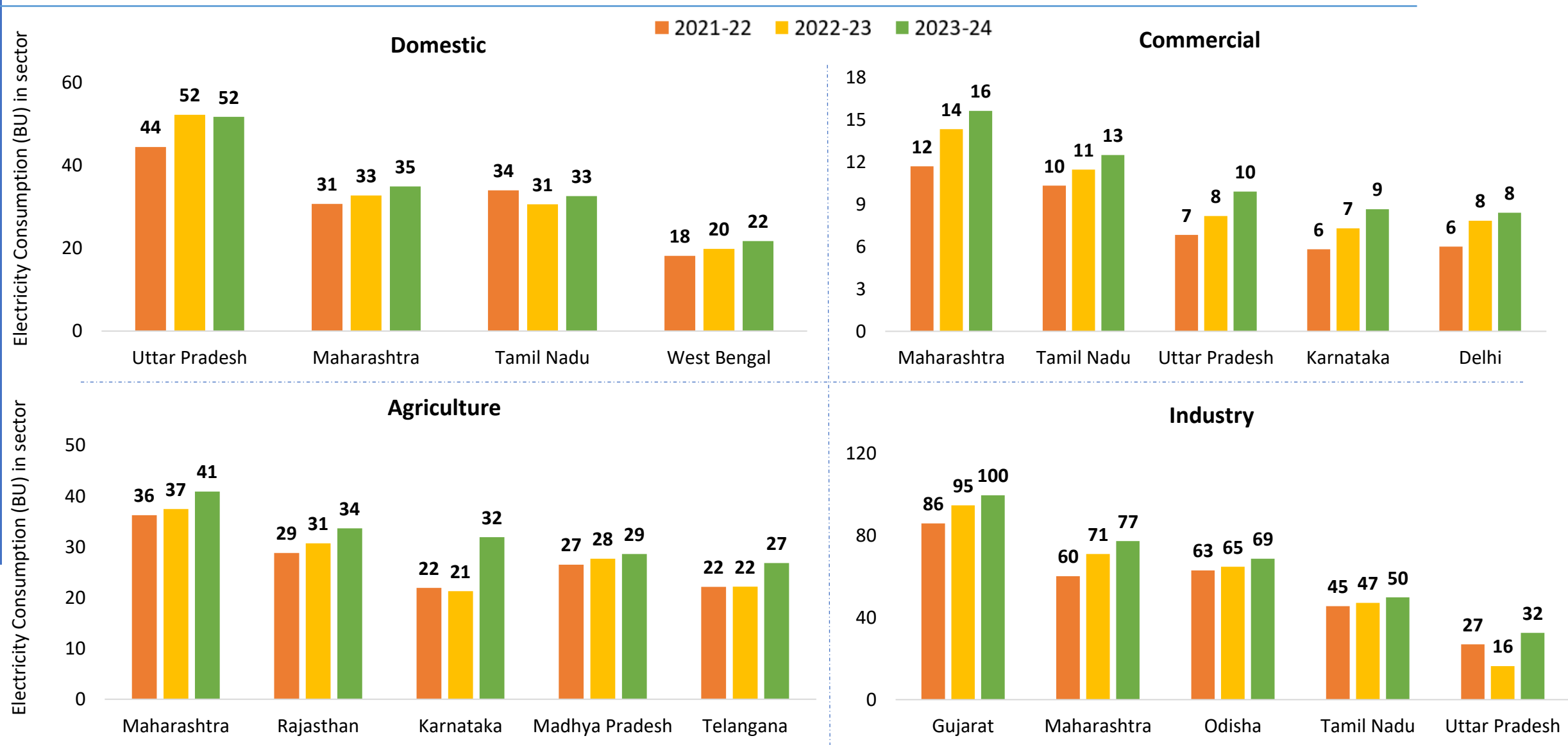
Monthly Electricity Demand of the top 5 states



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

Source: CEA

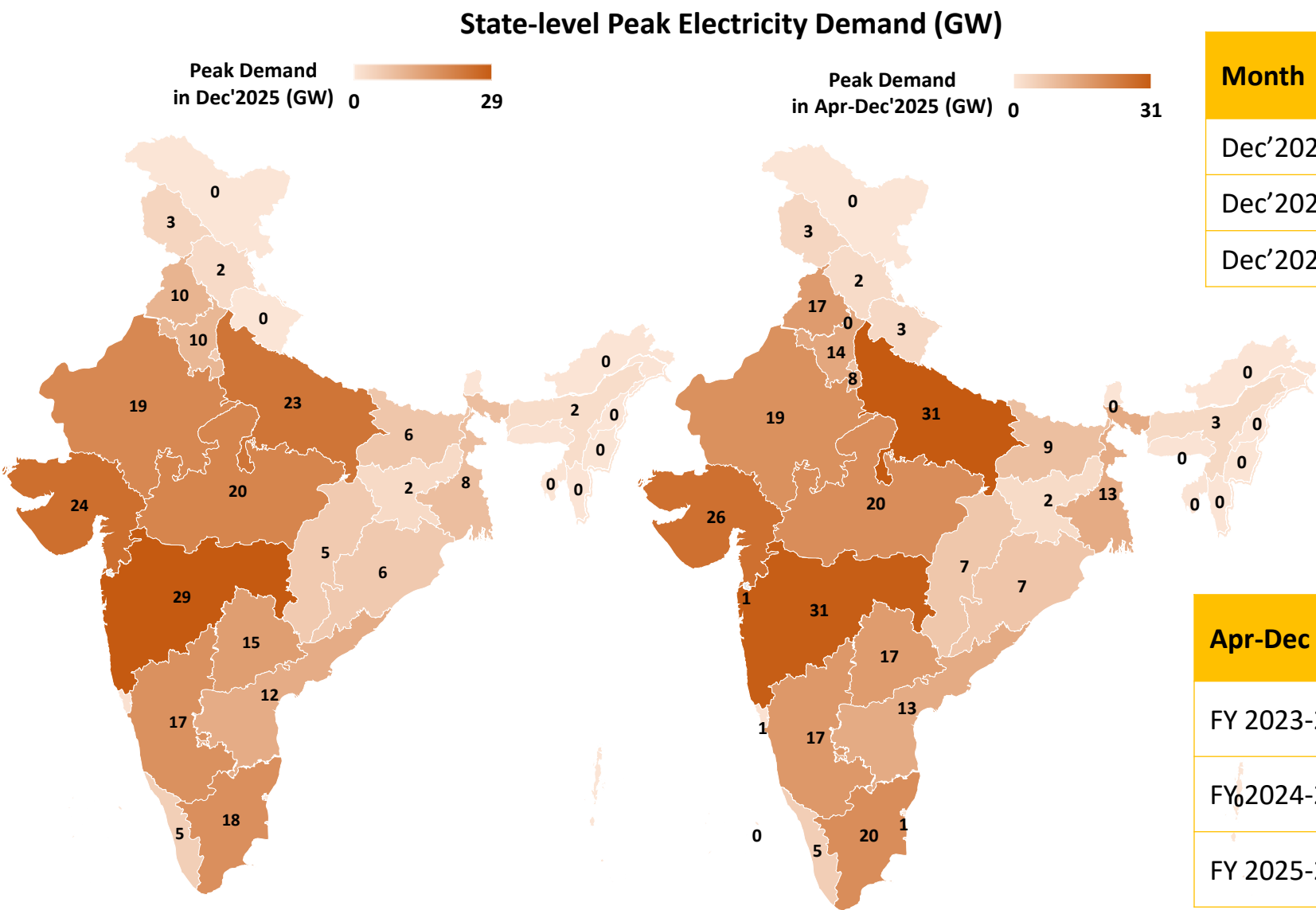
Electricity Consumer-category wise top 5 States



NOTE: Top 5 States under consumer-categories are selected on the basis of 2023-24

Source: CEA

National and State level Peak Electricity Demand



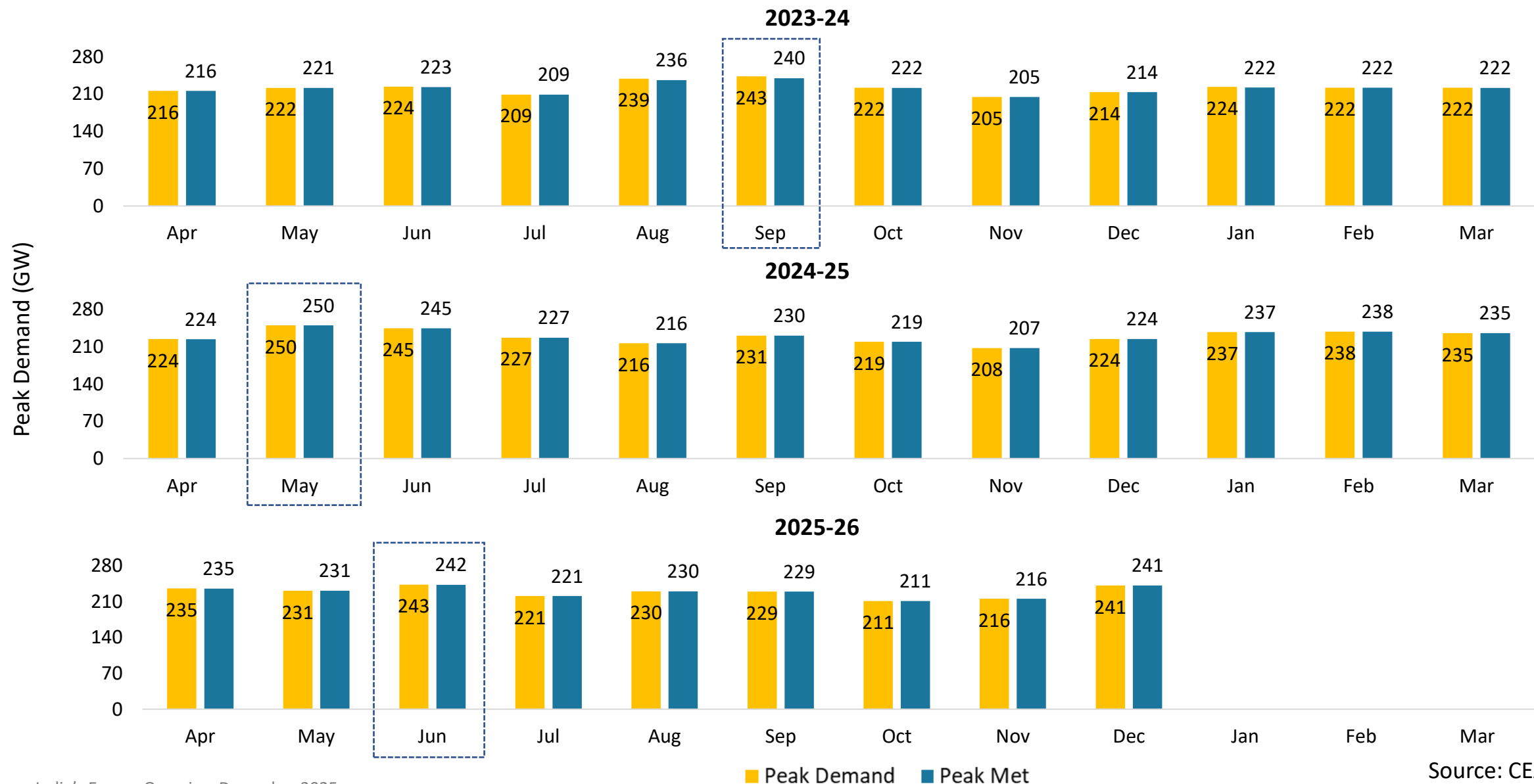
Month	Peak Demand (GW)	Peak Supply (GW)	Gap(GW) (+/-)
Dec'2023	214	214	0.2
Dec'2024	224	224	0.0
Dec'2025	241	241	0.0

Apr-Dec	Peak Demand (GW)	Peak Supply (GW)	Gap (GW) (+/-)
FY 2023-24	243	240	3.3
FY ₀ 2024-25	250	250	0.0
FY 2025-26	243	242	0.3

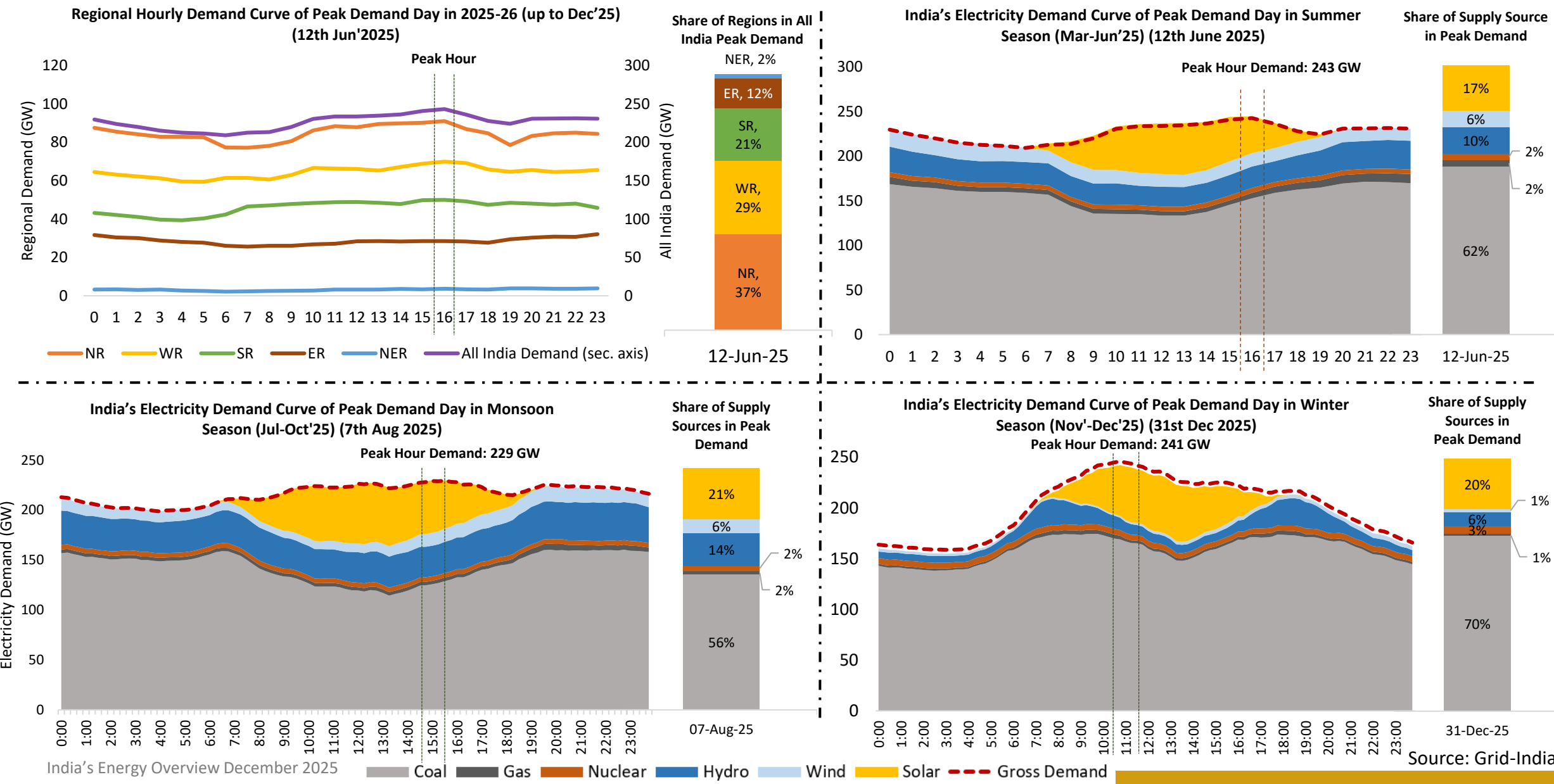
Note: The peak electricity demand data for Dec'25 is Provisional.

Source: CEA

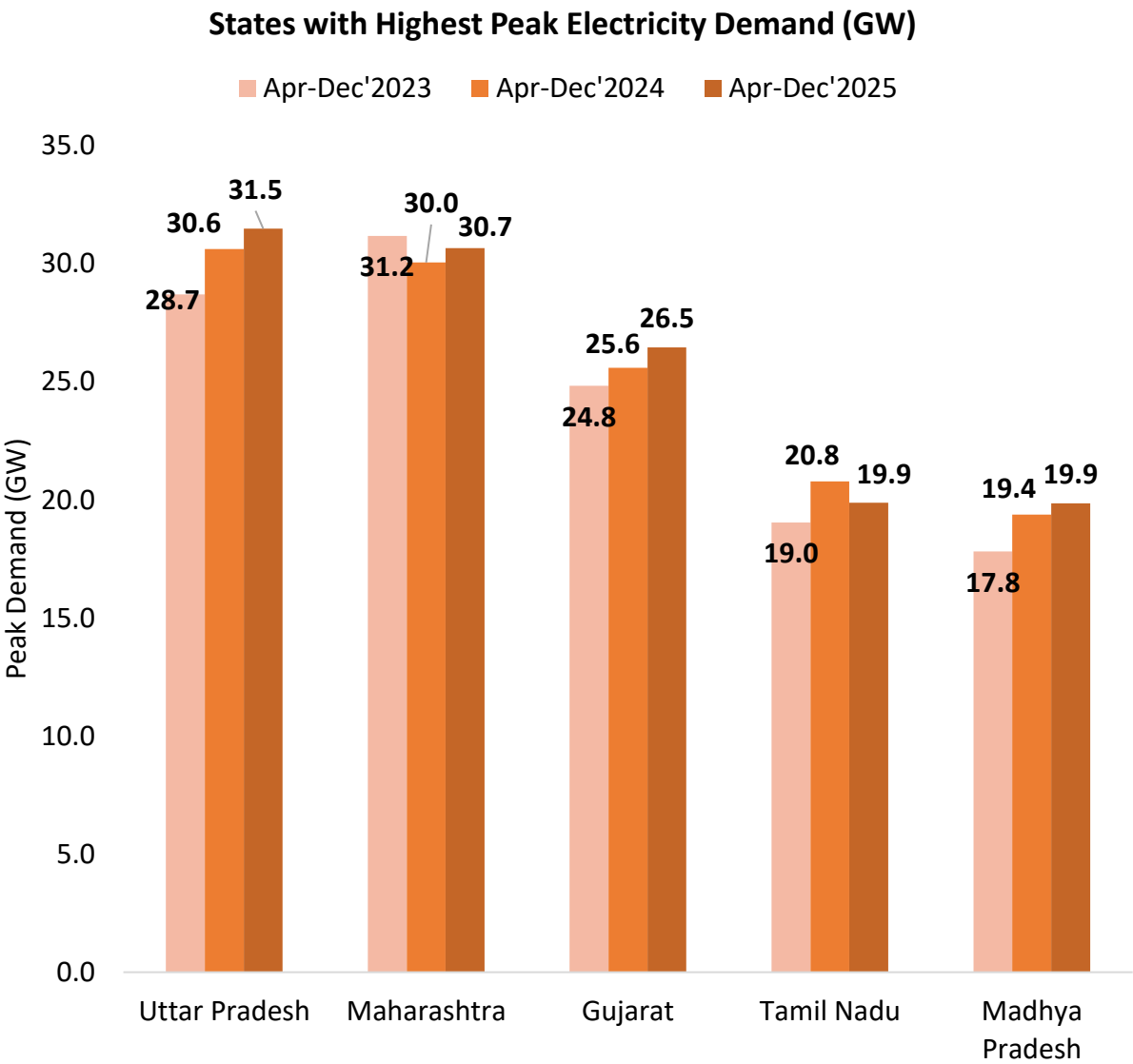
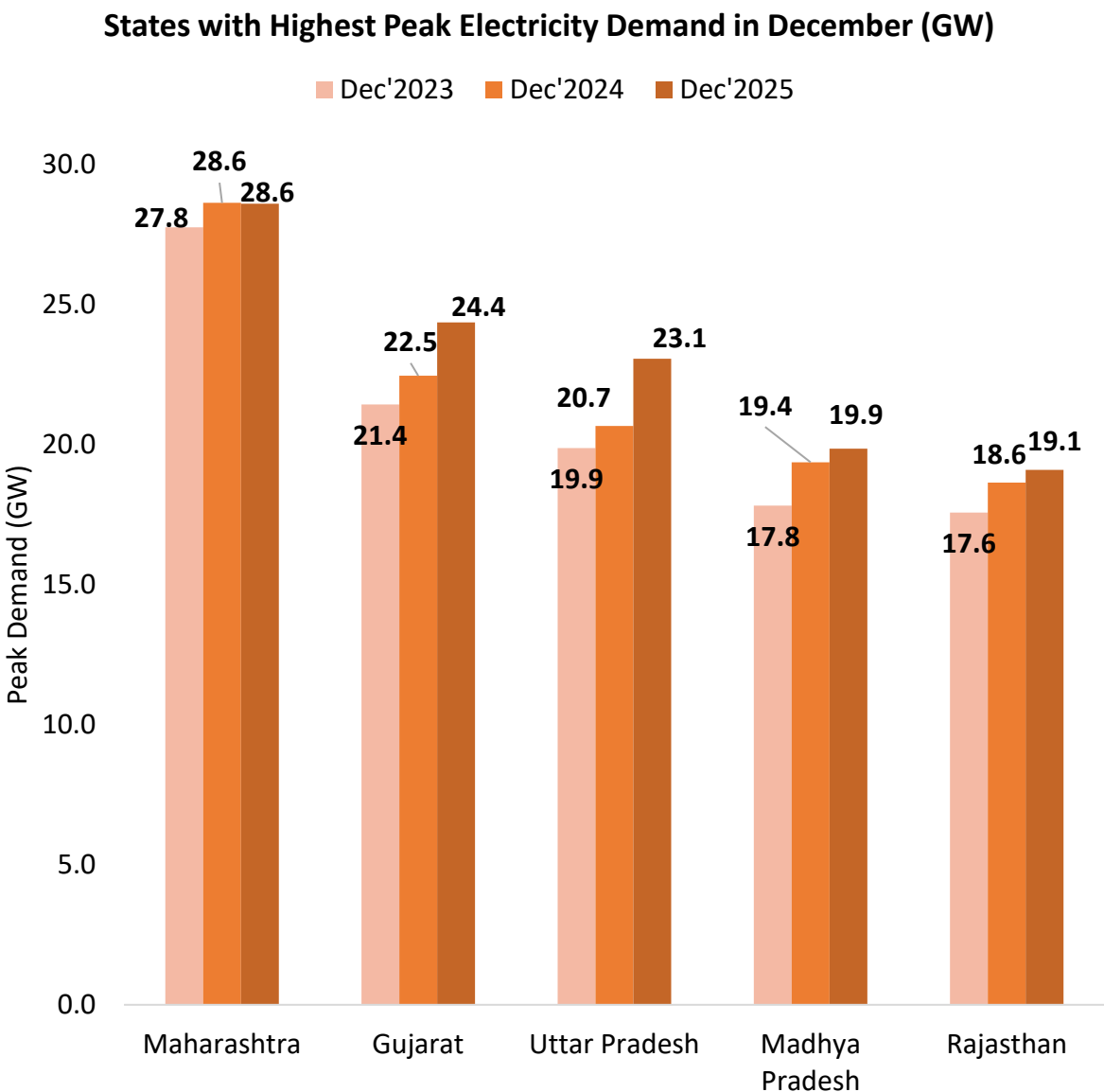
India's Monthly Peak Electricity Demand and Supply



All India and Regional Electricity Demand Curve of Peak Demand Day



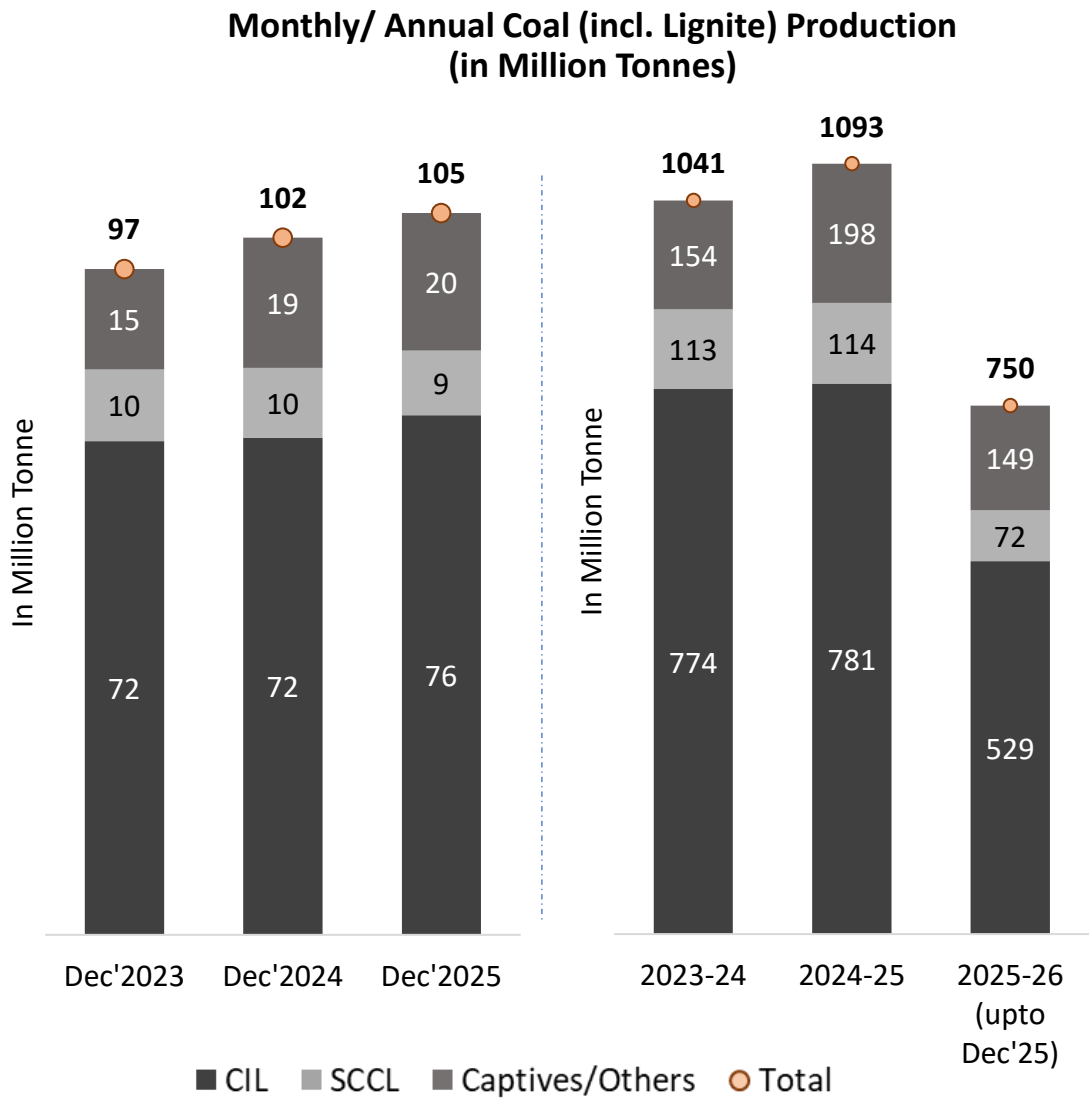
Monthly Peak Electricity Demand of the top 5 states



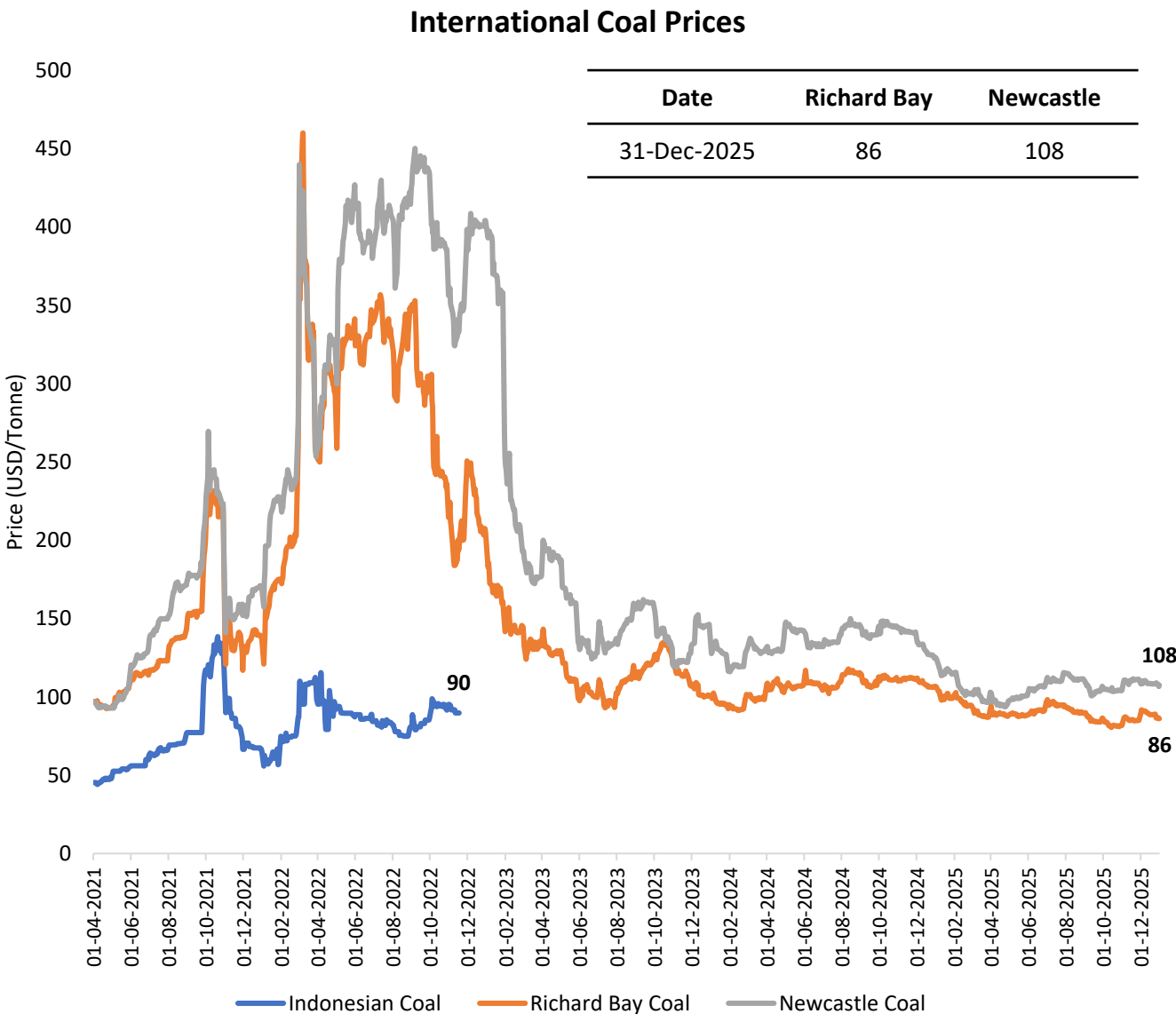
Note: The peak electricity demand data for Dec'25 is Provisional.

Source: CEA

Monthly Coal Statistics



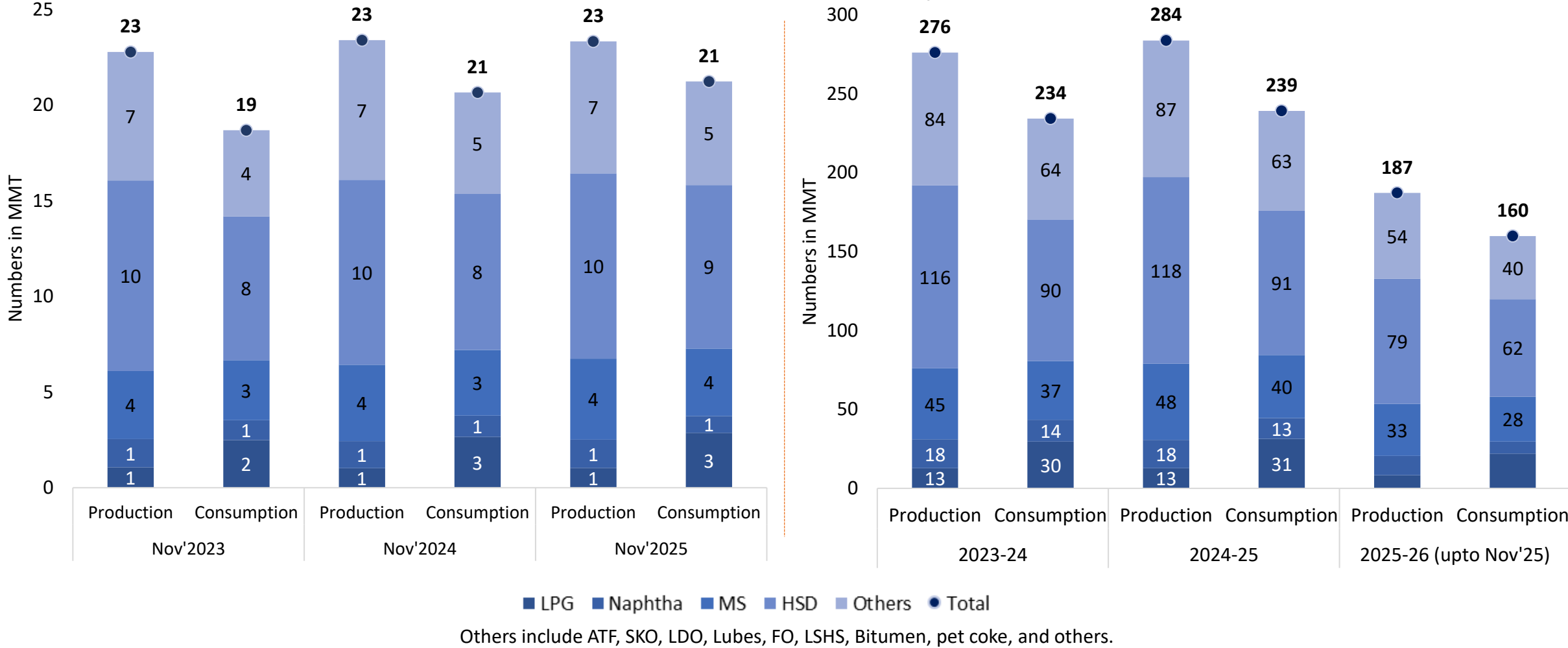
Source: Ministry of Coal



Source: Investing.com

Oil 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

Oil Market Scenario (2/3)

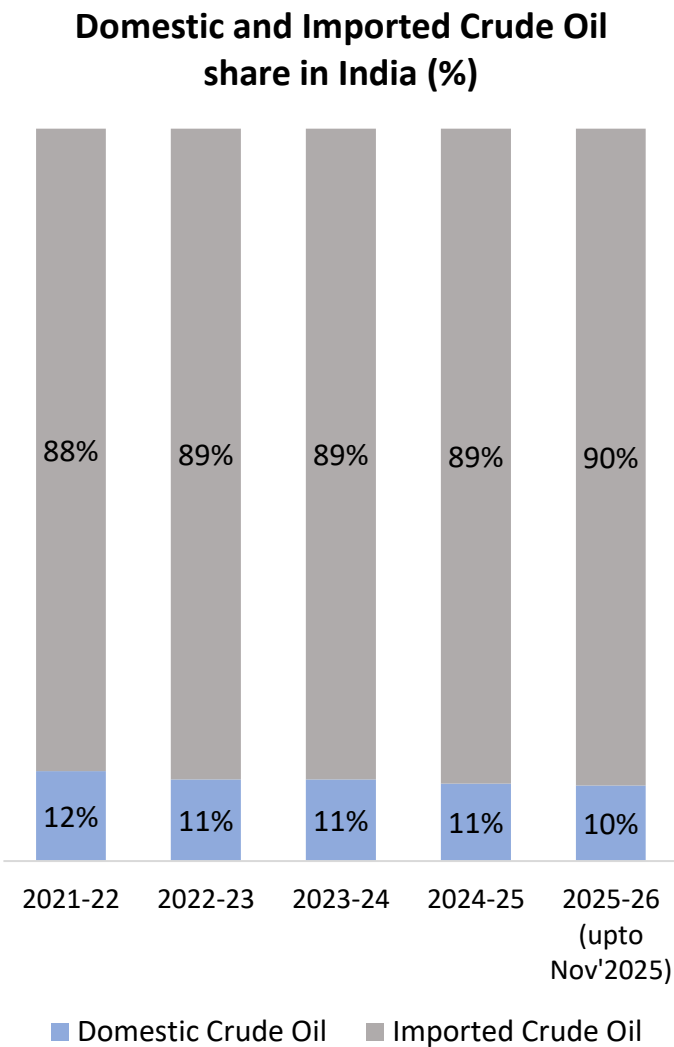
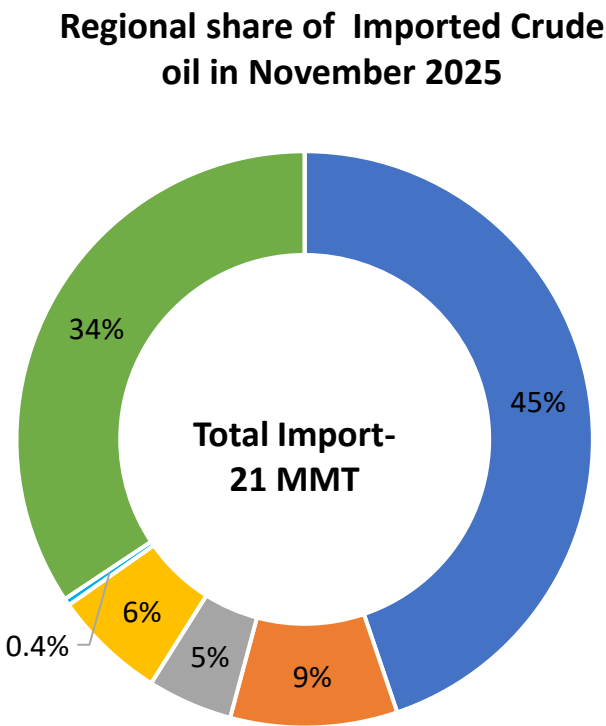
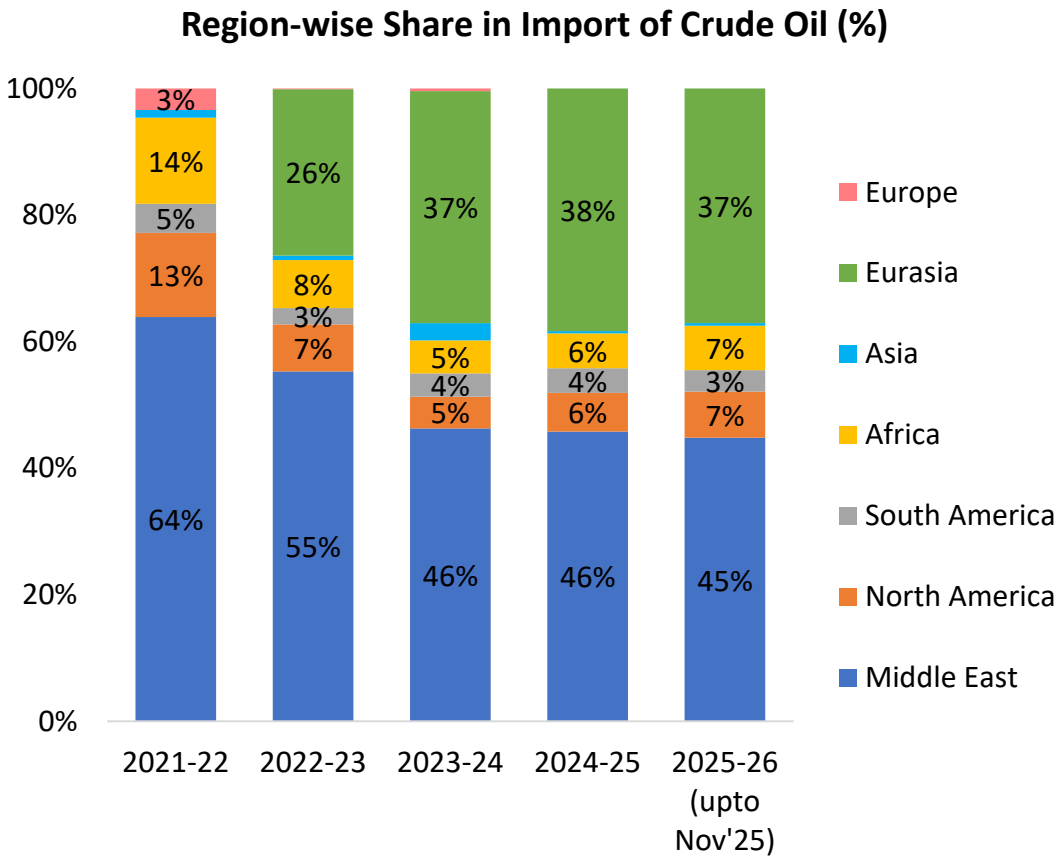
Import/Export of Crude Oil and Petroleum Products ('000 Tonnes)							
Petroleum Products	Import/ Export	Monthly			Yearly		
		Nov'23	Nov'24	Nov'25	2023-24	2024-25	2025-26 (up to Nov'25)
Crude Oil	Import	18593	18947	21055	234262	243225	163389
	Export	0	0	0	0	0	0
	Net Import	18593	18947	21055	234262	243225	163389
LPG	Import	1721	1951	1835	18514	20667	14614
	Export	44	44	48	525	551	374
	Net Import	1677	1907	1787	17989	20116	14240
Diesel	Import	2	4	3	42	42	18
	Export	2834	2289	2314	28204	28027	18841
	Net Import	-2833	-2285	-2311	-28162	-27985	-18823
Petrol	Import	71	0	0	717	235	0
	Export	872	1240	1524	13472	15830	11132
	Net Import	-801	-1240	-1524	-12755	-15596	-11132
Others	Import	2204	2695	2411	29419	29960	19328
	Export	1900	1769	1365	20391	20667	11919
	Net Import	304	927	1046	9029	9293	7409

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

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

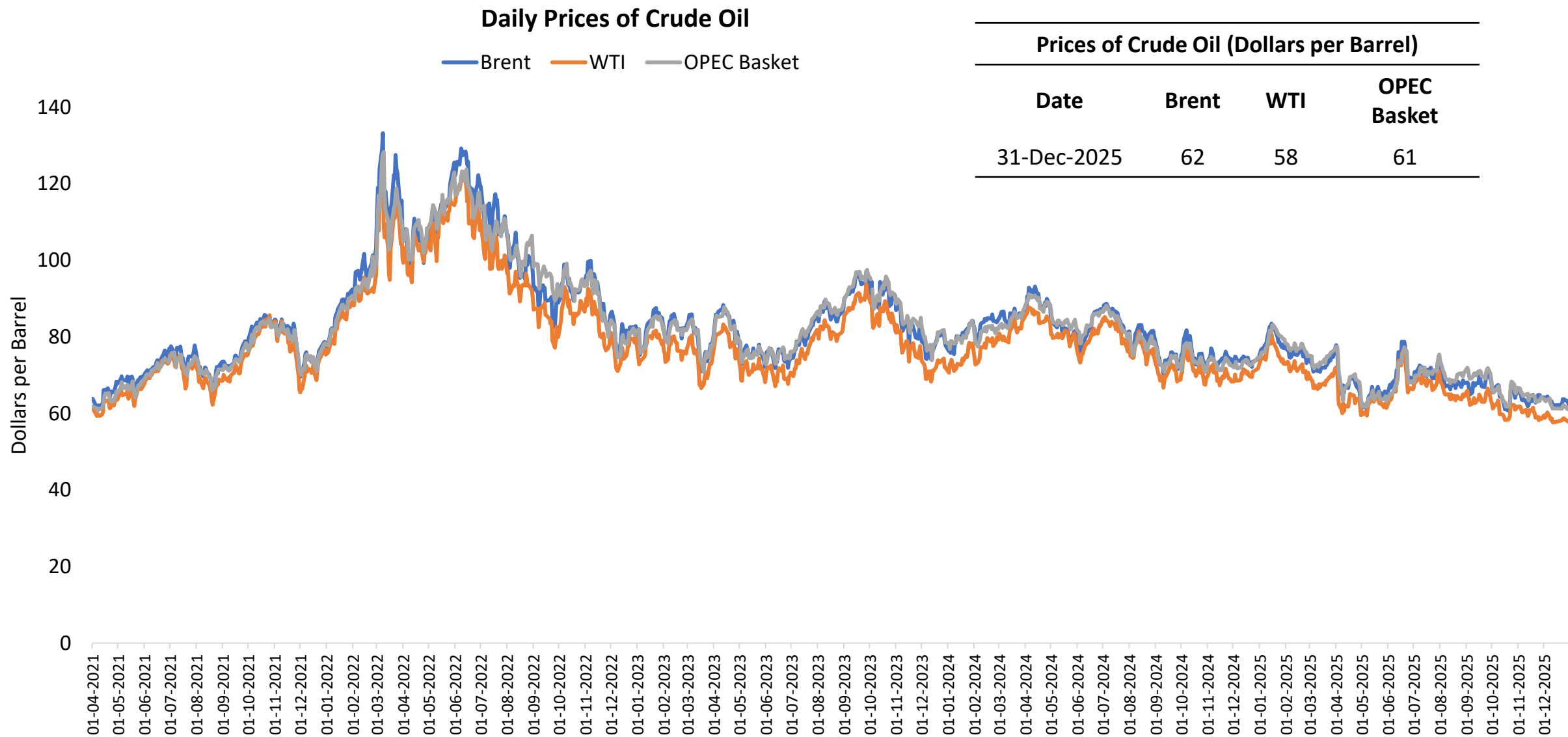
Source: PPAC

Oil Market Scenario (3/3)

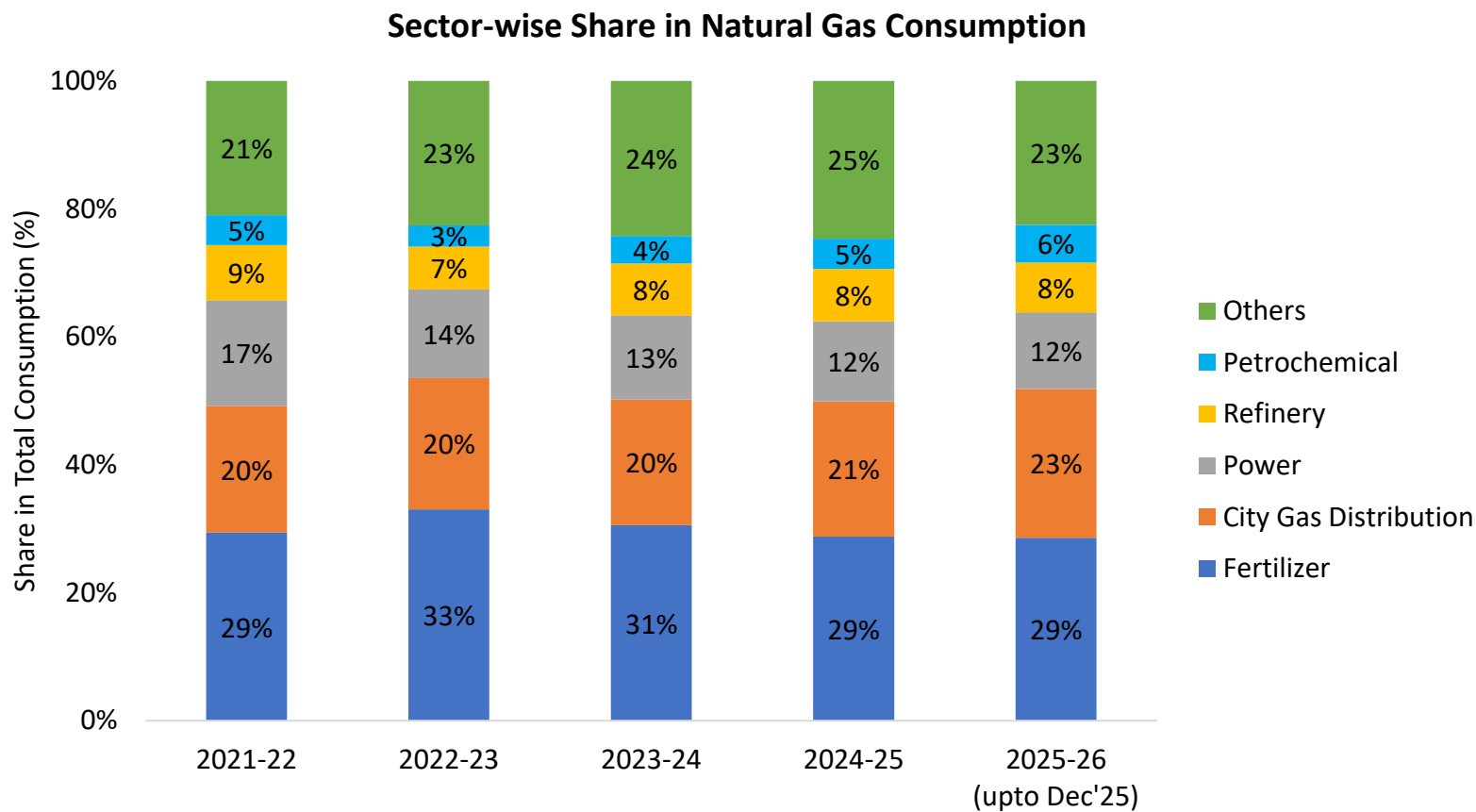


Total Import of Crude Oil (MMT)			
Total Import	2023-24	2024-25	2025-26 (up to Nov'25)
Crude Oil	234	243	163

Daily Prices of Crude Oil

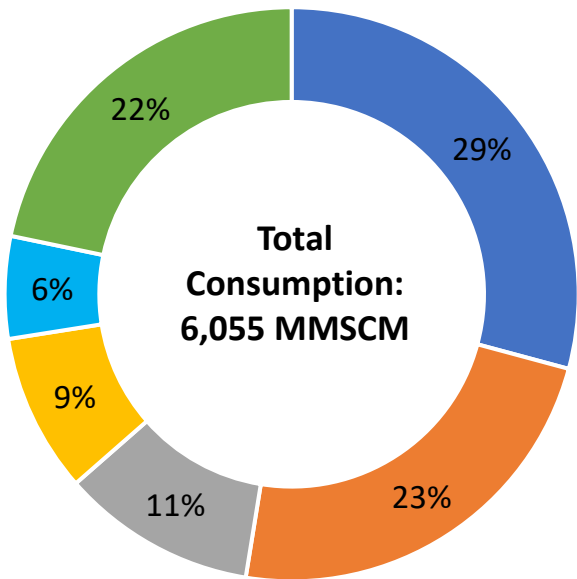


Gas Market Scenario (1/2)



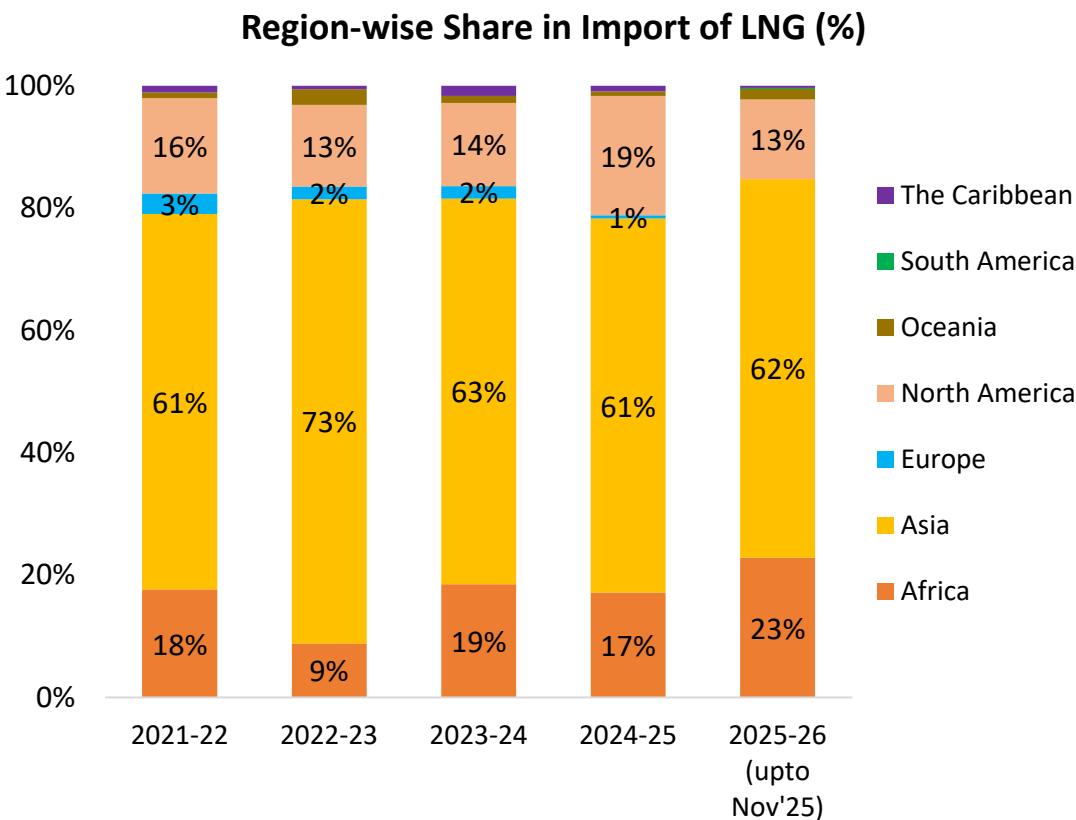
Total Consumption of Natural Gas (NG) (MMSCM)					
Total Consumption	2021-22	2022-23	2023-24	2024-25	2025-26 (up to Dec'25)
Natural Gas	61,491	58,702	68,809	71,196	52,654

Sector-wise share in Natural Gas Consumption in December 2025

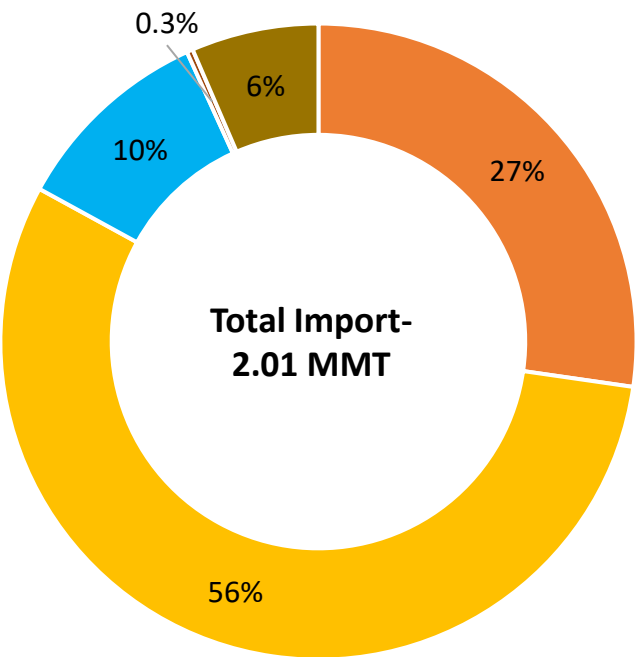


Others include- Internal Consumption of Pipeline System, Industrial, Sponge iron/steel, LPG shrinkage, Manufacturing, Agriculture (tea plantation), Others

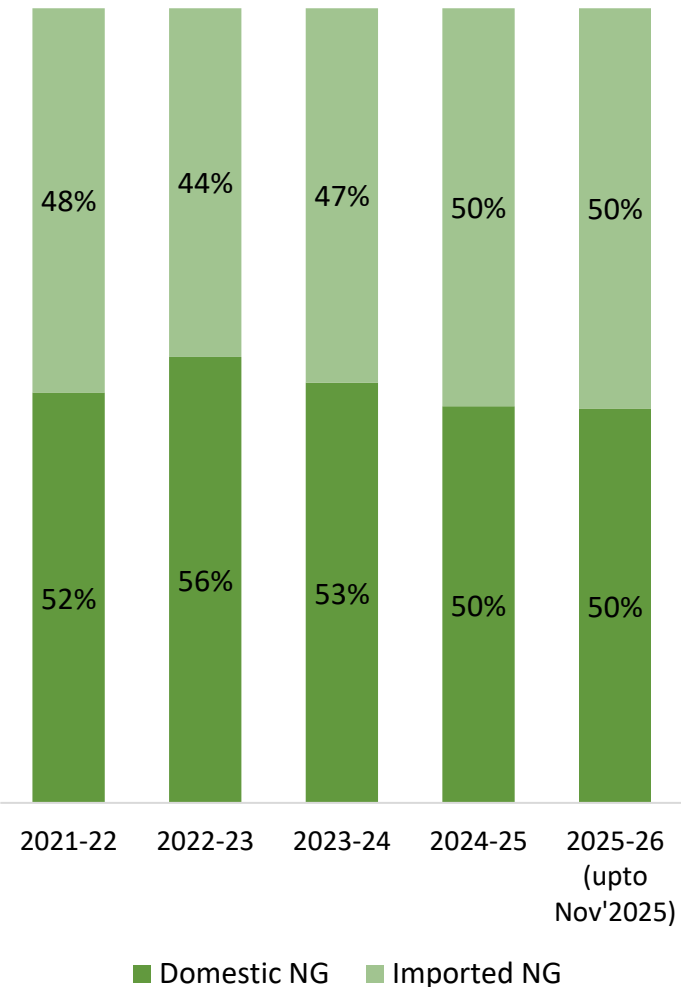
Gas Market Scenario (2/2)



Country Share of Imported LNG In November 2025

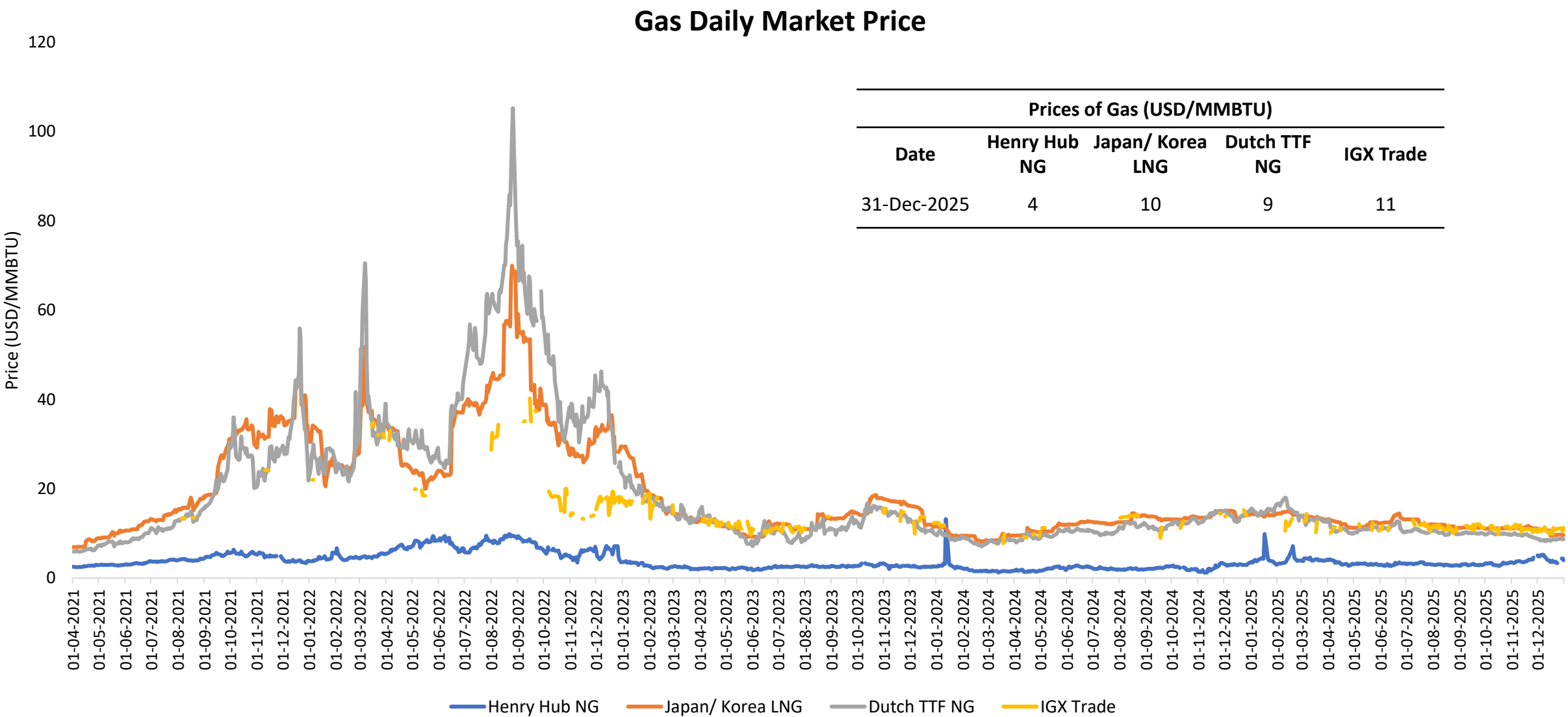


Domestic and Imported Natural Gas share in India (%)



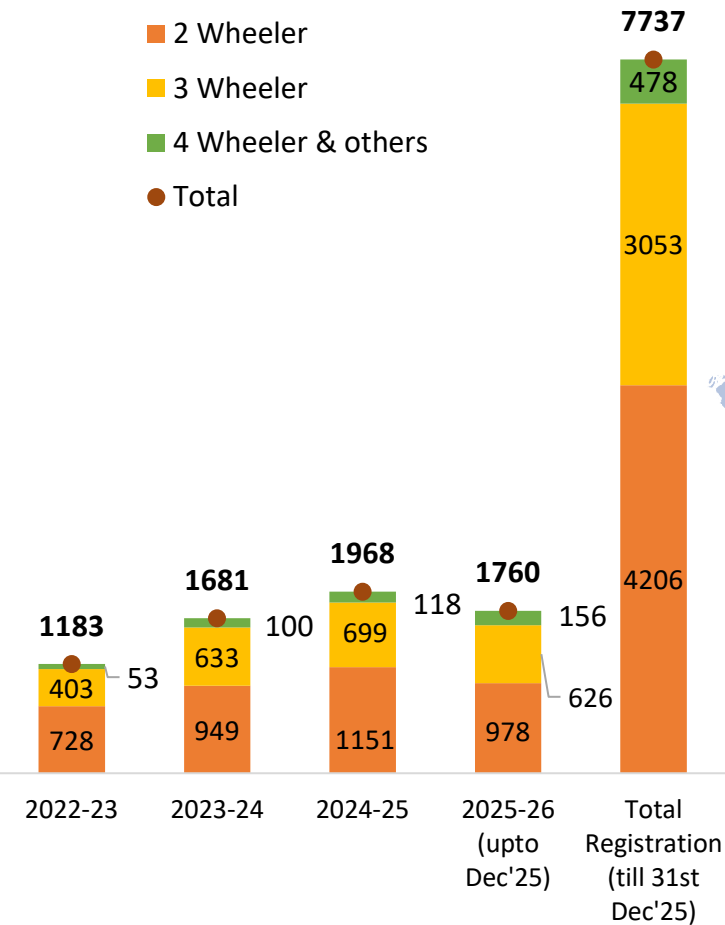
Total Import of Liquefied Natural Gas (LNG) (MMT)			
Total Import	2023-24	2024-25	2025-26 (up to Nov'25)
LNG	24.00	26.96	17.60

Daily Prices of Gas

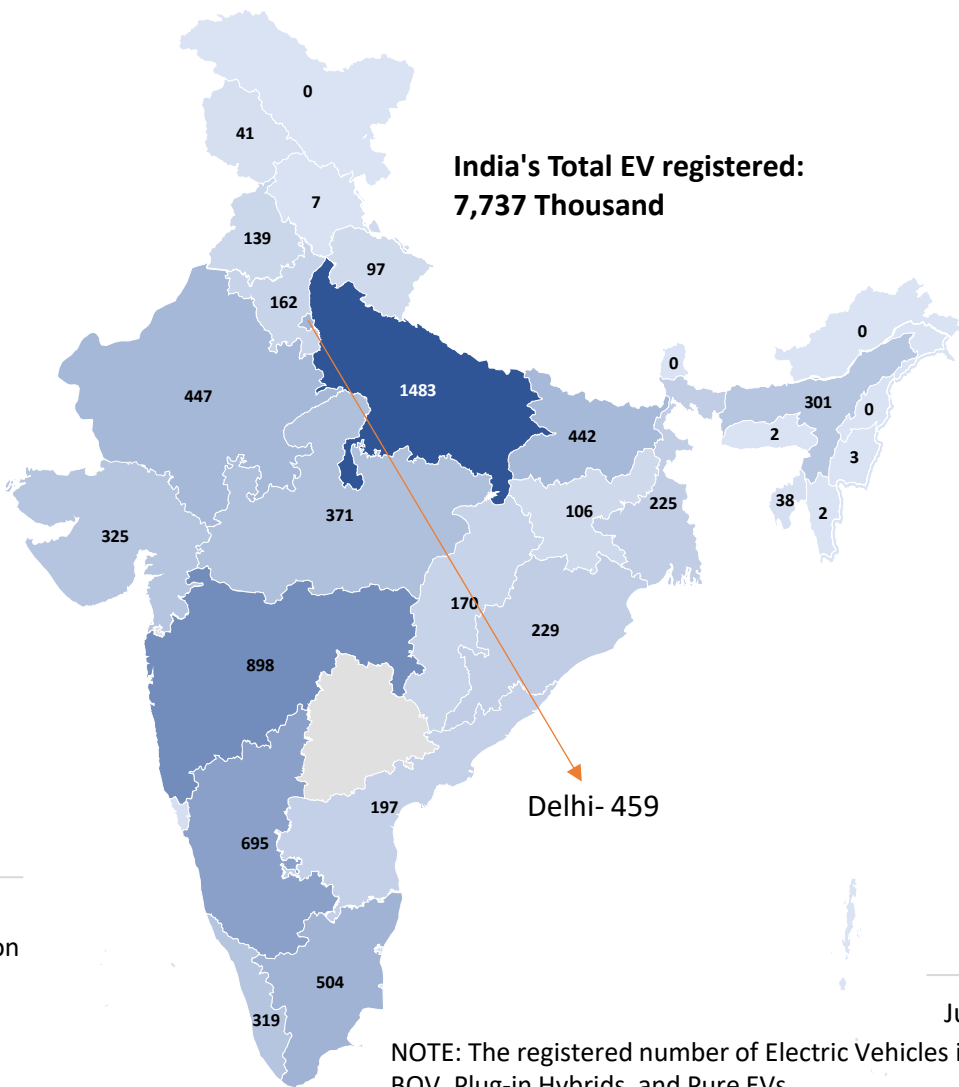


Status of Electric Mobility in India

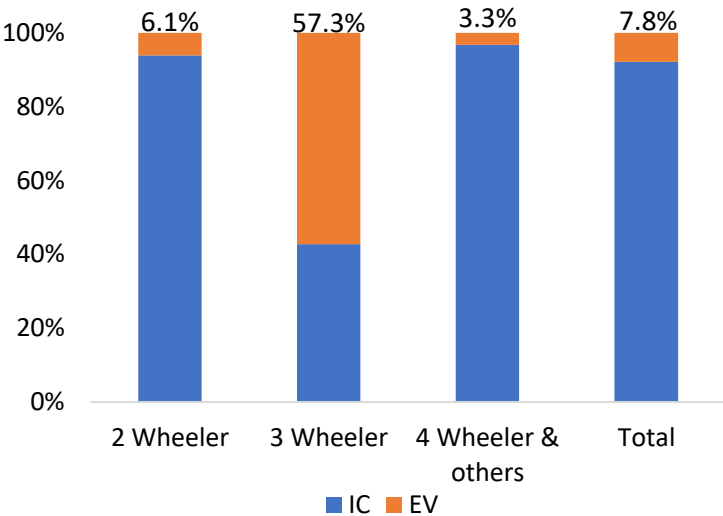
National EV registration
(Number in Thousands)



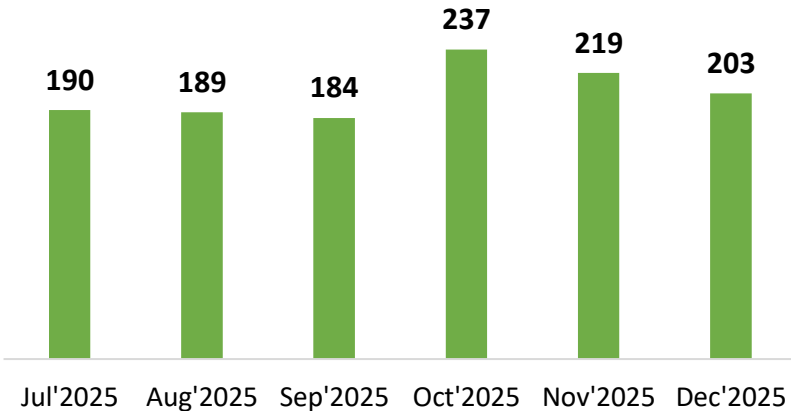
Cumulative State-wise EV registration
as on 31st December 2025 (in Thousands)



EV and ICE sale composition in 2024-25



Provisional Monthly EV registered
(in Thousands)

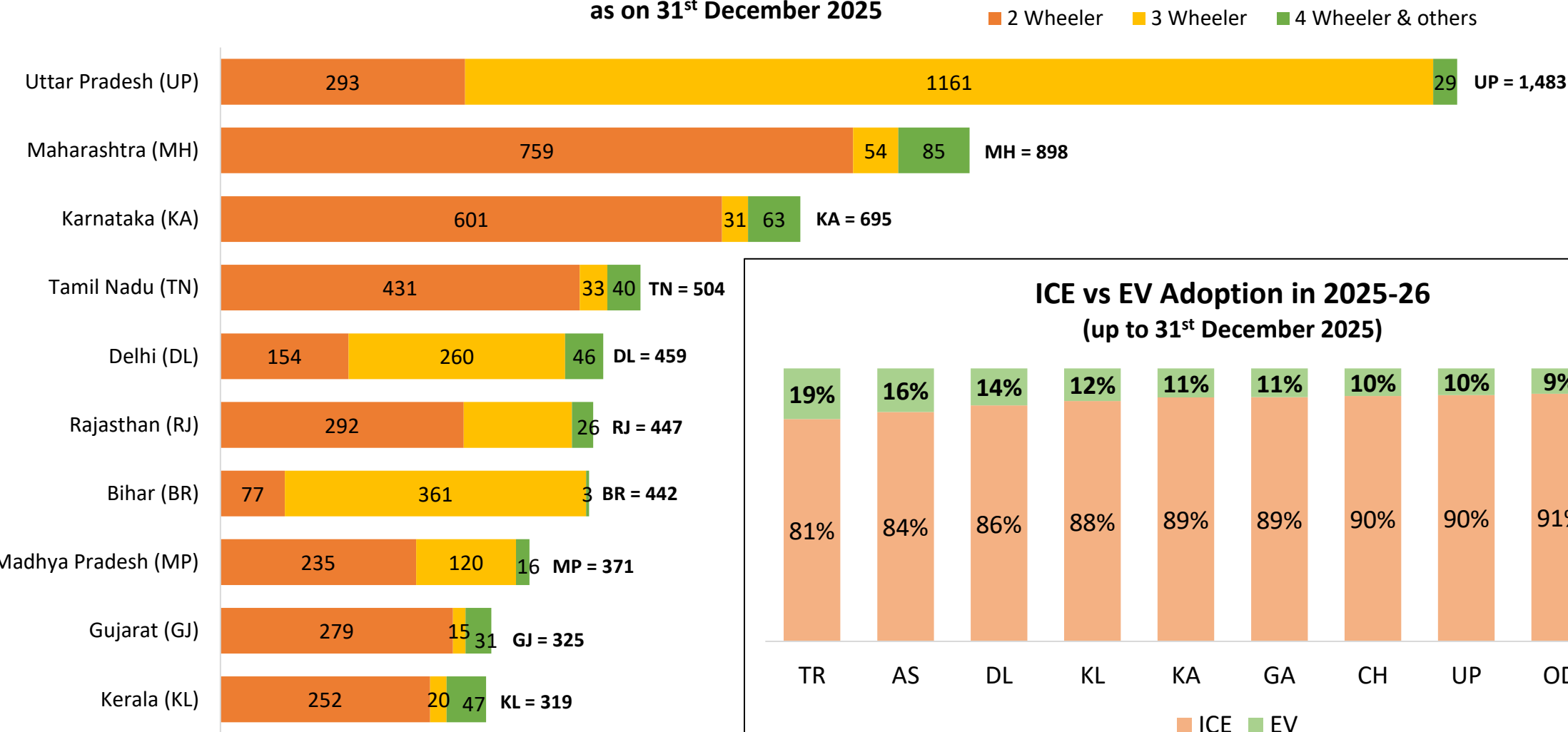


NOTE: The registered number of Electric Vehicles includes Electric BOV, Plug-in Hybrids, and Pure EVs.

Source: VAHAN Dashboard

Status of Electric Mobility in India

States with Highest Electric Vehicles Registered (in Thousands)
as on 31st December 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.

[CERC](#) has issued a draft second amendment to the Tariff Regulations, 2024, proposing a dedicated tariff framework for integrated energy storage systems (ESS) paired with coal, lignite, or gas-based plants and ISTS.

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

In India, approximately [10.62 GW of solar capacity coupled with 12.52 GWh of BESS](#) has been tendered as of April 2025.

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.

Recent Key Highlights or Announcements

- On December 17, 2025, the [Lok Sabha passes the Sustainable Harnessing and Advancement of Nuclear Energy for Transforming India \(SHANTI\) Bill, 2025](#), marking a significant step toward modernizing India's nuclear sector laws. The key highlights are:
 - It consolidates and modernises India's nuclear legal framework.
 - It enables limited private participation in the nuclear sector under regulatory oversight.
 - It strengthens statutory regulation by granting statutory recognition to the Atomic Energy Regulatory Board (AERB).
 - It supports India's clean-energy transition and the long-term objective of achieving 100 GW nuclear energy capacity by 2047.
- [Under the PM Surya Ghar: Muft Bijli Yojana, rooftop solar installations have reached 19.46 lakh systems nationwide as of 9 December 2025](#), benefiting 24.35 lakh households, nearly one-fourth of the scheme's target. More than 7.72 lakh households have reported zero electricity bills after installing rooftop solar systems. The programme has so far provided ₹13,926 crore in subsidy support, while over 8.3 lakh loan applications have been sanctioned. In addition, to promote adoption of the PMSG: MBY for rural households or the economically weaker sections, Ministry has issued guidelines for installation of RTS systems under Utility Led Aggregation (ULA)/RESCO model.
- [Indian Railways has expanded solar power use across 2,626 stations, with 318 new stations added to the network by November 2025](#). The large-scale adoption is helping cut energy costs and advance cleaner, more sustainable railway operations. Solar capacity commissioned for railway operations has reached 898 MW by November 2025, up from just 3.68 MW in 2014, an increase of nearly 244 times. Of this, 629 MW supports electric train traction, while 269 MW meets non-traction needs such as station lighting, workshops, service buildings, and railway quarters, reducing reliance on conventional power.
- On 23 December 2025, [Union Minister of Power and Housing & Urban Affairs, Shri Manohar Lal, inaugurated the commercial operation of the first 250 MW unit of the 2,000 MW Subansiri Lower Hydroelectric Project, the country's largest hydropower project](#).

Recent Key Highlights or Announcements

- [The Government of India has highlighted the following key achievements under the National Green Hydrogen Mission:](#)
 - **Electrolyser & Green Hydrogen Capacity:** 3,000 MW per annum of electrolyser manufacturing capacity and 8.62 lakh tonnes per annum of green hydrogen production capacity awarded.
 - **Green Ammonia Supply:** Prices discovered by SECI for production and supply of 7.24 lakh MTPA of green ammonia to 13 fertiliser units nationwide.
 - **Oil PSU Offtake:** 20,000 tonnes per annum of green hydrogen production and supply capacity awarded for IOCL, BPCL and HPCL.
 - **Steel Sector Pilots:** Five pilot projects sanctioned for use of hydrogen in the steel sector.
 - V.O. Chidambaranar Port Authority awarded a project to develop green methanol bunkering and refuelling facilities.
 - **Mobility:** 5 pilot projects sanctioned for deployment of 37 hydrogen-fuelled vehicles supported by 9 hydrogen refuelling stations across 10 different routes across India.
 - **Hydrogen Valleys:** 4 projects for Hydrogen Valley Innovation Clusters awarded— Jodhpur, Odisha, Pune and Kerala.
 - **R&D Support:** 23 projects sanctioned under the NGHM scheme.
 - **Testing Facilities:** 5 projects sanctioned.



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