India's Energy Overview

April 2026

VASUDHA FOUNDATION
Green ways for a good earth!

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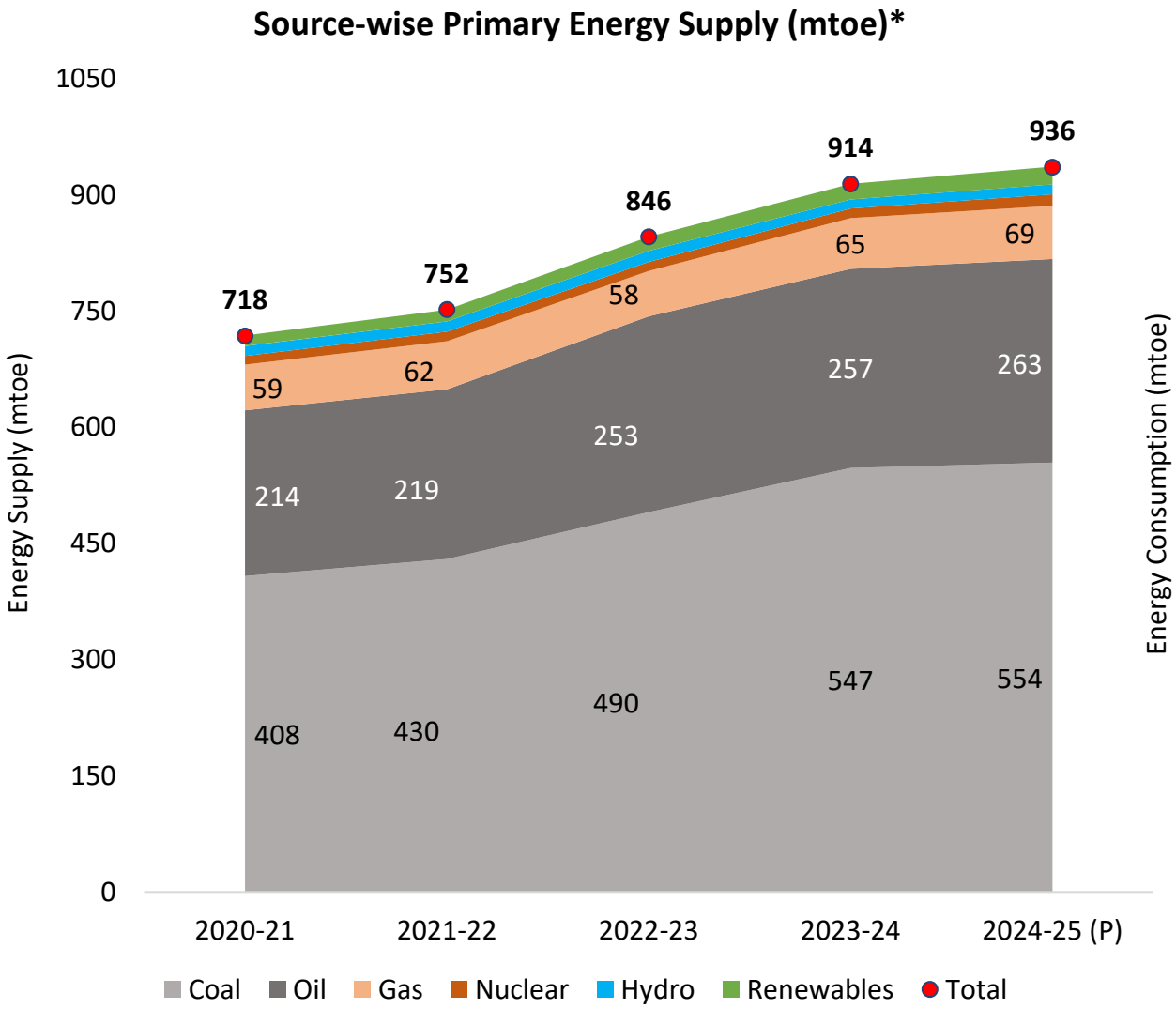
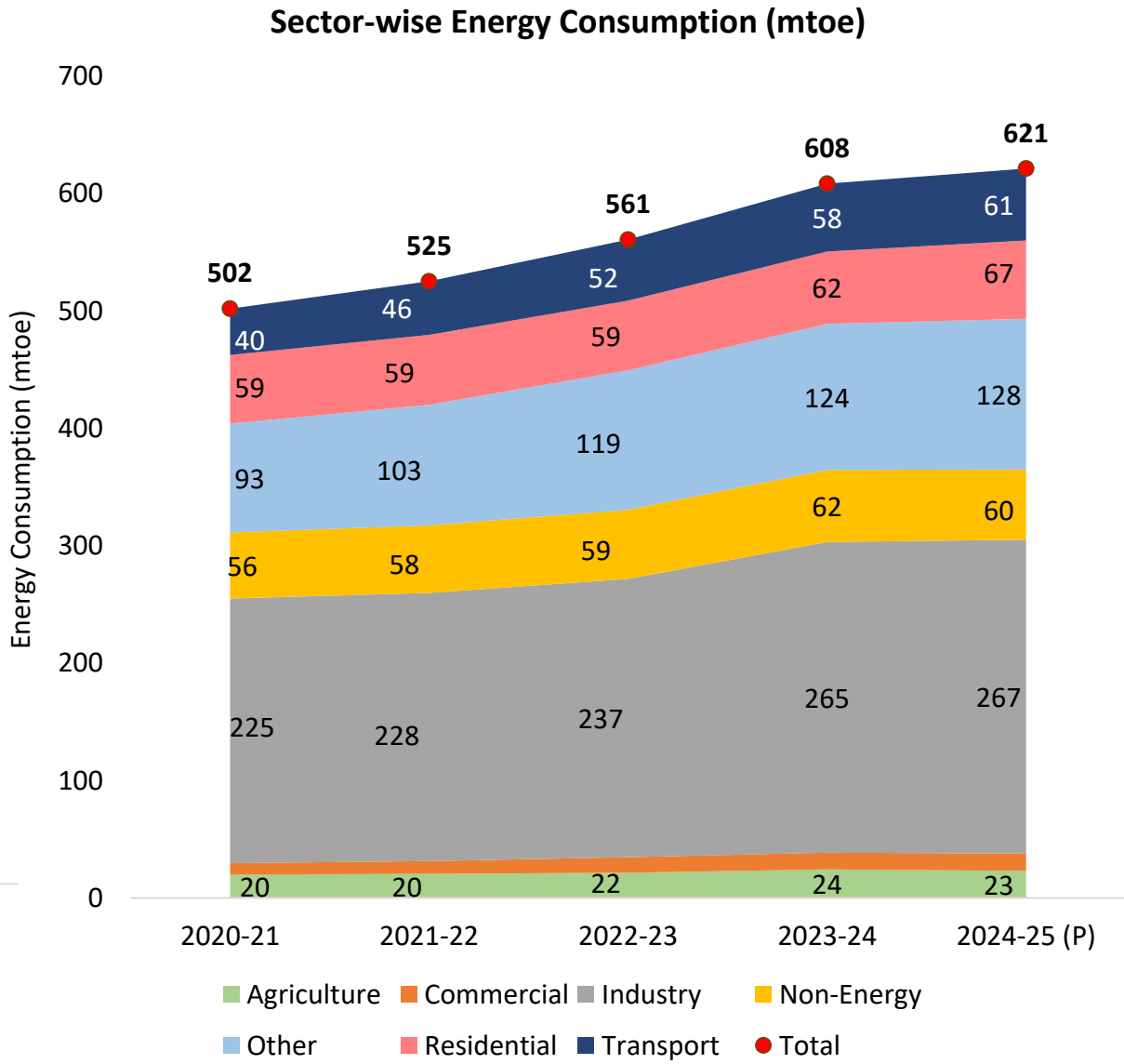
Primary* and Final Energy Mix in India

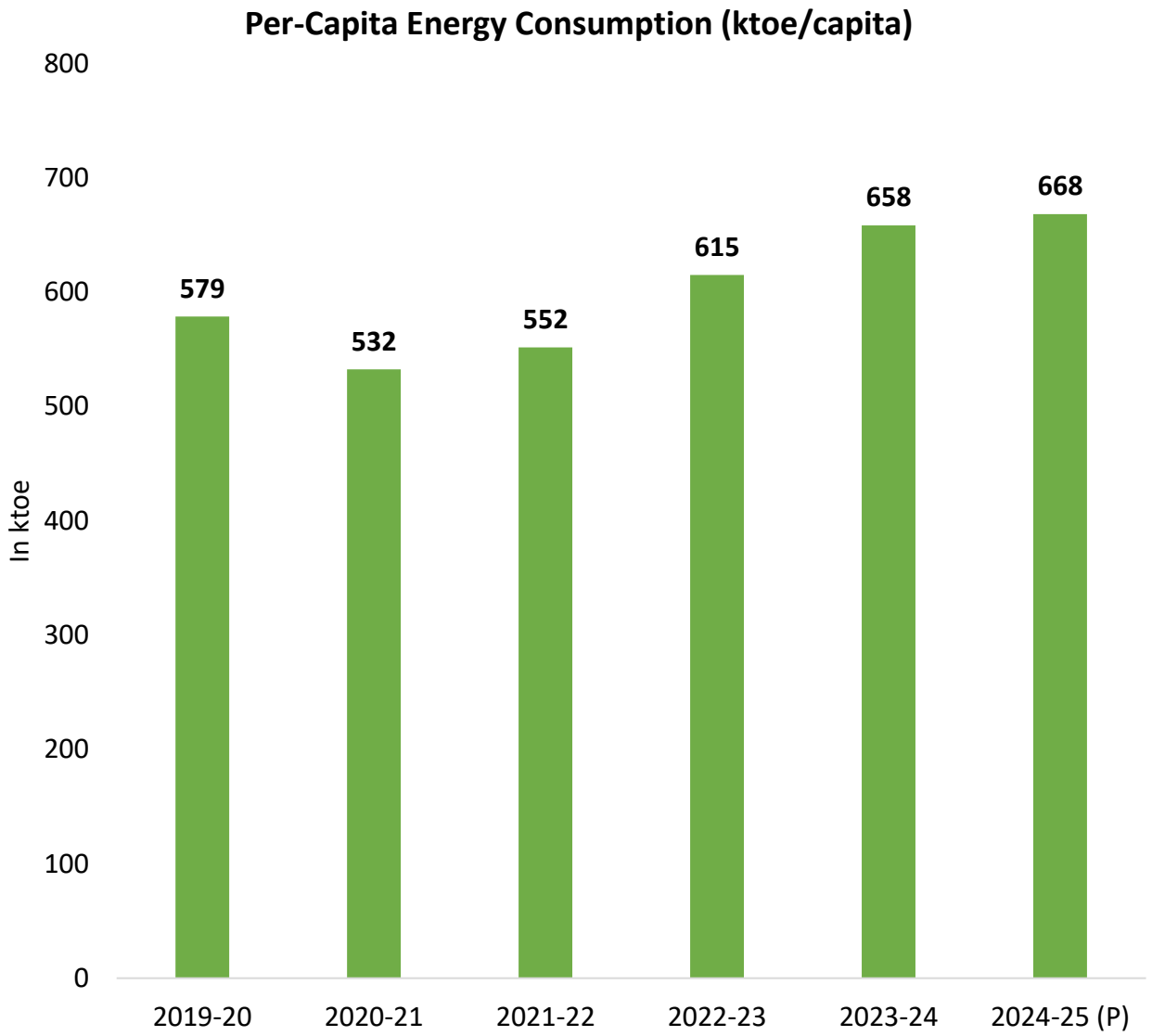


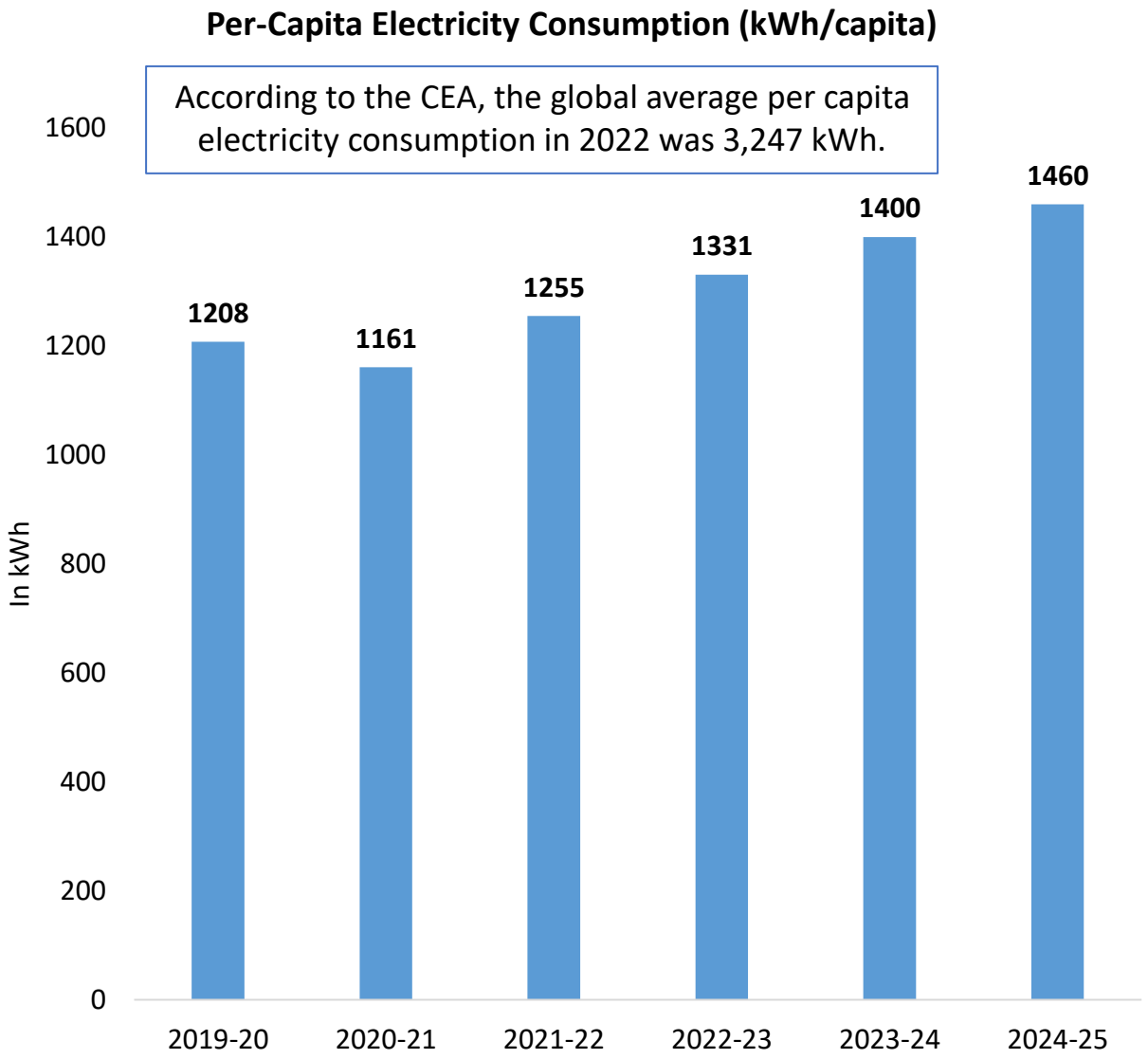


*Excluding biofuels, waste, and other non-commercial source of energy

Source: ICED

Per-Capita Energy and Electricity Consumption

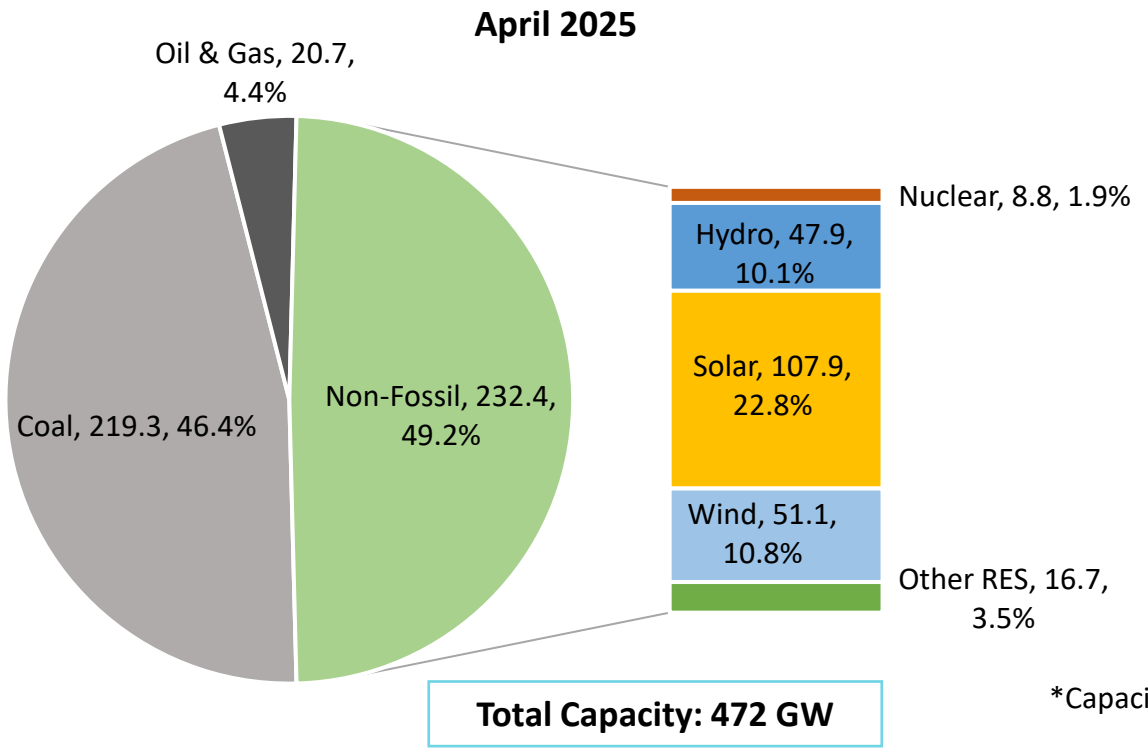


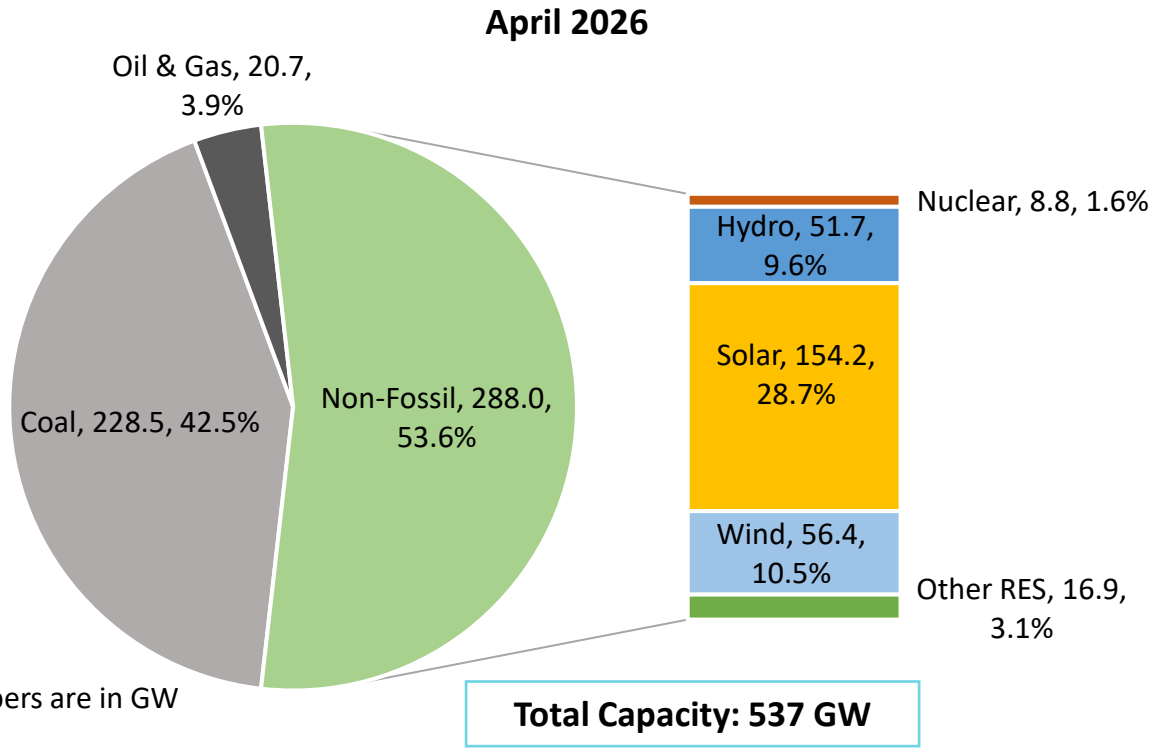


Note: Per Capita energy consumption is calculated on energy supply basis.

Source: ICED & CEA

India’s Electricity Capacity Mix (Utility-scale)



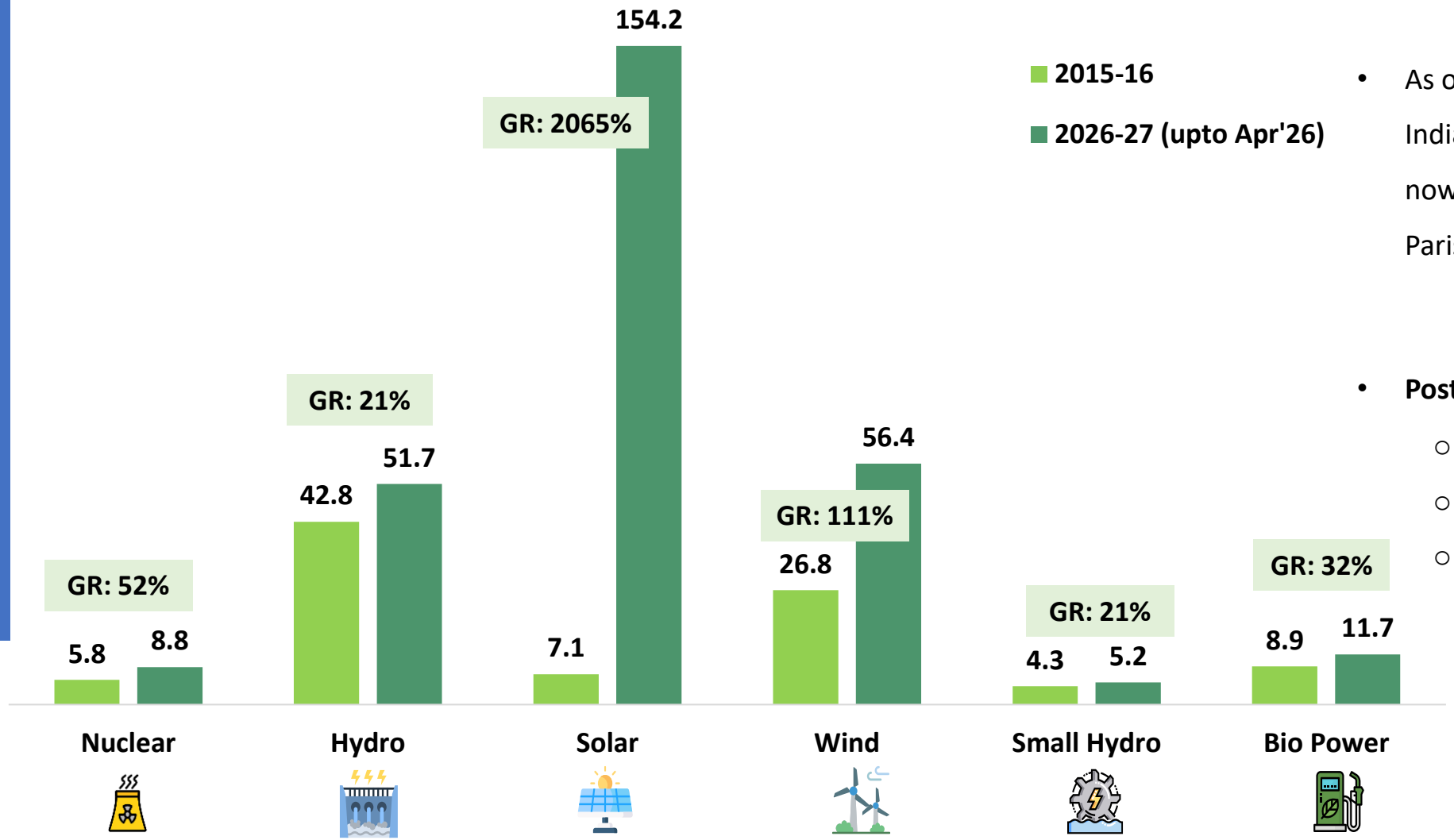


*Capacity Numbers are in GW

- India’s electricity generating capacity is 537 GW as on Apr’2026 [coal 229 GW (43%), solar 154 GW (29%), wind 56 GW (11%), and hydro 52 (10%)].
- As on Apr’2026, the share of non-fossil-based electricity capacity is 54% against the updated target of 60% non-fossil capacity by 2035.
- As on Apr’2026, India’s renewable energy capacity (including large hydro) stood at 279 GW out of 537 GW.

Source: CEA

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

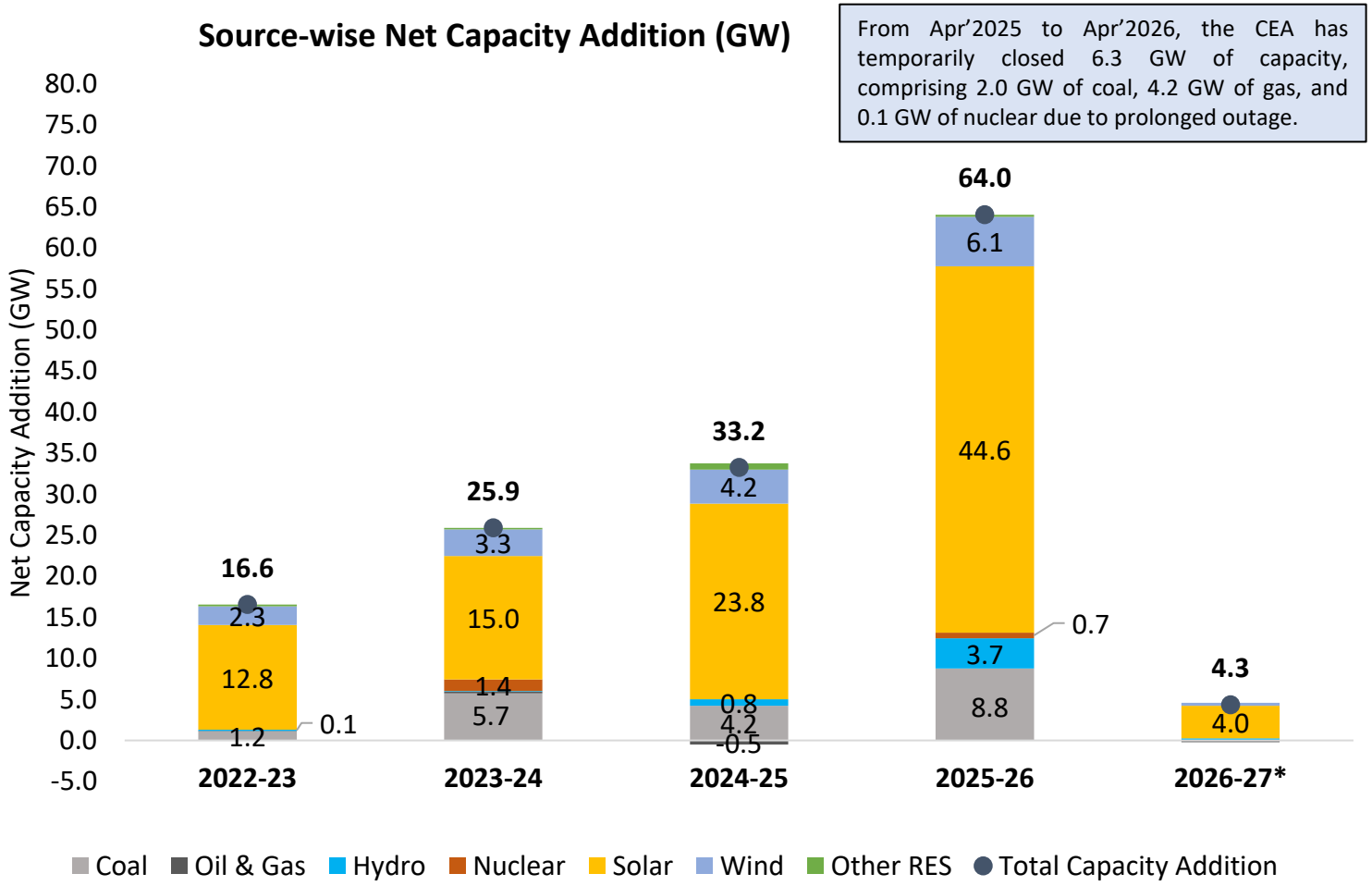


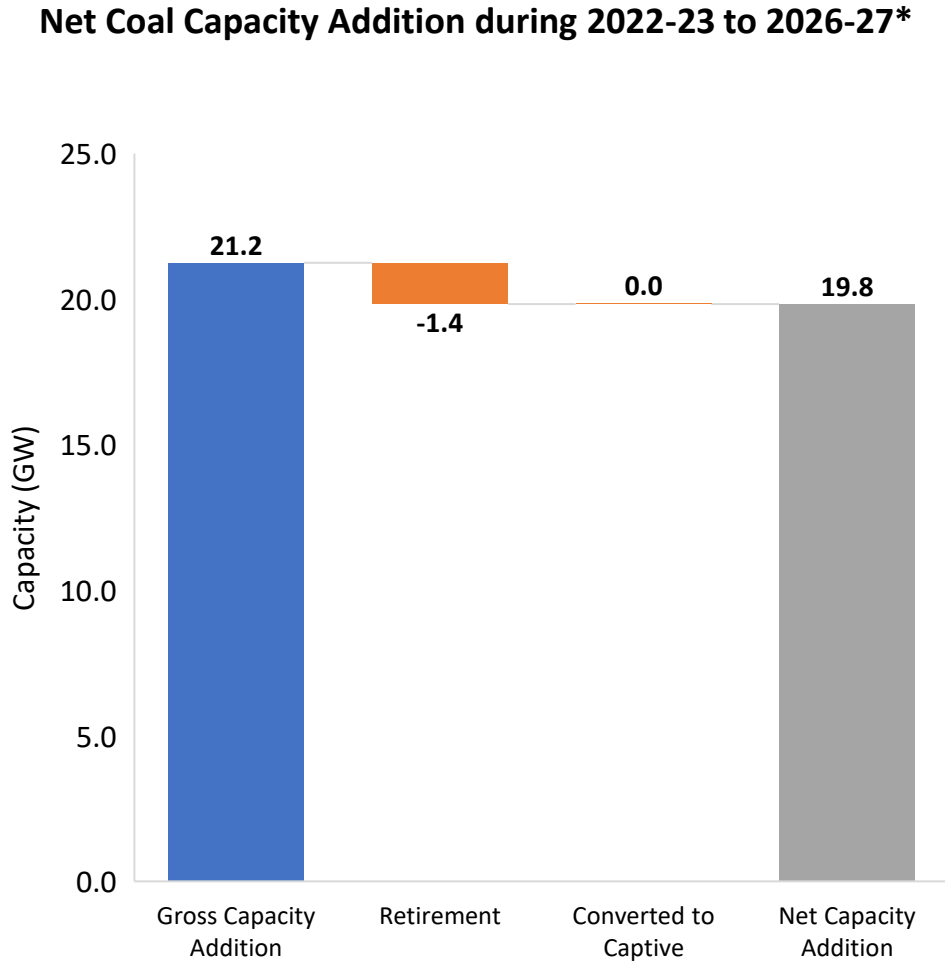
- As of 30 April 2026, **54% (288 GW)** of India's total power capacity (**537 GW**) is now non-fossil fuel-based, meeting the Paris Agreement pledge.

- **Post-2015 Paris Agreement Growth**:
  - solar capacity increased **22-folds**
  - wind power **doubled**
  - nuclear increased by **4% CAGR**.

Source: CEA & MNRE

India’s Electricity Capacity Addition in last 5 years





- A total of 123 GW of generation capacity has been added in RE (Hydro, solar, wind, and other RES) over the past 5 years (2022-23 to 2026-27*), whereas the net coal capacity addition during the same period was 20 GW, mostly in the central sector.

NOTE: *2026-27 is up to April 2026.

Source: CEA & MNRE

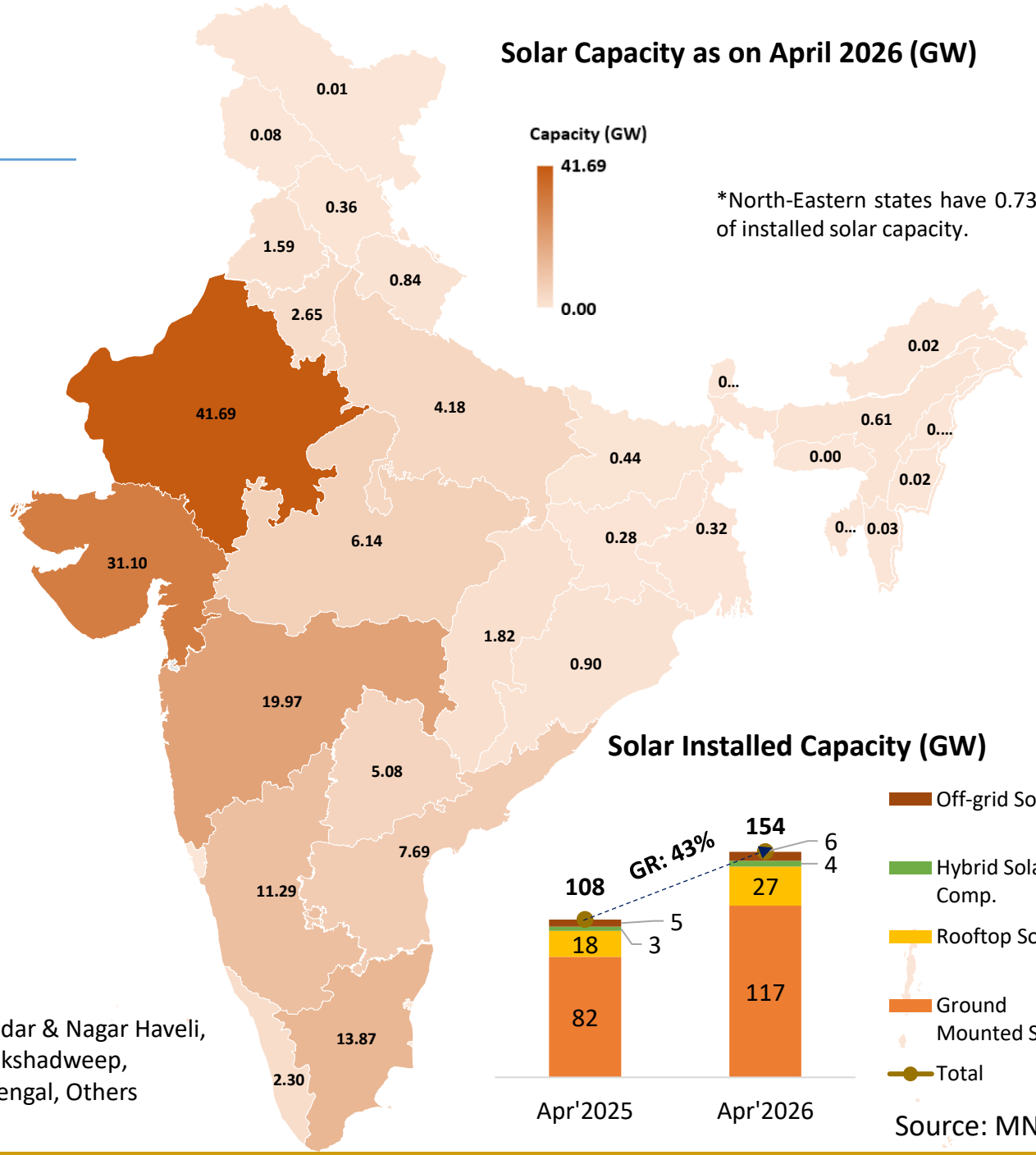
State-wise Solar Capacity

as on April 2026

State-wise Installed Capacity of Solar Power (GW)					
States	**Ground Mounted**	**Rooftop**	**Solar Component in Hybrid**	**Off Grid**	**Total Solar Power**
Rajasthan	**36.60**	2.23	**1.98**	0.87	**41.69**
Gujarat	22.46	**7.07**	1.38	0.19	31.10
Maharashtra	12.17	5.73	0.00	**2.07**	19.97
Tamil Nadu	12.20	1.60	0.00	0.08	13.87
Karnataka	9.92	0.87	0.36	0.14	11.29
Andhra Pradesh	6.53	0.83	0.25	0.09	7.69
Madhya Pradesh	5.06	0.96	0.00	0.12	6.14
Telangana	4.36	0.72	0.00	0.01	5.08
Uttar Pradesh	3.05	0.75	0.00	0.38	4.18
Haryana	0.27	1.19	0.00	1.19	2.65
Kerala	0.34	1.93	0.00	0.02	2.30
Chhattisgarh	1.26	0.17	0.00	0.39	1.82
Punjab	0.89	0.59	0.00	0.12	1.59
Odisha	0.66	0.16	0.00	0.08	0.90
Others	1.58	1.97	0.00	0.42	3.97
All India	**117.36**	**26.75**	**3.96**	**6.17**	**154.24**

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

Solar Capacity as on April 2026 (GW)



Solar Installed Capacity (GW)

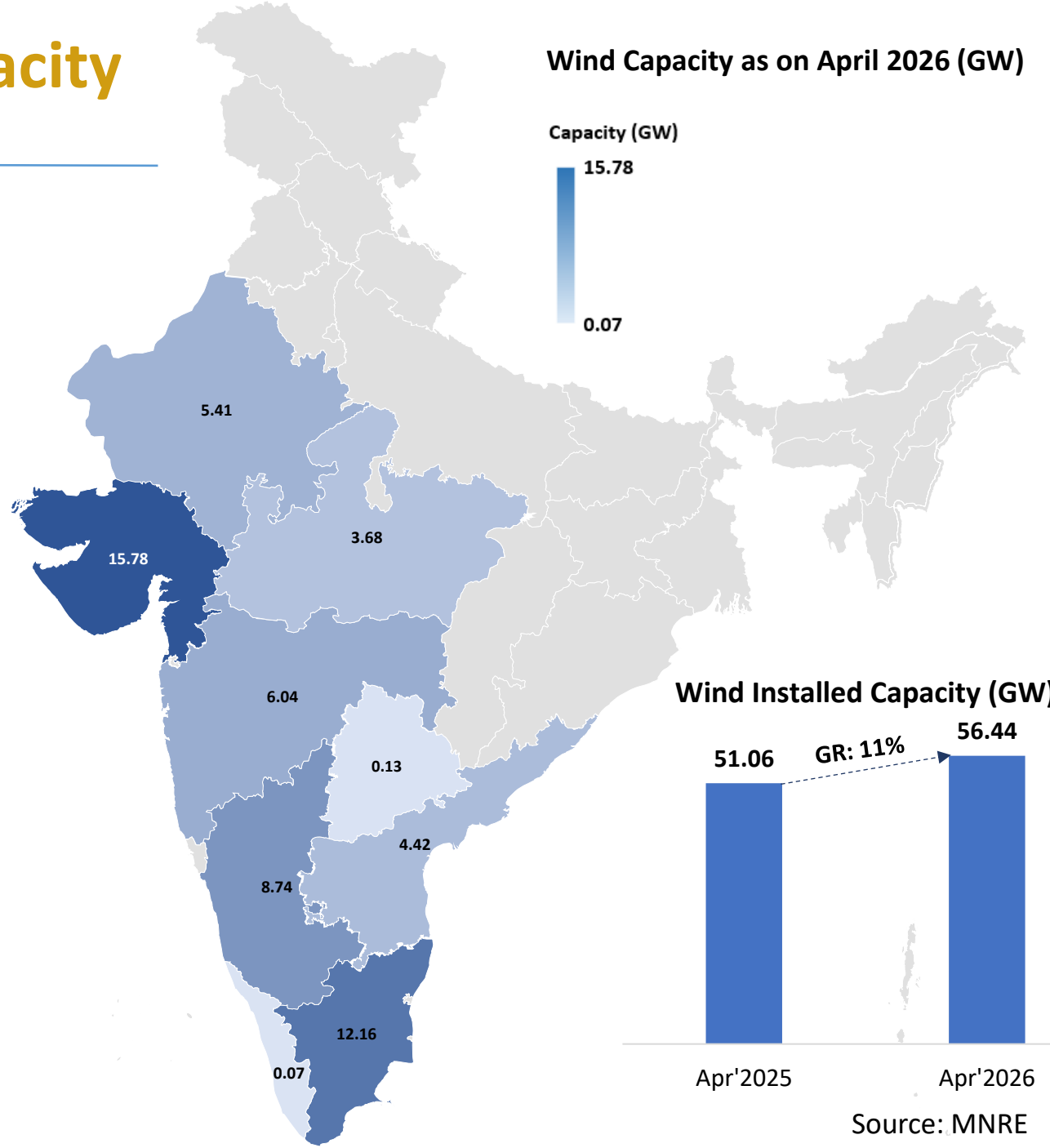
Source: MNRE

State-wise Wind Onshore Capacity

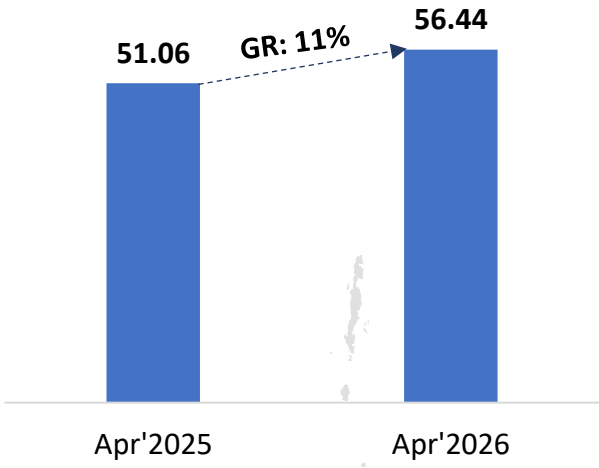
as on April 2026

State-wise installed capacity of Wind (Onshore) Power	
States	**Installed Capacity (GW)**
Gujarat	15.78
Tamil Nadu	12.16
Karnataka	8.74
Maharashtra	6.04
Rajasthan	5.41
Andhra Pradesh	4.42
Madhya Pradesh	3.68
Telangana	0.13
Kerala	0.07
India Total	**56.44**

Wind Capacity as on April 2026 (GW)



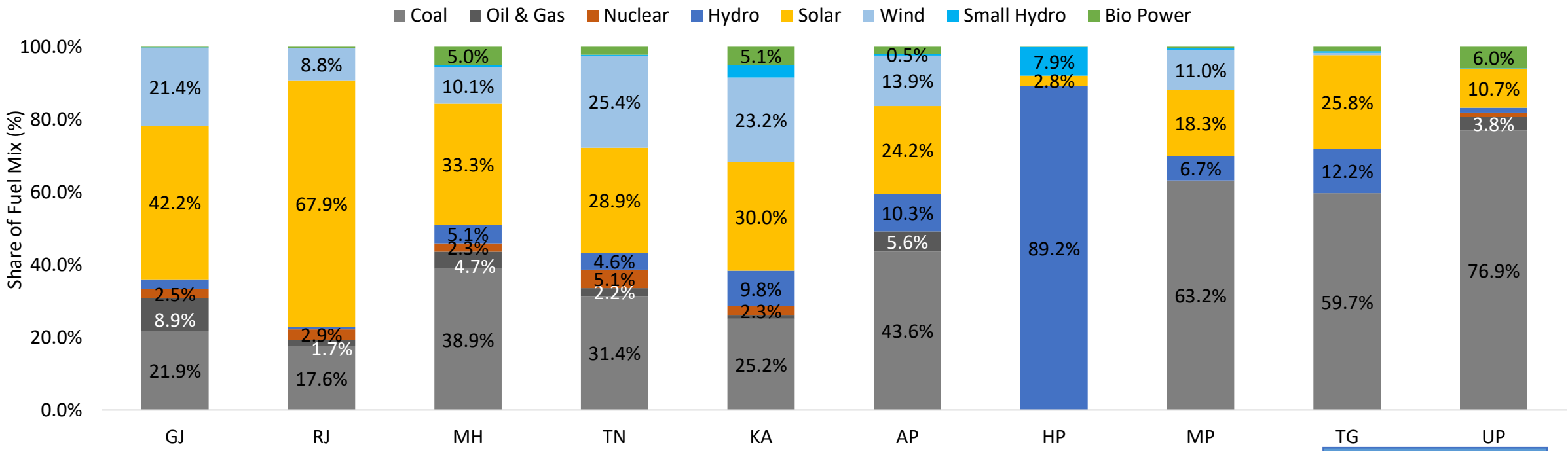
Wind Installed Capacity (GW)



Source: MNRE

Top 10 High RE* States and Their Capacity Mix

as on April 2026



Numbers are in GW

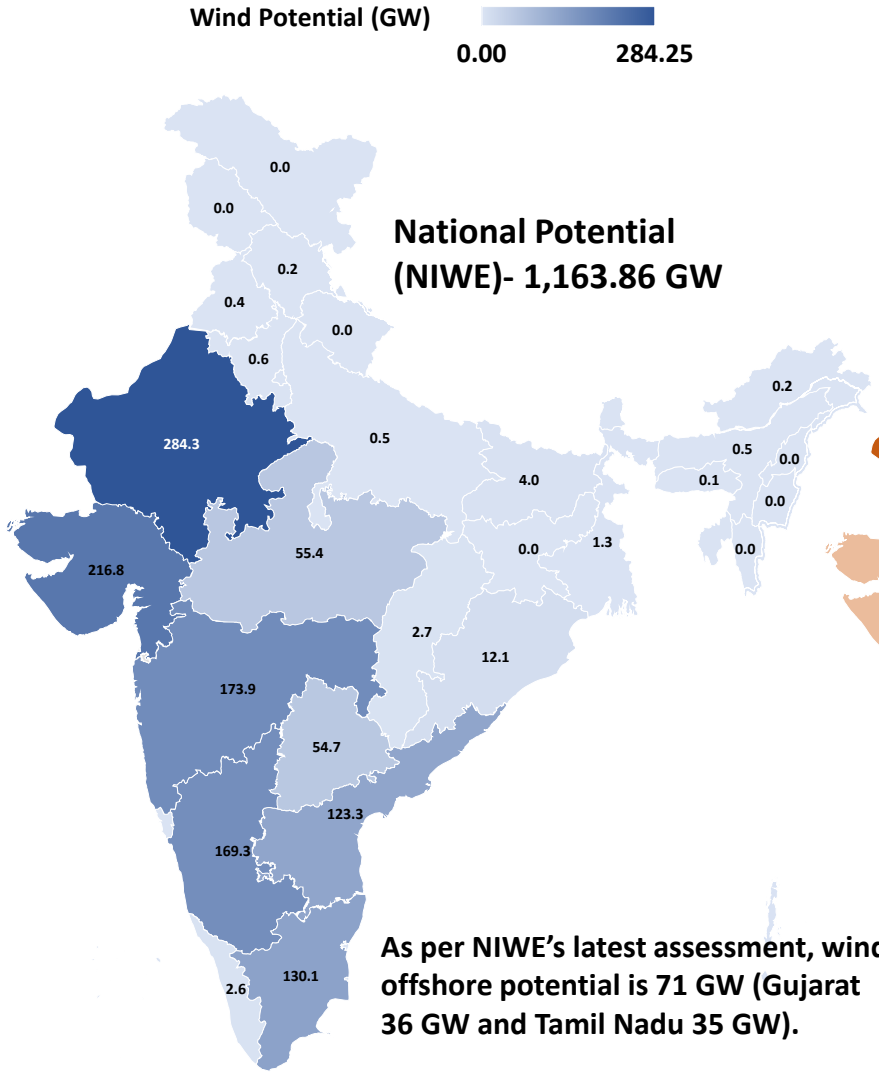
Parameters	GJ	RJ	MH	TN	KA	AP	HP	MP	TG	UP
Total Installed Capacity	73.63	61.38	59.98	47.94	37.68	31.84	12.80	33.50	19.73	39.03
Total RE Capacity	49.12	47.75	32.44	29.41	26.92	16.18	12.80	12.33	7.95	7.07
RE Share	67%	78%	54%	61%	71%	51%	100%	37%	40%	18%

NOTE: *Renewable Energy includes Large Hydro

Source: MNRE & NPP

Renewable Energy (RE) Potential

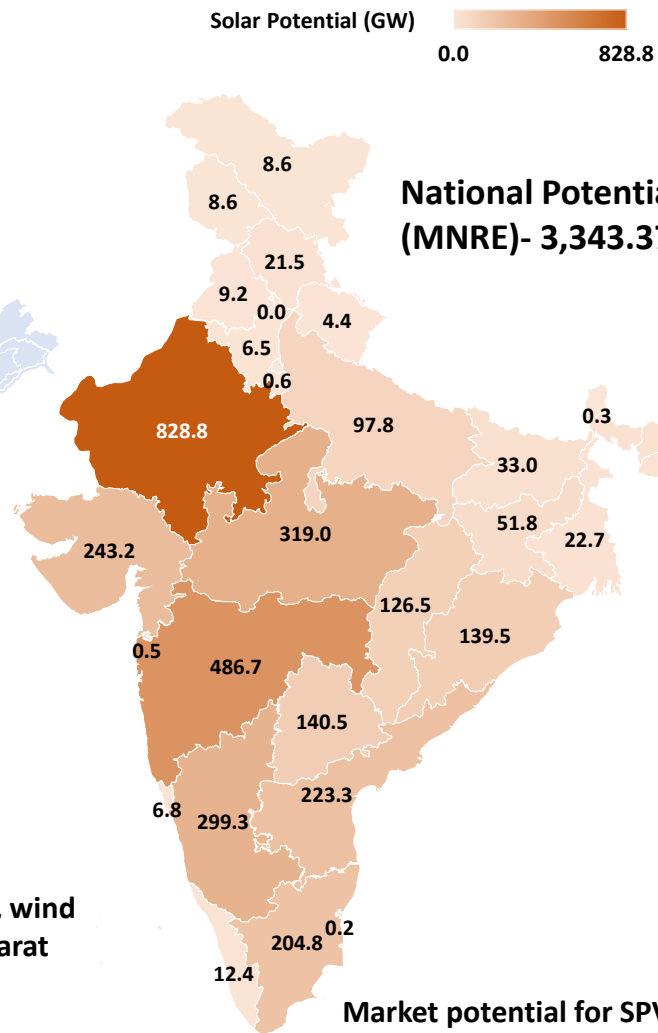
Wind Onshore (at 150m agl) and Offshore Potential



National Potential (NIWE)- 1,163.86 GW

As per NIWE's latest assessment, wind offshore potential is 71 GW (Gujarat 36 GW and Tamil Nadu 35 GW).

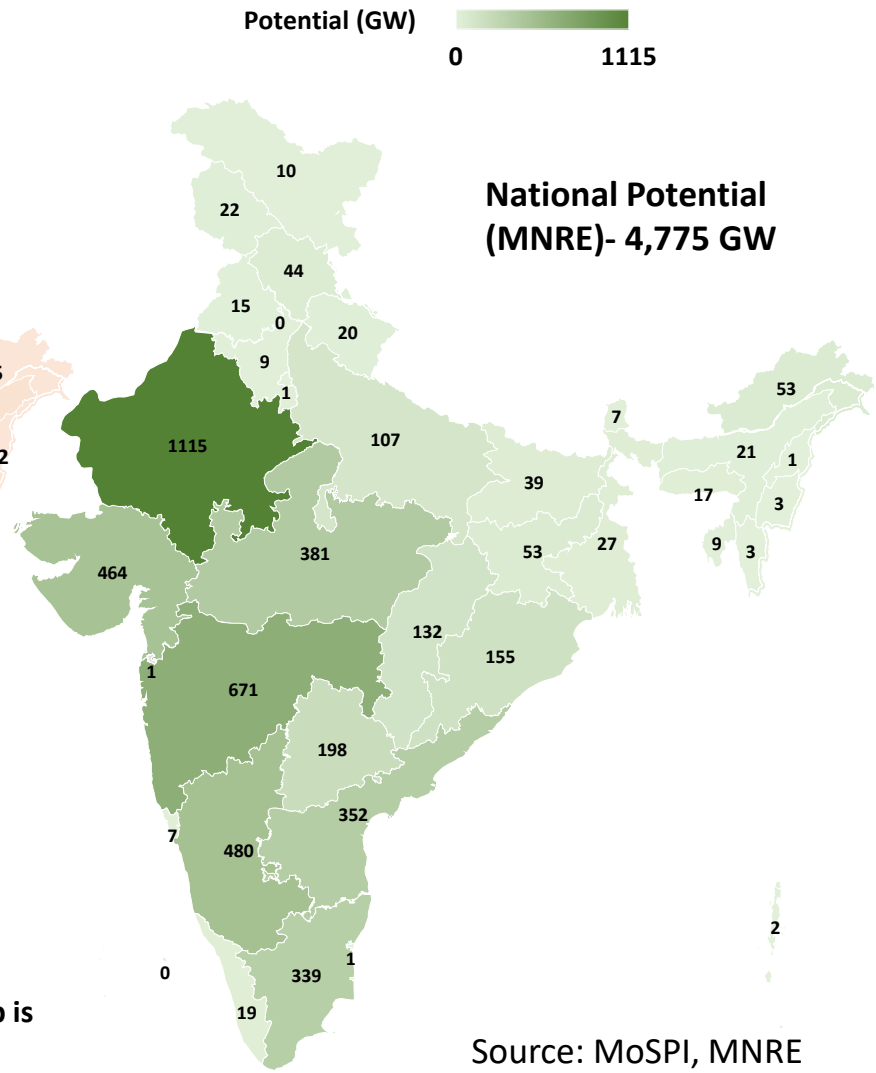
Solar Ground Mounted Potential (at 6.69% wasteland)



National Potential (MNRE)- 3,343.37 GW

Market potential for SPV rooftop is 124 GW.

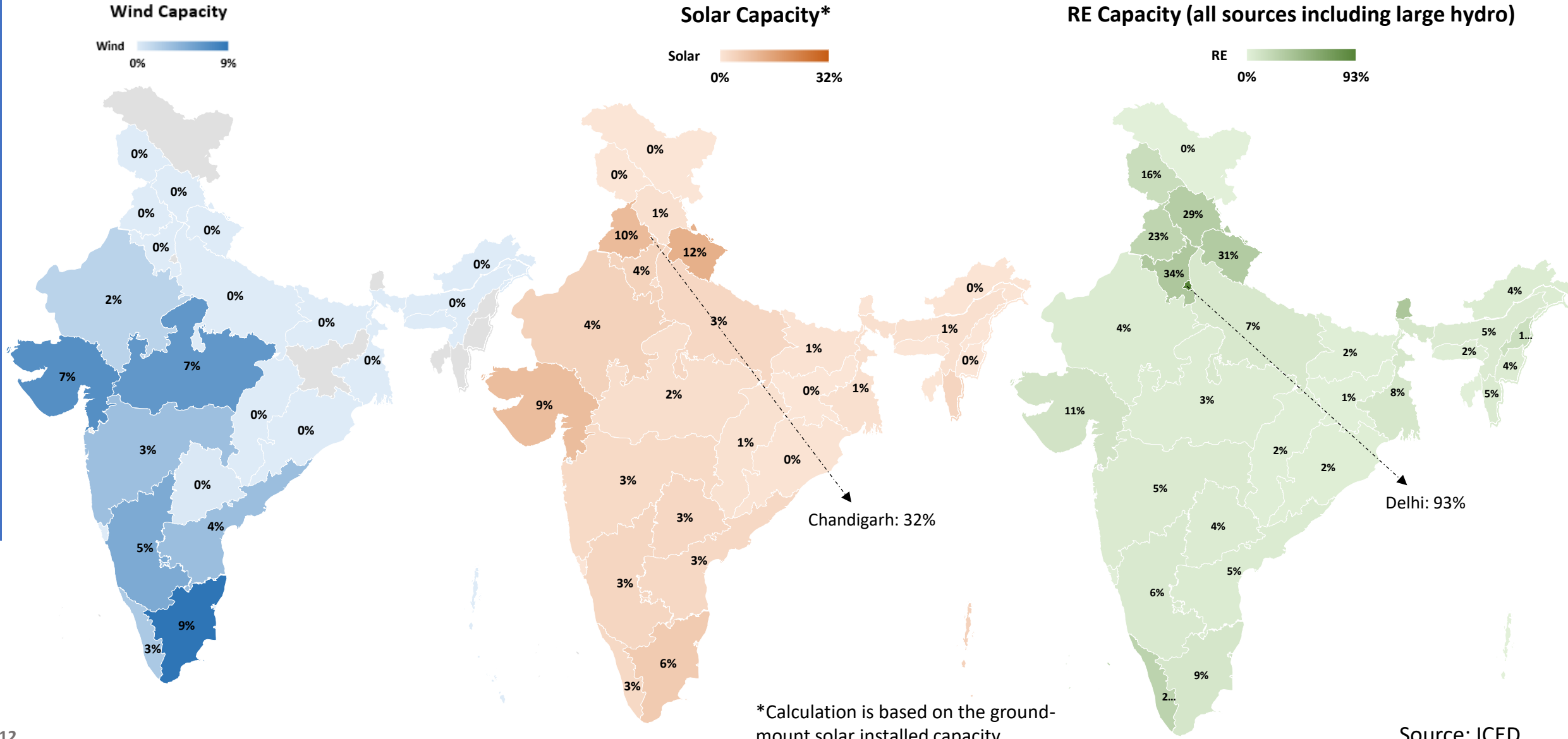
Renewable Energy Potential (all sources incl. large Hydro)



National Potential (MNRE)- 4,775 GW

Source: MoSPI, MNRE

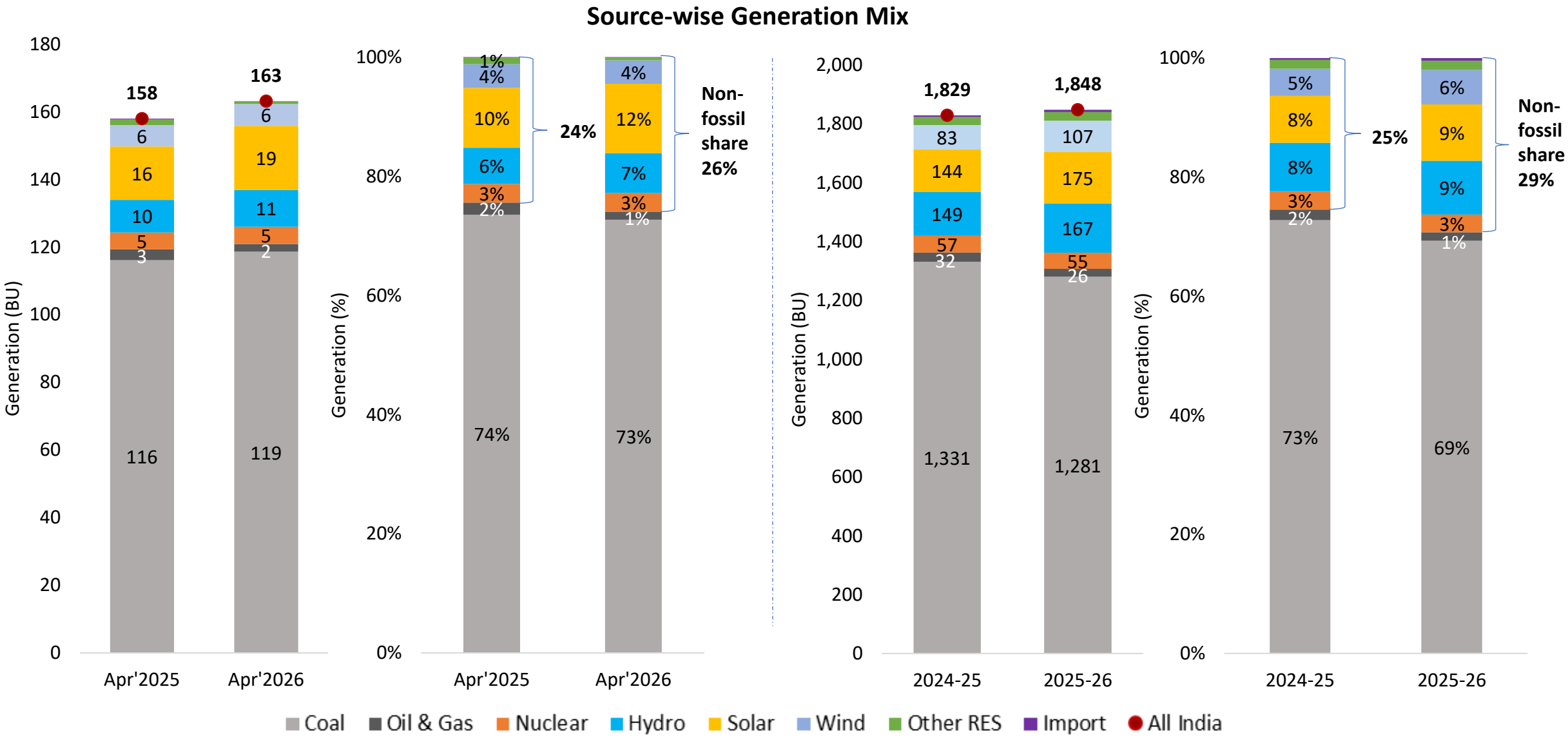
RE Installed Capacity as a Percentage of the Total Resource Potential in the State (as on April 2026)



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

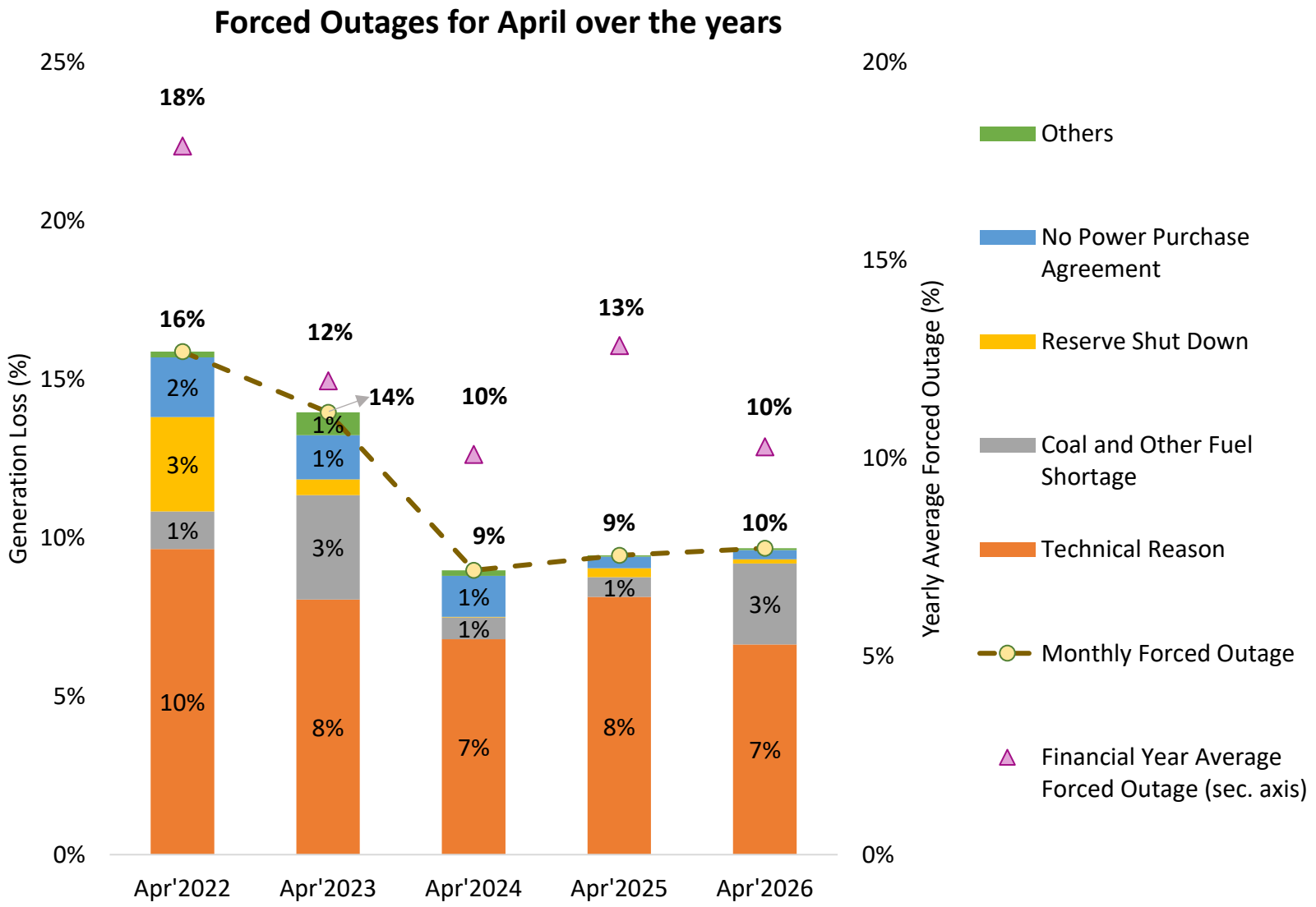
Source: ICED

India’s Electricity Generation Mix



Source: CEA

Thermal Generation Loss and Reasons for Forced Outages

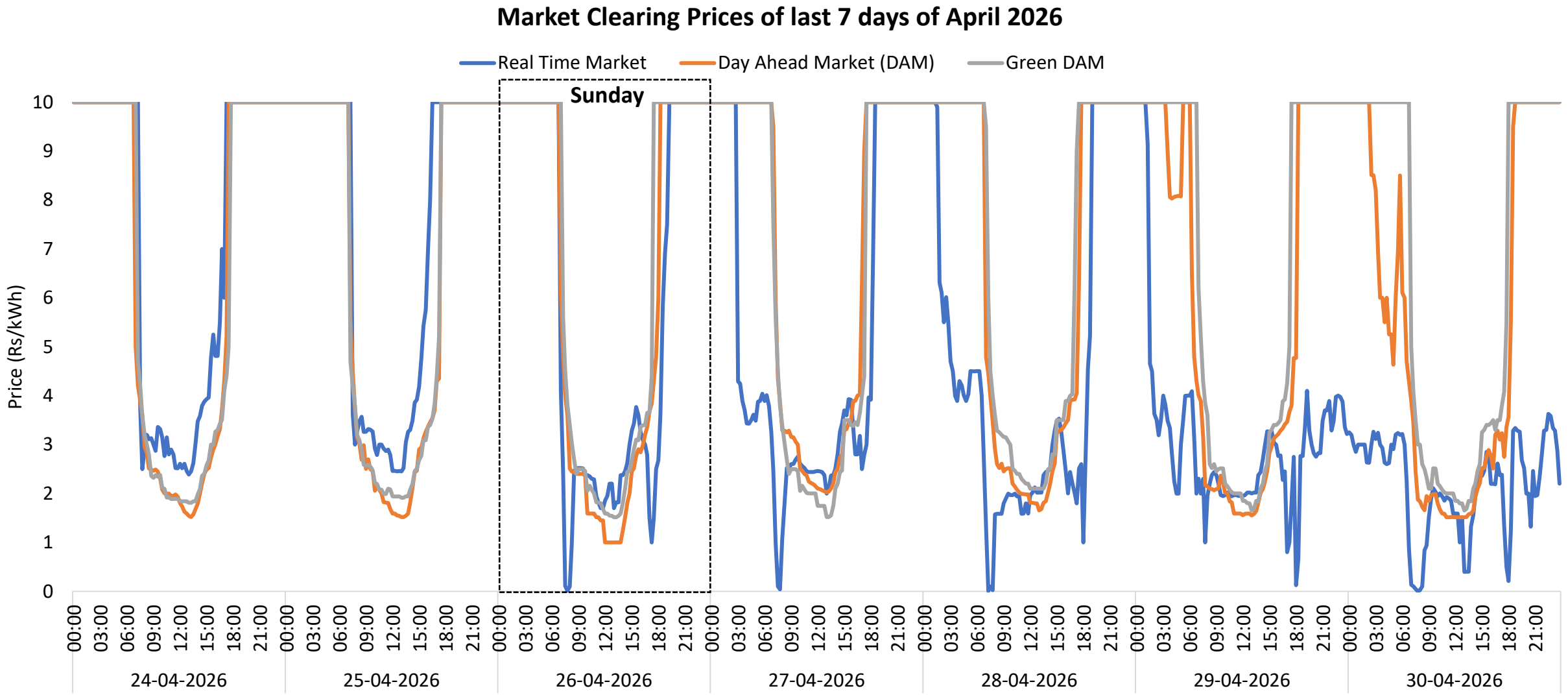


Year/ Month		Average Forced Outage Share
Yearly	FY 2023-24	10%
	FY 2024-25	13%
	FY 2025-26	10%
Monthly	Apr'2024	9%
	Apr'2025	9%
	Apr'2026	10%

NOTE: Thermal includes only Coal and Lignite Plants.
Others includes Other Commercial Reasons, Raw Water Unavailability and Technical Grid.

Source: ICED

Indian Electricity Exchange (IEX) Market Snapshot

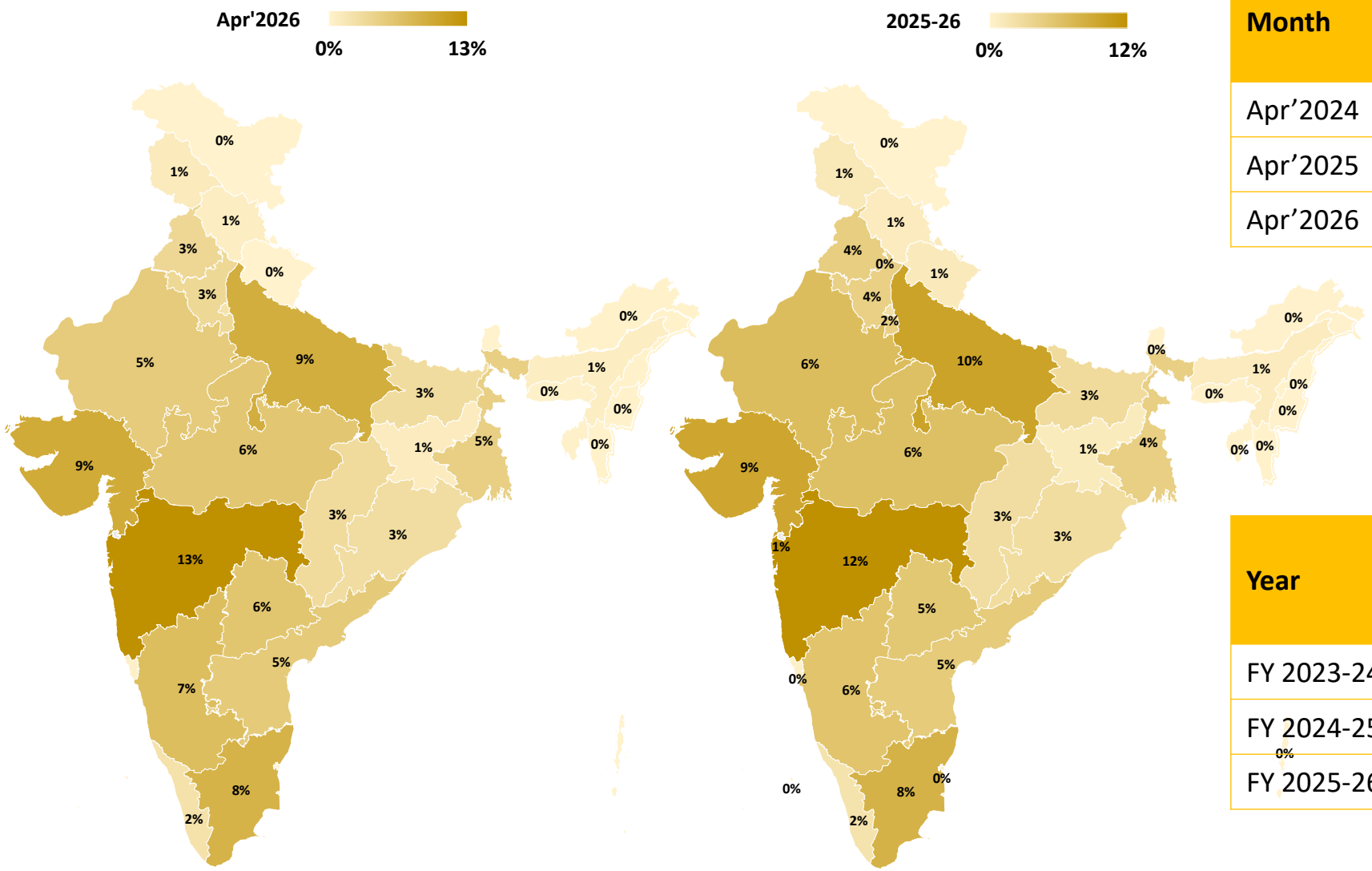


In April 2023, CERC revised the price ceiling from ₹12/kWh to ₹10/kWh in the power exchange market.

Source: IEX

National and State level Electricity Demand

State-level Electricity Demand as a percent of National Demand (%)



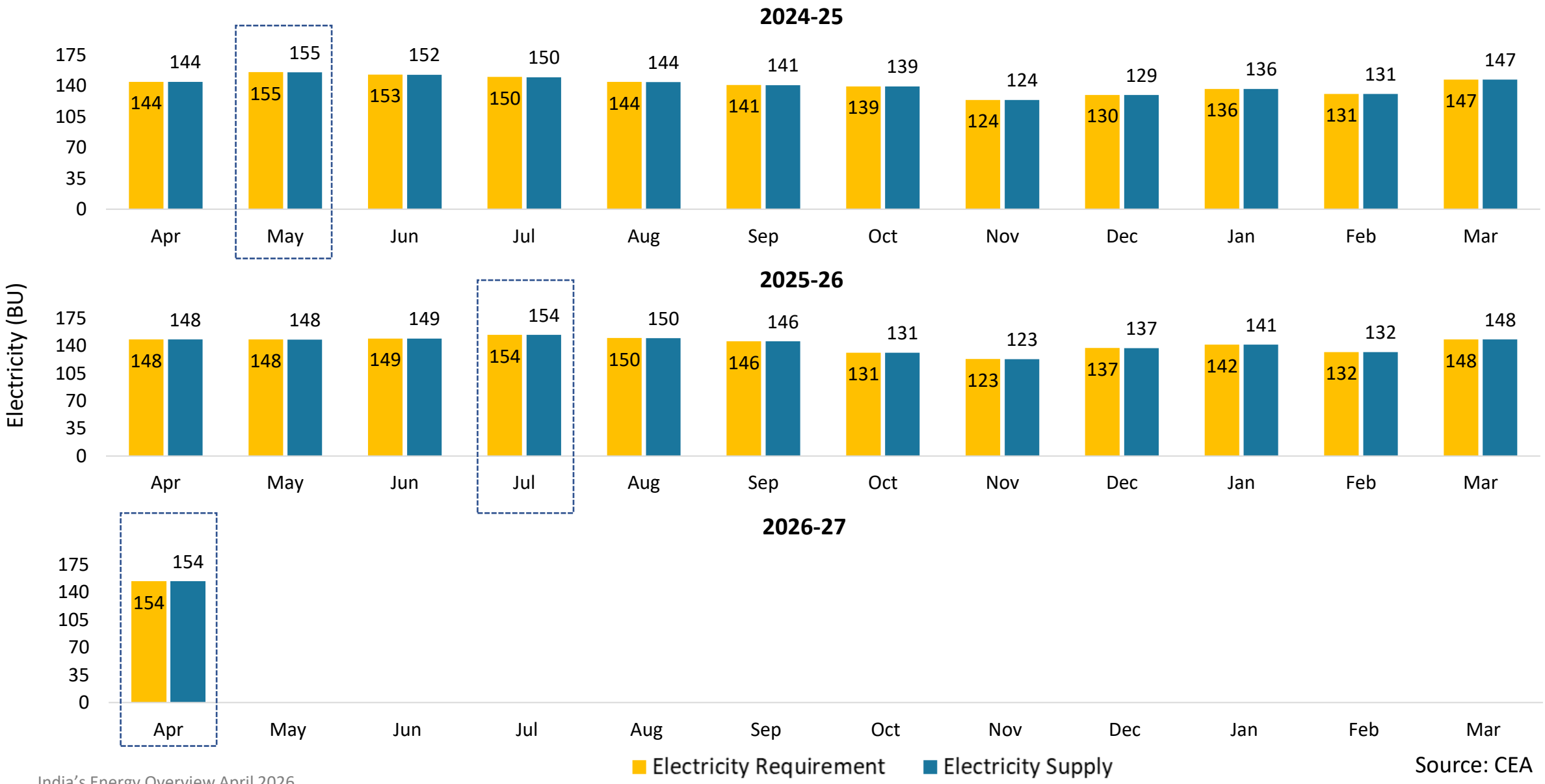
Month	Electricity Demand (BU)	Electricity Supply (BU)	Gap (BU) (+/-)
Apr'2024	144	144	0.1
Apr'2025	148	148	0.1
Apr'2026	154	154	0.3

Year	Electricity Demand (BU)	Electricity Supply (BU)	Gap (BU) (+/-)
FY 2023-24	1,626	1,622	4.0
FY 2024-25	1,694	1,692	1.6
FY 2025-26	1,707	1,707	0.5

NOTE: The demand represented above includes intra state T&D losses.

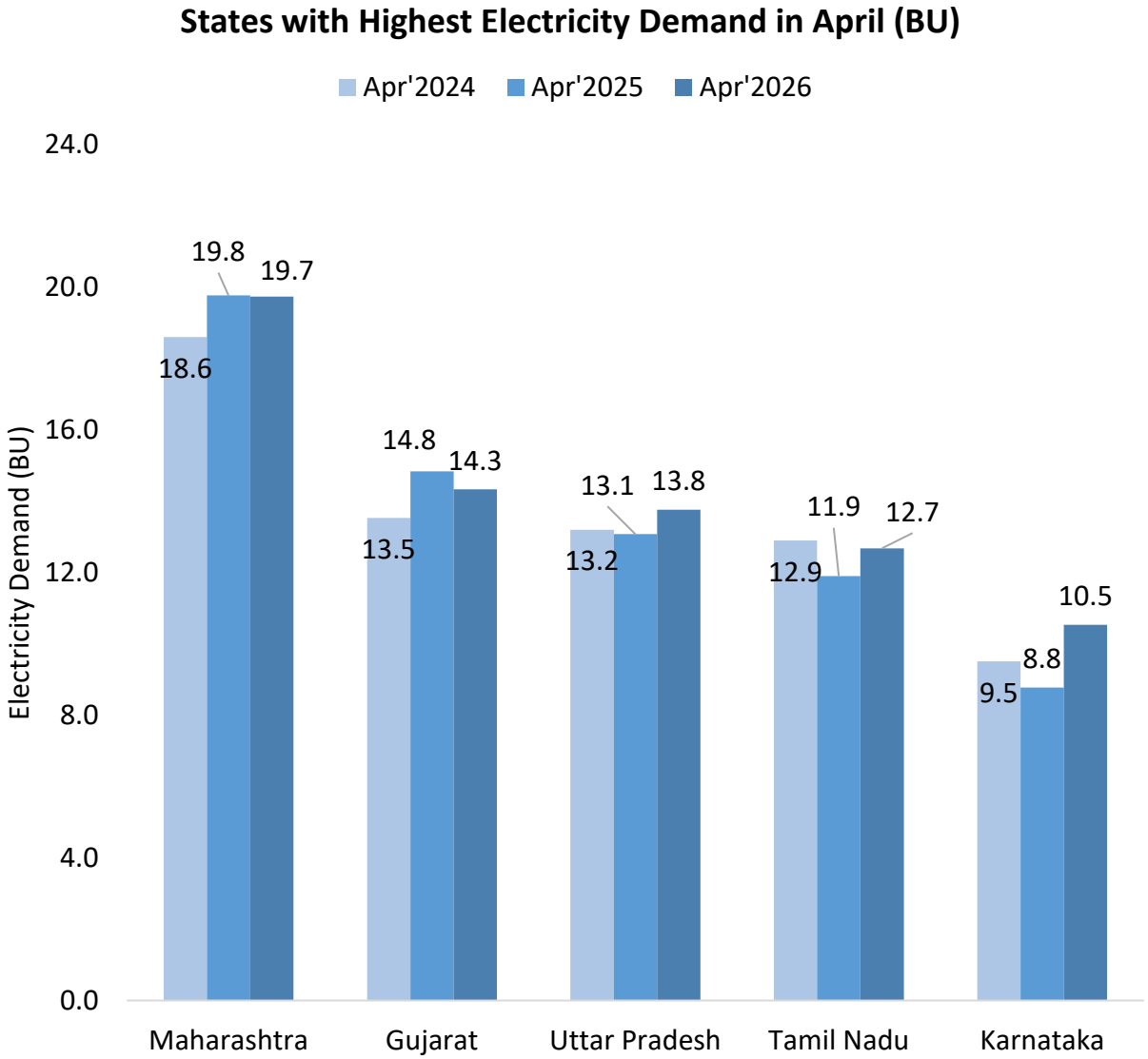
Source: CEA

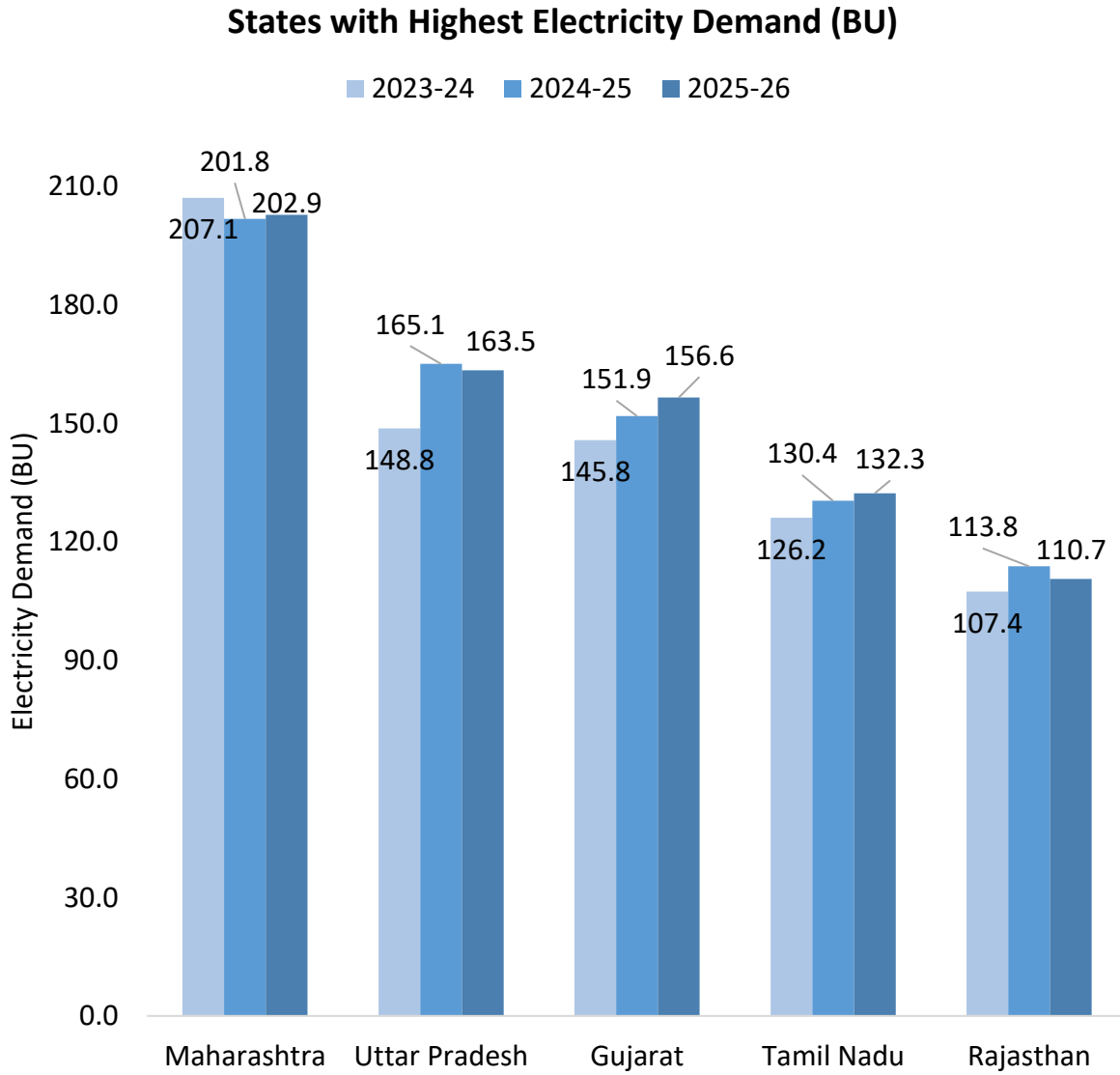
India’s Monthly Electricity Requirement and Supply



Source: CEA

Monthly Electricity Demand of the Top 5 States

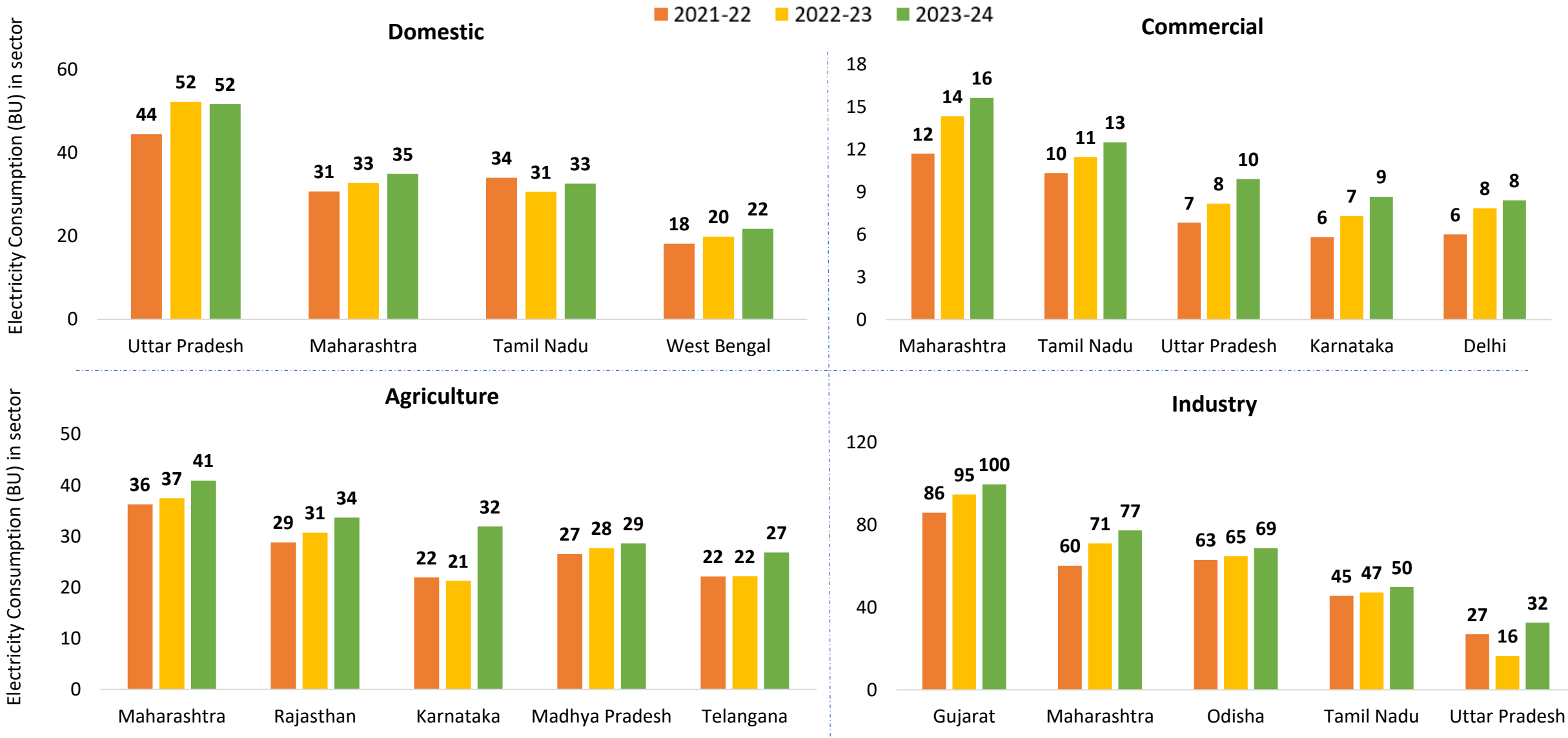




Note: The electricity demand data for Apr'26 is Provisional.

Source: CEA

Electricity Consumer-category wise Top 5 States

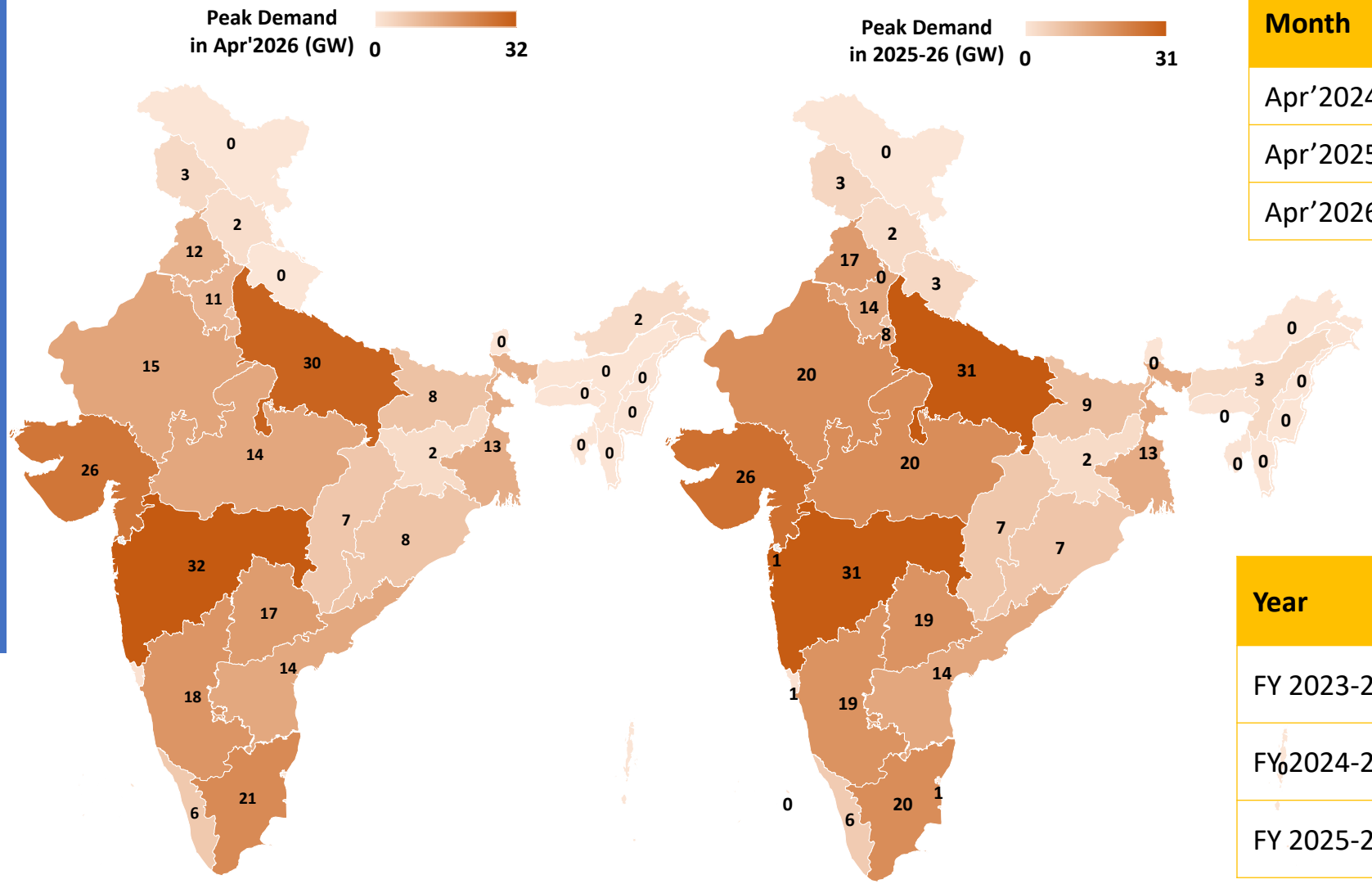


NOTE: Top 5 States under consumer-categories are selected on the basis of 2023-24

Source: CEA

National and State level Peak Electricity Demand

State-level Peak Electricity Demand (GW)



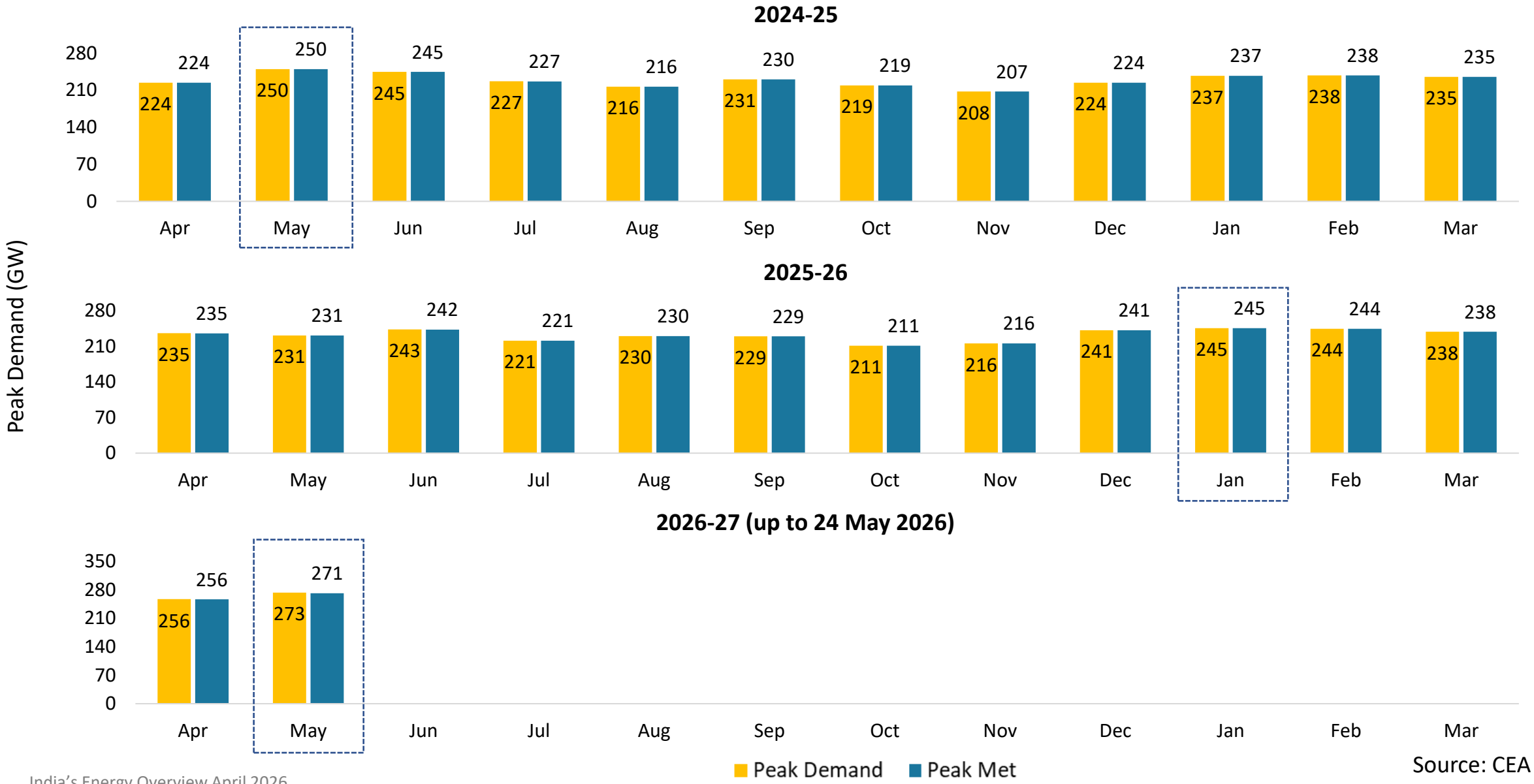
Month	Peak Demand (GW)	Peak Supply (GW)	Gap(GW) (+/-)
Apr'2024	224	224	0.1
Apr'2025	235	235	0.1
Apr'2026	256	256	0.3

Year	Peak Demand (GW)	Peak Supply (GW)	Gap (GW) (+/-)
FY 2023-24	243	240	3.3
FY 2024-25	250	250	0.0
FY 2025-26	245	245	0.0

Note: The peak electricity demand data for Apr'26 is Provisional.

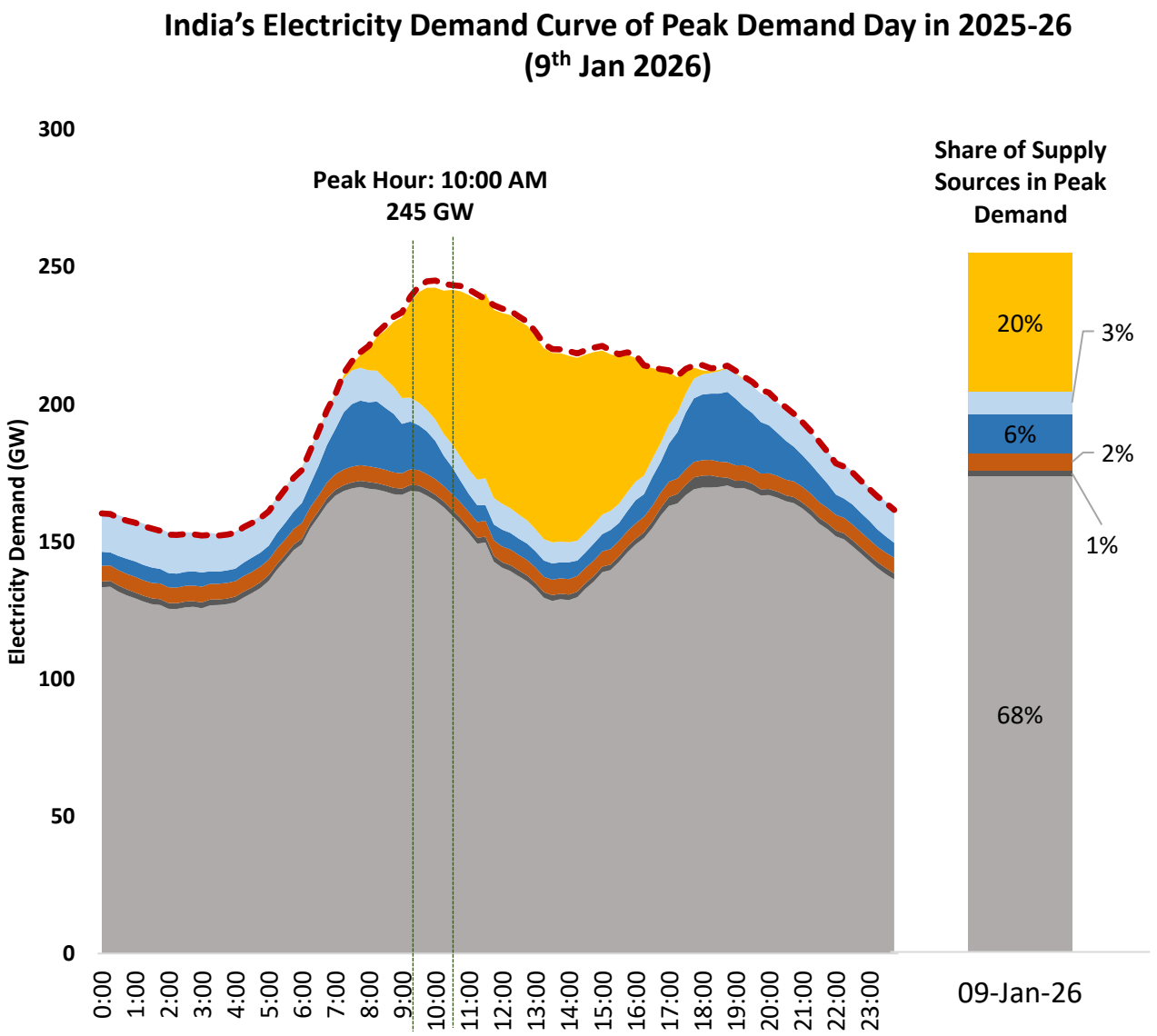
Source: CEA

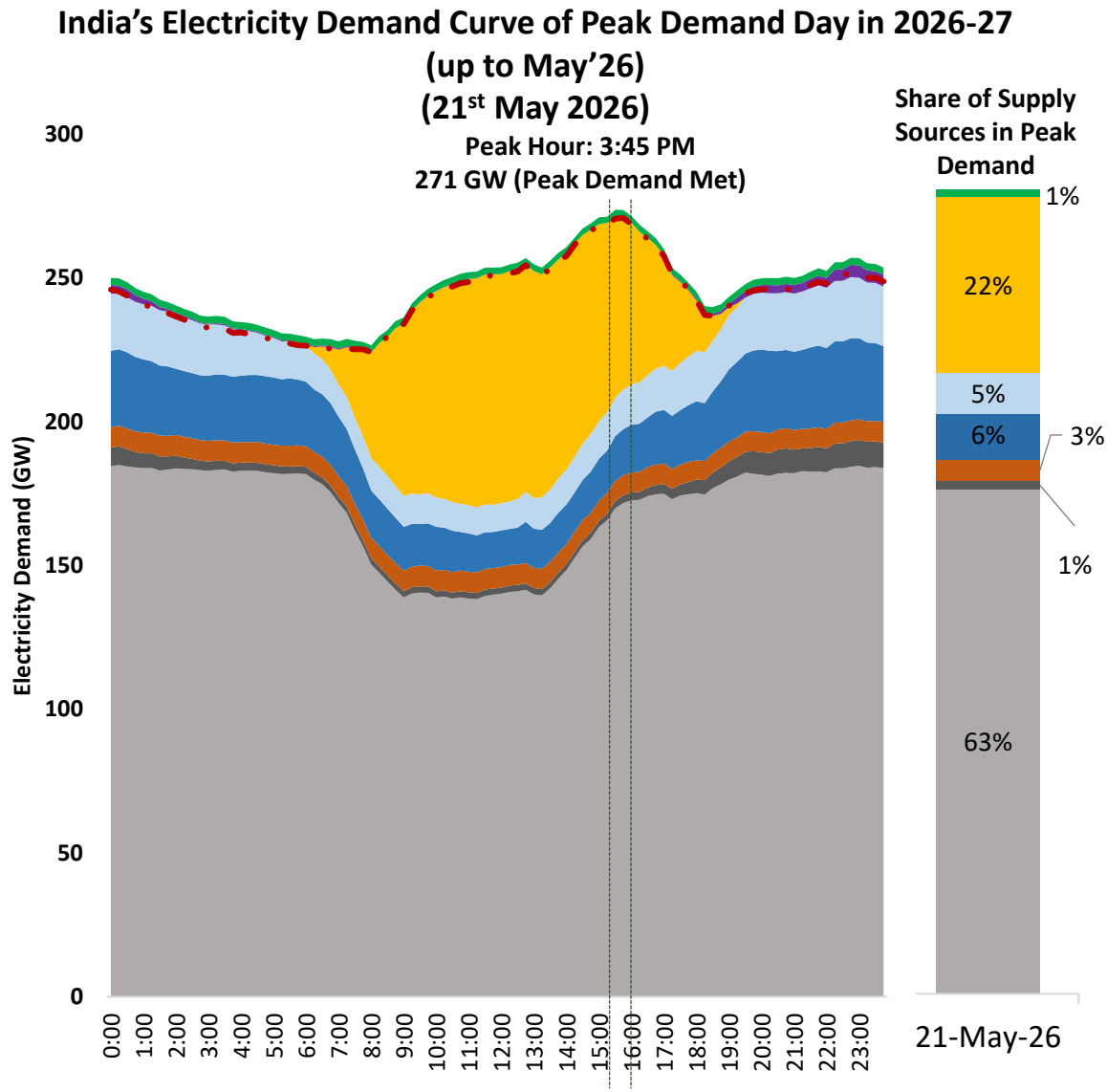
India’s Monthly Peak Electricity Demand and Supply



Source: CEA

All India and Source-wise Electricity Demand Curve of Peak Demand Day

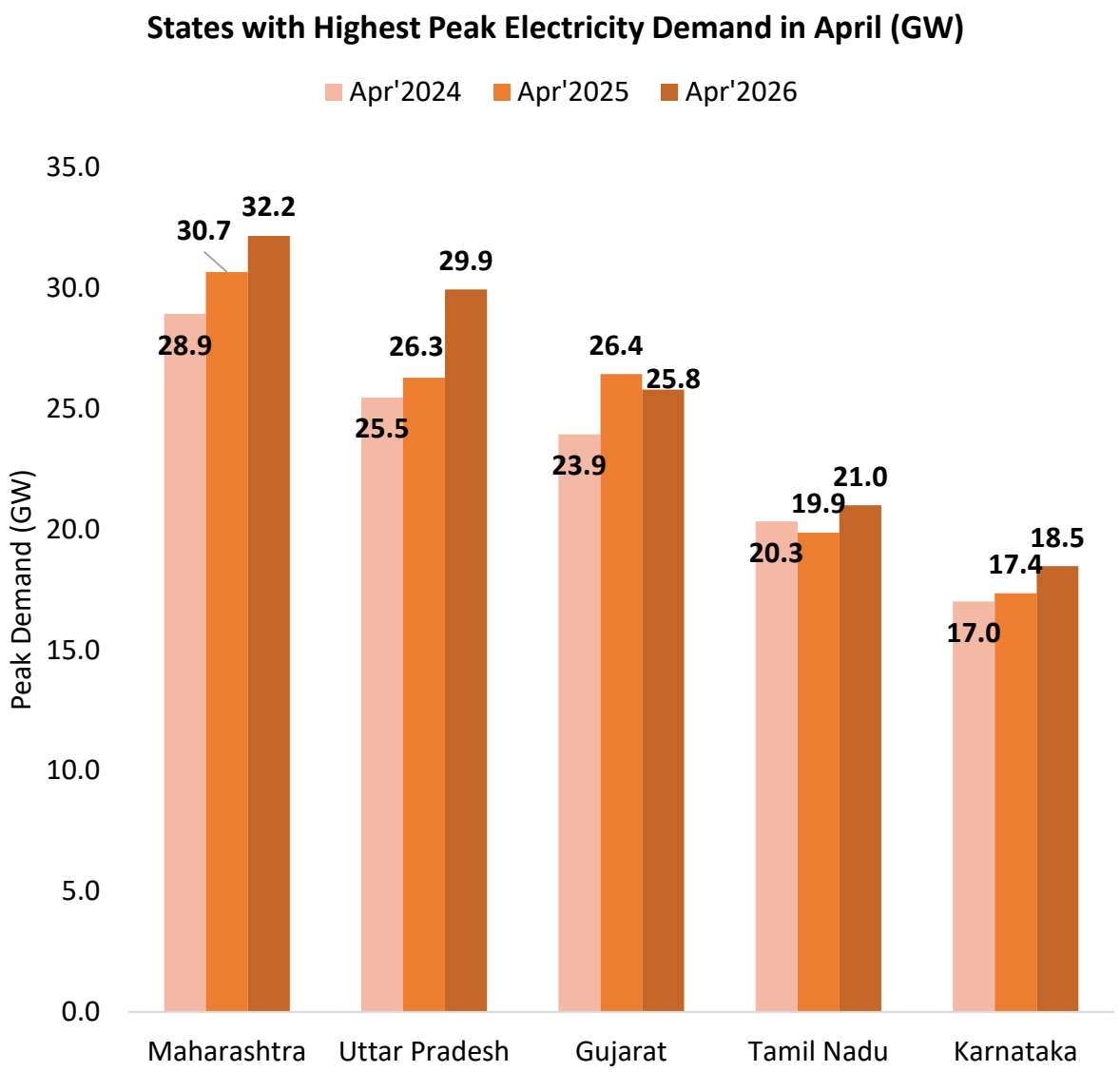


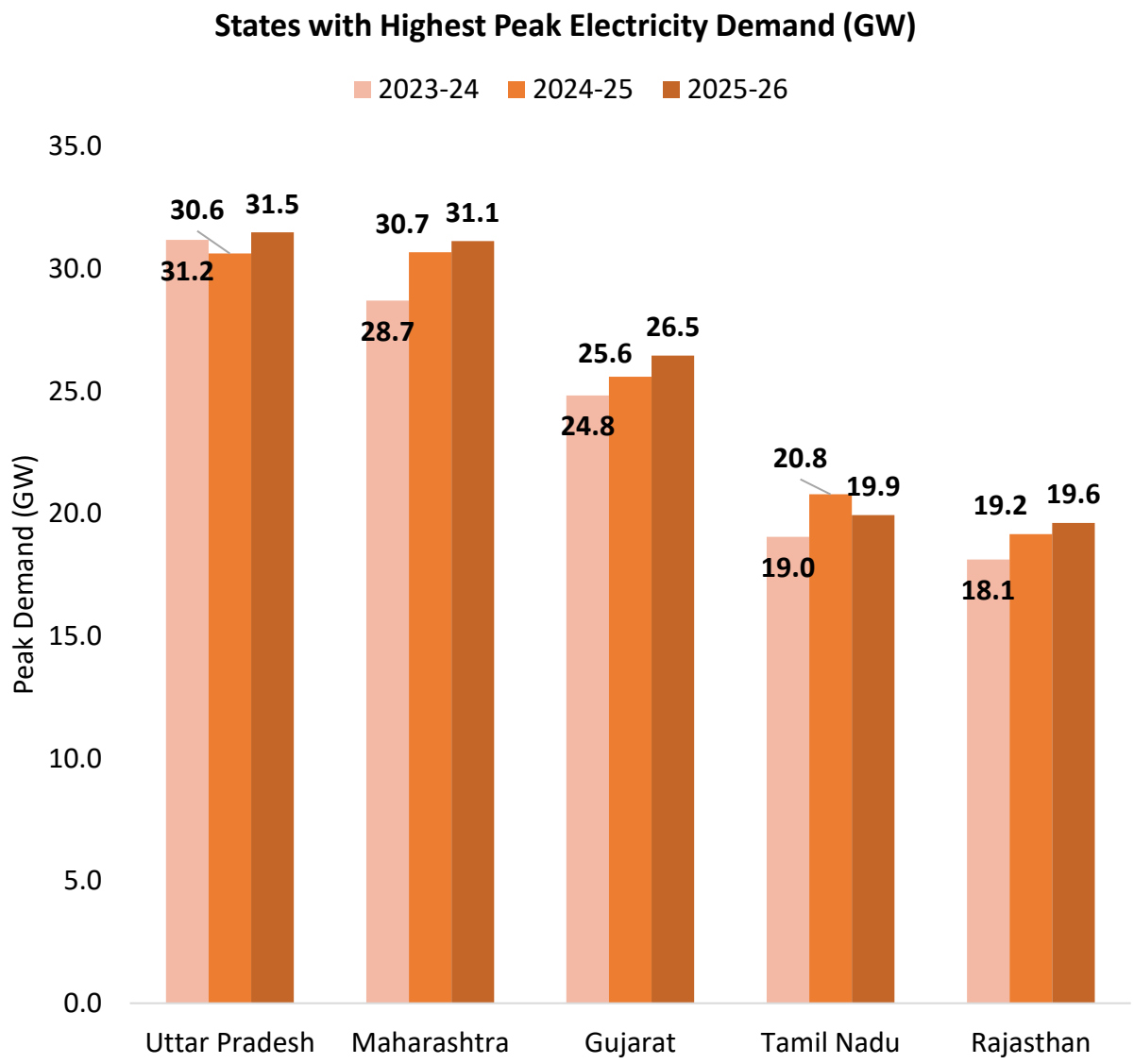


Coal | Gas | Nuclear | Hydro | Wind | Solar | Storage (PSP & BESS) | Other RES | Demand Met

Source: Grid-India

Monthly Peak Electricity Demand of the Top 5 States

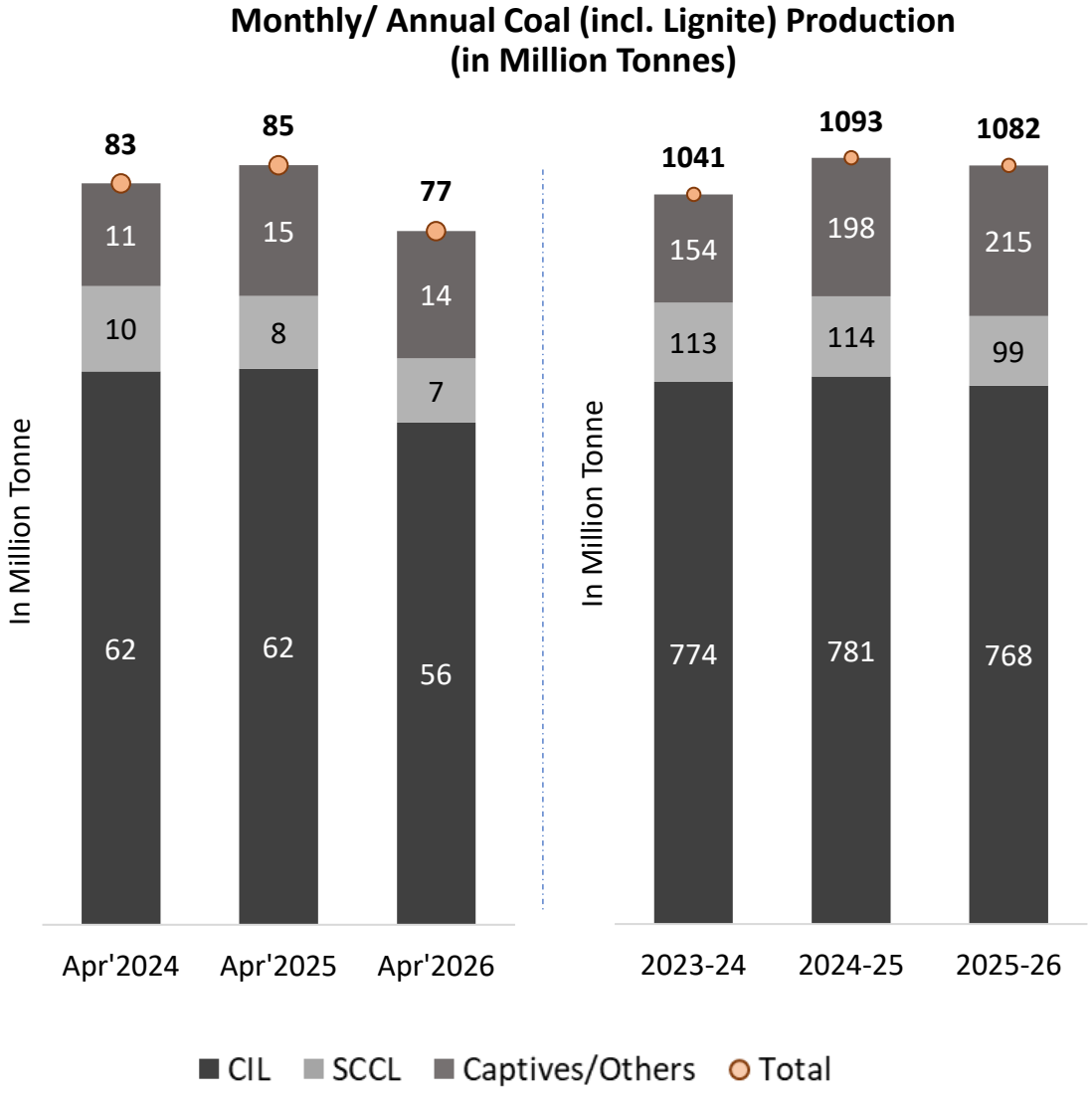


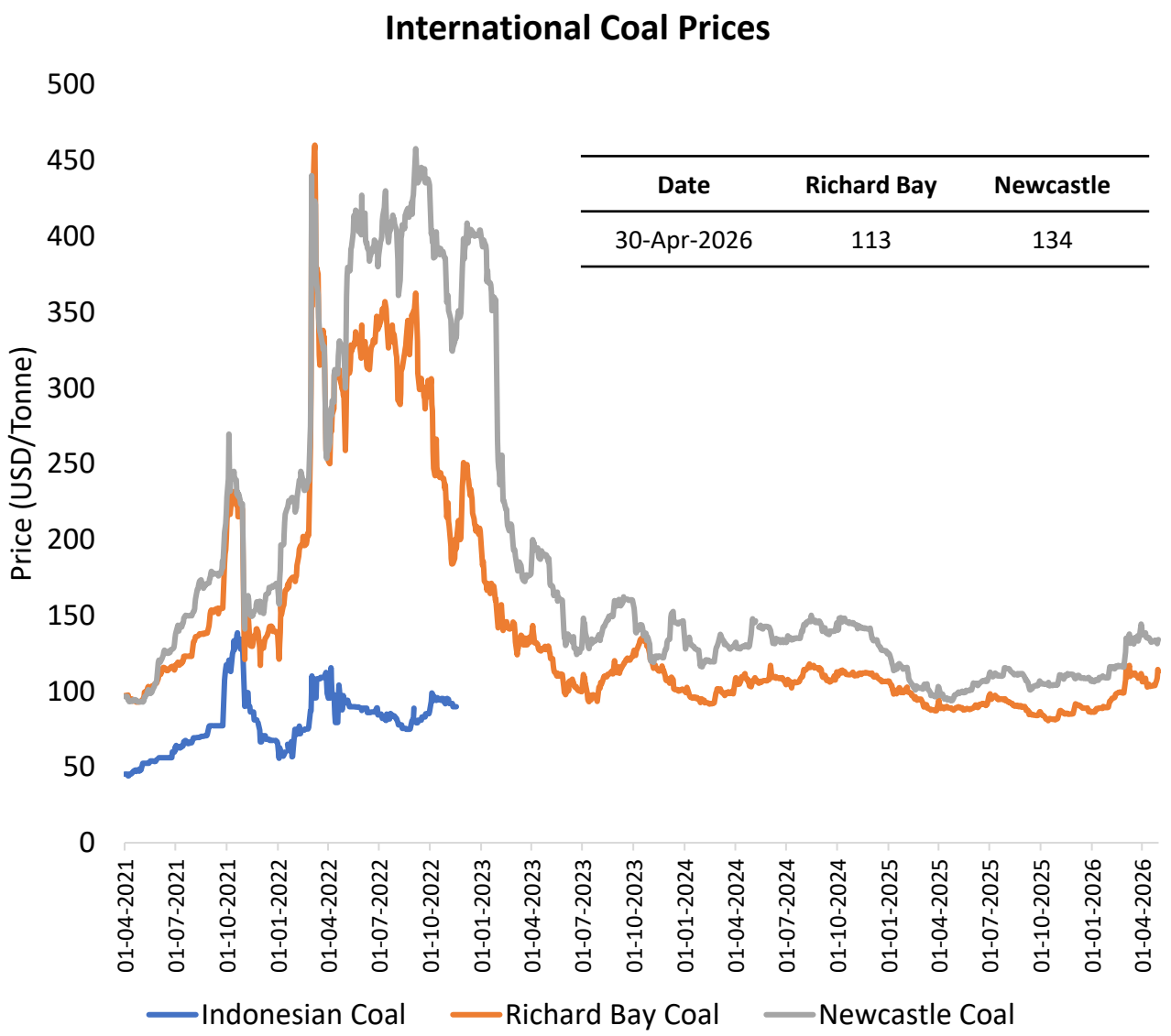


Note: The peak electricity demand data for Apr'26 is Provisional.

Source: CEA

Monthly Coal Statistics



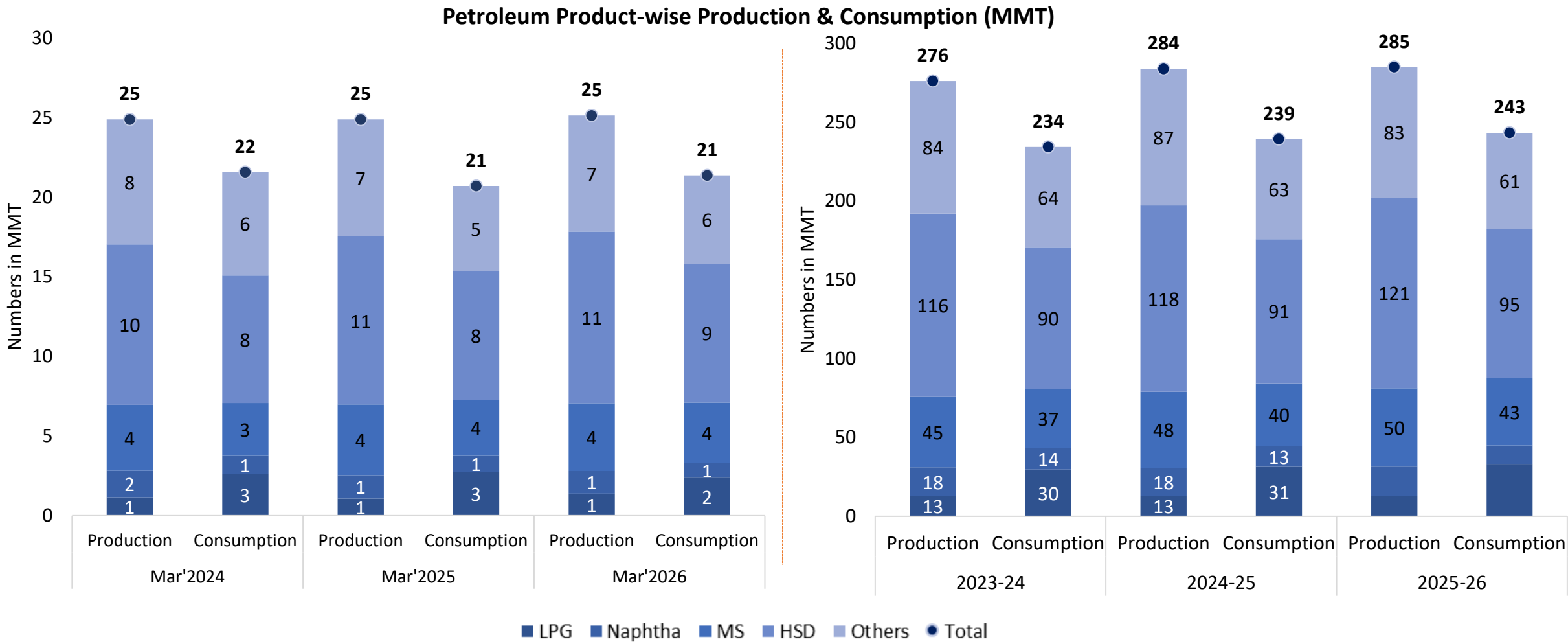


Date	Richard Bay	Newcastle
30-Apr-2026	113	134

Source: Ministry of Coal

Source: Investing.com

Oil Market Scenario (1/3)



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

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

NOTE: The data is available latest up to March 2026.

Source: PPAC

Oil Market Scenario (2/3)

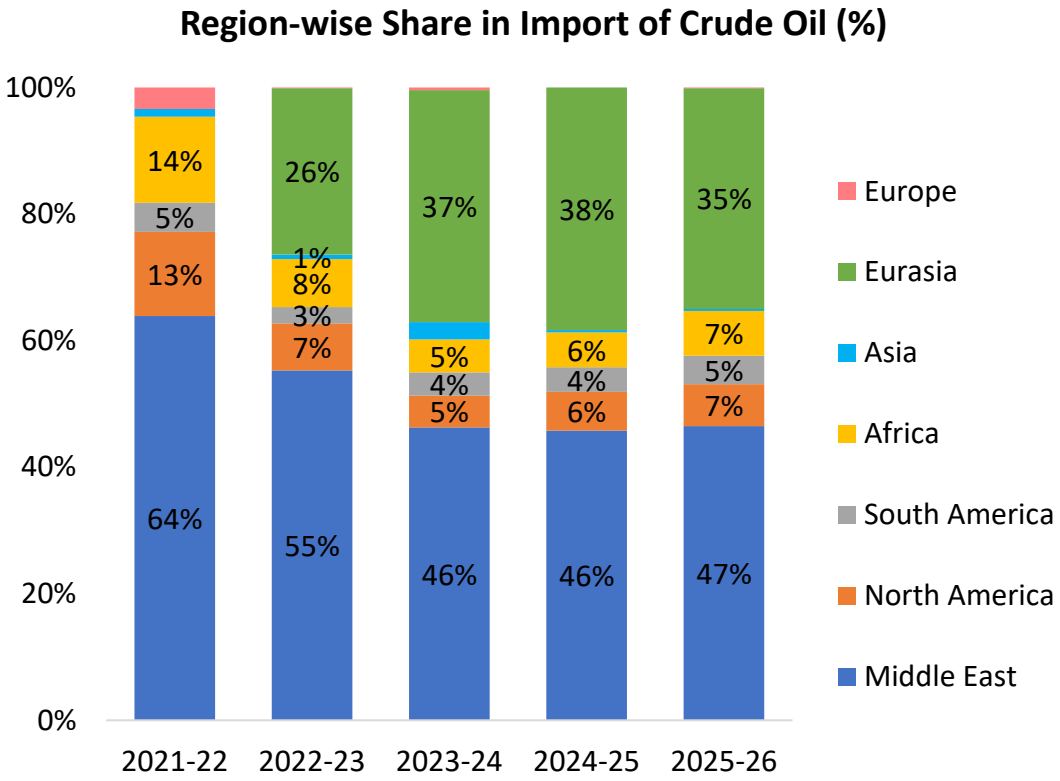
Import/Export of Crude Oil and Petroleum Products ('000 Tonnes)							
Petroleum Products	Import/ Export	Monthly			Yearly		
		Mar'24	Mar'25	Mar'26	2023-24	2024-25	2025-26
Crude Oil	Import	20815	22797	19002	234262	243225	245381
	Export	0	0	0	0	0	0
	Net Import	**20815**	**22797**	**19002**	**234262**	**243225**	**245381**
LPG	Import	1589	1885	826	18514	20667	21287
	Export	48	50	45	525	551	566
	Net Import	**1541**	**1834**	**782**	**17989**	**20116**	**20721**
Diesel	Import	4	2	3	42	42	39
	Export	2436	2825	2052	28204	28027	27318
	Net Import	**-2432**	**-2823**	**-2049**	**-28162**	**-27985**	**-27279**
Petrol	Import	0	0	0	717	235	0
	Export	1338	1768	1191	13472	15830	16666
	Net Import	**-1338**	**-1768**	**-1191**	**-12755**	**-15596**	**-16666**
Others	Import	2759	2200	2048	29419	29960	25545
	Export	1850	1497	1184	20391	20667	16877
	Net Import	**909**	**703**	**863**	**9029**	**9293**	**8667**

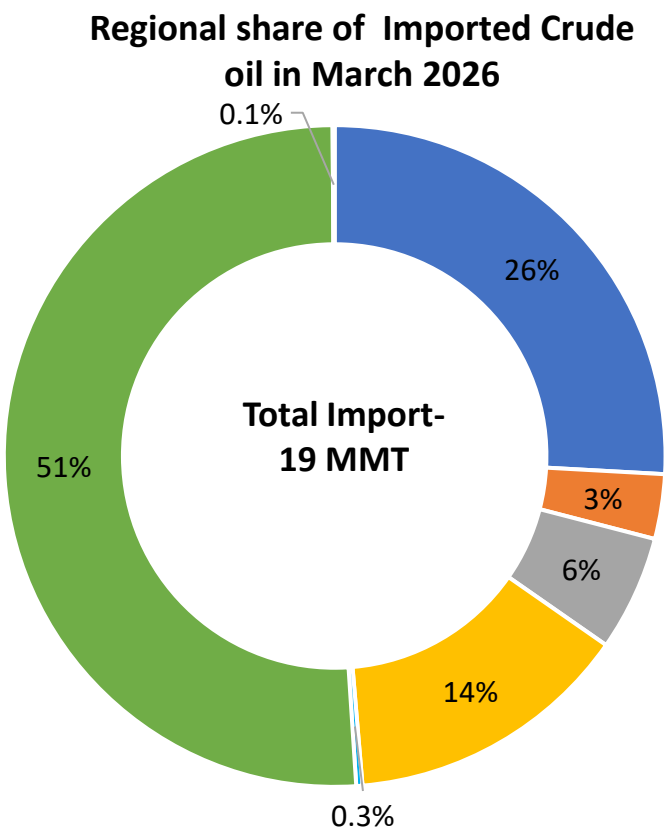
*Others include ATF, Naphtha, SKO, LDO, Lubes, FO, LSHS, Bitumen, pet coke, and others.

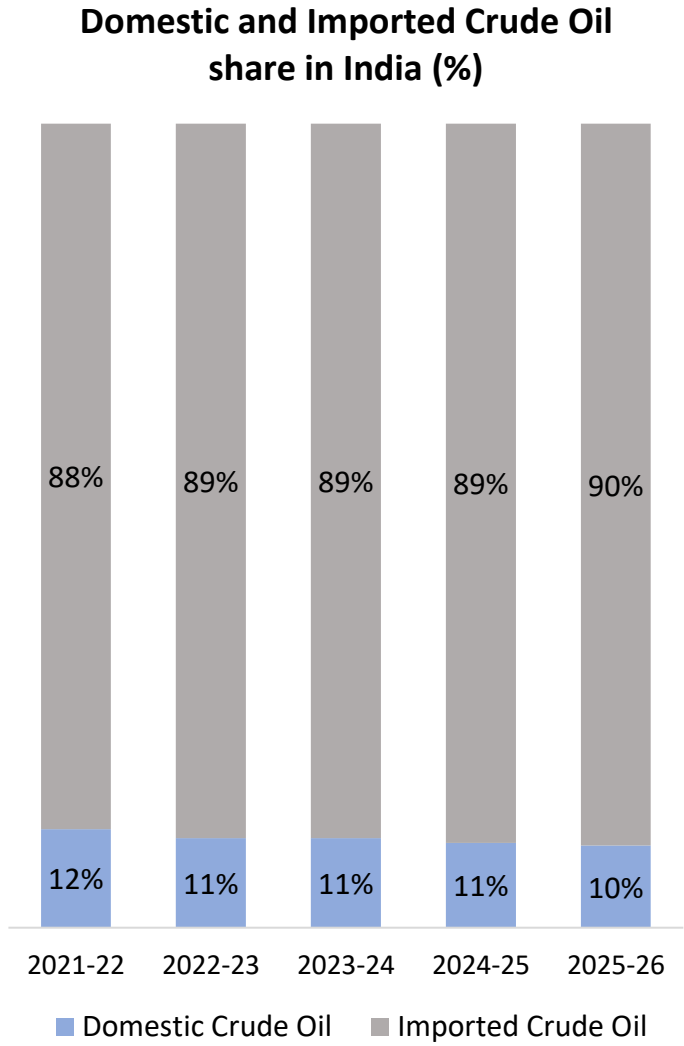
NOTE: The data is available latest up to March 2026.

Source: PPAC

Oil Market Scenario (3/3)





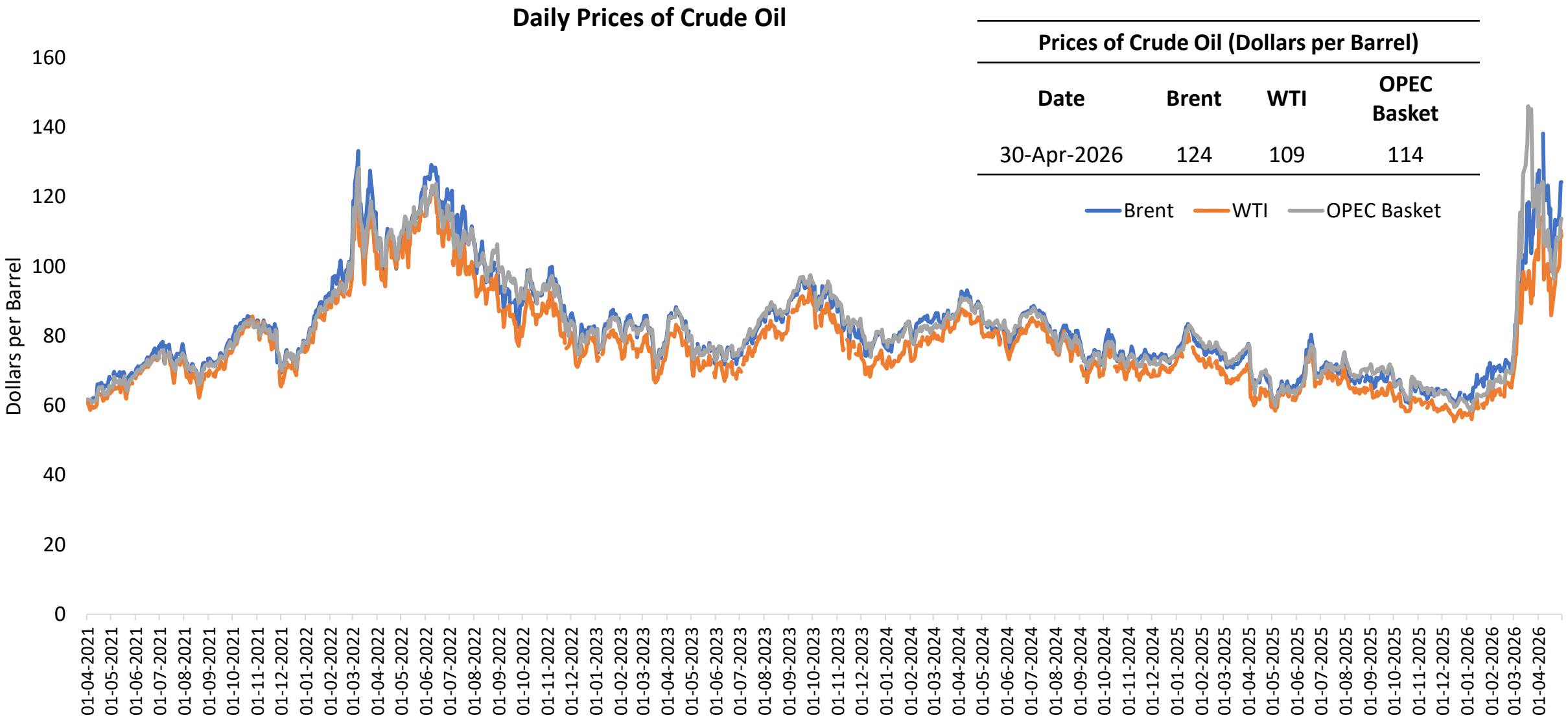


Total Import of Crude Oil (MMT)			
Total Import	2023-24	2024-25	2025-26
Crude Oil	**234**	**243**	**245**

NOTE: The data is based on the latest available information.

Source: MoPNG and PPAC

Daily Prices of Crude Oil

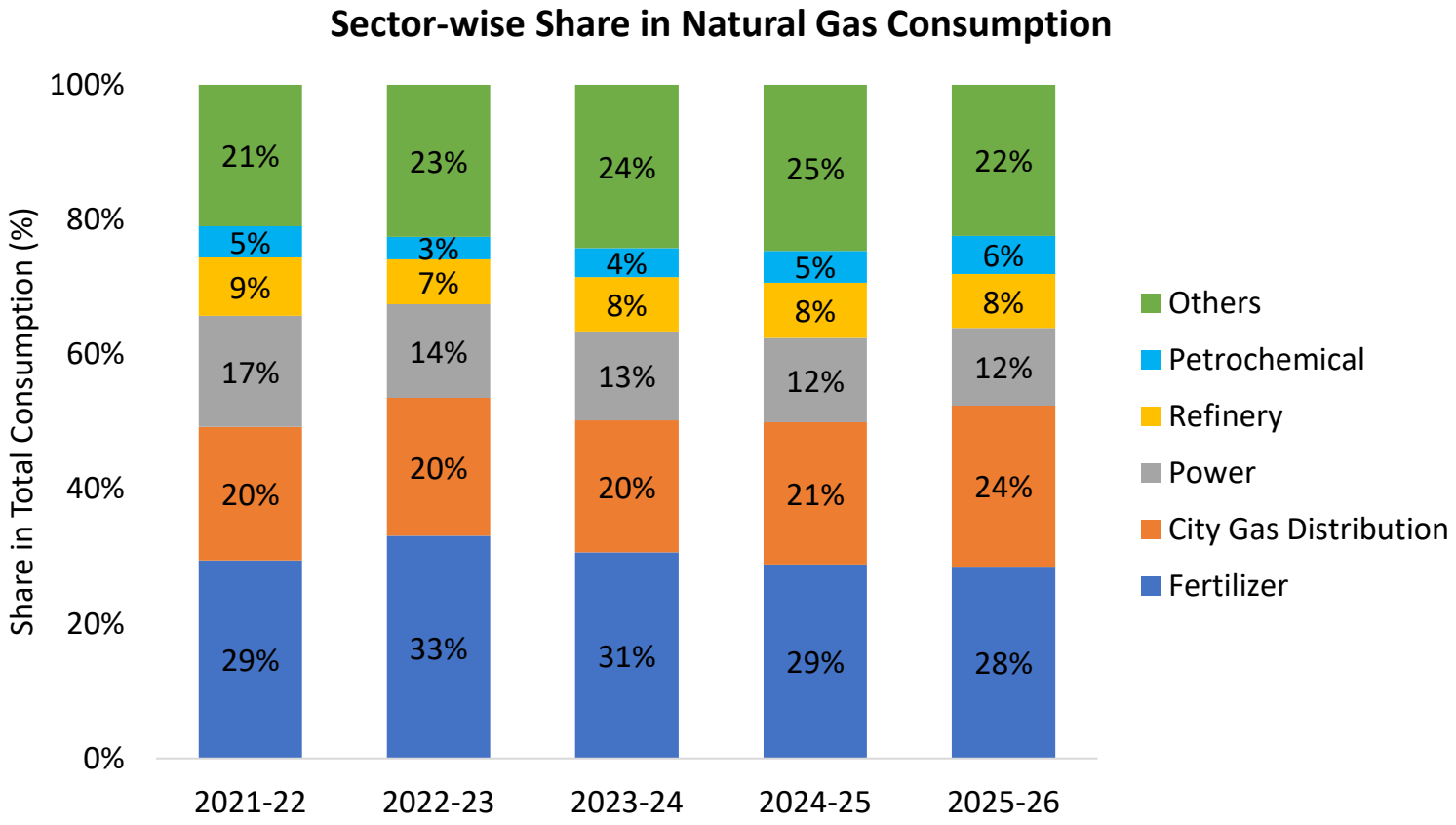


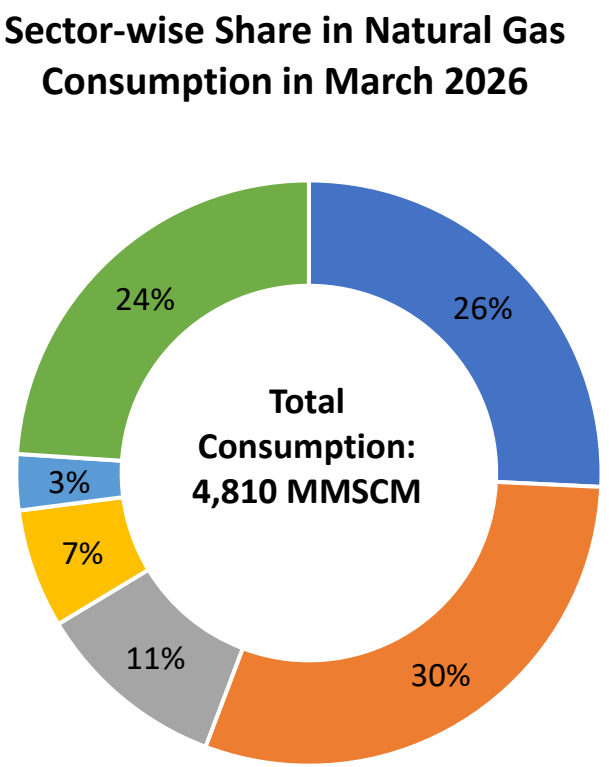
Prices of Crude Oil (Dollars per Barrel)

Date	Brent	WTI	OPEC Basket
30-Apr-2026	124	109	114

Source: EIA & OPEC

Gas Market Scenario (1/2)





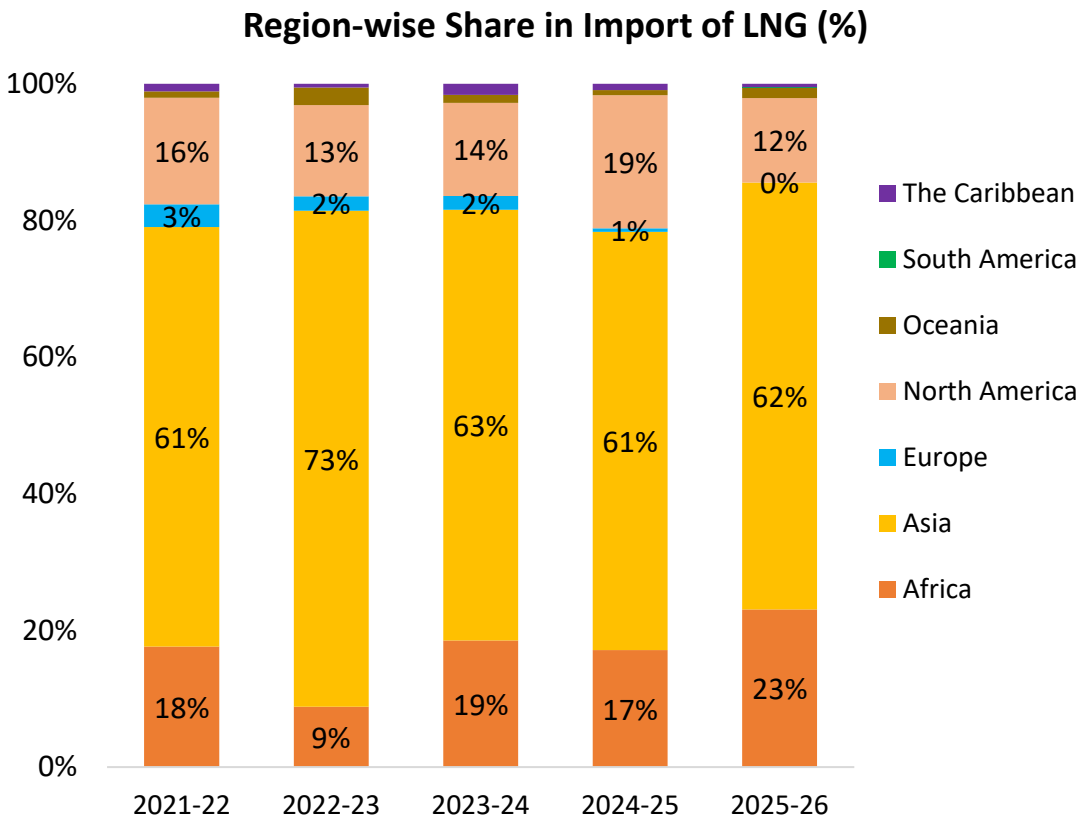
Total Consumption of Natural Gas (NG) (MMSCM)					
Total Consumption	2021-22	2022-23	2023-24	2024-25	2025-26
Natural Gas	**61,491**	**58,702**	**68,809**	**71,196**	**69,048**

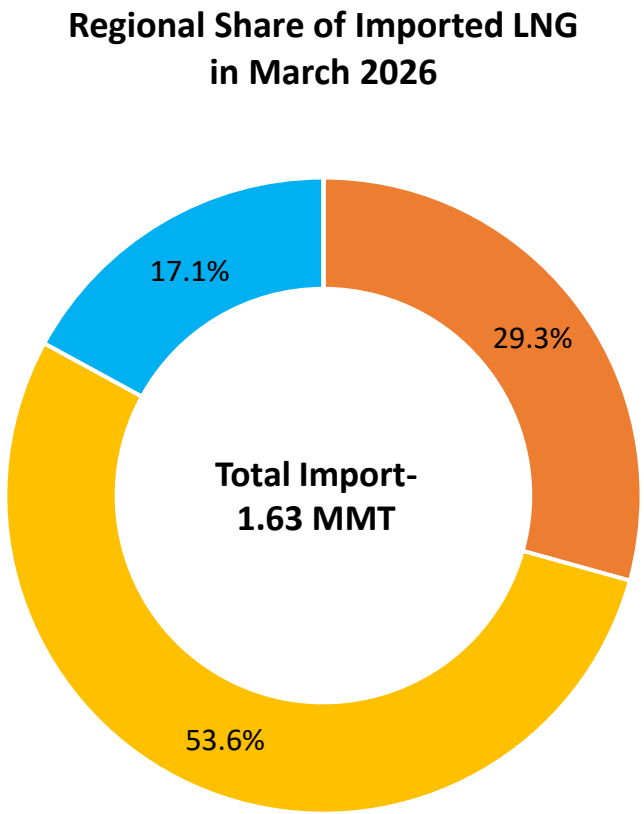
Others include- Internal Consumption of Pipeline System, Industrial, Sponge iron/steel, LPG shrinkage, Manufacturing, Agriculture (tea plantation), Others

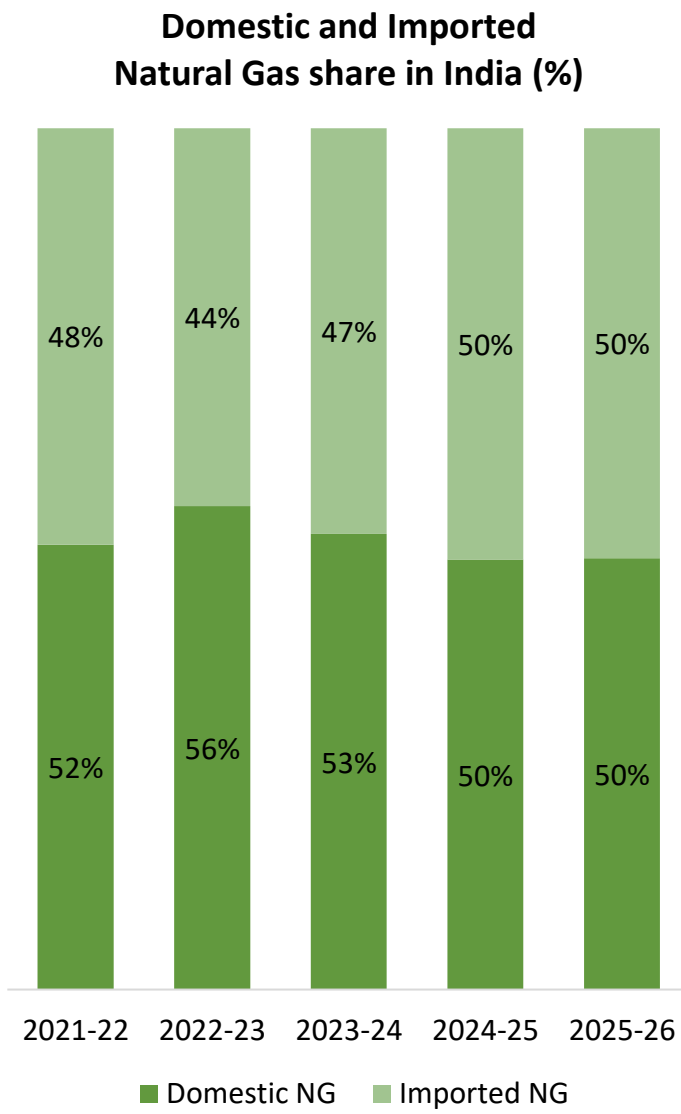
NOTE: The data is available latest up to March 2026

Source: PPAC

Gas Market Scenario (2/2)





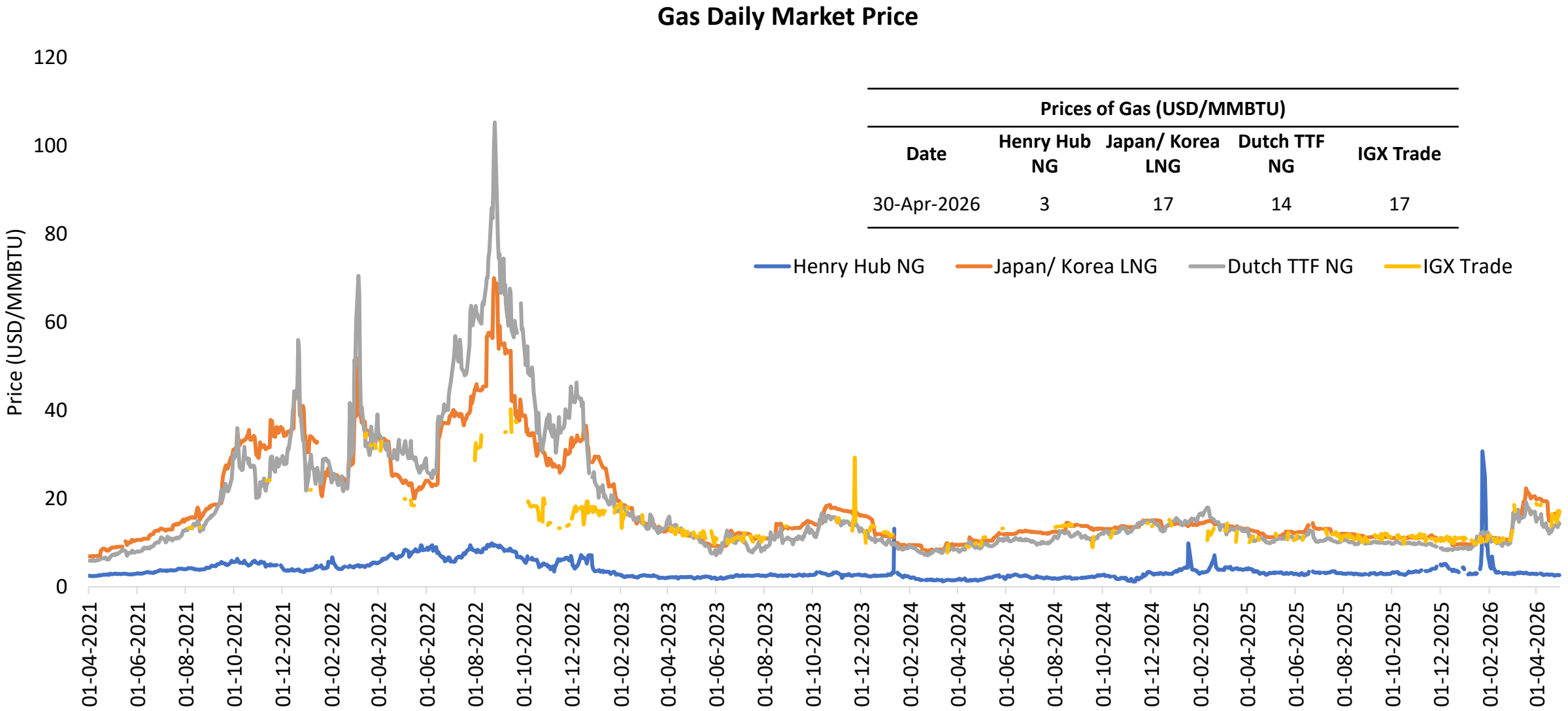


Total Import of Liquified Natural Gas (LNG) (MMT)			
Total Import	2023-24	2024-25	2025-26
LNG	**24.00**	**26.96**	**25.82**

NOTE: The data is based on the latest available information.

Source: MoCI and PPAC

Daily Prices of Gas



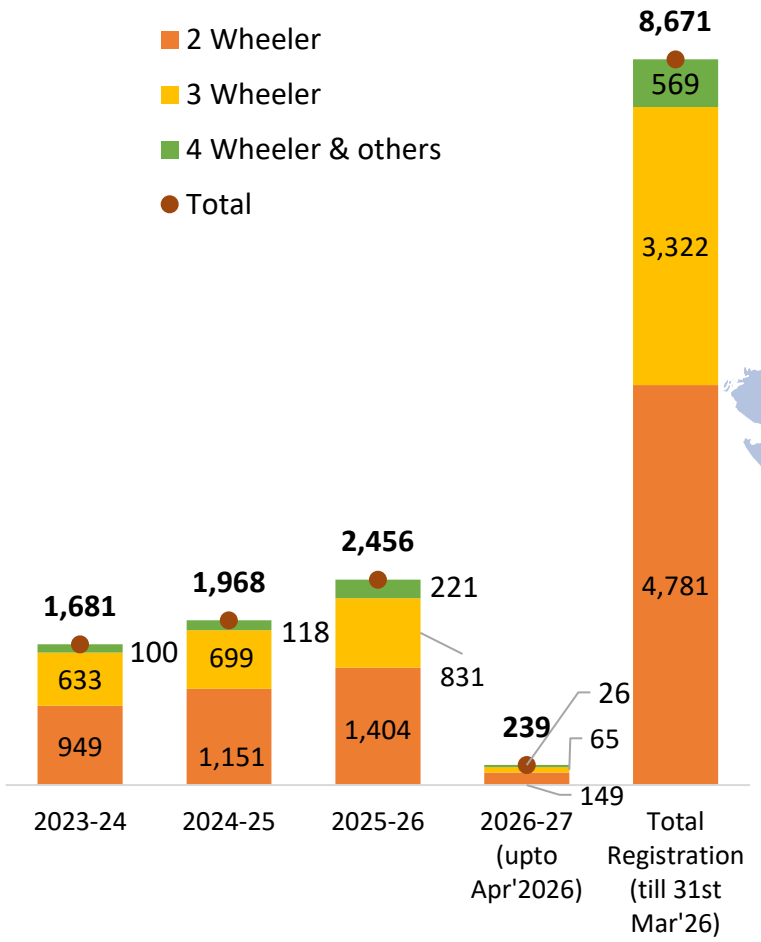
Prices of Gas (USD/MMBTU)				
Date	Henry Hub NG	Japan/ Korea LNG	Dutch TTF NG	IGX Trade
30-Apr-2026	3	17	14	17

MMBTU- Million Metric British Thermal Unit

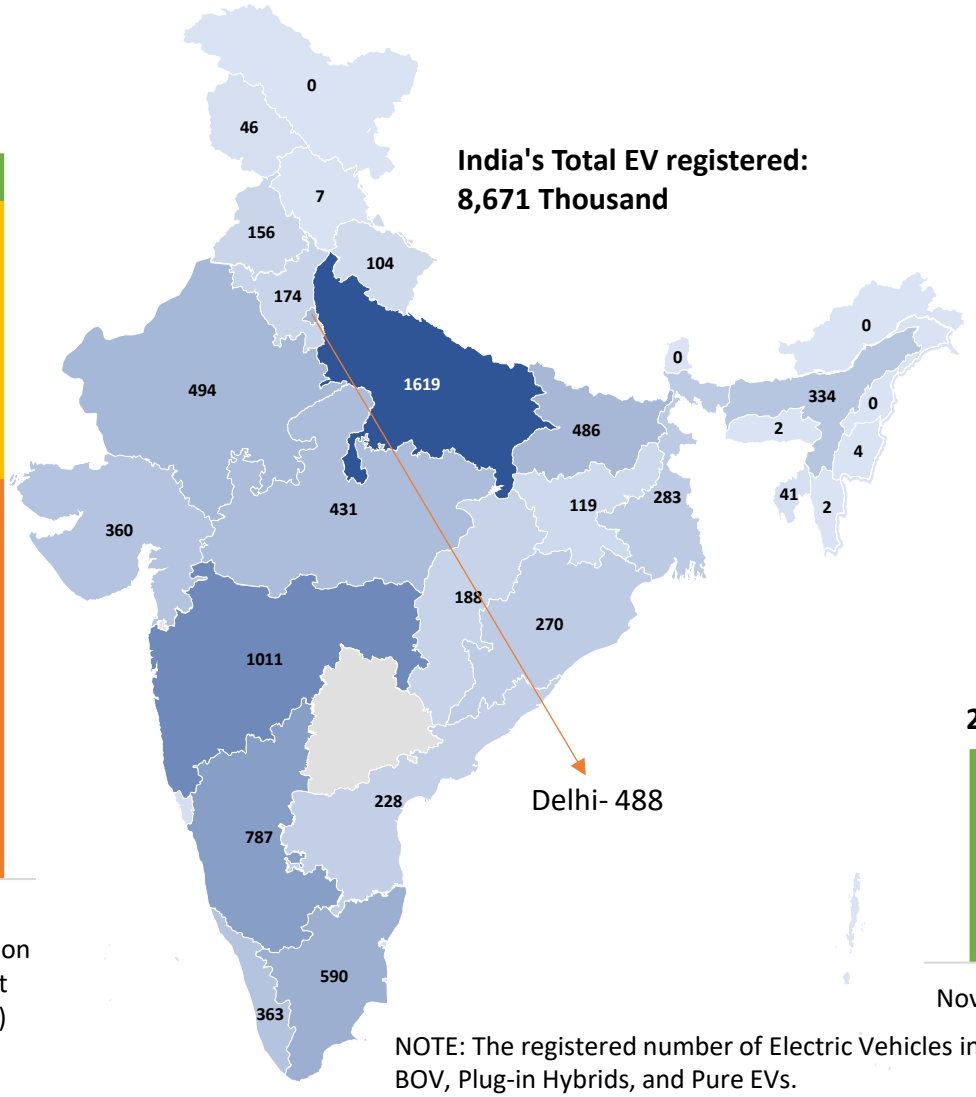
Source: EIA, Investing.com, IGX

Status of Electric Mobility in India (1/2)

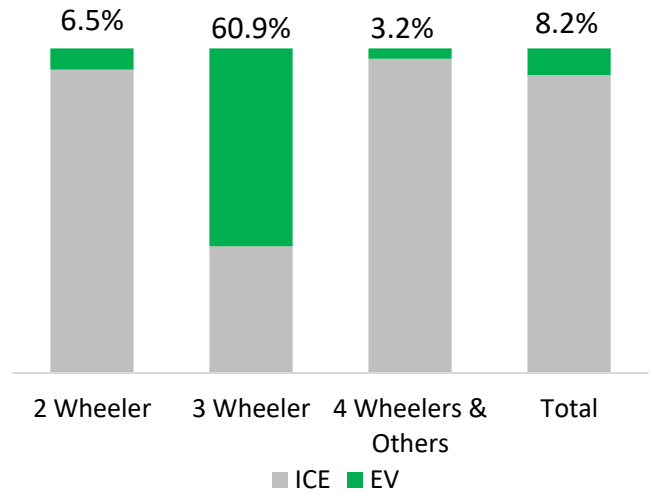
National EV registration (Number in Thousands)



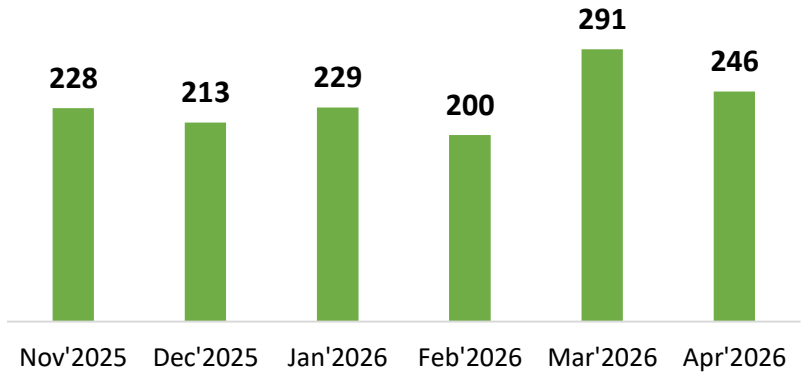
Cumulative State-wise EV registration as on 30th April 2026 (in Thousands)



EV and ICE sale composition in 2025-26



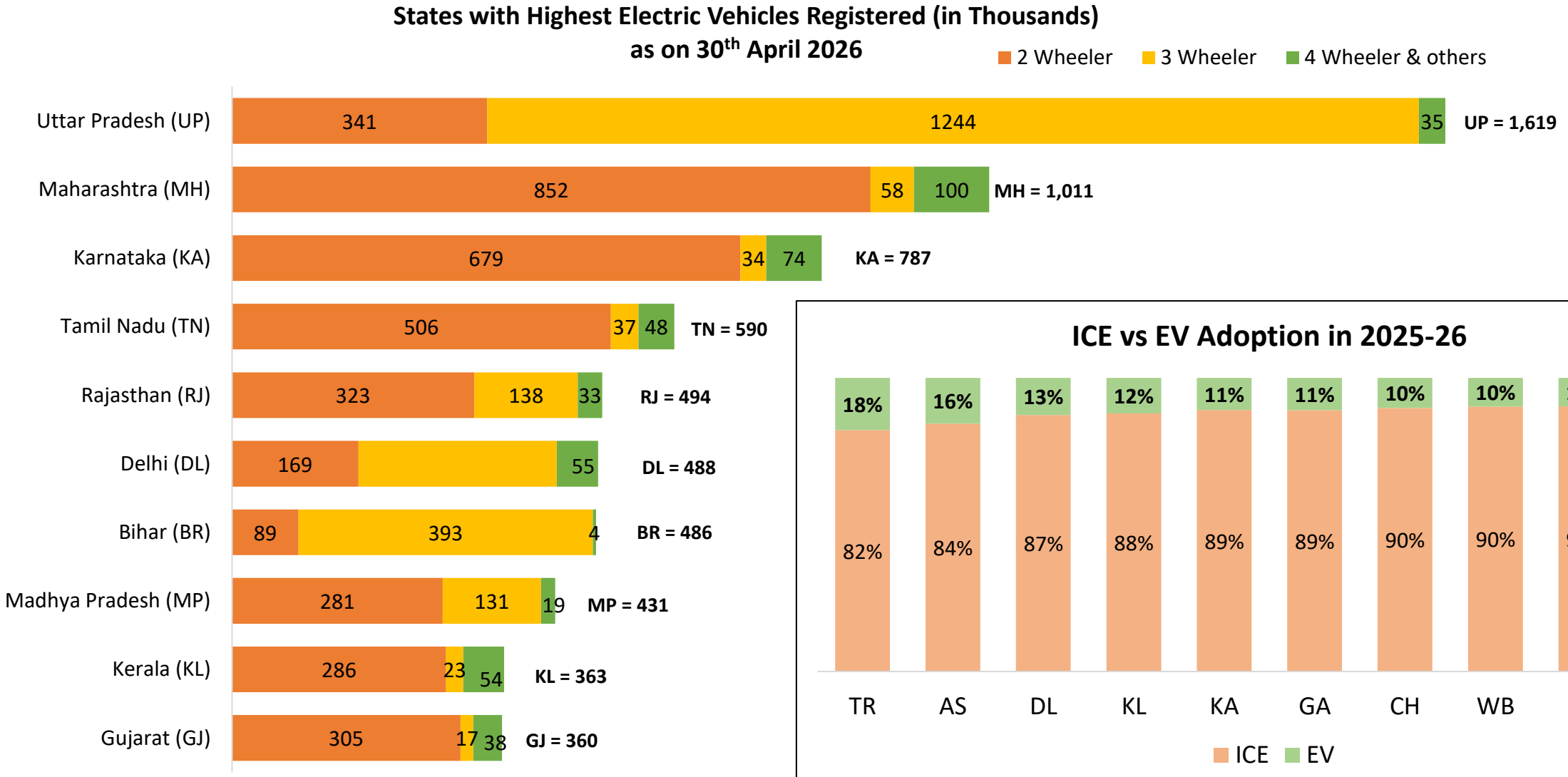
Provisional Monthly EV registered (in Thousands)

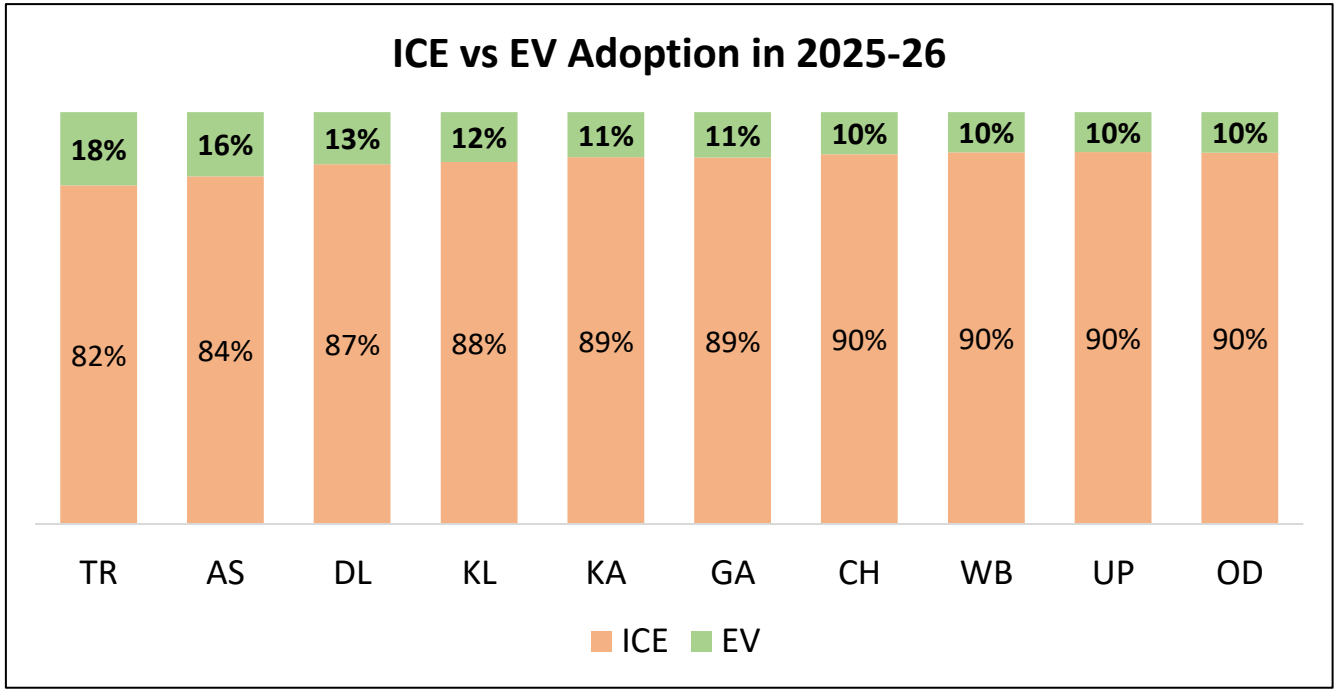


NOTE: The registered number of Electric Vehicles includes Electric BOV, Plug-in Hybrids, and Pure EVs.

Source: VAHAN Dashboard

Status of Electric Mobility in India (2/2)





NOTE: AS- Assam, CH- Chandigarh, GA- Goa, OD- Odisha, TR- Tripura, WB- West Bengal

Source: VAHAN Dashboard

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 relaesed 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.

The Solar Parks and Ultra Mega Solar Power Projects scheme has been extended by three years until March 2029, providing developers with more time to complete large-scale project

In Union Budget 2026-27, ₹30,539.36 crore for solar energy.

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 (H_2)

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

- India signed Coal Mine/Block Production and Development Agreements (CMDPAs) for four coal mines under the 14th commercial auction round, introducing Underground Coal Gasification provisions for the first time to boost cleaner coal utilisation, energy security, domestic manufacturing, and employment generation. With these additions, India has now signed CMDPAs for 138 coal mines peak rated capacity of ~332 MTPA, expected to generate ₹42,980 crore annual revenue, attract ₹48,231 crore investment, and create over 4.3 lakh jobs.

- In Haryana, the state cabinet plans to fully waive road tax and registration fees for all electric two-wheeler, three-wheeler and four-wheelers, replacing the existing 20% concession on EV registration fees.

- India recorded a peak power demand met of 271 GW on 21st May 2026 at 3:45 PM. Coal contributed the highest share at 63% in meeting the demand, followed by solar energy at 22%, hydro at 6%, wind at 5%, nuclear at 3% and the remaining 2% from other sources.

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