

India's Energy Overview

JULY 2022



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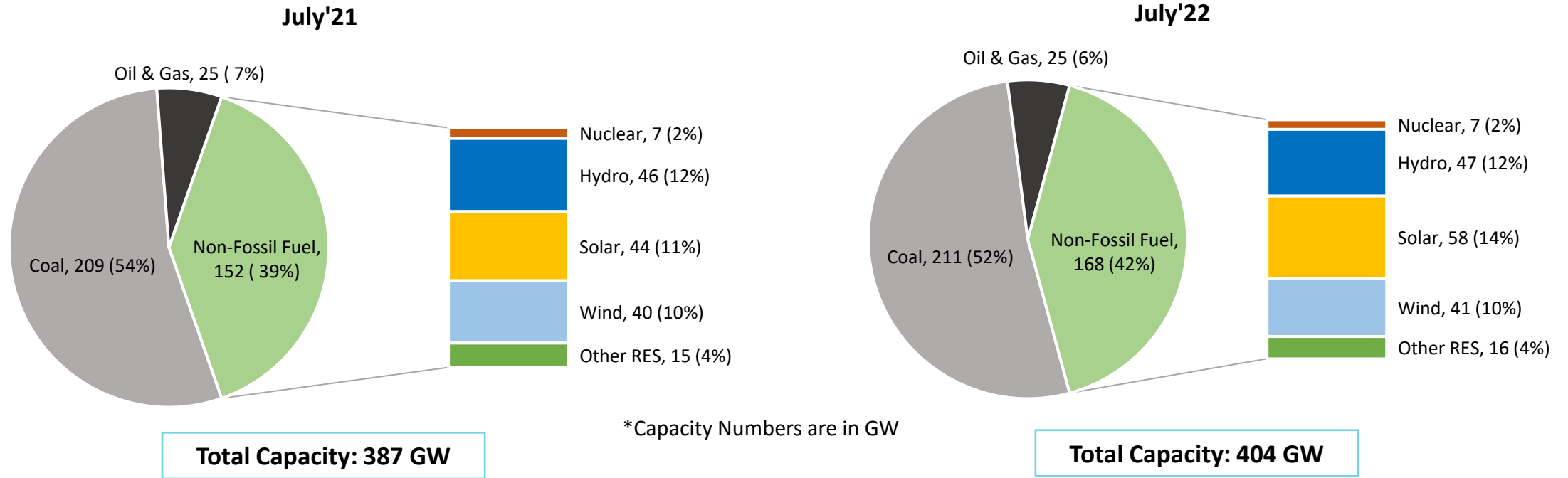
Monthly Petroleum Products Market Scenario



Key Highlights or Announcements of July'22



India's Electricity Capacity Mix

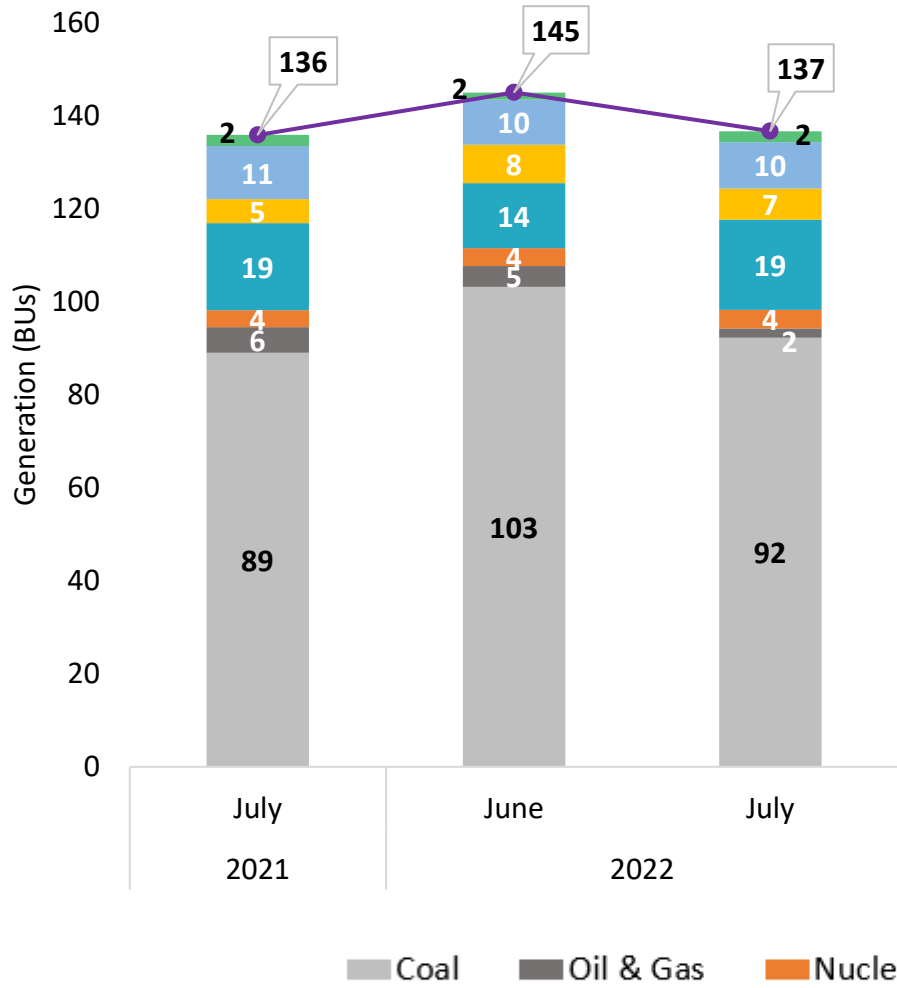


- As on July'22, India's electricity generating capacity is 404 GW. Major contributors to the capacity are coal 211 GW (52%), solar 58 GW (14%), hydro 47 GW (12%), and wind 41 GW (10%).
- Non-fossil fuels' share in total generation capacity has increased from 152 GW to 168 GW since Jul'21, a jump of 11%. Major capacity addition was in Solar technology followed by Wind.
- As on July'22, India's installed renewable energy capacity (which includes solar, wind, biopower & small hydro) stood at 114 GW.

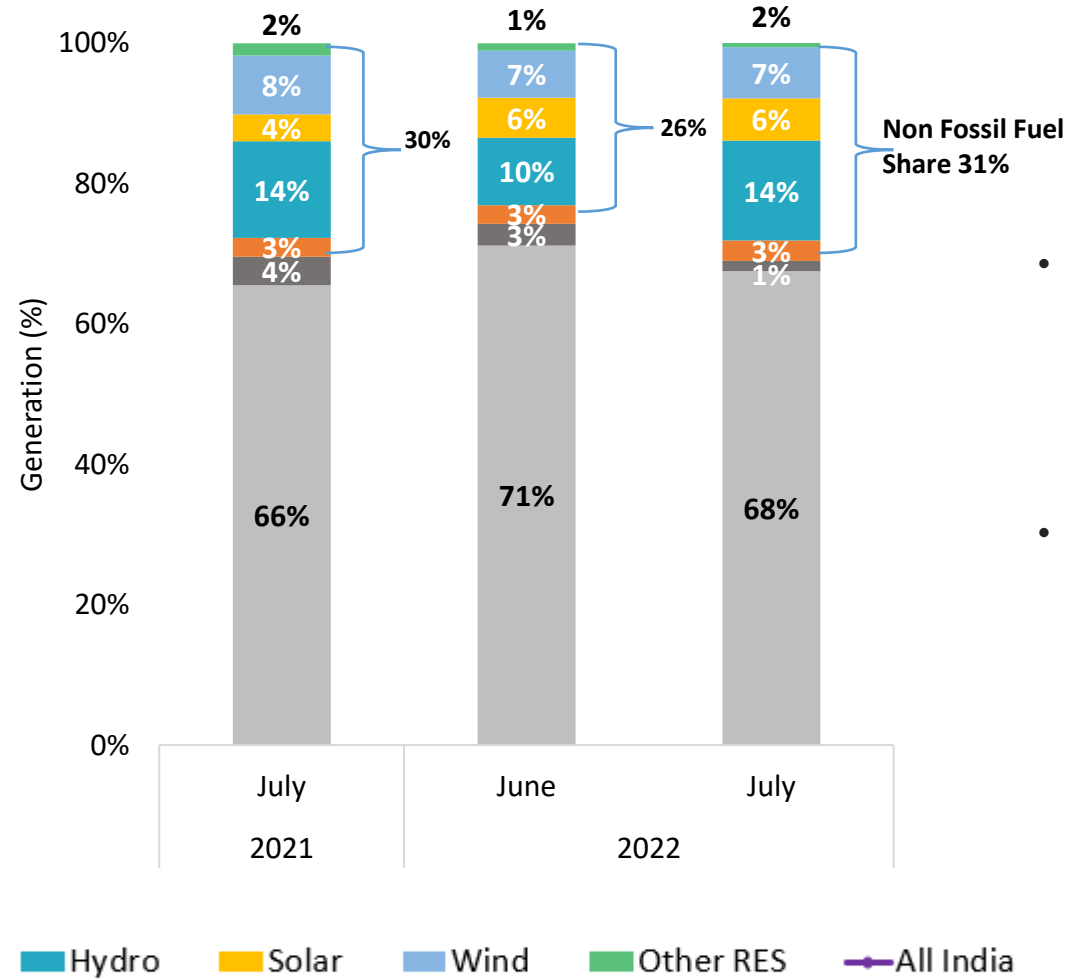


India's Electricity Generation Mix

Source-wise Generation Mix (BUs)



Source-wise Generation Mix (%)

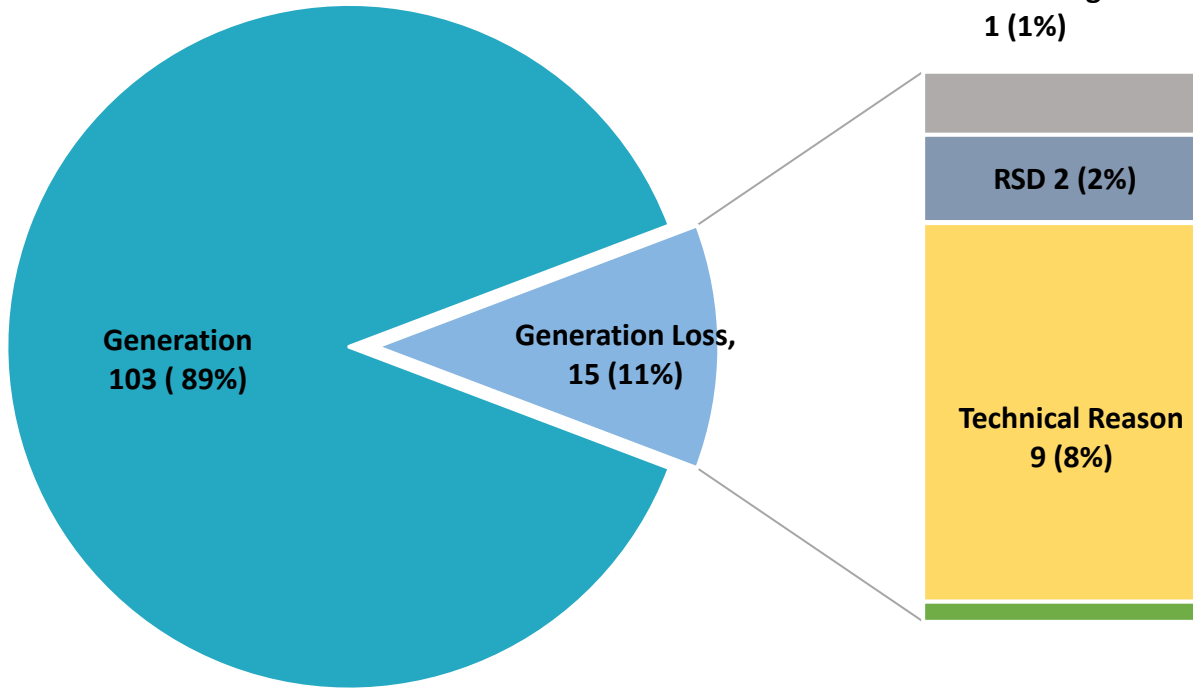


- Contribution of Hydro generation in total increased by 4% in July'22.
- Hydropower PLF has also increased to 56% from 41% in the previous month.
- Higher hydro generation in July month resulted in an overall increase in Non-Fossil Fuel share in total generation to 31% from 26% in the previous month.

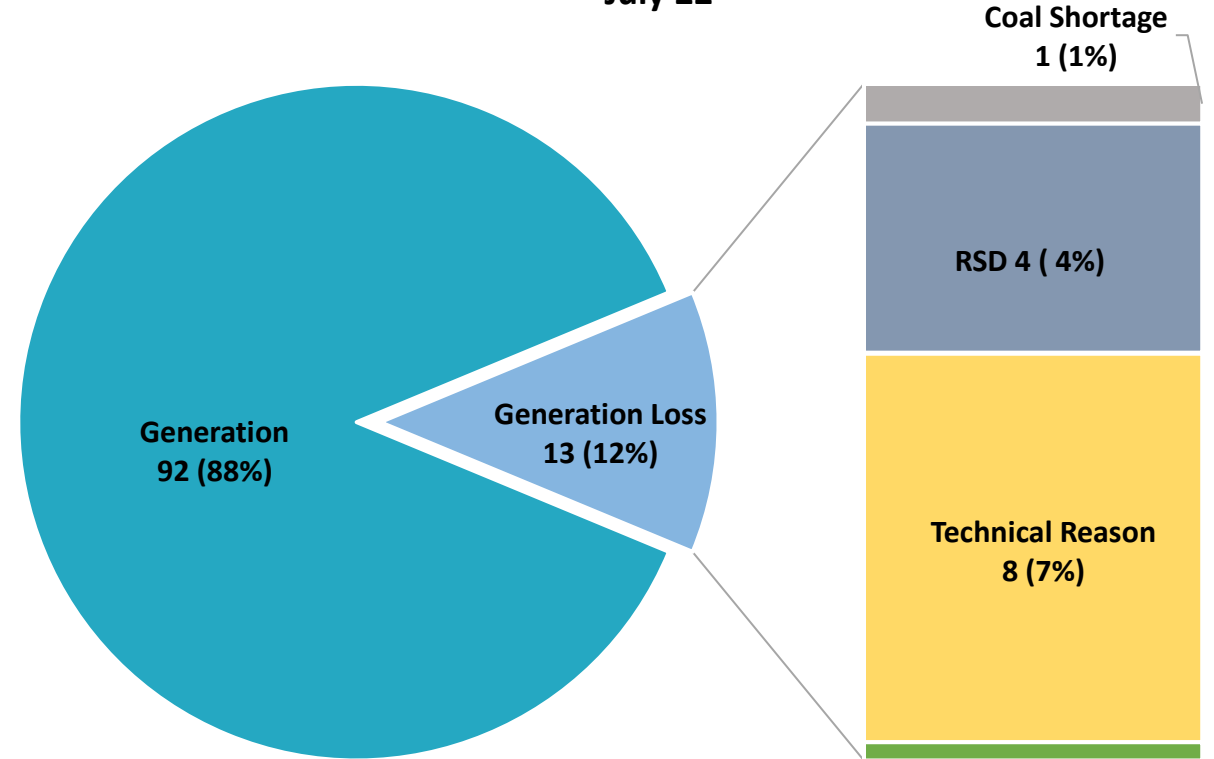


Coal Generation Loss: Reasons for Forced Outages

June '22



July'22



Generation and Generation Loss in BU

Sources: Vasudha Analysis

Note: The graph does not include generation loss due to Planned outages

BU: Billion Units

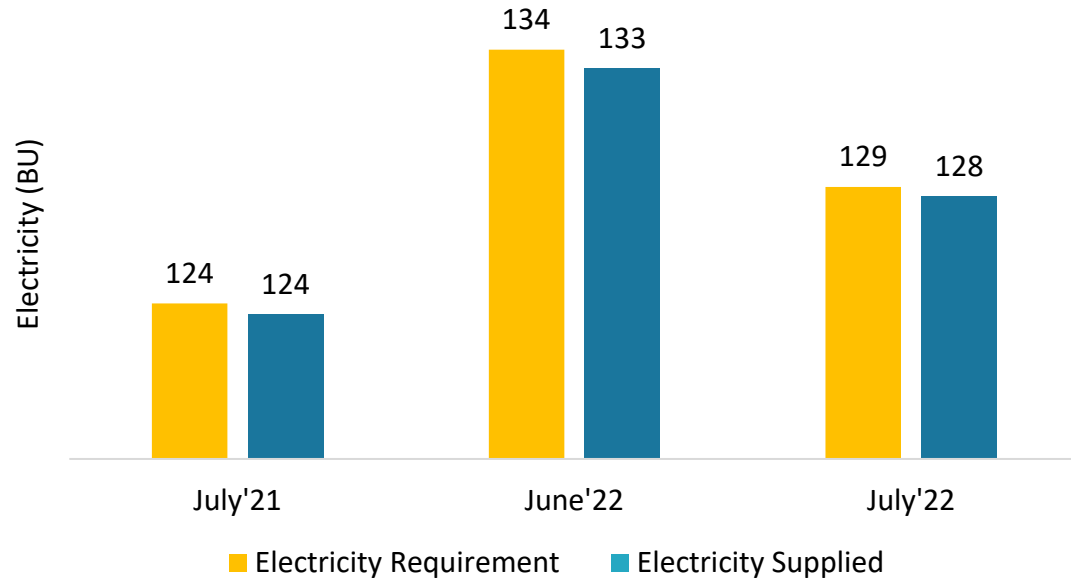
RSD: Reserve shut down



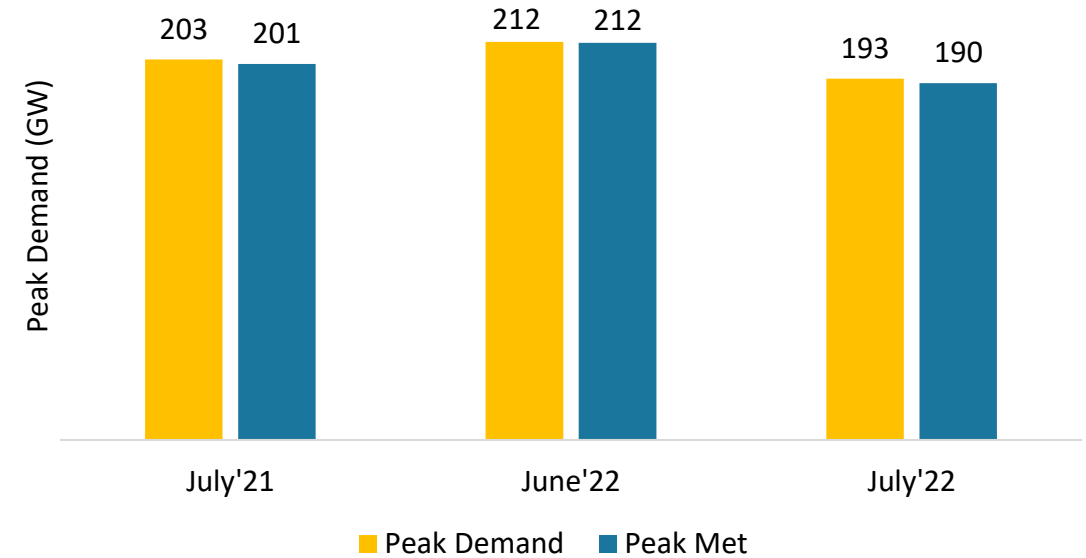


India's Electricity Demand & Supply Position

Electricity Supply Position (BU)



Peak Demand Position (GW)

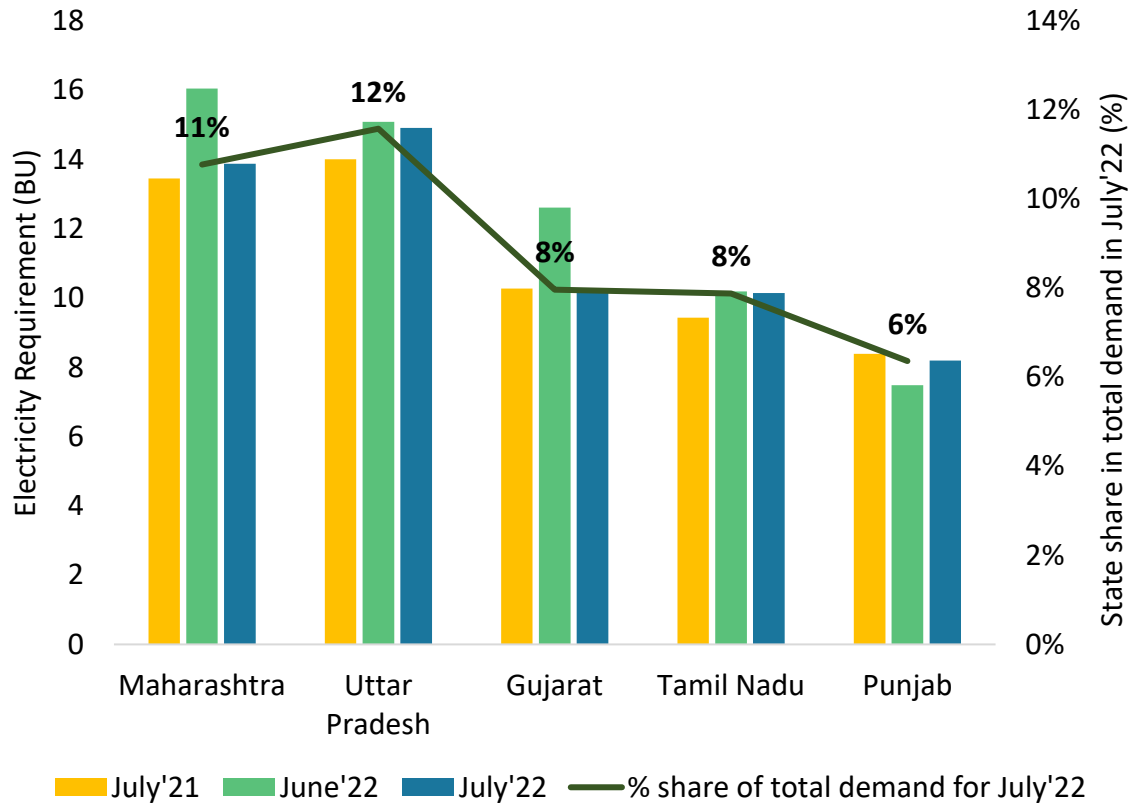


- National electricity demand in July'22 increased by 4% when compared to demand in July'21.
- The Peak Demand deficit has remained the same i.e. 1.2% in both July'21 and July'22.
- National peak electricity demand in July'22 decreased by 5% when compared to peak demand in July'21.

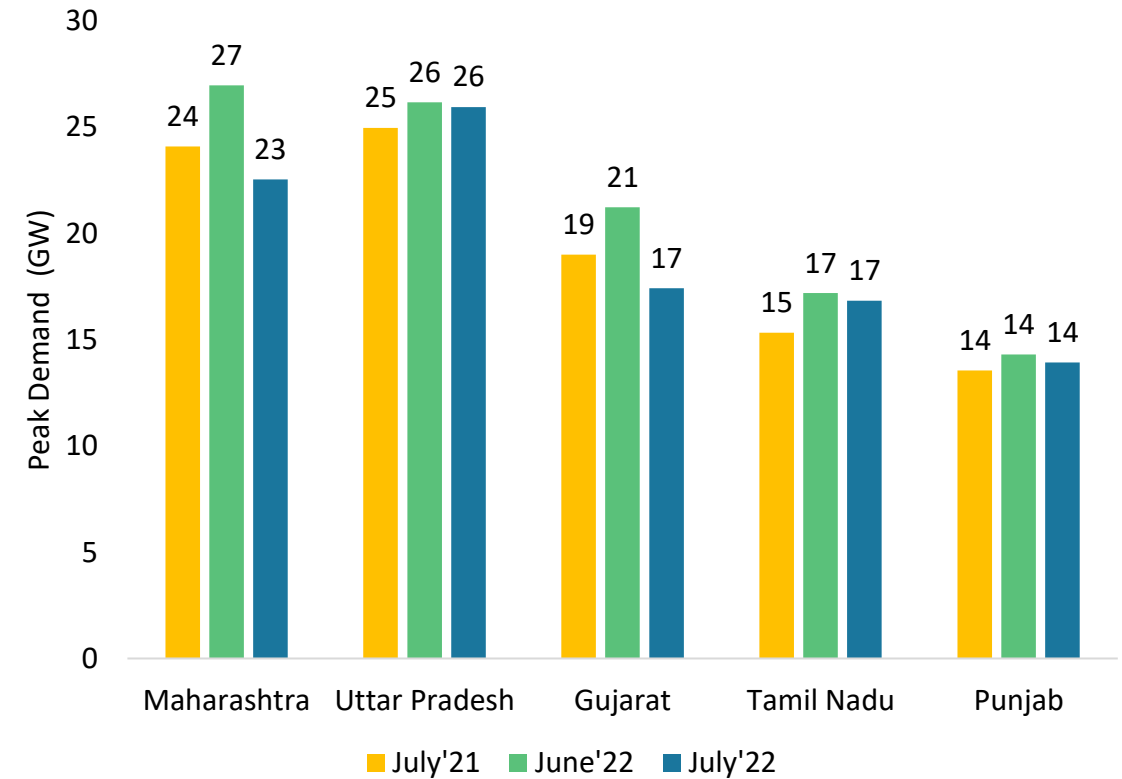


Monthly Electricity Demand of the top 5 states (1/2)

States with Highest Monthly Electricity Requirement



Monthly Peak Demand of top 5 states



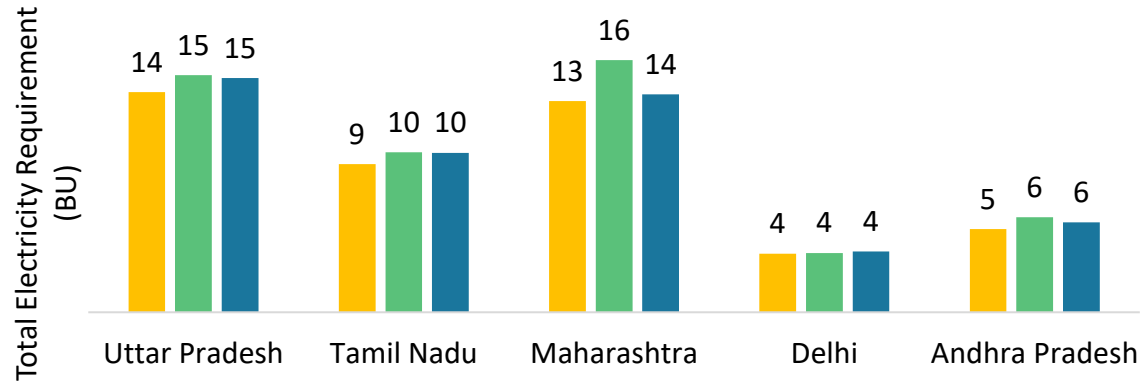
The top 5 states collectively account for a 45% share of India's total electricity requirement (129 BU).



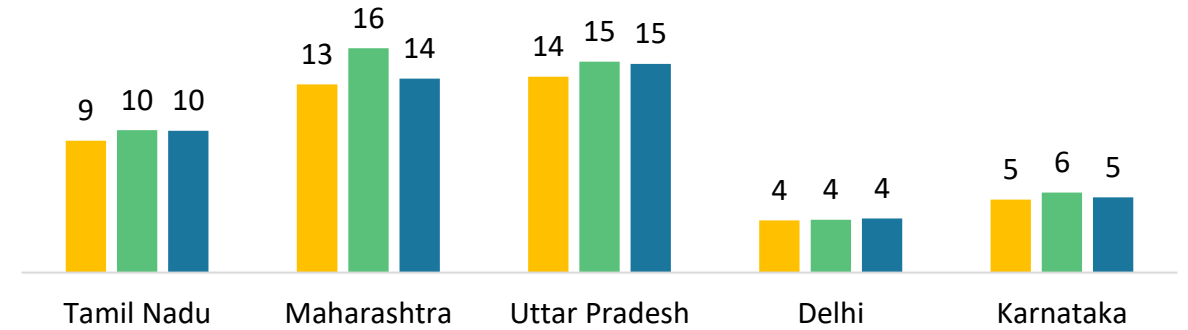
Monthly Electricity Demand of the top 5 states (2/2)

States have been selected on the basis highest electricity consumption in the sector

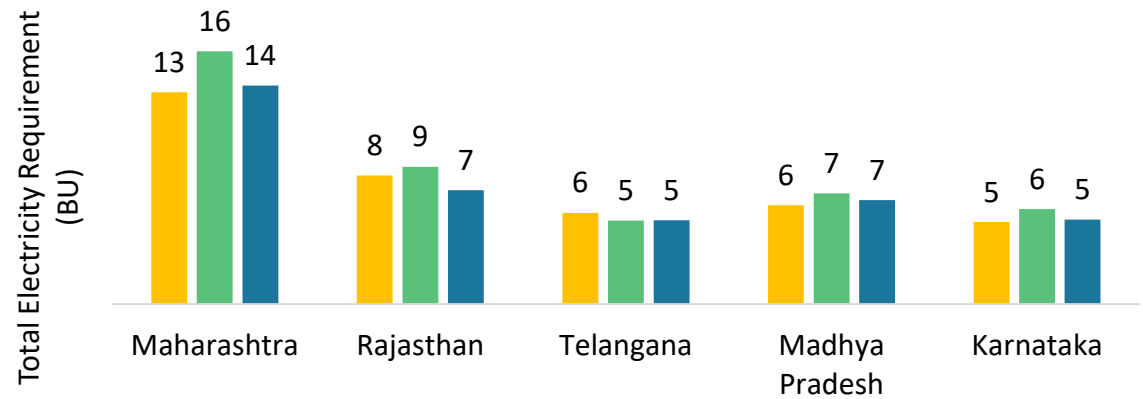
In Domestic Sector



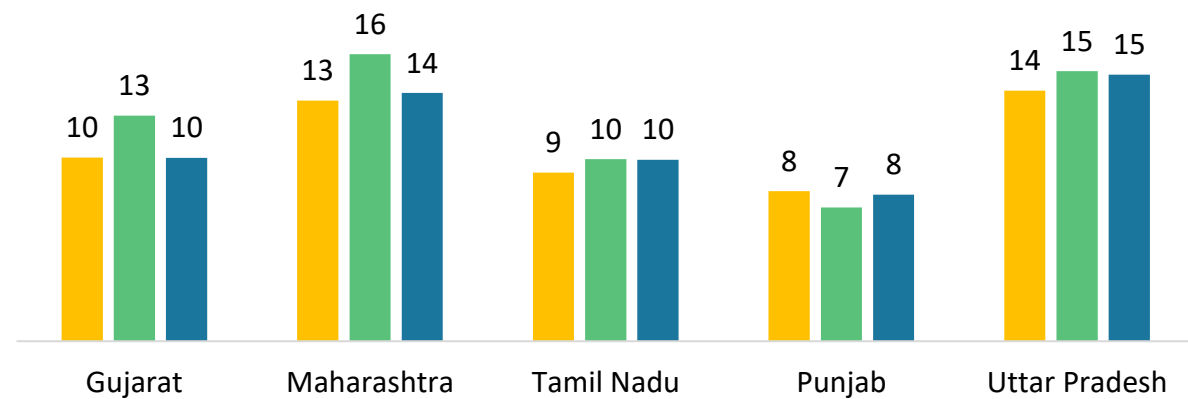
In Commercial Sector



In Agricultural Sector



In Industrial Sector

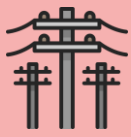


■ July'21 ■ June'22 ■ July'22

Sources: CEA and POSOCO

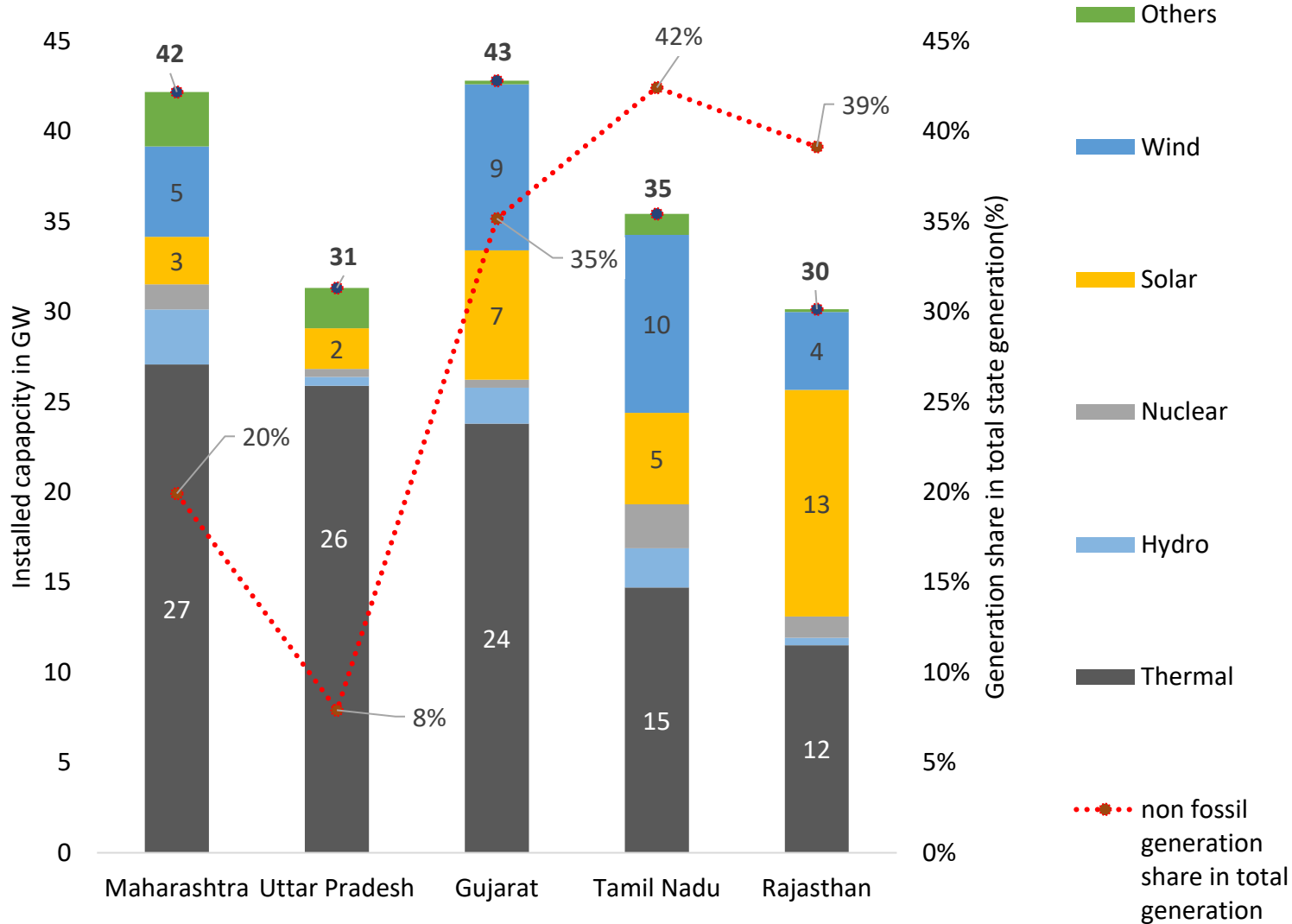
Notes: 1. Top 5 states under sectors are selected based on trued-up sectoral electricity sales in FY20 mentioned in the state tariff orders. However, the numbers presented in the graphs are total monthly electricity sale as sector specific monthly electricity consumption numbers are not available for current financial year.

2. July'22 numbers are provisional.

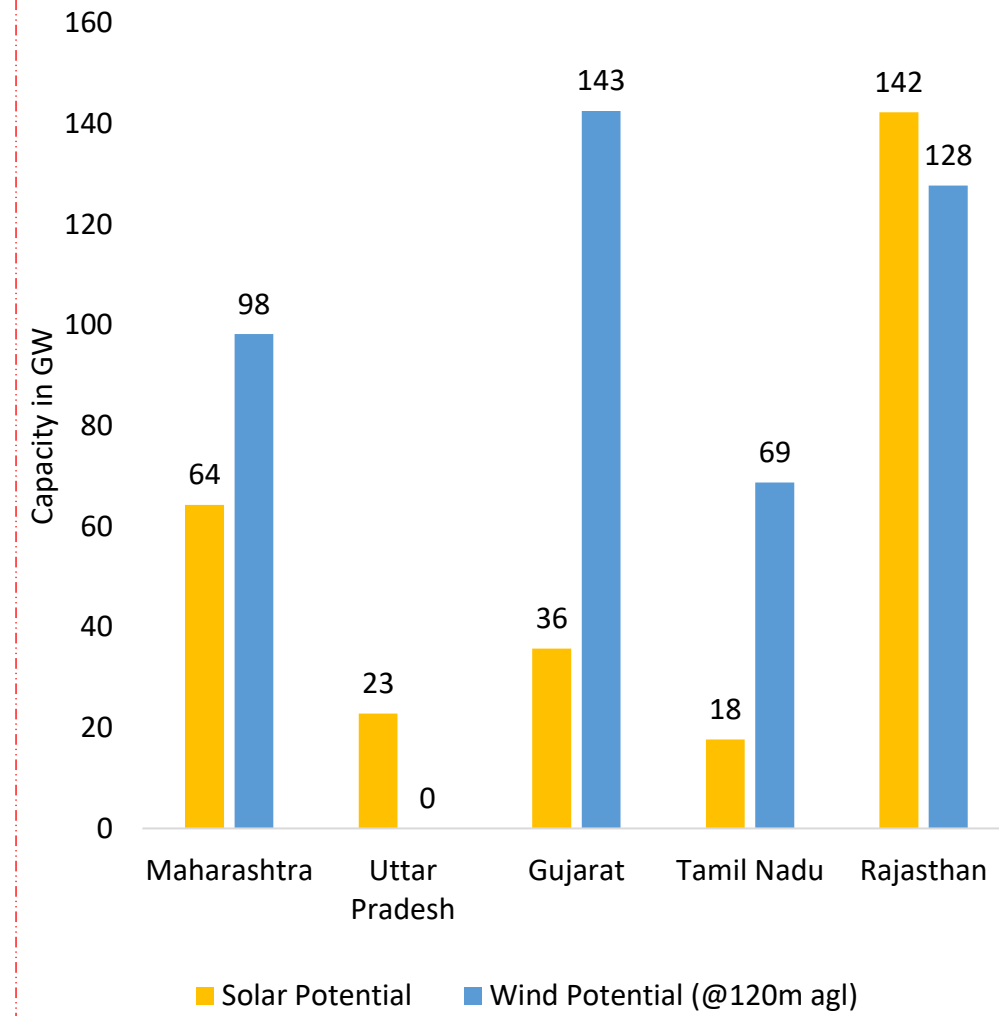


Highest Electricity Demanding States: Energy sources and RE potential

State Sources and Generation Share



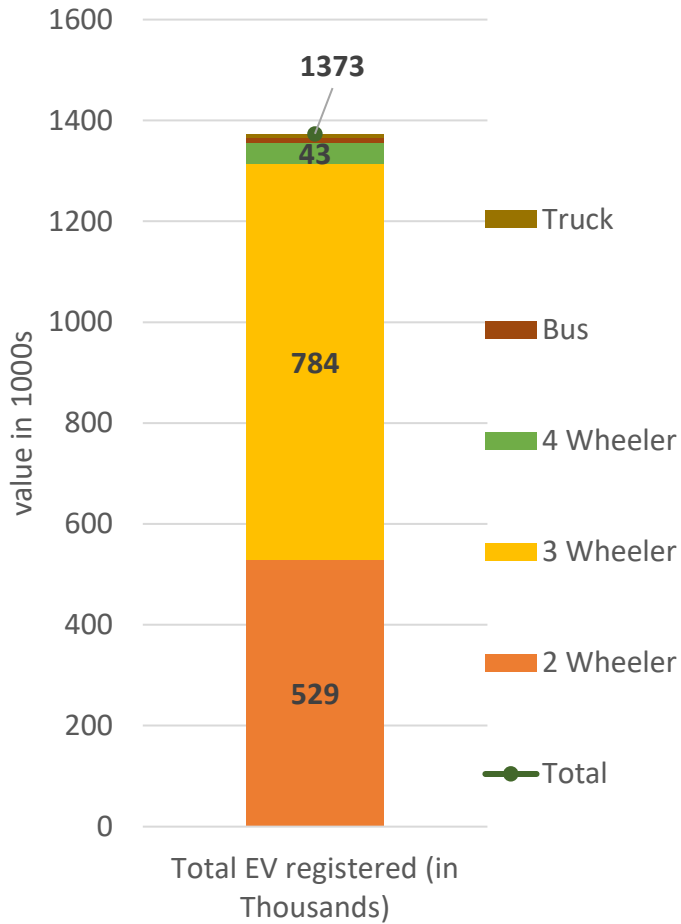
RE Resource potential in State



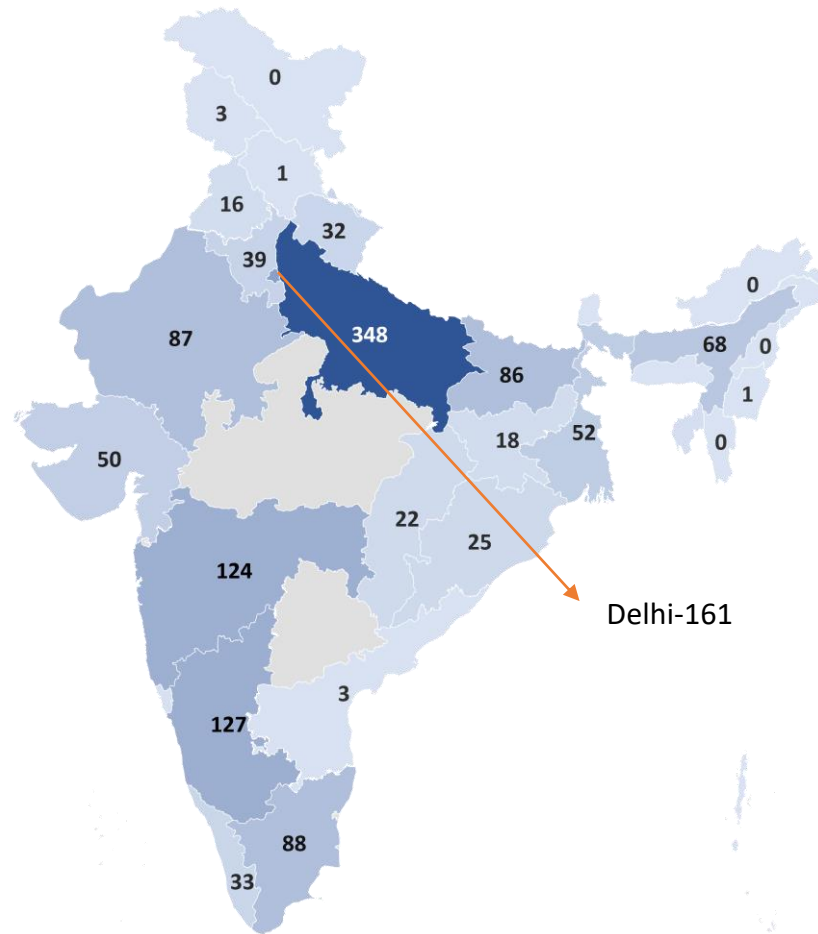


Status of Electric Vehicles in India

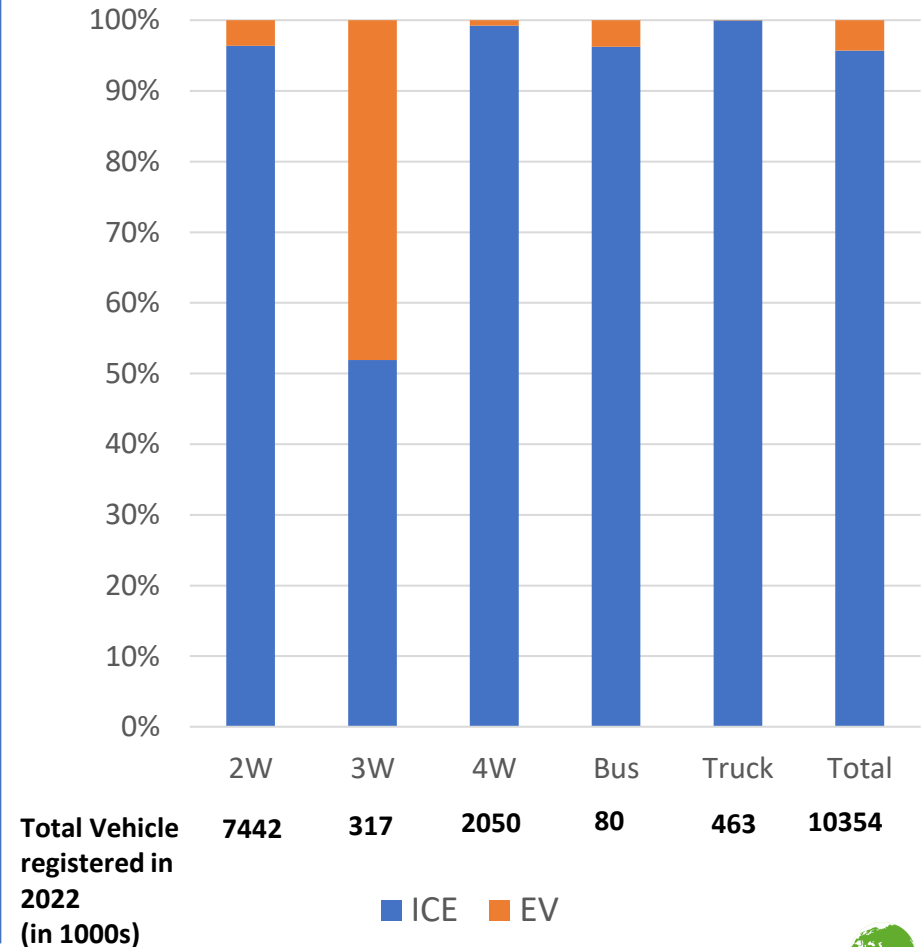
Total EV registered so far



Total EV registered in state (no. in 1000s)



EV sale and ICE sale composition in year 2022



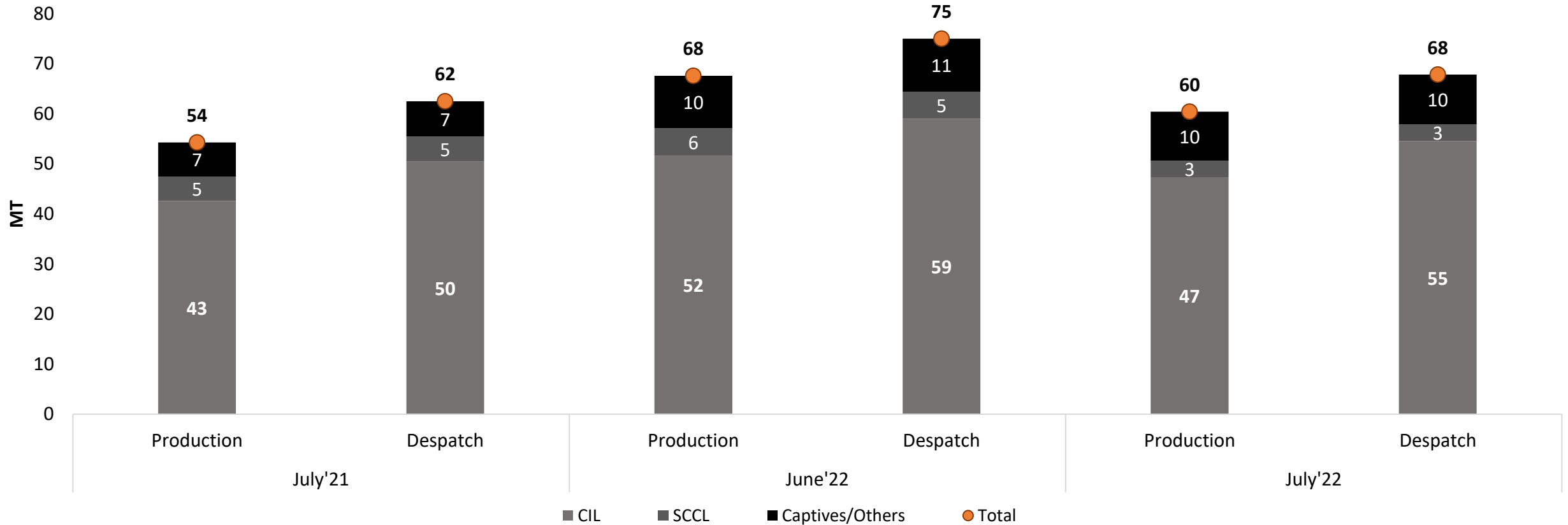
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Sources: Vahan Dashboard (July 2022),
 1. Details of Madhya Pradesh and Telangana are not available on Vahan dashboard
 2. EV: Electric Vehicle, ICE : Internal Combustion engine vehicle





Monthly Coal Statistics

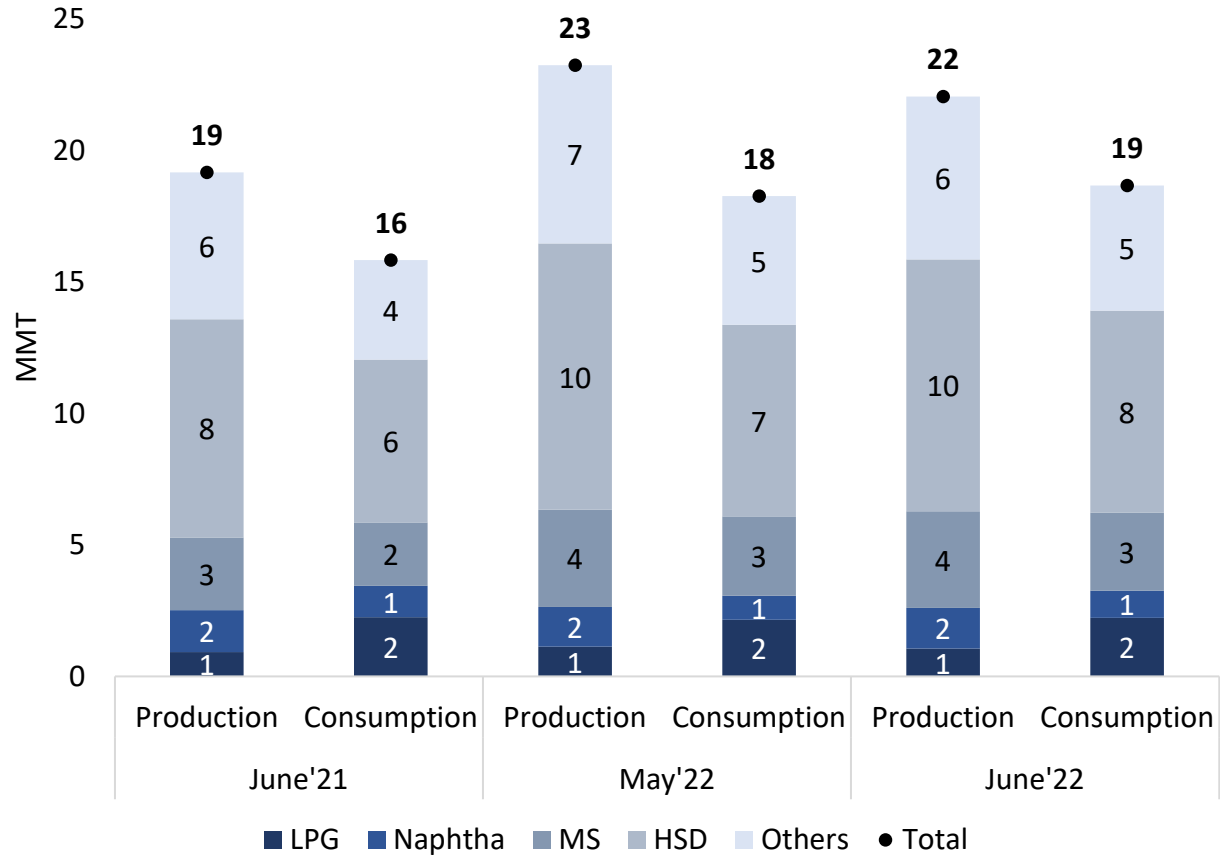


❖ India's coal production has increased in July'22 (60 MT) by 11% as compared to July'21 (54MT). Similarly, the coal despatch increased by ~10% in July this year as compared to July'21.



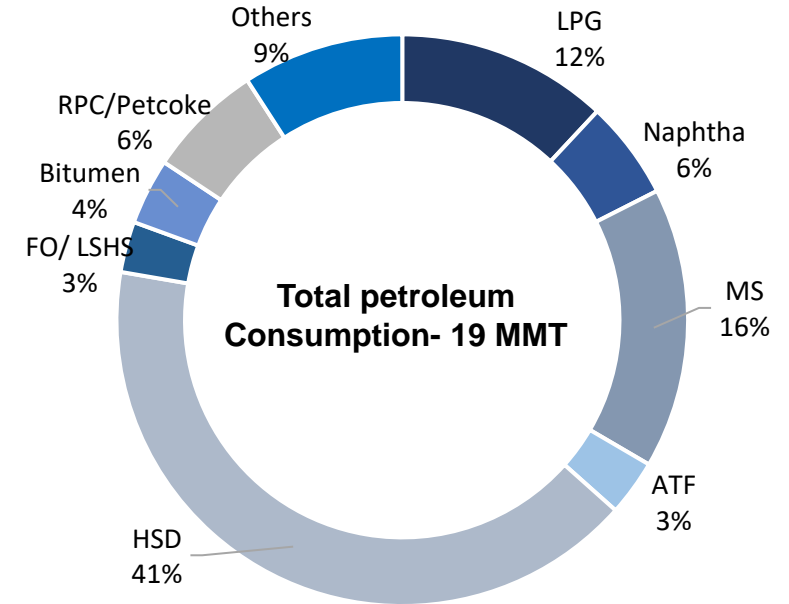
Monthly Petroleum Products Market Scenario (1/2)

Petroleum Product-wise Production & Consumption (MMT)



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

Consumption share of Petroleum Products in June'22



Others include SKO, LDO, Lubes, and Others

Abbreviations

ATF-Aviation Turbine Fuel

HSD- High-Speed Diesel

MS- Motor Spirit (Petrol)

LSHS- Low Sulphur Heavy Stock LPG- Liquefied Petroleum Gas

FO- Furnace Oil

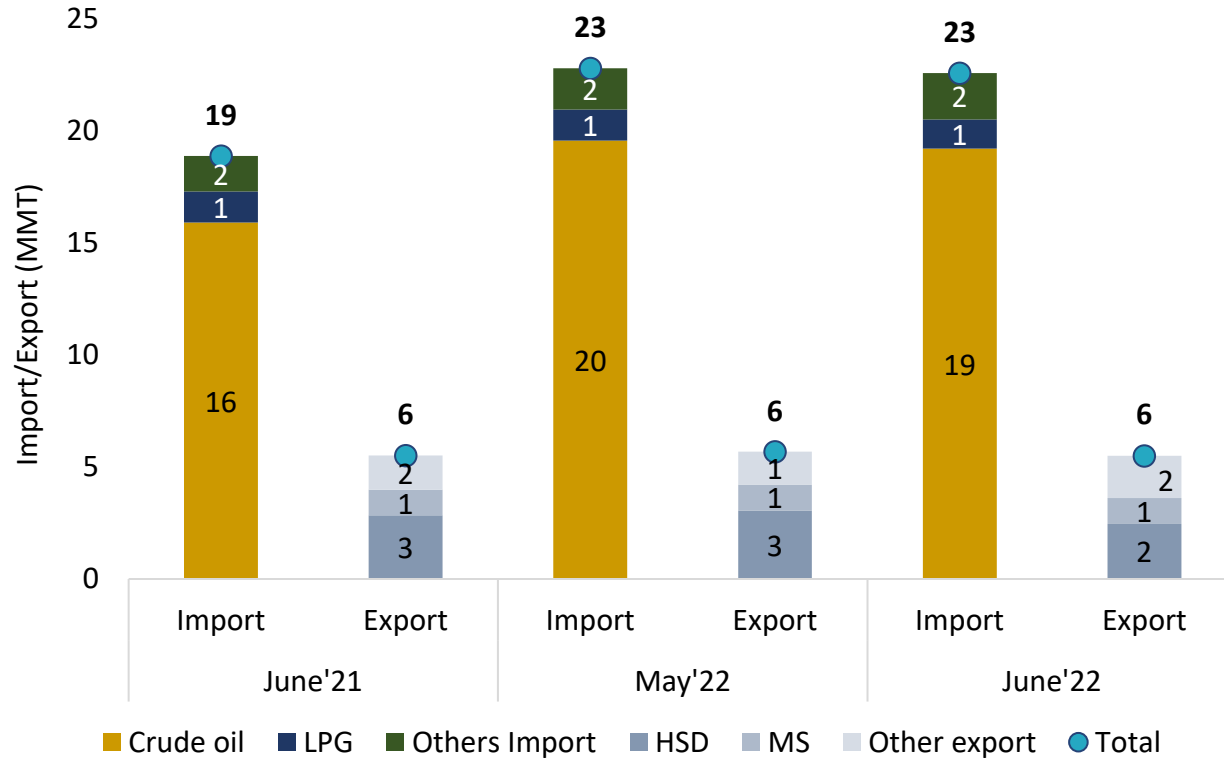
LDO- Light Diesel Oil

SKO- Superior Kerosene Oil



Monthly Petroleum Products Market Scenario (2/2)

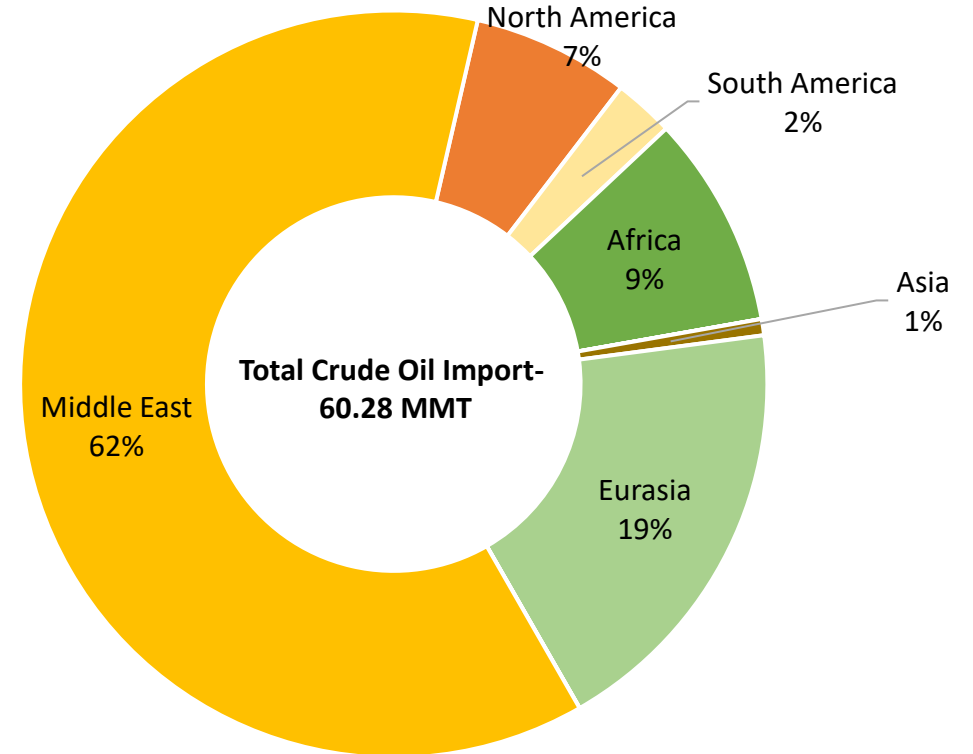
Petroleum Product-wise Import and Export



*Other Imports include Naphtha, MS, ATF, SKO, HSD, LDO, Lubes, FO, Bitumen, pet coke, and Others.

*Other Exports include LPG, Naphtha, ATF, SKO, Lubes, FO, Bitumen, pet coke, and Others.

Country wise share in Import of Crude Oil during April-June 2022



- Crude oil imports increased by 20.8% and 17.2% during June 2022 and April-June 2022 respectively as compared to the corresponding period of the previous year
- Crude oil imports from OPEC countries decreased to 64.8% of total imports during April-June 2022 as compared to 69.7% during April- June 2021.



Key Highlights or Announcements of July'22

- On 22nd July 2022, the Ministry of Power in consultation with the Ministry of New and Renewable Energy released the following RPO and Energy Storage Obligation Trajectory till 2029-30. ([RPO Trajectory Order](#))

Year	Wind RPO	Hydro RPO	Other RPO	Total RPO	Energy Storage
2023-24	1.60%	0.66%	24.81%	27.08%	1.0%
2026-27	4.29%	1.80%	29.86%	35.95%	2.5%
2029-30	6.94%	2.82%	33.57%	43.33%	4.0%

- Honourable Prime Minister Shri Narendra Modi launched the power sector's revamped distribution sector scheme with an outlay of Rs. 303,758 crores for the years FY2021-22 to FY 2025-26. The scheme highlights the following points ([PIB Report](#)):
 1. Financial assistance to DISCOMs for modernization and strengthening of distribution infrastructure.
 2. Improvement of the reliability and quality of supply to end consumers.
 3. Proposal of provision of 23 crore smart prepaid meters to consumers all over the country.



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