

India's Power Sector Overview

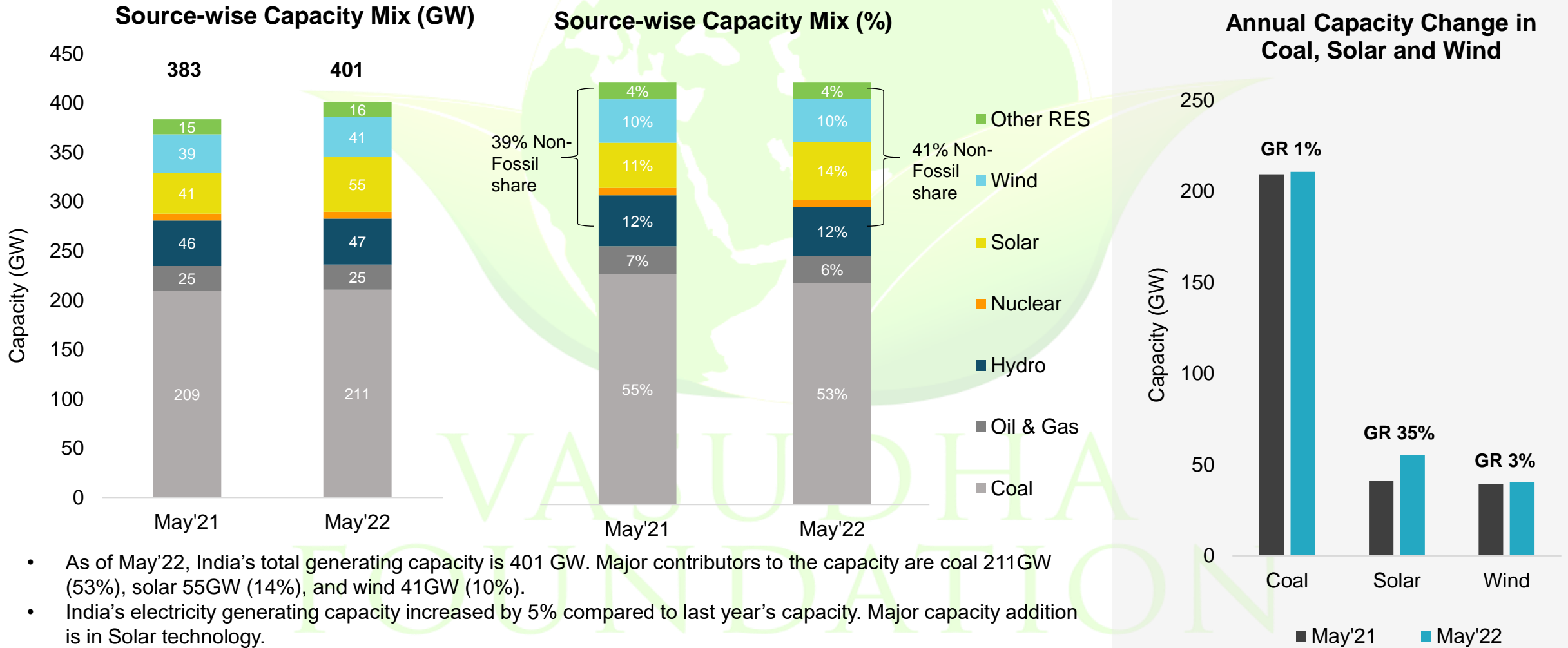
May 2022



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India's Electricity Capacity Mix



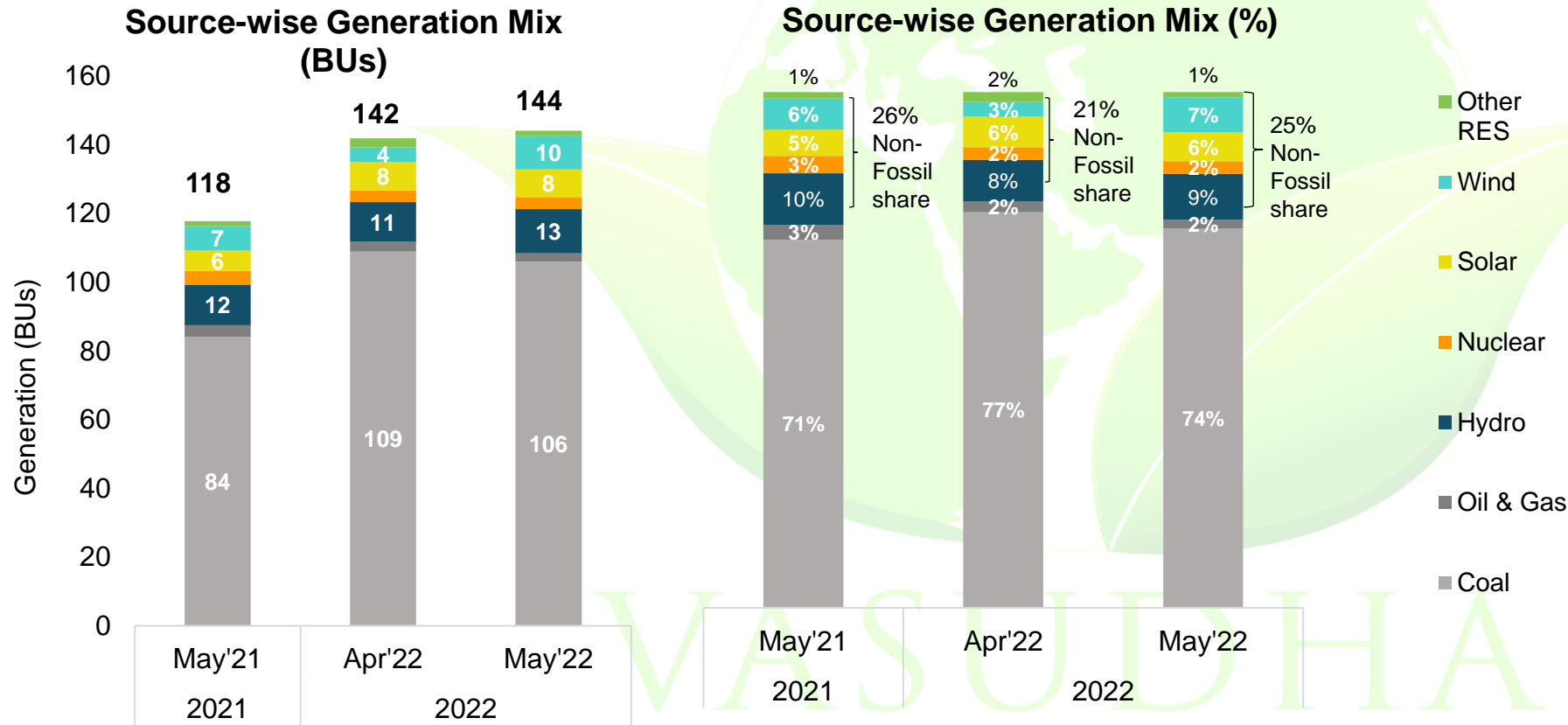
- As of May'22, India's total generating capacity is 401 GW. Major contributors to the capacity are coal 211GW (53%), solar 55GW (14%), and wind 41GW (10%).
- India's electricity generating capacity increased by 5% compared to last year's capacity. Major capacity addition is in Solar technology.

GW: Giga Watt
RES: Renewable Energy Sources

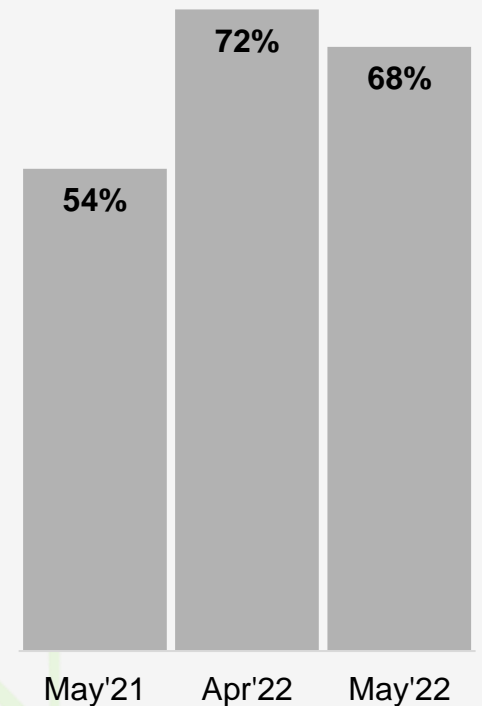
GR: Growth Rate

Source: CEA

India's Electricity Generation Mix

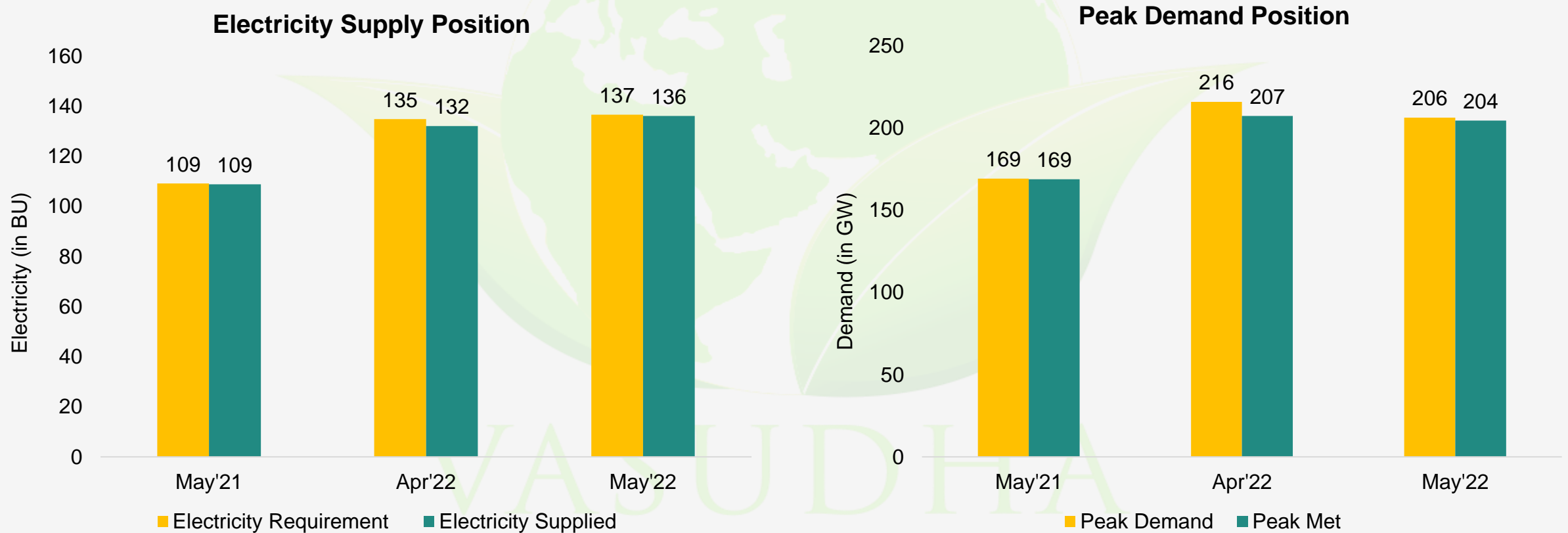


Average monthly PLF of coal Plants (%)



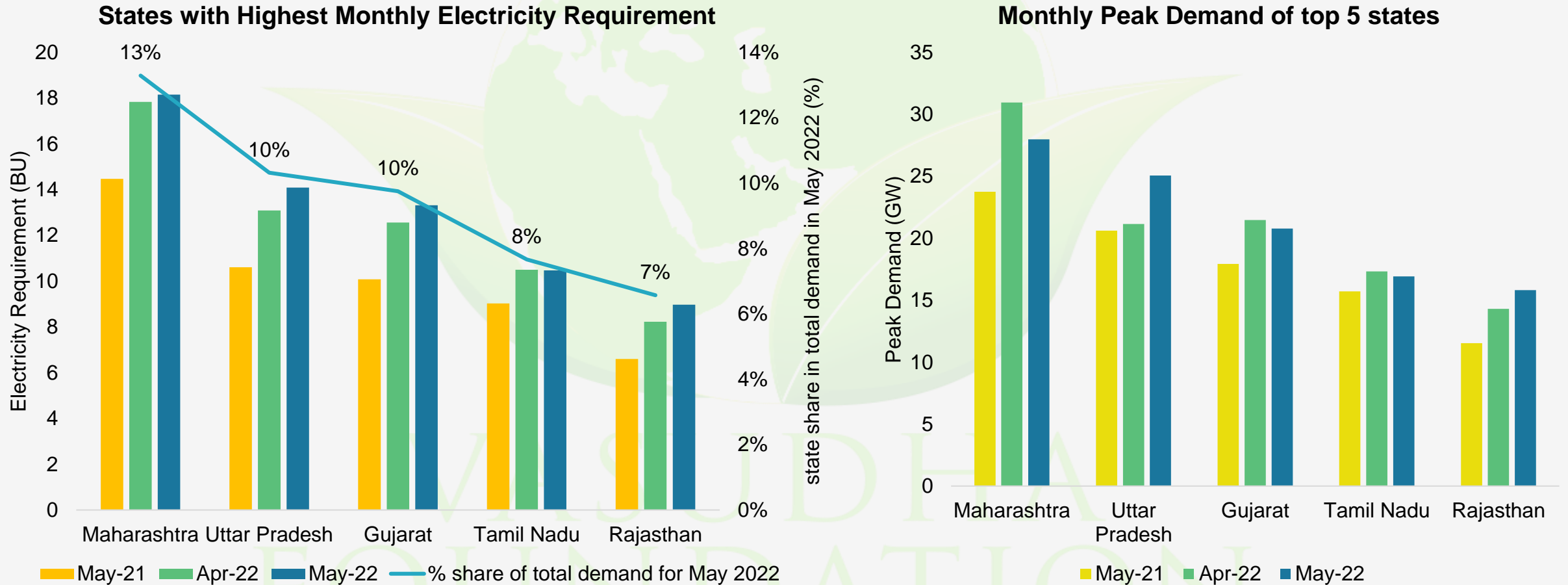
- In May'22 month, Wind generation is 9.76 BUs, which is more than twice of the previous month's generation (4.13 BUs). This increase in generation can be attributed to cyclone Asani and the early onset of the southwest monsoon.

India's Electricity Demand and Supply Position



- National electricity demand in May'22 has increased by 26% as compared to demand in May'21.
- National peak electricity demand in May'22 has increased by 22% as compared to peak demand in May'21.

Monthly Electricity Demand of the top 5 states

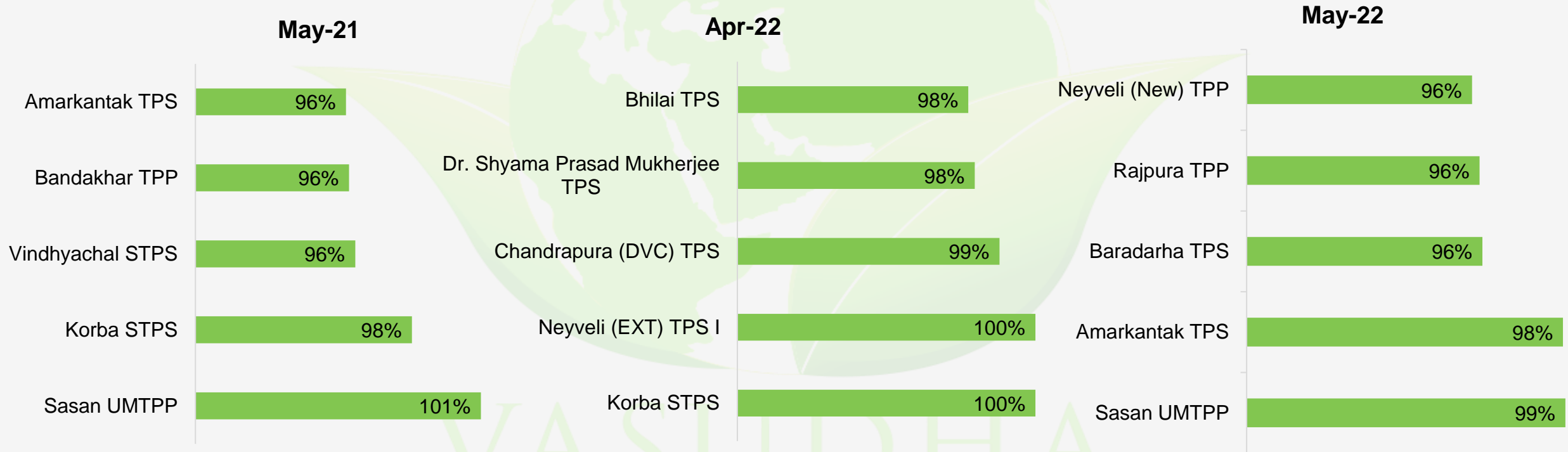


The top 5 states collectively account for a 48% share of India's total electricity requirement (137 BU).

Retirement of Coal Power Plant

Sl. No.	Particular	FY 2017-22	FY 2022-27
1	Targeted Capacity for retirement as per NEP 2018 (in MW)	22716	25572
2	Capacity retired (in MW) as per CEA letters during the period	7094	1090
3	Additional Capacity (in MW) retired as per CEA letters (Which are not mentioned in the CEA's target list)		2160
4	Total Retired Capacity during the period FY 2017 - FY 2022 as per CEA Letter (in MW)		10344

Top 5 (Monthly) Performing Coal Power Plants

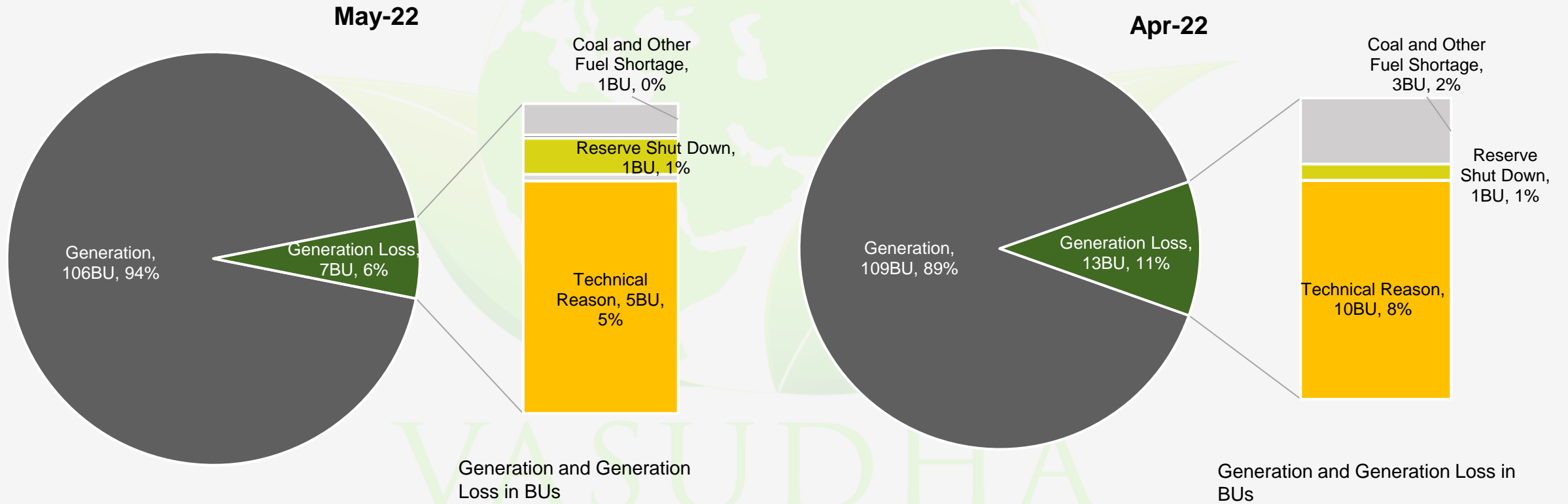


The top 5 coal power plants' PLF are considered on the basis of capacity equal to or above 210 MW.

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Source: Vasudha Analysis

Coal Generation Loss Reasons for Forced Outages



BU: Billion Units

*Generation loss data for May is up to 24th May 2022

Source: Vasudha Analysis

Key Highlights or Announcements of May 2022



The government of India has directed the blending of imported coal with domestic coal to mitigate the coal shortages. Many coal power plants are operating at low PLF due to coal shortages. MoP, May 2022



Ministry of Power has revised the scheme for flexibility in generating and scheduling thermal/hydro power stations through bundling with renewable energy and storage power. It also covers the replacement of both thermal/ hydropower with renewable energy with a battery storage energy system (30 GW). This revision in the scheme would reduce the coal consumption by 34.7 million tonnes and reduce CO₂e by 60.2 million tonnes. MoP April 2022 and MoP May 2022

