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BETWEEN AMBITION AND ARITHMETIC: INDIA'S ENERGY FUTURE IN THE LIGHT OF MoSPI STATISTICS

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Abstract

India's energy system grew quickly between 2020-21 and 2024-25, and most of that growth still ran on coal. This article reads the five most recent editions of *Energy Statistics India*, published by the Ministry of Statistics and Programme Implementation (MoSPI) from 2022 to 2026, as a single record. It traces reserves, production, trade, consumption and the fuel mix over that period. Total primary energy supply rose from 675,395 kilotonnes of oil equivalent (KToE) in 2015-16 to 932,816 KToE in 2024-25. Coal's share of that supply stayed close to 59 per cent. Coal output passed one billion tonnes for the first time in 2024-25. Domestic crude oil output fell for a decade, and India imported about 89 per cent of its crude needs. Renewable sources other than large hydro made up 36 per cent of utility generating capacity by March 2025, but only 13 per cent of electricity generated. Overall import dependence held at around 40 per cent. The article argues that India is adding clean capacity faster than it is displacing fossil energy, so the near-term transition is additive rather than substitutive. It also sets out problems that anyone using the series should know about: provisional figures are revised in later editions, the coal conversion factors changed in the 2024 edition, and the GDP base year changed in the 2026 edition. All three affect comparisons across editions. Keeping the reports' own statements separate from the author's interpretation, and reading the results against the modelling and political-economy literature on India's transition, the article discusses what the data imply for oil security, coal's long tail, grid integration and the 2030 non-fossil targets. It also draws on the 2026 report of MoSPI's Expert Committee on Energy Statistics, which finds that the official energy balance leaves out biofuels and waste, and that ministries publish figures for coal calorific values and per capita electricity using different methodologies.

Keywords: India, energy statistics, MoSPI, energy transition, coal, renewable energy, import dependence.

1. INTRODUCTION

The International Energy Agency expects India to see the largest increase in energy demand of any country to 2040 (International Energy Agency [IEA], 2021). That makes India central to the global energy transition, but its progress is easier to describe than to check. Policy targets are announced in gigawatts and percentages, but the evidence for whether they are being met is spread across ministries, statistical agencies and annual reports, each with its own units and revision cycle. The *Energy Statistics India* series, compiled by MoSPI's National Statistics Office, is the main official attempt to bring that evidence together. Each edition combines data from the Ministry of Coal, the Ministry of Petroleum and Natural Gas, the Central Electricity Authority and other sources into one publication that follows the United Nations' International Recommendations on Energy Statistics (IRES) (MoSPI, 2026, Introduction, p. 4).

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The five editions published between 2022 and 2026 (the 29th to the 33rd in the series) cover an unusual stretch of time. The 2022 edition reports the pandemic year 2020-21, when production and consumption fell together. The 2026 edition reports 2024-25, when coal output passed one billion tonnes and renewable capacity grew by a fifth in a single year. Over the same years India committed to net-zero emissions by 2070. The 2026 edition's own introduction records the aims of meeting half of the country's electricity requirements from renewable sources by 2030 and of reaching 500 GW of non-fossil generating capacity by the same year (MoSPI, 2026, Introduction, p. 1). The reports therefore cover both a recovery and the first years of a stated transition.

This article asks three questions of these reports. First, how did India's energy reserves, production, trade and consumption change between the 2022 and 2026 editions? Second, how far has the energy mix actually shifted, as distinct from how far capacity has shifted? Third, what do these trends suggest about the next decade? Every statistical figure comes from the five reports and can be traced to a table or page. The academic literature reviewed in Section 2 is used to frame the questions and to test the interpretations, not as a source of data. Section 5 compares the official data with economic and political events in 2025 and 2026 that the statistics do not yet cover, using news and institutional reports. Section 3.5 summarises the 2026 review of the statistics by MoSPI's Expert Committee on Energy Statistics. Where the article goes beyond what the reports say, it says so.

The argument, in brief, is that the data describe a system adding clean energy on top of a growing fossil base rather than replacing it. Renewable capacity is growing quickly. Coal still supplies most of India's primary energy, and the gap between what India uses and what it produces at home keeps widening. Whether the 2030 targets are met depends less on adding capacity, which is clearly accelerating, than on turning that capacity into generation and on dealing with the oil and gas import problem, which the reports show getting worse.

2. LITERATURE REVIEW

Research on India's energy future falls into four broad strands: demand outlooks, the political economy of coal, the economics of integrating renewables into the grid, and the performance of electricity distribution. Each strand relies on official statistics as an input, but none studies how those statistics change from one edition to the next.The demand outlook literature is led by scenario studies. The International Energy Agency's *India Energy Outlook 2021* projects the largest growth in energy demand of any country to 2040 in all its scenarios.

In its Stated Policies Scenario, oil import reliance rises from about 75 per cent to about 90 per cent, and solar and coal each reach about 30 per cent of electricity generation by 2040 (IEA, 2021). The report also estimated that the pandemic would reduce the growth in India's energy demand between 2019 and 2030 from nearly 50 per cent to about 35 per cent. These projections are a useful benchmark for the trends in the MoSPI series, although the IEA's definitions differ from MoSPI's.

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A second strand explains why coal persists. Drawing on 28 expert interviews, Montrone et al. (2021) find that power-sector liberalisation brought large conglomerates into coal. They also find that public investment in new coal plants is driven by concern for long-term electricity security, and that coal jobs and local interests in eastern India hold back change. Spencer et al. (2018) studied four major coal-using countries, including India, and concluded that none had a long-term framework for moving its coal sector away from coal. Malik et al. (2020) estimate that India's coal capacity will keep growing to 2030, and that a well-below-2°C pathway would then strand 133 to 237 GW of it.

Earlier policy action, they find, would reduce that to between 14 and 159 GW. Jakob et al. (2020) argue that phasing out coal needs a broad view of a just transition, including a plan for the order of plant retirements, the policy tools to use, and how affected groups take part. Pai et al. (2020) add a practical point: solar resources are better suited than wind to replacing coal-mining jobs in the four largest coal-producing countries, including India, because fewer than 7 per cent of coal-mining areas have usable wind resources.

A third strand models the power system. Deshmukh et al. (2021) model renewable targets of 200 to 600 GW of wind and solar. They find that high targets avoid building few new coal and gas plants, but they do reduce how much existing plants run. A 600 GW portfolio would keep 2030 power-sector emissions below 2018 levels, and battery storage would replace new fossil-fuel peaking plants only at capital costs near USD 150 per kWh. They also find that the cheapest way to cut emissions is a mix in which solar makes up 25 to 50 per cent of the target, which questions India's solar-heavy approach. Looking further ahead, Gulagi et al. (2022) model India state by state and find that a power system based mainly on renewables would cost less than the current coal-based system by 2050, using solar, wind and hydro with batteries and other sources of flexibility. The fourth strand concerns electricity distribution.

Pargal and Banerjee (2014) show that the weak operational and financial performance of electricity distribution companies has repeatedly required central bailouts, and that distribution reform has lagged behind reform of generation and transmission. These studies take a single statistical snapshot as their starting point. This article does something different. It reads five successive editions of the official series together and shows how much the provisional figures were later revised and where the series breaks. It then uses the literature above to interpret what the most recent data imply.

3. DATA AND METHODOLOGY

3.1 The Five Editions

The analysis uses the 29th to the 33rd editions of *Energy Statistics India*. Each edition carries about a decade of history, and its most recent year is marked provisional (P). The table below shows which year each edition reports and the main methodological change it introduced.

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Edition	Series no.	Latest reference year	Methodological note
ESI 2022	29th	2020-21 (P)	Pandemic year; energy balance on IEA conversion factors
ESI 2023	30th	2021-22 (P)	Energy balance moved to domestic conversion factors, especially for coal; final balances from 2012-13 recomputed (Ch. 7 Highlights)
ESI 2024	31st	2022-23 (P)	Domestic-factor balances continued; final balances 2012-13 to 2020-21 published in Annexure IV
ESI 2025	32nd	2023-24 (P)	Executive summary and a new chapter on energy accounts (SEEA-Energy)
ESI 2026	33rd	2024-25 (P)	GDP base year moved to 2022-23 for intensity indicators (Table 8.1 note); industry split from 9 to 13 sub-sectors (Section 7.4, p. 79); credit-flow and world energy chapters added

The 2026 edition is used as the main time series because it holds the most recent, partly finalised data for 2015-16 to 2024-25. That includes final energy balances for every year from 2015-16 to 2023-24 (MoSPI, 2026, Tables 7.2 and Annexure IV). The earlier editions are used for two purposes: to show what was reported at the time, and to measure how much the provisional figures later changed. All years are Indian financial years (April to March). Energy is reported in kilotonnes of oil equivalent (KToE; 1 toe = 41,868 MJ) or petajoules (PJ), as the reports give it (MoSPI, 2026, Ch. 7, p. 77).

3.2 Revisions between Editions

Provisional figures are revised, sometimes substantially. The table compares a figure as first published with the same figure in the 2026 edition. As the brief for this article required, the 2026 value is used throughout wherever the two differ.

Indicator (year)	First reported	ESI 2026 value	Revision
Total installed generating capacity, MW (2021-22)	482,232 (ESI 2023, p. 14)	476,229 (Table 2.3B)	−1.2%
Primary energy consumption, PJ (2021-22)	33,508 (ESI 2023, Ch. 6)	32,903 (Table 6.2)	−1.8%
Total primary energy supply, KToE (2021-22)	739,386 (ESI 2023, Ch. 7)	780,093 (Annexure IV, Table VII)	5.50%
Total primary energy supply, KToE (2022-23)	850,349 (ESI 2024, Ch. 7)	841,222 (Annexure IV, Table VIII)	−1.1%
Total final consumption, KToE (2023-24)	613,605 (ESI 2025, p. xii)	587,606 (Table 7.2)	−4.2%
T&D losses, % (2023-24)	17.08 (ESI 2025, p. xii)	17.63 (Table 6.9)	+0.55 pts
Primary energy production, PJ (2020-21)	14,857.98 (ESI 2022, p. 27)	16,108 (Table 3.2)	8.40%

Most of these revisions are within 2 per cent. Three are larger. Primary energy supply for 2021-22 rose by about 41,000 KToE once the year was finalised. Total final consumption for 2023-24 fell by about 26,000 KToE. Primary production in petajoules for 2020-21 is 8.4 per cent higher in the 2026 edition than in the 2022 edition. The reports do not reconcile these differences; changed conversion assumptions and the replacement of provisional data with audited data are the likely causes, but that is the author's inference.

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The practical lesson is that growth rates should not be calculated by taking one year from an old edition and another from a new one.

3.3 Breaks and Inconsistencies

Three breaks affect comparisons over time. The first is the move from IEA to domestic conversion factors for coal, first made in the 2023 edition and carried into the 2024 edition. Both reports say the shift "results in a significant reduction of Energy supplied and consumed in India" (MoSPI, 2023, Ch. 7 Highlights; MoSPI, 2024, Ch. 7 Highlights). The second is the 2026 edition's GDP base change: energy intensity falls from 0.2190 MJ per rupee in 2021-22 to 0.1346 in 2022-23, but that step comes from the new base, not from any real gain in efficiency (MoSPI, 2026, Table 8.1, p. 107). The third is the redefinition of industry sub-sectors in the 2026 energy balances.

The reading also turned up a few internal inconsistencies, listed here so readers can check them:

- The 2024 edition's coal reserve table repeats the 1 April 2022 totals (352.13 and 361.41 billion tonnes) under the column labels 2021-22 and 2022-23. The 1 April 2023 estimate of 378.21 billion tonnes first appears in the 2025 edition (MoSPI, 2024, Table 1.1, p. 10; MoSPI, 2025, Table 1.1, p. 10).
- The 2026 edition's text says total energy production rose 4.43 per cent in 2024-25, but its own Table 3.2 gives 21,452 PJ to 22,370 PJ, which is a 4.28 per cent rise. The 4.43 per cent figure is coal's growth (MoSPI, 2026, Section 3.8 and Table 3.2, p. 36).
- Between editions, estimated solar potential rises from 748,990 MW to 3,343,378 MW. The 2026 edition calls this "growth" but does not give the basis for the new estimate (MoSPI, 2026, Section 1.5, p. 9).

3.4 Scope Limits

The reports do not cover some things a study of the transition would want. Energy-sector emissions in the 2026 edition stop at 2020, the last year in India's Fourth Biennial Update Report (MoSPI, 2026, Table 8.2, p. 108). The reports give no projections, no generation costs or tariffs, and no data on battery storage or transmission capacity. Wherever the article discusses these, it labels the discussion as interpretation.

3.5 The 2026 Expert Committee Review

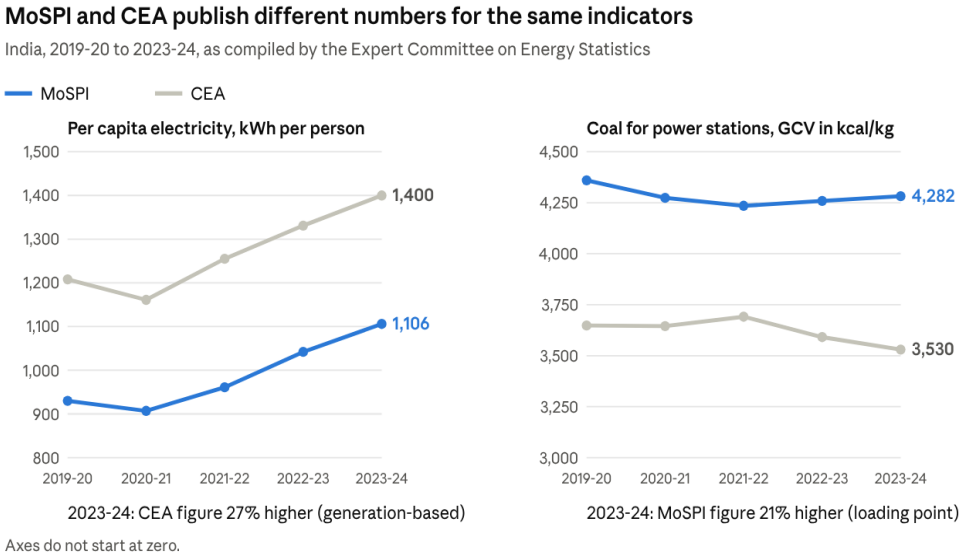
In 2026, MoSPI's Expert Committee on Energy Statistics completed a technical review of the series. The committee was chaired by Rangan Banerjee, Director of IIT Delhi, and the chair's message is dated 18 June 2026 (Expert Committee on Energy Statistics [ECES], 2026, p. i). It brought together the energy ministries and research bodies over three meetings and made recommendations in three main areas: meeting international standards, filling data gaps, and resolving inconsistencies between datasets (ECES, 2026, pp. 4–5). Its findings matter here because they show where the official figures used in this article are incomplete or depend on how they were calculated.

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Four Findings Bear Directly On The Analysis:

- **Missing energy.** The energy balance does not cover biofuels and waste (ECES, 2026, p. 22). United Nations data put their share of India's total energy at between 31 and 37 per cent from 2012-13 to 2022-23 (ECES, 2026, p. 23). The committee also recommends adding international bunker fuels to total primary energy supply, as international practice requires (ECES, 2026, pp. 26–28). Off-grid solar output is not counted either; a task team estimates it at roughly 5,700 to 8,600 GWh a year, mostly from solar irrigation pumps (ECES, 2026, pp. 29–30).
- **Unrecorded end uses.** About 70 per cent of coal sent to industries other than power in 2023-24 was recorded only as "others". Between 85 and 93 per cent of diesel from 2019-20 to 2023-24 was recorded as sold to retailers and resellers rather than to final users (ECES, 2026, pp. 15, 18). Neither the Central Electricity Authority (CEA) nor the distribution companies record electricity use by industrial sub-sector (ECES, 2026, p. 20). The committee endorsed using the Annual Survey of Industries to allocate coal and electricity to industries. Doing so cut the coal recorded as "non-specified industry" from 22.55 per cent of total 2023-24 consumption to 0.17 per cent (ECES, 2026, Table 9, p. 17). The 2026 edition's expanded industry breakdown appears to apply this method.
- **Differing figures.** MoSPI and the CEA publish different values for the same indicators (Figure 1). For coal sent to power stations, MoSPI's average gross calorific value in 2023-24 was 4,282 kcal/kg, against the CEA's 3,530 kcal/kg. The main reason is that MoSPI uses the value measured where coal is loaded at the mine, while the CEA uses the value measured on arrival at the power station (ECES, 2026, pp. 35–36). The committee recommended that the CEA adopt MoSPI's figures. Per capita electricity differs because MoSPI divides consumption by population, while the CEA divides generation by population (ECES, 2026, pp. 33–34). The committee also notes that UN and IEA figures for India do not match the domestic ones (ECES, 2026, p. 3).
- **Classification.** There is no agreed way to match India's coal grades to the international product classification (SIEC). A sub-committee concluded that no such match was possible. The Expert Committee "respectfully disagrees" and proposed one (ECES, 2026, pp. 11–13).

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Expert Committee on Energy Statistics (2026), Fig. 5.0, p. 33 and Fig. 6.0, p. 35

Figure 1: The Two Agencies' Figures Move in the Same Direction, but the Gaps between Them Are Large Enough To Change Conclusions about Efficiency and Electricity Access

In the author's reading, these findings qualify several numbers in this article. Coal's share of primary supply depends partly on the higher calorific value. On the CEA's figure, the energy content of coal sent to power stations would be about 18 per cent lower. The renewable share of 3.84 per cent covers commercial energy only. With biofuels and waste included, coal's share of India's energy mix would be smaller, although much of that biomass is traditional fuel rather than modern renewable energy. Several of the committee's other proposals, including chapters on world energy statistics and credit flows, already appear in the 2026 edition (ECES, 2026, pp. 39–40).

4. ANALYSIS OF TRENDS (2022–2026 EDITIONS)

4.1 Reserves: Coal Grows On Paper, Gas Shrinks

The five editions show India's estimated coal reserves growing every year, even as production rose to record levels. Estimated natural gas reserves fell over the same period.

Reserve (as on 1 April)	2021	2022	2023	2024	2025
Coal, billion tonnes	352.13	361.41	378.21	389.42	400.72
Crude oil, million tonnes	587.33	651.77	669.47	671.40	672.07
Natural gas, billion cubic metres	1,372.62	1,138.67	1,141.73	1,094.19	1,073.01

Sources: 2021 from MoSPI (2022, Highlights, pp. 5–7); 2022 from MoSPI (2023, Highlights, pp. 6–7); 2023 and 2024 from MoSPI (2025, Tables 1.1 and 1.3, pp. 10–11); 2025 from MoSPI (2026, Tables 1.1 and 1.3, pp. 11–12).

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Coal reserves grew by 48.6 billion tonnes in four years, far more than the roughly 3.7 billion tonnes mined in that time (MoSPI, 2026, Table 3.1, p. 36). The share classed as *proved* rose from about 50 per cent to 55 per cent (MoSPI, 2022, p. 6; MoSPI, 2026, Section 1.1, p. 7). Odisha, Jharkhand and Chhattisgarh together hold about 70 per cent of the total. On the reports' own reserves-to-production ratio, coal would last 210 years at the 2024-25 rate of extraction (MoSPI, 2026, Table 8.3, p. 109). Geology will not limit coal in India within any planning horizon that matters.

Hydrocarbons look different. Crude oil reserves rose sharply between 2021 and 2022, almost entirely because Rajasthan's estimate tripled from 35.26 to 103.67 million tonnes (MoSPI, 2024, Table 1.2, p. 11). Since 2023 the crude oil figure has barely changed. Gas reserves fell by about 22 per cent between 2021 and 2025. Most of that fall is in the Eastern Offshore, whose share dropped from 40.6 per cent to about 25 per cent (MoSPI, 2022, p. 7; MoSPI, 2026, Section 1.4, p. 8). The resources-to-production ratios in the 2026 edition are 23 years for crude oil and 30 years for natural gas, down from 40 years for gas in 2021-22 (MoSPI, 2026, Table 8.3, p. 109).

Estimated renewable potential rose from 2,109,655 MW at the end of March 2024 to 4,704,043 MW a year later, almost all of it from the revised solar estimate (MoSPI, 2025, p. xi; MoSPI, 2026, Section 1.5, p. 9). As noted in Section 3.3, this looks like a reassessment rather than physical growth. Even so, it makes the scale clear: installed grid-interactive renewable capacity of 172,368 MW is under 4 per cent of the stated potential.

4.2 Production: A Coal-Led Recovery

Primary energy production rose from 16,108 PJ in 2020-21 to 22,370 PJ in 2024-25, a 39 per cent increase in four years (MoSPI, 2026, Table 3.2, p. 36). The 2022 edition, written during the pandemic, had first reported a 2.96 per cent fall in 2020-21 output (MoSPI, 2022, p. 27). The recovery came quickly, and it came mostly from coal.

Coal production rose from 716.08 million tonnes in 2020-21 to 1,047.52 million tonnes in 2024-25, a 46 per cent increase, with growth of 11.71 per cent in 2023-24 alone (MoSPI, 2025, p. xi; MoSPI, 2026, Table 3.1, p. 36). Public-sector companies still produce about 95 per cent of it. Private output, though, almost doubled from 30.13 to 57.25 million tonnes over the same period (MoSPI, 2026, Section 3.1 and Fig. 3.1, p. 31). Coal provided about 79 per cent of India's primary energy production in 2024-25 (MoSPI, 2026, Section 3.9, p. 35).

The hydrocarbon record is the opposite. Crude oil output fell in every year but one, from 36.94 million tonnes in 2015-16 to 28.70 million tonnes in 2024-25, a compound decline of 2.76 per cent a year (MoSPI, 2026, Table 3.1, p. 36). Gross natural gas production recovered from its 2020-21 low of 28.67 billion cubic metres (BCM) to 36.44 BCM in 2023-24. It then slipped slightly to 36.11 BCM in 2024-25.

The fastest-growing source is electricity from hydro, nuclear and other renewables, which the reports count as primary production. It rose from 340,576 GWh in 2020-21 to 460,324

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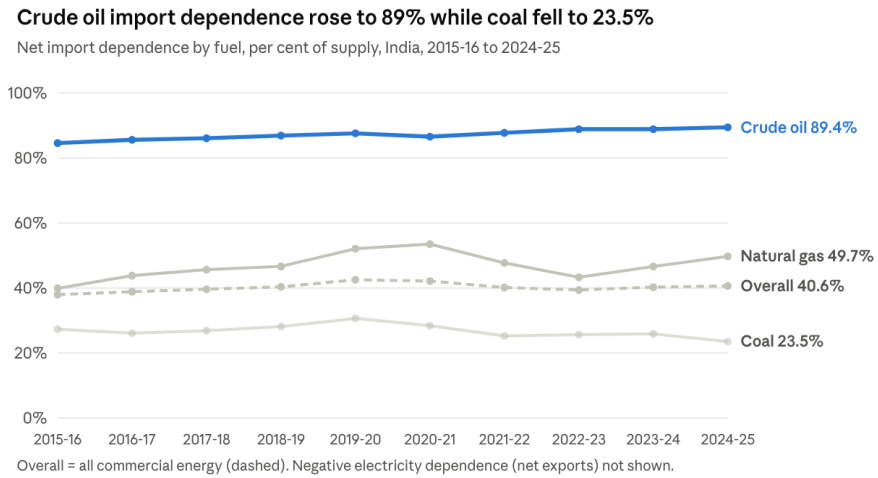
GWh in 2024-25, with 12.87 per cent growth in the latest year and a ten-year compound rate of 8.30 per cent (MoSPI, 2026, Table 3.1, p. 36). Its path was not smooth: output dipped slightly in 2023-24, mainly because hydro generation fell (MoSPI, 2026, Table 8.13, p. 114). Even after the latest gain, these sources accounted for 1,657 PJ, or 7.4 per cent of primary production.

4.3 Trade and Import Dependence: Oil and Gas Get Harder

India depends on imports for about two-fifths of its energy, and the composition of that dependence is changing for the worse. The 2026 edition puts overall import dependence at 40.63 per cent in 2024-25, up from 37.95 per cent in 2015-16 (MoSPI, 2026, Table 8.14, p. 115). The total hides two opposite trends.

Coal dependence is falling. Net coal imports peaked at 262.99 million tonnes in 2023-24 and fell 8.09 per cent to 241.71 million tonnes in 2024-25, as domestic output rose (MoSPI, 2026, Table 4.1, p. 46). Coal import dependence fell from 28.40 per cent in 2020-21 to 23.50 per cent.

Oil and gas dependence is rising. Crude imports grew from 196.46 million tonnes in 2020-21 to 243.22 million tonnes in 2024-25, and crude import dependence reached 89.44 per cent, the highest in the ten-year series (MoSPI, 2026, Tables 4.1 and 8.14). Gas import dependence fell from 53.53 per cent in 2020-21 to 43.30 per cent in 2022-23, then climbed back to 49.73 per cent as net imports rose 12.34 per cent in 2024-25 to 35.72 BCM. The reports do not explain the 2022-23 dip.



MoSPI, Energy Statistics India 2026, Table 8.14, p. 115

Figure 2: India Has Become More Dependent On Imported Crude Oil and Gas and Less Dependent on Imported Coal, So Overall Dependence Has Stayed At About 40 Per Cent

Two other trade lines matter for the future. India is still a net exporter of petroleum products, but its surplus has fallen from 31.08 million tonnes in 2015-16 to 14.17 million

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tonnes in 2024-25, because product imports rose from 29.46 to 50.90 million tonnes (MoSPI, 2026, Table 4.1, p. 46). India has also been a net exporter of electricity every year since 2016-17, with net exports of 3,164 GWh in 2024-25. The 2026 edition notes that the gap between total primary energy supply and domestic production "has been steadily widening over the years" (MoSPI, 2026, Section 7.1, p. 78).

4.4 Consumption: Faster Growth, And More of It Electric

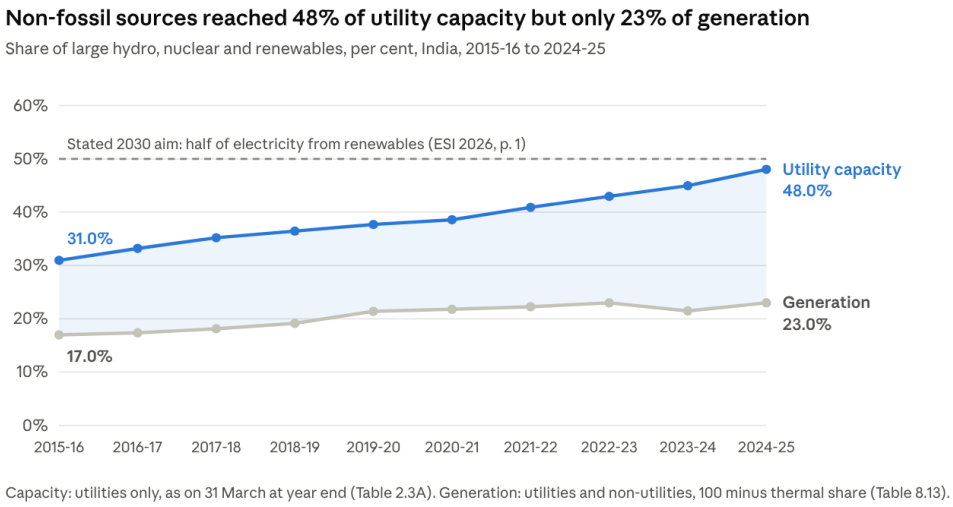
Primary energy consumption grew faster after the pandemic than in the decade as a whole. It rose from 29,587 PJ in 2020-21 to 39,847 PJ in 2024-25, about 7.7 per cent a year, against 3.57 per cent a year from 2015-16 (MoSPI, 2026, Table 6.2, p. 62). In 2024-25 coal and lignite made up 60.8 per cent of that consumption, crude oil 28.8 per cent, natural gas 6.9 per cent, and primary electricity from non-thermal sources 3.4 per cent.Coal use reached 1,269 million tonnes in 2024-25, and the power sector took 76 per cent of it (MoSPI, 2026, Table 6.1 and Section 6.3, pp. 57, 62). Consumption of petroleum products reached 239.22 million tonnes. Diesel made up 38 per cent of that, petrol 17 per cent, LPG 13 per cent and petroleum coke 9 per cent. Petrol grew 7.48 per cent in a year, much faster than diesel (MoSPI, 2026, Section 6.5, pp. 58–59). Fertiliser plants used 28.77 per cent of natural gas and city gas networks 21.14 per cent, and about 37 per cent of gas went to non-energy uses (MoSPI, 2026, Section 6.6, p. 60). These sector splits are less certain than they look. The Expert Committee points out that most coal used outside power, and nearly all diesel, is not recorded by final user at source, so MoSPI has to estimate how it is divided (ECES, 2026, pp. 15–19; Section 3.5). For diesel, a survey of 3,000 high-sales fuel stations by CRISIL for the Petroleum Planning and Analysis Cell implies that about 78 per cent of the diesel sold through retail outlets in 2023-24 went to road transport (ECES, 2026, Table 10, p. 19). The energy balance shows where final energy goes. Total final consumption was 608,578 KToE in 2024-25, up 3.57 per cent (MoSPI, 2026, Table 7.6, p. 85). Industry took 47.5 per cent, transport 23.7 per cent, residential, commercial, agricultural and other uses 24.8 per cent, and non-energy uses 4.0 per cent. Residential use grew fastest, by 8.04 per cent (MoSPI, 2026, p. xii). Only about 65 per cent of primary supply reaches end users, which is the cost of a system that turns most of its coal into electricity. Electricity is taking a larger share of final energy. Its share of total final energy consumption rose from 18.35 per cent in 2015-16 to 22.93 per cent in 2024-25 (MoSPI, 2026, Table 8.12, p. 114). Electricity consumption grew 32 per cent between 2020-21 and 2024-25, to 1,622,969 GWh (MoSPI, 2026, Table 6.8, p. 74). Industry used 40.4 per cent of it, households 25.2 per cent and agriculture 16.0 per cent. Household demand rose 10.69 per cent in 2024-25, while agricultural use fell 5.52 per cent. Per capita electricity use reached 1,153 kWh, about 48 per cent more than in 2015-16 (MoSPI, 2026, p. xii). Transmission and distribution losses fell from 20.73 per cent in 2020-21 to 17.52 per cent, but that still meant 302,306 GWh lost in 2024-25 (MoSPI, 2026, Table 6.9, p. 75).

4.5 Electricity: Capacity Has Shifted, Generation Much Less

The clearest result in the five reports is how differently capacity and generation have moved. Utility generating capacity rose from 382,151 MW in March 2021 to 475,212 MW

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in March 2025 (MoSPI, 2026, Table 2.3A, p. 25). Renewable capacity other than large hydro rose 82.5 per cent, from 94,434 to 172,368 MW, while thermal capacity rose 5.2 per cent. Renewables supplied 84 per cent of the net capacity added in those four years. In 2024-25 alone, grid-interactive renewable capacity grew 20 per cent, with solar making up 61.29 per cent of it and growing 29.13 per cent in the year (MoSPI, 2026, Section 2.5, p. 18). Three years earlier, solar had made up 49.1 per cent of renewable capacity (MoSPI, 2023, p. 16).



MoSPI, Energy Statistics India 2026, Table 2.3(A), p. 25 and Table 8.13, p. 114; shares computed by the author

Figure 3: Non-Fossil Sources' Share of Utility Capacity Rose About 17 Percentage Points Over the Decade, While Their Share of Generation Rose About 6 Points

Generation has barely moved. Thermal plants produced 78.22 per cent of electricity in 2020-21 and 77.01 per cent in 2024-25, and in 2023-24 their share went back up to 78.54 per cent (MoSPI, 2026, Table 8.13, p. 114). Renewables other than hydro rose from 9.66 to 13.00 per cent of generation, but most of that gain offset a smaller hydro share. The two series measure different things: capacity is utilities only, while generation includes captive plants. The divergence is still too large to be a matter of definition. In the author's reading, it reflects the lower utilisation of solar and wind plants compared with coal plants that run around the clock, and the fact that new renewable output is mostly meeting growth in demand rather than replacing existing coal generation. Deshmukh et al. (2021) find the same pattern in their modelling: large renewable targets mainly reduce how much coal plants run rather than avoiding new ones.

4.6 The Primary Energy Mix: Coal Holds, Oil Slips, Renewables Edge Up

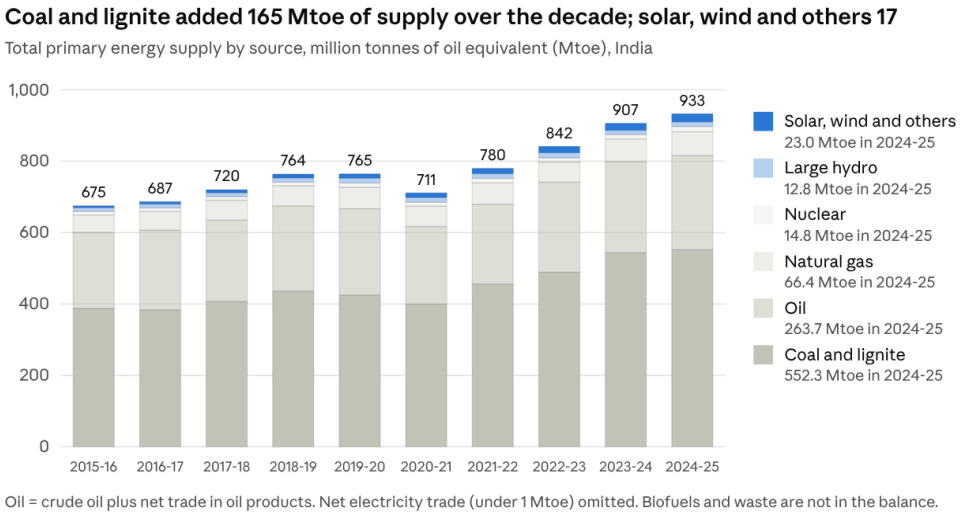
The fuel shares of total primary energy supply show what the transition amounts to in practice (MoSPI, 2026, Table 8.11, p. 113). Coal's share went from 57.41 per cent in 2015-16 to 59.21 per cent in 2024-25, after a peak of 60.02 per cent in 2023-24. Crude

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oil's share fell from 36.29 to 29.79 per cent. That fall reflects faster growth elsewhere, since crude use rose in absolute terms.

Natural gas stayed near 7 per cent. Renewable energy, including hydro, rose from 2.41 to 3.84 per cent, and nuclear stayed at about 1.5 per cent.

Solar, wind and other new renewables are growing fast from a small base. Their primary supply rose from 5,833 KToE in 2015-16 to 23,032 KToE in 2024-25, a compound rate the 2026 edition puts at close to 16.5 per cent a year (MoSPI, 2026, p. xii; Annexure IV, Table I; Table 7.6). That still left them at 2.5 per cent of total primary energy supply. Total supply itself rose from 675,395 to 932,816 KToE over the decade, so the absolute growth in coal supply over the same period (164,018 KToE) was more than nine times the growth in new renewables (17,199 KToE).

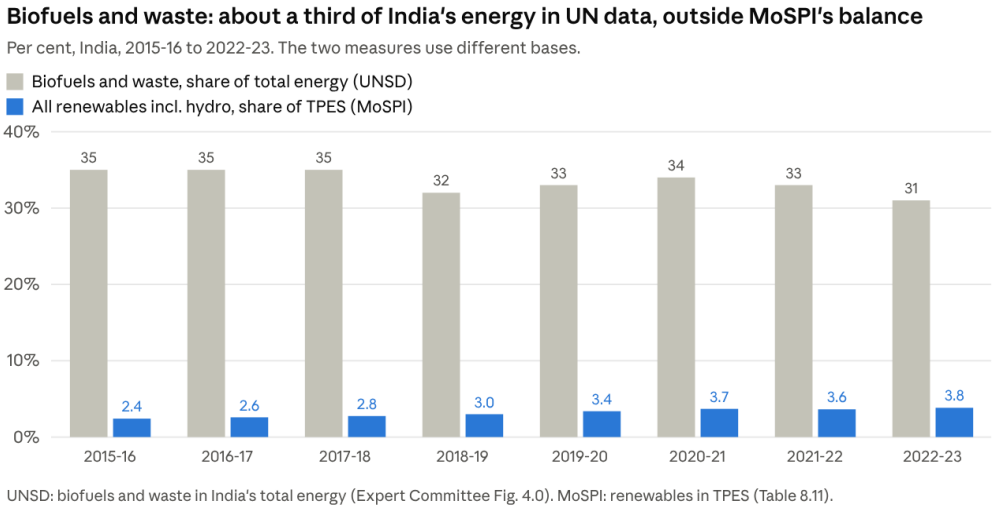


MoSPI, Energy Statistics India 2026, Annexure IV (Tables I–VIII) and Tables 7.2 and 7.6; aggregation by the author

Figure 4: Total Primary Energy Supply Rose from 675 to 933 Mtoe between 2015-16 and 2024-25. Most of the Increase Came From Coal and Lignite

These shares cover commercial energy only. UN data compiled by the Expert Committee put biofuels and waste at 31 per cent of India's total energy in 2022-23. In MoSPI's supply figures for the same year, all renewables including hydro made up 3.83 per cent (Figure 5; ECES, 2026, p. 23; MoSPI, 2026, Table 8.11). The two measures are not calculated on the same basis. Still, the gap shows how much energy, from fuels such as firewood, bagasse and dung cake, lies outside the official balance. The committee has recommended adding biofuels using a method developed by the Ministry of New and Renewable Energy (MNRE) and The Energy and Resources Institute (TERI). The method would also remove the double counting of ethanol and biodiesel that are already blended into petrol and diesel (ECES, 2026, pp. 23–24).

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Expert Committee on Energy Statistics (2026), Fig. 4.0, p. 23; MoSPI, Energy Statistics India 2026, Table 8.11, p. 113

Figure 5: The Official Balance Records Commercial Renewables Growing Slowly From A Small Base. Biomass Energy, Which the Balance Leaves Out, Is Far Larger

4.7 Efficiency, Intensity and Emissions

On the old GDP base, India's energy intensity fell from 0.2556 MJ per rupee in 2015-16 to 0.2190 in 2021-22, a 14 per cent improvement in six years (MoSPI, 2026, Table 8.1, p. 107). On the 2025 edition's figures, the improvement slowed to a small gain between 2022-23 and 2023-24, from 0.2192 to 0.2180 (MoSPI, 2025, p. xiii). On the new 2022-23 base the 2026 edition shows 0.1346, 0.1362 and 0.1329 for 2022-23 to 2024-25, which is essentially flat. The reports' indicator of conversion and distribution efficiency improved from 78.19 to 82.48 per cent over the decade (MoSPI, 2026, Table 8.3, p. 109). Per capita primary energy consumption rose from 22,629 MJ to 28,300 MJ (MoSPI, 2026, Table 8.1). Emissions data lag behind. The latest figures in the reports are for 2020, when energy-related emissions were 2,238,409 Gg CO_2-equivalent, with energy industries producing 56.53 per cent (MoSPI, 2026, Table 8.2 and Section 8.4.2, p. 96). Because 2020 was a pandemic year, the reports cannot show what the post-2021 coal surge did to emissions.

5. GLOBAL ECONOMIC AND POLITICAL CONTEXT, 2025–2026

The latest MoSPI data stop in March 2025. Since then, events abroad have tested the weak points identified in Section 4 more severely than any trend could. The figures in this section come from news and institutional reports, not from MoSPI. They are given as those sources reported them at the time and may be revised.

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5.1 War in the Gulf and the Hormuz Shock

The most serious event is the war involving Iran that began on 28 February 2026. It has repeatedly closed or restricted the Strait of Hormuz. Before the war, about 125 large vessels a day passed through the strait, carrying about a fifth of the world's crude oil and LNG supplies. In October 2026, after a partial recovery in September, flows fell again from 20.8 million barrels on 8 October to 2.9 million barrels on 11 October, as attacks on tankers increased. Brent crude closed at USD 105.69 a barrel on 13 October (Shankar, 2026). Union Bank of India's research team recorded Brent at USD 109 in mid-May and estimated that close to 20 per cent of global oil supply was disrupted (Union Bank of India, 2026).

Gas has been hit as hard as oil. Strikes on Qatar's Ras Laffan and Mesaieed facilities halted Qatari LNG production. That matters because India sources about 44 per cent of its LNG from Qatar and more than half of its natural gas imports from West Asia. In March 2026 the government issued the Natural Gas (Supply Regulation) Order, 2026. It rationed gas by sector and guaranteed fertiliser plants at least 70 per cent of their recent average use (The Wire Staff, 2026). This was the first real test of the gas import dependence that MoSPI recorded at 49.73 per cent in 2024-25.

5.2 Russian Oil, US Tariffs and Trade

Trade policy has shaped where India's crude comes from. In August 2025 the United States imposed an additional 25 per cent tariff on Indian goods because of India's purchases of Russian oil. A trade deal in early February 2026 removed that tariff, and President Trump said India had agreed to stop buying Russian oil (Singh, 2026). The joint statement of 6 February 2026 set an 18 per cent US tariff on Indian goods. It also recorded India's intention to buy USD 500 billion of US goods over five years, including energy products and coking coal (The White House, 2026).

The Gulf war then changed the situation. Washington issued short-term waivers for Russian oil already at sea (Singh, 2026), and India's imports of Russian crude rose to between 2.6 and 2.8 million barrels a day in June 2026, depending on the tracker (Press Trust of India, 2026; Singh, 2026). In September 2026 Congress passed, and the President signed, a law allowing tariffs of up to 100 per cent on large buyers of Russian energy. In mid-October 2026 the President waived its penalties. India was by then the largest buyer of Russian seaborne crude, averaging 1.8 million barrels a day in 2026, with Urals crude at a discount of about USD 23 a barrel to Brent in September (Press Trust of India, 2026). For a country that imports nearly 90 per cent of its crude, the choice of supplier has become a matter of foreign policy as well as price.

5.3 The Macroeconomic Cost

The oil shock reached the wider economy quickly. Between February and April 2026, wholesale price inflation rose from about 2 per cent to 8.3 per cent, and the fuel and power index rose 24.71 per cent. The merchandise trade deficit reached a record USD 28.4 billion in April. The rupee fell about 6 per cent against the dollar, and Moody's cut its

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growth forecast for India for 2026-27 from 6.8 to 6 per cent (Kumar & Prakash, 2026). Union Bank of India (2026) projected a 2026-27 current account deficit of 1.5 to 1.9 per cent of GDP, depending on oil prices, compared with about 0.9 per cent in 2025-26. It also recorded higher petrol and diesel prices and a rise in the gold import duty from 6 to 15 per cent to protect the rupee. Globally, the IMF's October 2026 outlook projects growth of 3.1 per cent and inflation of 4.7 per cent in 2026. It assumes oil averages USD 96 a barrel and that Hormuz shipments resume by March of next year. It still expects India to grow 7 per cent, the fastest of the major economies (Kurtenbach, 2026).

5.4 India's Policy Response

India has responded with tax, rationing, currency and monetary measures, in roughly that order.

Fuel taxes and supply. In late March 2026 the government cut the excise duty on petrol from ₹13 to ₹3 a litre and removed the ₹10 a litre duty on diesel. It reimposed export taxes on diesel (₹21.5 a litre) and aviation fuel (₹29.5 a litre) to keep fuel at home. One estimate put the annual fiscal cost at about ₹1.55 trillion. About 40 per cent of India's crude arrives through the Strait of Hormuz, and the government said that reserves would cover 74 days (Reuters, 2026). The Natural Gas (Supply Regulation) Order, 2026, introduced priority-based gas rationing (The Wire Staff, 2026). By mid-May, petrol and diesel prices had been raised by ₹3 a litre (Union Bank of India, 2026).

Currency defence. To support the rupee, the government raised the import duty on gold from 6 to 15 per cent from 13 May 2026. The RBI capped banks' net open foreign-exchange positions at USD 100 million a day and directed state-owned refiners to a special dollar credit window from 16 April, which reduced their purchases of dollars on the spot market. Foreign-exchange reserves stood at USD 696.99 billion on 8 May 2026, about 11 months of import cover (Union Bank of India, 2026).

Monetary policy. At its meeting of 5 to 7 October 2026, the RBI's Monetary Policy Committee voted unanimously to raise the repo rate by 25 basis points, from 5.25 to 5.50 per cent. The standing deposit facility rate rose to 5.25 per cent and the marginal standing facility rate to 5.75 per cent. The committee changed its stance from neutral to "calibrated tightening" and indicated that rate cuts were off the table in the near term. It projected 2026-27 CPI inflation at 5.2 per cent and GDP growth at 7.1 per cent. It cited the re-escalation of the West Asia conflict and sharp volatility in crude oil prices as sources of supply-side inflation pressure (Reserve Bank of India [RBI], 2026).

In the author's reading, these measures deal with the effects of import dependence (prices, the rupee and inflation) rather than its cause. The MoSPI series shows that cause clearly: crude import dependence near 90 per cent and gas dependence near 50 per cent (Section 4.3). A repo rate rise can restrain the second-round effects of an oil shock on prices, but it cannot reduce the amount of oil India has to import. That depends on the demand-side changes discussed in Section 6.2.

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5.5 The Power Sector and Climate Politics

The domestic power data for 2025 are more encouraging than the MoSPI series up to March 2025. Coal-fired generation fell 3.4 per cent in calendar year 2025, to 1,247 TWh, the first fall in five years. Renewable generation rose 22 per cent, and thermal coal imports fell 2.2 per cent ("India Posts First Coal Power Output Fall," 2026). The Centre for Research on Energy and Clean Air attributes about 44 per cent of the fall in fossil generation, relative to trend, to record clean-energy growth and about 36 per cent to milder weather. It notes that about 36 GW of new coal capacity is under construction, which could push coal plant use to unprecedented lows (Manojkumar N. et al., 2026). Non-fossil sources reached half of India's installed power capacity in mid-2025 (Reuters, 2025).

In climate diplomacy, India's NDC for 2035, submitted in April 2026, commits to cutting emissions intensity by 47 per cent from 2005 levels. Conditional on international finance, it also aims for 60 per cent of installed power capacity from non-fossil sources. Climate Action Tracker (2026) judges that current policies will exceed both targets. At the June 2026 Bonn talks, India said that "no new issues or obligations beyond agreed mandates" should be considered. It did not attend the April 2026 Santa Marta conference on transitioning away from fossil fuels, ahead of COP31 in Antalya (Basu, 2026). In the author's reading, these positions fit the pattern in the statistics: India is willing to commit on clean capacity but not to limits on coal.

6. DISCUSSION: THE FUTURE OF ENERGY IN INDIA

The MoSPI reports contain no forecasts, so any discussion of the future is an interpretation of past trends. To keep the two apart, each theme below begins with what the reports show, with citations. The author's reading follows under the label *Interpretation*.

6.1 Coal: A Long Plateau, Not A Quick Exit

What the reports show. Coal supplies about 79 per cent of domestic primary production and 59 per cent of primary supply. Its absolute supply grew by 164,018 KToE over the decade, and the power sector uses 76 per cent of it (MoSPI, 2026, Section 3.9, Table 8.11, Section 6.3). Reserves are rising faster than extraction, and coal import dependence fell to 23.50 per cent in 2024-25 (MoSPI, 2026, Table 8.14). Washery capacity, at 262.39 million tonnes a year, has grown much more slowly than output (MoSPI, 2026, p. x).

Interpretation. Within the next decade, coal is likely to stop growing rather than start shrinking. Electricity demand grew by about 5 to 7 per cent a year in the 2024-25 and 2023-24 data, and non-thermal generation is not yet growing enough to cover all of that increase. Until it does, coal output will keep rising in absolute terms even as its share edges down. The government's drive for domestic coal improves the import figures, but it also builds a large base of mines, plants and rail links that will be hard to run down later. Malik et al. (2020) estimate the size of this risk: 133 to 237 GW of coal capacity could be stranded after 2030 on a well-below-2°C pathway. Montrone et al. (2021) show that the

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push for domestic coal rests on concerns about electricity security and on jobs in coal regions, so the plateau will be shaped by politics as well as by technology and cost. The slow growth of washery capacity matters too: more raw, high-ash coal going to power stations has consequences for local air quality and efficiency that the reports do not measure. Because the reports' emission series ends in 2020, the climate cost of the post-pandemic coal surge cannot yet be measured from official statistics. The literature agrees that managing the plateau will need a planned transition for coal regions (Jakob et al., 2020; Spencer et al., 2018). Pai et al. (2020) suggest that solar, rather than wind, is the more realistic local replacement for coal-mining jobs. The 3.4 per cent fall in coal generation in 2025 (Section 5.5) suggests the plateau may come sooner than these trends imply, although one mild year does not make a trend.

6.2 Oil and Gas: The Real Energy Security Problem

What the reports show. Crude import dependence rose from 84.59 to 89.44 per cent over the decade. Domestic crude output fell 2.76 per cent a year, and the crude resources-to-production ratio is 23 years (MoSPI, 2026, Tables 3.1, 8.3 and 8.14). Gas import dependence is close to 50 per cent, estimated gas reserves fell by a fifth between 2021 and 2025, and the surplus in petroleum product exports has halved (MoSPI, 2026, Tables 1.3, 4.1 and 8.14). Petrol demand grew 7.48 per cent in 2024-25 (MoSPI, 2026, Section 6.5).

Interpretation. India's energy security risk lies in oil and gas, not coal. The IEA (2021) projected that oil import reliance would rise from about 75 per cent to about 90 per cent by 2040. On MoSPI's measure, crude oil dependence is already 89.44 per cent. The two figures are not directly comparable, since the IEA's covers oil as a whole and MoSPI's covers crude only, but both point the same way. The 2026 Hormuz crisis (Section 5.1) has already shown what this exposure costs. Nothing in the reserve figures suggests domestic production can reverse the trend, so the main levers are on the demand side: electrifying road transport, using more biofuels, and expanding public transport. Natural gas has often been described as a bridge fuel for India. The reports suggest that bridge is narrow. Gas's share of primary supply has stayed near 7 per cent for ten years, and each extra unit of gas demand adds to imports almost one for one. The falling product-export surplus deserves attention as well: if refinery expansion does not keep pace with demand, India's long position in refined fuels could disappear within a few years.

6.3 Renewables and the 2030 Aims

What the reports show. The 2026 edition records the aims of 500 GW of non-fossil capacity and half of electricity requirements from renewables by 2030 (MoSPI, 2026, Introduction, p. 1). In March 2025, utility capacity from large hydro, nuclear and renewables totalled 228,276 MW. That was 29,523 MW more than a year earlier (computed from MoSPI, 2026, Table 2.3A, p. 25). Renewables, including hydro, produced 20.24 per cent of electricity in 2024-25 (MoSPI, 2026, Table 8.13). Outstanding bank credit to renewable energy rose about six times between 2021 and 2025, to ₹10,325

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crore. Outstanding credit to petroleum, coal-product and nuclear-fuel industries was ₹1,54,178 crore in 2025 (MoSPI, 2026, Section 2.7, pp. 20–22).

Interpretation. The reports do not state which capacities count toward the 500 GW goal, so any comparison is approximate. On the utility figures alone, India would need to add about 54 GW of non-fossil capacity a year from 2025 to 2030, nearly double the 2024-25 pace. The generation aim is harder still. Renewables would have to go from about one-fifth to one-half of output in five years, after a decade in which their share rose by about six percentage points. In the author's view, the capacity aim is within reach if the 2024-25 acceleration continues and increases. The generation aim, read literally, is not consistent with the trend in these reports. The constraint is moving from building capacity to getting the energy into the grid: transmission, storage and flexible operation of the coal fleet. The reports contain no data on any of these, but the modelling literature supports this reading. Deshmukh et al. (2021) find that batteries become a cost-effective substitute for new fossil-fuel peaking plants only at capital costs near USD 150 per kWh. Gulagi et al. (2022) find that a mainly renewable system could be cheaper by 2050, but only with substantial storage and other sources of flexibility. Deshmukh et al. (2021) also question a solar-heavy mix, yet the 2026 data show solar's share of renewable capacity still rising, to 61.29 per cent. The 2035 NDC's aim of 60 per cent non-fossil capacity (Section 5.5) is again a capacity target, so it does not address the gap between capacity and generation. The credit figures cover bank lending only, so they probably understate total renewable finance, but they still show conventional fuels taking far more bank credit than renewables.

6.4 Demand, Efficiency and Losses

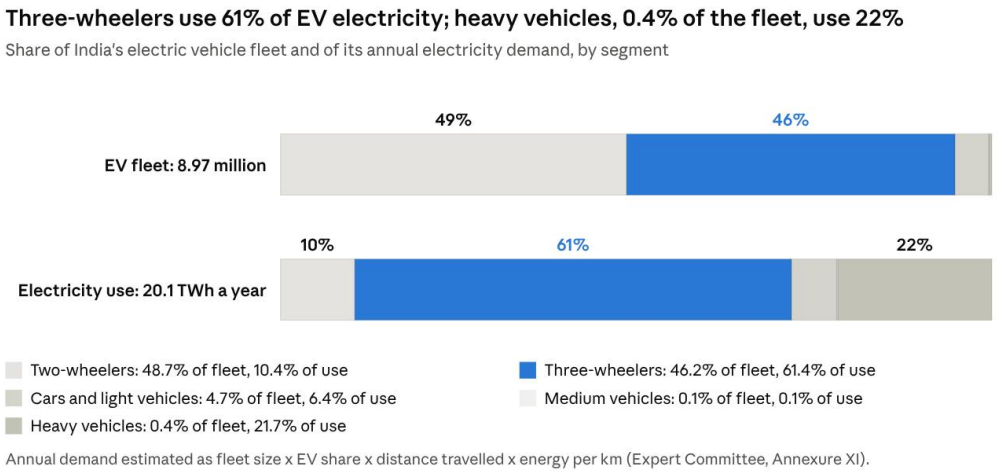
What the reports show. Electricity's share of final energy rose from 18.35 to 22.93 per cent over the decade, household electricity use grew 10.69 per cent in 2024-25, and per capita consumption reached 1,153 kWh (MoSPI, 2026, Tables 6.8 and 8.12; p. xii). Energy intensity on the new GDP base has been almost flat since 2022-23 (MoSPI, 2026, Table 8.1). Transmission and distribution losses were 17.52 per cent, or 302,306 GWh, in 2024-25 (MoSPI, 2026, Table 6.9).

Interpretation. Rising household demand, likely driven by cooling and appliances, will make up a growing share of total load, and that will make peak demand harder to manage. Demand is also growing faster than earlier projections assumed. The IEA (2021) expected India's energy demand to grow by about 35 per cent between 2019 and 2030. MoSPI's primary energy consumption grew by 23 per cent between 2019-20 and 2024-25 alone (MoSPI, 2026, Table 6.2, p. 62). The two measures differ, since MoSPI's excludes traditional biomass, but the comparison suggests the pandemic's effect on demand did not last. The flat intensity figures suggest the efficiency gains of 2015-2021 have slowed, though the GDP base break means this conclusion is tentative until MoSPI publishes the back series. Losses are the most overlooked opportunity in the data, and the problem is a long-standing one: Pargal and Banerjee (2014) link repeated central bailouts of the power sector to the weak performance of distribution companies. The electricity lost in transmission and distribution in 2024-25 equalled about two-thirds of all

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the electricity India generated from hydro, nuclear and renewables that year. Cutting losses to the levels of better-performing utilities would add supply without new plants or new emissions.

What the Expert Committee adds. Two new sources of demand are not yet in the statistics. Annual sales of electric vehicles rose from about 50,000 in 2016 to more than 2.3 million in 2025, about 8 per cent of new registrations. EVs now use about 20 TWh of electricity a year, around 1.1 per cent of generation. NITI Aayog estimates cited by the committee put this at 100 to 640 TWh by 2030 (ECES, 2026, pp. 31–32). Three-wheelers account for 61 per cent of current EV electricity use, though they make up less than half the fleet (Figure 6). Off-grid solar, mainly irrigation pumps under the PM-KUSUM scheme, supplies an estimated 5,700 to 8,600 GWh a year that the consumption figures do not capture (ECES, 2026, pp. 29–30). In the author's reading, solar pumps may explain part of the 5.52 per cent fall in recorded agricultural electricity use in 2024-25 (Section 4.4), but the statistics cannot yet confirm this.



Expert Committee on Energy Statistics (2026), Fig. 5.0, p. 32; shares computed by the author

Figure 6: Ev Electricity Demand Is Driven By Heavily Used Commercial Vehicles, Not By the Number of Vehicles, So Charging Infrastructure and Grid Planning Should Follow Three-Wheelers and Heavy Vehicles

6.5 What the Statistics Themselves Need

Interpretation. MoSPI has improved the series considerably, adding energy accounts, domestic conversion factors, audited final balances, credit flows and a finer industry breakdown. The 2026 Expert Committee has set out much of what remains to be done. It recommends adding biofuels, bunker fuels and off-grid output to the balance, and demand-side surveys led by the Bureau of Energy Efficiency over a ten-year timeline. It also recommends common conversion factors across ministries, state-level energy statistics, and expert review of each edition before release (ECES, 2026, pp. iii–v, 25–28,

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38–40). Three needs that matter for following the transition fall outside its recommendations: energy-sector emissions within two years of the reference year, rather than four or more; plant load factors and curtailment by source; and storage and transmission capacity. A published log of revisions, explaining the larger changes between provisional and final figures such as those set out in Section 3.2, would also help users.

7. CONCLUSION

Read together, the five editions of *Energy Statistics India* from 2022 to 2026 describe an energy system that has grown quickly and changed slowly. Between 2020-21 and 2024-25, primary production rose by about two-fifths and consumption by about a third. Coal output passed a billion tonnes. Renewable capacity nearly doubled, and the non-fossil share of utility capacity approached half. Over the same period coal kept its share of primary supply, thermal plants still generated more than three-quarters of India's electricity, crude oil import dependence reached the highest level in the ten-year series, and gas import dependence returned to about half.

The main finding is the gap between capacity and generation shown in Section 4.5. India is building clean capacity at a rate few countries match, but that capacity is so far adding to fossil supply rather than replacing it. This fits modelling studies that expect India's coal capacity to keep growing to 2030 (Malik et al., 2020) and that find renewables mainly reduce how much coal plants run (Deshmukh et al., 2021). For the next decade, the data point to a coal plateau rather than a coal decline, to oil and gas as the main security risk, and to grid integration rather than capacity building as the constraint on the 2030 aims. These are interpretations, and the reports cannot confirm them until they include emissions data, utilisation data and a consistent GDP back series. The statistics themselves are a resource worth protecting. Each edition improves on the last, and anyone citing them should use the latest edition and treat provisional figures as subject to revision.

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31) *Note on in-text citations:* "MoSPI" is used as the short form of the author. Page numbers are the printed page numbers of each report; Roman numerals refer to executive summary pages. Each edition is dated by its title year, which is how MoSPI labels the series.