Infomerics Analytics & Research

CIN: U74999DL2020PTC369018

Flat No.108, Golf Apartments, Sujan Singh Park New Delhi – 110 003
iar@infomerics.com, Phone: +9111 41410243, 4141 0244,

Electrical Wires, Cables, Conductors and Winding Wires Industry Landscape

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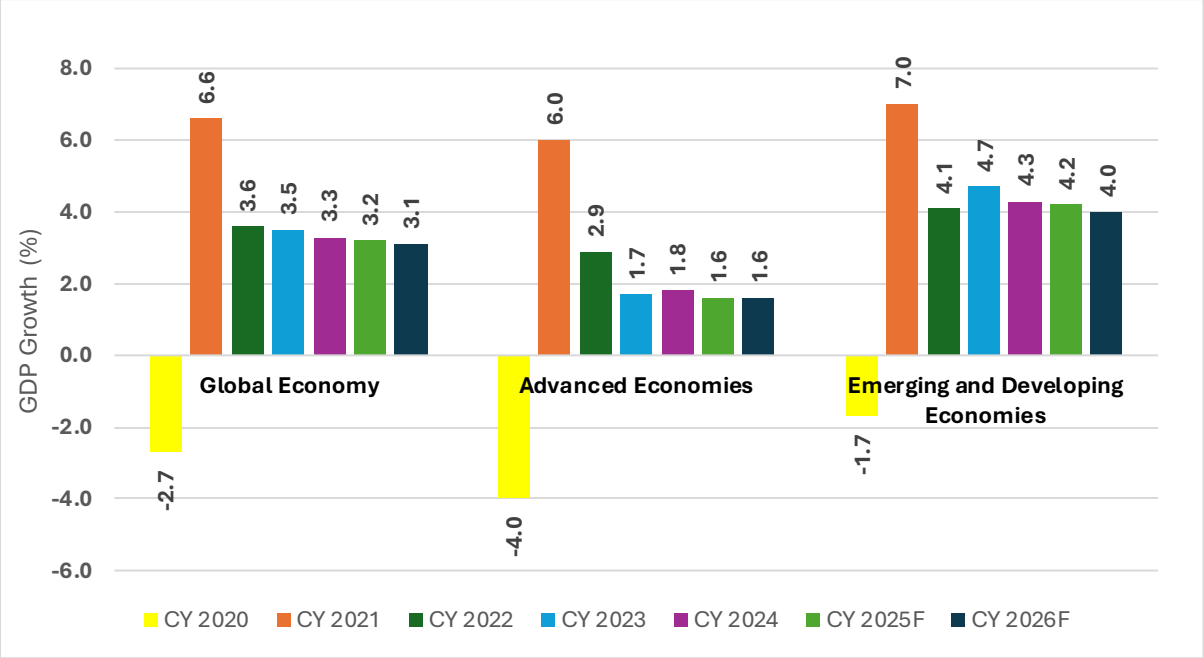
Table of Contents

1. Global Economic Outlook

The global output is expected to grow by 3.2% in CY 2025, down from 3.3% in CY 2024, and moderating to 3.1% in CY 2026. This deceleration reflects a combination of lingering trade tensions, policy uncertainties, and region-specific structural challenges.

Global inflation is expected to ease, with headline inflation forecast at 4.2% in CY 2025 and 3.7% in CY 2026, supported by tighter monetary policies in advanced economies, improving labour market conditions, and the gradual resolution of supply-side disruptions. Global trade growth is set to moderate to 3.6% in CY 2025 and further to 2.3% in CY 2026, reflecting the impact of elevated trade barriers and geopolitical instability.



F – Forecast, Source – IMF World Economic Outlook October 2025

Note: Advanced Economies and Emerging & Developing Economies are as per the classification of the World Economic Outlook (WEO). This classification is not based on strict criteria, economic or otherwise, and it has evolved over time. It comprises of 40 countries under the Advanced Economies including the G7 (the United States, Japan, Germany, France, Italy, the United Kingdom, and Canada) and selected countries from the Euro Zone (Germany, Italy, France etc.). The group of emerging market and developing economies (156) includes all those that are not classified as Advanced Economies (India, China, Brazil, Malaysia etc.)

Advanced Economies are projected to slow, with GDP growth at 1.6% in CY 2025 and CY 2026. The United States is expected to expand by 2.0% in CY 2025 and 2.1% in CY 2026, supported by resilient consumer spending despite fiscal and trade pressures. The Euro Area faces

subdued growth at 1.2% in CY 2025, with Germany at 0.2% and France at 0.7%, amid lingering trade disruptions and domestic challenges. Japan's growth is forecast at 1.1% in CY 2025, reflecting weak domestic demand, while the United Kingdom is projected to grow at 1.3%.

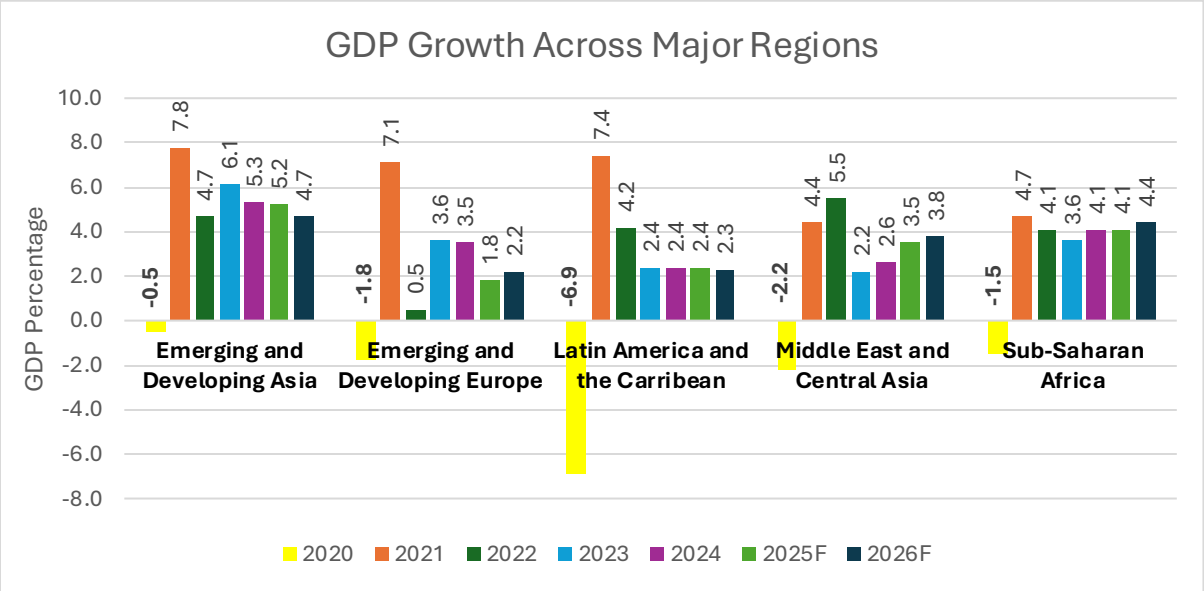
Emerging Markets and Developing Economies are expected to maintain moderate expansion, with GDP growth of 4.2% in CY 2025 and 4.0% in CY 2026. China's growth is projected at 4.8% in CY 2025, slightly higher than previously expected, constrained by real estate sector weakness and soft consumer demand. India is projected to grow at 6.6% in CY 2025 and 6.2% in CY 2026, driven by robust rural consumption, infrastructure investment, favourable demographics, and digitalisation. Other key economies, including Brazil (2.4%) and Russia (0.6%) in CY 2025, are expected to grow more slowly amid structural and geopolitical challenges.

Global commodity prices are anticipated to remain volatile. Oil prices are projected to decline by 12.9% in CY 2025, following a 1.8% decline in CY 2024, before recovering moderately in CY 2026. Non-fuel commodities are expected to increase by 7.4% in CY 2025, driven by agricultural and industrial demand.

Overall, the global economic outlook indicates slowing growth, easing inflation, and continued uncertainty due to geopolitical tensions and trade fragmentation. Nevertheless, India stands out as a relative growth leader among major economies, supported by macroeconomic stability, demographic advantages, and continued investment-led expansion.

1.1 GDP Growth across Major Regions

GDP growth across major global regions—including Europe, Latin America & the Caribbean, Middle East & Central Asia, and Sub-Saharan Africa—continues to display varied trajectories. While some regions are stabilizing post-pandemic, others remain challenged by structural and cyclical issues. The global outlook presents a mixed scenario, with emerging economies continuing to outperform advanced economies.



Source-IMF World Economic Outlook October 2025 update

In Emerging and Developing Asia, growth is projected to moderate from 5.3% in CY 2024 to 5.2% in CY 2025, before slightly declining to 4.7% in CY 2026. India is expected to grow at 6.6% in CY 2025, supported by resilient rural consumption and sustained infrastructure investments, up from 6.5% in CY2024. In contrast, China's growth is anticipated to decelerate to 4.8% in CY2025, amid persistent real estate concerns and subdued domestic demand.

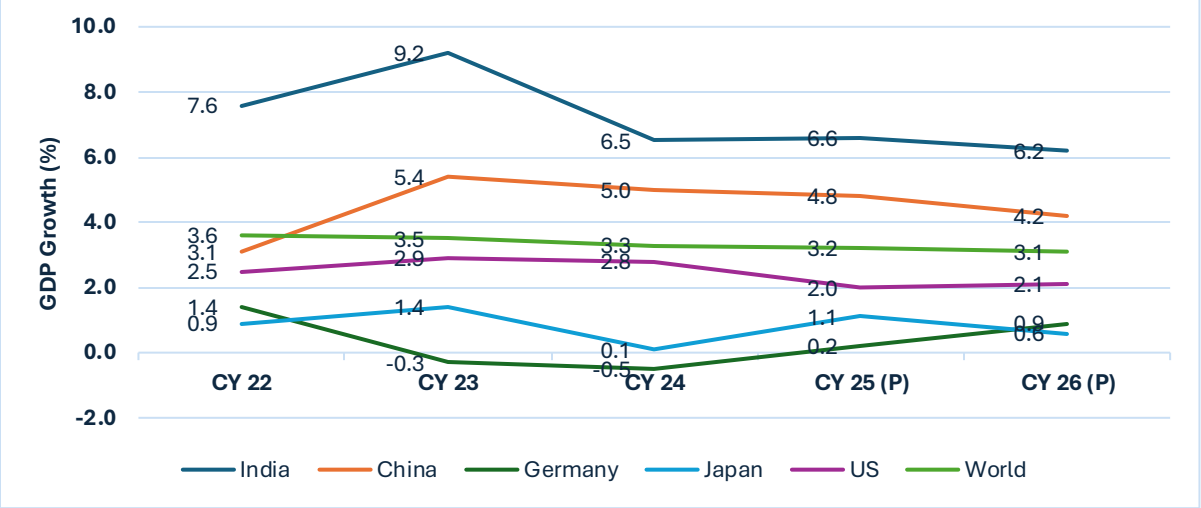
Sub-Saharan Africa is projected to grow at 4.1% in CY 2025, maintaining the same pace as CY 2024, with growth expected to accelerate slightly to 4.4% in CY 2026. This gradual improvement is being supported by better weather conditions and more efficient supply chain operations.

In the Middle East and Central Asia, the economy is forecasted to expand at 3.5% in CY 2025, up from 2.6% in CY 2024, and further strengthen to 3.8% in CY 2026, driven by stabilization in oil production and ongoing economic reforms.

For Latin America and the Caribbean, modest growth of 2.4% is forecast for CY 2025, unchanged from 2.4% in CY2024, with a slight moderation to 2.3% in CY2026, reflecting stable yet subdued economic momentum supported by stronger macroeconomic management across key economies.

Emerging and Developing Europe remains subdued, with growth estimated at 1.8% in CY 2025, down from 3.5% in CY 2024, expected to rise modestly to 2.2% in CY 2026. The region continues to face structural manufacturing challenges, particularly in major economies like Germany.

India and Top 4 Global Economies GDP Growth Forecast



Note: P = Projections, Source: IMF World Economic Outlook October 2025 update

Overall, while global growth is expected to remain steady at 3.2% in CY 2025, regional disparities persist, influenced by a combination of domestic challenges, external geopolitical tensions, and fluctuating commodity prices.

2. India's Macroeconomic Scenario

2.1 Gross Domestic Product (GDP)

India's real GDP has shown a glittering growth at 8.2% in the second quarter (Q2) of FY26 compared to the growth rate of 5.6% during Q2 of FY25, whereas nominal GDP has witnessed a growth rate of 8.7% in Q2 of FY 2025-26.

In its latest Economic Outlook, the OECD noted that India remains one of the fastest-growing major economies, supported by strong investment activity and resilient services. OECD highlighted that India's GDP is projected to grow by 6.7% in fiscal year 2025-26, 6.2% in 2026-27 and 6.4% in 2027-28. Despite some likely impact of the US tariff on Indian exports, private consumption will be supported by rising real incomes as inflation remains soft and low consumption/indirect taxes (GST). Going forward, investment will be sustained by declining borrowing costs and strong public capital expenditure. Current low headline inflation is projected to gradually converge towards the 4% target. Notably, India's Headline Inflation drops to 0.25 % in October 2025.

India's Economic Growth Momentum Remains Strong - Surpassed USD 4 Trillion.

In June 2025, India became the fourth-largest economy in the world and retained its position as the fastest-growing major economy. The country is projected to become the world's third largest economy by 2030, with an estimated GDP of USD 7.3 trillion.
Source: PIB, Press Release - India Becoming an Economic Powerhouse posted on June 16, 2025

India achieved a significant milestone by overtaking Japan to become the *third most powerful nation in the Asia-Pacific region*, as per the Asia Power Index 2024. India's overall score rose to 39.1, reflecting a 2.8-point increase from the previous year, driven by growing influence across economic, military, and diplomatic dimensions.
Source: PIB, Press Release - India becomes 3rd Most Powerful Nation in Asia, Surpasses Japan in Asia Power Index posted on September 24, 2024

Key factors behind India's rise include its strong economic performance, expanding and youthful workforce, and increasing strategic engagement across the region. India's Economic Capability improved significantly, supported by its position as the world's third-largest economy in terms of purchasing power parity (PPP). Additionally, a notable increase in its Future Resources score highlights the demographic advantage that is expected to sustain its growth trajectory in the coming years.

2.2 Gross Value Added (GVA)

Real GVA in Q2 of FY 2025-26 is estimated at ₹44.77 lakh crore, against ₹41.41 lakh crore in Q2 of FY 2024-25, registering a growth rate of 8.1%. Nominal GVA in Q2 of FY 2025-26 is estimated at ₹77.69 lakh crore, against ₹71.45 lakh crore in Q2 of FY 202425, showing a growth rate of 8.7%.

Quarterly Estimates of GVA at Basic Prices for Q2 (July-September) 2025-26 (at 2011-12 Prices) (₹ Crore)

Sector	GVA at Basic Price						Percentage Change Over Previous Year			
	2023-24		2024-25		2025-26		2024-25		2025-26	
	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2	Q1	Q2
1. Primary Sector	**6,24,534**	**5,22,188**	**6,38,065**	**5,40,666**	**6,55,701**	**5,57,501**	**2.2**	**3.5**	**2.8**	**3.1**
1.1 Agriculture, Livestock, Forestry & Fishing	5,40,008	4,56,998	5,47,919	4,75,765	5,68,374	4,92,623	1.5	4.1	3.7	3.5
1.2. Mining & Quarrying	84,526	65,190	90,146	64,901	87,327	64,878	6.6	-0.4	-3.1	-0.04
2. Secondary Sector	**10,89,237**	**11,27,299**	**11,82,833**	**11,72,416**	**12,65,896**	**12,67,823**	**8.6**	**4.0**	**7.0**	**8.1**
2.1. Manufacturing	6,56,922	7,05,592	7,06,798	7,20,846	7,61,394	7,86,670	7.6	2.2	7.7	9.1
2.2. Electricity, Gas, Water Supply & Other Utility Services	96,203	1,00,019	1,05,981	1,02,970	1,06,470	1,07,519	10.2	3.0	0.5	4.4
2.3. Construction	3,36,112	3,21,688	3,70,054	3,48,601	3,98,032	3,73,634	10.1	8.4	7.6	7.2
3. Tertiary Sector	**21,78,681**	**22,63,703**	**23,26,433**	**24,27,523**	**25,42,237**	**26,51,589**	**6.8**	**7.2**	**9.3**	**9.2**
3.1 Trade, Hotels, Transport, Communication & Services related to Broadcasting	6,53,847	7,13,765	6,89,172	7,57,326	7,48,348	8,13,369	5.4	6.1	8.6	7.4
3.2 Financial, Real Estate & Professional Services	10,55,657	10,47,187	11,25,793	11,22,890	12,32,476	12,37,877	6.6	7.2	9.5	10.2
3.3 Public Administration, Defence & Other Services*	4,69,176	5,02,752	5,11,468	5,47,308	5,61,413	6,00,343	9.0	8.9	9.8	9.7
GVA at Basic Prices	**38,92,452**	**39,13,191**	**41,47,331**	**41,40,606**	**44,63,834**	**44,76,914**	**6.5**	**5.8**	**7.6**	**8.1**
Net Taxes	**2,77,663**	**3,41,615**	**2,94,333**	**3,52,981**	**3,24,789**	**3,86,426**	**6.0**	**3.3**	**10.3**	**9.5**
GDP@	**41,70,114**	**42,54,806**	**44,41,664**	**44,93,587**	**47,88,623**	**48,63,340**	**6.5**	**5.6**	**7.8**	**8.2**

*Public Administration, Defence & Other Services category includes the Other Services sector i.e. Education, Health, Recreation, and other personal services @GDP (Production/Income Approach) = GVA at Basic Price + Net Taxes on Products

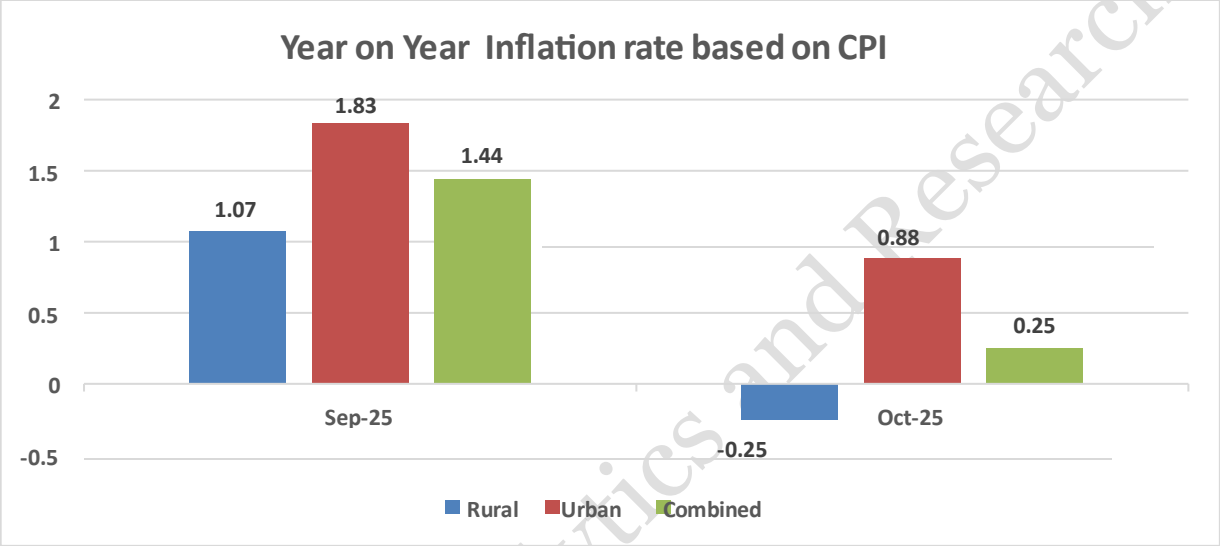
Major Highlights:

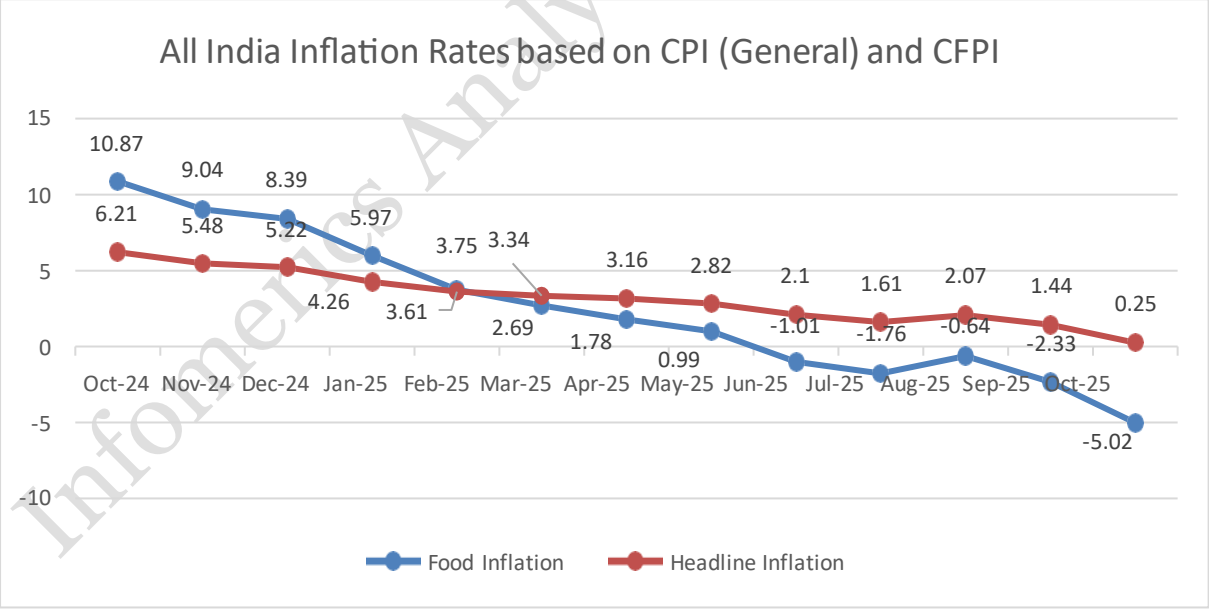
- Real GDP has been estimated to grow by 8.2% in Q2 of FY 2025-26 against the growth rate of 5.6% during Q2 of FY 2024-25.
- Nominal GDP has witnessed a growth rate of 8.7% in Q2 of FY 2025-26.
- The Secondary (8.1%) and Tertiary Sector (9.2%) has boosted the Real GDP growth rate in Q2 of FY 2025-26 to rise above 8.0%.
- Manufacturing (9.1%) and Construction (7.2%) in the Secondary Sector, has registered above 7.0% growth rate at Constant Prices in this quarter.
- Financial, Real Estate & Professional Services (10.2%) in the Tertiary Sector has sustained a substantial growth rate at Constant Prices in Q2 of FY 2025-26.
- Agriculture and Allied (3.5%) and Electricity, Gas, Water Supply and Other Utility Services Sector (4.4%) has seen moderated Real growth rate during Q2 of FY 2025- 26.
- Real Private Final Consumption Expenditure (PFCE) has reported 7.9% growth rate during Q2 of FY 2025-26 as compared to the 6.4% growth rate in the corresponding period of previous financial year.

2.3 Consumer Price Index (CPI)

CPI is at its lowest level

Year-on-year (YOY) inflation rate based on All India Consumer Price Index (CPI) for the month of October 2025 over October 2024 is 0.25% (Provisional). There is decrease of 119 basis points in headline inflation of October 2025 in comparison to September 2025. It is the lowest year-on-year inflation of the current CPI series.



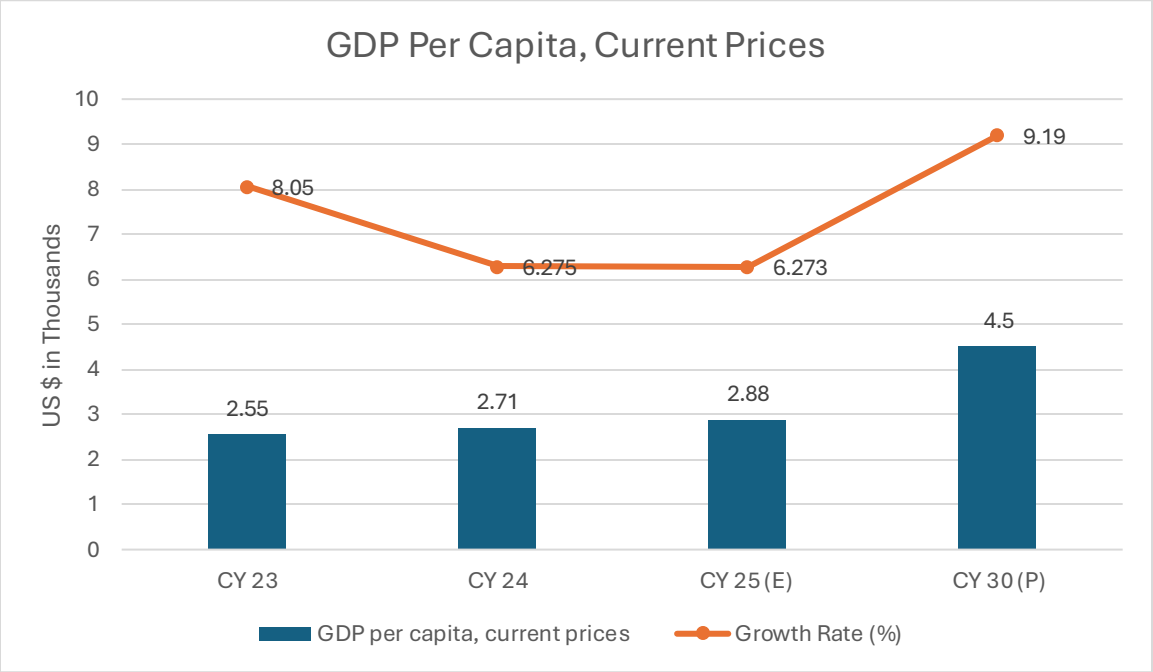


Source: MOSPI, GOI

The decline in headline inflation and food inflation during the month of October 2025 is mainly attributed to full month's impact of decline in GST, favorable base effect and to drop in inflation of Oils and fats, Vegetables, Fruits, Egg, Footwear, Cereals and products, Transport and Communication etc.

2.4 India Per Capita GDP Forecast

Per capita GDP growth for India is estimated at 9.19 % CAGR between CY2025-CY2030. Increased individual incomes are expected to create additional discretionary spending, which may be beneficial for the sector.



Note: E = Estimated, P = Projected

Source: IMF Data Mapper, World Economic Outlook April 2025, India, GDP Per Capita

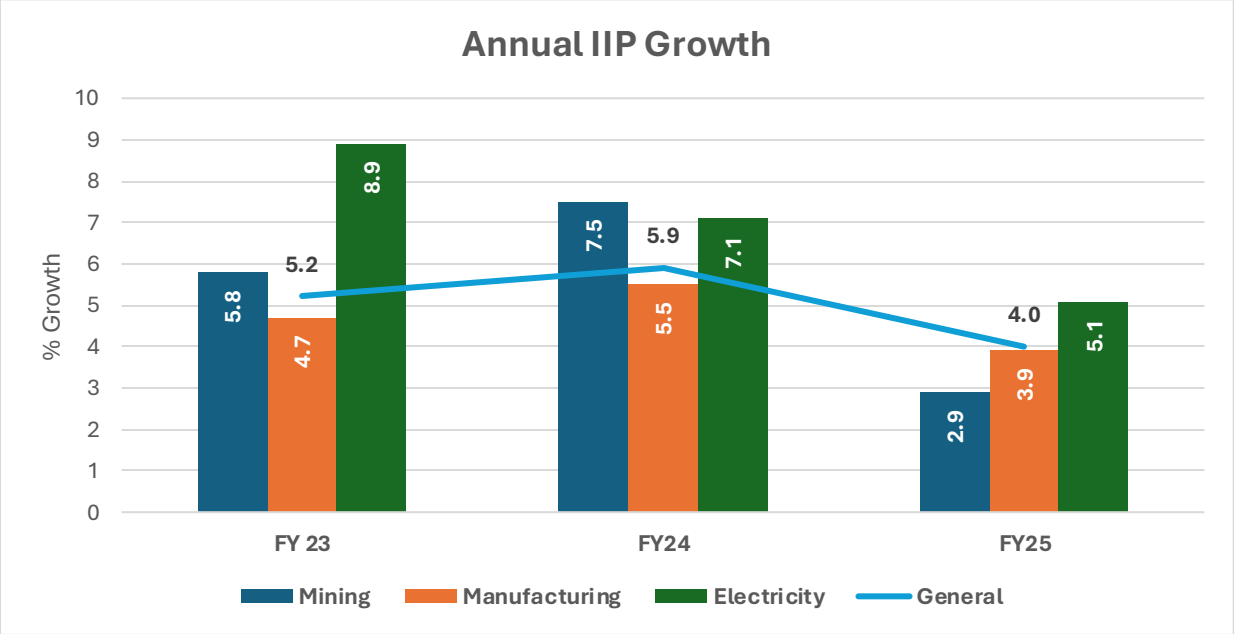
2.5 Index of Industrial Production (IIP) Growth Trends:

As per the Index of Industrial Production (IIP), the industrial sector grew by 4.0% in FY 2025, moderating from 5.9% in FY 2024 and 5.2% in FY 2023. This deceleration in overall IIP growth in FY 2025 reflects a softening of industrial momentum amidst global headwinds and tighter financial conditions.

Among key components:

- **Manufacturing** (which holds a 77.6% weight in IIP) registered a slower growth of 3.9% in FY 2025, compared to 5.5% in FY 2024 and 4.7% in FY 2023.
- **Mining** growth also moderated sharply to 2.9% in FY 2025 from 7.5% in FY 2024 and 5.8% in FY 2023.
- **Electricity** growth remained relatively stable at 5.1% in FY 2025, slightly down from 7.1% in FY 2024 and significantly lower than 8.9% in FY 2023.

This slowdown indicates tightening domestic demand and spillover effects from a weaker global industrial cycle.



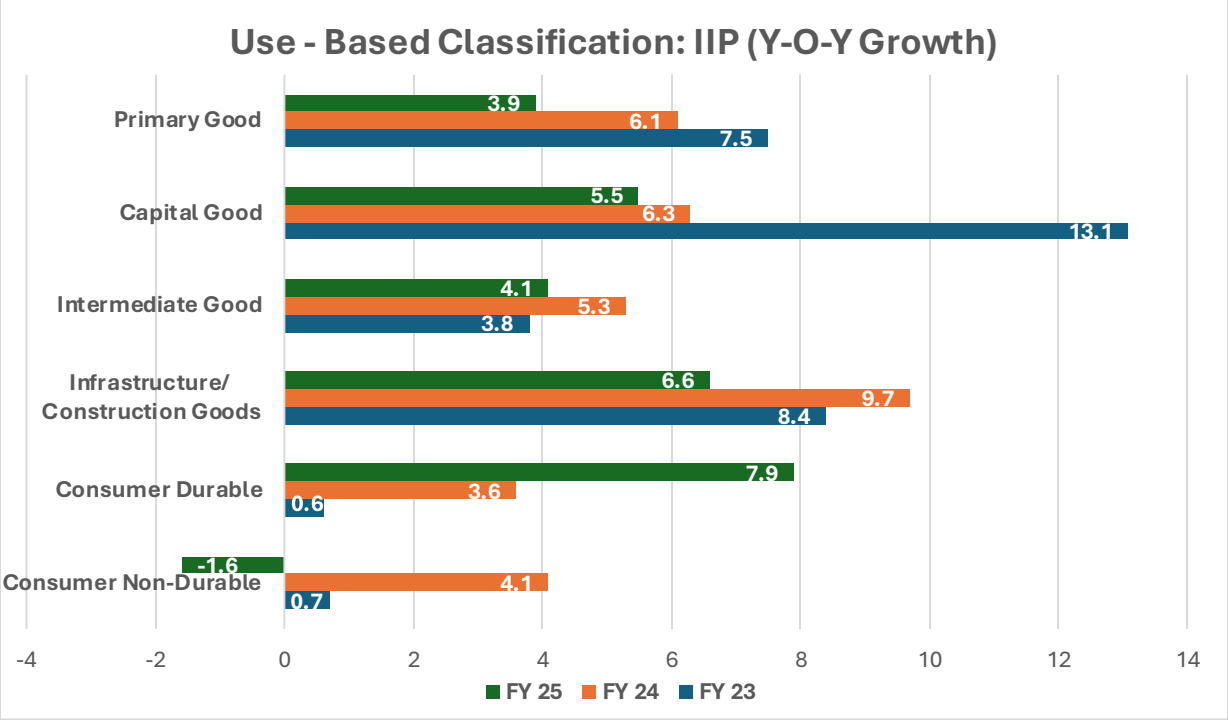
Source: Ministry of Statistics & Programme Implementation (MOSPI)

Latest IIP data in Oct'25 remains a tad low amid less activity during festival times

The Index of Industrial Production (IIP) slows a tad at 0.4% during Oct'25 due to less working days available amid festivals. The growth rates of the three sectors, Mining, Manufacturing and Electricity for the month of October 2025 are (-) 1.8 percent, 1.8 percent and (-) 6.9 percent respectively. Lower demand in October 2025 and subsequent decline in electricity generation was driven by extended rainfall season and comfortable ambient temperature across multiple States/UTs.

Source: Quick Estimate of Index of Industrial Production and Use-Based Index for the Month of October 2025, MOSPI, December 01, 2025 Release

Use-Based Classification Trends:



Source: Ministry of Statistics & Programme Implementation (MOSPI)

According to the use-based classification:

- Capital Goods segment growth slowed to 5.5% in FY 2025, down from a high of 13.1% in FY 2023 and 6.3% in FY 2024, indicating a reduction in investment momentum.
- Primary Goods also witnessed slower growth at 3.9%, compared to 6.1% in FY 2024 and 7.5% in FY 2023.
- Intermediate Goods rebounded modestly to 4.1% in FY 2025, up from 3.8% in FY 2023, although still lower than 5.3% in FY 2024.
- Infrastructure/Construction Goods slowed to 6.6% in FY 2025 from 9.7% in FY 2024 and 8.4% in FY 2023, pointing to softening construction and infrastructure activity.
- Consumer Durables grew significantly by 7.9%, rebounding from 3.6% in FY 2024 and 0.6% in FY 2023, indicating improved demand in consumer electronics and appliances.
- In contrast, Consumer Non-Durables contracted by 1.6% in FY 2025, reversing the 4.1% growth in FY 2024, likely reflecting subdued rural and essential goods demand.

  The divergence in growth across segments suggests an uneven industrial recovery in FY 2025. While certain consumer categories have rebounded, investment-related and primary sectors remain under pressure.

The latest growth rates of IIP as per Use-based classification in October 2025 over October 2024 are (-)0.6 percent in Primary goods, 2.4 percent in Capital goods, 0.9 percent in Intermediate goods, 7.1 percent in Infrastructure/ Construction Goods, (-) 0.5 percent in Consumer durables and (-)4.4 percent in Consumer non-durables. Based on use-based classification, top three positive contributors to the growth of IIP for the month of October 2025 are Infrastructure/ construction goods, Intermediate goods and Capital goods.

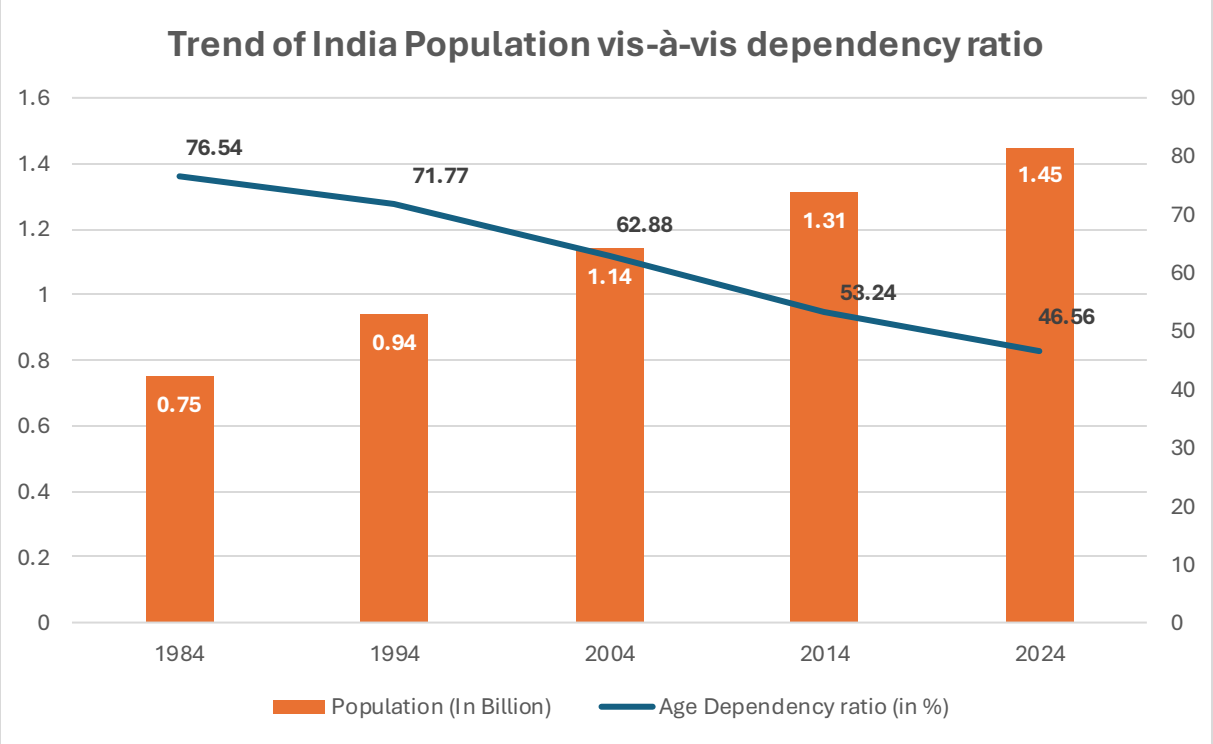
2.6 Overview on Key Demographic Parameters

2.6.1 Population growth and Urbanization

India's economic trajectory and consumption dynamics are closely tied to its demographic shifts. According to the World Bank, India's population expanded from approximately 0.75 billion in 1984 to 1.45 billion in 2024, consolidating its position as the world's most populous nation. This growth underlines the emergence of a vast labour force and consumer base, essential for driving sustained economic progress.

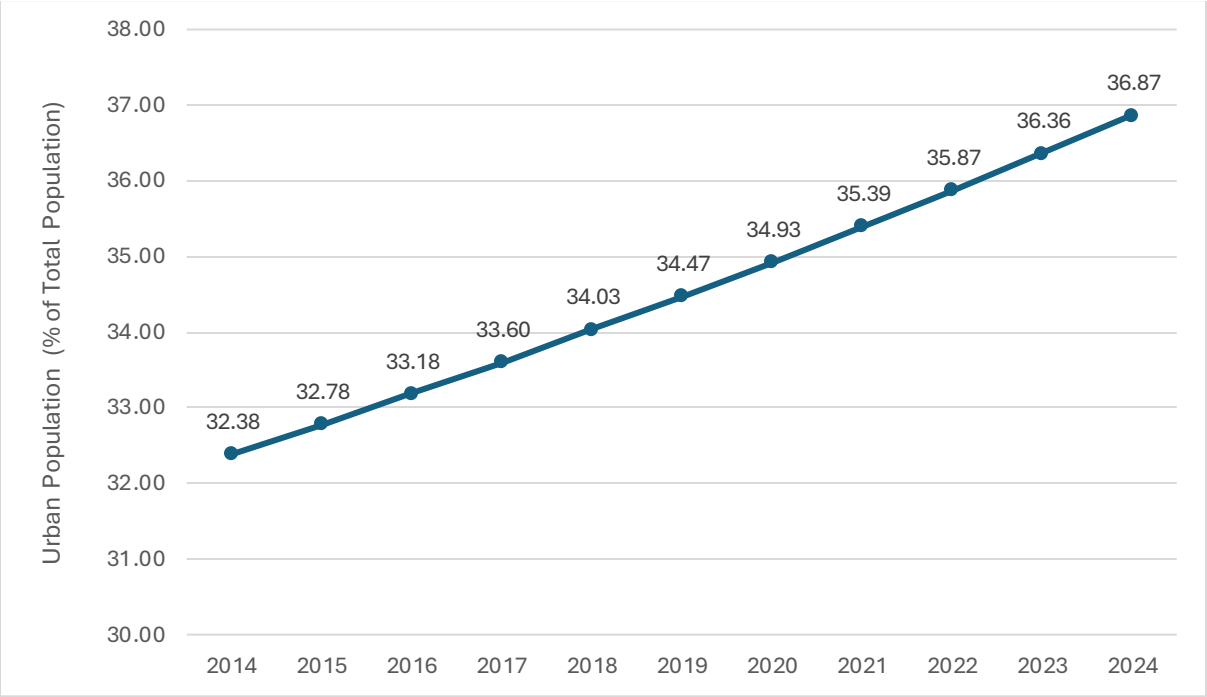
A key demographic indicator—the age dependency ratio—has witnessed a steady decline over the last four decades. From a high of 76.54% in 1984, it reduced to 71.77% in 1994, 62.88% in 2004, and 53.24% in 2014, before reaching a low of 46.56% in 2024. This downward trend signifies that for every 100 working-age individuals, there are now fewer than 47 dependents, compared to over 76 dependents in the mid-1980s. Such a shift reflects a growing share of the working-age population, unlocking India's demographic dividend—a critical driver of productivity, savings, and investment.

Together, the rising total population and declining dependency ratio provide a dual advantage: a larger workforce capable of supporting economic activity and a lower demographic burden, which allows for higher disposable incomes and consumption growth. These demographic fundamentals form a strong backbone for India's long-term economic and private consumption expansion.



Source: World Bank Database, Infomerics Analytics & Research

Urbanization Trend in India



Source: World Bank Database

Urbanization, too, is transforming India's socio-economic fabric. The urban population rose from 424.96 million in 2014 (32.38% of total population) to 522.93 million in 2023 (36.36%), and further to approximately 534.91 million in 2024 (36.87%), according to World Bank estimates. This rapid growth in urban areas underscores the need for sustainable urban planning, investment in infrastructure, and development of smart cities to accommodate and benefit from the shifting population dynamics.

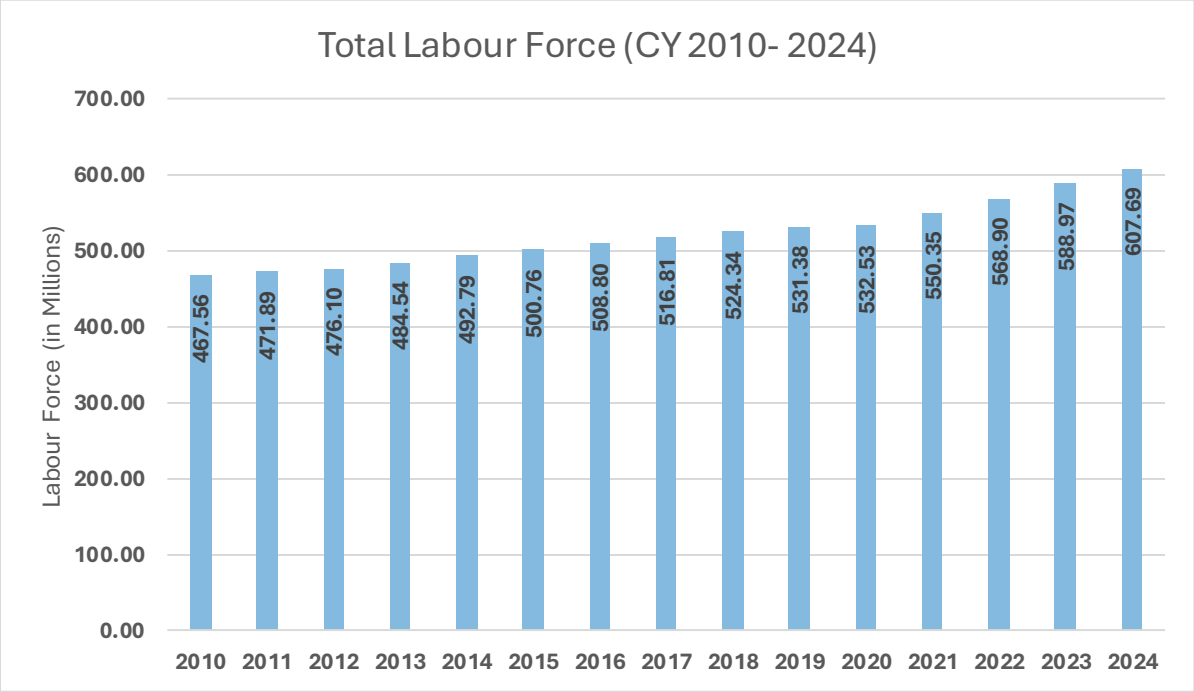
2.6.2 Labour Force in India

India's labour force has experienced significant growth over the past decade. In 2010, the total labour force was approximately 467.56 million. By 2024, this number had increased to 607.69 million, reflecting a Compound Annual Growth Rate (CAGR) of 1.89% over the 14-year period.

This upward trend underscores the expanding working-age population and the country's ongoing economic development. However, it also highlights the need for effective employment policies to ensure that the growing labour force is adequately absorbed into productive sectors.

The labour force participation rate (LFPR) has also seen fluctuations, influenced by various socio-economic factors. As of 2024, the LFPR stood at 45.1%, indicating the percentage of the working-age population that is either employed or actively seeking employment.

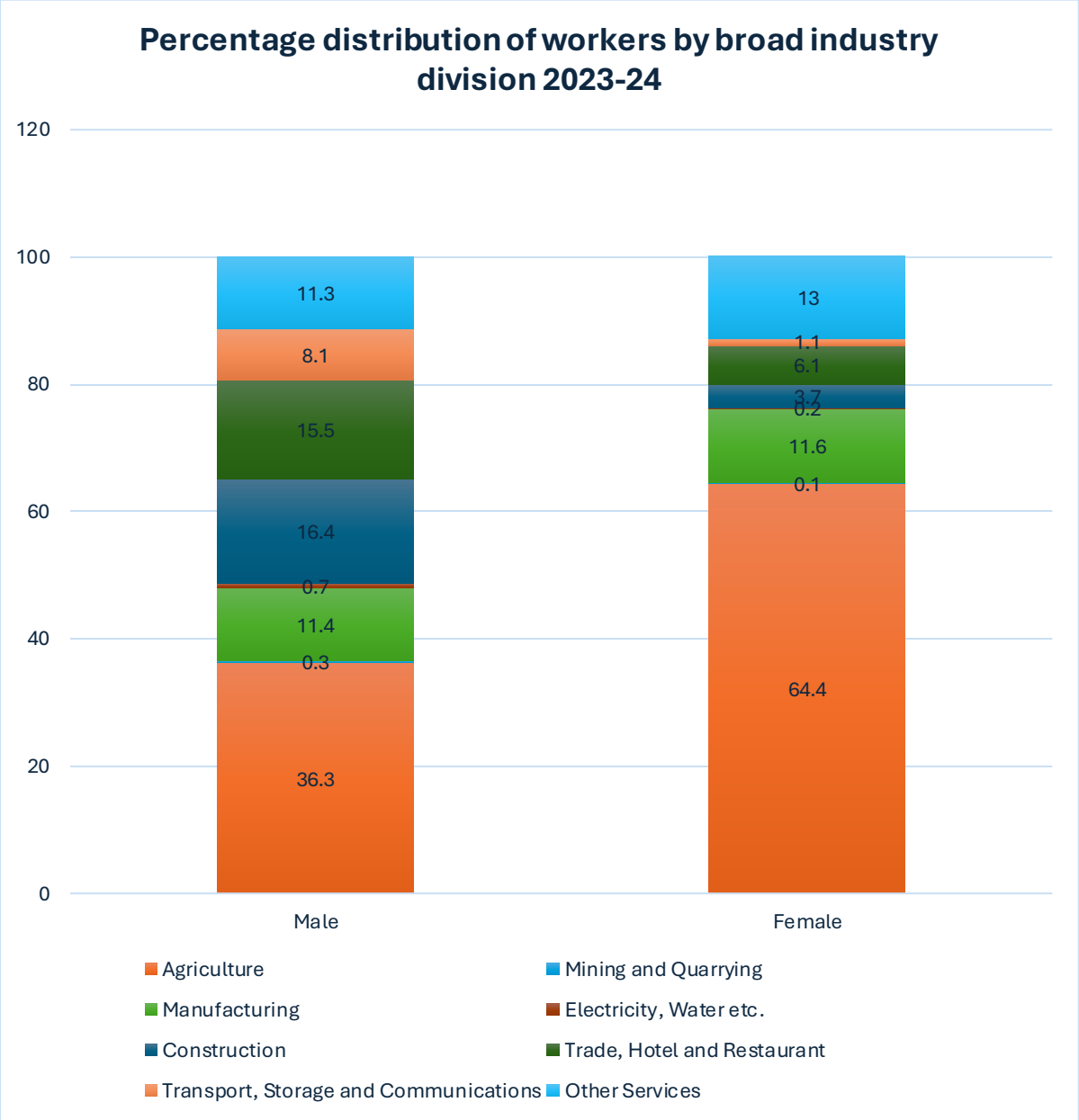
These statistics emphasize the importance of implementing strategies that not only create employment opportunities but also enhance the quality and inclusivity of jobs across different sectors of the economy.



Source: World Bank Database

2.6.3 Breakdown of Employment by Sector

According to the Periodic Labour Force Survey (PLFS) 2023–24, the employment distribution across various sectors exhibits distinct gender-based patterns. A significant portion of male workers are engaged in agriculture, followed by notable participation in construction, manufacturing, and trade-related activities. In contrast, female workers are predominantly employed in agriculture, with considerable involvement in manufacturing and other services sectors. While female representation in trade and construction is lower compared to males, Additionally, a substantial proportion of employed women are self-employed, often contributing as unpaid helpers in household enterprises or operating small businesses, indicating a reliance on informal employment avenues.

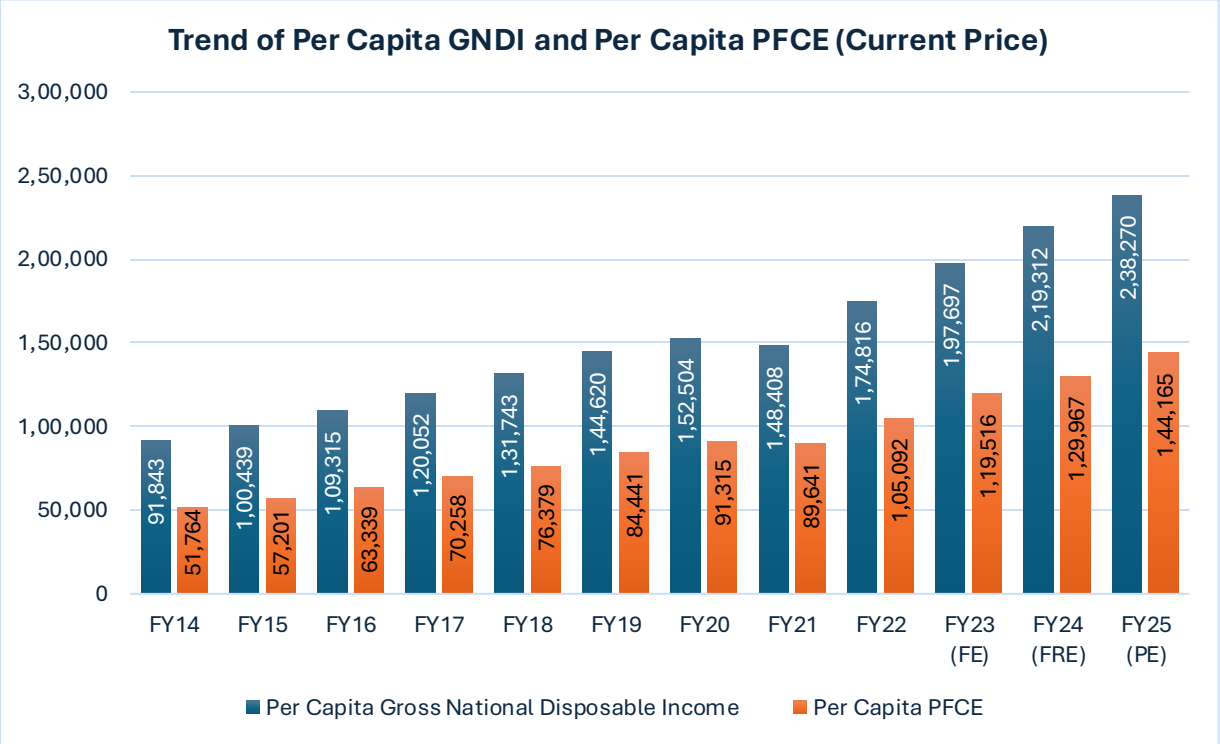


Source: Annual Report 2023-24, Periodic Labour Force Survey

2.6.4 Disposable Income and Consumer Spending

Gross National Disposable Income (GNDI) represents the total income available to a nation's residents for consumption and saving after accounting for income transfers with the rest of the world. In FY24, Per capita GNDI grew by 10.9%, followed by a moderate growth of 8.6% in FY25. This steady increase indicates that households and businesses had more income at their disposal, which is critical for supporting both consumption and savings—key components of economic resilience and expansion.

The rise in GNDI has translated into higher consumer spending, as reflected in the growth of Private Final Consumption Expenditure (PFCE), which measures the total value of goods and services consumed by households. Per Capita PFCE grew by 8.7% in FY24 and further accelerated to 10.9% in FY25, highlighting strong consumer confidence and robust domestic demand.



Note: Data mentioned is in INR, FE – Final Estimates, FRE – First Revised Estimates, PE – Provisional Estimate; Source: PIB, *Provisional estimates of GDP 2024-25 released on May 30th, 2025*

2.7 Union Budget FY25-26 Highlights

The Union Budget FY 2025–26, presented by Finance Minister Nirmala Sitharaman, introduces a comprehensive set of measures aimed at stimulating economic growth, enhancing infrastructure, and fostering inclusive development. With a focus on sectors such as agriculture, MSMEs, infrastructure, innovation, and exports, the budget seeks to create a conducive environment for sustained economic expansion.

- **Capital Expenditure and Infrastructure Development**
  The government has earmarked a substantial ₹11.21 lakh crore (3.1% of GDP) for capital expenditure in FY 2025–26. This allocation is directed towards infrastructure projects, including rural development, manufacturing, and skill-building initiatives. Notably, the Urban Challenge Fund has been established with a corpus of ₹1 lakh crore, aimed at financing 25% of the cost of bankable urban infrastructure projects, thereby promoting sustainable urban development.
- **Support for MSMEs**
  Recognizing the pivotal role of Micro, Small, and Medium Enterprises (MSMEs) in India's economic landscape, the budget introduces several measures to bolster this sector. The Credit Guarantee cover has been enhanced to ₹10 crore, unlocking ₹1.5 lakh crore in additional funding for MSMEs over the next five years. Additionally, the establishment of a Fund of Funds with a ₹10,000 crore corpus aims to provide equity support to startups and potential MSMEs, focusing on high-growth sectors such as electronics and renewable energy.
- **Tax Reforms and Disposable Income**
  To stimulate consumption and investment, the budget introduces significant tax reforms. The tax-free income threshold has been raised to ₹12 lakh, and the new tax regime offers reduced rates for higher income brackets. These changes are expected to increase disposable income, thereby encouraging higher savings and investment among the middle class.
- **Focus on Agriculture and Exports**
  The budget prioritizes agriculture as a key engine of development, with increased allocations for agricultural credit and initiatives aimed at enhancing productivity. Furthermore, measures to promote exports include the reduction of customs duties on select goods and the introduction of policies to facilitate easier market access for Indian products.
- **Urban Development Initiatives**
  A significant increase in the budget allocation for the Ministry of Housing and Urban Affairs to ₹96,777 crore reflects the government's commitment to urban development. Key initiatives include the establishment of the Urban Challenge Fund, enhanced loans under the PM SVANidhi scheme, and substantial provisions for the Pradhan Mantri Awas Yojana

and Urban Rejuvenation Mission, all aimed at improving urban infrastructure and living standards.

The Union Budget FY 2025–26 presents a balanced approach to economic growth by addressing immediate consumption needs and laying the foundation for long-term sustainability. Through targeted investments in infrastructure, support for MSMEs, tax reforms, and sector-specific initiatives, the budget aims to foster an inclusive and resilient economy. These measures are expected to create new opportunities for financial institutions, as the growing demand for investment products will provide avenues for expansion and innovation in the financial services sector.

2.8 Concluding Remarks about Macroeconomic Scenario

FED has softened the benchmark interest rate by 25bps to the range of 3.50%-3.75% as expected by majority of the market in Dec'25. The RBI has also reduced its policy rate, namely repo rate by 25 bps to bring it down from 5.50 to 5.25 bps, amid robust Q2FY26, 8.2% real GDP growth and lowest retail inflation at 0.25 in India. A Fed rate cut is expected to channelise FII inflows to India and help in easing the ongoing pressure on INR. In fact, the Real Effective Exchange Rate (REER) for which INR was thought to have been overvalued previously, has softened in recent periods, thus INR is moving in the right direction to correct its fundamentals though possibly at a slight stretch as RBI is struggling a lot to maintain the "volatility in the INR movement" as the Governor tried to clarify the market. Nonetheless, many other emerging market economies (EMs) are also facing pressure on their currencies. Notably, Central Banks (CBs) of many countries have accumulated their gold holdings amid this turbulent time, after the "Trump Tariff "factor and geopolitical tensions have injected heightened uncertainties in the global economy.

IMF recently reclassified India's "de facto" exchange rate regime as a "crawl-like arrangement", two years after branding it "stabilised", indicating that RBI is allowing a measured flexibility, a managed float, where RBI primarily intervene to check excessive volatility in the INR and/or to manage the liquidity situation. India's strategic position as a manufacturing hub is further strengthened by government initiatives, a skilled labour force, and a dynamic startup ecosystem, all of which bolster the country's economic outlook. The ongoing reforms and focus on innovation are enabling India to seize emerging opportunities, making it a growing player in the global manufacturing landscape. In addition, several high-frequency growth indicators—such as the Purchasing Managers' Index (PMI), E-way bills, bank credit, toll collections, and GST collections—have shown a positive trajectory in FY25. These factors are expected to further support the investment cycle and strengthen India's economic resilience in the coming years.

3. Industry Definition and Scope

The Electrical Wires, Cables, and Power Conductors Industry constitute a defined segment within India's electrical equipment manufacturing landscape and corresponds to the manufacture of insulated wires and cables under NIC 27320. The industry focuses on the design and production of copper and aluminium winding wires, low- and high-tension power cables, and aluminium conductors used across power generation, transmission, and distribution systems.

The product spectrum includes super-enamel and double paper covered (DPC) winding wires for transformer and motor applications; LT and HT cables up to 33 kV; aerial bunched (AB) cables for overhead distribution; and aluminium conductors deployed in transmission and distribution networks. These products support grid expansion, electrification programmes, urban distribution upgrades, and industrial power supply requirements. Insulation systems such as PVC and XLPE, combined with compliance to BIS and IEC standards, ensure electrical integrity, operational safety, and long-term reliability.

Within the national power infrastructure value chain, these components play a critical role in distribution strengthening and system modernization initiatives, including RDSS-led network upgrades, rural electrification, underground cabling programmes, and renewable energy integration. Industry development is characterised by the adoption of advanced manufacturing automation, enhanced quality and endurance testing, and a gradual shift toward higher voltage insulated cable production aligned with evolving grid needs.

Designed to withstand variable load conditions, environmental stress, and extended operating cycles, these products ensure conductivity, thermal performance, and system reliability. As modern wire and cable solutions become central to power network upgrades, the industry reinforces India's electrical infrastructure and strengthens the country's position within the global electrical equipment manufacturing ecosystem

3. Market Segmentation

The Electrical Wires, Cables, and Power Conductors' Industry comprises a broad range of products serving utilities, industrial facilities, infrastructure projects, and strategic establishments. Market segmentation is structured by product type, end-user industry, geography, and project category, providing clarity on demand patterns across transmission, distribution, industrial power systems, renewable integration, and export-oriented infrastructure.

By Product Type

Category	Sub-Category / Segment	Description / Insights
By Product Type	**Transformers (Distribution, Power, Dry-Type, Special Duty)**	Core equipment for voltage transformation and power distribution across utilities, renewable energy projects, industrial facilities, and commercial infrastructure. Demand is driven by grid expansion, renewable integration, industrial capacity addition, and replacement of ageing assets, with increasing emphasis on energy efficiency, compact design, and compliance with applicable BIS and IEC standards.
	Switchgear (LV, MV, HV – Indoor / Outdoor)	Circuit breakers, panels, ring main units (RMUs), and protection relays supporting switching, protection, and fault isolation across substations, industrial systems, and commercial installations. Adoption is driven by grid reliability requirements, safety regulations, automation, and transmission and distribution modernisation initiatives.
	Cables & Conductors	Critical components of transmission and distribution networks used for power evacuation, intra-plant distribution, control, and communication applications. Demand is supported by grid strengthening, renewable energy integration, urban infrastructure development, industrial expansion, and rising electricity intensity, with increasing focus on MVCC and HT cables for higher load handling,

		thermal endurance, mechanical strength, and long-term operational reliability.
	– Aerial Bunched Cables	Overhead insulated conductor systems deployed primarily in LV and MV distribution networks for last-mile rural and urban electrification, theft reduction, and safety enhancement in congested corridors, forming part of loss-reduction and network-strengthening programmes.
	– Power Cables (LV / MV / HV, including MVCC)	Used for bulk power evacuation, intra-plant distribution, and underground or ducted networks across residential, commercial, industrial, and utility applications. LV cables cater to building and small-load circuits; MV cables support industrial feeders and urban distribution; HV cables are deployed for high-capacity transmission, sub-transmission, grid modernisation, and renewable-energy evacuation.
	– Control Cables	Multi-core cables used for control, signalling, interlocking, and auxiliary power functions across industrial plants, substations, transport systems, and automation environments, predominantly in LV and MV circuits interfacing panels, switchgear, drives, and instrumentation.
	– Housing / Building Wires	PVC- or XLPE-insulated low-voltage wires used for internal wiring of residential, commercial, and institutional buildings, with growing adoption of fire-resistant, flame-retardant, low-smoke, and halogen-free variants aligned with evolving safety and installation standards.
	– Lead Wires	Specialised low-voltage wiring used in appliances, equipment harnesses, automotive components, and control panels requiring defined thermal, mechanical, and insulation characteristics, supporting OEM manufacturing and industrial assembly operations.
	– Solar Cables	UV-, weather-, and temperature-resistant DC and AC cables designed for photovoltaic power plants, rooftop installations, and hybrid renewable projects,

		used for module interconnections, inverter links, transformers, and evacuation panels.
	– Flexible & Specialty Cables	Application-specific cables including welding, trailing, fire-survival, low-smoke halogen-free, EV-charging, and hybrid power-cum-signal cables used in industrial machinery, mining, transport systems, building management, and mission-critical installations across LV, MV, and select HV applications.
	– Communication & Instrumentation Cables	Low-voltage signal, data, and control cables such as coaxial, telephone, and instrumentation cables used in telecom networks, SCADA systems, smart-metering infrastructure, data centres, process industries, and transport-communication systems, supporting automation and digital-infrastructure deployment.
	Busbars & Panel Assemblies (LT / HT Panels, Control & Relay Panels)	Modular assemblies enabling power control, metering, protection, and automation across industrial, commercial, and utility applications, with configuration and rating customised to load profiles, system design, and project requirements.
	Energy Storage & Power Electronics (UPS, Inverters, Battery Packs)	Systems supporting uninterrupted power supply, voltage conditioning, frequency regulation, and power quality management across industrial facilities, commercial establishments, data centres, and renewable energy installations.
	Transmission & Distribution Hardware (Insulators, Arresters, Clamps, Fittings)	Mechanical and electrical components used in overhead lines and substations to ensure structural integrity, insulation, fault mitigation, and reliable performance under varied environmental and operating conditions.
	Smart Electrical Systems (Smart Meters, SCADA / EMS Hardware, IoT Sensors)	Digital and communication-enabled devices enhancing grid visibility, load management, energy accounting, and real-time asset monitoring, aligned with smart-grid initiatives and distribution reform programmes.

	Industrial Power Components (Motors, Starters, Capacitors, Control Gear)	Components supporting automation, motor control, power factor correction, and efficient energy utilisation across manufacturing and process industries.

By End-User Industry

Category	Sub-Category / Segment	Description / Insights
By End-User Industry	**Power Utilities (Generation, Transmission, Distribution)**	Consumption of transformers, switchgear, aerial bunched cables, LV/MV/HV power and control cables, conductors, and substation equipment for grid expansion, renovation and modernisation, loss-reduction initiatives, electrification, underground cabling, and renewable-energy evacuation.
	Renewable Energy (Solar, Wind, Hybrid Systems)	Demand for inverters, transformers, MV and HV power cables, solar DC cables, control and instrumentation cables, and protection systems supporting utility-scale renewable projects, evacuation infrastructure, and distributed renewable installations.
	Industrial & Manufacturing Sector	Sustained requirement for LV and MV power cables, control and instrumentation cables, flexible and specialty cables, transformers, switchgear, motors, control gear, and electrical panels for plant operations, automation, process control, and capacity expansion.
	Infrastructure & Construction	Demand for integrated power distribution systems, LV and MV cables, building wires, communication and control cables, transformers, and protection equipment across transport infrastructure, smart cities, commercial complexes, and urban development projects.
	Commercial & Institutional	Requirement for reliable power distribution, backup systems, building wires, LV power and control cables, communication and instrumentation cables, and control panels across data centres, hospitals, IT parks, educational institutions, and large campuses.

	Defence & Strategic Establishments	Use of specialised MV and HT power cables, control and instrumentation cables, ruggedised flexible and specialty cables, transformers, and mission-critical power systems meeting stringent performance, safety, and reliability standards.

By Geography

Category	Sub-Category / Segment	Description / Insights
By Geography	**Western India**	Strong manufacturing base in Maharashtra and Gujarat, supported by significant utility, infrastructure, renewable, and industrial power demand.
	Southern India	Demand driven by industrial activity, renewable capacity additions, grid upgrades, and commercial infrastructure development across Tamil Nadu, Karnataka, and Telangana.
	Northern India	Consumption supported by industrial corridors, urbanisation, and transmission and distribution strengthening across NCR, Haryana, Punjab, and Rajasthan.
	Eastern & Central India	Growth supported by distribution network upgrades, mining activity, steel and metal industries, and electrification initiatives.

By Project Type

Category	Sub-Category / Segment	Description / Insights
By Project Type	**Utility-Scale Projects**	Procurement of transformers, switchgear, MV and HT cables, conductors, and associated equipment for substations, transmission lines, and renewable power evacuation systems.
	Industrial Projects	Application-specific transformers, panels, cabling systems, motors, and control gear aligned with plant layouts, operational loads, and process requirements.

	Commercial & Institutional Projects	Medium-scale power distribution and backup systems emphasising reliability, safety, and regulatory compliance.
	Maintenance, Repair & Upgrades	Stable requirement for replacement cables, spare parts, retrofits, and refurbishment activities aimed at extending asset life, improving efficiency, and enhancing system performance.

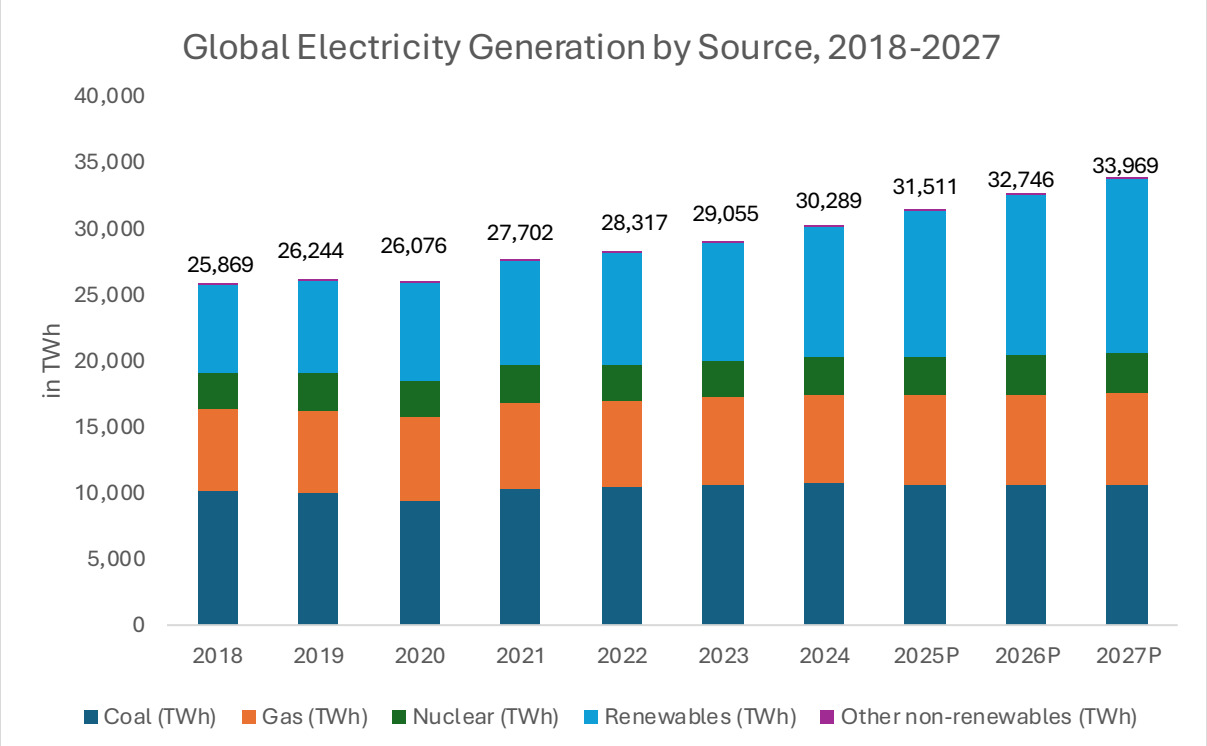
5. Global and Indian Industry Outlook

The Electrical Equipment industry value chain encompasses all stages from R&D and raw material sourcing (notably copper and aluminium), through specialized manufacturing of core components like winding wires, power cables, transformers, switchgear, and control panels. These components are integrated into finished products that serve wide-ranging end markets including utilities, industrial manufacturing, infrastructure, commercial, defence, and export domains. The value chain extends to OEM production, structured distributor networks, and final consumption, paralleling the complexity and specialization of capital goods sectors. This holistic coverage establishes a clear framework for analysing global and Indian market sizes, technology trends, regulatory standards (such as BIS and IEC), and trade dynamics.

Global Electricity Market:

Global electricity demand has expanded steadily over the past decade, driven by industrialisation, urbanisation, appliance penetration, and electrification of transport and digital infrastructure. Under the IEA Current Policies Scenario, global demand is projected to grow at a compound annual growth rate (CAGR) of nearly 3% through 2035, with emerging markets and developing economies (EMDEs) accounting for approximately three-quarters of incremental consumption.

Between 2024 and 2027, EMDEs are expected to remain the primary source of additional electricity demand. China leads incremental growth (+240 TWh, from 1,628 TWh in 2024 to 1,868 TWh in 2027), followed by India (+6 TWh, 334→340 TWh) and other EMDEs (+209 TWh, 551→760 TWh), collectively representing approximately 75% of total additions. For reference, 1 TWh is equivalent to 1 million MWh. Advanced economies are projected to contribute +536 TWh over the same period, indicating relatively slower incremental growth compared to EMDEs. This expansion is underpinned by rising industrial and residential loads, urbanisation, higher cooling demand, and broader electrification, necessitating significant transmission and distribution network investments globally.



Source: IEA (2025), *Global electricity generation by source, 2018-2027*, IEA, Paris, Infomerics Analytics & Research

Global electricity generation by source illustrates the structural transformation of the power sector, particularly the accelerated growth of renewables. Between 2018 and 2024, renewable generation increased from 6,682 TWh to 9,848 TWh and is projected to reach 13,250 TWh by 2027, primarily driven by solar and wind capacity additions. In contrast, coal-based generation has remained stable (~10,600 TWh), gas-based generation near 6,500 TWh, nuclear generation increased moderately (from 2,709 to 3,036 TWh), and other non-renewable sources remain negligible (~120 TWh). This transition underscores the ongoing shift toward low-carbon energy sources while ensuring system reliability and baseload support.

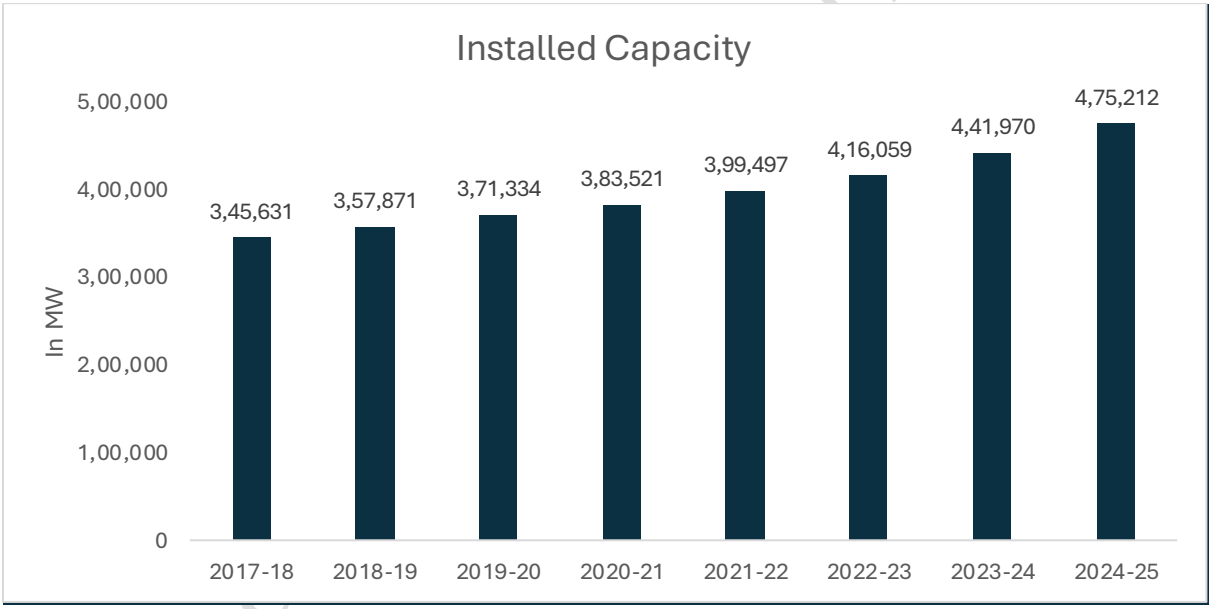
The concurrent trends in regional electricity demand and the global generation mix highlight a dual challenge: accommodating rapidly growing consumption in EMDEs while integrating variable renewable energy at scale. By 2035, renewables are expected to account for ~50% of global generation, up from ~33% in 2024. Meeting this demand will require extensive grid modernisation, including approximately 25 million km of new and upgraded transmission and distribution lines (~30% expansion) and annual investments approaching USD 650 billion, driving sustained demand for transmission conductors, power cables, transformers, and substation infrastructure.

Indian Electricity Market Landscape:

India's electricity sector has undergone sustained structural expansion over the past decade, supported by industrial growth, near-universal electrification, rising cooling demand, and increasing integration of renewable energy. The sector has witnessed consistent capacity addition, expansion of transmission and distribution infrastructure, and rising electricity consumption intensity, reflecting the system's ability to accommodate growing demand while improving reliability and access. These developments underscore the ongoing scale-up of India's power ecosystem and its role in supporting broader economic activity and infrastructure development.

Installed Capacity

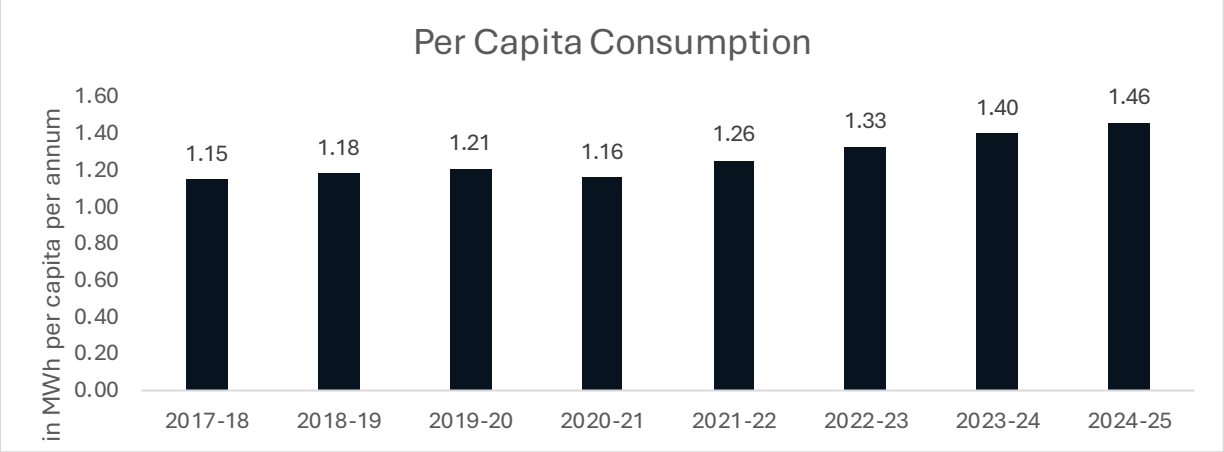
India's electricity demand expanded at over 5% annually during 2015–2024, driven by industrial activity, household electrification, and rising cooling requirements.



Source: CEA, Infomerics Analytics & Research.

Installed power generation capacity increased from 345,631 MW in FY2017–18 to 475,212 MW in FY2024–25, reflecting cumulative additions of approximately 129,581 MW over the period. Capacity expansion broadly aligned with growth in electricity demand, supporting system adequacy and reliability, with incremental capacity additions primarily driven by solar, coal, and wind power. Over the same period, electricity generation increased from 1,308.14 TWh to 1,829.69 TWh, reflecting the scale and sustained expansion of the power system.

Per Capita Consumption and Market Outlook

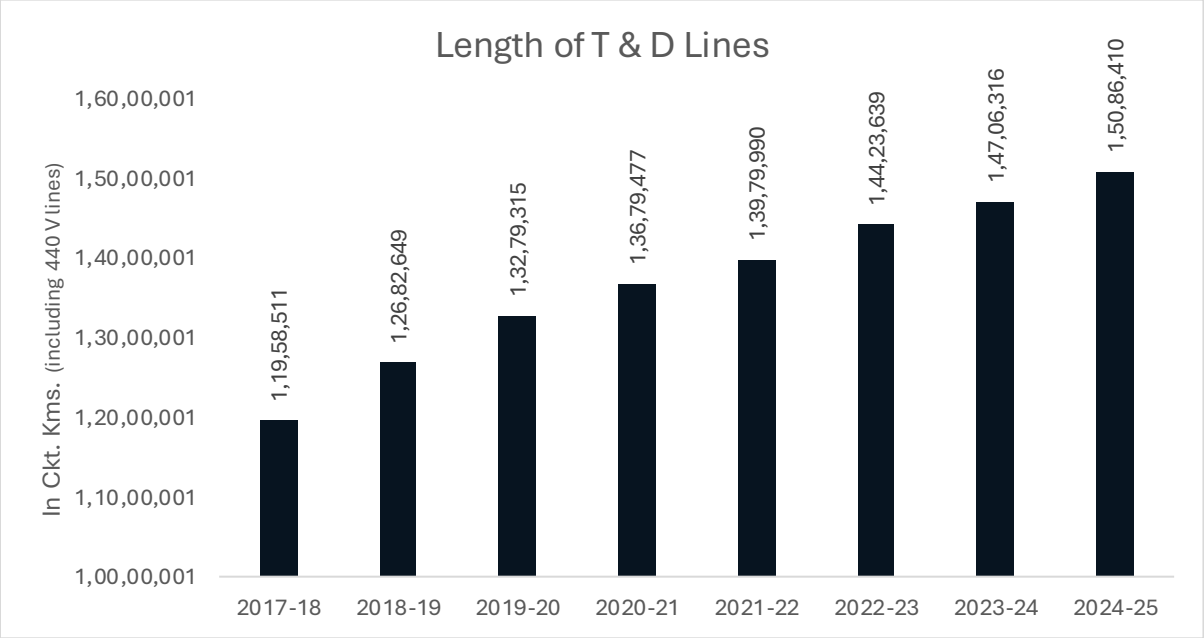


Source: CEA, Infomerics Analytics & Research.

Per capita electricity consumption increased from 1.149 MWh in FY2017–18 to 1.460 MWh in FY2024–25, reflecting higher electricity usage across residential, commercial, and industrial segments. The trend indicates improving access, rising appliance penetration, and increased electricity intensity of economic activity, notwithstanding a temporary moderation during FY2020–21.

T&D Network Expansion and Electrification

The transmission and distribution network expanded steadily over FY2017–18 to FY2024–25, reflecting sustained investments in grid strengthening, network densification, and last-mile connectivity. The aggregate length of T&D lines increased from 1,19,58,511 circuit kilometres in FY2017–18 to 1,50,86,410 circuit kilometres in FY2024–25, indicating continuous year-on-year network expansion.

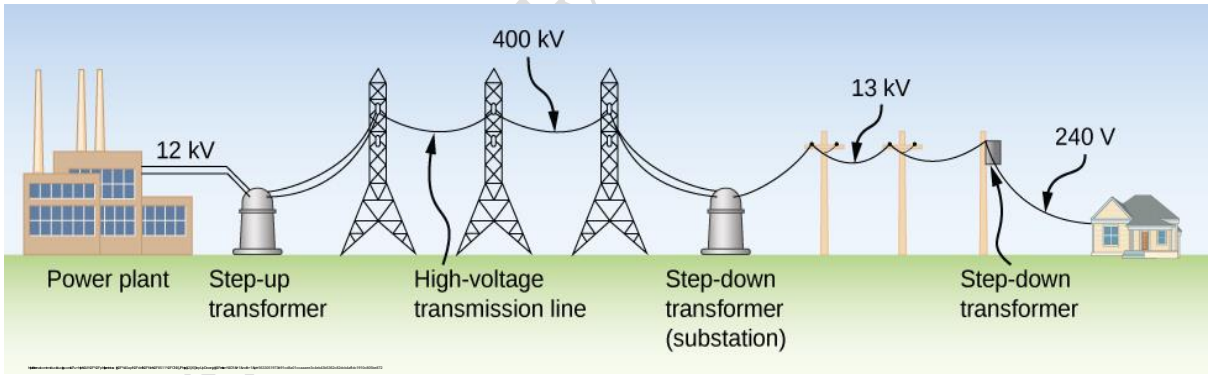


Source: CEA, Infomerics Analytics & Research.

The number of electrified villages stands at 5,97,464 as of FY2024–25, reflecting the completion of village-level electrification coverage across the country. Subsequent network expansion has focused on feeder strengthening, capacity augmentation, loss reduction, and reliability improvement across rural and urban areas. These developments align with ongoing programmes such as RDSS, Saubhagya, and PM Gati Shakti, which emphasise distribution reforms and infrastructure modernisation.

Electricity Transmission and Distribution – Supply Chain Overview

India's electricity transmission and distribution ("T&D") industry operates through an integrated supply chain encompassing raw material sourcing, equipment manufacturing, engineering–procurement–construction ("EPC"), and long-term operation and maintenance, forming the backbone of the country's power system. The supply chain is shaped by national planning under the National Electricity Plan, accelerating renewable energy integration, and reform-oriented programmes aimed at strengthening grid capacity, reliability, and efficiency. Cumulative investments of approximately ₹9.15 lakh crore (US$ 109.50 billion) are envisaged in transmission and distribution infrastructure by 2032, positioning T&D as one of the largest capital deployment segments within the power sector, as outlined under the National Electricity Plan (Transmission) issued by the Ministry of Power through the Press Information Bureau (PIB), Government of India.



Electricity Transmission and Distribution

Upstream: Raw Materials and Components

The upstream segment comprises aluminium and copper used in conductors, power cables, and winding wires; steel for transmission towers and structural components; and polymers and insulation compounds for cables, switchgear, and protection equipment. While aluminium and steel requirements are largely met through domestic production, refined copper continues to exhibit material import dependence, influencing cost structures and working capital requirements across the value chain.

Midstream: Equipment Manufacturing and EPC

The midstream segment includes the manufacturing of transmission lines, transformers, switchgear, insulators, and low-, medium-, and high-voltage cables, along with EPC execution for transmission corridors, substations, and distribution networks. The transmission segment is relatively consolidated and standardised, with projects executed under regulated or tariff-based competitive bidding frameworks, while the distribution segment remains more fragmented and execution-intensive. Organised manufacturers and EPC players dominate large-scale projects, supported by policy initiatives aimed at localisation and domestic capacity augmentation.

Key Infrastructure Segments:

Transmission Lines

Substation

Distribution Lines

- **Transmission (230–765 kV):**
  The transmission layer enables bulk power transfer over long distances through overhead and underground lines comprising conductors, towers, insulators, and associated high-capacity transformers. Expansion of inter-state and inter-regional corridors to evacuate renewable energy and balance regional demand–supply drives sustained demand for HV and EHV conductors, power cables, and transformer winding wires.
- **Substations:**
  Substations function as the interface between transmission and distribution networks, facilitating voltage transformation, system protection, and grid control. Core equipment includes power and distribution transformers, circuit breakers, switchgear, protection relays, and metering systems, translating into incremental demand for winding wires, control and instrumentation cables, and specialised insulation materials.
- **Distribution (12–35 kV and LT):**
  The distribution network represents the final stage of electricity delivery, supplying power from substations to end consumers. It comprises feeders, distribution transformers, aerial bunch cables, service lines, switching and protection devices, and advanced metering infrastructure. Distribution is the largest driver of cable volumes,

particularly LV and MV power cables, aerial bunch cables, and control cables, supported by loss-reduction, undergrounding, and network-modernisation initiatives.

Downstream: Utilities, Operations, and End-Use

The downstream segment consists of central and state transmission utilities, distribution companies, and end-use consumers across residential, commercial, industrial, and infrastructure segments. Transmission utilities focus on bulk power transfer and renewable evacuation under regulated return frameworks, while distribution utilities manage extensive last-mile networks and are central to reforms targeting loss reduction, automation, and service quality under programmes such as the Revamped Distribution Sector Scheme and the National Smart Grid Mission.

Emerging Drivers of Electricity Demand: AI and Cryptocurrency

The rapid expansion of artificial intelligence-led computing and data-centre infrastructure is emerging as a structural driver of electricity demand. According to the International Energy Agency ("IEA"), electricity consumption by data centres is projected to increase to approximately 945 TWh by 2030, driven by AI workloads, cloud computing, and associated cooling systems. These applications require continuous and reliable power, supporting incremental investments in higher-capacity medium- and high-voltage networks, advanced monitoring systems, and mission-critical cabling.

In the Indian context, growing concentrations of data centres in metropolitan and emerging hubs intersect with ongoing grid-modernisation initiatives under the Revamped Distribution Sector Scheme ("RDSS"), the National Smart Grid Mission, and the National Electricity Plan 2023–2032. This is expected to support incremental demand for MV and HV power cables, control and instrumentation cables, aerial bunched cables, specialty cables, and copper and aluminium winding wires across transmission, distribution, and end-use applications over the medium term.

India's electricity sector exhibits strong structural fundamentals, supported by sustained demand growth, continuous capacity addition, and steady expansion of transmission and distribution infrastructure. Transmission investments provide long-term execution visibility and grid stability, while distribution drives incremental volumes and equipment demand. The combined effects of renewable integration, grid modernisation, electrification, rising per capita consumption, and emerging digital-infrastructure loads position the electricity T&D ecosystem for sustained medium- to long-term growth, with continued demand for wires, cables, conductors, transformers, and associated grid components.

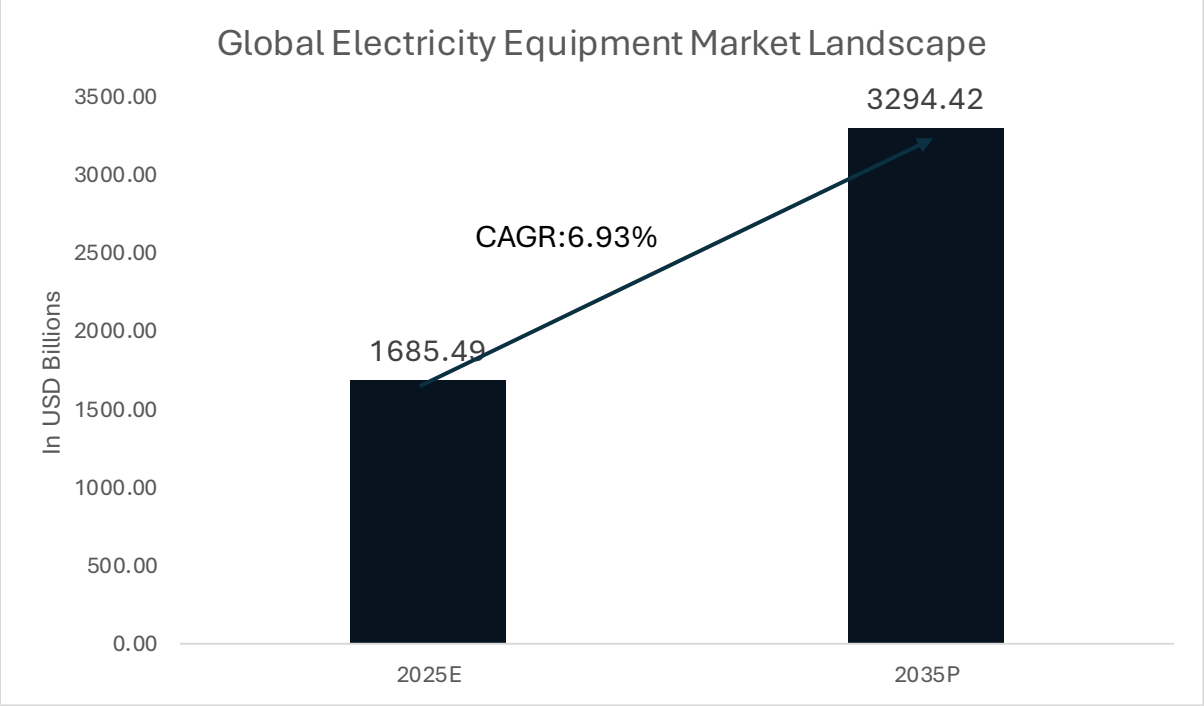
Global Electrical Equipment Market Landscape:

The global electrical equipment industry spans power-generation machinery, grid-level transmission systems, and downstream electrical components supporting utilities, industrial users, commercial infrastructure, and advanced end-use applications. It is conventionally divided into two broad segments:

(i) Heavy electrical equipment—including generation turbines, wind-energy systems, high-capacity transformers, and utility-grade switchgear; and

(ii) Electrical components such as conductors, power and control cables, switchgear and protection devices, insulators, and auxiliary systems deployed across transmission, distribution, commercial, and industrial installations.

Global expansion is closely linked to long-term electricity-demand trends in the International Energy Agency's World Energy Outlook, where sustained load growth in emerging markets, rising electrification of transport and industrial processes, and rapid development of digital infrastructure drive multi-year capex cycles across the power system. Increasing shares of variable renewables require investment in flexible grid systems, advanced protection equipment, digitalisation, and modernised transmission corridors, while ageing infrastructure in advanced economies reinforces replacement demand for transformers, switchgear, protection devices, and high-voltage lines.



Source: Infomerics Analytics & Research.

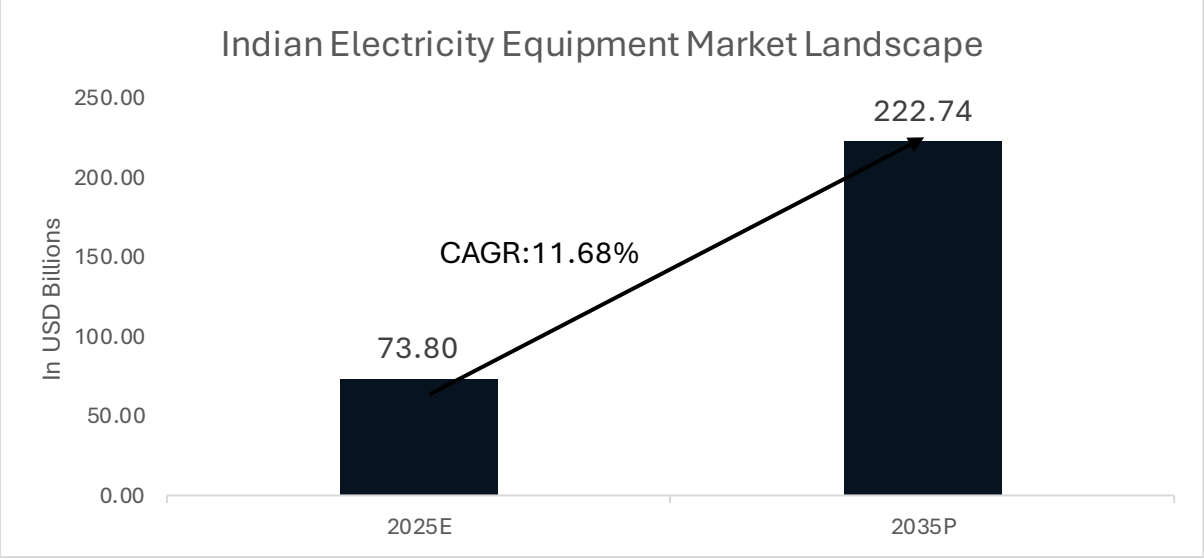
The Global Electrical Equipment Market is projected to expand from USD 1,685.49 billion in 2025E to USD 3,080.87 billion by 2034P, implying a CAGR of 6.93% over the period. These projections are directionally consistent with independent global assessments that identify strong growth in Asia-Pacific driven by industrialisation and urbanisation, and policy-driven

decarbonisation across Europe, North America, and East Asia. These regions are investing in renewable-integrated grids, high-voltage transmission, advanced transformers, smart switchgear, digital monitoring solutions, and energy-efficient machinery. As countries transition to low-carbon power systems, demand remains robust across generation assets, transmission infrastructure, distribution networks, and downstream electrical components, in line with IEA and government expectations for rising electricity demand and grid investment.

Indian Electrical Equipment Market Landscape:

India's electrical equipment industry comprises generation machinery, transmission and distribution (T&D) systems, conductors, transformers, switchgear, rotating machines, wiring devices, and equipment enabling renewable-energy integration and grid modernisation. Demand is primarily influenced by national energy policy, sustained growth in electricity consumption, and long-term public-sector programmes aimed at strengthening networks, improving reliability, and supporting renewable expansion. Key government initiatives—including the Revamped Distribution Sector Scheme (RDSS), the National Infrastructure Pipeline (NIP), and Green Energy Corridor (GEC) projects—establish multi-year procurement pipelines for utilities and EPC contractors, providing visibility across T&D equipment categories.

According to Central Electricity Authority (CEA) and Ministry of Power indicate consistent expansion in installed generation capacity, electricity output, and transmission network length, reflecting a structural rise in peak demand, industrial activity, and renewable-energy penetration. As of early 2025, India's installed capacity had reached about 475 GW, (1 GW = 1,000 MW) with recent additions led by solar, wind, and coal-based plants, while total electricity generation has increased from around 1,308.14 BU(Billion Units = TWh) in FY2018 to over 1,800 BU in recent years, according to official government publications. Distribution-side modernisation, loss-reduction programmes, feeder segregation, and transformer augmentation under RDSS support continued demand for conductors, distribution transformers, switchgear, and LT/HT cables; RDSS alone has an approved outlay of about ₹3.03 lakh crore for system strengthening AT&C loss reduction, feeder segregation, and smart metering.



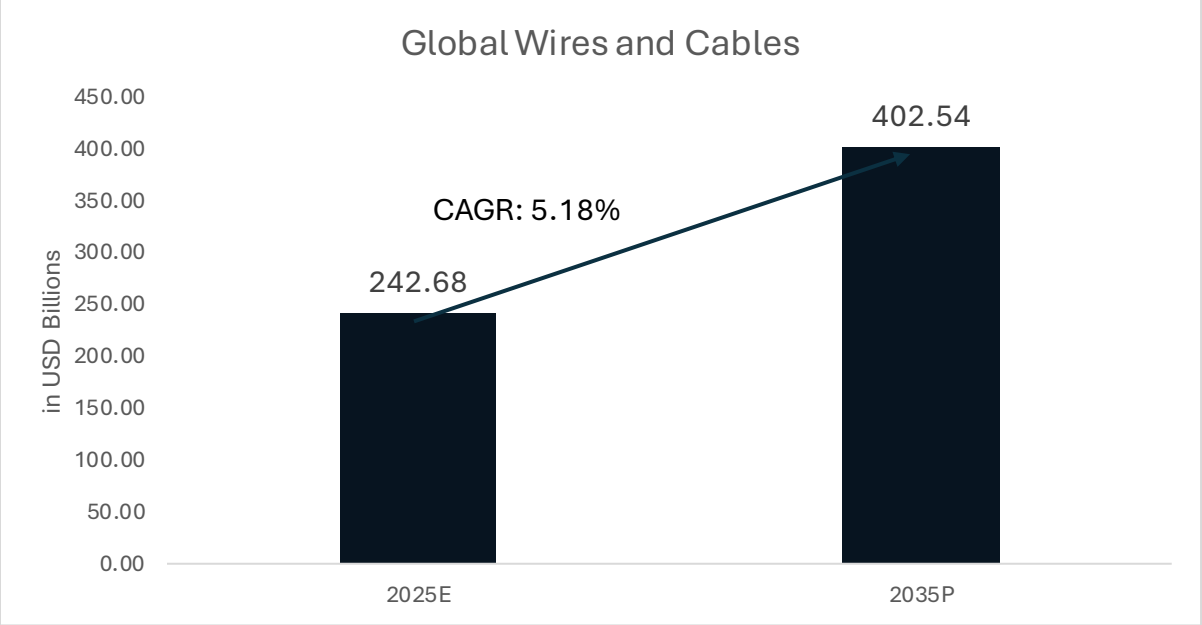
Source: Infomerics Analytics & Research.

The Indian Electrical Equipment Market is estimated to grow from USD 73.80 billion in 2025E to USD 222.74 billion in 2035P, representing a CAGR of 11.68%, significantly higher than the global average. This growth outlook is supported by official projections of rising electricity requirement and peak demand from CEA, continued expansion of grid-connected renewable capacity highlighted by the Ministry of Power and MNRE, and the large T&D capex envisaged under NIP and GEC frameworks. Transmission-side investments through Green Energy Corridor phases and state-level renewable-energy evacuation systems continue to require high-voltage transformers, protection systems, control gear, and advanced switchgear. Domestic manufacturing capability is further reinforced by Production Linked Incentive (PLI) schemes in advanced cell chemistry, solar PV modules, and electronics, which strengthen localisation of upstream and downstream components and broaden the industrial ecosystem supporting electrical equipment production. Taken together, these policy-backed demand drivers and manufacturing initiatives create a sustained multi-year opportunity across the generation, transmission, distribution, and industrial electrical equipment value chain in India.

Global Wires and Cables Market Landscape:

The global wires and cables industry forms a core segment of the electrical equipment value chain, supplying power-transmission conductors, LV/MV/HV power cables, control cables, communication cables, and specialised application-specific wiring for utilities, industrial facilities, renewable-energy systems, transport networks, and digital-communication infrastructure. Demand typically tracks electricity-consumption growth, grid-modernisation investment, renewable-energy expansion, and adoption of high-capacity data networks across advanced and emerging economies.

The Global Wires and Cables Market is projected to increase from USD 242.68 billion in 2025E to USD 402.54 billion in 2035P, reflecting a CAGR of 5.18% over the period.



Source: Infomerics Analytics & Research.

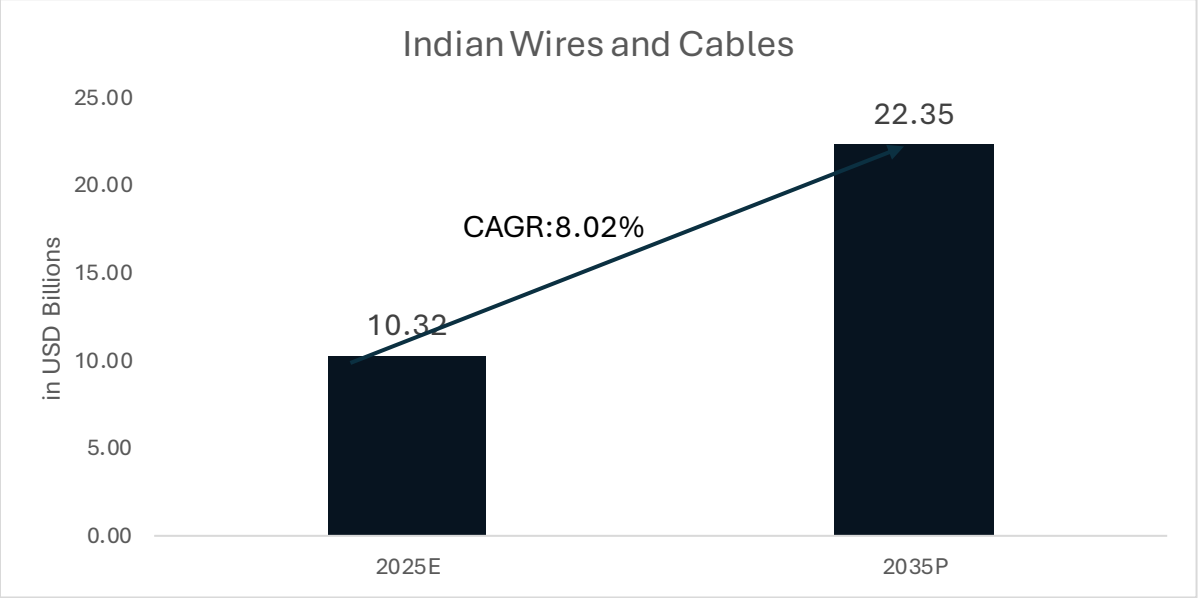
This growth trajectory is directionally consistent with publicly available international forecasts that highlight multi-year expansion driven by ageing grid replacement in developed countries, renewable-energy integration requiring inter-array and export cables, undergrounding trends, and increasing deployment of high-bandwidth fibre networks. Electrification of transport and industrial processes further reinforces medium-term global demand for LV/MV cables, specialty wiring harnesses, and communication cables aligned with smart-grid and digital-infrastructure programmes.

Policy-driven commitments to energy transition and national grid reinforcement to electricity-demand and renewable-integration assessment support sustained investment in conductor systems, high-voltage cabling, distribution-network strengthening, and fibre-optic rollouts. These structural drivers underpin a stable multi-regional capex cycle across utilities, EPC contractors, industrial users, data-centre operators, and telecommunications providers.

Indian Wires and Cables Market Landscape:

India's wires and cables industry serves transmission and distribution networks, industrial facilities, commercial infrastructure, residential electrification, telecommunications, renewable-energy evacuation systems, and digital-communication corridors. It remains one of the largest sub-segments within the domestic electrical equipment sector due to its critical role in both power-sector expansion and infrastructure development.

The Indian Wires and Cables Market is projected to grow from USD 10.32 billion in 2025E to USD 22.35 billion in 2035P, with a CAGR of 8.02%.



Source: Infomerics Analytics & Research.

This growth outlook aligns with demand expectations arising from national infrastructure programmes, including ongoing distribution-network upgrades under RDSS, renewable-energy expansion under the Green Energy Corridor framework, urban-infrastructure development, housing initiatives, data-centre growth, and rapid adoption of fibre-optic cable systems supporting telecommunications and 5G rollouts.

Increasing electrification in rural areas, strengthening of LV/MV distribution systems, and industrial-policy initiatives such as Make in India contribute to rising procurement of LV power cables, building wires, and project-specific cabling for industrial and commercial facilities.

Telecommunications expansion remains a structural demand driver, with sectoral investment directed towards 5G deployment, rural tower connectivity, and fibre-to-premises networks. Government programmes for digital highways, railway electrification, metro-rail expansion, and highway-corridor optical-fibre deployment further widen the application base for both power cables and communication cables. Consistent growth in renewable-energy installations creates parallel demand for solar DC cables, wind inter-array cables, export circuits, and associated evacuation infrastructure.

Industry Value Chain: Indian Wires and Cables

1. Raw Material Procurement

The Indian wires and cables industry commences with sourcing key inputs including copper, aluminium, PVC compounds, XLPE, rubber, steel armoring, and specialty insulators. These materials constitute approximately 40–60% of production costs. Domestic suppliers such as Hindalco, Nalco, and Reliance Industries dominate, supplemented by imports to address constraints in bauxite mining, copper availability, and metal price volatility. Leading manufacturers pursue backward integration through in-house rod drawing, insulation compounding, and alloying to ensure BIS-compliant quality, mitigate forex risks, and support high-performance conductors. Specialty materials required for MVCC (Medium Voltage Cables) and HT (High Tension) cables are sourced domestically and globally to meet technical and safety specifications for transmission, distribution, industrial, and renewable energy applications.

2. Manufacturing

Manufacturing involves conductor drawing (aluminium/copper rods into wires), insulation extrusion, stranding, armoring, sheathing, and electrical testing. Automated PLC-controlled production lines enable precision and scalability across LT (Low Tension), MV (Medium Voltage), and HT (High Tension) cables, including ACSR conductors and fibre optic cables. The industry adheres to IS 398, IS 1554, IEC, and flame-retardancy standards.

- **Medium Voltage Cables (MVCC):** MVCC covers voltage ratings from 1.1 kV to 33 kV, widely used in urban distribution networks, industrial plants, and solar/renewable projects. Insulation materials include XLPE and PVC, with armored and unarmored variants depending on installation conditions. Demand drivers include RDSS, urban infrastructure, and industrial electrification.
- **High Tension Cables (HT):** HT cables operate above 33 kV, extending up to 220 kV and EHV levels. Types include XLPE-insulated, PILC (Paper Insulated Lead Covered), and hybrid cables. Armoring provides mechanical protection, while rigorous testing ensures compliance with voltage withstand, partial discharge, and flame-retardancy norms. HT cables are primarily deployed by utilities, transmission companies, renewable energy projects, and large industrial setups. Grid modernization and renewable integration are major growth drivers.

Technological advancements such as FR-LSZH insulation, aluminium alloy conductors (ACCC/TACSR), solar DC cables, and hybrid cabling solutions improve operational efficiency, fire safety, and environmental compliance. Production capacity expansions under government schemes like PLI and RDSS are expected to drive a significant growth in cable output.

3. Branding & Product Differentiation

Branding emphasizes certifications (BIS, IEC 60227), fire-retardancy (FR/FR-LF), energy efficiency, RoHS compliance, and green credentials for renewable and EV applications. Packaging and labelling incorporate QR codes for traceability, CEA/PGCIL type approvals, and warranties ranging from 3 to 25 years. Premium brands differentiate themselves through institutional tender approvals, type-test reports, and digital marketing initiatives. Value-added features, including color-coded insulation and pre-assembled bundles, enhance ease of installation and adoption in industrial, utility, and commercial projects.

4. Distribution

Distribution employs a hybrid model combining direct OEM supply and dealer networks:

- Direct supply to utilities (NTPC, PGCIL), EPC contractors (L&T, KEC, Tata Projects), and real estate/infrastructure developers.
- Dealer/distributor networks serving MSME converters, retail housing, and small contractors.
- B2B platforms and exports to Middle East and African markets.
- Organized logistics, just-in-time deliveries, and government e-portal empanelment (GeM) support timely execution of infrastructure projects.

Organized players command over 50% market share, benefiting from brand recognition, quality certifications, and strategic tie-ups with EPC and utility players.

5. End Consumer

End-users encompass:

- **Power T&D Utilities:** Approximately 60% of cable demand through RDSS/SAUBHAGYA projects. MV and HT cables form the core of transmission and distribution infrastructure.
- **Industrial & Commercial Sectors:** Control cables, power distribution, and instrumentation cables.
- **Residential & Real Estate:** Housing wires, ABCs, and flexible cabling solutions.
- **Renewables & EVs:** Solar DC cables, wind farm installations, and EV infrastructure.
- **Telecom & Data Centers:** Fibre optic cables for broadband, 5G, and enterprise networks.
- **Consumer Appliances:** Domestic and commercial wiring applications.

Urbanization, rural electrification, smart cities, renewable energy expansion, and emerging 5G/data center infrastructure are expected to drive a significant growth in volumes. Quality, safety, and compliance remain critical purchase considerations across segments.

Indian Production, Imports and Exports Landscape for Wires and Cables:

India's trade profile in wires and cables reflects its position as both a high-growth consumption market and a strengthening manufacturing and export base. Imports largely comprise copper and aluminium insulated conductors, fibre-optic cables, specialised MV/HV power cables, and project-specific configurations that require advanced technologies or are not yet produced domestically at scale under approved standards.

Year	Aluminium conductors (000 Tonnes)	PVC insulated cable (00000 core kms)	Rubber insulated cable (00000 kms)	Jelly filled cables (00000 core kms)	Fibre optic cables (00000 kms)
2017-18	173.84	51.82	0.73	51.95	201.69
2018-19	123.47	53.13	0.68	33.91	200.19
2019-20	112.63	49.02	0.72	34.11	70.14
2020-21	95.57	45.66	0.83	23.09	109.83
2021-22	104.72	47.18	1.03	26.24	223.21
2022-23	143.44	59.4	1.31	21.68	276.9
2023-24	169.55	57.36	1.81	21.27	107.63
2024-25	170.39	57.93	2.28	25.16	55.91

Source: *CMIE Outlook.*

Aluminium conductors declined from 173.84 thousand tonnes in FY2017–18, reaching a trough of 95.57 thousand tonnes in FY2020–21, before recovering to 170.39 thousand tonnes by FY2024–25. This trajectory reflects the cyclical nature of grid expansion projects and demand moderation during the pandemic period, with subsequent stabilization supported by renewable energy integration and RDSS-linked distribution network strengthening.

PVC insulated cables exhibited moderate fluctuations over the period, with production ranging between 45.66 thousand core kms and 59.40 thousand core kms. Output increased to 57.93 thousand core kms by FY2024–25, supported by housing sector demand, industrial capital expenditure cycles, and rural electrification initiatives.

Rubber insulated cable production increased steadily from 0.73 thousand kms in FY2017–18 to 2.28 thousand kms in FY2024–25, reflecting growing demand from automotive, heavy industry, and other specialized applications requiring higher durability and performance characteristics.

Jelly filled cable production declined from 51.95 thousand core kms in FY2017–18 to 25.16 thousand core kms in FY2024–25, indicating gradual displacement by fibre-based and advanced cable technologies offering improved performance and scalability.

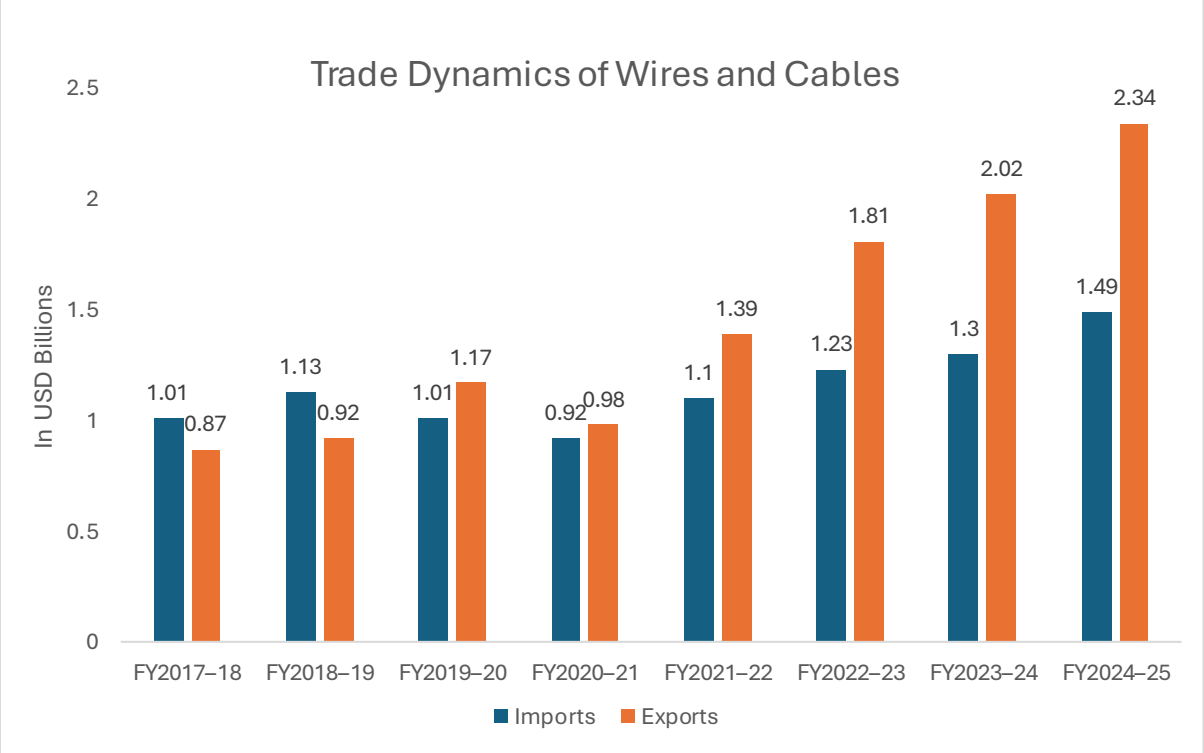
Fibre optic cable production displayed pronounced volatility, increasing from 201.69 thousand kms in FY2017–18 to a peak of 276.90 thousand kms in FY2022–23, supported by large-scale

digital connectivity initiatives, before moderating to 55.91 thousand kms by FY2024–25, reflecting project-based execution cycles.

The production profile indicates a gradual shift towards specialised and technology-intensive cable categories, alongside recovery in conventional conductors, aligned with evolving power infrastructure requirements, renewable energy integration, and digital network expansion.

Trade Dynamics of Wires and Cables:

India's cable and conductor trade expanded steadily over FY2017–18 to FY2024–25, with exports exhibiting stronger growth momentum than imports, reflecting improving international competitiveness alongside continued reliance on specialised overseas supplies. Export value increased from USD 0.87 billion in FY2017–18 to USD 2.34 billion in FY2024–25, supported by sustained demand from key markets including the United States, the UAE, and Saudi Arabia, along with stable shipments to the UK and Australia. Export activity remained concentrated in LV power cables, building wires, automotive wiring and harnesses, instrumentation cables, and select MV cables supplied across Africa, the Middle East, South Asia, and Southeast Asia. Export growth has been supported by competitive domestic cost structures, improved compliance with international testing and performance standards, and the expanding global footprint of Indian EPC contractors and electrical-equipment suppliers, alongside increasing participation in overseas utility procurement.



Source: *CMIE Outlook.*

Over the same period, import value increased from USD 1.01 billion in FY2017–18 to USD 1.49 billion in FY2024–25. Imports continued to be sourced primarily from China, the United States, Vietnam, Germany, and Singapore, with dependence concentrated in insulated

copper and aluminium conductors, fibre-optic cables, and specialised MV, HV, and EHV products requiring advanced materials, precision manufacturing, or project-specific certifications not yet widespread in domestic manufacturing. Trade flows remained closely linked to industrial capital-expenditure cycles, copper and aluminium price movements, telecom and broadband rollout timelines, and execution schedules of renewable energy and large infrastructure projects. The trade environment is further shaped by customs duty structures on metals and finished cable products, mandatory quality-control orders, and manufacturing incentives under Make in India–linked schemes. Over time, capacity additions in LV and MV segments, wider adoption of international standards, and a gradual shift from unorganised to organised manufacturing are expected to strengthen export competitiveness while selectively reducing reliance on imported finished cables in specific application segments.

Expansion of Energy & Utilities Industry Driving Cable Demand in India

India's growing energy sector is creating strong, lasting demand for wires, cables and winding wires at every stage of the power value chain – from power plants to transmission lines, local distribution networks and end-use connections. As total power capacity moves beyond about 470 GW and heads towards roughly 600 GW by 2030, with a large share coming from renewable and other non-fossil sources, the grid needs to be upgraded to carry more power, connect new renewable projects and reliably meet rising peak demand.

The rapid growth of renewable energy, especially solar, is increasing the need for three key products:

- Special solar cables used to connect solar panels and inverters.
- Medium- and high-voltage power cables used to move power from solar and wind farms to the grid.
- Aluminium winding wires used in transformers that step up and step-down voltage in the system.

On the transmission side, India plans to add many more long-distance high-voltage lines between states, which will require more high-voltage XLPE cables and optical ground wire (OPGW) for both power and communication needs. At the same time, the Revamped Distribution Sector Scheme, with funding of about ₹3.03 lakh crore, is pushing state utilities to replace old bare overhead lines with safer insulated aerial bunched cables and to install more control and communication cables for smart meters and automation systems in distribution networks.

These investments in generation, transmission and distribution are expected to keep demand for power cables, conductors and winding wires strong over the next several years, supporting high utilisation and fresh capacity additions for Indian cable manufacturers.

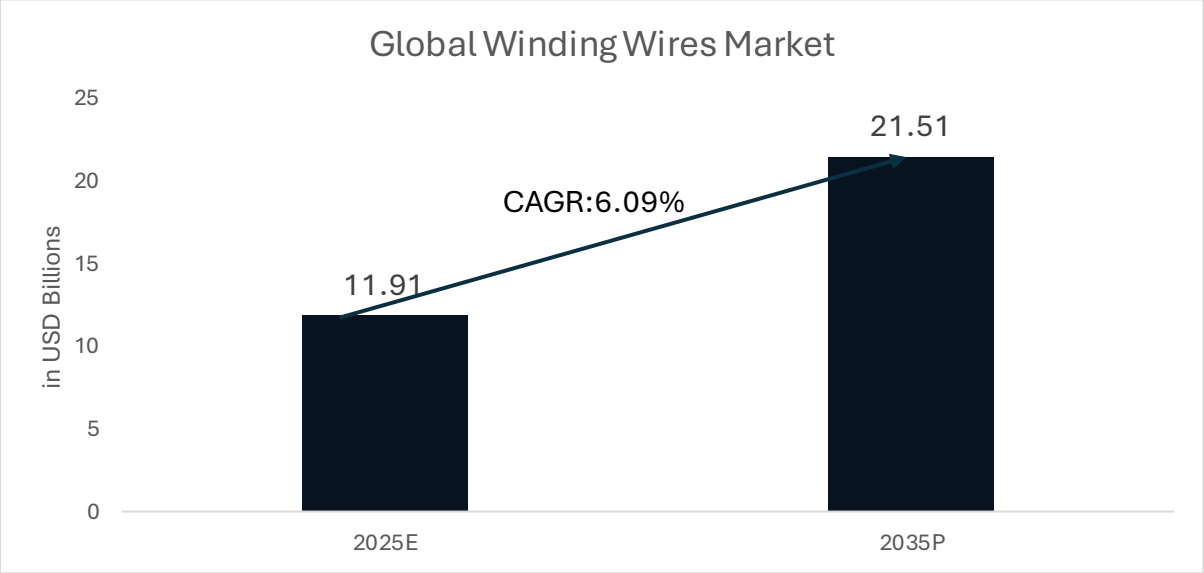
Supply–Demand Gap Analysis

India's wires and cables industry is witnessing a structurally tightening supply–demand balance, driven by the simultaneous expansion of power generation, transmission and distribution infrastructure, renewable energy integration, urban housing, data centres, and digital connectivity. While installed manufacturing capacity has expanded over recent years, effective supply remains constrained by utilisation variability, extended project execution timelines, and the capital-intensive nature of capacity additions—particularly in medium- and high-voltage cables, aerial bunch cables, specialised solar cables, and copper and aluminium winding wires. Demand growth is increasingly front-loaded due to policy-led infrastructure programmes, including transmission corridor expansion (approximately 1,91,000 circuit kilometres of 220 kV and above as envisaged under the National Electricity Plan), distribution network strengthening under the Revamped Distribution Sector Scheme (outlay of approximately ₹3.03 lakh crore), renewable energy evacuation, and last-mile electrification

initiatives, resulting in periodic supply tightness across critical cable categories. This imbalance is further influenced by dependence on imported copper and aluminium, working capital intensity, and the time lag between order inflows and the commercial commissioning of new manufacturing capacities. Consequently, the industry is expected to experience a sustained demand overhang in the medium term, favouring organised manufacturers with scale, backward integration, and execution capabilities, while necessitating continued investments in capacity augmentation, technology upgrades, and supply-chain resilience to bridge the evolving supply–demand gap.

Winding Wires Market Landscape:

The winding wires industry supplies enamelled and insulated copper and aluminium conductors used in transformers, motors, generators, compressors, pumps, automotive systems, and a broad range of electrical and electronic equipment. As a core electrical intermediate, winding wires form an essential component across the power, industrial, automotive, consumer-durables, and renewable-energy value chains. Demand remains closely aligned with electricity-generation expansion, distribution-network modernisation, industrial automation, mobility electrification, and the build-out of data-centre and digital-infrastructure assets.



Source: Infomerics Analytics & Research.

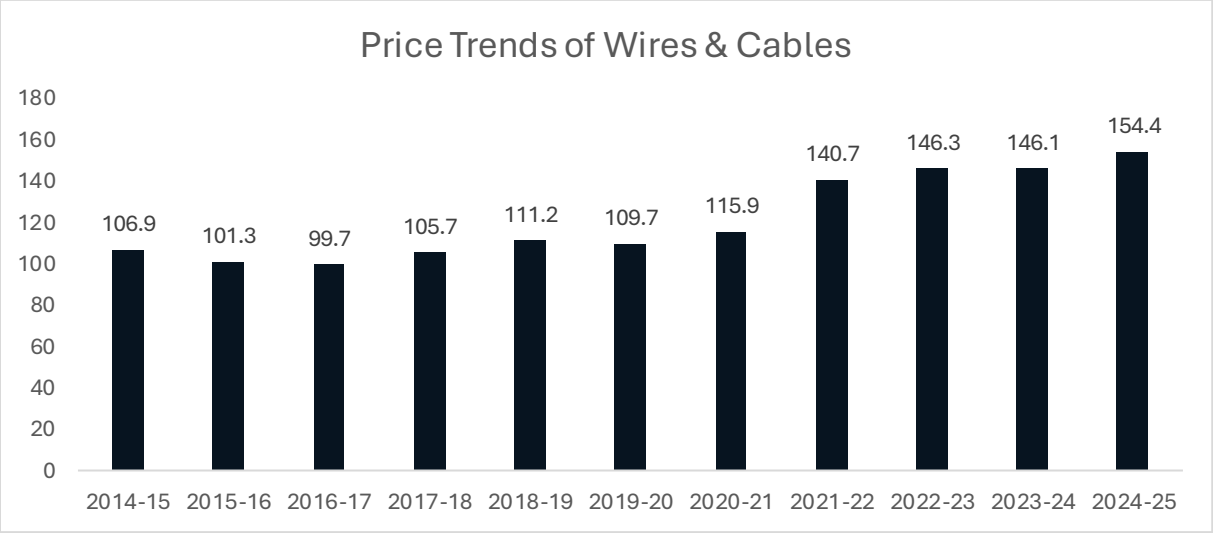
The global winding wires market is projected to increase from USD 11.91 billion in 2025E to USD 21.51 billion by 2035P, corresponding to a CAGR of 6.09%. This growth trajectory is consistent with global trends indicating rising consumption of transformers and motors driven by grid-upgradation programmes, renewable-energy evacuation, EV and hybrid platforms, HVAC and refrigeration equipment, and industrial drives. Advancements in higher-temperature enamels, insulation systems, and rectangular/profile conductors continue to improve thermal performance and machine efficiency, supporting increased adoption of premium-grade winding wires.

Within this global context, India represents one of the key emerging markets for winding wires, supported by sustained growth in electricity demand, expansion of transmission and distribution networks, and increasing deployment of renewable-energy and electric-mobility solutions. The Indian market increasingly caters both to domestic transformer and motor manufacturers and to export opportunities in neighbouring and developing regions, with organised players scaling capacity in copper and aluminium enamelled wires and strips in line with rising requirements from utilities, OEMs, and industrial users.

Long-term sector prospects remain positive as countries undertake energy-transition commitments, expand renewable-energy integration, replace ageing distribution infrastructure, and accelerate industrial and mobility electrification. The industry benefits from diversified demand across multiple end-use sectors, while sustained investment in quality systems, standards compliance, and advanced copper and aluminium conductor technologies positions organised manufacturers in both global and Indian markets to participate in incremental growth through the coming decade.

Wholesale Price Index (WPI) – Wires, Cables and Winding Wires (Base Year: 2011–12)

The Wholesale Price Index ("WPI") for wires and cables reflects a sustained upward trend over the past decade, underpinned by a combination of input-cost dynamics and structurally expanding downstream demand. The overall WPI for electric wires and cables increased from an index level of 100 in FY2011–12 to 154.4 in FY2024–25, indicating a significant rise in sector-wide pricing over the period. During FY2014–15 to FY2019–20, pricing remained relatively stable and largely range-bound, reflecting balanced supply–demand conditions, moderated copper and aluminium prices, and limited cost pass-through.



Source: CMIE Outlook, Infomerics Analytics & Research.

Note: The "Total – Wires and Cables" index carries a weight (Wt) of 0.43 in the Wholesale Price Index (Base Year: 2011–12).

From FY2020–21 onwards, the WPI exhibited a pronounced acceleration, driven by sharp increases in global metal prices, supply-chain disruptions, and a broad-based recovery in demand from power transmission and distribution, renewable-energy projects, construction, and infrastructure investment. This phase also coincided with higher capacity additions, grid-modernisation initiatives, and increased procurement by utilities, enabling stronger price realisation across product categories and marking a structural shift in the pricing environment for the wires and cables industry.

Category-wise trends indicate differentiated pricing behaviour across product segments. PVC-insulated cables recorded a strong increase, reaching an index level of 165.3 by FY2024–25, supported by higher polymer prices and robust demand from housing, commercial construction, and industrial capital expenditure. Conductors exhibited relatively moderate inflation, with ACSR conductors at 136.8 and aluminium/alloy conductors at 171.0, reflecting grid-expansion activity and sensitivity to aluminium price movements. Aluminium wire and copper wire registered sharper increases to index levels of 171.1 and 176.2, respectively,

influenced by global metal-price volatility and rising demand from renewable-energy, electric-vehicle, and industrial applications.

Year	Pvc Insulated Cable	Jelly Filled Cables	Electric Wires & Cables	Acsr Conductors	Aluminium/Alloy Conductor	Aluminium Wire	Copper Wire	Rubber Insulated Cables	Insulating & Flexible Wire	Connector/Plug/Socket/Holder-Electric	Fibre Optic Cables
	(Wt=0.08)	(Wt=0.00)	(Wt=0.02)	(Wt=0.05)	(Wt=0.03)	(Wt=0.01)	(Wt=0.08)	(Wt=0.02)	(Wt=0.09)	(Wt=0.05)	(Wt=0.13)
2011-12	100	100	100	100	100	100	100	100	100	100	100
2012-13	98.7	102.8	111.3	103.4	103	104	104.7	119.7	105.3	106.7	112.2
2013-14	102.8	107	113.7	106.6	107	109.4	107.8	105.7	107.1	107	119.7
2014-15	107.3	116.5	112.8	111.6	114.5	116	106.1	99.7	97.9	112	126
2015-16	104.4	109.5	106.8	109.5	111.5	108.8	93.8	80.8	94.9	109.1	122.1
2016-17	102.4	103.6	99.6	109.6	111	112	91.2	77.9	92.3	111.3	118.8
2017-18	108.9	107	107	114.1	121.1	117.7	100.9	64.2	98.9	116.2	116.5
2018-19	113.2	118.6	112.9	117.6	126.4	123.3	108.9	62.7	105.5	122.2	126.1
2019-20	110.5	115.9	111.9	114.5	117.8	117	108.2	62.3	106.8	122.6	109.9
2020-21	115.7	123.2	117.7	116.2	127.8	119.7	118.1	64.9	115.8	124.1	98.1
2021-22	144.9	134.9	147.9	129.4	150	149.5	156.5	72	143.7	131.6	103.1
2022-23	157.2	144.3	147.7	133.7	161.1	162.2	161.2	74.9	144	136.2	116.6
2023-24	153.5	145.2	147.3	132.7	159	156.2	161.3	74.8	147.6	138.4	123.4
2024-25	165.3	156.8	152.2	136.8	171	171.1	176.2	77.3	154	136.9	118.6

Source: CMIE Outlook

Rubber-insulated cables showed limited growth, reaching an index level of 77.3 in FY2024–25, consistent with their niche application profile. Insulating and flexible wires increased to 154.0, supported by residential construction, appliance manufacturing, and consumer electrification. Connectors, plugs, sockets, and holders rose to 136.9, reflecting steady installation demand. Fibre-optic cables, after peaking at 126.1 in FY2018–19 during accelerated telecom and broadband rollouts, moderated to 118.6 by FY2024–25, indicating market normalisation.

The WPI trajectory underscores a sector characterised by rising input costs, an improving product mix, and sustained infrastructure-led demand. While partial stabilisation was observed during FY2022–23 and FY2023–24, renewed firming in FY2024–25 indicates continued cost pressures in key raw materials and persistent demand strength. Ongoing volatility in copper and aluminium prices, alongside large-scale power, renewable-energy, housing, and digital-infrastructure investments, is expected to keep WPI levels structurally elevated, supporting value growth in the organised wires and cables manufacturing sector.

Impact of Power and Renewable Investments on Wires, Cables and Winding Wires

The electrical wires, cables and winding-wires industry benefits directly from India's sustained investment cycle in power generation, transmission, distribution and renewable-energy integration. National programmes to expand interstate transmission capacity, develop renewable-energy corridors, deploy smart meters and strengthen distribution networks continue to create structural, long-duration demand for conductors, LV/HV power cables and specialised winding wires used across transformers, motors and power-equipment manufacturing. Public-domain data from the Ministry of Power, MNRE, the Central Electricity Authority and investment-promotion agencies consistently indicates rising capital outlays across grid expansion, renewable-energy installations and energy-storage development, reinforcing a stable policy environment and strong investor participation.

As central and state utilities, central public-sector undertakings and private developers execute large-scale grid and renewable-energy projects, procurement of wires, cables and winding materials remains embedded in the associated EPC value chain, supporting steady multi-year demand visibility. Increasing electrification, industrial activity, network digitalisation and the integration of storage systems further broaden the application base across transmission, distribution, industrial power systems, mobility and clean-energy infrastructure.

The industry is positioned for sustained growth, supported by rising electricity demand, continuous grid-modernisation programmes, and the expansion of renewable-energy and storage capacities. Demand for wires, cables and winding wires is expected to remain robust as India advances toward a more reliable, efficient and lower-carbon power system, with ongoing public- and private-sector investments providing a clear long-term trajectory for sectoral growth and value creation.

6. Market Dynamics

6.1 Key Growth Drivers

The Electrical Wires, Cables, and Power Conductor Industry is positioned for sustained medium-to-long-term expansion, supported by rising electrification intensity, grid modernization initiatives, and continued investments across infrastructure, manufacturing, and energy transition. Demand growth is underpinned by structural drivers spanning power transmission and distribution, urban and housing development, industrial activity, renewable energy integration, transportation electrification, and export-oriented manufacturing. Concurrently, the industry is witnessing a gradual shift toward higher-specification, safety-compliant, and application-specific cable solutions, including MVCC and HT cables, driven by evolving technical standards, higher load requirements, and tightening regulatory norms.

Market Drivers and Impact Assessment

(All values represent directional impact based on industry estimates and qualitative analysis)

Drivers	Impact		
	1-2 Years	3-4 Years	5-7 Years
1. Electrification and distribution network expansion	High	High	High
2. Infrastructure and urban development activity	Medium	High	High
3. Renewable energy and grid-integration requirements	High	High	High
4. Real estate and commercial construction demand	Medium	High	High
5. Transportation and mobility electrification	Medium	High	High
6. Export opportunities and manufacturing diversification	Medium	High	High
7. AI-led data centres and digital infrastructure expansion	Medium	High	High
8. Cryptocurrency mining and high-intensity computing loads	Medium	High	High

Source: Infomerics Analytics and Research

Detailed Commentary on Key Growth Drivers

1. **Electrification and distribution network expansion**
   Ongoing rural and urban electrification initiatives, including Saubhagya 2.0 and the Revamped Distribution Sector Scheme (RDSS), continue to drive sustained demand for LT and HT power cables, aerial bunched cables, conductors, and transformer winding wires. Distribution network strengthening, feeder separation, substation augmentation, and loss-reduction measures require large-scale deployment of distribution transformers, switchgear, and associated cabling infrastructure. These initiatives support steady medium-to-long-term consumption, particularly for MVCC and HT cables used in upgraded feeders, substations, and expanding urban underground networks.

2. **Infrastructure and urban development activity**
   Large-scale infrastructure programmes such as the Smart Cities Mission, Bharatmala, metro rail expansions (₹19,518 crore budget), and PMAY housing schemes continue to support demand for building wires, control cables, instrumentation cables, and power distribution cables. Accelerated urbanization, expansion of transport infrastructure, and modernization of public utilities increase the requirement for reliable, safety-certified, and fire-resistant cabling solutions across residential, commercial, and public infrastructure projects.

3. **Renewable energy and grid-integration requirements**
   India's target of achieving 500 GW of non-fossil fuel capacity by 2030 is driving incremental demand for power cables and conductors across solar and wind projects, evacuation infrastructure, substations, and intra-park networks. Rising renewable penetration necessitates higher adoption of MV and HT cables, underground cabling solutions, and high-efficiency conductors to support grid stability, evacuation efficiency, and system reliability. States such as Gujarat, Rajasthan, and Tamil Nadu continue to witness elevated cabling demand due to renewable capacity additions and associated grid-integration requirements.

4. **Real estate and commercial construction demand**
   Growth across residential, industrial, and commercial real estate segments—including data centres, logistics parks, IT campuses, healthcare facilities, and institutional buildings—supports consistent demand for low-voltage building wires, fire-retardant and low-smoke cables, and application-specific distribution products. Expansion across Tier-I, Tier-II, and Tier-III cities further broadens the demand base for standardized and premium cabling solutions aligned with evolving safety and compliance norms.

5. **Transportation and mobility electrification**

Expansion of metro rail networks, electrified rail corridors, and electric vehicle charging infrastructure under schemes such as FAME contributes to rising demand for specialized cables used in traction systems, power distribution, signalling, communication, and auxiliary networks. The gradual electrification of public and private transportation ecosystems supports medium-term growth in demand for high-performance cables designed for higher load handling, thermal endurance, and operational reliability.

6. **Export opportunities and manufacturing diversification**

Export opportunities for Indian wire and cable manufacturers continue to expand across Europe, the United States, the Middle East, Africa, and parts of Asia, supported by the China+1 sourcing strategy, domestic manufacturing incentives, and rising global infrastructure investments. Demand for power cables, conductors, and industrial cables is expected to benefit organized manufacturers with established quality systems, BIS and IEC compliance, and diversified product portfolios. Export-led demand provides incremental long-term volume visibility and contributes to greater industry resilience.

7. **AI-led data centres and digital infrastructure expansion**

The growth of data centres driven by cloud computing, artificial intelligence workloads, and digital services is emerging as a structurally incremental demand driver for the power sector. Data centres are characterised by high power density, continuous load requirements, and stringent reliability standards, necessitating dedicated substations, redundant feeders, and high-capacity transmission and distribution infrastructure. These facilities typically require advanced power quality management, backup systems, and high-specification cabling, supporting demand for MVCC and HT cables over the medium to long term.

8. **Cryptocurrency mining and high-intensity computing loads**

Cryptocurrency mining and other blockchain-based computing activities, where permitted, contribute to concentrated and energy-intensive electricity consumption. Such operations require uninterrupted power supply and high load stability, leading to increased demand for dedicated feeders, transformers, and robust cabling infrastructure. While regulatory clarity influences near-term adoption, the underlying requirement for high-capacity electrical infrastructure aligns with long-term grid strengthening and transmission expansion trends.

6.2 Market Restraints

The Electrical Wires, Cables, and Power Conductors industry operates within a structure influenced by raw-material cost fluctuations, competitive intensity from the unorganized segment, tender-driven pricing constraints, and rising regulatory compliance requirements. These factors contribute to margin pressure, quality risks, and uneven working-capital cycles for organized manufacturers.

Market Restraints and Impact Assessment

(*All values represent directional impact based on industry estimates and qualitative analysis*)

Restraint	Impact		
	1–2 Years	3-4 Years	5-7 Years
1. Raw-material price volatility (copper/aluminium)	High	High	Medium
2. Unorganized sector participation & quality concerns	High	High	Medium
3. Tender-linked pricing pressure from utilities	High	Medium	Medium
4. Regulatory compliance & certification requirements	Medium	High	Medium

Source: Infomerics Analytics and Research

Detailed Restraint Commentary

1. **Raw-material price volatility (copper/aluminium)**
   Fluctuations in metal prices influence input cost structures for cable and conductor manufacturers. Periodic spikes in copper and aluminium prices affect profitability and complicate pricing for institutional and utility contracts. Limited hedging practices among smaller manufacturers create further exposure to volatility.

2. **Unorganized sector participation & quality concerns**
   A widespread unorganized market supplying non-certified or low-specification products influences pricing behaviour and market segmentation. This affects demand for BIS-compliant cables and raises quality-assurance risks for end users, particularly in the construction and small-contractor segments.

3. **Tender-linked pricing pressure from utilities**

   Utility and DISCOM procurement commonly follows lowest-price selection norms, which restricts pricing flexibility for organized manufacturers. Extended payment cycles and competitive bidding conditions influence working-capital requirements and profitability across the industry.

4. **Regulatory compliance & certification requirements**

   Mandatory BIS certification, adherence to safety standards for LV/MV/HT cables, and process-intensive testing protocols increase compliance expenditure. Certification timelines, periodic audits, and equipment-upgrade requirements create additional operational load, particularly for SMEs transitioning into organized manufacturing.

7. Government Initiatives and Policy Support

The Electrical Wires, Cables, and Power Conductors industry in India is significantly influenced by a portfolio of national programmes targeting electrification, distribution-system reforms, grid modernization, and integration of renewable energy. These initiatives, implemented primarily by the Ministry of Power (MoP), Ministry of Housing and Urban Affairs (MoHUA), and Ministry of Finance, create a structurally robust procurement pipeline, encompassing physical network expansion, digitalisation, and institutional strengthening. They directly shape long-term demand for LT/HT cables, aerial bunched cables (ABCs), medium voltage covered conductors (MVCC), power conductors, and associated distribution wiring systems.

1. Revamped Distribution Sector Scheme (RDSS)

The Revamped Distribution Sector Scheme (RDSS), launched in June–July 2021, is the Government of India's flagship programme for structural reform of the power distribution sector. The scheme has an approved outlay of ₹3,03,758 crore, including Gross Budgetary Support (GBS) of ₹97,631 crore for FY2021–22 to FY2025–26, with provision for extension up to FY2027–28 for completion of sanctioned works. According to the RDSS dashboard (as of January 2026), projects totaling approximately ₹2.81 lakh crore have been sanctioned across 46 DISCOMs in 28 States and Union Territories.

RDSS includes both physical and digital upgrades. Physical works comprise replacement and augmentation of low-tension (LT) and high-tension (HT) overhead lines (over one million circuit-kilometres sanctioned), conversion of high-loss bare conductors into aerial bunched cables (ABCs) and covered conductors, deployment of High Voltage Distribution Systems (HVDS), and modernisation of urban and rural feeders. Agricultural feeder segregation is coordinated with PM-KUSUM, including feeder-level solarisation.

Smart metering is a core pillar of RDSS, with approximately 20.33 crore prepaid smart consumer meters sanctioned, forming the backbone of Advanced Metering Infrastructure (AMI) integrated with SCADA/DMS platforms and ERP-based energy-accounting systems. These installations improve billing efficiency, outage management, and loss monitoring (~110 million meters installed by Q3 FY26).

The scheme also includes institutional reforms, such as capacity-building, ERP deployment, SCADA/DMS systems, and other enabling infrastructure. Fund release is performance-linked, contingent upon achievement of milestones including reduction of Aggregate Technical and Commercial (AT&C) losses (<12–15%) and closure of the Average Cost of Supply–Average Revenue Realised (ACS–ARR) gap. RDSS drives sustained demand for LT/HT cables, aerial bunched cables, MVCC, aluminium and high-temperature low-sag (HTLS) conductors, control

and communication cables, and transformer-winding wires, providing medium- to long-term visibility for organised manufacturers.

2. Pradhan Mantri Sahaj Bijli Har Ghar Yojana (SAUBHAGYA)

Launched in October 2017, SAUBHAGYA aimed to achieve universal household electrification by providing last-mile electricity connectivity to un-electrified rural households and poor urban households. As per the Ministry of Power, approximately 2.86 crore households were electrified under the scheme until its closure on 31 March 2022.

The programme focused on creation of service lines, metering, and low-voltage distribution infrastructure in previously unserved habitations. SAUBHAGYA accelerated demand for LT service cables, single-phase and three-phase distribution wiring, insulated conductors, and small-capacity overhead and underground distribution networks. Post-electrification, it established a baseline for replacement, reinforcement, and load-augmentation as newly connected households transitioned to stabilised electricity consumption.

3. Deen Dayal Upadhyaya Gram Jyoti Yojana (DDUGJY)

Launched in 2015, DDUGJY focused on strengthening rural sub-transmission and distribution networks through village electrification, feeder separation between agricultural and non-agricultural loads, and enhancement of rural power reliability. According to the Ministry of Power, 18,374 villages were electrified, with significant additions to HT and LT line infrastructure and distribution transformer capacity.

DDUGJY sustained demand for aerial bunched cables (ABCs), LT and HT conductors, pole-mounted transformers, and rural distribution cabling systems. Feeder segregation and network expansion ensured continued procurement for initial rollout and subsequent reinforcement of rural feeders, agricultural supply networks, and village-level distribution infrastructure.

4. Green Energy Corridor (GEC) – Phase II

The GEC Phase II programme facilitates large-scale renewable integration through strengthening intra-state transmission networks in high renewable-potential states. As per the Ministry of Power, it envisages development of approximately 9,700–10,750 circuit-kilometres of transmission lines and creation of around 22,600 MVA of substation capacity, with an estimated investment of ₹10,141 crore.

Execution requires deployment of advanced transmission and cabling solutions, including High-Temperature Low-Sag (HTLS) conductors, medium- and high-voltage power cables, renewable-energy evacuation cabling, and substation control/protection wiring. The programme provides medium-term demand visibility for transmission-grade conductors, power cables, and grid-scale electrical infrastructure.

5. National Infrastructure Pipeline (NIP)

The NIP envisages total infrastructure investment of approximately ₹111 lakh crore during 2020–2030, with around ₹25 lakh crore allocated to the power sector for generation, transmission, and distribution, as per the Ministry of Finance.

This pipeline ensures sustained demand for underground cabling, HT and LT conductors, substation cabling, and grid-modernisation components across urban, industrial, and renewable-energy projects, providing long-term visibility for cable and conductor manufacturers.

6. Smart Meter National Programme (SMNP)

Under SMNP, a national target of 25 crore smart meters is being implemented through Energy Efficiency Services Limited (EESL) and distribution utilities, guided by the Ministry of Power.

The programme drives demand for control wiring, communication cables, and low-voltage distribution upgrades required for AMI, feeder monitoring, and energy-accounting systems, forming a critical component of modernised and digitised distribution networks.

7. National Electricity Plan (NEP 2023–32), National Smart Grid Mission (NSGM), and MVCC under RDSS

- The NEP 2023–32, published by the CEA in October 2024, anticipates 1,91,474 circuit-kilometres of transmission lines and supports the Government's target of achieving 500 GW of installed non-fossil fuel capacity by 2030. This provides structural demand for high-voltage and medium-voltage cables, substation cabling, and optical ground wire (OPGW) systems.
- The NSGM, established in 2015 by the Ministry of Power, provides the institutional framework for smart grid adoption, facilitating advanced metering, distribution automation, and integration of distributed energy resources, driving deployment of standards-compliant cabling.
- MVCC deployment under RDSS replaces conventional bare conductors, enhancing reliability and safety in dense, rural, and vegetation-prone areas, supporting structural demand for insulated conductors, medium-voltage cables, and related accessories.

Regulatory and Compliance Framework Supporting the Industry

1. Indian Cable Industry Regulatory Landscape

The Indian electrical wires, cables, and power conductors' industry operates within a structured regulatory framework designed to ensure safety, reliability, and uniform performance across power generation, transmission, and distribution networks. The regulatory landscape is primarily governed by technical standards prescribed by the Bureau of Indian Standards (BIS), which define requirements relating to design, manufacturing processes, testing protocols, and performance parameters for low-tension, high-tension, and extra-high-voltage cables, conductors, and associated accessories.

Compliance with applicable BIS standards is mandatory for manufacturers supplying to central and state utilities, public sector undertakings, and government-backed infrastructure projects. These standards address electrical characteristics, conductor materials, insulation and sheathing properties, mechanical strength, thermal performance, and fire-safety parameters. Adherence to such standards ensures interoperability of cable products across varied grid conditions and supports consistency in quality across large-scale power infrastructure deployment.

In addition to national standards, regulatory oversight extends to technical specifications and procurement norms issued by transmission and distribution utilities. Central transmission utilities, state transmission companies, and distribution licensees prescribe supplementary technical and commercial requirements based on voltage levels, network design, and operating environments. This layered regulatory structure ensures that cable products deployed in the power system meet both uniform national benchmarks and utility-specific operational requirements.

The regulatory framework establishes common quality standards, reduces systemic risk within power networks, and supports the execution of government-led initiatives for transmission expansion, distribution strengthening, and grid modernisation.

2. NABL Accreditation and Utility Vendor Approval Requirements

Accreditation of testing facilities and vendor qualification requirements form an integral part of compliance within the cable industry. NABL-accredited in-house laboratories enable manufacturers to undertake type tests, routine tests, and acceptance tests in accordance with BIS standards and utility-specified technical requirements. Such accreditation confirms that testing infrastructure, methodologies, and personnel comply with recognised standards of technical competence and quality assurance.

The presence of NABL-accredited in-house laboratories supports consistent quality control, reduces reliance on external testing facilities, and facilitates timely certification for participation in large-scale utility tenders. These laboratories typically conduct electrical, mechanical, thermal, ageing, and fire-performance tests required for approval of cables and conductors across multiple voltage categories.

In parallel, manufacturers are required to obtain vendor approvals from individual utilities, including state distribution companies, state transmission utilities, and central sector entities. Vendor empanelment processes generally evaluate manufacturing capabilities, quality-management systems, testing infrastructure, financial capacity, and execution track record. Approved vendor status is a prerequisite for participation in utility procurement processes and long-term supply arrangements.

NABL accreditation and utility-level vendor approvals create a structured compliance environment that promotes product reliability, traceability, and performance assurance, while supporting consistent execution of power infrastructure projects across India's transmission and distribution networks.

Government-led infrastructure programmes and a robust regulatory framework together provide strong structural support to India's electrical wires, cables, and power conductors industry. Large-scale initiatives spanning distribution reforms, transmission expansion, smart metering, rural electrification, and renewable-energy integration ensure sustained and diversified demand for LT, HT, MV, and EHV cables, conductors, and associated wiring systems, while also driving grid modernisation and digitalisation. At the same time, compliance requirements anchored in BIS standards, NABL-accredited testing, and utility-specific vendor approvals establish uniform quality benchmarks and favour organised manufacturers with established testing, certification, and execution capabilities. This alignment of policy support, infrastructure investment, and regulatory discipline underpins long-term demand visibility, improves network reliability, and positions the industry to benefit from India's ongoing power-sector reforms and energy-transition objectives.

8. Technology & Digital Transformation

The Electrical Wires, Cables, and Power Conductors industry in India is undergoing technological advancement and digital transformation across design, manufacturing, quality assurance, and supply chain operations. These innovations enhance product performance, ensure BIS/IEC compliance, improve operational efficiency, and enable value-added solutions for smart grids, renewable integration, and urban infrastructure applications.

1. **Advanced Manufacturing & Automation**
   - **CNC-controlled extrusion & stranding:** Precision systems for copper and aluminium conductors ensure dimensional accuracy and consistent insulation thickness for LT and HT cables (up to 33 kV).
   - **Robotic automation:** Automated cutting, winding, packaging, and inspection reduce defects and improve worker safety.
   - **XLPE/PVC extrusion technology:** Continuous vulcanization lines produce high voltage insulated cables with superior thermal stability and mechanical strength in compliance with BIS 7098 and IEC 60502 standards.
   - **Energy-efficient operations:** Variable frequency drives and process optimization reduce power consumption per tonne of cable produced.

2. **Digital Quality Control & Testing**
   - **Inline monitoring systems:** Optical and laser inspection detect insulation defects, conductor irregularities, and dimensional inconsistencies in real time.
   - **Automated test benches:** High voltage withstand, partial discharge, and thermal cycling tests ensure regulatory compliance.
   - **Manufacturing Execution Systems (MES):** Data analytics enable predictive maintenance, defect pattern recognition, and production optimization.

3. **Smart Supply Chain & Enterprise Integration**
   - **ERP & digital traceability:** Real-time tracking of raw materials, work-in-progress, and finished goods supports efficient procurement, inventory management, and cost control.
   - **Digital twin simulations:** Cable routing, thermal management, and load calculations are modeled pre-deployment for industrial and renewable projects.
   - **Customer portals:** Web-based dashboards provide DISCOMs and EPC contractors with order status, delivery schedules, and digital quality certificates.

4. **Emerging Technologies & Sustainability**
   - **Smart grid integration:** Cables with embedded IoT sensors enable predictive maintenance and real-time grid monitoring.
   - **Green materials:** Halogen-free flame-retardant (HFFR) compounds, lead-free insulation, and recyclable materials align with ESG standards and government sustainability mandates.
   - **High-efficiency conductors:** Optimized stranding and advanced insulation reduce transmission losses and improve performance.

5. **Operational Impact**

   Technology adoption is transforming the industry from labour-intensive manufacturing to high-precision, automated production, delivering:
   - **Regulatory compliance:** Consistent BIS/IEC certification for domestic and export markets.
   - **Scalability:** Capacity to meet RDSS, renewable energy evacuation, and urban cabling demand.
   - **Competitive edge:** Superior quality against unorganized sector players and imported products.
   - **Operational efficiency:** Reduced scrap and waste, improved productivity, and lower energy consumption.

Automation, digital quality control, and emerging technologies position organized manufacturers to meet growing infrastructure, renewable, and industrial requirements while strengthening India's global competitiveness in electrical wires, cables, and power conductors.

9. PESTLE Analysis of the Industry

The Electrical Wires, Cables, and Power Conductors Industry in India operates within a dynamic policy, economic, and technology landscape. Demand is driven by national electrification programmes, grid modernization, urban infrastructure expansion, and accelerated renewable energy integration. Manufacturers and suppliers must navigate a range of political, economic, social, technological, legal, and environmental factors that influence production economics, certification compliance, procurement cycles, and sector competitiveness. The following analysis outlines these factors and their implications for the industry.

Factor	Description
Political Factors	• **Government Electrification & Power Sector Programs**: Central and state initiatives—including RDSS, DDUGJY, SAUBHAGYA, Green Energy Corridors, and Smart Meter National Programme—drive sustained demand for LT/HT cables, ABCs, and conductors across transmission and distribution networks. • **Policy Alignment with Renewable Targets:** Policies for grid-connected solar, wind evacuation, and storage-based systems create incremental requirement for MV/HT cable systems and specialized conductors. • **Public Sector Procurement:** Power Grid, NTPC, state DISCOMs, and urban development bodies are major buyers. Their tendering norms, L1 pricing rules, and payment cycles directly affect order flow and working capital for cable manufacturers. • **Regulatory Oversight:** Stable policy frameworks and standards issued by BIS, CEA, and MoP ensure uniform quality across HT/LT cables. Delays in approvals, quality audits, or scheme funding can influence production schedules and demand visibility.
Economic Factors	• **Electricity Demand Growth:** Rising generation capacity additions, industrial output, and urban construction activity expand requirements for power cables, overhead conductors, and building wiring products. • **Raw Material Price Volatility:** Copper and aluminium prices significantly influence cost of production, impacting EBITDA margins and inventory planning. • **Capital Intensity & Financing:** Credit availability affects capacity expansion and modernization projects, particularly for SMEs upgrading to BIS-mandated manufacturing standards.

	• **Infrastructure Investment Cycle:** Investment under programmes such as NIP, urban metro expansions, and renewable park development sustains multi-year cable demand across utilities and EPC contractors. • **Import Competition:** Global price trends, import duties, and currency movements influence competitiveness against foreign-sourced HT/LT cables and conductors.
Social Factors	• **Household Electrification & Safety Awareness:** Rising emphasis on safe wiring practices and adoption of FR/FRLS/HFFR cables supports premiumization in residential and commercial real estate segments. • **Urbanization & Housing Growth:** Increase in real estate development, smart cities, data centres, and commercial buildings expands the structured wiring and building cable market. • **Industrial Workforce Safety:** Greater focus on industrial accident prevention drives demand for flame-retardant, heat-resistant, and halogen-free cables in factories and logistics hubs. • **Consumer Preference Shift:** Growing awareness of branded and certified products reduces acceptance of substandard cables and enhances demand for BIS-compliant offerings.
Technological Factors	• **Automation & Advanced Manufacturing:** CNC stranding, robotic insulation, continuous vulcanization, and MES-driven production systems improve precision, reduce defects, and optimize energy use. • **Digital Quality Assurance**: Inline optical inspection, automated high-voltage testing, and data-driven process control enhance compliance with BIS/IEC specifications. • **Smart Grid & IoT Integration**: Development of sensor-enabled cables, fault-detection conductors, and communication wiring supports utilities transitioning to digital grids and smart metering ecosystems. • **Material Innovation:** HFFR compounds, nano-composite insulation, and high-efficiency conductor designs improve performance, reduce losses, and align with sustainability requirements. • **Supply Chain Digitalization:** ERP-driven procurement, digital traceability, and logistics visibility improve inventory accuracy and reduce manufacturing lead times.
Legal & Regulatory Factors	• **Mandatory Certifications:** BIS standards for LT/HT cables (including BIS 694, BIS 1554, BIS 7098) and CEA safety regulations govern design, testing, and compliance requirements. • **Environmental & Safety Laws:** Manufacturers must meet fire-safety norms, hazardous material restrictions, and occupational safety standards during production and testing.

	• **Contracting & Tender Compliance:** State utility tenders mandate strict adherence to quality norms, performance guarantees, and delivery schedules, influencing operational efficiency. • **Import Regulations:** Anti-dumping duties, customs norms, and quality control orders (QCOs) affect the inflow of imported cables and influence competitive positioning.
Environmental Factors	• **Renewable Energy Expansion:** Large-scale solar and wind projects require specialized MV/HT cables, solar DC cables, and HTLS conductors designed for high thermal and environmental load. • **Sustainability Priorities:** Adoption of recyclable materials, low-smoke halogen-free insulation, and green manufacturing practices aligns with ESG expectations from utilities and EPC customers. • **Environmental Clearances:** Cable manufacturing and conductor plants must adhere to pollution control norms, waste management regulations, and effluent treatment requirements. • **Extreme Weather Resilience:** Increasing climate-related stress on grid infrastructure boosts demand for weather-resistant, UV-stabilized, and high-temperature cables.

10. Competitive Landscape

The Electrical Wires, Cables, and Power Conductors industry operates within a supply-driven and policy-aligned ecosystem shaped by material availability, technical standards, large-scale infrastructure investments, and electrification priorities. Competition is driven by manufacturers' ability to produce high-quality, compliant products across voltage classes while maintaining cost efficiency, delivery reliability, and strong relationships with utilities, EPC contractors, and industrial buyers. Sectoral demand remains closely linked to transmission and distribution expansion, renewable energy evacuation, real estate growth, urban infrastructure, transportation networks, and rural electrification programs.

10.1 Key Factors Shaping Competition

The competitive structure of the industry is influenced by scale, product reliability, quality certification, raw material integration, and the ability to serve diverse demand segments ranging from building wires to EHV conductors. Companies differentiate through manufacturing technology, process automation, backward integration, adherence to BIS standards, and their capability to supply consistent volumes for utility and infrastructure projects.

- **Manufacturing Scale, Process Efficiency, and Cost Competitiveness**
  Cost efficiency is central to competitive positioning, particularly in tender-driven segments where price sensitivity is high. Large players benefit from economies of scale across copper drawing, aluminium rod casting, wire extrusion, stranding, and armouring. Integration of raw material processing—such as in-house copper/aluminium rod production—supports margin stability and supply assurance. Efficient procurement of metals, optimized plant layouts, and automated quality-control systems contribute to lower conversion costs, enabling firms to compete effectively in both domestic and export markets.

- **Quality, Certification, and Compliance Standards**
  Adherence to BIS standards (IS 694, IS 1554, IS 7098, IS 398 series) and utility-specific technical specifications acts as a fundamental differentiator. Government tenders, EPC contractors, and distribution utilities increasingly prioritise products with proven reliability, long service life, and certification through NABL-accredited labs. Companies with strong testing infrastructure—covering type, routine, and special tests—maintain an advantage in high-voltage, fire-survival, and specialty cable categories. Compliance with quality-control orders shields organized manufacturers from competition originating in the unorganized sector.

- **Technology Integration and Product Innovation**
  The industry is undergoing a steady transition driven by insulation improvements, process automation, and advanced materials. Adoption of XLPE insulation, HFFR/LSZH compounds, triple extrusion, online spark testing, and Industry 4.0 monitoring systems enhances consistency and reduces defect rates. Manufacturers investing in digital MES platforms, automated rod mills, robotic handling, and advanced conductor technologies (including HTLS) are better positioned to supply utilities pursuing grid modernization, renewable integration, and undergrounding of networks.

- **Market Diversification and Ability to Serve Multi-Segment Demand**
  Competitive strength also depends on the ability to serve a broad spectrum of end-use industries—utilities, real estate, data centers, transportation, industrial facilities, railways, and renewable energy. Companies with wider product portfolios across LT/HT cables, building wires, instrumentation cables, EHV conductors, and specialty cables secure stable order inflows across economic cycles. Strong distribution networks support market penetration in B2C building wire categories, while institutional relationships drive utility and industrial orders.

- **Policy Alignment, Tender Participation, and Utility Relationships**
  Policy-driven demand under RDSS, NIP, Smart Metering programs, transmission system expansion, and renewable evacuation directly influences industry order flows. Firms with established credentials in government procurement, vendor approvals with central and state utilities, and long-term supply track records maintain stronger competitive visibility. Compliance with localization requirements and Make in India preferences enhances eligibility across public procurement platforms.

- **Financial Strength, Working Capital Management, and Raw Material Hedging**
  The industry is capital- and working-capital intensive due to the high cost of copper and aluminium. Companies with disciplined inventory management, reliable supplier relationships, and access to low-cost finance maintain stable operations despite commodity volatility. Larger manufacturers leverage hedging strategies, supplier contracts, and diversified input sourcing to manage price fluctuations. Strong balance sheets enable capacity expansion, technology upgrades, and entry into higher-value product lines such as MV/HV cables.

10.2 Competitive Strategies

Manufacturers in the electrical wires, cables, and power conductors industry adopt capability-driven and technology-led strategies to operate competitively in a standards-intensive and procurement-led environment. Competitiveness is shaped by manufacturing integration, advanced material technologies, regulatory compliance, supply chain resilience, and consistent delivery performance across utilities, EPC contractors, industrial customers, and retail channels. The following strategic levers illustrate how leading players differentiate themselves and sustain long-term institutional and project-based relationships.

- **Integrated Manufacturing and Quality Assurance Systems**
  Firms enhance competitiveness by aligning wire drawing, conductor forming, insulation, sheathing, and testing within consolidated operations. Automated quality-control systems and certified laboratories strengthen product uniformity, traceability, and compliance with IS/IEC standards. Integrated production improves turnaround time, productivity, and reliability in utility and infrastructure-linked supply contracts.

- **Technology Advancement and Material Innovation**
  Companies upgrade manufacturing lines with continuous extrusion, precision stranding, multi-layer insulation, and robotic handling to meet rising safety and performance requirements. Use of advanced materials such as XLPE, HR/FR/FRLSH compounds, halogen-free insulation, and high-temperature low-sag conductors expands participation in high-voltage and specialized cable segments. These advancements enhance durability and operational efficiency across transmission, industrial, and commercial applications.

- **Capacity Scaling and Portfolio Diversification**
  Strategic additions of production lines, EHV cable units, and high-speed drawing machinery enable responsiveness to large project-driven demand. Diversification across power cables, control and instrumentation cables, flexible building wires, and overhead conductors strengthens qualification in tenders and reduces dependence on specific end-use categories such as utilities or real estate.

- **Supply Chain Optimization and Raw Material Risk Management**
  Given significant exposure to copper and aluminium prices, firms adopt structured procurement models, long-term supplier tie-ups, and commodity risk mitigation tools. Multi-location warehouses, digital inventory systems, and optimized logistics networks support timely deliveries for EPC projects and retail distribution. Robust supply chains reinforce delivery reliability, a key criterion in evaluated tenders.

- **Compliance, Certification, and Project Eligibility Strengthening**
  Manufacturers build competitive strength by maintaining comprehensive certifications such as BIS, ISO, IEC, and approvals from utilities, railways, defence, and oil & gas entities. Investments in type testing and routine testing infrastructure enhance eligibility for large value procurement programs. Strong compliance systems support audits, traceability, and emerging fire-safety and environmental standards.

- **Customer Engagement and Technical Support Differentiation**
  Firms reinforce customer retention through technical advisory, installation support, diagnostics, and product selection assistance. Dedicated project coordination teams interface with EPC contractors and utilities to manage schedules, documentation, and site-specific requirements. Enhanced after-sales service and lifecycle support improve client confidence in a specification-driven and price-sensitive market.

10.3 Barriers to Entry

The Electrical Wires, Cables, and Power Conductors industry exhibits high structural entry barriers driven by capital-intensive manufacturing, multi-layered certification requirements, raw material dependence, and entrenched institutional procurement ecosystems. New entrants typically face extended timelines to achieve operational stability, compliance readiness, and commercial acceptance, reinforcing the competitive position of established manufacturers with integrated facilities, diversified portfolios, and long-standing supply credentials.

- **Capital Intensity and Manufacturing Setup Requirements**
  Setting up a modern wire and cable facility requires significant investment in high-speed drawing lines, continuous extrusion systems, XLPE curing units, allied compounding infrastructure, and fully equipped electrical and mechanical testing laboratories. Plant establishment involves land acquisition, environmental clearances, and commissioning cycles spanning 18–24 months, with sizeable capital commitments before scale efficiencies can be realized. Early-stage operations often operate at sub-optimal utilization levels, extending breakeven timelines due to fixed overhead absorption.

- **Certification, Compliance, and Testing Infrastructure**
  The sector is governed by mandatory BIS certifications under IS 694, IS 1554, IS 7098, and IS 398 for domestic sales, supported by NABL-accredited facilities capable of routine, type, and special tests such as partial discharge and thermal ageing assessments. Approval cycles may extend 12–18 months and involve periodic audits. Non-certified manufacturers remain ineligible for a large share of utility, railways, defence, and public infrastructure procurements, while incumbents benefit from pre-existing approvals and in-house laboratories that streamline compliance and reduce turnaround time.

- **Raw Material Dependence and Supply Chain Constraints**
  Copper and aluminium constitute a dominant share of manufacturing costs and require stable sourcing through long-term supply contracts, assured rod quality, and price-risk management capabilities. Volatility in global metal markets, coupled with concentrated domestic supply, increases procurement exposure for new entrants with limited bargaining leverage. Established manufacturers with multi-source arrangements, recycling initiatives, and integrated procurement systems sustain better cost stability and delivery reliability across project-linked and retail markets.

- **Technology, Process Know-How, and Skilled Workforce Requirements**
  Competitive operations demand mastery of advanced processes including triple extrusion, continuous vulcanization, precise conductor stranding, and automated spark testing. Manufacturing higher-value products such as HT cables, HFFR/LSZH variants, and solar

segment offerings require dedicated R&D, tooling investments, and process calibration experience typically gained over multi-year operating cycles. Mature players achieve superior yields and product consistency, shaping entry barriers in a specification-driven and audit-intensive procurement landscape.

- **Utility Vendor Approvals and Institutional Relationship Capital**
  Participation in government and utility supply programs requires vendor approvals from state DISCOMs, central utilities, metro rail bodies, and large EPC contractors, each involving proof of performance, site testing, and multi-year supply records. Established manufacturers hold wide vendor code portfolios and benefit from repeat institutional demand. New entrants undergo extended evaluation periods, delaying access to high-volume project orders and long-cycle framework agreements.

- **Export and Global Compliance Restrictions**
  Access to export markets necessitates conformity with IEC, BS, and ASTM standards, along with additional type testing, factory audits, and region-specific documentation. Market positioning in the Middle East, Africa, and Southeast Asia often requires local warehousing or regional representation, adding to entry costs. Larger incumbents leverage existing export approvals, established distributors, and scale-based eligibility for incentive schemes, strengthening their position in overseas infrastructure and utility projects.

10.4 Consolidation Trend

The Electrical Wires, Cables, and Power Conductors industry in India is witnessing gradual and steady consolidation as organized manufacturers expand production capacity, deepen value-chain integration, and reinforce compliance frameworks. This movement is driven by growing demand across transmission and distribution utilities, renewable energy integration, urban underground infrastructure projects, and expanding export markets. Larger players are investing heavily in advanced manufacturing technologies, certification capabilities, and extensive distribution networks. Such consolidation enhances operational scale, elevates product quality, and strengthens competitive positioning relative to a fragmented unorganized sector that continues to hold a significant market share.

- **Capacity Expansion by Leading Players**
  Market leaders are scaling up through new greenfield plants, technology modernization, and diversification across multiple production sites. These enhancements enable increased output of LT/HT cables, conductors, and specialty products, aligning with large government programs such as the Revamped Distribution Sector Scheme (RDSS), national grid modernization, and renewable energy targets. Economies of scale improve cost competitiveness and ensure timely, large-volume deliveries in tender-driven markets.

- **Backward Integration for Raw Material Security**
  Key manufacturers are securing strategic control over copper and aluminium sourcing by investing in integrated rod casting, metal recycling, and refining operations. This backward integration mitigates risks from commodity price volatilities and supply chain disruptions while assuring consistent input quality for utility-scale and EPC project requirements. Such initiatives contribute to improved margin predictability in this metal-intensive industry.

- **Technology and Certification Consolidation**
  Expansion is complemented by investments in cutting-edge extrusion, continuous vulcanization (CCV), and automated testing facilities. Advanced in-house R&D capabilities and NABL-accredited laboratories ensure compliance with mandatory BIS standards as well as project-specific utility and export requirements. Accelerated testing and certification processes enhance eligibility to participate in high-value tenders across central, state, and international markets.

- **Distribution Network Consolidation and Market Penetration**
  Organized firms are acquiring and integrating regional distribution networks to strengthen presence in residential, commercial, and industrial sectors. Digitized sales and logistics platforms support widespread deployment of building wires, LT cables, and specialized industrial cable products. This facilitates broad market reach and diversification beyond traditional utility orders.

- **Export Capability Enhancement and Global Positioning**
  Consolidation includes fostering export-compliant manufacturing units, establishing international warehousing facilities, and forging partnerships with global EPC and utility companies. Alignment with global standards such as IEC, BS, and ASTM expands access to infrastructure projects across Middle East, Africa, and Southeast Asia. Growth of export markets enables revenue diversification and increases India's footprint in global cable supply chains.

- **Financial Strength and Institutional Investment**
  Companies with robust balance sheets attract institutional capital, enabling significant investments in capacity expansion and working capital. Financial resilience supports participation in large, milestone-linked government contracts and international projects, enhancing long-term operational scalability and strategic market penetration.

India's electrical wires, cables, and power conductors sector remains moderately consolidated, with organized players capturing increasing market share driven by scale benefits, compliance diligence, and technological depth. Continued capacity augmentation, vertical integration, and quality certification are expected to accelerate consolidation, reinforcing the sector's critical role in India's electrification and infrastructure development agenda.

10.5 Key Industry Players

The Electrical Wires, Cables, and Power Conductors industry is characterised by globally established technology leaders, integrated domestic manufacturers, and regionally strong emerging competitors. Competitive positioning is influenced by product capability, scale of metal processing, insulation-system expertise, BIS/IEC compliance, vendor approvals with utilities and EPCs, and the ability to address both institutional and retail demand.

Global Leaders

1. **Prysmian Group (Italy)**
   Prysmian Group is widely recognised as the global cable manufacturer, active across power transmission, power distribution, telecom, submarine cables, and speciality applications. Its technical literature and R&D outputs inform global benchmarks for insulation systems, fire performance, and long-distance high-capacity transmission cables. The company's experience in high-voltage and submarine cable projects supports grid interconnection and offshore-wind deployment worldwide. Procurement scale and engineering standards set reference points for utilities, EPCs, and manufacturers in international markets.

2. **Sumitomo Electric Industries (Japan)**
   Sumitomo Electric operates across high-voltage power cables, electronic materials, specialty conductors, and automotive/EV wiring systems. The company's published R&D work contributes to advancements in conductor materials, enamel formulations, and insulation technologies used in EV motors, industrial drives, and high-efficiency transformers. Its high-voltage and extra-high-voltage solutions are deployed in transmission and renewable-energy projects globally, influencing specification norms adopted by OEMs and cable manufacturers.

3. **LS Cable & System (South Korea)**
   LS Cable & System is a producer of industrial power cables, extra-high-voltage cable systems, bus ducts, and fire-resistant solutions. Industry documentation highlights its role in large infrastructure and renewable projects, including offshore wind and smart-grid installations across the Asia-Pacific region. Its engineering capability across design, manufacturing, and installation of high-voltage systems shapes technical benchmarks used for comparison in developing cable markets.

4. **Essex Furukawa Magnet Wire (USA–Japan JV)**
   Essex Furukawa Magnet Wire LLC, a joint venture between Essex Magnet Wire and Furukawa Electric, consolidates their global magnet-wire operations across key manufacturing locations. The company supplies major OEMs and Tier-1 suppliers in

automotive, energy, and industrial sectors. Its MagForceX R&D centres focus on next-generation magnet-wire technologies, including high-temperature enamels, EV-motor winding systems, and advanced insulation solutions, which are widely referenced in industry development.

5. **Rea Magnet Wire Company (USA)**

Rea Magnet Wire is a major producer of magnet wire for transformers, motors, compressors, and industrial machinery across North America and international markets. The company's technical literature is frequently cited for insulation innovation, thermal-class performance, and high-reliability winding applications. Its contribution to EV-motor and industrial-motor winding technologies provides reference benchmarks for global magnet-wire standards.

Leading Domestic Players

1. **Ram Ratna Wires Ltd (RR Shramik)**

Ram Ratna Wires is a principal Indian manufacturer of enamelled copper and aluminium winding wires, with manufacturing units in Silvassa and Dadra & Nagar Haveli. It is identified in industry sources as one of the largest winding-wire manufacturers in South Asia and Indian producer offering enamelled copper wires from ultra-fine sizes to large cross-sections across an extensive range. The company supplies motors, transformers, pumps, and coils across residential, commercial, and industrial sectors through the RR Global network. Long operating history, OEM relationships, and in-house testing capability support its positioning in the domestic winding-wire segment.

2. **Precision Wires India Ltd**

Precision Wires India manufactures enamelled round and rectangular copper winding wires, continuously transposed conductors (CTC), and insulated copper conductors used in static and rotating electrical equipment. It serves power-equipment OEMs, auto-electrical suppliers, consumer-durables manufacturers, and industrial-equipment producers in India and overseas. It is one of the leading organised-segment manufacturers in copper winding wires. Its plants in Silvassa and Gujarat offer large installed capacity supported by NABL-accredited testing and process controls.

3. **Apar Industries Ltd**

Apar Industries has integrated operations across aluminium conductors, power cables, and transformer oils, supplying both domestic and international markets. Industry publications recognise its conductor division as a major supplier of ACSR, AAAC, and high-performance conductors for high-voltage and extra-high-voltage networks, including renewable-energy evacuation lines. Large export presence and technology partnerships

enable participation in global T&D infrastructure projects. The company's scale influences domestic pricing benchmarks and procurement competitiveness.

4. **Polycab India Ltd**

Polycab is one of India's largest integrated manufacturers of wires and cables, with backward integration across copper rod casting, compounding, and cable manufacturing, as per public disclosures. It offers building wires, LT/HT power and control cables, instrumentation cables, and related products. Its extensive retail network supports branded house-wire sales, while institutional supply spans utilities, infrastructure, and industrial sectors. Vertical integration enables quality consistency and delivery capabilities for large-volume projects driven by utilities and EPC contractors.

5. **KEI Industries Ltd**

KEI Industries manufactures LV, MV, and EHV power cables, control and instrumentation cables, and speciality cables for infrastructure, utilities, real estate, and industrial projects. Public filings highlight competencies in EHV cables up to 400 kV and a strong presence in institutional supply. NABL-accredited test laboratories, automated manufacturing lines, and vendor approvals with central and state utilities allow the company to participate in technically demanding power-system projects. It is regarded as a key organised player in underground-cabling and infrastructure-electrification projects.

Emerging Domestic Competitors

1. **Divine Power Energy Ltd**

Divine Power Energy manufactures bare copper and aluminium wire/strip and winding wire used in transformers and distribution equipment. Company IPO documents identify supplies to power-distribution companies and transformer manufacturers, including private utilities and state DISCOMs. The company caters to transformer OEMs and regional institutional demand, positioning itself as an emerging organised-segment supplier with a growing footprint in utility procurement.

2. **V-Marc India Ltd**

V-Marc India produces LT/HT power cables (up to 33 kV), control cables, aerial-bunched cables, flexible wires, and communication cables such as LAN, CCTV, coaxial, and telephone cables, according to public disclosures. Its manufacturing facilities have installed capacity in the tens of thousands of kilometres annually, with BIS licences covering multiple product categories. The company participates in government tenders and serves regional retail markets under the "V-Marc" brand. Its positioning reflects a mid-scale manufacturer with expanding institutional and retail presence.

Capability / Segment	SEIL	Divine Power Energy Ltd	V-Marc India Ltd
Winding Wire & Strips (Copper/Aluminium/Bare)	✓ (Core, Cu/Al strip processing)	✓	-
Power & Distrib. Cables (LT/HT/MV/EHV/AB)	✓ (LT/AB focus)	-	✓ (LT/HT up to 33 kV)
Retail / Branded Wires	- (Institutional B2B focus)	-	✓ (Regional + expanding)
Instrumentation & Control Cables	✓ (Control cables)	-	✓ (LAN/CCTV/Coaxial/ Telephone)
Industrial & OEM Applications	✓ (Transformer OEMs, motor)	✓	-
Renewable / High-Voltage Applications	- (Indirect via DISCOM projects)	-	-
Integrated Manufacturing & Quality Systems	✓ (Enamel + strip, in-house testing, BIS)	✓ (Strip processing)	✓ (BIS-certified lines)
Export / International Presence	- (Domestic focus, emerging global)	-	-
Primary Market Positioning	Winding wires + LT/HT cables (mid-scale B2B)	OEM/utility supplier	Mid-scale cables (retail + tenders)

Note: *Information presented is based on publicly available data, including company websites and disclosures.*

10.6 Company Positioning – Susan Electricals India Limited

Established in 2005 and headquartered in Delhi NCR, Susan Electricals India Limited ("Susan Electricals" or "the Company") is a specialized manufacturer of winding wires and power cables/conductors serving critical distribution and transmission infrastructure requirements across North India. Led by Mr. Vishal Jain, Managing Director with nearly two decades of operational experience, the Company operates three manufacturing facilities in Ghaziabad (two units) and Delhi, equipped to produce super-enamel winding wires, double paper covered (DPC) wires/strips, aerial-bunched (AB) cables, LT armoured/unarmoured aluminium cables (PVC/XLPE), HT cables up to 33 kV, and aluminium conductors.

The Company's core offerings focus on transformer OEM requirements through enamelled copper and aluminium winding wires and strips, complemented by a diversified distribution-cable portfolio including AB cables (launched 2023), LT power cables, and high-barrier HT cables (operationalized 2024 with BIS certification). Susan Electricals is a vendor to multiple state electricity boards including Uttar Pradesh (PVVNL), Haryana, Telangana, Jharkhand, Bihar, Madhya Pradesh, and Rajasthan, placing it among approximately qualified winding-wire suppliers nationwide. Key milestones include private-sector supply consolidation (2005–2015), entry into government procurement (2015 onwards), launch of the cables division (2023), and HT cable commercial deployment (2024).

The Company demonstrates competitive strengths through dual-segment synergy (winding wires for transformers and cables for distribution networks), rapid scaling in HT cables, in-house processing of copper and aluminium strips, and dedicated testing facilities. Its products serve state DISCOMs, EPC contractors, and transformer manufacturers, supporting initiatives such as rural electrification and RDSS schemes. The newly commissioned HT cable facility (2024) strengthens capacity ahead of FY25 growth, with strategic expansion planned across Gujarat, Punjab, Uttarakhand, Kerala, and Tamil Nadu.

Leveraging approved vendor status across key states, backward integration in metal-strip processing, and presence in high-entry-barrier segments like 33 kV HT cables, Susan Electricals is positioned to capture rising demand from distribution network upgrades, underground cabling projects, and transformer deployments. The Company's B2B institutional orientation, BIS-compliant manufacturing, and promoter-led execution framework enable reliable participation in tender-driven utility projects while scaling operations in India's fragmented wires and cables ecosystem.

10.7 SWOT Analysis of Susan Electricals India Limited

Strengths	Weaknesses
• **Integrated Product Portfolio:** Established manufacturing of super-enamel and DPC winding wires complemented by AB, LT, and HT cables up to 33 kV, enabling participation across transformer, distribution, and underground cabling requirements. • **Utility Vendor Approvals:** Registration with multiple state electricity boards ensures access to recurring institutional procurement linked to distribution strengthening, electrification, and loss-reduction programs. • **Backward Metal Processing:** In-house copper and aluminium strip processing enhances product consistency, cost stability, and quality control across both winding wire and cable lines. • **BIS-Compliant Capability**: Internal testing infrastructure supports adherence to BIS and utility specifications, improving tender eligibility and product acceptance in high-compliance segments. • **Operational Continuity:** Long-tenured technical workforce and multi-unit NCR manufacturing base support stable production, logistics efficiency, and consistent supply to North and Central India. • **Synergistic Demand Linkage:** Winding wire demand from transformer OEMs and cable demand from utility projects create complementary revenue streams aligned with national distribution-network expansion.	• **Tender-Dependent Revenue Mix:** Significant reliance on state utility tenders exposes the business to elongated payment cycles, bid timing uncertainty, and project-linked cash-flow variability. • **Geographical Concentration:** Operations centered in the NCR region limit depth of penetration in western and southern markets despite emerging registrations. • **Limited Brand Visibility:** Absence of a consumer or retail-facing product segment reduces brand recognition relative to large, integrated wire-and-cable companies. • **Scaling Phase in HT Cables:** The HT division remains in its early commercialization stage and requires sustained capacity enhancement to match established incumbents.

Opportunities	Threats
• **Distribution Network Reforms**: Government initiatives targeting conductor replacement, feeder strengthening, and modernization of utility networks support sustained demand for winding wires and AB/LT/HT cables. • **Urban Undergrounding Momentum:** Increasing shift toward insulated and underground cabling in urban centers creates opportunities for BIS-compliant LT and HT cable suppliers. • **Vendor Base Expansion:** Ongoing efforts to secure approvals in additional state utilities enhance access to new tender pipelines and institutional customers. • **Transformer Demand Growth:** Rising deployment of transformers for renewable energy evacuation, EV charging infrastructure, and rural electrification strengthens pull-through demand for winding wires. • **Industrial and Infrastructure Projects:** Growth in industrial parks, data centers, metro networks, and commercial infrastructure drives incremental demand for LT/HT cables. • **Portfolio Scaling:** Expansion of the HT cable line and capacity augmentation enable greater participation in higher-specification, higher-margin utility segments.	• **Commodity Price Exposure:** Dependence on copper and aluminium creates vulnerability to price volatility, impacting cost structures and margins in fixed-bid tender environments. • **Competitive Tender Landscape:** Large integrated cable manufacturers with extensive capacity and pricing flexibility exert pressure on mid-scale players in utility bidding. • **Evolving Compliance Requirements:** Changes in BIS standards and enhanced utility testing protocols increase compliance costs and necessitate continuous technical upgrades. • **DISCOM Payment Constraints:** Liquidity challenges in state utilities can extend receivables and strain working capital in a predominantly tender-driven business model.

10.8 Financial Performance Analysis

All financials are Standalone unless stated otherwise. Figures are in ₹ lakhs.

Key Indicators (in INR Lakhs)	Susan Electricals India Limited		
	FY 2023	FY 2024	FY 2025
Revenue from operations	7837.90	10428.69	13652.64
Total Income	7854.26	10437.69	13672.72
EBITDA	134.39	373.07	1211.15
EBITDA Margin	1.71	3.58	8.87
PAT	72.15	126.53	502.96
PAT Margin	0.92	1.21	3.68
Current Ratio	0.99	0.92	1.09
Tangible Net worth	356.49	676.64	1785.72
Total Debt	534.04	2246.68	4215.08
Debt Equity Ratio	0.97	0.27	0.05
Return on Capital Employed (%)	24.05	15.89	24.99
Return on Net Worth (%)	40.48	24.49	40.85

Note: Data as per company's Audited Financials. Key financial ratios and their formulas used in this report are as follows:

- ***EBITDA*** *(Earnings Before Interest, Taxes, Depreciation and Amortisation): Total Operating Income - Operating Expenses (excluding Depreciation & Amortisation, Interest, and Taxes)*
- ***EBITDA Margin:*** *(EBITDA/ Total Operating Income) *100*
- ***PAT Margin:*** *(Profit after Tax/Total Income) *100*
- ***Current Ratio:*** *Current Assets /Current Liabilities*
- ***Tangible Net Worth:*** *Share Capital + Reserve & Surplus – Intangible Assets -Deferred Tax Assets – Misc Expenditure not written off – Revaluation Reserves*
- ***Return on Net Worth (RONW):*** *(Profit After Tax /Average Tangible Net Worth) *100*
- ***Total Capital Employed:*** *Fixed Assets + Intangible Assets +Net Working Capital*
- ***Return on Capital Employed (ROCE):*** *(Earnings before Interest & Taxes/Average Capital Employed) *100*

Susan Electricals India Limited recorded sustained growth in scale over FY 2023–FY 2025. Revenue from operations increased from ₹7,837.90 lakh in FY 2023 to ₹10,428.69 lakh in FY 2024 and further to ₹13,652.64 lakh in FY 2025. Total income moved in line with this trajectory, rising from ₹7,854.26 lakh in FY 2023 to ₹13,672.72 lakh in FY 2025, indicating continued expansion in the Company's operating base.

Profitability metrics strengthened over the period. EBITDA increased from ₹134.39 lakh in FY 2023 to ₹373.07 lakh in FY 2024 and to ₹1,211.15 lakh in FY 2025, with the EBITDA margin improving from 1.71% in FY 2023 to 8.87% in FY 2025. PAT increased from ₹72.15 lakh in FY 2023 to ₹126.53 lakh in FY 2024 and to ₹502.96 lakh in FY 2025, accompanied by an expansion in PAT margin from 0.92% to 3.68%. These movements reflect higher operating efficiency at expanded scale.

The balance sheet also strengthened during the period. Tangible net worth increased from ₹356.49 lakh as at FY 2023 to ₹676.64 lakh as at FY 2024 and further to ₹1,785.72 lakh as at FY 2025. The current ratio remained stable around 1 time, reported at 0.99 in FY 2023, 0.92 in FY 2024 and 1.09 in FY 2025, indicating maintenance of near-par short-term liquidity.

Total debt rose from ₹534.04 lakh in FY 2023 to ₹2,246.68 lakh in FY 2024 and ₹4,215.08 lakh in FY 2025, aligned with growth in operations. The reported debt-equity ratio declined from 0.97 in FY 2023 to 0.27 in FY 2024 and 0.05 in FY 2025, reflecting an improvement in capital structure on account of accretion to net worth.

Return indicators remained strong over the period. Return on Capital Employed was 24.05% in FY 2023, 15.89% in FY 2024 and 24.99% in FY 2025, while Return on Net Worth stood at 40.48%, 24.49% and 40.85% respectively. These levels indicate efficient utilisation of capital employed and equity base during the period under review.

10.9 Peer Benchmarking Table (FY2024–25)

For peer benchmarking, Susan Electricals India Limited has been compared with Divine Energy Power Limited and V-Marc India Limited, as specified by the client. These companies operate within the electrical equipment value chain—Divine Energy Power Limited primarily in winding wires, V-Marc India Limited in cables, and Susan Electricals across both segments—thereby providing relevant comparative context on scale, profitability, capital structure, and return metrics, notwithstanding differences in operating scale.

All financials are Standalone unless stated otherwise. Figures are in ₹ lakhs.

Key Indicators (in INR Lakhs)	Susan Electricals India Limited – FY 2025	Divine Energy Power Limited-FY2025	V-Marc India Limited-FY2025
Revenue from operations	13652.64	34166.78	90487.46
Total Income	13672.72	34219.18	90624.14
EBITDA	1211.15	1963.23	9713.60
EBITDA Margin	8.87	5.75	10.73
PAT	502.96	915.30	3609.46
PAT Margin	3.68	2.67	3.98
Current Ratio	1.09	1.40	1.23
Net worth	1785.72	8601.32	18944.81
Total Debt	4215.08	8772.76	17498.71
Debt Equity Ratio	0.05	0.27	0.38
Return on Capital Employed (%)	24.99	20.93	42.68
Return on Net Worth (%)	40.85	21.28	38.11

Note: *All data has been sourced from public-domain disclosures, including MCA filings and information available on the respective company websites; Divine Power operates primarily in winding wires, V-Marc in cables, and Susan spans both segments, enabling the comparison.*

For FY 2025, Susan Electricals India Limited operated at a smaller scale relative to its listed peers. Revenue from operations stood at ₹13,652.64 lakh, compared with ₹34,166.78 lakh for Divine Energy Power Limited and ₹90,487.46 lakh for V-Marc India Limited. Total income showed a similar pattern at ₹13,672.72 lakh, against ₹34,219.18 lakh and ₹90,624.14 lakh, respectively. Segmentally, Susan Electricals operates across both winding-wire and cable categories, while Divine Energy Power is primarily focused on winding wires and V-Marc India Limited on cables.

Profitability remained competitive within the peer set. Susan Electricals reported EBITDA of ₹1,211.15 lakh with an EBITDA margin of 8.87%, compared with ₹1,963.23 lakh and 5.75% for Divine Energy Power Limited and ₹9,713.60 lakh and 10.73% for V-Marc India Limited. PAT stood at ₹502.96 lakh with a PAT margin of 3.68%, versus ₹915.30 lakh and 2.67% for Divine Energy Power Limited and ₹3,609.46 lakh and 3.98% for V-Marc India Limited. The margin profile indicates performance broadly in line with Divine Energy Power Limited and moderately below V-Marc India Limited, which operates at a significantly larger scale.

Susan Electricals' liquidity and financial structure remained stable. Its current ratio was 1.09, slightly lower than Divine Energy Power Limited (1.40) and V-Marc India Limited (1.23), indicating the company can comfortably meet short-term obligations. The company's net worth stood at ₹1,785.72 lakh, smaller than Divine Energy Power (₹8,601.32 lakh) and V-Marc India (₹18,944.81 lakh), which aligns with its size. Total debt was ₹4,215.08 lakh, lower than its peers (Divine Energy Power: ₹8,772.76 lakh; V-Marc India: ₹17,498.71 lakh). Its debt-to-equity ratio of 0.05 is well below the peer averages of 0.27 and 0.38, showing a cautious approach to borrowing.

Return on capital and equity was strong. Susan Electricals achieved a ROCE of 24.99% and RONW of 40.85%, outperforming Divine Energy Power (20.93% ROCE, 21.28% RONW) and broadly comparable to V-Marc India (42.68% ROCE, 38.11% RONW). These figures indicate the company uses its capital and equity efficiently to generate profits.

11. Future Outlook

The Indian electrical wires, cables, and power conductors' industry is projected to grow from USD 73.80 billion in 2025 to USD 222.74 billion by 2035 at a CAGR of 11.68%, outpacing the global market's 6.93% CAGR, which is expected to reach USD 3,080.87 billion. Key segments such as wires and cables are expected to expand from USD 10.32 billion to USD 22.35 billion (CAGR 8.02%), while winding wires will grow aligned with India's electricity demand, forecast to rise by 80% by 2035, with peak loads reaching 243 GW.

This expansion is driven by large-scale grid modernization, renewable energy integration, urban infrastructure development, electrification programs, and increasing adoption of electric vehicles. Policy-backed capital expenditure under schemes including RDSS (₹3.03 lakh crore), Green Energy Corridors, and the National Infrastructure Pipeline (₹111 lakh crore total, ₹25 lakh crore for power) will support sustained demand for LT/HT cables, conductors, and winding wires. Export potential to markets such as the US, UAE, and Saudi Arabia is expected to increase from USD 2.34 billion in FY25, while adoption of advanced technologies including XLPE and HFFR cables, manufacturing automation, and IoT-enabled smart grids will enhance operational efficiency and regulatory compliance.

Industry participants are expected to focus on backward integration for copper and aluminium, scale HT/EHV manufacturing capacity, and implement digitalized production and quality systems to capture India's share of global electricity growth. Risks such as tender-based pricing pressures and delayed payments from DISCOMs require strong working capital management and hedging strategies. Innovations aligned with Environmental, Social, and Governance principles, including halogen-free materials and low-sag conductors, will support renewable energy evacuation and underground cabling trends. India's electrical equipment sector is positioned for transformative growth, underpinned by structural electricity demand, policy-backed investment, and technological advancement. Organized, compliant, and agile manufacturers are expected to capture sustained value through 2035, reinforcing India's role as a global electrification hub.

Yours Faithfully,

Sankhanath Bandyopadhyay
Senior Economist
Infomerics Analytics & Research Pvt Ltd
Place: New Delhi