The Q&A

APAR
Tomorrow's solutions today

APAR – The Architect of Sustainable Solutions Powering the Global Energy Transition.

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Q. How has APAR's vision and strategic direction evolved in the last 3–5 years in response to global industrial shifts (e.g. energy transition, digitalisation, supply chain disruptions)?

APAR's vision is to design & manufacture Building Blocks for Energy Infrastructure, Transportation & Telecommunication Sectors that contribute meaningfully to make this world a more energy efficient, environmentally sustainable and safer place. India's energy landscape has dramatically transformed in the past decade, with electricity consumption doubling to 1,543 billion units and renewable capacity rising from 76 GW to 191 GW*. APAR stands to benefit from this energy transition phase as close to 80% of our products are used in transmitting electricity either in the generation, transmission or distribution phase.

Our advanced conductors, cables, and transformer oils are indispensable for transmitting renewable energy from its source across vast distances with minimal loss and maximum efficiency that fuel businesses, critical infrastructure, and communities. By pioneering eco-conscious innovations and integrating sustainability into its operations, APAR empowers the transition to cleaner energy and forges a legacy of environmental stewardship, supporting India and the world in building a resilient and low-carbon future.

India is witnessing massive investments in railway, infrastructure, and mobility sectors, with planned expenditures reaching approximately ₹143 trillion (around US$1.71 trillion) between 2024 and 2029. Drawing on over six decades of excellence, APAR plays a pivotal role in supporting and accelerating this growth by designing foundational and transformative energy infrastructure solutions that drive progress that shape industries and communities worldwide.

APAR Conductors power millions of homes across 100+ countries. As The world's largest conductor manufacturer and India's largest copper conductor manufacturer for Rail Electrification, we lead in special copper conductors for high-speed and Bullet trains. Furthermore, with 200+ reconductoring projects completed in challenging terrains, our turnkey expertise maximises ampacity, reduces losses, and extends asset life. APAR's future-ready T&D solutions support decarbonisation and seamless renewable integration, future-proofing power grids worldwide.

Since entering the industry in 2008, APAR Cables has emerged as India's sixth-largest and fastest-growing organised cables player, manufacturing the widest range of cables and leading exports. Supplying over 90% of cables for Vande Bharat Express and operating five Electron Beam irradiated cable facilities the highest in India APAR powers the renewable energy sector and defence with specialised cables meeting Indian Navy and IEC standards.

As India's largest and the world's third-largest transformer oil manufacturer, APAR POWEROIL delivers high-performance transformer oils that provide efficient cooling, superior insulation, and protection against oxidation and moisture. This ensures reliable, safe, and uninterrupted electricity flow, playing a vital role in powering electrification and sustainable energy systems globally.

Q. Which new markets or product segments is APAR prioritizing over the next decade (e.g. renewables, electrification, green hydrogen, EV infrastructure)?

Over the next decade, APAR's growth strategy aligns with global decarbonisation and digital infrastructure transitions, focusing heavily on renewables

like solar and wind, electrification, and green energy applications.

As India's leading manufacturer of renewable cables, APAR supplies advanced solar solutions featuring Electron Beam cross-linking, anti-rodent properties, and higher temperature resistance, ensuring exceptional durability in diverse environments. We also holds a significant market share in wind energy, providing specialised cables that ensure turbine longevity and operational reliability.

Our high-efficiency, High-Temperature Low-Sag (HTLS) conductors play a critical role in reducing grid congestion and enhancing energy efficiency, supporting electrification and smart railway infrastructure projects like Vande Bharat Express and Sydney Metro.

APAR's automotive wires and harnesses promote sustainable mobility, improving safety and durability for EVs, buses, and chargers. Complementing electrical infrastructure, our speciality oils portfolio ranked third globally for manufacturing transformer oils includes high-performance synthetic and natural ester oils, which extend equipment life and support sustainable power systems worldwide. Our biodegradable lubricants further reinforce commitment to eco-friendly energy solutions.

With these innovations, APAR secures its position as a strategic enabler of renewable energy, electrification, and clean mobility globally.

Q. Can you highlight some recent R&D breakthroughs or upcoming technology launches at APAR?

APAR's strong commitment to R&D fuels its industry leadership and technological edge, driving breakthroughs that enhance performance across solar, wind, railways, defence, automotive, telecom, infrastructure, and industrial sectors, with upcoming innovations set to further advance sustainable energy and connectivity solutions.

Our E-beam irradiated cables offer superior thermal stability and durability, with pioneering Anushakti and Fire Protekt cables improving household safety by reducing short-circuit risks and smoke emissions, lasting up to 70 years. The Extra High Voltage cables up to 220 kV ensure efficient urban power transmission with minimal visual impact, while Category 7 Shielded FTP cables provide secure, high-speed Ethernet connectivity. Jumper Cables and High Ampacity Low Loss Medium Voltage Conductors offer robust, reliable power and data transmission even in the most challenging environments.

Our Optical Phase Conductors (OPPC) integrate power transmission and optical communication, enabling efficient, real-time grid monitoring and high-speed connectivity for smart grids, 5G, and IoT. This cost-effective, trench-free solution leverages existing power lines, ideal for Fiber-to-the-Home deployments.

APAR's speciality oils under POWEROIL meet global standards, with the PEARL and TOPAZ series produced in cGMP and FDA-certified facilities. The newly launched ARKOS VETEK, in the speciality automotive portfolio, is a game-changing bike and car care range offering a powerful, all-in-one solution engineered for both internal performance and external shine.

Q. How is APAR leveraging digitalization, Industry 4.0, IoT, AI, or predictive analytics in its manufacturing operations or aftersales services?

Embracing Industry 4.0, APAR's manufacturing operations utilise IoT-enabled smart systems, procurement digitisation, and lean manufacturing to boost productivity, operational agility, and cost efficiency. Our plants adhere to international standards including ISO 9001, ISO 14001, and ISO 45001, ensuring quality, environmental stewardship, and safety.

Strategic capital expenditure has nearly doubled copper CTC capacity and increased copper busbar production by over 165% in FY25, with capacity expected to triple to ~20,500 MT by December 2026.

A new 46-acre greenfield expansion adjacent to the Khatalwada facility in Gujarat is underway, featuring a state-of-the-art, Industry 4.0-enabled smart factory designed for scalable, automated production and digital integration.

With speciality oils production capacities exceeding 750,000 KL in India and 175,000 KL in the UAE, APAR supports a global hub-and-spoke network spanning 125+ countries. Strategic joint ventures in Southeast Asia, South Africa, Eastern Europe, Australia, and Uganda further strengthen its supply chain.

This extensive, digitally integrated network enables just-in-time delivery, improved responsiveness, and operational excellence, exemplifying APAR's steadfast dedication to innovation, lean manufacturing, and exceptional customer service.