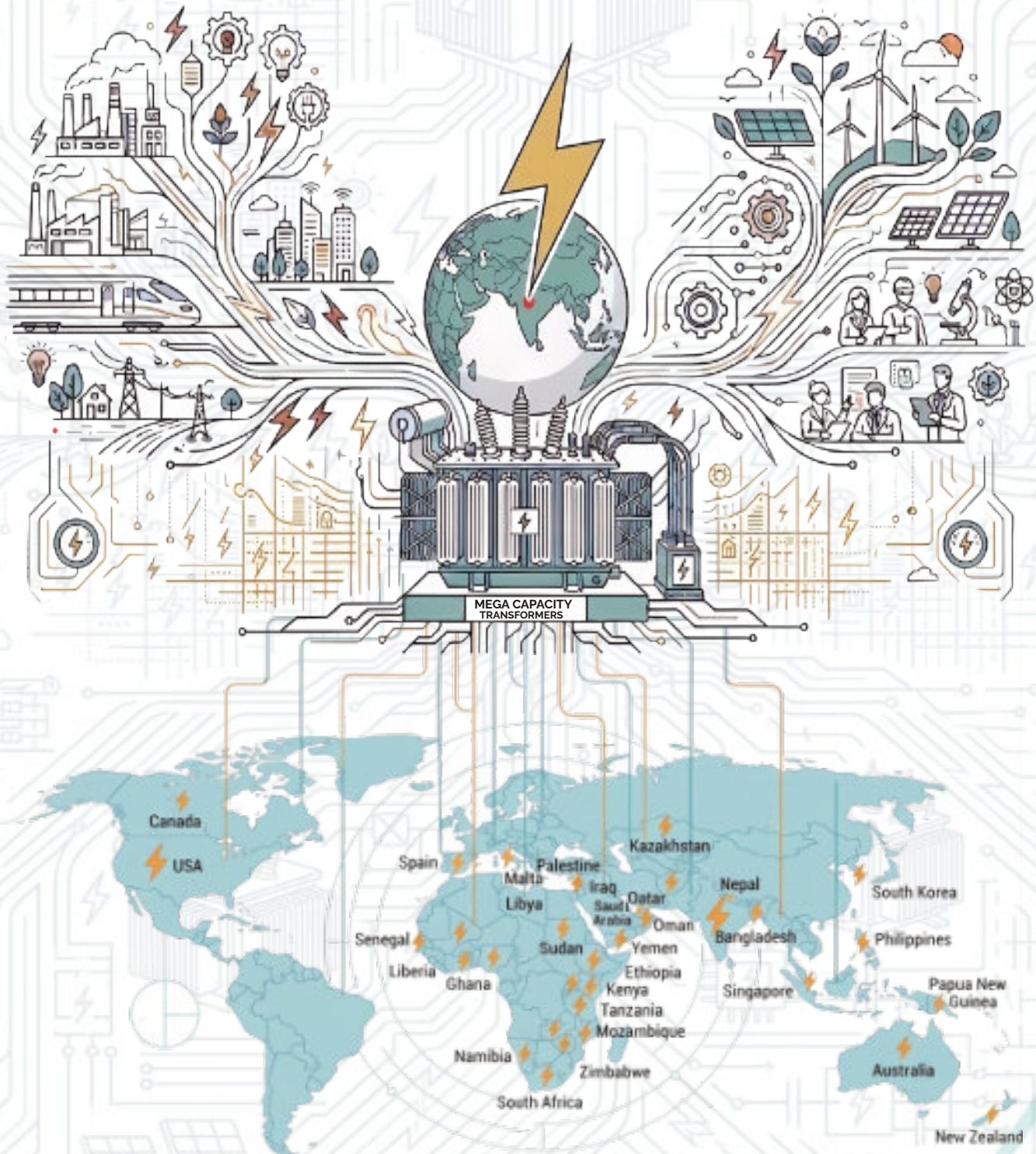




Powering Progress Transforming Tomorrow



tesla
Transformers (India) Ltd.

TESLA
Transformers (India) Ltd.



OUR MISSION

Our mission is to profitably meet the needs of our customers through Focused, Innovative, High Quality products accompanied by the best customer service in our industry while being recognized as a trusted, reliable supplier and employer achieving steady growth by retaining our customers and discovering new business opportunities.

OUR VISION

Our vision is to become a world class Organization and to manufacture world class equipments with total focus on customer satisfaction.



Message from the Chairman - Mr. Jaideep Jain

It gives me immense pride to share the journey of **Tesla Transformers (India) Ltd.**

Since 1972, we have grown from a modest unit in Bhopal into one of India's most respected names in the power sector. What began as a vision to provide reliable transformers for a developing nation is now a global enterprise, **trusted in over 35 countries** across five continents.

Our first export in 1994 marked a turning point. Today, Tesla counts **over 250,000 installations in India and 10,000 overseas**, powering cities and industries worldwide. Each transformer we deliver is a promise of quality, reliability, and performance.

This success rests on manufacturing excellence and rigorous quality assurance. Our state-of-the-art, ISO-certified facilities in Bhopal **produce transformers up to 200 MVA, 220 KV class**. With more than 500 units type-tested at international laboratories like **KEMA, CPRI, and ERDA**, Tesla stands among India's most validated manufacturers.

Innovation is equally vital. Our engineers use advanced 3D modeling to design products that anticipate future needs. As pioneers in energy-efficient and solar transformers, we have supplied over 25,000 units supporting the renewable energy mission. Additionally, our **Project Engineering Division has delivered turnkey EPCC solutions up to 765 KV**.

A recent milestone underscores our growth: in FY2025-26, **Tesla Transformers Group crossed Rs.1,000 Crore (\$130 Million USD) in turnover**. This reflects disciplined execution and the deep trust placed in us by our partners.

Looking ahead, our vision is clear: to lead the sector through innovation and sustainability. Guided by our motto — **Powering Progress, Transforming Tomorrow** — we will continue to empower communities worldwide. I extend my heartfelt gratitude to our customers and employees; together, we are building a brighter, more sustainable future.



Global Standards:
Our products are engineered in compliance with international quality benchmarks and certifications.

Normas Internacionales
Nuestros productos cumplen con los estándares de calidad globales y certificaciones.



Manufacturing Unit 1

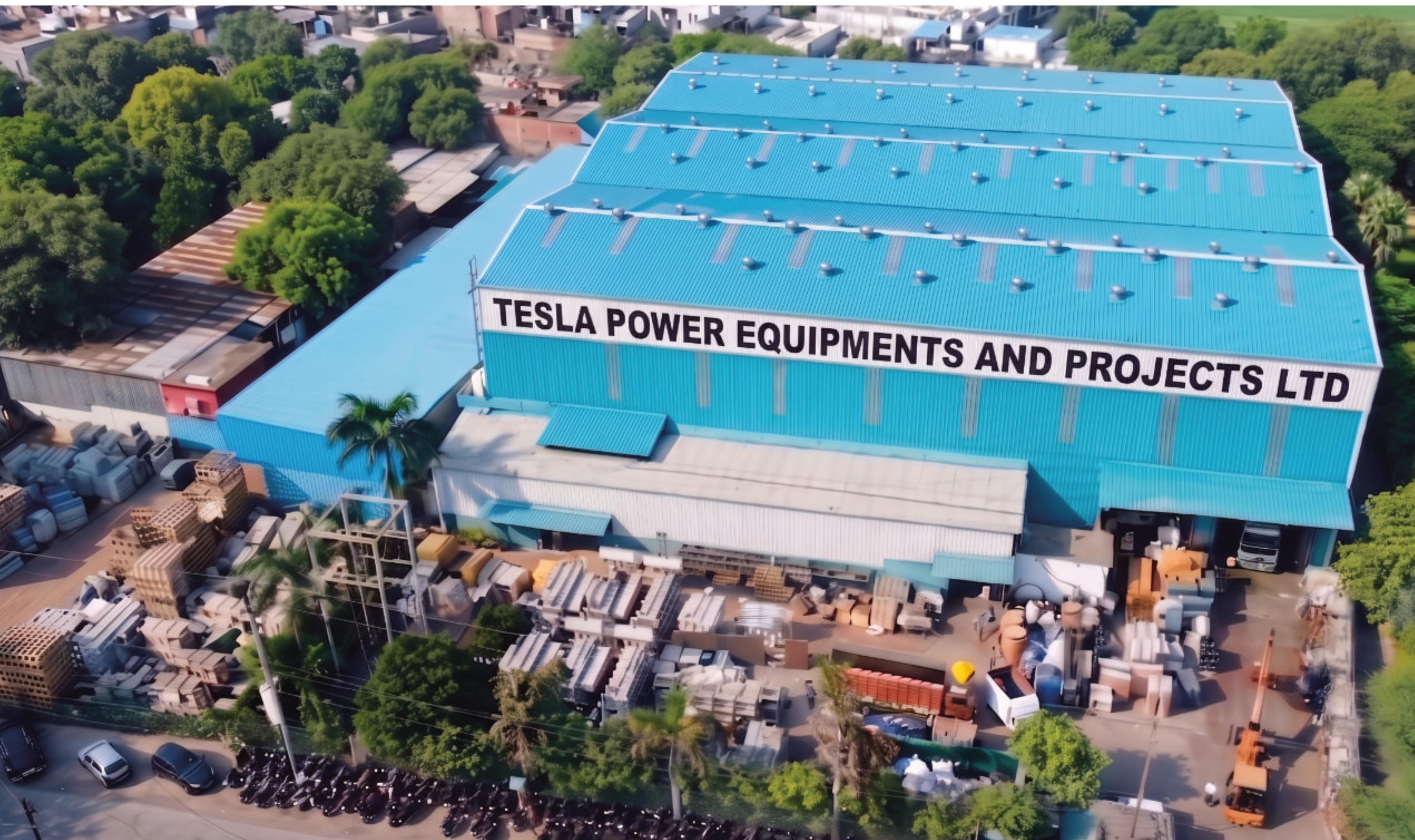
EHV Power Transformer Division

Manufacturing Range upto 200 MVA / 220 KV Class



Manufacturing Unit 2

IDT + Distribution Transformer Division
Manufacturing Range upto 30 MVA / 33 KV Class



Manufacturing Unit 3

IDT + Distribution Transformer Division
Manufacturing Range upto 30 MVA / 33 KV Class



Our facilities are certified to ISO 9001, 14001, and 45001, ensuring adherence to international quality, environmental, and safety standards.

Every transformer undergoes rigorous testing, including routine, type, and special tests. Routine tests cover voltage ratios, impedance, and losses, while type tests include lightning impulse and temperature rise. Special tests evaluate sound levels, harmonics, and insulation resistance.

With multiple manufacturing units, Tesla combines scale with specialization. We produce conventional, hermetically sealed, and dry-type transformers, catering to applications ranging from industrial plants to renewable energy projects. Manufacturing excellence is the foundation of Tesla's global credibility.



50 MVA-132kV CC Assembly

Manufacturing Excellence

Foundation of Tesla's global credibility.

Tesla's manufacturing facilities in Bhopal are the backbone of our operations. Equipped with state-of-the-art machinery, advanced design systems, and NABL-approved testing laboratories, these plants produce power and distribution transformers up to **200 MVA, 220 KV class**.

Tesla's products are validated at globally recognized laboratories such as **KEMA** (Netherlands), **CPRI** (India), and **ERDA** (India). These certifications reinforce our credibility and guarantee performance under diverse operating conditions.

Beyond production, Tesla emphasizes continuous improvement. **Our Quality Program (TQP)** is based on prevention rather than correction, ensuring that potential issues are addressed before they arise. This philosophy has helped us maintain a reputation for delivering products that meet or exceed customer expectations.

Tesla's legacy is not only about numbers but about impact. Our transformers have enabled industrial growth, supported infrastructure development, and brought electricity to millions.

Each project reflects our commitment to innovation, sustainability, and reliability.

Over five decades, Tesla has built a brand synonymous with trust, quality, and progress.





**2 × 10 MVA, 132/33 kV
Himalaya Mountains**



**Central India's First
Floating
Solar**

Design & R&D

Innovation drives Tesla's success. Our **Design and R&D department** is staffed with highly qualified engineers who use advanced **3D modeling and simulation tools** to create transformers that meet stringent international standards. These tools allow for precise design optimization, ensuring efficiency, durability, and adaptability to diverse operating conditions.

Tesla's R&D team focuses on developing energy-efficient solutions, renewable integration, and specialized products for challenging environments. By leveraging modern CAD systems and simulation packages, the team can predict performance, reduce losses, and enhance reliability.

Collaboration with global testing agencies and research institutions ensures that Tesla's designs remain at the forefront of technological advancement. This commitment to innovation has resulted in products that not only meet customer requirements but also anticipate future industry needs.

R&D is not confined to laboratories; it is embedded in every stage of production and project execution. From concept to commissioning, Tesla ensures that innovation translates into practical, reliable solutions for customers worldwide.





EXPORTS



28/35 MVA, 33/11 KV Power Transformer supplied to **DPDC Bangladesh**



20/28 MVA, 33/11 kV Power Transformer supplied to **DESCO Bangladesh.**



5 MVA 132 kV Transformer Supplied to **Kenya**

Tesla's export journey began in 1994 with Bangladesh and has since expanded to **35 countries** across Asia, Africa, the Middle East, Europe, Australia, and the Americas. Our products include **distribution and power transformers, mobile substations, unitized substations, switchgear, control panels, transmission towers, and accessories.**

Every export is backed by thorough in-house inspection and type test certification, ensuring compliance with international requirements. Tesla's logistics network ensures timely delivery, while our overseas service teams provide installation and after-sales support.

Key export markets includes **Australia, South East Asia, Middle East & West Asia, Africa, Canada & USA**, among others.

Tesla's reputation abroad is built on reliability, cost effectiveness, and the ability to deliver complete solutions from a single source.



2 MVA 27.6 x 0.6kV Supplied to **Canada**



12.5 MVA, 66 KV Transformer Supplied to **Australia.**



NEPEAN POWER MD's visit & testing of 10 MVA 66 KV Transformer



16 MVA, 10.5/0.46 KV, 60 Hz. Auxiliary Transformer Supplied to **South Korea.**



12.5 MVA, 22.9/10.5 KV, 60 Hz Power Transformer supplied to **South Korea.**



Underground Mining Transformers Supplied to **Australia**



7.5 MVA, 33 KV Transformer installed at **De Beers Diamond Mine, Namibia.**



Trailer Mounted Mining Transformer Supplied to **Australia**

Efficacité sans Frontières

A Seamless World of Power

We are more than manufacturers; we are an EPC Power Infrastructure Leader. Tesla's Project Engineering and Management Division (PEMD) handles the entire project lifecycle—Engineering, Procurement, Construction, Testing, and Commissioning (EPCC) —delivering complete substation and transmission solutions up to the 765 kV class.



12 MVA, 13.8/12.47 KV 60 Hz Interconnecting Transformer supplied to **Texas USA.**



25/35 MVA, 13.8/13.8 KV, 60 Hz Unity Ratio Transformer supplied to **Texas, USA.**



1 MVA, 4.16/0.48 KV, 60 Hz Service Transformer supplied to **Texas, USA.**



2 MVA, 13.8/0.48 KV, 60 Hz Service Transformer Supplied to **Texas, USA.**



10-12.5 MVA 66-20KV UTE SOLAR-SS to **Spain.**



500 KVA 66 kV supplied to **Zambia**



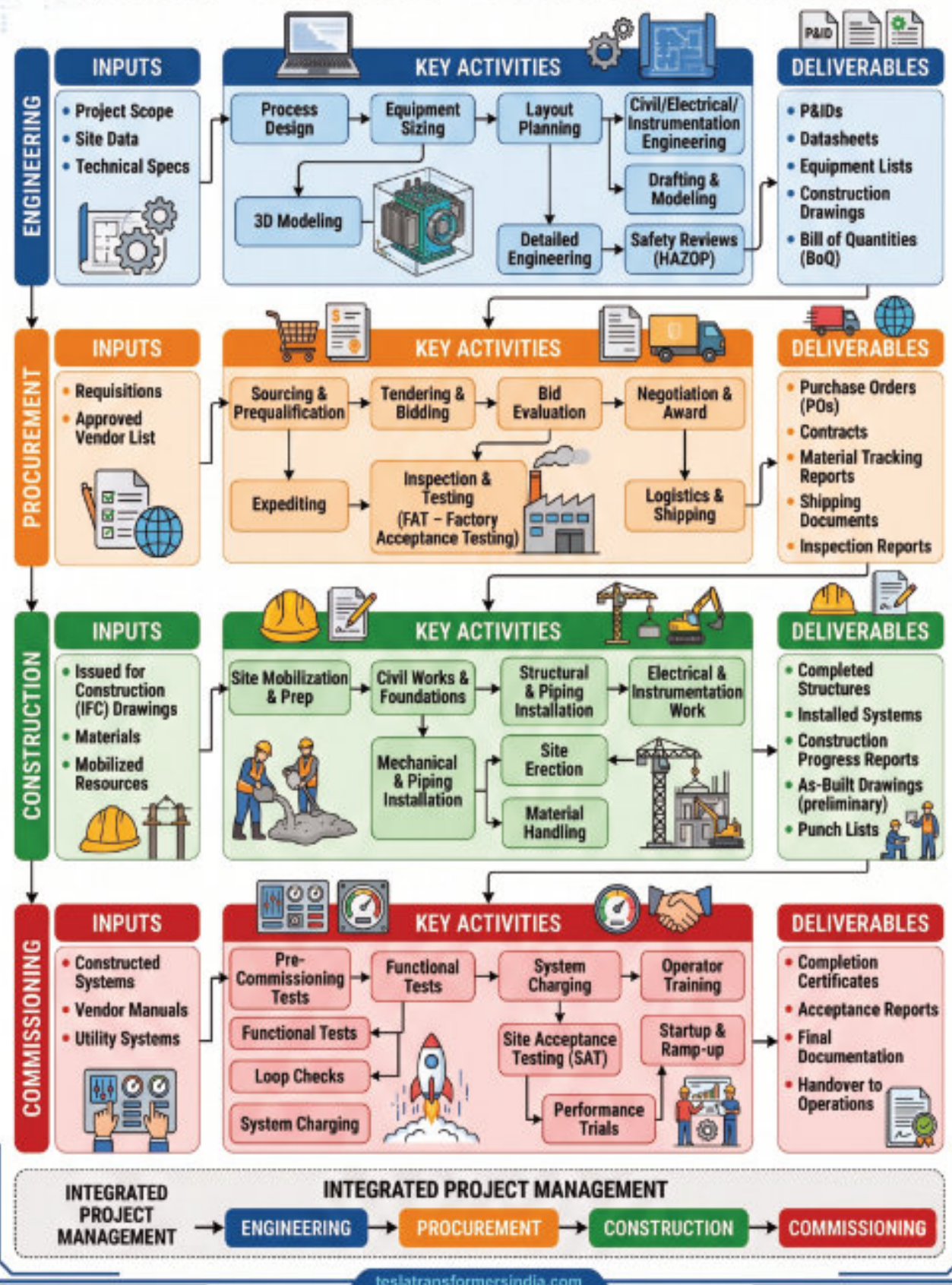
12.5 MVA 66 kV supplied to **Australia**



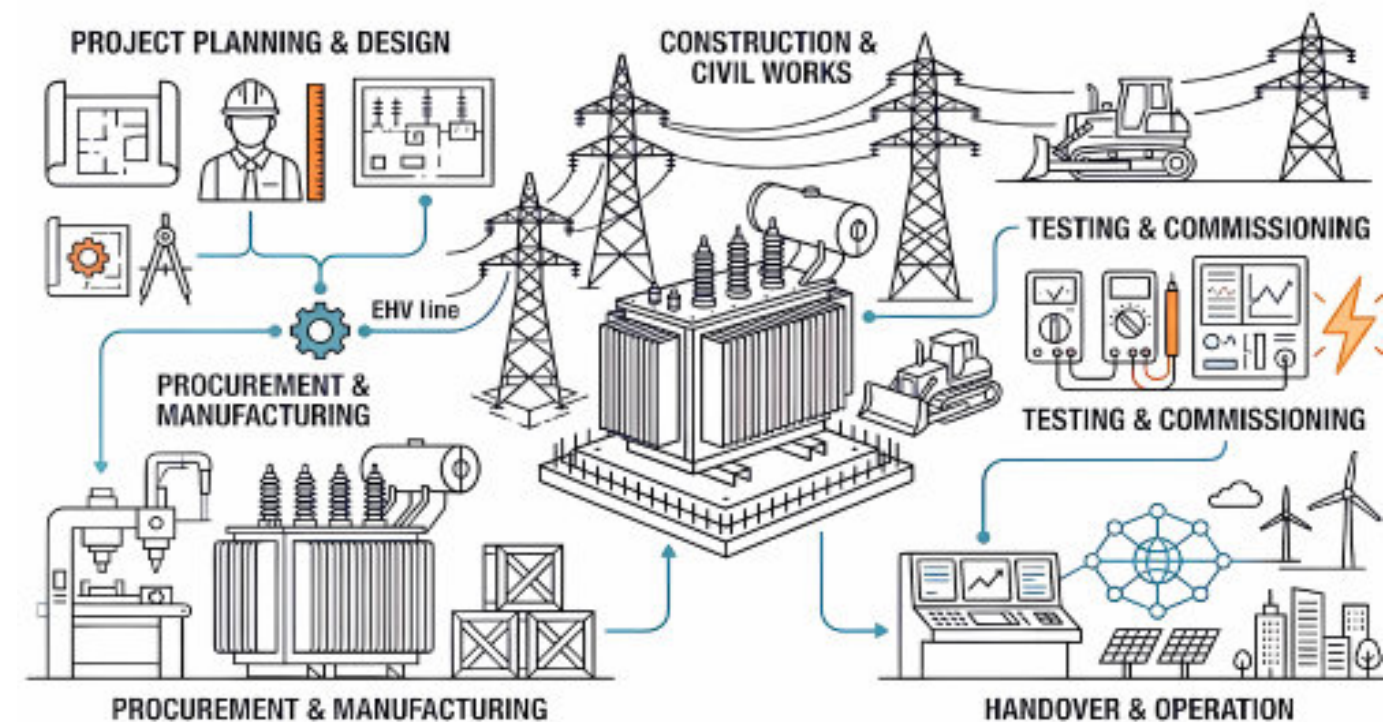
10 MVA 66 kV Supplied to **Australia**

EPCC FLOW CHART

Engineering → Procurement → Construction → Commissioning



Beyond Manufacturing: End-to-End EHV Turnkey Infrastructure



Established in 1986, Tesla's Project Engineering and Management Division (PEMD) has evolved into a premier global partner for turnkey electrical solutions. We provide single-point responsibility for the world's most complex power projects, integrating Tesla's manufacturing muscle with elite engineering and site execution.

Our **EPCC (Engineering, Procurement, Construction, and Commissioning)** capabilities span the full spectrum of power infrastructure, from high-voltage substations to extra-high-voltage (EHV) transmission networks up to the 765 kV class.

Whether restructuring aged power plants or constructing greenfield utility grids, **PEMD** delivers versatility, safety, and disciplined execution.

By combining technical expertise with a customer-centric focus, PEMD has become the trusted infrastructure partner for Indian Railways, major national utilities, and private sector giants across five continents.

The **PEMD** Advantage: A Single Source for Global Power

- **Engineering Mastery:** Comprehensive design and system studies for substations up to 765 kV, ensuring seamless grid connectivity and stability.
- **End-to-End Execution:** Total responsibility for the supply, installation, testing, and commissioning of transformers, switchgear, GIS modules, bus ducts, and transmission towers.
- **Substation Automation:** Expertise in delivering advanced Substation Automation Systems (SAS) and smart grid solutions tailored to modern utility requirements.
- **International Track Record:** PEMD has successfully undertaken massive overseas projects, exporting complete substation equipment packages and engineering expertise to over 36 nations.

Turnkey Projects (PEMD)

More than 100, 33 kV Substations
commissioned in Bangladesh



End-to-End EHV Turnkey Infrastructure Capabilities include:

- Substation construction up to 765 KV
- Restructuring and upgradation of power plants
- Engineering, supply, installation, and commissioning of Substation Automation Systems, grid connectivity solutions, GIS modules, compact substations, and mobile substations.
- Quality control and testing at every stage

Tesla's PEMD has also undertaken overseas projects, exporting not only transformers but complete substation equipment packages. Our engineers bring extensive experience in project execution, integrating procurement, construction, and commissioning into seamless delivery.

By combining technical expertise with customer focus, PEMD ensures that **Tesla is not just a manufacturer but a complete solutions provider for global power infrastructure.**

Tesla's Project Engineering and Management Division (PEMD), established in 1986, has become a trusted partner for turnkey solutions in the electrical power sector. With expertise spanning design, manufacturing, erection, and commissioning, PEMD delivers complete substations and power systems up to 765 KV class.

Our turnkey capabilities include engineering, procurement, construction, and commissioning (EPCC) of high-voltage substations, transmission lines, and distribution networks. Tesla has executed projects for Indian Railways, state utilities, and private enterprises, demonstrating versatility across applications.

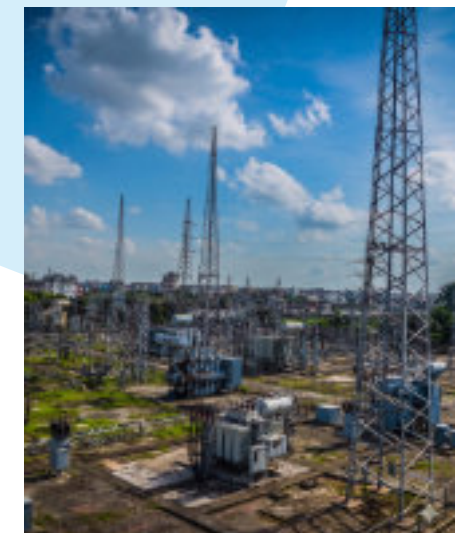
PEMD integrates Tesla's manufacturing strength with project management expertise. This means customers benefit from a single point of responsibility, ensuring timely delivery, cost effectiveness, and adherence to international standards.



400 kV Substation Commissioned in 2025-26



132 kV Switchyard Commissioned in 2025-26



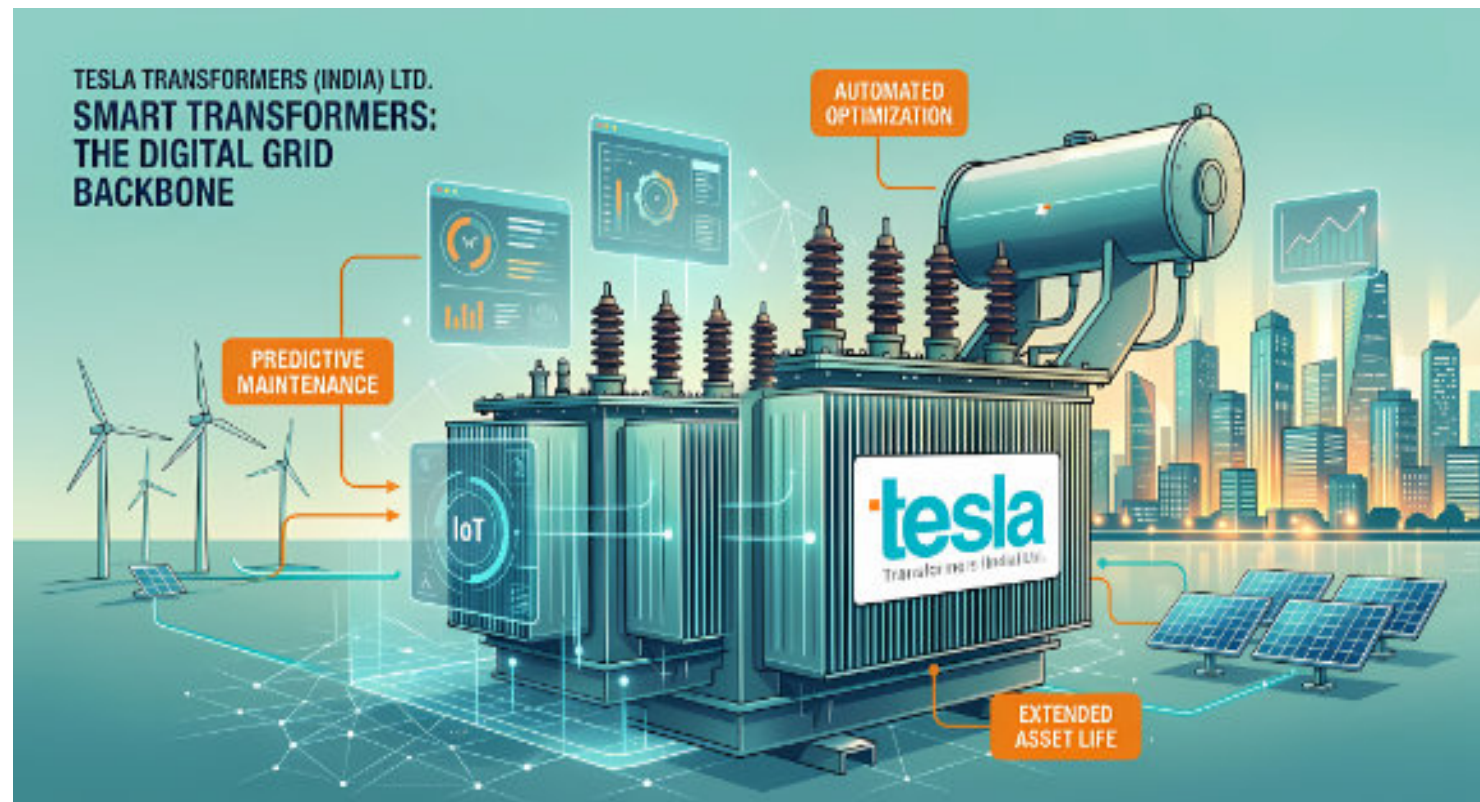
33 kV Substation Bangladesh

Innovating for Sustainability:

Smart & Green Solutions

Tesla Transformers (India) Ltd. is pioneering the digital and environmental transition of the global energy landscape. Our "Smart" and "Green" initiatives ensure that our infrastructure is not just field-proven, but engineered for the evolving demands of the 21st-century grid.

Smart Transformers: The Digital Grid Backbone



We are redefining grid stability through real-time intelligence. By integrating **Internet of Things (IoT) technology**, our smart transformers provide:

- **Predictive Maintenance:** Real-time monitoring of thermal health and oil parameters to prevent outages before they occur.
- **Automated Optimization:** Automatic adjustment of voltage and power quality to balance the fluctuating inputs of renewable energy sources like wind and solar.
- **Extended Asset Life:** Digital diagnostics that reduce maintenance costs and maximize the operational lifespan of every unit.



Green Transformers: Sustainability Without Compromise

Aligning with global environmental mandates and ESG goals, Tesla offers "Green" designs focused on eco-friendly operation:

- **Biodegradable Cooling:** Use of vegetable-based Ester Oil liquids that offer higher flash points for fire safety and are fully biodegradable.
- **Recyclable Engineering:** Utilizing sustainable construction materials to reduce the total carbon footprint of the manufacturing process.
- **Global Compliance:** Our green units ensure marketability in regions with the most stringent environmental regulations, contributing to worldwide energy conservation.



The Tesla Advantage: Why Global Leaders Choose Us

- **Engineering Adaptability:** Over five decades of expertise in providing custom configurations, from indoor dry-type units to multi-winding rectifier transformers.
- **International Standards:** Mastery of global benchmarks including **IEEE, ANSI, NEMA, IEC, and SABS**.
- **Massive Scale:** An annual capacity of 20,000 MVA ensures we can meet the volume requirements of any international utility or industrial project.
- **Proven Validation:** With over 500 units type-tested at premier labs like **KEMA (Netherlands), CPRI, and ERDA**, our performance is globally guaranteed.

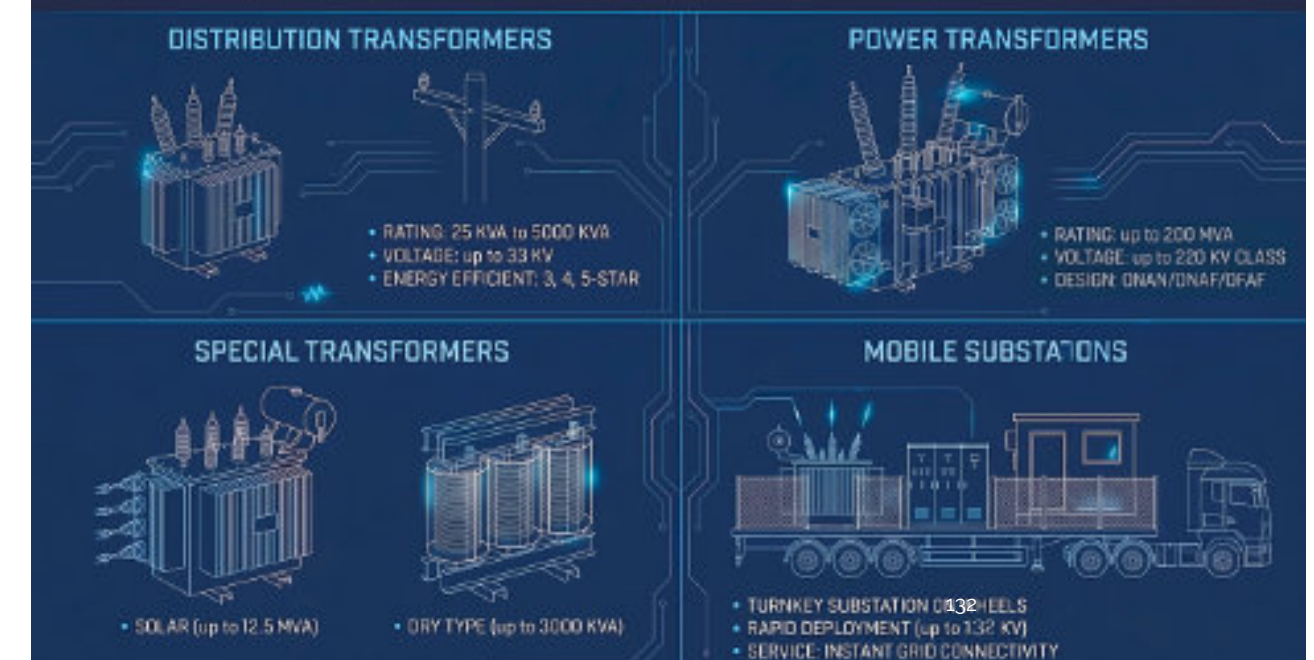


70 MVA, 132-33 KV
POWER TRANSFORMER
Substation

Product Portfolio:

A Comprehensive Ecosystem of Power Solutions

TESLA POWER INFRASTRUCTURE: A 50+ YEAR LEGACY OF ENGINEERING EXCELLENCE



Tesla Transformers offers one of the most versatile and technologically advanced portfolios of electrical power equipment in the industry.

Our ecosystem is designed to serve every segment of the global market—from rural utilities and urban smart grids to massive industrial complexes and high-capacity renewable farms.

By integrating over 50 years of engineering heritage with modern digital innovations, **we provide a single-source solution for the world's most demanding energy infrastructures.**

Our portfolio spans

- **Distribution Solutions:** Engineered for 99.9% efficiency, our distribution range handles loads from **25 kVA up to 10,000 kVA** with "Smart" IoT monitoring.
- **Power Infrastructure:** High-voltage units up to **200 MVA and 220 kV class** that form the backbone of national and international transmission networks.
- **Special-Purpose Engineering:** Custom-built transformers for chemical plants, oil and gas terminals, and arc furnace applications, featuring specialized winding and insulation for harsh environments.

- **Mobile & Unitized Substations (USS):** Compact, transportable power solutions **up to 132 kV class**, designed for rapid deployment in remote mining sites or dense urban centers where space is a premium.
- **Renewable Integration:** Solar and wind inverter-duty transformers optimized for fluctuating loads and peak energy yield, designed to meet diverse requirements across industries, utilities, and infrastructure projects.
- **Special transformers** for industries such as chemical plants, oil and gas terminals, and renewable energy projects. These include dry-type indoor/outdoor units, pole-mounted transformers, and step-up/step-down double-wound transformers with aluminium or copper conductors.

*This wide portfolio ensures that **Tesla** can serve every segment of the market — from small utilities to large industrial complexes — with products tailored to specific needs, backed by rigorous quality assurance and after-sales support*

NABL-Approved Testing Laboratory



Quality is the cornerstone of Tesla Transformers. Our **Quality Management System (QMS)** is built on prevention rather than correction, ensuring excellence at every stage of design, manufacturing, and service.

Tesla's **NABL-approved testing laboratory** conducts routine, type, and special tests in accordance with IEC 60076 and IS 2026 standards. Routine tests include voltage ratio measurement, impedance checks, and loss calculations. Type tests cover lightning impulse and temperature rise, while special tests evaluate sound levels, harmonics, and zero-sequence impedance.

Every transformer undergoes stringent inspections, from raw material selection to final assembly. Employees perform self assessment quality checks, treating the next workstation as their customer. This culture of accountability ensures that defects are identified and corrected immediately.

Tesla has achieved **ISO 9001, 14001, and OHSAS 18001 certifications**, reflecting our commitment to quality, environmental responsibility, and occupational safety. Regular internal and external audits guarantee conformity with international standards.

Our products are type-tested at globally recognized labs such as **KEMA (Netherlands), CPRI (India), and ERDA (India)**, reinforcing credibility and performance assurance. With more than 500 transformers type-tested to date, Tesla stands among the few Indian manufacturers with such extensive validation.

By integrating quality into every process, Tesla ensures that customers receive products that are reliable, efficient, and built to last. Quality assurance is not just a department - it is a philosophy that defines Tesla's identity.

Quality Assurance Type-Tested Excellence

Tesla Transformers has consistently demonstrated its technical strength through extensive type testing at internationally accredited laboratories. More than **500 transformers of various ratings** have been type-tested to date, making Tesla one of the few Indian manufacturers with such a record.

Highlights include:

- **50 MVA 132/13.33 kV class** transformer type-tested at CPRI (STL) Lab
- Up to **100 MVA 220 kV** class power transformers type tested at **own NABL-ILAC accredited & ISO 17025 Certified Lab**.
- Ratings from **50 KVA to 5000 KVA** type-tested at **KEMA (Netherlands)**
- Numerous units validated at **CPRI and ERDA (India)**

Type tests cover lightning impulse, temperature rise, short-circuit withstand, and harmonics measurement. These rigorous evaluations ensure that Tesla products meet or **exceed IEC, ANSI, BS, and IS standards**.

By investing in type testing, Tesla provides customers with confidence in product reliability, safety, and performance.

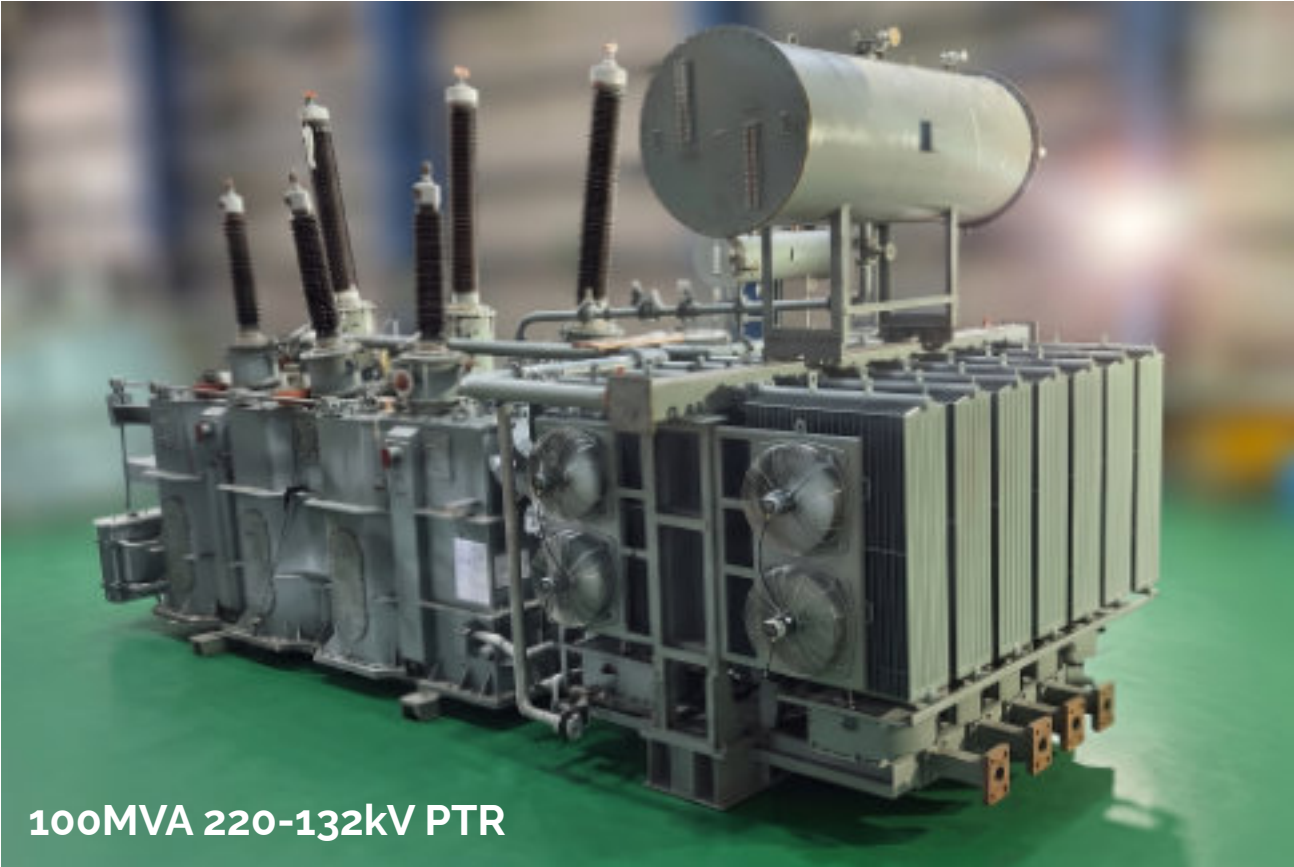


50MVA 132kV at CPRI (STL Lab) for SCT



ISO/IEC 17025:2017 (NABTCL)
Certificate Number : TC - 13012

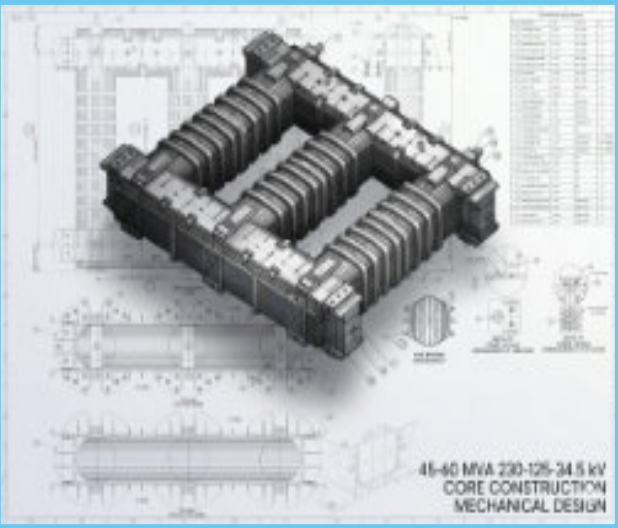
Each certificate is a testament to our engineering excellence and commitment to global standards.



100MVA 220-132kV PTR

Tesla's Power Transformer Division represents the pinnacle of heavy electrical engineering. Our units serve as the robust backbone for national transmission networks and large-scale renewable plants worldwide.

We specialize in bespoke designs that utilize advanced 3D electromagnetic simulation to predict and mitigate hot spots, stray losses, and mechanical stresses long before the first coil is wound.



50 MVA, 220-33 KV Power Transformer

EHV Power Transformers :

Unrivaed Engineering Up to 200 MVA, 220 kV Class

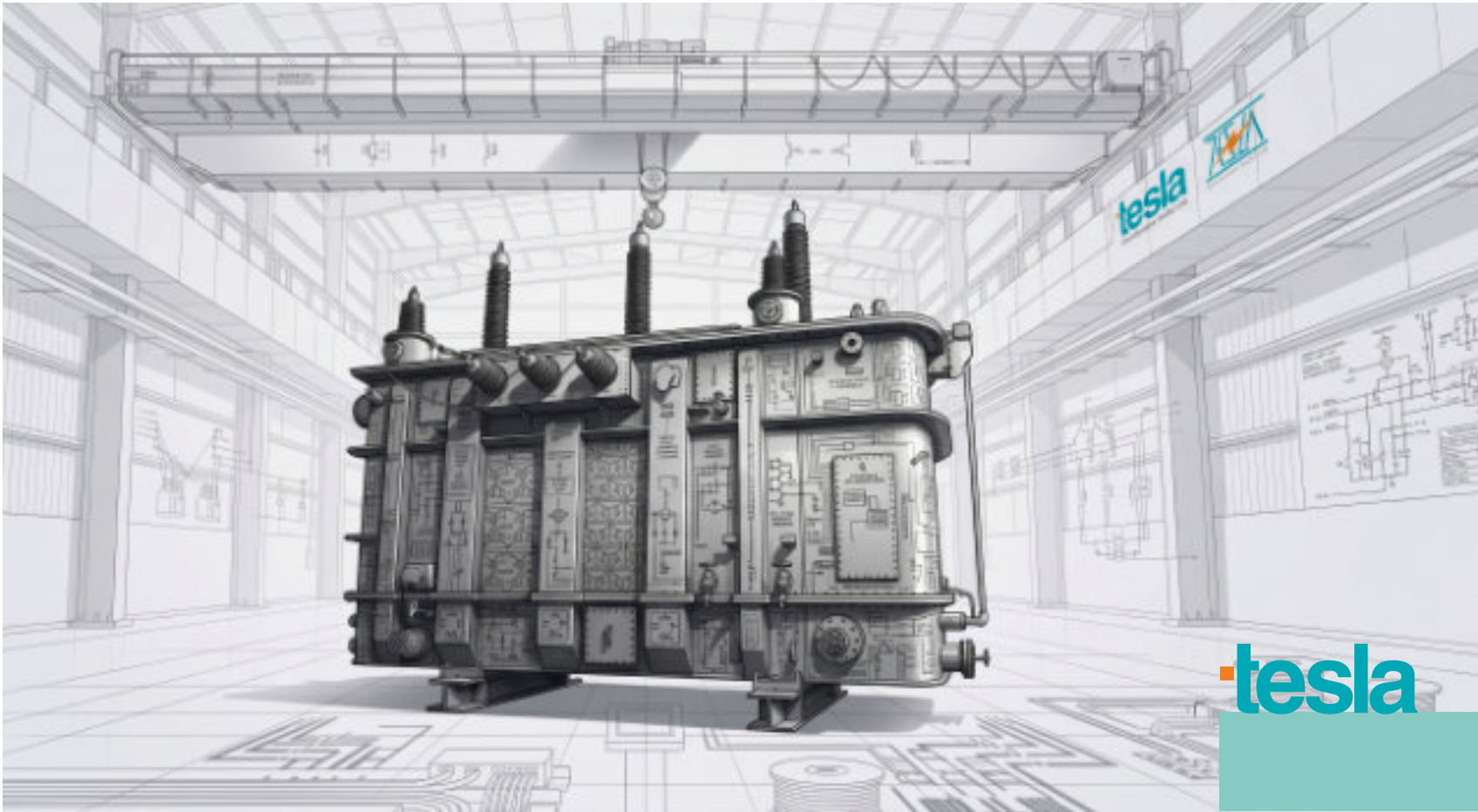
The Power Transformer Division of Tesla Transformers (India) Ltd. represents the pinnacle of high-voltage engineering. Designed to withstand severe short-circuit stresses and lightning impulse conditions, our power units form the reliable backbone of national transmission networks and large-scale industrial complexes worldwide.

Technical Features:

- **500+ Type-Tested Benchmarks:** We are among the world's most validated manufacturers, with extensive type-testing at KEMA (Netherlands), CPRI, and ERDA.Bespoke
- **3D Design:** Our engineers utilize advanced 3D modeling and simulation to optimize thermal and mechanical performance for every custom unit.
- **Advanced Load Regulation:** Available with "ON LOAD" tap changers (OLTC) for seamless voltage regulation.
- **Dynamic Resilience:** Verified for impulse and short-circuit withstand up to 200 MVA, 220 kV class.

Validation Matrix

Laboratory	Entity	Highest Rating Validated
KEMA	International	50 kVA to 5000 kVA
CPRI (STL)	NABL / Global	50 MVA 132/11 kV Class
Tesla Lab	NABL Accredited	100 MVA 220 kV Class

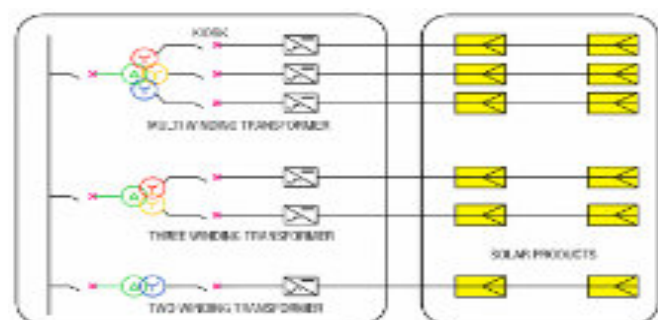


Powering the Future of Renewable Energy

Unlike conventional transformers, solar units must handle fluctuating loads, environmental stresses, and stringent efficiency standards.

Applications include step-up voltage transformation from inverter output to medium-voltage grids, integration into solar farms, and distribution for hybrid renewable projects. Tesla has successfully supplied solar transformers across India, Asia, and Africa, meeting international standards and customer specifications.

They embody our commitment to sustainability and innovation, ensuring that renewable energy projects are powered by reliable infrastructure.



- ♦ **Rating upto 20 MVA**
- ♦ **HV Voltage** 11, 22 & 33 or as per customer requirement.
- ♦ **LV Voltage** - 0.30, 0.38, 0.420, 0.433, 0.600, 0.660, 0.680, 0.750, 0.800, 0.860, 0.880, 1.05, 6.6 etc. or as per customer requirement.
- ♦ **Vector Group** - Dy11Y11, Dy11, Y11y11, Dy5y5y5 or as per customer requirement.
- ♦ **Voltage step**-up from the inverter output to the MV feeding network.
- ♦ **Galvanic isolation** between the solar inverter and the feeding network.
- ♦ **High mechanical strength** LV winding comprise of two windings made of aluminium or copper both connected in wye (Y) with or with out neutral point.
- ♦ **Natural or air forced cooling system.** Robust and oil tight mechanical construction with customised overall dimensions.
- ♦ **High quality surface protection.** Protection & monitoring with devices that offer oil level indication, gas detection, pressure and temperature control.

[illegible]

Reliable
technology
for a greener
world.



By offering these products, Tesla supports utilities and industries in balancing demand and supply, reducing carbon footprints, and preparing for future energy needs.

Our commitment to efficiency reflects our broader vision: to deliver solutions that are not only reliable but also sustainable.



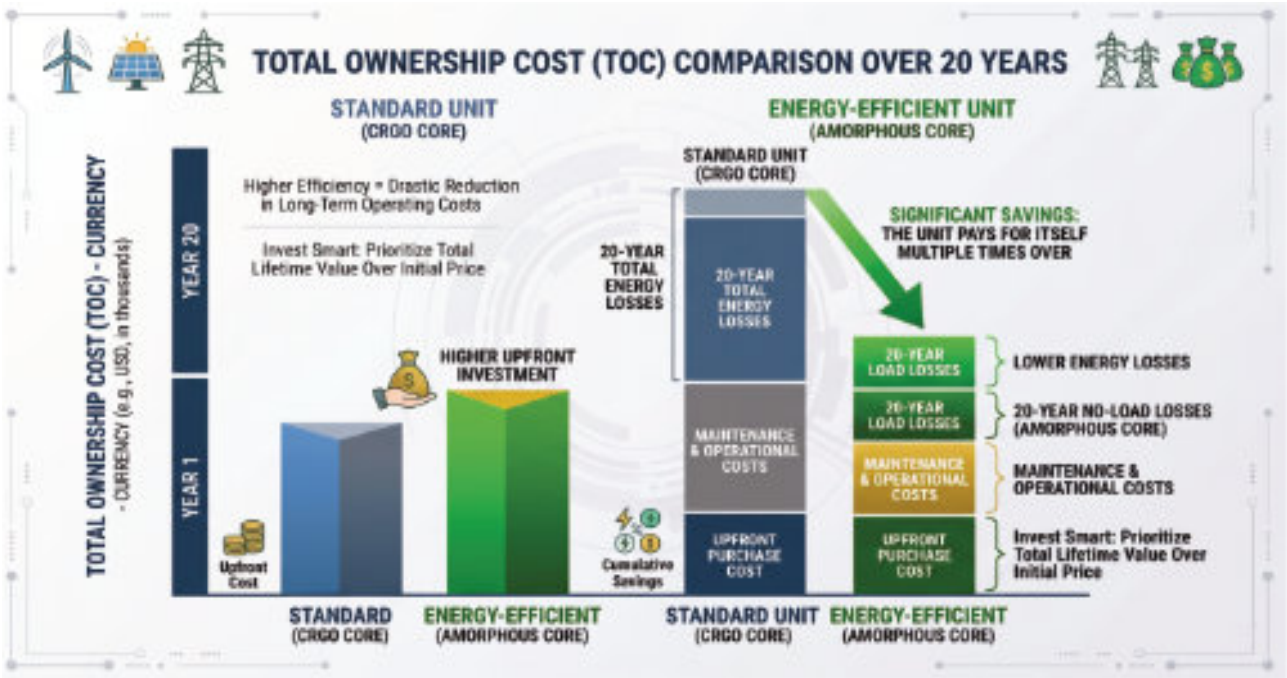
BIS ENERGY EFFICIENCY CHART

Maximum Total Losses as per Latest Amendment IS 1180 (Level 1)							
Rating (KVA)	Impedance (Percent)	Maximum Total Loss (Watts)					
		11 KV Losses (Energy Efficiency Level 1)		22 KV Losses (Energy Efficiency Level 1)		33 KV Losses (Energy Efficiency Level 1)	
		50 % Load	100% Load	50 % Load	100% Load	50 % Load	100% Load
16	4.50	135	440	142	462	145	473
25	4.50	190	635	200	667	204	683
63	4.50	340	1140	357	1197	366	1226
100	4.50	475	1650	499	1733	511	1774
160	4.50	670	1950	704	2048	720	2096
200	4.50	780	2300	819	2415	839	2473
250	4.50	980	2930	1029	3077	1054	3150
315	4.50	1025	3100	1076	3255	1102	3333
400	4.50	1225	3450	1286	3623	1317	3709
500	4.50	1510	4300	1586	4515	1623	4623
630	4.50	1860	5300	1953	5565	2000	5698
800	5.00	2287	6403	2401	6723	2459	6883
1000	5.00	2790	7700	2930	8085	2999	8278
1250	5.00	3300	9200	3465	9660	3548	9890
1600	6.25	4200	11800	4410	12390	4515	12685
2000	6.25	5050	15000	5303	15750	5429	16125
2500	6.25	6150	18500	6458	19425	6611	19888

Maximum Total Losses as per Latest Amendment IS 1180 (Level 2)							
Rating (KVA)	Impedance (Percent)	Maximum Total Loss (Watts)					
		11 KV Losses (Energy Efficiency Level 2)		22 KV Losses (Energy Efficiency Level 2)		33 KV Losses (Energy Efficiency Level 2)	
		50 % Load	100% Load	50 % Load	100% Load	50 % Load	100% Load
16	4.50	120	400	126	420	129	430
25	4.50	175	595	184	625	188	640
63	4.50	300	1050	315	1103	323	1129
100	4.50	435	1500	457	1575	468	1613
160	4.50	570	1700	599	1785	613	1828
200	4.50	670	2100	704	2205	720	2258
250	4.50	920	2700	966	2835	989	2903
315	4.50	955	2750	1003	2888	1027	2956
400	4.50	1150	3300	1208	3465	1236	3548
500	4.50	1430	4100	1502	4305	1537	4408
630	4.50	1745	4850	1832	5093	1876	5214
800	5.00	2147	5838	2254	6130	2308	6276
1000	5.00	2620	7000	2751	7350	2817	7525
1250	5.00	3220	8400	3381	8820	3462	9030
1600	6.25	3970	11300	4169	11865	4268	12148
2000	6.25	4790	14100	5030	14805	5149	15158
2500	6.25	5900	17500	6195	18375	6343	18813

Maximum Total Losses as per Latest Amendment IS 1180 (Level 3)							
Rating (KVA)	Impedance (Percent)	Maximum Total loss (Watts)					
		11 KV Losses (Energy Efficiency Level 3)		22 KV Losses (Energy Efficiency Level 3)		33 KV Losses (Energy Efficiency Level 3)	
		50 % Load	100% Load	50 % Load	100% Load	50 % Load	100% Load
16	4.50	108	364	113	382	116	391
25	4.50	158	541	166	568	170	582
63	4.50	270	956	284	1004	290	1028
100	4.50	392	1365	412	1433	421	1467
160	4.50	513	1547	539	1624	551	1663
200	4.50	603	1911	633	2007	648	2054
250	4.50	864	2488	907	2612	929	2675
315	4.50	890	2440	935	2562	957	2623
400	4.50	1080	3214	1134	3375	1161	3455
500	4.50	1354	3909	1422	4104	1456	4202
630	4.50	1637	4438	1719	4660	1760	4771
800	5.00	2015	5323	2116	5589	2166	5722
1000	5.00	2460	6364	2583	6682	2645	6841
1250	5.00	3142	7670	3299	8054	3378	8245
1600	6.25	3753	10821	3941	11362	4034	11633
2000	6.25	4543	13254	4770	13917	4884	14248
2500	6.25	5660	16554	5943	17382	6085	17796

Energy Efficient Transformers



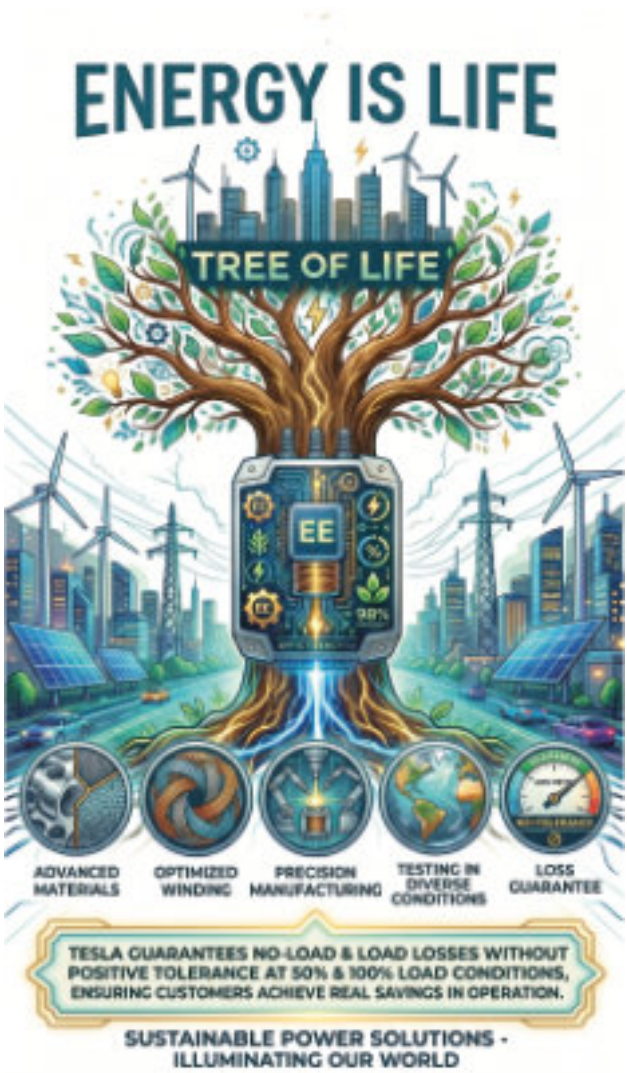
Tesla Transformers (India) Limited is among the first manufacturers in India to produce **energy-efficient transformers**, aligning with the nation's push for sustainability and cost savings. We have supplied more than **25,000 units** of various ratings to utilities across India, helping reduce losses and improve efficiency.

Energy-efficient transformers are rated **3-star, 4-star, or 5-star**, based on performance benchmarks. Tesla guarantees **no-load and load losses** without positive tolerance at 50% and 100% load conditions, ensuring customers achieve real savings in operation.

The benefits are significant:

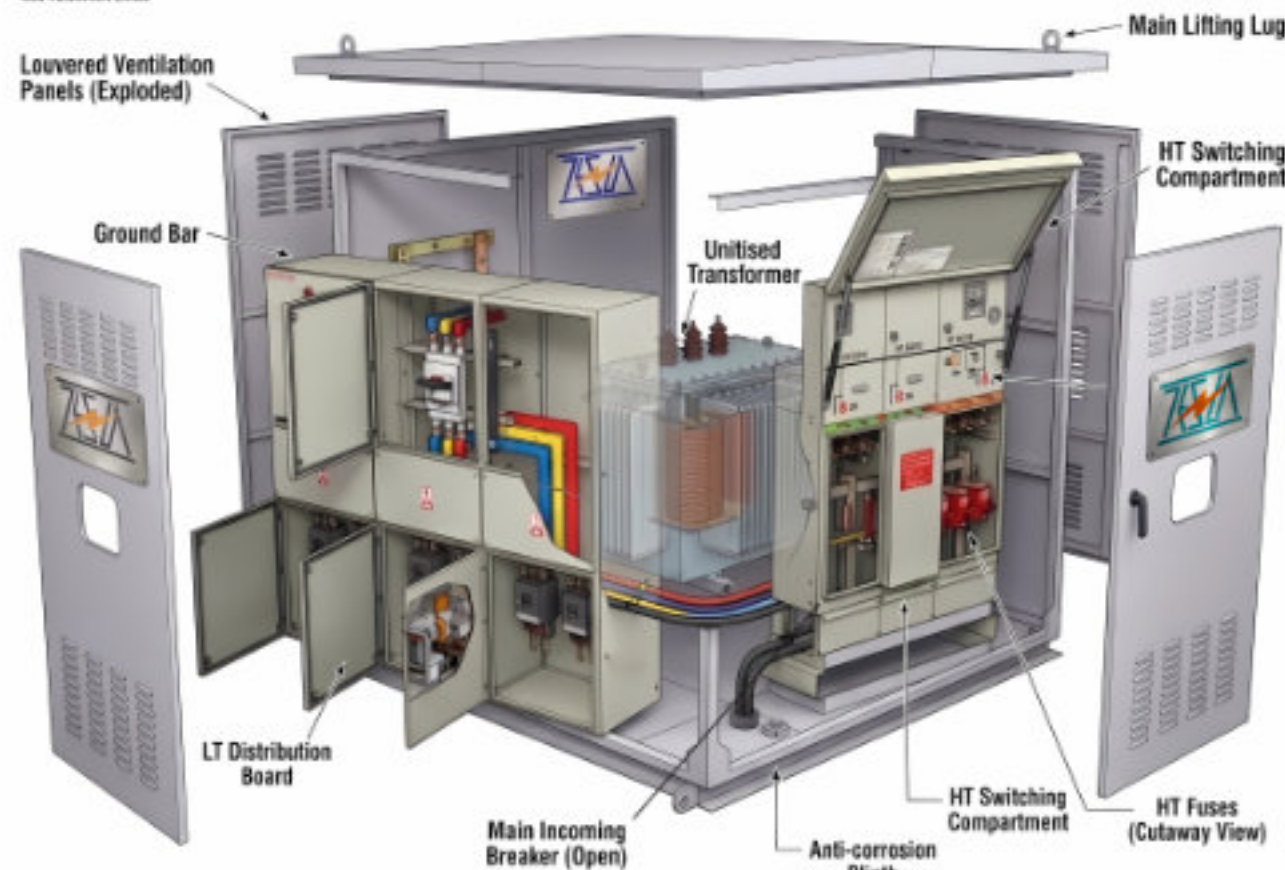
- Reduced energy losses, leading to lower operating costs
- Compliance with Bureau of Energy Efficiency (BEE) standards
- Enhanced reliability and longer service life
- Contribution to national energy conservation goals

Tesla's energy-efficient transformers are designed with advanced materials, optimized winding configurations, and precision manufacturing. They are tested rigorously to ensure performance under diverse conditions.





UNITISED PACKAGE SUB STATION - Exploded Compartment View



2500 KVA 33/0.433 KV USS with Cast Resin Transformer and GIS installed at a Shopping Mall .

Trailer Mounted Mining Transformer Supplied to Australia



Unitised Package Sub-Station (USS)



Tesla's **Unitised Package Substations (USS)** are engineered to be the ultimate plug-and-play solution for demanding environments. By integrating high-voltage (HT), transformer, and low-voltage (LT) components into a single, portable housing, these units provide a seamless transition from transmission to distribution in space-constrained or remote areas.

The **USS** is specifically designed for high-to-low voltage power feeding in open-cast mines, construction sites, and metro cities. Its compact architecture makes it ideal for frequent shifting and both indoor and outdoor installations. For maximum mobility, the substation is mounted on skid frames, wheels, or channels and includes integrated lifting hooks.

Salient Features of Tesla USS

Our engineering focuses on safety, durability, and operational ease:

- **Mobility:** Compact, portable, and ready for immediate installation.
- **Thermal Management:** Designed for superior cooling performance.
- **Corrosion Resistance:** All fasteners are stainless steel or zinc-plated steel.
- **Versatility:** Available with either dry-type or oil-cooled transformers.
- **Low Maintenance:** Engineered for high reliability with minimal service requirements.
- **Customization:** Tailor-made designs with superior aesthetics to meet specific client needs.
- **Safety:** All compartments are illuminated.
- **Compliance:** The design adheres to **IEC 62271** and **IEC 1331** standards.
- **Weatherproof:** Built to withstand all weather conditions.

Design Combinations & Compartments

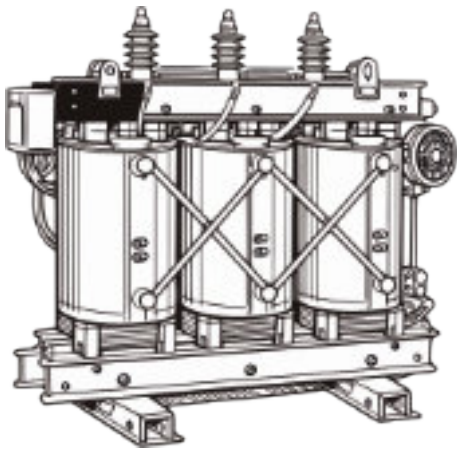
The USS is divided into three critical sections, each featuring a variety of technological configurations:

HT Compartment	Transformer Compartment	LT Compartment
Ring Main Unit (RMU)	Oil Cooled Transformer	Air Circuit Breaker (ACB)
Vacuum Circuit Breaker (VCB)	Cast Resin Dry Type	Molded Case Circuit Breaker (MCCB)
Load Break Switches	VPI Dry Type	Fuse Units & Fuses
SCADA Interface	Low Losses Design	Metering with SCADA option

Specialized Solutions: Trailer Mounted Mining Transformers

Tesla also provides heavy-duty, mobile power solutions for the international mining sector. A notable example is our Trailer Mounted Mining Transformer, specifically engineered for and supplied to the Australian mining industry, demonstrating our capability to meet rigorous global standards for ruggedized power equipment.

Dry Type Transformers



Tesla's **dry-type transformers** are purpose-built for environments demanding **maximum safety, reliability, and minimal maintenance**. Unlike oil-immersed units, they employ **high-temperature insulation systems** and **non-flammable materials**, eliminating the risk of fire or explosion while ensuring long-term operational security.

Capacity Range: 100 kVA – 3000 kVA

Compliance: IEC 60076 | IS 2026 | IEC 726

Design Options: VPI and Cast Resin

Insulation Classes: F | H | C

◆ **Key Advantages**

- **Zero Maintenance:** No insulating liquids, no periodic oil checks.
- **Eco-Friendly Operation:** Non-biodegradable materials suitable for harsh or sensitive environments.
- **Enhanced Safety:** Ideal for load centers, chemical plants, and indoor installations where oil use is restricted.
- **Lifecycle Economy:** Lower total cost of ownership despite higher initial investment.

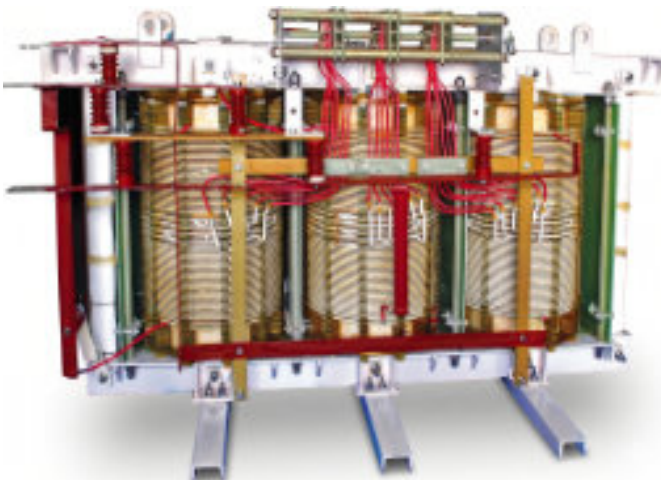
Tesla offers **custom enclosure configurations** — open, ventilated, and non-ventilated — tailored to installation conditions.

Each unit undergoes rigorous testing for **dynamic short-circuit strength, insulation resistance**, and **BIL compliance**, ensuring dependable performance under demanding conditions.

🌱 **The Tesla Edge**

Dry-type transformers are the preferred choice for:

- Industries governed by strict environmental regulations
- Urban centers with limited space or ventilation
- Renewable energy projects requiring safe indoor installations



Valaidation Matrix :

Parameter	Standard / Test Reference	Validation Method	Typical Result
Temperature Rise	IEC 60076-11 / IS 11171	Type Test	Within Class F limits
Insulation Resistance	IEC 60243	Routine Test	> 1000 MΩ
Short-Circuit Strength	IEC 60076-5	Type Test	Passed dynamic withstand
Partial Discharge	IEC 60270	Routine Test	< 10 pC
Noise Level	IS 2026-10	Routine Test	≤ 60 dB(A)
Efficiency	IEC 60076-1	Routine Test	≥ 99.9%
Environmental Suitability	Internal Tesla Spec-T-DT-07	Design Validation	Certified for indoor/harsh sites



Tesla's engineering expertise guarantees reliability, efficiency, and extended service life, making these transformers a cornerstone of sustainable power infrastructure.





Distribution Transformers: The Resilient Core of the Modern Grid: 25 kVA to 10,000 kVA

Tesla's Distribution Transformers serve as the most reliable link between the high-voltage grid and the end consumer. Engineered for the "Smart Grid" era, our units offer the thermal resilience and electrical precision needed to handle fluctuating loads and renewable energy integration.

Every unit is a product of our "Prevention-First" Quality Program (TQP), ensuring a lifecycle of 25+ years with minimal maintenance.

Technical Advantages:

- **Zero-Tolerance Efficiency:** Fully compliant with IS 1180 (Levels 1, 2, & 3). We guarantee losses without positive tolerance, ensuring that the efficiency you pay for is exactly what you get.
- **Thermal Endurance:** Utilizing 99.9% pure electrolytic copper and high-permeability CRGO steel, our designs minimize "Hot Spots," extending the insulation life beyond the standard 25-year benchmark.
- **Versatile Configurations:** Available in oil-immersed (free-breathing or hermetically sealed) and advanced Dry-Type (Cast Resin or VPI) designs to suit any installation environment.
- **Precision Manufacturing:** Utilizing 99.9% pure electrolytic copper and high-grade CRGO steel, we optimize flux distribution to minimize harmonics and enhance safety.
- **Mounting Flexibility:** Engineered for pole, pad, or ground-mounted installations, catering to both overhead rural networks and underground urban systems.
- **Sealing Excellence:** Available in Hermetically Sealed designs, eliminating air and moisture ingress to practically remove the need for oil maintenance.
- **Harsh Environment Ready:** Specialized coatings and robust tank construction for coastal, chemically active, or high-ambient temperature regions.

Validation Matrix :

Parameter	Standard / Test Reference	Validation Method	Typical Result
Efficiency (IS 1180 Levels 1-3)	IS 1180	Routine Test	Zero positive tolerance on losses
Temperature Rise	IEC 60076-2	Type Test	Within Class A/F limits
Short-Circuit Strength	IEC 60076-5	Type Test	Passed dynamic withstand
Impedance	IS 2026	Routine Test	Within specified % tolerance
Noise Level	IS 2026-10	Routine Test	≤55 dB(A)
Environmental Suitability	Internal Tesla Spec T-DT-09	Design Validation	Certified for coastal/chemical/high-ambient sites





AIR PORTS:

- Indira Gandhi International Airport, New Delhi India
- Chhatrapati Shivaji International Airport, Mumbai India
- Tribhuvan International Airport, Kathmandu Nepal

AGRO CHEMICAL PLANTS

- Asian Paints
- Bindal Agro Chemicals Ltd.
- Cereal Agrotech Pvt. Ltd.
- Deccan Sugars
- Emmennar Chem Pvt. Ltd.
- Glampotech Agro Process Pvt. Ltd.
- ICI India Ltd.
- K.P. Solvex Ltd.
- National Steel and Agro Industries Ltd.
- Raigarh Solvent Extraction Pvt. Ltd.
- SKG Solvex Ltd.
- SKG Solvent Extraction Pvt. Ltd.
- Unialkem Fertilizers Ltd.

CABLE/ELECT. INDUSTRIES

- ABB Ltd.
- Alstom Limitd
- Areva T & D India Ltd.
- SPIC-SMO Ltd.
- Alucast Found Bgm Pvt. Ltd.
- Bharat Heavy Electricals Limited (BHEL)
- Bajaj Electricals Ltd.
- Bharat Bijlee Ltd.
- Cable Corporation of India Ltd.
- Crompton Greaves Ltd.
- Emco Limited
- Havells Ltd.
- Lapp Kabel India Ltd.
- Mavin Switchgear & Controls
- Neycer Electricals Pvt. Ltd.
- Ravin Cables Ltd.
- Raychem Rpg Limited
- Surya Roshni Ltd.
- TATA Power Ltd.

ELECTRICAL UTILITIES (Private Sector)

- BSES Ltd.
- GTL
- Reliance Energy Ltd.
- Siemens Ltd.
- SPANCO

COAL MINES

- Australian Mining Industry (In Mobile Substation)
- M.P. State Mining Corporation
- Northern Coalfields Ltd. (NCL)
- Neyveli Lignite Corporation Ltd. (NLCL)
- South Eastern Coalfields Ltd. (SECL)
- Spectrum Coal & Power Ltd.
- Western Coalfields Ltd. (WCL)

ELECTRICAL UTILITIES (Govt. Sector)

- APTRANSCO LTD.
- Delhi Vidyut Board (DVB)
- Director General of Supplies & Disposals (DGS&D)
- Grid Corp. Of Orissa Ltd. (GRIDCO)
- Haryana VidyutPrasaran Nigam Ltd. (HVPNL)
- Haryana Urban Development Authority (HUDA)
- Instrumentation Limited
- Karnataka Electricity Board (KEB)
- Madhya Pradesh Electricity Board (MPEB)
- MSEDCL
- Punjab Urban Development Authority (PUDA)
- Rajasthan State Electricity Board (RSEB)
- Tamil Nadu Electricity Board
- U.P. State Electricity Board (UPSEB)
- Maharashtra State Electricity Distn. Co. Ltd. (MSEDCL)
- Maharashtra State Electricity Transmission Co. Ltd. (MSETCL)
- Punjab State Transmission Corpn. Ltd. (PSTCL)
- Central Electricity Supply Utility of Orissa (CESU)
- Assam Power Distribution Corporation Limited
- Southern Electricity Supply Company of Orissa Ltd. (SOUTHCO)
- Punjab State Power Corporation Limited (PSPCL)
- Tamil Nadu Generation & Distribution Corporation Ltd.
- West Bengal State Electricity Distribution Co. Ltd.
- M. P. Madhya KshetraVidyutVitaran Co. Ltd.,
- M.P. PoorvKshetraVidyutVitaran Company Ltd.
- Madhya Pradesh PaschimKshetraVidyutVitaran Company Ltd.

ELEC.TESTING LABS/RESEARCH CENTRE

- Bose Institute
- Central Power Research Institute (CPRI)
- Center for Advanced Technology (CAT)
- Regional Research Laboratory (RRL)

ELECTRICAL CONTRACTORS

- AshokaBuildcon Limited
- GTL Ltd.
- Spaceage Associates
- ST Electricals Pvt. Ltd.
- SMS Infrastructure Ltd.
- Aarti Infra Projects Pvt. Ltd
- L&T Ltd.
- GVPR Ltd.
- Lancolnfortech Ltd.
- East Coast Contruction Industries Ltd.
- LeenaPowertech Engineers Pvt. Ltd.
- Patwari Electricals
- Techno Electric & Engineers Co. Ltd.
- BVG India Ltd.
- Cobra InstalacionesyServicios
- KEC International Ltd.
- Control Systems
- Ashwini Engineers
- Kalpataru Power Transmission Ltd.
- Spanco Ltd.
- Rudranee Infrastructure Ltd.
- Ravin Cables
- A2Z Group
- Capital Power Infra Ltd.
- Sterling & Wilson Ltd.
- Servomax India Ltd.
- Bharat Electricals
- GET Power Pvt. Ltd.
- Aarti Infra Project Pvt. Lt
- NCC Limited
- EMC Limited
- WIN POWER
- Everest Infra Energy Ltd.
- Bhramputra River Valley (p) Ltd
- APE Power
- KEI
- T&T Projects
- Premier Enterprises
- Necon Ltd.
- Indo Navin projects Ltd.

FINANCIAL INSTITUTION

- Rajkot Stock Exchange
- Apex Industres Pvt. Ltd.
- ICICI Bank Ltd.
- Union Bank of India
- State Bank of India (SBI)

FOOD PROCESSING PLANTS

- Anurag Biscuits Pvt. Ltd.
- Arise Food & Products Pvt. Ltd.
- Ajay Food Products
- Central India Flour mills
- Food Craft Institute
- Kayvees Food Products Pvt. Ltd.
- Kisan Group
- M.P.V. Fruit Products Pvt. Ltd.
- Parle Group of Industries
- Reliable Food Industries Ltd.
- Shakti Masala Limited.
- Septech Foods Pvt. Ltd.
- Vindhya Soya Oil & Food Products

FURNACE INDUSTRIES

- Arunachala-Gounder Textile Mills Pvt. Ltd.
- Varalakshmi Starch Industries Pvt. Ltd.
- Agni Steels Pvt. Ltd.
- SVM Alloy Steels Pvt. Ltd.
- Kantishiva Roller Flour Mill (P) Ltd.
- Amex Irons Pvt. Ltd.
- SDS Steel Rolling Mills Ltd.
- Thirumala Smelters Pvt. Ltd.
- KCP Limited
- Indo Shell Mould Ltd.
- Interfit India Ltd.
- Auto Shell Casts
- Shree Ganesh Steel
- Hariharan Spinners Ltd.
- Consilium Middle East, UAE
- Furnace Fabrica
- Pillar Induction India Pvt. Ltd.
- ShriUlaganayagi Amman Steels
- Bajel Cement Factory-Yemen
- Kawalazi Estate Co. Ltd. Malawi

GENERATION PLANTS

- Amarkantak Thermal Power Station (ATPS)
- Sanjay Gandhi Thermal Power Station (SGTPS)

HOTELS

- Casino Hotels Ltd.
- Hotel Area Palace
- Hotel Raipur
- Jagdamba Palace Hotel
- Piccadilly Hotels Pvt. Ltd.

HYDEL PROJECTS

- AD Hydro Power Ltd.
- Indo Canadian Consultancy Services

INFORMATION/ELECTRONICS

- Escotel Ltd.
- Infosys Technologies Ltd.
- LG Electronics

NATIONAL UTILITIES

- NTPC Limited
- Power Grid Corpo.of India Ltd.

PETROLEUM PLANTS

- Australian Petroleum Industry (In Mobile Substation)
- Indian Oil Corporation Ltd.(IOCL)
- K.N. Oil Industries
- Petroleum Development Oman (PDO)
- Qatar Oil and Gas
- Reliance Petroleum Ltd.
- Southern Petrochemical Ind. Corpn.Ltd.

OIL PROCESSING & REFINING UNITS

- Bindal Agro Chemicals Ltd.
- Betul Oil Mills Ltd.
- Balaji Oils Pvt. Ltd.
- Baheti Oil Industries
- Bhopal Oil Industries
- Bina Refinery
- Glampotech Agro Process Pvt. Ltd.
- Gopal Oil Industries
- Gangotri Oil & agro Pvt. Ltd.
- Itarsi Oil & Flour Mills Pvt. Ltd.
- Kochar Oil Mills Pvt. Ltd.
- MadhyavartExcoils Ltd.
- Oswal Agro Oil Mills Ltd.
- Surya Agroils Ltd.
- Soya Udyog Pvt. Ltd.
- Shorewala Flour Mills Pvt. Ltd.
- Vindhya Soya Oil & Food Products

OTHER INDUSTRIES

- Amtek Auto Limited
 - Areva T&D Ltd.
 - Bright Power Projects
 - Brakes India Ltd.
 - Badri Narain Rubbers
 - Bharat Auto and Agro Industries
 - Crompton Greaves Ltd.
 - Distinct Infrastructure Ltd.
 - Daulat Ram Industries
 - Director General MP council of science
 - Dabar India Ltd.
 - GovindjiTrikhmdes Export Ltd.
 - GEI Hammon Industries Ltd.
 - Golcha Oxides Pvt. Ltd.
 - Hindustan Copper Ltd.
 - IFB Industries Ltd.
 - Manas Land Development Corp.
 - L&T Limited
 - McLeyers Mercantile
 - Modipon Timbres Co.
 - Narasus Roller Floor Mills
 - Ordinance Factory
 - Pan India Paryatan Ltd.
 - Powereeka
 - SRC Projects Pvt. Ltd.
 - Som Distilaries & Breweries
 - Tulshyon Enterprises Ltd.
 - UCAL Machine Tools Ltd.
- ABB India Limited
 - ACME Solar Holdings Pvt. Ltd.
 - Aditya Birla Renewables Ltd.
 - AEG Power
 - BIELECTRIC
 - ENRICH Energy Pvt. Ltd.
 - Enercon India Ltd.
 - Insolare Energy Pvt. Ltd.
 - Kenersys India Ltd.
 - LeitnerShriram Mfg. Ltd.
 - Nature International Pvt. Ltd.
 - Pioneer Asia Wind Turbines Chennai
 - Pan Infra Projects
 - REPL Engineering Ltd.
 - Regen Power Tech
 - Rays Power Infra (P) Ltd.
 - Southern wind Power
 - Suzlon Energy Ltd.
 - Saraswat Engineers
 - SIMCON Solar Pvt. Ltd.
 - Sterling & Wilson Pvt. Ltd.
 - Sunfree Pahschim Renewble energy Pvt. Ltd.
 - Sunsure Energy Pvt. Ltd.
 - SAEI Ltd.
 - Solarworld Energy Solutions Pvt. Ltd.
 - TATA Power Solar Ltd.
 - UTE Solar Enersol Toledo (Spain)
 - Vestas Wind Energy Ltd.
 - Vestas RRB India Ltd.
 - Vivan Solar
 - Waree Energies Pvt Ltd.

OTHER GOVT. ORGANIZATIONS

- Bharat Aluminum Co. Ltd.(BALCO)
- Central Store & Purchase Section(IISER)
- ENERCON India Ltd.
- IRCON International Ltd.
- IVRCL Ltd.
- M.P. Tourism Development Corporation
- M.P. Housing Board
- M.P. Education Board
- Neyveli Lignite Corporation
- Public Health Department (PHD)
- RRL Ltd.
- Visakapatnam Port Trust, Hyderabad

PAPER MILLS

- Badrish Paper Mills
- Duplex Board Ltd.
- Prabhakar Paper Mills Pvt. Ltd.
- Reliance Paper Mill
- Raigarh Paper & Boards Ltd.
- Security Paper Mills (Govt. of India Enterprise)

PHARMACEUTICAL PLANTS

- Hi-Tech Medical Products Ltd.
- Invinox Lab Ltd.
- Lupin Laboratories Ltd.
- Novamed Pvt. Ltd.
- Reliable Drug Mfg. Pvt. Ltd.
- Ranbaxy
- R.M. Chemicals Ltd.

SERVICES

- Department of Telecom (BSNL)
- Indian Railways
- Military Engineering Services (MES)
- PrasarBharati (Broadcasting Corpo. of India)
- TATA Teleservices

SOLAR/WIND POWER



Exports :

Afghanistan
Australia
Bangladesh
Canada
Ethiopia
Ghana
Iraq
Kenya
Kazakhstan
Libya
Liberia
Malta
Malawi
Malaysia
Mali
Mozambique
Nepal
New Zealand
Namibia
Nigeria
Oman
Palestine
Papua New Guinea
Philippines
Qatar
Saudi Arabia
Senegal
Singapore
South Africa
South Korea
Spain
Sudan
Tanzania
Tanzania
Usa
Uae
Uganda
Yemen
Zambia
Zimbabwe

Building the Future



As Tesla Transformers looks ahead, our focus is on innovation, sustainability, and global partnerships. The demand for electricity continues to grow, and with it the need for energy-efficient, environmentally responsible solutions. Tesla is committed to meeting this challenge with advanced technologies that reduce losses, integrate renewables, and enhance reliability.

Future initiatives include:

- Expanding energy-efficient product lines with higher star ratings
- Developing specialized solutions for solar and wind integration
- Strengthening global service networks for faster support
- Investing in digital monitoring and smart transformer technologies

Tesla's vision is to remain a leader in the electrical power sector, delivering solutions that empower communities and industries while protecting the environment.

Guided by our motto

— **Powering Progress, Transforming Tomorrow** —

we will continue to innovate, adapt, and grow.

*On behalf of the Tesla family, we thank our customers, partners,
and employees for their trust and support.*

Together, we will build a brighter, more sustainable future.





Transformers (India) Ltd.



Tesla Transformers (India) Ltd.

Corporate Office

Tesla Transformers (India) Ltd.

23A, Sector B, Industrial Area, Govindpura, Bhopal-462023

Tel: +91-755-4271974, +91-7471187777

Mob: **+91 98930 55810 / 99930 55536**

Email: mktg@teslaindia.co / projects@teslaindia.co / gopalan@teslaindia.co

Tesla Power Equipments & Projects (P) Ltd.

147-H, 147-I, Sector H, Industrial Area, Govindpura, Bhopal-462023

Tesla Power Equipments & Projects (P) Ltd.

D-20 New Phase-2 Industrial Area,

Mandideep-462046, Madhya Pradesh, India.

www.teslatransformersindia.com