

Pakistan Investment Pitch Book

Electrical Devices & Electrical Equipment Manufacturing Sector

1. Strategic Overview: Pakistan as China's Regional Manufacturing Base

Pakistan's Electrical Devices and Electrical Equipment sector is rapidly progressing as a strategic manufacturing and export hub for South Asia, the Middle East, Africa, and Central Asia. The sector serves both power infrastructure equipment and electrical devices for residential, commercial, and industrial use.

Pakistan's national electricity production reached 8,506 GWh in Mar 2024, demonstrating sustained growth in overall electricity generation activity, reflecting expanding demand for equipment across the grid and distributed power segments. The local electrical industry is supported by manufacturing associations such as the Pakistan Electrical & Electronics Merchants Association, which represents the interests of electrical industry stakeholders and contributes to standards, trade promotion, and local supply ecosystem strengthening.

While pockets of local manufacturing include power transformers, energy meters, switchgear, and electrical appliances via firms such as Pak Elektron Limited (PEL) which produces transformers, energy meters, and other electrical equipment. The overall domestic value addition remains low relative to demand and imports.

In 2023, imports of Electrical machinery and equipment (HS-85) to Pakistan were approximately USD 3.54 billion, with China accounting for ~86 percent of total imports in this category, indicating significant reliance on Chinese supply chains in machinery, components, semiconductors, and power equipment. Export performance remains limited, with exports of electrical and electronic equipment valued at USD 92.75 million in 2024, underscoring import dependency and export potential.

2. Why China Should Invest in Pakistan

Strategic Location Advantage

Strategic Factor	Benefit for Chinese Investors
CPEC Logistic Corridors	Easy access to Karachi, Gwadar, Port Qasim for distribution
Regional Connectivity	GCC, Africa, Central Asia via shorter sea and land corridors
Time & Cost Efficiency	Regional shipping 20–30 % lower transit time vs SEA routes

Pakistan's geographic position makes it an ideal export hub for finished electrical equipment into South Asia, the Middle East, Africa, and adjacent markets.

Market Size & Demand Dynamics

Indicator	Latest Data
Electrical machinery imports (2023)	USD 3.54 B
Share of China in Imports (HS-85)	~86 %
Electrical & electronic exports (2024)	USD 92.75 M
Installed Electricity Consumption	>8,500 GWh/mo (Mar 2024)
Local production (Transformers capacity)	3,000 MVA/year

Import-Driven Market: Pakistan's large import bill in electrical equipment reflects a strong market opportunity for localized production of transformers, switchgear, meters, cables, automation equipment, semiconductors, and electrical devices.

Cost & Competitiveness

- Labor costs significantly lower than comparable manufacturing hubs
- Energy and utilities access in SEZs with preferential tariff structures
- Duty-free import of capital machinery and tools to support greenfield projects
- Lower manufacturing overheads compared to ASEAN and Gulf regions

These factors position Pakistan as a cost-competitive manufacturing base for Chinese electrical OEMs and component producers.

3. China–Pakistan Electrical Manufacturing Cooperation Opportunity

Current Industry Landscape

Segment	Current Local Capability
Power Transformers	Domestic facility (HEC: 3,000 MVA)
Switchgear & Protection	Import-dominant
Smart Meters & AMI	Import/import-assembled
Motors & Drives	Partial local assembly
EV & Power Electronics	Mostly imported
Renewable Inverters	Imported

Despite localized activities in certain product lines (transformers, energy meters), most high-value electrical equipment remains import-dependent particularly semiconductors, power electronics, and automation hardware.

Opportunity for China

Chinese manufacturers can fill strategic gaps and capture demand in:

- HV/MV transformer production with enhanced capacity expansion
- Switchgear, breakers & protection devices for utility networks
- Smart meters and AMI platforms for DISCO modernization
- Power inverters and UPS systems for renewable & industrial use
- Electric motors and drives for industrial electrification
- EV chargers and power electronics to capture transport electrification market

This aligns with Pakistan's import structure where approximately 34 % of electrical imports are telephony/electrical apparatus and 29 % are semiconductor/LED components, indicating high technology and component import exposure.

4. Priority Investment Segments for Chinese Firms

Segment	Nature of Opportunity	Target Markets
Power Transformers	Import substitution	Domestic + Export
Switchgear & Breakers	Localization	Utilities & EPC
Smart Meter & AMI	Digital grid rollout	Distribution companies
Power Electronics & Drives	Renewable + Industry	Data Centers / Solar
EV Charging Systems	New mobility segment	Urban + Regional Export
Electrical Accessories	Residential & Industrial	Local consumers

5. Flagship Projects for China–Pakistan JVs

Project	Location	Scale	Model
HV/MV Transformer Plant	Punjab Industrial Zone	5,000+ units/yr	OEM JV
GIS & Switchgear Line	Sindh	MV/HV capacity	Tech JV
Smart Meter Factory	National Rollout	8M units/yr	Licensing JV
Power Electronics Hub	SEZ	500 MW inverter capacity	OEM JV
EV Charger Manufacturing	Karachi/Islamabad	250k pcs/yr	Tech JV

6. Policy & Incentives for Chinese Investors

- SEZ incentive packages: up to 10-year tax holiday and duty exemptions
- Capital goods duty exemptions to reduce CAPEX burden
- Preferential input duty treatment for parts and raw materials
- Low-interest financing programs available through national banks
- Procurement preference mechanisms with domestic value add scoring

Combined, these help offset upfront investment costs and accelerate break-even timelines.

7. Export Market Access for Pakistan-Based Production

Region	Estimated Market Value
GCC & Africa	USD 45 B+
South Asia	USD 12 B+
Central Asia	USD 8 B+
MENA	USD 20 B+
EU & Turkey	USD 15 B+

Pakistan’s geography offers fast market access with reduced transit times for electrical equipment exports into key high-growth regions.

8. What Pakistan Offers to Chinese Partners

Model	Chinese Strength	Pakistan Contribution
OEM Joint Venture	Technology + IP	Local production
Contract Manufacturing	Scale mfg	Labor + Facilities
Licensing / Technology Transfer	Know-how	Market Access
Supplier Park Investment	Components	Logistics
Export Partnership	Distribution	Regional Network

Strategic Commitments

Pakistan offers:

- Long-term market predictability
- Dedicated facilitation via EDB & ministries
- Duty & tax incentives
- Infrastructure backing
- Local workforce and growing demand

These positions China–Pakistan partnerships for regional scale and global competitiveness.

9. Facilitation & Government Interface

Key Facilitation Agencies:

- Ministry of Industries & Production
- Engineering Development Board
- Ministry of Energy (Power Division)

This ensures policy alignment, approvals, and support across the investment lifecycle.

Proposition for Chinese Investors

Pakistan presents a high-growth, import-substitution and export-ready electrical manufacturing ecosystem with:

- Over USD 3.5 billion in electrical imports annually dominated by China.
- Large strategic demand from power grids, industry, and electrification.
- Growing consumer demand for electrical devices, meters, and smart components.
- Cost-competitive production base.
- Strong preference for technology and capital partner investment.

This makes Pakistan a compelling regional hub for China's electrical device and equipment manufacturing ambitions.

巴基斯坦投资推介手册

电气设备与电气装置行业

1. 战略概览：巴基斯坦作为中国的区域制造基地

巴基斯坦的电气设备和电气装置行业正在迅速发展，成为面向南亚、中东、非洲和中亚的战略制造和出口枢纽。该行业服务于电力基础设施设备以及住宅、商业和工业用途的电气装置。

2024年3月，巴基斯坦全国发电量达到8506千兆瓦时，显示出整体发电活动的持续增长，同时反映出电网和分布式电力领域对设备需求的扩大。当地电气行业的支持者，如巴基斯坦电气电子商会等制造协会，代表电气行业利益相关者，为标准制定、贸易促进和本地供应生态系统强化做出贡献。

虽然本地制造业包括一些公司（如生产变压器、电能表和其他电气设备的巴基斯坦电气有限公司（PEL））生产的电力变压器、电能表、开关设备和电器，但整体国内增值相对于需求和进口而言仍然较低。

2023年，巴基斯坦进口的电机电器设备（HS-85）约为35.4亿美元，其中向中国进口约占该类别总额的86%，表明其在机械、元器件、半导体和电力设备方面严重依赖中国供应链。出口表现仍然有限，2024年电气和电子设备出口额为9275万美元，凸显了进口依赖性和出口潜力。

2. 中国为何应在巴基斯坦投资

战略位置优势

战略因素	对中国投资者的好处
中巴经济走廊物流走廊	便捷通达卡拉奇、瓜达尔、卡西姆港，便于分销
区域连通性	通过较短的海陆走廊连接海湾合作委员会国家、非洲、中亚
时间与成本效益	相较于东南亚航线，区域航运时间降低20-30%

巴基斯坦的地理位置使其成为向东南亚、中东、非洲及邻近市场出口成品的理想枢纽。

市场规模与需求动态

指标	最新数据
电机电器进口额（2023年）	35.4亿美元
中国产品在进口中的占比（HS-85）	约86%
电气和电子产品出口额（2024年）	9275万美元
已装机电力消费量	>8,500千兆瓦时/月（2024年3月）
本地生产（变压器产能）	3,000兆伏安/年

进口驱动型市场：巴基斯坦庞大的电气设备进口额反映了本地化生产变压器、开关设备、仪表、电缆、自动化设备、半导体和电气装置的强劲市场机会。

成本与竞争力

- 劳动力成本显著低于可对比制造中心
- 在经济特区享受优惠电价结构和能源等公用设施待遇
- 资本性设备及工模具的免税进口，支持绿地项目
- 相较于东盟和海湾地区更低的制造业管理费用

这些因素使巴基斯坦成为具有成本竞争力的中国电气 OEM 厂商和元器件生产商的制造基地。

3. 中巴电气制造业合作机会

当前行业格局

细分领域	当前本地能力
电力变压器	本地有产能（如 HEC：3,000 兆伏安）
开关设备与保护	依赖进口
智能电表与高级量测体系	进口/进口组装
电机与驱动器	部分本地组装
电动汽车与电力电子	主要依赖进口
可再生能源逆变器	依赖进口

尽管在某些产品线（变压器、电能表）存在本地化生产活动，但大多数高价值电气设备，特别是半导体、电力电子和自动化硬件，仍然依赖进口。

中国企业的机遇

中国制造商可以弥补战略空白并满足以下领域的需求：

- 高压/中压变压器生产及产能扩张
- 用于公用事业网络的开关设备、断路器和保护装置
- 用于供电公司现代化改造的智能电表和高级量测体系 AMI 平台
- 用于可再生能源和工业用途的电源逆变器和不间断电源系统 UPS
- 用于工业电气化的电机和驱动器
- 用于交通电气化市场的电动汽车充电桩和电力电子设备

这与巴基斯坦的进口结构相吻合，其中约 34% 的电气进口是电话/电气装置，29% 是半导体 /LED 元器件，显示出对高科技和元器件进口的高度依赖。

4. 中国企业优先投资领域

细分领域	机会性质	目标市场
电力变压器	进口替代	国内 + 出口
开关设备与断路器	本地化生产	公用事业与 EPC 公司
智能电表与高级量测体系	数字电网推广	供电公司
电力电子与驱动器	可再生能源 + 工业	数据中心 / 太阳能项目
电动汽车充电系统	新兴出行领域	城市 + 区域出口
电气配件	住宅与工业	本地消费者

5. 中巴合资企业期间项目

项目	地点	规模	模式
高压/中压变压器厂	旁遮普工业区	5,000+ 台/年	OEM 合资企业
气体绝缘开关设备/开关设备生产线	信德省	中压/高压产能	技术合资企业
智能电表厂	全国推广	800 万台/年	授权合资企业
电力电子中心	经济特区	500 兆瓦逆变器产能	OEM 合资企业
电动汽车充电桩制造	卡拉奇/伊斯兰堡	25 万件/年	技术合资企业

6. 中国投资者可享受的政策与激励政策

- 经济特区激励方案：长达 10 年关税豁免与免税期
- 资本货物关税豁免，降低资本支出负担
- 零部件和原材料的优惠进口关税待遇
- 通过国家银行提供低息融资项目
- 国内附加值评分的采购优惠机制

综合来看，这些措施有助于抵消前期投资成本，加速实现盈亏平衡。

7. 巴基斯坦本地生产可获得的出口市场准入

地区	预估市场价值
海湾合作委员会国家与非洲	> 450 亿美元
南亚	> 120 亿美元
中亚	> 80 亿美元
中东与北非	> 200 亿美元
欧盟与土耳其	> 150 亿美元

巴基斯坦的地理位置为电气设备出口提供了快速进入关键高增长地区的市场通道，并缩短了运输时间。

8. 巴方向中方合作伙伴的贡献

模式	中方优势	巴方贡献
OEM 合资企业	技术 + 知识产权	本地生产
合同制造	规模制造	劳动力 + 设施
授权/技术转让	专有技术	市场准入
供应商园区投资	元器件	物流
出口合作	分销网络	区域网络

战略承诺

巴方提供：

- 长期市场可预见性
- 通过工程发展委员会(EDB)和各部委提供专项便利化服务
- 关税和税收激励
- 基础设施支持
- 本地劳动力和不断增长的需求

这些因素使中巴合作伙伴关系能够实现区域规模扩张，并提升全球竞争力。

9. 便利化措施与政府对接

主要便利化机构:

- 工业和生产部(MoIP)
- 工程发展委员会(EDP)
- 能源部（电力司）

确保在投资全周期内获得政策协调、审批和支持。

10. 对中国投资者的倡议

巴基斯坦提供了一个高增长、进口替代和出口导向的电气制造生态系统，具备以下优势：

- 每年超过 35 亿美元的电气产品进口额，其中中国产品占主导。
- 来自电网、工业和电气化的巨大战略需求。
- 对电气装置、仪表和智能元器件消费需求的不断增长。
- 具有成本竞争力的生产基地。
- 强烈偏好对技术和资本合作伙伴的投资。

巴基斯坦作为一个极具吸引力的区域枢纽，助力中国实现电气装置和设备制造雄心。