

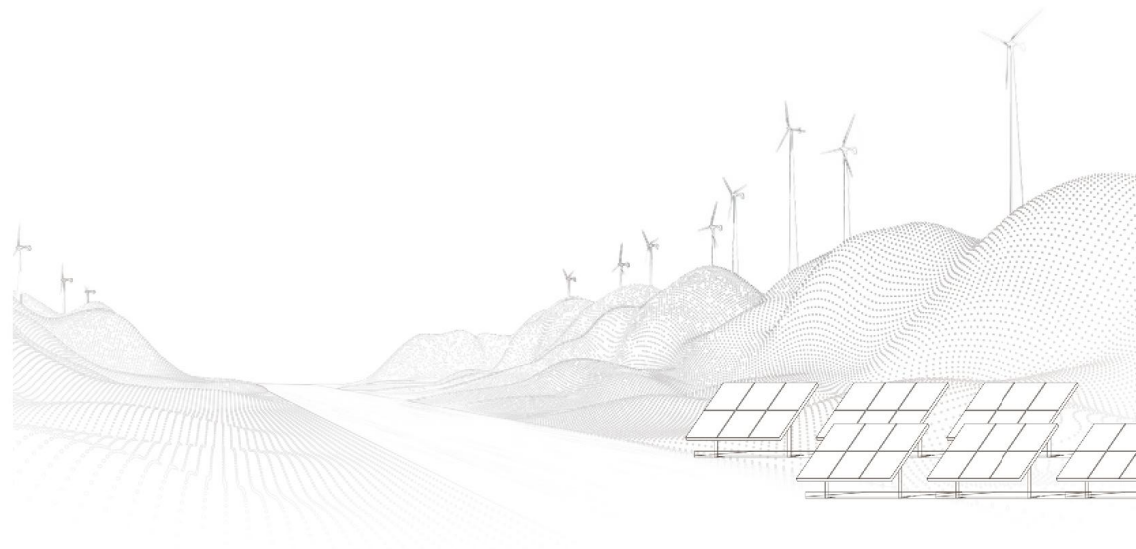


TBEA 特变电工
装备中国 装备世界

天津市特变电工变压器有限公司

TBEA TIANJIN TRANSFORMERS CO.,LTD.





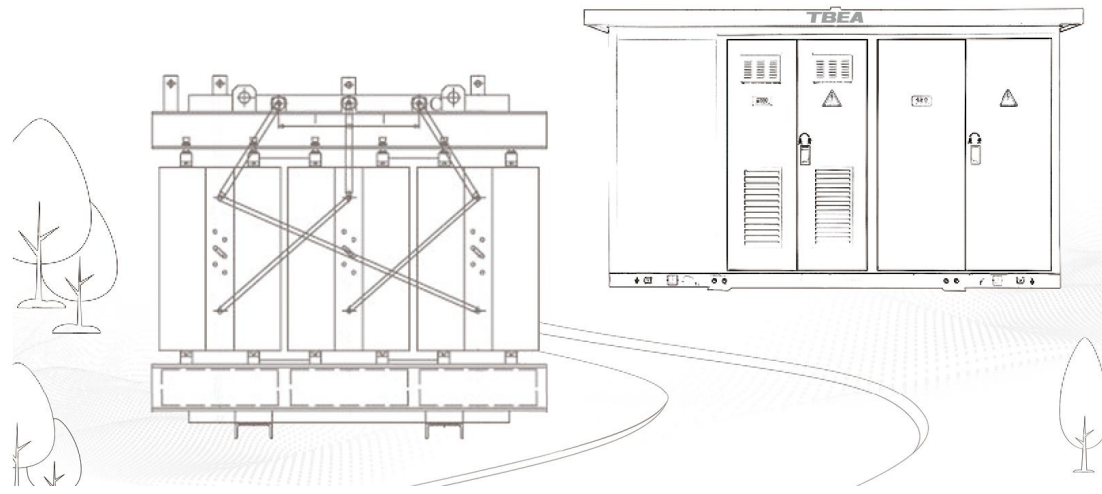
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TBEA ALWAYS RELIABLE

您可信赖的特变电工

特变电工是为全球能源事业提供系统解决方案的服务商，拥有特变电工股份有限公司（600089）、新特能源股份有限公司（HK1799）、新疆众和股份有限公司（600888）3家上市公司，已形成以能源为基础，输变电高端制造、新能源、新材料“一高两新”三大国家战略性新兴产业协同发展的产业集群，国内拥有18个基地，海外建有2个基地。公司以“绿色科技、智能环保、可靠高效”的高技术、高附加值的产品和服务，装备中国、装备世界，引领着世界绿色节能电力技术的发展方向，为人类文明进步作出贡献。

TBEA is a service provider of systemic solutions for global energy industry and successfully built 3 listed companies: TBEA Co., Ltd. (600089), Xinte Energy Co., Ltd. (HK1799) and Xinjiang Joinworld Co., Ltd. (600888). The Company has formed the industry cluster based on the energy and developed businesses in three strategic emerging industries, which includes power transmission and distribution, new energy, and new materials. The company has 18 domestic manufacturing bases and 2 overseas bases. The company equips China and powers world with the technology and highly value-added product and service, performing the policy of "green technology, intelligently environmental protection, reliable and efficient", leading the development direction of green and energy-saving electric technology and making a contribution to human civilization and progress.



特变电工总部科技研发基地（新疆昌吉） TBEA Headquarter Scientific and Technological R&D Base (Changji City, Xinjiang)

国内基地18个 18 Domestic Bases



武清产业园（天津）
Wuqing Industrial Park (Tianjin)



雄安科技园（河北雄安）
Xiong'an Science and Technology Park (Xiong'an New Area, Hebei)



华北工业园区（天津）
North China Industrial Park (Tianjin)



北京总部基地（北京）
Beijing Headquarters (Beijing)



云集5G科技产业园（湖南衡阳）
YUNJI 5G Science and Technology Industrial Park (Hengyang City, Hunan)



华南工业园区（湖南衡阳）
South China Industrial Park (Hengyang City, Hunan)



华东工业园区（山东泰安）
East China Industrial Park (Tai'an City, Shandong)



西南工业园区（四川德阳）
Southwestern Industrial Park (Deyang City, Sichuan)



西安电气科技产业园（陕西西安）
Xi'an Electrical Science and Technology Industrial Park (Xi'an City, Shaanxi)



南京智能电气产业园（江苏南京）
Nanjing Intelligent Electrical Industrial Park (Nanjing City, Jiangsu)



新能源产业园（新疆乌鲁木齐）
New Energy Industrial Park (Urumqi City, Xinjiang)



多晶硅材料产业园（新疆乌鲁木齐）
Polycrystalline Silicon Material Industrial Park (Urumqi City, Xinjiang)



新材料产业园（新疆乌鲁木齐）
New Material Industrial Park (Urumqi City, Xinjiang)



新疆智能电气产业园（新疆昌吉）
Xinjiang Intelligent Electrical Industrial Park (Changji City, Xinjiang)



准东煤电能源基地（新疆昌吉）
Zhundong Coal Power Energy Base (Changji City, Xinjiang)



国际物流园区（新疆昌吉）
International Logistics Park (Changji City, Xinjiang)

海外基地2个 2 Overseas Bases



印度特高压生产基地
India UVV Manufacturing Base

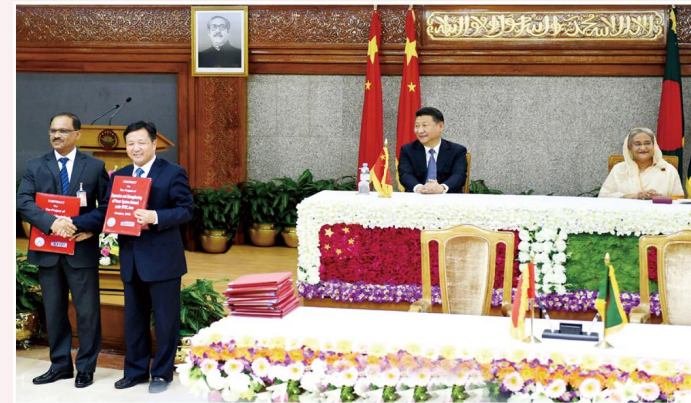


塔吉克斯坦杜尚别矿业公司
Tajikistan Duschanbe Mining Company

特变电工的发展得到党和国家领导人的亲切关怀



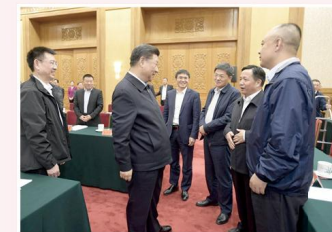
2014年9月13日，国家主席习近平和塔吉克斯坦总统拉赫蒙共同出席杜尚别2号火电站一期竣工二期奠基仪式，他高度评价：“该项目是中塔两国务实合作标志性项目，是中塔两国人民友谊的象征，他勉励特变电工建设者趁热打铁，再接再厉，为塔吉克人民带来更多温暖和光明。”



2016年10月14日，国家主席习近平在孟加拉国进行国事访问期间，与孟加拉国总理谢赫·哈西娜共同见证了特变电工与孟加拉国达卡配电公司超111亿元人民币的首都达卡地区智能电网和升级项目签约。



2018年8月27日，中央召开推进“一带一路”建设工作五周年座谈会，特变电工党委书记、董事长张新作为全国八家民营企业代表之一参会。会后，习近平总书记与张新亲切交流，要求特变电工再接再厉多建惠及当地民生的好工程，为“一带一路”沿线国家的经济发展、人民幸福生活做出更多贡献。

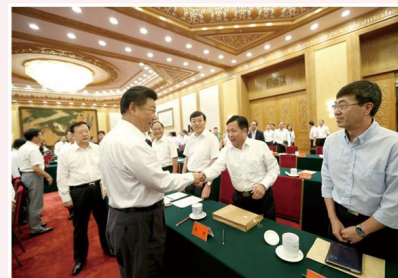


2018年11月1日，民营企业座谈会在京召开。特变电工党委书记、董事长张新等50余名民营企业代表受邀参加。会后，习近平总书记与张新亲切交流，他称赞：“特变电工把中国技术、中国标准输送到“一带一路”沿线各国，服务沿线国家的能源经济发展，在推动能源革命和创新发展，增强与各国人民之间的友谊方面做出了贡献。”

亲切关怀
Amiable Care



中共中央总书记、国家主席习近平多次到特变电工视察。2009年6月20日视察公司新能源和新材料产业时，他殷切期盼：“把新疆煤电资源优势转化为高科技优势，你们做到了。希望你们成为攀登创新发展至高点的主力军，推动产业升级换代，为国家经济建设作出特殊贡献！”



◀ 2016年8月17日，习近平总书记出席推进“一带一路”建设工作座谈会并发表重要讲话。期间，习近平总书记与特变电工党委书记、董事长张新亲切握手交流。

▶ 2013年9月12日，国家主席习近平出席在吉尔吉斯斯坦举行的上合组织峰会期间接见了中资企业代表，并与特变电工党委书记、董事长张新亲切握手。



◀ 2012年3月9日，时任中共中央政治局常委兼国家副主席的习近平出席十一届全国人大五次会议新疆代表团审议时，与全国人大代表、特变电工党委书记、董事长张新亲切握手交流。



踔厉奋发的天变公司

Aggressive and Strenuous TBEA Tianjin

一、卓识远见 热忱为本

- ◆ 公司简介
- ◆ 荣誉资质

二、业精于专 志高于众

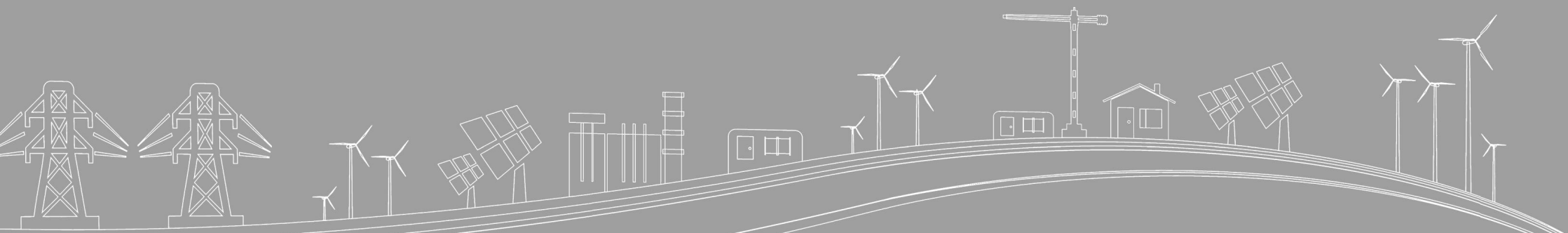
- ◆ 一流的生产环境
- ◆ 现代的生产装备
- ◆ 特色产品及服务

三、合作共赢 互信共荣

- ◆ 产业结构
- ◆ 重点项目及业绩
- ◆ 综合能源管理服务平台
- ◆ 电力运维检修服务

四、精益求精 铸就未来

- ◆ 企业文化
- ◆ 发展愿景



SUPERIOR INSIGHT AND SINCERE SERVICE

卓识远见 热忱为本

公司简介

Company Profile

天津市特变电工变压器有限公司，是特变电工依托京津冀区域人才、天津政策、港口等优势资源，集智聚力打造的干变产业重要战略基地、干式变压器创新中心和研制基地、节能智能产品研发基地、集成服务基地。自1999年特变电工与天津百利强强联合、共同投资重组建企以来，整合60余年变压器制造经验，已发展为集研发、制造、服务于一体的国家级高新技术企业，国家重点专精特新“小巨人”企业、国家绿色工厂、国家绿色供应链示范企业、国家服务型制造示范企业，荣获天津市政府质量奖等多项荣誉。

TBEA Tianjin Transformers Co., Ltd. (hereinafter referred to as "the Company") is a significantly strategic base of dry-type transformer industry, dry-type transformer innovation center and R&D base, energy-saving intelligent product R&D base and integrated service base built by TBEA relying on the talents in Beijing-Tianjin-Hebei region, Tianjin policies, ports, and resources, concentrating wisdom and efforts. With the alliance, investment and reorganization between TBEA and Tianjin Benefo Tejing Electric in 1999, the Company integrated the experience over 60 years in manufacturing dry-type transformer, developed the national high-tech enterprise integrating R&D, manufacturing and service, won the National Technologically Advanced "Little Giant" Enterprise, National Green Plant, National Green Supply Chain Demonstration Enterprise and National Service Manufacturing Demonstration Enterprise, and was awarded Tianjin Governmental Quality Award and other honors.

公司紧紧围绕国家“双碳”战略、能源革命、新能源、智能电网、智慧城市等建设发展，为电网、新能源、大数据中心、地铁轻轨等关系国计民生的行业及重点项目研制优质的产品，为客户提供电力噪声治理和智慧能源管控方案，成为可靠智能的电力设备供应商和综合能源服务商。

The Company focuses on the "Carbon Peaking and Carbon Neutrality" strategy, energy revolution, new energy, intelligent grid, smart city and other construction and development goal, provides superior products for the power grid, new energy, big data center, metro, light rail and other industries and key projects concerning on people's livelihood, provides the electrical noise abatement and smart energy control solutions and develops into a reliable electrical equipment supplier and comprehensive energy service provider.



企业被认定为国家级重点专精特新“小巨人”企业、国家级高新技术企业、国家级服务型制造示范企业、国家级绿色工厂、国家级绿色供应链管理示范企业等。通过自主创新，多项产品技术水平达到了国际领先和国际先进，典型产品获得工业和信息化部“能效之星”，先后荣获天津市政府质量奖、河北省科技进步奖、天津市科技进步奖和滨海新区科技进步奖等多项荣誉。

荣誉资质 Honor & Qualification



Honorary Certificate



踔厉奋发的天变公司

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- ◆ 企业文化
- ◆ 发展愿景



WE SEEK TO BE MORE
PROFESSIONAL AND SUPERIOR
业精于专 志高于众

公司深入贯彻国家“高质量发展”的战略部署，以“品质一流”为发展方向，建立了产品全生命周期的质量管理体系，通过了ISO9001质量管理体系、ISO45001职业健康安全管理体系、ISO14001环境管理体系及CNAS实验室管理体系认证，获得了第三届天津质量奖。公司以客户需求为关注焦点，以数字化智能化生产线和实验室为基础，构建了一个核心、三维保障、五化支撑、七条主线”的“1357”金字塔质量管理体系，更科学、更严谨、全方位地保障了公司的产品质量。

The Company implements the national strategy of "High-quality Development" and is oriented by "First-class Quality" for development and to establish the full life-circle quality management system for products. The products passed the certification of ISO9001 quality management system, ISO45001 occupational health and safety management system, ISO14001 environmental management system and CNAS laboratory management system, and were awarded for The Third Tianjin Quality Award. The Company focuses on the customers and builds up the "1357" pyramidal quality management system of "One Core, 3D Guarantee, Five Orientations and Seven Mainlines" based on the digital and intelligent production line and laboratory, ensuring the product quality scientifically and cautiously in full scale.



一流的生产环境

Top-ranking Production Environment

行业标杆级的数字化工厂

天变公司干变数字化车间，以精益数字化规划为指导，采用“云大物移”新技术，重点打通订单-研发-生产-交付的数据流，畅通从立库到AGV工位配送的物流，形成从技术标准到数采检验的质量管理闭环。车间拥有自动化设备47套，与专业厂家共同定制研发行业首台套非标设备线轴上线桁架机器人、低压线圈机器人压装工作站、高频感应焊接设备等22套。车间工序分为8个模块18个功能区域，所有区域均建立数据采集系统，实现MES、ERP、PLM、WMS、SCADA、Lims六大系统的互联互通，完成信息化管理系统与生产现场的对接，实现自动化与信息化的深度融合。



The dry-type transformer digital workshop of TBEA Tianjin is guided by the digital plan and adopts the "cloud computing, big data, IoT and mobile internet" new technology, connects the data flow of "order - R&D - production - delivery", unblock the logistics from building up warehouse to AGV distribution, and form the quality management closed loop from technical standards to data collection and inspection. The workshop is configured with 47 sets of automatic equipment and 22 sets of other equipment, including the first non-standard equipment bobbin winding truss robot customized, researched and developed jointly with the professional manufacturer in the industry, LV coil robot press fitting workstation, high-frequency induction welding equipment and others. The processes in workshop are divided in 8 modules and 18 functional areas, and all areas are established with the data collection system to realize the interconnection among six systems of MES, ERP, PLM, WMS, SCADA and Lims, and complete the communication between informatization management system and production site and achieve the deep fusion of automation and informatization.

01 行业首台 数控绕线机

First Digitally-Controlled Winding Machine in the Industry



行业首台数控绕线机的应用，成功实现了MES、PLM与设备PLC等系统全部集成，绕制过程中采用自动排线与自动压紧装置，保证变压器核心部件线圈的质量。

The first digitally-controlled winding machine in the industry is applied to successfully realize the complete integration of MES, PLM, equipment PLC and other systems, and adopts the automatic winding and automatic pressing device during the winding process to ensure the quality of coil that is the core parts of transformer.

03 行业首台 低压线圈翻转助力臂

First LV Coil Flipping Arm in the Industry



低压线圈的翻转采用助力臂进行气动夹持后自动翻转，取代了传统意义上的行车翻转线圈，提高员工工作效率、降低安全隐患。

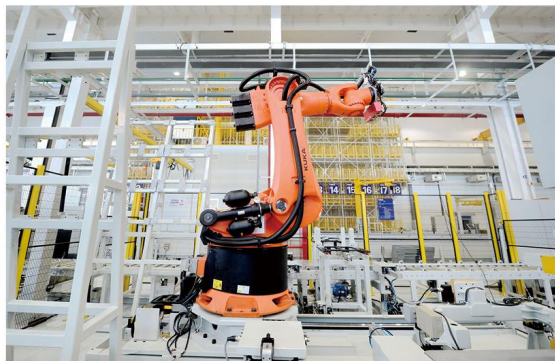
The LV coil can flip over automatically through adopting the pneumatic clamping by the arm, which replaces the traditionally in-service flipping coil, improves the employees' working efficiency and reduces the potential safety hazard.

02 行业首台 低压线圈压装机器人

First LV Coil Press Fitting Robot in the Industry

相比传统压装方式，低压线圈压装机器人效率高，精度质量可以管控，并且保证了压装力以及尺寸的一致性，便于后期产品质量追溯以及统计分析。

Compared with the traditional press fitting method, LV coil press fitting robot is efficiency, with controllable precision and quality, and can ensure the consistency of press fitting force and sizes, which is convenient for subsequent quality traceability and statistical analysis for products.



04 信息交互 全自动RGV浇注线

Information Interactive and Automatic RGV Casting Line



浇注固化系统采用MES自动调度，MES系统将产品工艺参数下发到相应设备，由设备自动控制浇注固化的温度和时间、浇注料重量，可根据需求进行过程质量追溯，并根据过程数据的分析进行工艺的持续改进。

Casting and curing system adopts the MES automatic dispatching and the MES system issues the product process parameters to the relevant equipment, which will automatically control the temperature and time of casting and curing and the weight of casting materials. The in-process quality traceability is available as per requirement and the continuous process improvement can be made according to the in-process data analysis.

世界一流试验装备

天变公司现有两大检测中心，检测场地约600平方米，主要仪器设备约150台（套）。中心机构设置齐全，实验装备先进完善，设立了智能化局放声级屏蔽室区域模块、低压测试区域模块、温升试验区域模块、雷电冲击试验区域模块、车间在制品检测模块、材料检测中心区域模块、试验检测控制信息化平台等多个模块。其中大型仪器设备有900kVA发电机组、CDYL-800kV/40kJ雷电冲击试验系统、RSTC-20kVA工频试验控制台、TWPD-ZE多通道数字式局部放电综合测试仪、WT500功率分析仪、GT-588YNY全自动油耐压测试仪、SYBS-2310变压器试验系统等。

检测中心可满足容量为50000kVA及以下和电压等级为110kV及以下各类变压器除突发短路以外的所有试验。试验项目种类齐全，高度集成智能化、数字化、信息化为一体，整体技术达到世界一流水平。



检测中心采用国内外一流的试验仪器、仪表，试验数据精度高。试验过程采用一次接线，一键自动完成所有试验项目，试验数据自动采集、试验结果智能判断、试验报告自动生成、产品铭牌自动打印，提高了工作效率。引入先进的实验室信息管理系统（LIMS），能够完成试验数据和信息的收集、分析、报告和管理。



▲ 电气实验室
Electrical Laboratory



▲ 化学实验室
Chemical Laboratory



▲ 力学实验室
Mechanics Laboratory



▲ 盐雾实验室
Salt Spray Laboratory

TBEA Tianjin has two testing centers, covers about 600㎡ of testing area and approximately 150 units (sets) of major instruments and devices. The Company has the complete central organization, advanced testing devices, builds up the intelligent upgraded partial discharge shielding room module, LV testing module, temperature rising testing module, lightning surge testing module, workshop in-process product testing module, material testing center module, inspection and testing control information platform and many other modules. The large-sized instrument and device includes 900kVA generator set, CDYL-800kV/40kJ lightning surge testing system, RSTC-20kVA power frequency testing console, TWPD-ZE multi-channel digital partial discharge integrated tester, WT500 power analyzer, GT-588YNY automatic oil pressure tester, SYBS-2310 transformer testing system and so on.

Except the sudden short circuit, the testing center can satisfy all tests for transformers with the capacity of 50,000kVA below and voltage grade of 110kV below, has the complete testing items and integrates the intelligence, digitization and informatization, and its overall technology reaches the cutting-edge level worldwide.

The testing center adopts the cutting-edge testing instrument and meters from home and abroad to realize the high precision in testing data. All test items can be completed automatically in one wiring process. With the automatic collection of testing data, intelligent judgment of testing result, automatic forming of testing report, automatic printing of product nameplate, the working efficiency is greatly improved. The advanced laboratory information management system (LIMS) is introduced to complete the collection, analysis, reporting and management of testing data and information.

特色产品及服务

Characteristic Products and Service

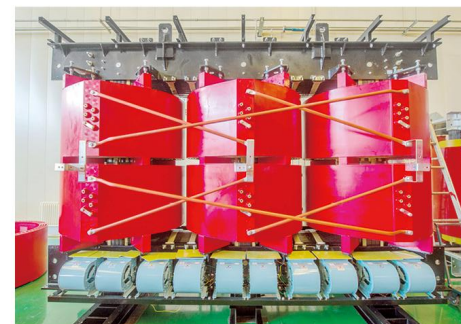
高端节能电力产品

高端节能电力产品



SCB18-2500/10-NX1, 公司率先完成满足国家标准GB20052-2020规定的一级、二级能效产品认证, 容量涵盖100kVA-2500kVA, 产品运行能耗大幅降低, 运行经济性得到显著提升。

SCB18-2500/10-NX1, the Company firstly completes the primary and secondary energy efficiency product certification of national standard GB20052-2020, with the product capacity of 100kVA-2,500kVA, lower energy consumption and higher economic efficiency.



10000kVA多晶硅还原炉整流变压器, 该产品应用于多晶硅还原炉, 该还原炉是多晶硅生产过程中非常关键的设备, 其为还原炉提供加热电源的变压器设备担负着非常重要的作用。目前硅业市场非常活跃, 还原炉作为硅料核心生产设备, 通过不断改进优化, 能够促进多晶硅企业降本增效, 故还原炉干式变压器市场前景比较广阔。

10,000kVA polycrystalline silicon reduction furnace rectifier transformer is mainly used for polycrystalline silicon reduction furnace, which is the critical equipment during the production of polycrystalline silicon and is a transformer providing heating power for reduction furnace. At present, the silicon market is quite animated. As the core equipment of silicon production, the reduction furnace can promote the polycrystalline silicon enterprise to reduce cost and improve efficiency so the dry-type transformer of reduction furnace has a relatively extensive market prospect.

海上风电塔筒内SCSB-F-7400/35/0.69风电塔筒内水冷变压器是首批实现并网运行的国产化海上风电塔筒用干式变压器, 高端制造为新能源海上风电服务。

SCSB-F-7400/35/0.69water-cooled transformer in offshore wind generator tower is the first batch of dry-type transformer which is available for grid-connected operation and used for domestic offshore wind generator tower. It's an example that high-end manufacturing serves for new energy from offshore wind generator.



SCFLLB-F-7900/37机舱内置干式变压器, 产品通过系列化研发, 容量涵盖3900kVA-7900kVA, 已广泛应用于国内外风电项目。产品安装在距地面高度在几十米到一百多米的风力发电机舱内, 可以适应机舱高空震动要求, 代表着行业内最先进的设计制造水平。

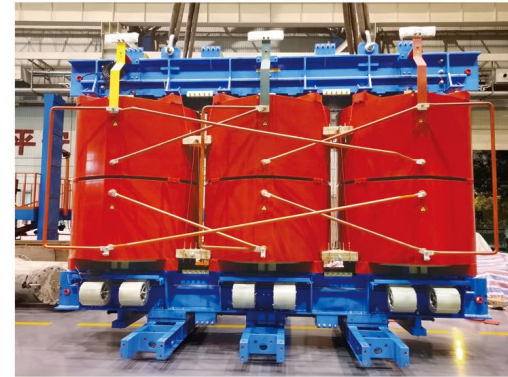


SCFLLB-F-7900/37 dry-type transformer has the capacity covering 3,900kVA-7,900kVA, through the research and development, is extensively applied to the wind power projects at home and aboard. The product is installed inside the wind generator cabin at the height of tens of meters to over a hundred meters above the ground, adapts to the high-altitude vibration requirements in engine room and represents the cutting-edge designing and manufacturing level in the industry.



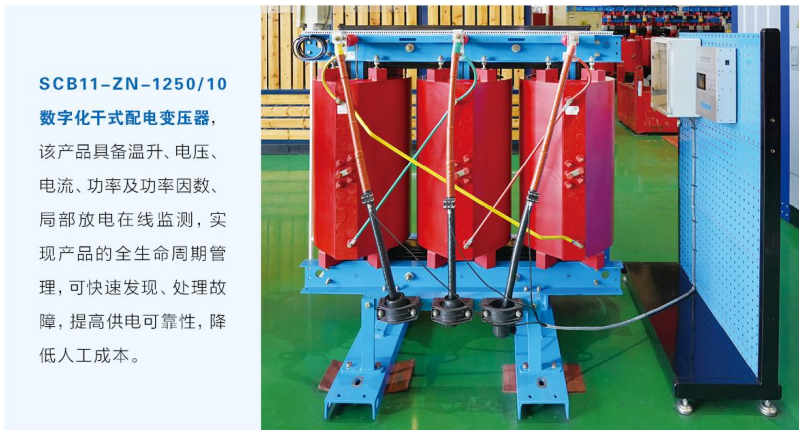
ZQSCB-4000/35/1.18/1.18
牵引整流变压器，用于天津地铁、杭州地铁、南京地铁、大连地铁、洛阳地铁等项目，采用双绕组双分裂结构，产品过载能力强，满足重牵引VI类负荷过载要求，安全性能好。

ZQSCB-4000/35/1.18/1.18 traction rectifier transformer is used for metro in Tianjin,, Hangzhou, Nanjing, Dalian, Luoyang and other metro projects, adopts the duplex-winding double-split structure to realize the strong overload capacity and good safety performance, and meet the class-VI overload requirement of heavy traction.



ZPSCB-30700kVA大容量抽水蓄能SFC输入输出变压器。
SFC输入输出变压器是抽水蓄能电站发电/电力机组启动的核心设备，目前工厂生产最大容量达30700kVA，成功为抽水蓄能电站提供22136kVA、25000kVA、26248kVA、30200kVA、30700kVA等多个容量产品。

ZPSCB-30700kVA large-capacity pumped storage SFC input and output transformer is the core equipment of starting the pumped storage power station / unit. The maximal capacity is 30,700kVA and the Company successfully provides the 22,136kVA, 25,000kVA, 26,248kVA, 30,200kVA, 30,700kVA and many other products with different capacities for pumped storage power station.



SCB11-ZN-1250/10
数字化干式配电变压器，该产品具备温升、电压、电流、功率及功率因数、局部放电在线监测，实现产品的全生命周期管理，可快速发现、处理故障，提高供电可靠性，降低人工成本。

SCB11-ZN-1250/10 digital dry-type distribution transformer is capable of the online monitoring on the temperature rising, voltage, current, power and power factor, and partial discharge, achieves the full life-circle management for products and can quickly find out and handle the failure, improving the reliability of power supply and reducing the labor cost.



SCBH15-4000/10非晶合金变压器，该产品空载损耗低，节能效果明显，运行噪音低，用于中国移动、联通等数据中心项目。

SCBH15-4000/10 amorphous alloy transformer is featured by low no-load loss, energy saving and low running noise, and is widely used in China Mobile, China Unicom and other data center projects.

◆ 光伏发电用一体机

产品集逆变器、变压器、高压开关等设备于一体，具有体积小，集成度高，智能化等优点，产品广泛应用于光伏发电现场。



The photovoltaic power generation all-in-one machine integrates inverter, transformer, HV switchgear and other equipment, with the advantages of small size, high integration, and intelligence, and is used in photovoltaic power generation.

◆ 大容量组合式变压器
(美式箱式变电站)

产品体积小，容量大，抗风沙、耐腐蚀能力强，主要应用于光伏、风力发电现场。



Large-capacity integral transformer (American box-type substation) with small size and large capacity, the maximum capacity can reach 3,600KVA, which is mainly used in photovoltaic and wind power generation sites.

◆ 10kV智能变电站

产品具有“四遥”功能，主要应用于小区、工厂、矿山等场所。



10kV intelligent substation is has the functions of "remote measuring, remote signaling, remote control and remote regulation" and mainly used in community, plant, mine and other sites.

◆ 大容量“华式”
箱式变电站

产品体积小，容量大，抗风沙、耐腐蚀能力强，占地面积小，通风散热能力强，主要应用于光伏、风力发电现场。



Large-capacity Chinese box-type substation with small size, large capacity, and strong ventilation and heat dissipation capability, the maximum capacity can reach 7,600kVA, which is mainly used in photovoltaic power generation and wind power generation sites.

智能集成 Intelligent Integration



智慧能源管控系统以生产过程实时监控、调度为手段，以信息化网络与数据采集为基础，充分注重能源、生产及设备运行工况数据的一体化协同分析与综合管控。

The smart energy control system lays full emphasis on integrated collaborative analysis and comprehensive control of energy, production and equipment working condition data in a way of real-time monitoring and dispatching during the production process and on the basis of informatization internet and data acquisition.

系统提供多组大屏界面实时动效监测全厂、分厂、工序和设备的生产进度、设备状态、工艺状况及指标、能耗指标、报警信息，能源平衡、生产调度、设备缺陷等视觉效果设计；实时监测全厂供电、新水、中水、软水、高炉煤气、转炉煤气、蒸汽、氧气、氮气、氩气、压缩空气等能源系统实时运行工况的视觉效果设计，同时该系统需要庞大的数据量及大量的应用展示，必然需要长期累积经验，通过多年努力逐步完善，并逐步提升，最终达到国内一流水平。



The system provides multiple large screens to dynamically monitor the visual effect designs for production schedule, equipment condition, process condition and indicators, energy consumption indicators, warning information, energy balance, production dispatching, equipment defects and others of whole plant, sub-plant, processes and equipment in a real time, and to monitor the visual effect designs for power supply, new water, recycled water, soft water, blast furnace gas, converter gas, steam, oxygen, nitrogen, argon, compressed air and other energy system real-time working conditions of whole plant. In addition, the system needs huge data volume and plenty of application displays so it need the long-term experience accumulation, gradually perfecting and upgrading through years to finally reach the top-ranking level in domestic.

电力降噪 Electrical Noise Reduction

电力噪声控制技术路线



天变公司承接天津国网电力检修公司220KV卫国道变电站室外SVG风机噪声超标治理，在保证通风散热情况下有效隔绝低频噪声传播，满足国标要求。

TBEA Tianjin undertakes the Outdoor SVG Fan Noise Governance of 220kV Weiguo Road Substation of State Grid Tianjin Electric Power Company, effectively isolates the spreading of low-frequency noise and meets the requirements of national standard under the premise of ensuring ventilation and heat dissipation.

智能运维 Intelligent Operation and Maintenance



智能运维集控中心，是基于新一代“大云物移智链”技术打造的能源互联网平台，对天变公司能耗状态进行实时全景管控，实现了数据监控、统计分析、运维管理等功能，为天变公司成为能源服务商提供技术支撑。

The intelligent operation and maintenance centralized control center is the energy internet platform based on the new generation of "big data, cloud computing, IoT, mobile internet, smart city and blockchain" technology to carry out the real-time panoramic management and control on TBEA Tianjin's energy consumption conditions. It realizes the data monitoring, statistical analysis, O&M management and other functions, and provides the technical supporting for statistical analysis to develop into an energy service provider.



踔厉奋发的天变公司

Aggressive and Strenuous TBEA Tianjin

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二、业精于专 志高于众

- ◆ 一流的生产环境
- ◆ 现代的生产装备
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三、合作共赢 互信共荣

- ◆ 产业结构
- ◆ 重点项目及业绩
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四、精益求精 铸就未来

- ◆ 企业文化
- ◆ 发展愿景



WIN-WIN COOPERATION,
MUTUAL TRUST AND
COMMON PROSPERITY

合作共赢 互信共荣

公司以可靠的产品质量和及时周到的服务得到了市场的广泛认可，先后参与了奥运场馆、北京城市副中心、大兴机场等多项国家重大基础设施建设项目，为能源、新能源、硅基材料、数据中心等国家战略性新兴产业提供专业产品和服务。



工厂楼宇 Plant and Building

公司研制的可靠、绿色、节能、环保的干式变压器广泛应用于各类基础设施建设，连续十五年成为国家电网合格供应商，为全国20多个省市送去可靠的电力保障。

The reliable, green, energy-saving and environmental-friendly dry-type transformer researched and developed by the Company is extensively used in the infrastructure constructions. The Company becomes the qualified supplier of the State Grid for consecutive 15 years and provides reliable power supply for more than 20 provinces and cities all over China.



新能源 New Energy

在新能源领域，公司通过孜孜不倦地探索太阳能、风能技术的应用，研制出风力发电机舱内、塔筒内水冷干变、箱逆变一体机等新能源建设关键核心技术装备，为行业及重点项目提供完善的绿色清洁能源，保障国家能源基础设施建设和安全重要电力装备。公司与五大发电、金风科技、三一重能等数十家新能源企业形成长期战略合作。



In the field of new energy, the Company sedulously explores the application of solar energy and wind energy, researches and develops the water-cooled dry-type transformer in wind generator engine room and tower, box-type inverter and transformer integrated machine and other core technical devices of new energy construction, provides the industry and key projects with green and clean energy and safeguards the key electrical equipment for national energy infrastructure construction and safety. The Company establishes the long-term strategic cooperation with five major power generation groups, Xinjiang Goldwind Science Technology, Sany Renewable Energy and other dozens of new energy enterprises.



数据中心 Data Center

伴随着数字化时代的到来，节能、可靠的电力保障，是数据中心稳定运行的关键。公司研制的非晶合金变压器、新能效变压器得到用户的一致认可。中国联通、中国移动、万国数据、秦淮数据、普洛斯、科华数据等均采用我公司产品。

As the approaching of digital time, the energy-saving and reliable power supply is the key of stable running of data center. The amorphous alloy transformer and new energy efficiency transformer researched and developed by the Company was praised by users. China Unicom, China Mobile, GDS, Chindata Group, GLP, Kehua Data and other companies are using our products.

轨道交通 Rail Transit

轨道交通被视为城市形象升级的符号，是增强城市综合承载能力、改善和提高城市交通条件的有效途径。天变公司自主研制的牵引整流干式变压器、铁路用智能型信号箱变等系列产品赢得客户认可。广泛应用于天津地铁、郑州地铁、大连地铁、哈尔滨地铁、长春地铁、郑州地铁、洛阳地铁、南京地铁、福州地铁、兰陵铁路等项目。

The rail transit is considered as the symbol of urban image upgrading and strengthens the comprehensive bearing capacity of cities. Constructing urban rail transit is the effective way of improving and perfecting the urban traffic condition. The traction rectifier dry-type transformer, intelligent signal box-type transformer for railway and other series of products independently researched and developed by TBEA Tianjin won customer recognition and were widely used in metros in Tianjin, Zhengzhou, Dalian, Harbin, Changchun, Zhengzhou, Luoyang, Nanjing, Fuzhou and other projects.

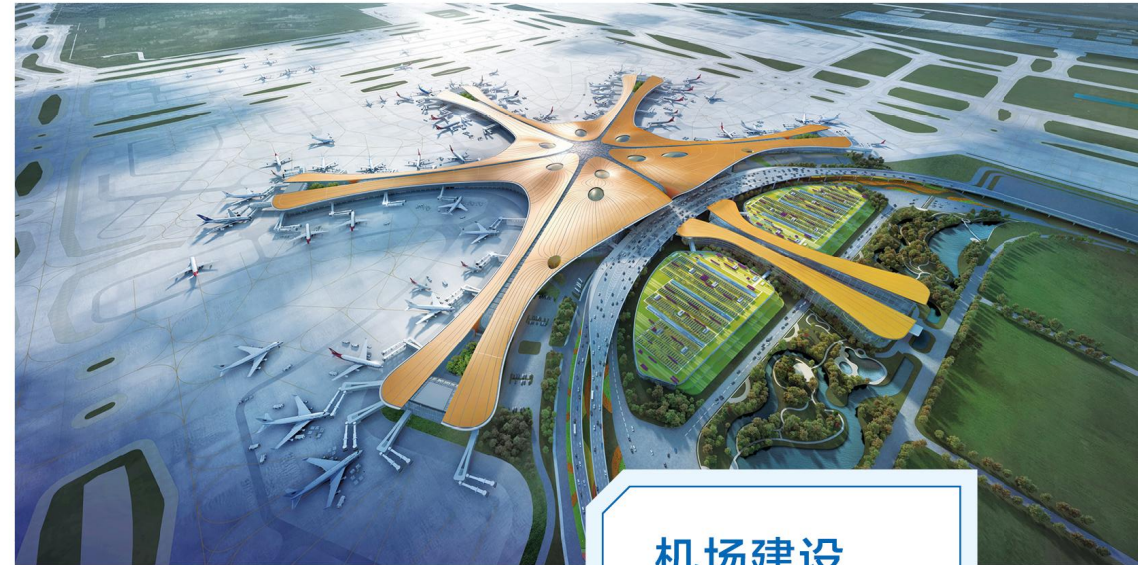




石油化工 Petrochemical Industry

伴随着石油石化产业企业的合作，天变公司不断加快自主创新和转型升级步伐，专项研制高盐雾环境下抗腐蚀能力强特殊要求的变压器产品，针对海上平台变压器通过船级社认证。公司先后为中海油锦州251项目、曹妃甸项目、湛江项目等多个海上石油开采，以及中国化学、氯碱化工等家化工企业提供安全、可靠产品。

With the cooperation with enterprises of petroleum and petrochemical industry, TBEA Tianjin continuously accelerates independent innovation, transformation and upgrading, and specializes in the research and development of transformer product with the strong anti-corrosion capacity under high salt-spray environment and conforming to special requirements. The offshore platform transformer shall pass the certification of China Classification Society (CCS). The Company provided the safe and reliable products for multiple offshore oil exploitation projects (including CNOOC Jinzhou 251 Project, Caofeidian Project, Zhanjiang Project and so on) and chemical enterprises (including China National Chemical Engineering, Shanghai Chlor-Alkali Chemical and so on).



机场建设 Airport Construction

天变公司的节能输变电产品服务于中国经济社会的发展和民生改善。变压器产品应用于机场建设，承担了北京大兴机场、兰州中川机场、萧山机场等一系列国家标志性工程。

The energy-saving power transmission and transformation product of TBEA Tianjin serves for the development of Chinese economic society and improvement of people's livelihood. The transformer product is applied in airport construction and the Company undertakes a series of national landmark projects, such as Beijing Daxing International Airport, Lanzhou Zhongchuan International Airport, Hangzhou Xiaoshan International Airport, etc.



SEMICONDUCTOR

半导体 Semiconductor

随着芯片、半导体产业的快速发展，对可靠的电力供应，提出了更高要求。公司产品以技术性能稳定、节能、长期可靠运行获得行业认可。华星光电、三星电子、中环领先等多家行业先进企业采购我公司产品。



With the rapid development of chip and semiconductor industry, the higher requirements are posted for reliable power supply. The Company's products were well recognized in the industry relying on the stable technical performance, energy saving, long-term and reliable running. CSOT, Samsung Electronics, Zhonghuan Advanced Semiconductor Materials and many other advanced enterprises in the industry are ordering our products.

储能 Energy Storage

在储能领域，公司研发的大容量抽水蓄能SFC输入输出变压器打破国外垄断，率先在河北丰宁、山西龙池等国内多个抽水蓄能电站投入使用；公司研发的储能箱变，广泛应用于太阳能发电场、风力发电厂，使太阳能、风能发电平滑输出，通过谷价时段充电，峰价时段放电可以减少用户电费支出；在大电网断电时，能够孤岛运行，确保对用户不间断供电，微电网运行。

In the field of energy storage, the large-capacity pumped storage SFC input and output transformer researched and developed by the Company broke up the foreign monopolies and took the lead in putting the products into domestic pumped storage power stations for operation, such as Hebei Fengning Pumped Storage Power Station, Shanxi Xilongchi Pumped Storage Power Station and so on. The energy-saving transformer researched and developed by the Company is widely applied in solar power plant and wind power plant to make the solar energy and wind energy smoothly output. The user's electricity cost can be reduced in a way of charging in valley-price period and discharging in peak-price period. When the Grid is outage, the isolated island operation is available to make sure the users can be supplied power uninterruptedly and micro-grid operates.



硅基材料

Silica-based Materials

在国家“双碳”战略下，多晶硅产业快速发展。公司生产的多晶硅还原炉变压器以可靠的产品性能得到广大客户认可。公司与新特能源、通威股份、上机数控、隆基绿能、双良股份、信义光能等多家多晶硅企业形成战略合作。

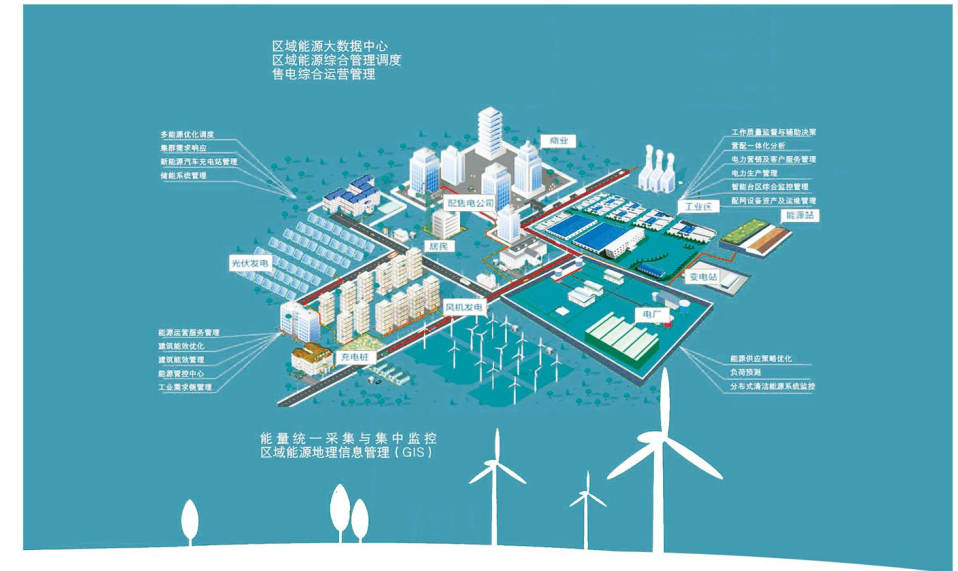


The polycrystalline silicon industry is developed rapidly under the national strategy of "Carbon Peaking and Carbon Neutrality". The polycrystalline silicon reduction furnace transformer produced by the Company won the recognition of massive customers relying on the reliable product performance. The Company establishes the strategic cooperation with Xinte Energy, Tongwei, Shangji Automation, LONGi Green Energy Technology, Shuangliang Eco-Energy, Xinyi Solar and other large-scale polycrystalline silicon enterprises.



综合能源管理服务平台

Comprehensive Energy Management Service Platform



综合能源管理云平台是采用自动化、信息化技术和集中管理模式建立的管控一体化的系统性能源管理云平台，对企业能源系统的生产、输配和消耗环节实施集中扁平化的动态监控和数字化管理。具有智能监控、在线采集、事故预警、节能管理、能效对标、能效分析等功能，在设备运维管理、改进和优化能源平衡、能源规划的同时，为企业实施设备状态检修、节能技术改造、可再生能源替代等静态技术改造工作提供有效的数据支撑。

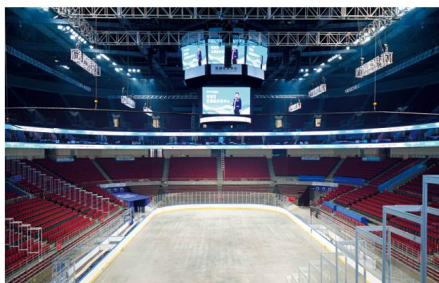
The comprehensive energy management cloud platform is the systemic energy management cloud platform integrating the management and control, and established through adopting the automation, informatization technology and centralized management mode. It can conduct the centralized flat and dynamic monitoring and digital management for the production, transmission, distribution and consumption links of enterprise energy system. With the functions of intelligent monitoring, online acquisition, accident pre-warning, energy-saving management, energy efficiency benchmarking and analysis, the platform plays a significant role in equipment O&M and management, improvement and optimization of source balance and energy planning, and provides the effective data supporting for enterprises to carry out the equipment overhaul, energy-saving equipment transformation, renewable energy alternatives and other renovation works of static technology.

电力运维检修服务

Electrical Operation, Maintenance and Overhaul Service



▲ 天津地铁一号线
Tianjin Rail Transit Line 1



▲ 五棵松奥运体育馆
Wukesong Sports Centre



▲ 武警指挥学院变电站
Armed Police Command College Substation



▲ 为110kV变电站提供检修服务
Provide the overhauling service for 110kV power substation



▲ 上海光伏太阳能电站
Shanghai Photovoltaic Solar Power Station



▲ 浦东国际机场
Shanghai Pudong International Airport



▲ 华能井冈山电厂
HuanengJinggangshan Power Plant



▲ 天津文化中心变电站
Tianjin Cultural Centre Substation

35KV、10KV变电站建设领域

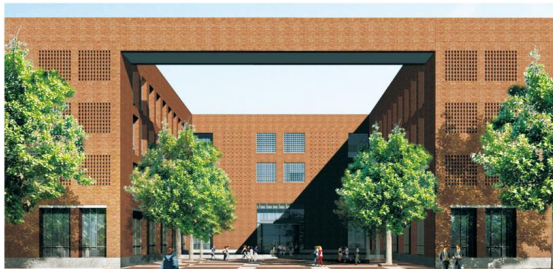
我们同样是城市用电负荷中心变电站的专业建设者，精心的设计、专业的施工、完整的售后体系是赢得客户信赖的根本。

Furthermore, we are professional builder of urban power load center substation and we win the customer satisfaction depending on our elaborate design, professional construction and perfect after-sales service system.



▲ 变电室 Transformer Room

机电设备安装领域



▲ 南开大学 Nankai University

专业的施工队伍、精心的组织、严格的管理措施是为客户提供精品工程的保障。

Professional construction team, careful organization and strict management measures ensures to provide the excellent project for customers.

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MAKING PERFECTION MORE PERFECT TO CREATE A BRIGHTER FUTURE

精益求精 铸就未来



◆ 特变电工的初心

发展为了员工、发展依靠员工，发展成果与员工共享，推动特变电工健康、高质量、可持续发展，不断增强全体员工的获得感、幸福感、安全感。

◆ 特变电工的使命

为客户创造价值，为奋斗者提供平台，追求绿色科技、智能环保、可靠高效的高技术、高附加值的产品和服务，为中华民族伟大复兴和人类社会的进步发展做出贡献。



◆ 特变电工“一、二、三、四、五”企业文化体系

一个理念

可靠

产品人品、专业专注、诚信可靠、值得信赖

二装目标

装备中国、装备世界

为中国经济建设和发展提供可靠的电力能源（新能源）装备及集成技术解决方案，向世界输送中国产品、技术和服务。

三心宗旨

客户称心：质量可靠、尊重客户 及时交货、满足客户
创造短缺、成就客户 超值服务、感动客户

员工安心：依法治企、教育员工 德才兼备、信任员工
实干为先、凝聚员工 创造分享、激励员工

股东放心：卓越业绩、吸引股东 合规经营、诚对股东
创造价值、回报股东 持续增长、稳定股东

四特精神

特别能吃苦：危中寻机，转型升级
特别能战斗：攻坚克难、永不言败
特别能奉献：经营人生、追求卓越
特别能学习：超越自我、创新求变

五则世界观

诚则立——山的文化，捍卫诚信是特变电工的立业之本
变则通——水的文化，创新求变是特变电工的发展之魂
廉则荣——树的文化，绿色发展是特变电工的恪守之规
简则明——光的文化，欣赏简单是特变电工的行事之道
和则兴——和的文化，和谐共赢是特变电工的兴业之基



发展愿景 Development Vision

天津市特变电工变压器有限公司，恪守客户价值的最大化，以专业的服务让客户称心；关注员工的学习与成长，以和谐的氛围让员工安心。始终坚持创新研发，为客户提供节能环保、可靠高效的电力设备与服务，提供智慧能源管控方案和综合能源管理服务，更好服务于区域经济建设、国家“双碳”战略和绿色发展。

The Company abides by the promise of maximizing the customer's value, disburdens customers relying on the professional service, concerns about the employees' learning and growth, and reassures employees in a harmonious atmosphere. The Company sticks to innovative research and development, provides the energy-saving, reliable and efficient electrical equipment and service, smart energy control solutions and comprehensive energy management service for customers to better serve for regional economic construction, national strategy of "Carbon Peaking and Carbon Neutrality" and green development.



特变电工
官方微信



特变电工
官方网站



电子名片二维码
按需索引
寻觅特变电工的足迹

服务支持

Service Support

- ◆ 为您提供高品质、全方位、专业化的售后服务支持。
- ◆ 为您解答干式变压器技术咨询、疑难问题及运行维护、投诉受理等方面的服务。
- ◆ 为您提供干式变压器使用说明以及合同协议规定的全部技术资料。
- ◆ 严格贯彻“24小时服务、终身服务”的宗旨，收到服务信息后，4小时内答复，紧急状况24小时内到现场处理。
- ◆ 服务人员可随时进行指导安装，以便使所供设备能够安全、正常地投入生产运行。
- ◆ 为使设备能够正常安装和运行，为用户免费提供技术培训及服务指南。
- ◆ 产品投入运行三个月后，对用户进行电话或现场回访服务，了解产品运行情况和用户意见。

Provide top quality,comprehensive,professional after-sales service.

Offer services such as technical consultation,trouble-shooting,operation and maintenance,complaint and so on in connection with dry-type transformer.

Offer manuals of dry-type transformer as well as all technical documentation specified in the contract.

Strictly carry out the tenet of "24-hour service,life-long service";reply within 4 hours after receiving service demand,and reach the spot within 24 hours in emergency case.

Service staff could direct the installation at any time to ensure the safe and normal operation of equipment.

Offer the user with technical training and service guideline for free to ensure the normal installation and operation of equipment.

After running the equipment for three months,we will make phone call or spot return visit to learn about the running condition and customer's feedback.

您只需拨打客户服务热线：**022-27514458**
400-687-1000 剩下的事由特变电工来做……

As long as you dial the Customer Service Hotline, we will handle the remaining problems.



TBEA 特变电工
装备中国 装备世界

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