上海电气环保集团

SHANGHAI ELECTRIC ENVIRONMENTAL PROTECTION GROUP

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上海电气

SHANGHAI ELECTRIC

科技拥抱未来

绿色铸就辉煌

上海电气环保集团

Shanghai Electric Environmental Protection Group

科技拥抱未来
绿色铸就辉煌

TECHNOLOGY EMBRACES THE FUTURE AND GREEN MAKES BRILLIANCE

文明在进步，社会在发展，
科技在飞跃，生活品质在提升。
在不断的变化中，
不变的是环境保护这一永恒的主题。
保护地球家园，
倡导人与自然的和谐发展，
是上海电气环保集团不变的宗旨。

The civilization is progressing, the society developing, the science & technology flying, and the life quality improving. In the continuous changes, the unchanged is the eternal theme – environmental protection. Protecting the earth and promoting the harmonious development between human and nature are the constant missions of Shanghai Electric Environmental Protection Group.

目录
CONTENTS

集团简介
GROUP PROFILE

上海电气是一家大型综合性高端装备制造企业，主导产业聚焦能源装备、工业装备、集成服务三大领域，致力于为全球客户提供绿色、环保、智能、互联于一体的技术集成和系统解决方案。作为中国工业的领导品牌，上海电气集团的历史至少可以追溯到1902年，创造了中国与世界众多第一。荣获中国工业领域最高奖项--中国工业大奖，入选《全球制造500强》、《财富》中国500强、2020年品牌价值1056.37亿元，位于行业前列。

上海电气环保集团作为上海电气核心产业集团之一，积极推动产业结构升级，布局固废处理、水处理、新能源、工业事业、建筑工业化等业务领域，构建多领域齐发展的综合性产业集团，营业收入已超百亿元。具有独立知识产权的核心技术、丰富的工程总承包经验及关键装备制造能力，为用户提供一站式服务和一揽子解决方案。

Shanghai Electric is a large integrated equipment manufacturing enterprise specialized in energy equipment, industrial equipment and integration services. It is committed to providing customers with solutions to technology integration and systems incorporating green, eco-friendliness, intelligence and interconnection.

As a leading brand in China's equipment manufacturing industry, the history of Shanghai Electric can be traced back to 1902, which has always walked ahead of the curve in China and the world. Shanghai Electric has topped multiple lists in China and the world, won the China Industry Awards, which is the top prize in China's industrial sector, Shanghai Electric was listed on Top 500 Global Manufacturer and Fortune 500 in China. Its brand was valued at RMB 105.637 billion in 2020, ranking among the top in the industry.

Shanghai Electric Environmental Protection Group, as one of the core industrial groups of Shanghai Electric, has actively promoted the upgrading of industrial structure, laid out such business areas as solid waste treatment, water treatment, new energy industry, industrial undertakings, construction industrialization and high-end medical equipment, and constructed a comprehensive industrial group with multi-field development, with operating income of more than 10 billion yuan. With core technology owning independent intellectual property rights, rich experience in engineering general contracting and key equipment manufacturing capability, it can provide users with one-stop services and a package of solutions.

组织构架

为用户提供
系统集成&综合解决方案
PROVIDE THE USERS WITH
SYSTEM INTEGRATION & COMPREHENSIVE SOLUTIONS

上海电气环保集团
SHANGHAI ELECTRIC ENVIRONMENTAL PROTECTION GROUP

职能部门
- 总裁工作部
- 市场管理部
- 工程管理部
- 采购招标中心
- 运营管理部
- 技术中心
- 法务部
- 资产财务部
- 人力资源部
- 投资管理部
- 内控管理部
- 党群工作部
- 文档中心
- 质量安环部

事业部
- 固废事业部
- 水处理事业部
- 新能源事业部
- 工业事业部
- 海外事业部

设计院
- 环保工程设计研究院
- 建筑工程设计院
- 环境工程设计院

独立法人企业
- 上海电气数智生态科技有限公司
- 瑞士CTU环球清洁技术有限公司
- 上海环保工程成套有限公司
- 上海希明工程咨询有限公司
- 上海电气研砼建筑科技集团有限公司
- 上海电气船研环保技术有限公司
- 上海市离心机械研究所有限公司
- 上海市机电设计研究院有限公司

若干家独立法人项目公司

我们的核心

CORE OF ENVIRONMENTAL PROTECTION

One 一站式服务 A PACKAGE SOLUTION
-STOP SERVICE 一揽子解决方案

技术服务

工程建设

运维管理

投融资

业务领域
BUSINESS AREA

在固废处理领域，集核心技术与关键设备制造能力于一体，为用户提供整体服务。

In the area of solid waste disposal, integrate the core technology and key equipment manufacturing capacity to provide the integrated services for users.

在水处理领域，专注为污水处理及水资源循环利用提供专业解决方案。

In the area of water treatment, concentrate on providing professional solutions for wastewater treatment and water resource cyclic utilization.

在新能源领域，重点发展分布式系统集成技术，通过多种方案联动实现资源利用最大化。

In the area of new energy, put priority on development of distributed system integration technique, and maximize the resource utilization by multiple scheme linkage.

在工业事业领域，集工业及民用建筑设计、绿色涂装、建筑智能化改造于一身，为建筑物绿色升级改造提供整体服务。

In the field of industry business, we integrate industry and civil building design, green painting, building intelligence as one to provide holistic service for the green upgrade of buildings.

在建筑工业化领域，专注于建筑工业化装备研发，预制构件设计与生产。以智“云”、智“管”、智“链”的建筑工业化互联网平台，提供建筑工业化全产业链服务，推动建筑工业化全面实现。

In the field of construction industrialization, we focus on equipment research and development, as well as the design and production of prefabricated components. Through the Internet platform of intelligent "cloud", "management" and "chain", we will provide the whole industrial chain services to promote the full realization of construction industrialization.

业务领域
BUSINESS AREA

固体废弃物处理 SOLID WASTE DISPOSAL

上海电气在固废处理领域涵盖生活垃圾处理、有机垃圾处理、垃圾终端分类资源化、工业及医疗等危险废弃物处理处置、生物质可再生能源综合利用、土壤修复、污泥处理等业务。具有独立知识产权的系统技术和关键设备，是国内为数不多的既能提供固废处理工艺设计，又能提供关键装备的企业。拥有丰富的项目总承包和管理经验，为用户提供整体服务，满足不同体量城镇及工业园区固体废弃物处置需求。

In the field of solid waste treatment, Shanghai Electric covers domestic waste treatment, organic waste treatment, waste terminal classification recovery, industrial, medical and other hazardous waste treatment, comprehensive utilization of biomass and renewable energy, soil remediation, sludge treatment, and other services. Shanghai Electric has independent intellectual property rights of system technology and key equipment, so it is one of the few enterprises which can provide both solid waste treatment process design and key equipment. Its rich experience in project general contracting and management provides users with overall services, and meets the solid waste treatment needs of towns and industrial parks of different sizes.

生活垃圾处理
Urban household waste disposal

拥有生活垃圾焚烧发电、热解气化、卫生填埋、综合利用等多种专业技术。高效处理组份复杂、热值差异大的城市、乡镇生活垃圾。

Have multiple leading techniques such as household waste incineration power generation, pyrolysis & gasification, sanitary landfill, and comprehensive utilization. Dispose the municipal and urban household wastes with complex components and largely different heat values efficiently.

垃圾终端分类资源化
Waste terminal classification recovery

通过再生建材等技术，实现资源循环利用。垃圾资源化利用率最高可达93%。

The recycling of resources is realized through recycling building materials and other technologies, and the utilization rate of waste resources can reach up to 93%.

生物质可再生能源综合利用
Comprehensive utilization of biomass renewable energy source

拥有生物质直燃发电、热电联产、造粒压块、燃料乙醇、副产物综合利用等多途径生物质处理技术。经济、高效地实现不同生物质（秸秆、木材等）循环利用。

Have the biomass disposal techniques in several ways, such as biomass-fired power generation, combined heat and power generation, granulating & pelletizing, fuel ethanol, and comprehensive utilization of by-products. Realize the cyclic utilization of different biomass such as straws and woods economically and efficiently.

业务领域
BUSINESS AREA

固体废弃物处理 SOLID WASTE DISPOSAL

工业废弃物处理
Industrial waste disposal

独家拥有瑞士CTU全套工业废弃物处理技术。通过回转窑焚烧、热裂解、安全填埋等工业一般废弃物与危险废弃物处理技术，安全高效地实现区域工业废弃物处理。

Exclusively possess the Switzerland CTU complete industrial waste disposal technique. Own the world-class industrial waste reduction disposal technique through incineration in rotary kiln, thermal oxidation, thermal cracking, Safe landfill and other industrial general waste and hazardous waste treatment technology, etc. Realize the regional industrial waste disposal safely and efficiently.

有机垃圾处理
Organic waste disposal

拥有厌氧发酵、好氧堆肥、生物转化等技术，实现有机垃圾处理无害化、减量化、资源化。

Possesses technologies such as anaerobic fermentation, aerobic composting, and bio-transformation, which can achieve recycling, reuse and reduction of organic waste.

土壤修复
Soil remediation

拥有原位/异位热脱附、常温热解析、土壤淋洗、原位/异位化学氧化、多相抽提等技术。实现土壤污染物无害化、稳定化。

Have the technologies such as in-situ and ex-situ thermal desorption, thermal analysis at constant temperature, soil leaching, in- situ and ex-situ chemical oxidation and multi-phase extraction, which can make soil pollutants harmless and stable.

医疗废弃物处理
Medical waste disposal

拥有多种医疗废弃物专用处理技术：医疗废物焚烧处理系统、医疗废物高温蒸煮处理系统，以及适用于危险废物混烧的处理系统，灵活应对不同规模医疗废物的处理处置。

It has a variety of specialized technologies for medical waste treatment, including medical waste incineration treatment systems, medical waste high-temperature steam treatment systems, and treatment systems suitable for mixed incineration of hazardous waste, flexibly responding to the treatment and disposal of medical waste of different sizes.

污泥处理
Sludge treatment

拥有干化、焚烧、厌氧消化、好氧消化、碳化、生物降解及综合利用等多项污泥处理技术及设备，具有安全性高、环保节能、使用性广、资源化利用率高的特点。

Have various multiple sludge treatment techniques, such as drying, incineration, anaerobic digestion and aerobic digestion, carbonization, biodegradation and comprehensive utilization, featuring high safety, environmental protection and energy saving, wide applicability and high recovery ratio.

业务领域
BUSINESS AREA

水处理 WATER TREATMENT

上海电气在水处理装备和工艺领域不断创新发展，聚焦市政及工业供水、市政及工业污水处理、农村污水处理、河湖生态综合治理、海绵城市建设、船舶压载水处理等领域。通过自主研发及技术引进，逐步形成一体化分布式智能农村生活污水处理系统、船舶压载水处理系统等国内领先、国际一流的核心技术产品。结合“智慧水务”理念，利用“互联网+技术”，为用户提供水处理系统集成方案。

Shanghai Electric keeps on innovative development continuously in the area of water treatment equipment and technology, focuses on fields such as municipal & industrial wastewater treatment, municipal & industrial water supply, comprehensive treatment of river and lake ecology, sponge city construction, ballast water treatment, etc. Through independent research and development and technology introduction, integrated and distributed intelligent rural domestic sewage treatment system, ship ballast water treatment system and other leading and world-class products with core technologies are gradually formed. And in addition, by combining with “Smart Water” concept and utilizing “Internet + Technology”, it provides the system integration program in water pollution control, ecological protection and resource management to the users.

市政及工业污水处理
Municipal and industrial waste water treatment

拥有氧化沟、AAO、SBR、AO、生物膜法、微电解、Fenton、臭氧氧化、磁分离等多项水处理技术。处理居民生活污水及化工、印染、造纸等各类工业废水，为用户度身定制满足其要求的污水处理系统解决方案。

Have multiple water treatment techniques, such as oxidation ditch, AAO, SBR, AO, biomembrane process, microelectrolysis, Fenton, ozone oxidation, magnetic separation, etc., handle domestic sewage and various types of industrial wastewater, such as chemical, printing & dyeing, papermaking industries, and provide the customized system scheme that meets the requirements of users.

农村污水处理
Rural waste water treatment

针对国家对于新美丽乡村建设的要求，上海电气自主研发的一体化分布式智能农村生活污水处理系统可广泛适用于污染源分布广且难以集中收集的场所，达到“就地产生、就地处理、就地排放、就地资源化”的目的。

工艺系统采用小型集装箱作为载体，具有形式一体化、生产批量化的特点，并采用模块化控制系统及“互联网+技术”，满足各类出水水质要求，实现设备远程智能化管理。

On the demand of the nation to construct new beautiful country, Shanghai Electric has researched the integrated and distributed intelligent rural domestic sewage treatment system, which can be widely applicable in the places where the sources of pollution are widely distributed and difficult to collection, so that to achieve the aim of “local generation, local disposal, local drainage, and local recycling”.

The technological system uses the small-sized container as the carrier, features integrated form and batch production, and adopts modular control system and “Internet + Technology”, to meet the requirements of various water quality and realize the remote intelligent management of equipment.

业务领域
BUSINESS AREA

水处理 WATER TREATMENT

市政及工业供水
Municipal and industrial water supply

通过河湖水系输水与连通工程、截污工程、净水厂及配套管网建设。连通省市间水系网络，解决缺水地区的供水问题。

Through water delivery, connecting engineering in riverway, sewage interception engineering, water supply works and construction of supporting pipe network. Connect the water system networks between provinces and cities, to solve the water supply problems of water-deficient areas.

河湖生态综合治理
Comprehensive treatment of river and lake ecology

通过生态护岸、底泥疏浚、生态浮岛、生态基等技术，实现水清、岸绿、景美的生态环保目标。

Realize the ecological & environmental targets of clear water, green banks and beautiful scenes by the techniques such as ecological bank protection, sediment dredging, ecological floating island and ecological base building.

海绵城市
Spong city

根据不同城市需求，采用滞留调蓄型技术、渗透输送型技术和贮存回用型技术，缓解城市内涝、雨水资源化利用问题。

On the demands of different cities, use the retention & storage, seepage & delivery and storage & recycling techniques, to solve the problems of waterlogging and rainwater recycling in the cities.

船舶压载水处理
Ship ballast water treatment

拥有自主研发的Cyeco™ 压载水处理系统，是机械过滤和中压紫外(UV)消毒相结合的纯物理处理技术，具有占用空间小，维护简单，运营成本低的特点。目前已获得CCS、IMO、AMS(USCG)、BV、RINA、LR、ABS、NK等船级社认证，广泛应用于国内外远洋船舶。

Have the independently researched and developed Cyeco™ ballast water treatment system, which is a pure physical treatment technique that combines mechanical filtration and medium pressure UV disinfection, featuring small footprint, simple maintenance and low operation cost. At present, it has received the certification from the classification societies such as CCS, IMO, AMS (USCG), BV, RINA, LR, ABS, NK, etc., and has been widely applied in domestic and foreign ocean vessels.

业务领域
BUSINESS AREA

新能源 NEW ENERGY

上海电气在新能源领域，拥有光伏发电、光热发电、风力发电、燃气发电及三联供系统、充换电及储能、城市智慧照明等多种方案，采用需求应对式设计和模块化配置，结合先进技术优势及总承包管理经验，根据用户能源需求，以及资源配置状况进行系统整合优化和设计，实现资源利用最大化。

In the field of new energy, Shanghai Electric has various solutions such as photo-voltaic power generation, solar thermal power generation, gas power generation and combined cooling, heating and power system, charging, power swap and energy storage, and urban smart lighting. It adopts demand response design and modular configuration, combines advanced technical advantages and general contracting management experience, and performs system integration optimization and design according to users' energy needs and resource allocation conditions to maximize resource utilization.

光伏发电
Photovoltaic Power Generation

拥有集中式和分布式光伏电站的总承包能力，针对用户的不同需求，利用多种形式的逆变器及支架方案，满足多种类型的光伏电站项目。

Have the EPC capacity for centralized and distributed photovoltaic power stations, and against the different demands of users, fulfill several types of photovoltaic power station projects by utilizing various inverters and support schemes.

风力发电
Wind power generation

因地制宜并综合考虑客户需求，提供从风电场开发、金融解决方案、项目建设、调试运维等服务，为客户提供度电成本最低解决方案。自主研发的钢混塔架结构，代表国内最前沿的风电塔筒技术。

Accommodating local conditions and comprehensively considering customer needs, we provide services ranging from wind farm development, financial solutions, project construction, commissioning, operation and maintenance to provide customers with solutions with the lowest cost per kilowatt-hour。Self-developed reinforced-concrete tower structure represents the most state-of-the-art technology of wind turbine tower in China.

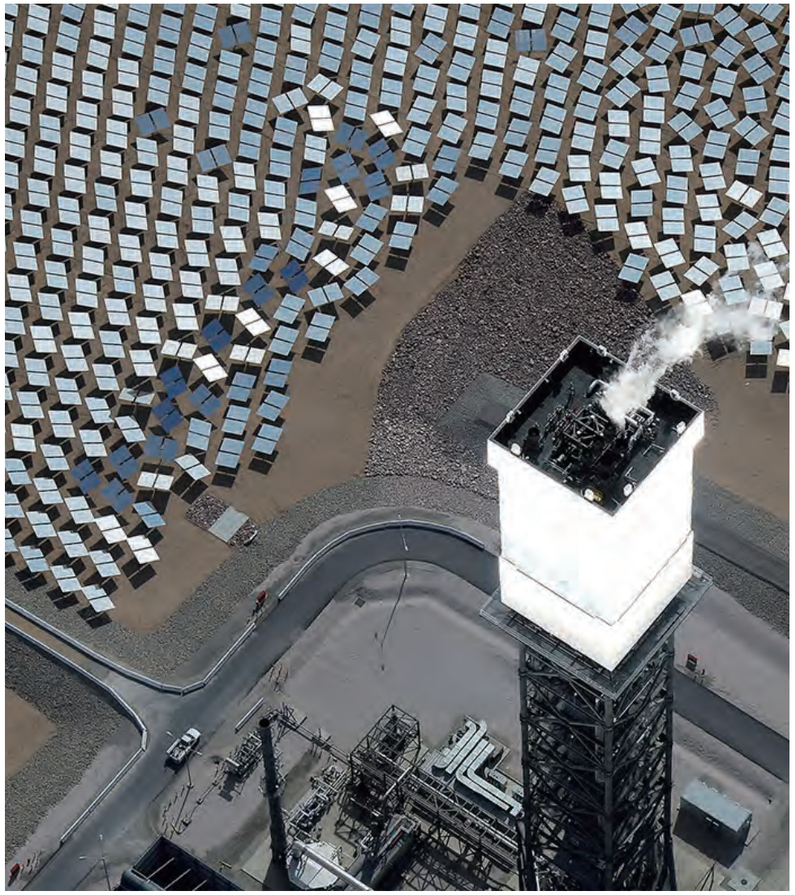
充换电及储能
Charging and replacing batteries and energy storage

采用“光储充”一体化充电站、岸基电源、分布式+储能技术，从充能、储能、供能三方面系统化结合，为用户提供经济实用的清洁能源。

Utilize the “solar storage and charging” integrated charging station, shore-based power supply, distributed + energy storage techniques, combine with the energy charging, storage and supply systems, and provide the users with economic and practical clean energy.

业务领域
BUSINESS AREA

新能源 NEW ENERGY



光热发电
Solar power generation

拥有槽式、塔式及碟式太阳能光热发电的总承包能力，具备核心装备，通过仿真软件、测试系统等平台技术，为用户提供从太阳能收集、能量储存到发电系统控制的一揽子能源管理服务。

Have the EPC capacity for slot, tower and disc solar power generation, provide the users with platform technology such as simulation software and test system in addition to key equipment, as well as a package of energy management services from solar energy collection, energy storage top ower generation system control.

城市智慧照明
City smart lighting

以智慧路灯杆、井盖和地下管廊等城市公用设施为载体，利用各种通讯技术形成覆盖全社会的物联网络，实现城市公共设施的智慧管理、资源共享、数据互通及综合运用。

With the urban public facilities such as smart light pole, well lid and underground pipe rack as the carrier, by utilizing various communication techniques to generate a physical network covering the whole society to realize the intelligent management, resource sharing, data interchange and comprehensive application of urban public facilities.

燃气发电及三联供系统
Gas-fired power generation and tri-generation system

在“清洁供能”、“多能互补”以及“绿色经济”的发展趋势下，上海电气利用燃气分布式供能技术，通过冷、热、电多联供的方式，实现能源的梯级利用，其综合能源利用效率可达70%以上。

With the development trend of “Clean energy supply”, “Multiple energy complement” and “Green economy”, Shanghai Electric realizes the gradient utilization of energy, by utilizing the gas-fired distributed energy supply technique, through the cold, heat and power tri-generation system, Shanghai Electric realizes the gradient utilization of energy and its efficiency of comprehensive energy utilization is up to more than 70%.

业务领域
BUSINESS AREA

工业事业 INDUSTRIAL BUSINESS

从20世纪50年代起参与了多项国家重点项目，集区域规划设计、工程设计、工程总承包、项目管理、工程监理、工程咨询及后期评估等为一体。为用户提供项目全过程服务和综合解决方案。

工程设计涵盖：各类制造业工厂、民用建筑、公共建筑、汽车整车及零部件厂、非标设备、研发试验中心等项目的全过程工程设计。

工程总承包涵盖：大型制造业工厂、民用建筑、研发试验中心的工程总承包及项目管理；大型汽车整车制造非标设备工程总承包。

工程前期咨询及后期评估涵盖：项目咨询服务、工程造价咨询、工程监理、工程审价、工程量清单编制、建设项目环评、安评、能评及其相关设计专篇。

Since 1950s, Shanghai Electric takes part in design of many national key projects, has the capability in the businesses such as regional planning & design, engineering design, engineering EPC, project management, project supervision, engineering consulting & follow-up evaluation, etc. so as to provide users with whole project services and integrated solutions.

Engineering design covers the entire process of various manufacturing factories, civil buildings, public buildings, automobile and parts factories, non-standard equipment, research and development test centers and other projects.

Project general contracting covers the contracting and project management of large manufacturing factories, civil buildings, research and development test centers, as well as non-standard equipment engineering for large automobile manufacturing.

Engineering consulting & follow-up evaluation includes: Engineering consulting service, engineering cost consultation, project supervision, project price appraisal, preparation of the Bill of Quantity, assessment on environment, safety and energy of construction project, and the relevant special design documents.

工程总承包及项目管理
Engineering EPC and project management

具备各类大型工业、民用项目的总承包能力，如工业厂房、民用建筑、研发试验中心、涂装工程等，并具备铸造、锻压、焊接、热处理等工艺能力。积累四十余年涂装技术与涂装工程总承包经验，具有汽车涂装生产线及非标设备设计特色。非标设计已采用直观、高效的三维技术。

It has contracting capabilities for various large-scale industrial and civil projects, such as industrial plants, civil buildings, research and development test centers, coating engineering, as well as casting, forging, welding and heat treatment and other process capabilities. It has accumulated more than 40 years of experience in coating technology and general contracting of coating projects, and has the characteristics of automotive coating production lines and non-standard equipment design with intuitive and efficient three-dimensional technology.

业务领域
BUSINESS AREA

工业事业 INDUSTRIAL BUSINESS

工程设计
Engineering design

将绿色公共及工业建筑设计，建筑智能化系统设计，建筑信息模型（BIM）等设计技术手段应用到方案设计、施工图设计、涂装设备设计、项目管理等各个阶段。同时，满足用户特殊结构设计需求，包括超深地下建筑、大跨度结构、重荷载结构、钢管混凝土结构等设计。

Apply the design techniques such as green public & industrial building design, building intelligent system design, Building Information Modeling (BIM), etc. into each stages such as scheme design, construction drawing design, coating equipment design, project management, etc. At the same time, meet the demands of users on special structure design, including ultra-deep underground structures, long-span structures, heavy load structures, concrete filled steel tube structures, etc.

城市及区域规划设计
Urban and regional planning & design

具备各类城市、城镇、乡镇及工业园区的规划设计能力，并能撰写详细的专项供电、供热、供气等规划方案。

It has the planning and design capabilities of various cities, towns, villages and industrial parks, and can write special detailed plans for power supply, heat supply and gas supply.

工程咨询及后期评估
Engineering consulting & follow-up evaluation

可为用户提供项目投资及工程技术咨询服务、工程造价咨询（含投资监理、工程审价、编制工程量清单）、建设项目环境影响评价和职业病防护设施设计专篇、职业安全卫生评价、机械行业初步设计安全专篇、危险化学品建设项目安全设施设计专篇、节能评价、施工图审查、招投标代理等。

Provide the customers with services of project investment and engineering technology consultation, engineering cost consultation (including investment supervision, project price appraisal, preparation of the Bill of Quantity), environmental impact assessment of construction projects & special instructions on design of facilities for control occupational hazards, occupational safety and health evaluation, special instructions on safety of preliminary design in mechanical industry, special instructions on design of safety facilities in hazardous chemical construction projects, energy saving evaluation, construction drawing review, bidding agency, etc.

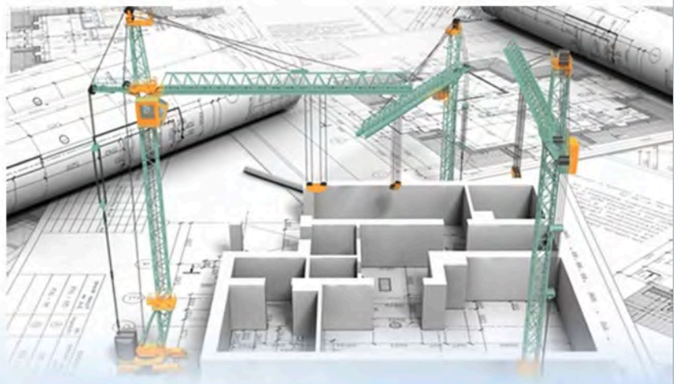
智慧展馆
Intelligent exhibition center

为用户提供智能化楼宇BA系统、物联网设备系统、能耗系统、电梯监控系统、电力监控系统、停车场系统、巡更系统等。综合利用“互联网+物联网”技术，提升展馆运维效率，实现展馆信息各层面、各层次、各梯度的互联互通。

We provide systems of intelligent building BA, IOT equipment, energy consumption, elevator monitoring, power monitoring, parking lot, patrol etc. Comprehensively utilizing the technology of “internet + IOT” can enhance the operational efficiency of exhibition centers, hence the connectivity of the information in multi layers, levels and tiers.

业务领域
BUSINESS AREA

建筑工业化 CONSTRUCTION INDUSTRIALIZATION



建筑工业化全产业链服务商
Whole industrial chain service provider of construction industrialization

上海电气依托自主创新和技术优势，为客户提供建筑工业化全产业链服务。聚焦装配式建筑发展，专注建筑工业化装备研发、预制构件设计与生产、预应力风电混塔、装配式一体化环保设施解决方案、集成单元式房屋、装配式建筑产业互联网平台。目前累计实施建筑总面积超过1500万平方米，涵盖住宅、公建、市政工程、能源装备等多类建筑。获得众多专利和软件著作权。提供工业自动化预制构件生产线数量接近全国总量的50%。装配式风电预应力混塔为行业设立标杆。以智“云”、智“管”、智“链”为代表的智砼云链产业互联网平台，引领建筑行业全面升级。

Relying on independent innovation and technology advantages, Shanghai Electric provides customers with the whole industrial chain services of construction industrialization. It focuses on the development of prefabricated buildings and the research and development of equipment for construction industrialization, the design and production of prefabricated components, prestressed steel and concrete mixed wind power towers, prefabricated integrated environmental protection facility solutions, integrated unitized houses,and the Internet platforms for prefabricated construction industry. At present, the total construction area has exceeded 15 million square meters, covering residences, public construction, municipal engineering, energy equipment and other types of buildings. Shanghai Electric has obtained numerous patents and software copyrights. Its automatic prefabricated component production line accounts is close to 50% of the industry in China, and the prefabricated prestressed steel and concrete mixed wind power towers set the benchmark for the industry. The Matechstone Cloud Chain represented by intelligent "cloud", intelligent "management" and intelligent "chain" leads the construction industry to upgrade comprehensively.

完成生产基地	提供PC构件生产线	累计实施建筑总面积超过
15座	150余条	1500万平方米

我们的**优势**

OUR ADVANTAGES

上海电气环保集团通过自主研发及国内外并购等手段，在固废处理、水处理、新能源、工业事业、建筑工业化等方面，形成具有独立知识产权的系统技术、完整的工程设计能力及核心装备制造能力。

拥有市级设计院、多家专业研究中心及联合实验室。具备环保行业各项资质及强大的投融资能力。通过不断提升技术能级，优化业务核心竞争力，实现新一轮跨越式发展。

Shanghai Electric forms the system technology with independent intellectual property, whole engineering design capability and key equipment manufacturing capacity, in the areas of solid waste disposal, water treatment, new energy, industrial business and construction industrialization by independent research & development and merger & acquisition at home and abroad, etc.

Boast of municipal level design institute and multiple research centers and joint laboratories. Equipped with various qualifications of eco industry and strong capability in investment and financing. Through continuous upgrade of technology, optimizing core competitiveness, we have taken a new leap forward.

我们的优势
OUR ADVANTAGES

科研院所
SCIENTIFIC RESEARCH INSTITUTES

科技赋能产业 创新驱动发展

Technology empowers industry, Innovation motivates growth

拥有市级设计院 —上海市机电设计研究院有限公司，从业人员900余名，技术人员占职工总数近95%，中高级以上职称人员占比70%以上。其中：国家级设计大师2名，教授级高级职称人员30余名，各类注册工程师200余名。至今主编、参编了30多项国家、行业和地方专业技术标准，拥有百余项授权国家专利，获得国家、省部级科技进步奖、优秀工程设计奖、工程咨询成果奖近300项。

The Group has a municipal design institute – Shanghai Institute of Mechanical and Electrical Engineering Co., Ltd, with the number of employees more than 900, the number of technicians more than 95% and the number of employees with senior professional titles more than 70%. Among them: 2 national-level design masters, more than 30 employees with professor level senior titles, and more than 200 registered engineers. Till now, the Group takes part in the preparation of more than 30 national, industrial and local professional technical standards as chief editor or editor, has more than 100 national patents, and obtains more than 300 awards such as national or ministerial and provincial level awards for scientific and technological advancement, excellent engineering design awards and engineering consulting achievement awards.

在专业技术领域形成核心竞争力

Forming core competitiveness in the professional technical fields

危废处置与资源化工程技术研究中心
Hazardous Waste Disposal and Resource Engineering Technology Research Center

智慧环保工程技术研究中心
Smart Environmental Engineering Technology Research Center

有机废弃物资源化利用工程技术研究中心
Organic Waste Resource Utilization Engineering Technology Research Center

上海电气离心机械研究中心
Shanghai Electric Centrifuge Research Center

上海电气船研环保水处理研究中心
Shanghai Electric Cyeco Environmental Water Treatment Research Center

上海电气研砼建筑科技集团有限公司研究院
Research Institute of Shanghai Electric Matechstone Construction Engineering Group Co. , Ltd

上海电气 – 同济大学
风电塔筒结构设计的验证和分析
Shanghai Electric – Tongji University
Verification and analysis of wind turbine tower structure design

上海电气 – 天津大学
废盐分质结晶技术
Shanghai Electric – Tianjin University
Waste salt crystallization technology

上海电气 – 上海交通大学
固废焚烧处理与污染控制联合实验室
Shanghai Electric – Jiaotong University
Solid Waste Incineration Disposal and Pollution Control United Laboratory

上海电气 – 复旦大学
飞灰处理工艺研究
Shanghai Electric – Fudan University Fly Ash Disposal Process Research

上海电气 – 同济大学
农村污水生物生态协同处理系统
Shanghai Electric – Tongji University
Rural Sewage Biological Ecology Co-processing System

我们的优势
OUR ADVANTAGES

资质荣誉

QUALIFICATIONS & HONORS

工程设计甲级资质
Class A qualification in engineering design

工程总承包及项目管理资质
EPC and project management qualification

工程咨询甲级资质
Class A qualification in engineering consulting

工程造价咨询甲级资质
Class A qualification in engineering cost consultation

工程监理甲级资质
Class A qualification in project supervision

建筑智能化系统工程设计甲级证书
Class A qualification in engineering design for construction intelligence systems

建设项目环境影响评价乙级资质
Class B qualification in environmental impact assessment on

建筑机电设备安装工程专业承包一级资质
First-class qualification of professional contracting for construction machinery and electrical equipment installation engineering

市政公用工程施工总承包一级
First grade general contracting for municipal public works

建筑工程施工总承包资质
General contracting qualification for construction engineering

环保工程专业承包资质
Environmental protection engineering professional contracting qualification

中华人民共和国特种设备设计许可证（压力管道）
Design license of special equipment of the People's Republic of China (pressure pipeline)

ISO三体系认证
ISO three system certifi cation

上海市级技术中心
Shanghai Municipal Technology Center

上海市高新技术企业
Shanghai High and New Technology Enterprise

专利技术400余项
More than 400 patented technologies

投融资

INVESTMENT AND FINANCING

上海电气环保集团依托母公司麾下的上海电气金融产业集团（拥有五家经监管审批通过的金融机构，两家在香港注册成立的机构，一家境内投资机构），在项目运作方面具有资金组织和融资能力的优势。

Shanghai Electric Environmental Protection Group, relying on Shanghai Electric Financial Industry Group (has 5 financing institutions passing through the approval of the authority, among them, two institutions established in Hong Kong, and one domestic investment institution) under the parent company, has the advantages of fund organization and financing capacity in the project operation.

1

创新金融服务模式，支撑产业发展

Innovating financial service mode and supporting industrial development

上海电气拓展增值金融服务，支持产业发展。持续推进票据池建设，发挥境外平台和外汇服务功能，围绕环保、新能源等领域拓展进出口贸易融资服务和自贸区金融服务。

Shanghai Electric expands value-added financial services to support the industrial development. It promotes the construction of bill pool continuously and is responsible for foreign exchange service. It also expands the financing services for import and export trades and financial services in Free Trade Zone around the fields such as environmental protection and new energy.

2

提高综合金融服务能力，深入推进产融结合

Improve the comprehensive financial service capabilities and further promote the integration of industry and finance

上海电气通过以投促产的模式为能源和环保业务的设备销售和工程承接提供资金支持，形成在市场开拓方面的核心竞争力。

Shanghai Electric provides equipment sales and project undertakings in the energy and environment protection business with financial support through the mode of promoting production by investment to form a core competitiveness in market extension.

3

借力金融服务，加速环保产业布局

With the help of financial services, accelerating environmental protection industrial distribution

近年来上海电气在环保领域方面不断拓展，紧跟国家环境治理的宏观战略与步伐，分别在安徽和新疆设立了投资公司，作为在当地发展环保产业的引擎动力。

In recent years, Shanghai Electric has made continuous expansion in the environmental protection field, and following the macro-strategy and step of the nation in environmental management, it has established Shanghai Electric (Anhui) Investment Co., Ltd. in Anhui Province, as the engine power for development of environmental protection industry in the local area.

4

提高金融管理技能，创造价值收益

Improving financial management skill and making value-driven benefit

上海电气近百名财会人员获国际财务管理师资格证书，实现“会计核算-流程专家-管理会计-价值创造”的转变。

Shanghai Electric has almost 100 financial & accounting personnel who are certified of International Finance Manager, and realizes the transformation of “financial accounting – process expert – management accounting – value creation”.

典型**案例**

TYPICAL CASE

上海电气环保集团具有强大的投融资、工程建设、装备制造、运营管理能力。在固废处理、水处理、新能源、工业事业、建筑工业化领域累计承接工程项目千余项，业绩遍布国内外。

Shanghai Electric Environmental Protection Group, have the powerful investment & financing, engineering construction and equipment manufacturing capability, has achieved the engineering project performances all over the world. It has undertaken about 1000 projects in the solid waste disposal, water treatment, new energy, industrial business fields and construction industrialization.

典型案例–固体废弃物处理
TYPICAL CASE – SOLID WASTE DISPOSAL

国内首个跨区域共享型城市生活垃圾发电厂
上海电气环保热电（南通）有限公司

The first inter-regional sharing municipal solid waste power plant in China
Waste Incineration Cogeneration Project of Shanghai Electric Environmental Protection (Nantong) Co., Ltd.

商业模式：BOT
处理规模：2250吨/日
属于国家节能环保政策扶持的资源综合利用环保型企业，是国内首个跨区域共享型城市生活垃圾发电厂，开创了国内区域化垃圾处理的先例。该项目以花园型工业标杆工程标准建设，荣获2020年基础设施年度光辉大奖赛特别荣誉奖、2020年基础设施光辉大奖赛发电行业奖。

Business Mode: BOT
Capacity of Disposal: 2,250 tons/day
The Company is a comprehensive resource utilization and environment friendly enterprises supported by the national energy-saving and environmental protection policies, is the first inter-regional sharing municipal solid waste power plant in China, also the first regional waste disposal example in China. Awarded the 2020 Infrastructure Annual Glory Grand Prix Special Honor Award, 2020 Infrastructure Glory Grand Prix Power Generation Industry Award.

丹东首个垃圾焚烧发电项目
上海电气集团（丹东）环保科技有限公司

The first waste incineration power generation project in Dandong city
Shanghai Electric Group (Dandong) Environmental Technology Co., Ltd.

商业模式：PPP
项目采用机械炉排炉工艺，处理规模为1500吨/日。

Business Mode: PPP
The project adopts the technology of mechanical grate incinerators with a treatment scale of 1500 tons per day.

典型案例–固体废弃物处理
TYPICAL CASE – SOLID WASTE DISPOSAL

上海电气集团（凤城）环保能源有限公司

Shanghai Electric Group (Fengcheng) Environmental Protection Energy Co., Ltd.,

商业模式：PPP

项目采用机械炉排炉工艺，处理规模为500吨/日。

Business Mode: PPP

The project adopts the technology of mechanical grate incinerators with a treatment scale of 500 tons per day.

广东怀集县农村生活垃圾终端分类处理项目

Rural Household Waste Terminal Classification Disposal Project of Huaiji County, Guangdong Province

处理规模：500吨/日

项目采用再生建材技术，把垃圾自动化分类后制成木塑建筑模板、型材建筑模板、运载托盘、水泥砖等产品。该项目生活垃圾的资源化利用率达93%以上，实现了垃圾的减量化、无害化、资源化处理。

Capacity of Disposal: 500 tons/day

The project adopts recyclable building materials to automatically classify waste into wood-plastic building form-works, architectural profiles, carrying trays, cement bricks and other products. The resource utilization rate of domestic waste of the project is over 93%, which has realized the reduction, harmlessness and recycling of waste.

佛山市医疗废物处置项目

Medical Waste Disposal Project,Foshan

处理规模：35吨/日

（一期工程25吨/日）

项目采用医废处置行业先进的热解气化焚烧技术，实现医疗废物彻底的减量化、无害化处置。该项目是佛山市唯一的医废处置项目，对助力地方医废安全处置和新冠疫情防控具有重要意义。

Capacity of Disposal: 35 tons/day (25 tons/day for the first phase of the project)

The project adopts advanced pyrolysis gasification incineration technology in the medical waste disposal industry to achieve a thorough reduction and harmless disposal of medical wastes. This project is the only medical waste disposal project in Foshan City, and it is of great significance to the safe disposal of local medical wastes and the prevention and control of the COVID-19 epidemic.

湖南康泽16万吨/年废铅酸蓄电池回收及再生铅冶炼工程项目

Hunan Kangze 160,000 tons/year waste lead-acid battery recycling and regenerated lead smelting project,

项目新建15万吨/年废旧铅酸蓄电池及1万吨铅废料再利用生产线，实现废铅酸电池回收利用。助力经济可持续发展，缓解资源压力。

The project build a new production line of 150,000 tons/year of waste lead-acid batteries and 10,000 tons of lead waste, realizing the recycling of waste lead-acid batteries. Facilitate the sustainable development of the economy and ease the pressure on resources.

典型案例–固体废弃物处理
TYPICAL CASE –SOLID WASTE DISPOSAL

上海崇明农业废弃物资源化综合利用项目

Comprehensive utilization of agricultural wastes in Chongming district, Shanghai

项目采用上海电气从瑞士引进的干式厌氧发酵核心工艺，可处理区内大型养猪场粪污（7.3万吨/年）和农作物秸秆（3.5万吨/年），实现种养废物绿色环保处理以及资源再利用，年产有机肥3.5万吨、沼气发电500万度,同时每年减少向大气温室气体排放3万吨，是上海市规模最大的同类型项目。

The project adopts the core process of dry anaerobic digestion introduced by Shanghai Electric from Switzerland, with a total investment of more than 98 million RMB, which can treat manure (73,000 tons/year) and crop straw (35,000 tons/year) within large pig farms in the area, hereby realizing green disposal of planting and breeding wastes and resource reuse with an annual output of 35,000 tons of organic fertilizer and 5 million kWh of biogas power generation, and a reduction of 30,000 tons of greenhouse gas emissions into the atmosphere each year. It is the largest project of its kind in Shanghai.

崇明城桥污水处理厂污泥干化项目

Sewage Treatment Plant Sludge Anhydration Project,Chongming Chengqiao

本项目采用上海电气污泥脱水干燥一体化系统（简称Centridry）。通过该系统，来自污泥均质池含水率99.8%的污泥，经过浓缩、脱水、干化后，污泥的含水率将降低到30%以下。并可根据客户需求，进行含水率的调整，有效降低投资费用及占地面积。全过程安全、可靠、稳定运行，污泥达到减量化、无害化和稳定化要求，保护环境，避免二次污染。

This project adopts Shanghai Electric's Integrated Sludge Centrifugal Drying System (Centridry for short). Through this system, the sludge with a moisture content of 99.8% from the sludge homogenization basin will be reduced to less than 30% after being thickened, dewatered and dried. And according to customer needs, the moisture content can be adjusted to effectively reduce investment costs and floor space. The whole process is safe, reliable and stable. The sludge meets the requirements of reduction, harmlessness and stabilization, protecting the environment and avoiding secondary pollution.

上海电气南通国海环保科技有限公司

Hazardous Waste Disposal Project of Shanghai Electric Nantong Guohai Environmental Technology Co., Ltd.

商业模式：BOO
焚烧处理规模：10000吨/年
稳定化固化规模：15000吨/年
安全填埋规模：21000吨/年
采用旗下瑞士CTU公司核心工艺，基于大数据经验的危废专家配伍系统、危废储运ERP信息管理系统、自动全封闭SMP进料系统及自动控制系统，实现多种危险废弃物无害化处理，各项排放指标达欧盟2000标准。

Business Mode: BOO
Capacity of Incineration Disposal: 10,000 tons/year
Stabilization &Solidification Scale: 15,000 tons/year
Safety Landfill Scale: 21,000 tons/year

The project adopt Swiss CTU core technology, hazardous waste expert compatible system based on big data, hazardous waste storage and transportation ERP information management system, automatic full-enclosed SMP feeding system and automatic control system to realize the harmless treatment of a variety of hazardous wastes. The emission indexes reached the EU 2000 standard.

上海市静安区居住地块场地污染修复服务项目

Pollution Remediation Service Project of Residential Sites in Jing'an District, Shanghai

项目采用异位化学氧化修复等技术+地下水抽提处理技术进行修复。从根本上将土壤中的污染物转化为无毒物质。处理后的该地块将作为居住用地进行开发。

The project adopts ex-situ chemical oxidation remediation technology and groundwater extraction treatment technology to remediate soil, fundamentally transforming pollutants in soil into non-toxic substances. The treated land will be developed as residential land.

典型案例–固体废弃物处理
TYPICAL CASE –SOLID WASTE DISPOSAL

上海电气（天长）生物质发电有限公司

Shanghai Electric Tianchang Biomass Power Generation Project

商业模式：BOO
装机容量：30MW
本项目采用专用的生物质燃料，年利用秸秆约25万吨以上，相当于节省标煤约10万吨，有效改善了当地生态环境。

Business Mode: BOO
Installed Capacity: 30MW
This project uses special biomass fuel and annually straw of about 250,000 tons, which equivalents to saving about 100,000 tons of standard coal and effectively improved the local ecological environment.

上海电气（五河）生物质热电有限公司

Shanghai Electric Wuhe Biomass Thermal Power Project

商业模式：BOO
装机容量：30MW
本项目采用生物质燃料替代燃煤发电供热，年节标煤达10万吨以上，具有良好的节能效益。同时，综合利用农作物秸秆，改变了收获季节烧荒现象，减排大量的温室气体，具有显著的环境效益。

Business Mode: BOO
Installed Capacity: 30MW

The Project uses biomass fuel to replace coal for power generation and heat supply, saves standard coal up to 100,000 tons per year, and has superior energy-saving benefit. Meanwhile, it realizes the comprehensive utilization of crop straws, changes the grass-burning situation in the harvest season, reduces the emission of greenhouse gases, and shows outstanding environmental benefit.

上海电气（淮北）生物质热电有限公司

Shanghai Electric Huaibei Biomass Cogeneration Project

商业模式：BOO
装机容量：30MW
本项目年节约标准煤约10万吨，为周边工业企业进行集中供热，有效减少了散煤的使用。具有显著社会效益。

Business Mode: BOO
Installed Capacity: 30MW
This project saves the standard coals up to 100,000 tons. Meanwhile, it provides the central heating for the surrounding industrial enterprises, which reduces the scattered coal usage effectively and has significant social benefits.

上海电气（蒙城）生物质发电有限公司

Shanghai Electric Mengcheng Biomass Power Generation Project

商业模式：BOO
装机容量：30MW
年节约标煤约10万吨,有效缓解当地的电力紧张及农忙季节较为严重的秸秆焚烧现象。

Business Mode: BOO
Installed Capacity: 30MW
The annual saving of standard coal is about 100,000 tons/year. Effectively alleviate the local power shortage and straw burning during the busy agricultural season.

典型案例–水处理
TYPICAL CASE – WATER TREATMENT

农村生活污水处理工程
Rural Wastewater Treatment Projects

为持续改善农村地区水环境面貌，提升人居环境，上海电气自主研发的一体化分布式智能农村生活污水处理系统，采用“综合生物处理+深度除磷”工艺及“互联网+技术”，彻底改变了以往污水直排入河道的现象，处理后水质可达标排放，实现设备远程智能化管理。助力国家新美丽乡村建设。

In order to continuously improve the landscape of the water environment in rural areas and enhance the living environment, Shanghai Electric independently developed the integrated distributed intelligent rural domestic sewage treatment system.
The application of "comprehensive biological treatment + deep dephosphorization" technology and "Internet + technology" completely changed the previous phenomenon of sewage being directly discharged into the river, and the water quality after treatment can reach the standard discharge, realizing remote intelligent management of equipment. Contribute to the construction of a new and beautiful countryside.

项目所在地：海南省东方市
Project Location: Dongfang Country , Hainan Province

项目所在地：四川省江油市
Project Location: Jiangyou Country, Sichuan Province

项目所在地：山东省滨州市
Project Location: Binzhou Country, Shandong Province

项目所在地：安徽省淮北市
Project Location: Huaibei Country, Anhui Province

项目所在地：安徽省淮南市
Project Location: Huainan Country, Anhui Province

实施前河道

实施后河道

典型案例–水处理
TYPICAL CASE – WATER TREATMENT

启东市水环境综合整治工程PPP项目

PPP Project of Comprehensive Improvement Project of Water Environment in Qidong City

商业模式：PPP

该项目总投资近30亿元，由6个子工程项目构成，包括：水环境综合治理项目、新建大型污水处理厂项目、管网项目、农村生活污水处理项目、水利项目、污水厂提标改造项目。

Business Mode: PPP

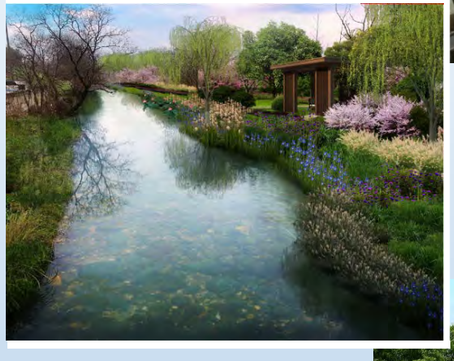
The project has a total investment of nearly 3 billion yuan and is composed of 6 sub-projects, including comprehensive water environment treatment project, new large-scale sewage treatment plant project, pipeline network project, rural distributed sewage treatment project, water conservancy construction project and sewage plant standard upgrading project.

污水处理厂项目

Sewage Treatment Plant Project

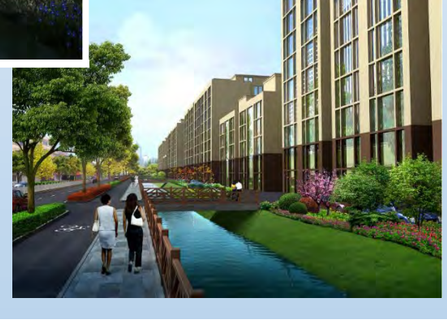
农村生活污水处理项目

Rural Wastewater Treatment Project



城市河道景观图

City River Landscape View



典型案例–水处理
TYPICAL CASE – WATER TREATMENT

如东县乡镇污水处理厂及农村水环境综合治理二期工程PPP项目

Rudong County Township Wastewater Treatment Plant and Rural Water Environment Comprehensive Treatment Phase II Project PPP Project

商业模式：PPP

该项目总投资近10亿元，由4个子工程项目构成，包括：新建污水处理厂项目、管网项目、农村生活污水处理项目、污水厂提标改造项目。

Business Mode: PPP

The project has a total investment of nearly 1 billion yuan and is composed of four sub-projects, including new sewage treatment plant project, pipeline network project, rural domestic sewage treatment project, and sewage plant standard upgrading project.

污水处理厂项目

Sewage Treatment Plant Project

污水处理厂项目

Sewage Treatment Plant Project

农村生活污水处理项目

Rural Wastewater Treatment Project

典型案例–水处理
TYPICAL CASE – WATER TREATMENT

上海电气（淮北）水务发展有限公司
Huaibei Municipal Water Distribution Engineering by Transferring Water to North

商业模式：PPP

项目工程建设内容包括输水工程1967.5米、连通工程6018.78米、10万吨/日及30万吨/日净水厂（包含392.8公里供水管网）、截污管道工程40.2公里。并配套信息化服务，包括防汛抗旱、水资源配置、农村饮水、河长制、水利工程等功能模块，结合了视频监控和数学模型辅助系统决策。实现淮水北调外调水与当地水资源的优化配置和高效利用。该项目被财政部等20部委联合评审列为第三批政府和社会资本合作国家示范项目。

Business Mode: PPP

The engineering construction of the project includes 1,967.5m water delivery engineering, 6,018.78m connecting engineering, 100,000 tons/day and 300,000 tons/day water treatment plant (including 392.8km water supply pipeline) and 40.2km sewage pipeline engineering. Supporting information services include functional modules such as flood control and drought relief, water resources allocation, rural drinking water, river chief system, water conservancy project, etc., combined with video surveillance and mathematical models to assist system decision-making.The project realizes the optimal distribution and efficient utilization. The project has been listed by the Ministry of Finance and other 20 ministries as the third batch of government and social capital cooperation national demonstration projects.

上海电气南通国海水处理有限公司
Shanghai Electric Nantong Guohai Water Treatment Co., Ltd.

商业模式：BOO

处理规模：生活及工业污水5000吨/日接纳整个滨海新区的生活污水和工业废水。采用先进处理工艺，在盐含量达2000mg/L的情况下，排水稳定达到一级A标准。

Business Mode: BOO
Capacity of Treatment:
5,000 tons/day for municipal and industrial wastewater

Accept domestic sewage and industrial wastewater throughout the Binhai New Area. Adopt advanced treatment technology, and the drainage content reaches level A standard stably when the salt content reaches 2000mg / L.

东港市城市内河综合治理工程--河道清淤及底泥处理项目
Donggang City Inland River Comprehensive Treatment Project-River Desilting and Sediment Treatment Project

项目总清淤长度约14.1公里，淤泥量约54.2万立方米。运用多台河道清淤专用大型卧螺离心机及配套设备，根据河段不同,采取机械清淤和人工清淤相结合的复式清淤方式，达到高效彻底处理的目的。

The total length of the project is about 14.1 kilometers, and the amount of silt is about 542,000 cubic meters. In order to achieve the efficient and thorough treatment, multiple large-scale decanter centrifuges and supporting equipment for river channel dredging are applied, and mechanical dredging and manual dredging are combined according to different river sections.

典型案例–新能源
TYPICAL CASE – NEW ENERGY

世界首个±1100千伏特高压直流输电工程配套光伏项目
The world's first ±1100 kV UHV DC transmission project supporting photovoltaic project

商业模式：EPC

本项目配套光伏项目包括中民新能木垒光伏园区100MWp光伏发电项目（A）、中民新能木垒光伏园区100MWp光伏发电项目（B）、木垒天辉光伏园区100MWp光伏发电项目、采田丝路木垒光伏园区100MWp光伏发电项目、联合光伏木垒光伏园区100MWp光伏发电项目、木垒北220千伏汇集站、木垒北220千伏送出线路以及芨芨湖750千伏变电站、220千伏间隔改扩建工程、北塔山150MW光伏项目。其中光伏项目采用最佳倾角固定式支架，逆变器采用集中式子方阵容量达到2.5MW级。该项目成功建设对保障华东地区电力可靠供应、新疆社会稳定具有重要意义。

Business Mode: EPC

This project includes Zhongmin new energy Mulei photo-voltaic park 100MWp power generation project (A), Zhongmin new energy Mulei photo-voltaic park 100MWp power generation project (B), Mulei Tianhui photo-voltaic park 100MWp power generation project, Caitian silk road Mulei photo-voltaic park 100MWp power generation project, united photo-voltaic Mulei Park 100MWp power generation project, north Mulei 220 kV collection station, north Mulei 220 kV transmission line, Jiji lake 750kV transformer substation, and 220 kV interval reconstruction, Beitashan 150MW photovoltaic project and expansion project. Among them, the photo-voltaic projects use the best inclined fixed brackets, and the inverters adopt a centralized sub-square lineup at 2.5MW level. The successful construction of this project is of great significance to ensure reliable power supply in eastern China and social stability in Xinjiang.

典型案例–新能源
TYPICAL CASE – NEW ENERGY

世界首个±1100千伏特高压直流输电工程配套项目
大石头300MW风电项目

The world's first ±1100 kV UHV DC transmission project supporting project
Dashitou 300MW Wind Power Project

商业模式：PC

本项目包括上海电气木垒县大石头第三风电场100MW风力发电项目、采风丝路大石头第五风电场200MW风力发电项目、大石头220kV风电汇集站、大石头南220kV风电汇集站。300MW山地风电项目全部采用上海电气2.5MW机型，本项目地形复杂、施工难度大，项目成功建设每年可为电网提供91300万度清洁能源，可靠保证了华东地区电力供应。

Business Mode: PC

This project includes Shanghai Electric's Mulei County Dashitou No. 3 Wind Farm 100MW Wind Power Project, Caifeng Silk Road Dashitou No. 5 Wind Farm 200MW Wind Power Project, Dashitou 220kV Wind Power Convergence Station, and Dashitou South 220kV Wind Power Convergence Station. All 300MW mountain wind power projects use Shanghai Electric's 2.5MW models. Though the project was faced with complex terrain and difficult construction, it succeeded in providing 913 million kilowatt-hours of clean energy to the power grid every year, which reliably guarantees the power supply in East China.

世界首个±1100千伏特高压直流输电工程配套项目
老君庙200MW风电项目

The world's first ±1100 kV UHV DC transmission project supporting project
Laojunmiao 200MW Wind Power Project

商业模式：PC

本项目包括浦类海木垒老君庙风区99MW（一期、二期）风力发电项目、木垒县国新天立老君庙风区49.5MW风力发电项目、丝路大成木垒老君庙风区一期50MW风力发电项目。200MW风电项目全部采用自主研发钢混塔架结构，不仅可提高电量，也可减少因塔架晃动带来的安全风险，提升机组寿命。

Business Mode: PC

This project includes the 99MW (Phase I and II) wind power project in the Laojunmiao Wind District of Pu Lei Haimulei, the 49.5MW wind power project in the Laojunmiao Wind District of Guoxin Tianli in Mulei County, and the 50MW wind power project(Phase I) Silk Road Dacheng Mulei Laojunmiao. All 200MW wind power projects adopt the self-developed steel-concrete tower structure, which can not only increase the power consumption, but also reduce the safety risks caused by the shaking of the tower and increase the lifespan of the equipment.

典型案例–新能源
TYPICAL CASE – NEW ENERGY

广东阳春市光伏扶贫项目
Photo-voltaic Poverty Alleviation Project in Yangchun City, Guangdong Province

商业模式：EPC

项目总装机容量75MWp，分布在漠阳江两侧五个地块。作为广东省重点光伏扶贫项目之一，每年输送约8500万kWh清洁能源，改善当地2907户贫困户的经济状况，为推进广东地区产业扶贫做出重要贡献。

Business Mode: EPC
The total installed capacity of the project is 75MWp, distributed in five places on both sides of the Moyang River. As one of the key photo-voltaic poverty alleviation projects in Guangdong province, it transports about 85 million kWh of clean energy annually, improves the economic status of 2,907 poor households, and makes an important contribution to the industrial poverty alleviation in Guangdong province.

固镇县钓鱼台湖一期20MWp渔光互补分布式光伏发电项目
20MWp Complementary Fishing Industry and Photo-voltaic Power Distributed Power Generation Project of Phase I at Guzhen Diaoyutai Lake

商业模式：EPC

项目总装机容量为20MWp，利用滩涂地,采用渔光互补的形式，每年为电网提供约2100万kWh清洁电力。

Business Mode: EPC
With a total installed capacity of 20 MWp, the project will provide about 21 million kWh of clean electricity annually to the power grid by utilizing intertidal land in the form of complementary fishing industry and photo-voltaic power generation.

上汽安悦超级充电站（光储充微电网）
SAIC Anyo Super Charging Station (light storage microgrid)

商业模式：EPC

项目规模：1111KW（二期480KW）

充电站采用整车充电方式，占地面积1536平方米，拥有1111kW充电能力的直流、交流充电站。该项目实现了整站信息化、网络化、智能化的监控和管理。

Business Mode: EPC
Project Scale: 1,111KW (480KW of Phase II)
The charging station, in the whole vehicle charging mode, covering a floor space of 1,536 m^2, is a DC and AC charging station with 1,111 kW charging capacity. The Project realizes the information, networking, intelligent monitoring and management in the whole station.

上海宝山吴淞口国际邮轮港岸电工程
Shore Power Project of Shanghai BaoshanWusongkou International Cruise Terminal

商业模式：EPC

该项目为全球单台机组最大的岸基电源工程，工程共分为岸上供电部分、电缆连接装置、船舶受电设备三部分。减少靠港船舶对港区空气的污染排放量，有效改善区域环境。

Business Mode: EPC
The Project is the shore-based power supply project with the largest single unit in the world, divided into three parts, i.e. shore power supply, cable connecting device and ship receiving equipment. After completed, the Project can reduce the air pollution emission of ships in the harbor district, and improve the regional environment effectively.

典型案例–工业事业
TYPICAL CASE – INDUSTRIAL BUSINESS

上海电气（南通）科创中心有限公司 AC19013地块建设项目

Shanghai Electric (Nantong) Technology Innovation Center Co., Ltd.
AC19013 plot construction project

项目占地46.6亩，总建筑面积95408平方米，项目建设投资约为75000万元。以“企业总部、研发中心、信息中心、服务中心”为四大功能定位，以“新能源环保装备产业、建筑装配化产业、新能源电池产业、重装备产业”为四大核心发展产业，分步实施，最终形成“研发板块、信息板块、销售板块、服务板块”四大核心功能板块。

The project covers an area of 46.6 mu, with a total construction area of 95,408 m^2 with construction investment about 750 million RMB. Taking "corporate headquarters, R&D center, information center, and service center" as the four major functional positioning, "new energy environmental protection equipment industry, building assembly industry, new energy battery industry, heavy equipment industry" as the four core development industries to implement step by step, and finally form the four core functional sections of "R&D, Information, Sales, and Service".

如皋经济技术开发区国家级氢燃料电池汽车研究检测中心总承包项目

Rugao Economic and Technological Development Zone National Hydrogen Fuel Cell Vehicle Research and Test Center.

如皋氢燃料电池汽车研究检测中心是全国唯一一个、规模最大、设施最全的第三方氢燃料电池整车与零部件检测基地。项目设计获中国绿色建筑认证。

Rugao hydrogen Fuel Cell Vehicle Research and Testing Center is the only third-party hydrogen fuel cell vehicle and parts testing base in China, which is with the largest scale and most complete facilities.The project design was awarded the China Green Building Label.

汕头海上风电智能制造项目

Shantou Offshore Wind Power Intelligent Manufacturing Project

本项目基地位于广东省汕头市濠江区工业园区内，建筑面积为31838平方米，堆场面积16950平方米。采用先进工艺、高效数控加工设备等，主要承担7.0 MW、8.0 MW海上风力发电机组的部装、总成装配、出厂试验和补漆等任务。

The project base is located in the Industrial Park of Haojiang District, Shantou City, Guangdong Province, with a construction area of 31,838 m^2 and a storage area of 16,950 m^2. Advanced technology and high-efficiency numerical control processing equipment mainly undertake the tasks of partial assembly, integral assembly, factory test and paint touch-up of 7.0 MW and 8.0 MW offshore wind turbines.

典型案例–工业事业
TYPICAL CASE – INDUSTRIAL BUSINESS

青岛天际汽车项目

Qingdao Skyline Automobile Project

本项目总建筑面积约6万平方米，规划产能为年产2万辆新能源物流车。以绿色、节能为设计理念，按照工艺成熟、经济合理、节约投资的原则进行工厂的设计、施工一体化实施，主要建设内容包括新建联合厂房、检测返修车间、联合站房、综合楼、食堂、消防泵房、门卫等。

The planned production capacity of this project is 20,000 new energy logistics vehicles per year. The design concept is green and energy saving. And the design and integrated construction of the factory are in accordance with the principles of mature technology, economy and investment saving. The main construction includes joint plants, inspection and repair workshops, joint station buildings, comprehensive buildings, canteens, fire pump rooms, guards, etc. The total construction area is about 60,000 m^2

上汽大众汽车有限公司长沙分公司新建厂房项目（年产30万辆乘用车厂）

New Plant Construction Project (annual output more than 300,000 passenger vehicles) of Changsha Branch Office, SAIC Volkswagen Automotive Co., Ltd.

项目为年产30万辆乘用车的整车厂房建设，总投资为121亿，含冲压车间、车身车间、油漆车间、总装车间四大车间及相应配套生产仓储车间、办公设施等，基地面积153万平方米，新建建筑面积58万平方米。
上海电气以先进的全球标准化工厂的建设理念，结合绿色建筑节能，使整个厂区形成以四大车间为核心区域的辐射型功能分区，车间自动化程度、节能环保程度、总体制造技术都处于国际一流的水平，其中冲压线、车身焊接线、油漆线、总装线等工艺设备荣获绿色三星建筑称号。

The Project is for vehicle plant construction with annual output more than 300,000 passenger vehicles. The total investment is CNY 12.1 billion, including four process workshops (i.e. pressing shop, bodywork shop, painting shop and assembly shop) and the corresponding matched production & storage workshops and office facilities, etc. The area of base is 1.53 million m^2 and total floor area 0.58 million m^2.
Shanghai Electric, with the advanced global standard plants as the construction philosophy, by combining with energy saving green building, forms the radial functional zones with four workshops as core region in the whole plant. The degree of automation in workshop, degree of energy-saving & environmental protection and overall manufacturing technology are at the international first-class level, with the process units such as press line, body welding line, painting line, assembly line, etc. awarded of Three-star Green Building title.

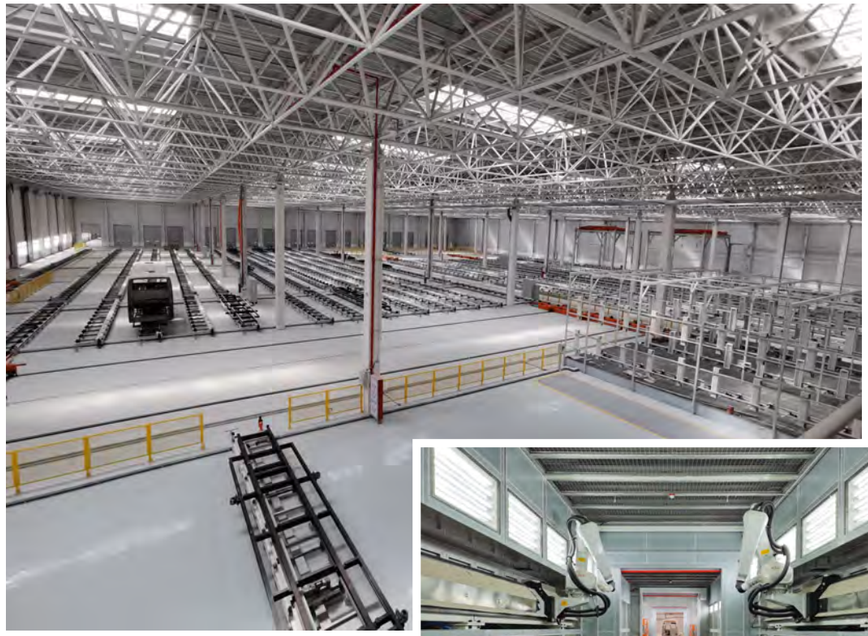
典型案例–工业事业
TYPICAL CASE – INDUSTRIAL BUSINESS

中国汽车工程研究院 环境模拟风洞及空气动力学声学风洞总承包项目

China Automotive Engineering Research Institute Environmental Simulation Wind Tunnel and Aerodynamics Acoustic Wind Tunnel General Contracting Project

项目包含一座全尺寸环境模拟汽车风洞和一座全尺寸空气动力学声学汽车风洞。环境模拟汽车风洞最大风速可达200km/h，温度范围为零下40℃至零上60℃，相对湿度范围为5%至95%；空气动力学声学汽车风洞最高风速可达250km/h，背景噪声58db(A)@140km/h。

The project includes a full-scale environmental simulation vehicle wind tunnel and a full-scale aerodynamic acoustic vehicle wind tunnel. The maxi mum wind speed of the environmental simulation vehicle wind tunnel can reach 200km/h , the temperature range is minus 40℃ to 60℃ above zero, and the relative humidity range is 5% to 95%. The maxi mum wind speed of the aerodynamic acoustic vehicle wind tunnel can reach 250km/h , and the background noise is 58db (A) when the wind speed is 140km/h .



厦门金龙客车项目

Xiamen King Long Bus Project

项目产能及体量在全球大客车行业中均属第一梯队：最大车型长度13.7米，整车质量6000千克，年产量达到3万辆。在大客车新建线中首次采用了硅烷处理工艺替代了传统的磷化工艺，有效地减轻了环保处理压力，提高项目环境友好度。采用机器人自动喷漆技术与循环风技术，在提高工作质量的同时，大大降低了喷漆室能耗，减少运行成本近20%。应用了全滚床机械化输送系统，以机械自动化模式转运、输送车身产品，改变了以往人工作业模式，有效地降低了劳动强度，提高了工作效率。引用RFID、RTO废气处理技术、恒温恒湿技术等成熟技术，以匹配智能绿色标杆工厂的建设目标。

The project's production capacity and volume belong to the first echelon in the global bus industry: the maximum length of the vehicle is 13.7 meters, the weight of the entire vehicle is 6000 kg, and the annual output reaches 30,000. For the first time in the new bus line, the silane treatment process was used to replace the traditional phosphating process, which effectively reduced the environmental protection treatment pressure and thus rendering it environmental friendly. With robot automatic painting technology and circulating air technology, it greatly reduces the energy consumption of the painting room and reduces the operating cost by nearly 20% while improving the quality of work. The full roller bed mechanized conveying system is applied to transfer and convey the vehicle body in a mechanical automation mode. It has changed the previous manual operation mode, effectively reduced labor intensity and improved work efficiency. Introduce mature technologies such as RFID, RTO exhaust gas treatment technology, constant temperature and humidity technology to match the construction goals of smart green benchmark factories.

典型案例–建筑工业化
TYPICAL CASE – CONSTRUCTION INDUSTRIALIZATION

第十届中国花博会集成单元式住宿保障项目

The Tenth China Flower Expo Integrated Unit Accommodation Guarantee Project

项目规划总建筑面积为16348.10平方米,全部为地上重筑,包括客房、接待中心、后勤服务楼和配套用房等。预制构件率达100%。其中,客房的建筑面积为11989.20平方米，接待中心的建筑面积为3718.07平方米，后勤服务楼的建筑面积为299.73平方米，配套用房的建筑面积为341.10平方米。

The planned total construction area of the project is 16,348.10 m^2, all of which are rebuilt on the ground, including guest rooms, reception center, logistics service building and supporting buildings. The prefabricated component rate reaches 100%. Among them, the building area of guest rooms is 11989.20 m^2, the reception center is 3718.07 m^2, and that of the logistics service building is 299.73 m^2. The building area of supporting buildings is 341.10 m^2,

典型案例–建筑工业化
TYPICAL CASE – CONSTRUCTION INDUSTRIALIZATION

上海滨江公园壹号项目 装配式EPC专项承包

Shanghai Binjiang Park No. 1 Project　Fabricated EPC Special Contract

本项目地上总建筑面积为120500平方米，采用装配整体式混凝土剪力墙体系，预制构件包括：预制墙、飘窗、叠合楼板，预制楼梯等，单体预制率达30%。

Project location: Core Residential Area, Qilian Plot, Baoshan District, Shanghai
This Project has a total floor area of 120,500 m^2 on the ground, which adopts the fabricated overall concrete shear wall system, with the prefabricated parts including fabricated walls, bay windows, composite floor slabs, prefabricated stairs, etc., and with the unit prefabrication rate up to 30%.

南京五桥项目

世界领先 粗骨料薄性粉末混凝土桥面板自动化生产线

Nanjing No.5 Yangtze River Bridge Project
The World's Leading Automatic Production Line For Coarse Aggregate and Thin Powder Concrete Bridge Deck

由交通部规划院、中铁宝桥、交通部二航局、西南交大牵头组织施工的南京五桥项目，桥面板采用的是目前国际领先的粗骨料活性粉末混凝土，该生产线可在45分钟内完成7米×11米桥面板的高强度混凝土布料，所采用的混凝土拥有高强度、高延性、高耐久性三大特点以及卓越的力学性能。

The Nanjing No.5 Yangtze River Bridge project was led by the China Academy of Transportation Science, China Railway Baoji Bridge Group, China City Construction Holding Group Company Second Harbour Engineering Company and Southwest University. The bridge deck is made of internationally leading coarse aggregate reactive powder concrete. The production line can complete the high strength concrete distribution of the 7m×11m bridge deck in 45 minutes, and the concrete used has the characteristics of high strength, ductility and durability and excellent mechanical properties.

典型案例–海外事业
TYPICAL CASE – OVERSEAS BUSINESS

北美洲1×60MW生物质焚烧发电项目

1×60MW Biomass Incineration Power Generation Project in Ciro Redondo, North America

商业模式：BOT
建设规模：60MW
年消耗生物质：31.5万吨蔗渣、20.9万吨灌木
该项目以麻风树和甘蔗渣作为燃料，缓解了中北美州加勒比海地区化石燃料紧张问题，年节约燃油11.4万吨，每年减少CO_2排放量29.5万吨，为当地开展后续可再生能源项目树立了标杆。

Business Mode: BOT
Installed Capacity: 60MW
Annual consumption of biomass: 315,000 tons of bagasse, 209,000 tons of shrub
The project uses Jatropha and bagasse as fuel to ease the tension of fossil fuels in the Caribbean region of Central and North America. It saves 114,000 tons of fuel oil annually and reduces CO_2 emissions by 295,000 tons annually, which has established benchmarking for future renewable energy project in the local area.

澳大利亚南澳州最大的单体光伏电站
澳大利亚Cultana343.7MW光伏电站项目

The Largest Single Crystal Photo-voltaic Power Station in South Australia
Cultana 343.7MW solar project in Australia

商业模式：EPC
项目总装机容量约343.7MW， 占地1642公顷。整个电站采用单轴跟踪支架，使电站整体发电量提高19%。有效改善当地能源结构。

Business Mode: EPC
The total installed capacity of the project is about 343.7MW, covering an area of 1642 hectares. The single axis tracking bracket is used in the whole power station, which increases the total power output by 19%, effectively improving the local energy structure.

德国Grobern生物质能利用项目

Biomass Energy Utilization Project in Grobern, Germany

商业模式：EPC
年消耗废弃物：17,000吨
将有机废物和食物废料分解过程中产生的沼气有效转变为电能和热能。在实现热电联产的同时，对周边污泥进行干燥。主设备采用双层发酵器，确保所有废弃物的处理有确定的时间消耗，具有装载量大，产气量多的特点。其可靠的发酵技术及自动化水平，有效降低了维护成本及运营成本。

Business Mode: EPC
Annual Consumption of Waste: 17,000 tons

The Project utilizes the technology that transforms the marsh gas generated during the decomposition of or and food wastes into the electric energy and thermal energy. And while the combined the surrounding sludge is dried. The main equipment is double layer fermenter, which ensur certain time, and features large loading capacity and much gas yield. The reliable fermentation level have reduced the cost of operation and maintenance effectively.

科技拥抱未来
绿色铸就辉煌

TECHNOLOGY EMBRACES THE FUTURE AND GREEN MAKES BRILLIANCE

环保未来

ENVIRONMENTAL PROTECTION IN THE FUTURE

作为一家与国家及世界能源环保战略接轨的国有控股企业，创新、环保、共赢，是我们永远不变的追求。

“以客户为中心” 满足市场需求；
“以奋斗者为本” 激发内生动力。

内外并重打造产业发展主引擎，为自然资源和环境保护提供更高效、更绿色、更经济的解决方案。

为我国的经济可持续发展、建设和谐社会，为缓解全球能源危机做出努力和贡献。

Innovation, environmental protection and win-win are the permanent pursues of us as one of the state holding enterprises in line with the world's and national energy and environmental strategies.
Adhere to the tenet of "customer-oriented" to meet market demand,
The spirit of "struggle-oriented" to stimulate intrinsic motivation.
Lay equal emphasis on both domestic and international markets to realize industrial development, Shanghai Electric Environmental Protection Group commits itself to provide more efficient, greener and more economic solutions for natural resource and environmental protection, as well as makes efforts and contributions for the sustainable economic development and building harmonious society in China, and mitigating the global energy crisis.