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**Environmental System Integrator
Project Life-cycle Solutions**

上海环保工程成套有限公司
Shanghai Environmental Protection Complete Engineering Co.,Ltd.

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Shanghai Environmental Protection Complete Engineering Co.,Ltd.

上海市静安区恒丰路600号机电大厦18楼
18 floor, electromechanical building,
600 Hengfeng Road, Jingan District, Shanghai.

邮编 / PC : 200070
电话 / TEL : 021-31160160
传真 / FAX : 021-31160150



忠诚、创新、共赢

Loyalty, Innovation and Win-win

构筑遵从自然、绿色发展的生态环境

Building eco-environment complying with natural and green development

成为国内一流的环境综合服务商

Becoming the first-class environmental integrated service provider

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CD COMPANY PROFILE

公司简介

上海电气集团股份有限公司是我国综合性装备制造集团之一，国内外知名品牌，主导产业聚焦高效清洁能源装备、新能源及环保装备、工业装备和现代服务业四大领域。产品包括火力发电机组、核电机组、燃气轮机、风力发电设备、输配电设备、环保设备、自动化设备、电梯、轨道交通等。2017 年度 ENR 全球最大 250 强国际承包商排名全球第 114 位、2017 年亚洲品牌五百 TOP100、2017 年品牌价值 602.78 亿元，位列行业前二。

上海环保工程成套有限公司，成立于 1987 年 6 月，是上海电气集团的全资子公司，在固废处理、新能源发电、水处理等环保领域，为客户提供一体化解决方案的系统集成公司。公司具有鲜明的技术特色和服务优势，通过工程项目承包形式，致力于提供更高效、更绿色、更经济的一站式服务和一揽子解决方案，促进我国环保设备水平，培育具有自主知识产权的环保工程核心技术，为我国的经济可持续发展而努力。

Shanghai Electric Group Co., Ltd. (Shanghai Electric), as one of the integrated equipment manufacturing groups of China and a famous brand both in China and overseas, is specialized in 4 major fields: high-efficiency clean energy equipment, new energy and environmental protection equipment, industrial equipment, and modern services. Its products include thermal generator set, nuclear power unit, gas turbine, wind power equipment, power transmission & distribution equipment, environmental protection equipment, and rail transit equipment. Shanghai Electric ranked the 114th in the ENR world's top 250 largest international contractors in 2017, top 100 in top 500 Asian brands in 2017, and achieved brand value of RMB 60.278 billion, ranking top 2 in the industry.

Shanghai Environmental Protection Complete Engineering Co., Ltd. as a wholly-owned subsidiary of Shanghai Electric, is devoted to become an engineering complete company which can provide customers with whole-life-cycle project solutions with the support of Shanghai Electric, with center on new energy and environmental protection fields, and by its own technical characteristics and service advantages in complete equipment, thus to provide efficient, green and economical high-quality solutions for natural resources and environmental protection, develop core technologies of environmental protection engineering with independent intellectual property rights, and make contributions to modernization.





固体废弃物处理 Solid Waste Treatment

固废处理的目的是实现固体废弃物的无害化、减量化、资源化，是政府强力支持的战略新兴行业。

Solid waste treatment aims to realize harmless treatment, reduction and recycling of solid waste; as a strategic emerging industry of China with strong policy support.



公司在生活垃圾处理、工业固废处理、危险废弃物处理等固废领域拥有丰富的项目承包和管理经验。目前是国内唯一既能提供固废焚烧处理工艺设计，又能提供锅炉、汽轮机、发电设备等关键装备的企业，经过多年不断创新，持续保持技术的先进性和设备的领先性。

上海电气既有固废处理技术(炉排炉、流化床及回转窑)，也有二段燃烧和高温等离子技术，能处理各类工业、医疗、危险废弃物、并确保烟气、灰渣和废水达到或超过欧盟排放标准。

The company is rich in project contracting and management experience in solid waste treatment field, including domestic waste treatment, industrial solid waste treatment, and hazardous waste treatment, and the only domestic enterprise being capable of not only providing solid waste incineration process design, but also providing key equipment, including boiler, turbine and power generation equipment; The company maintains its advancement in both technology and equipment through years of continuous innovation.

Shanghai Electric possesses both solid waste treatment technology (grate furnace, fluidized bed, rotary kiln) and two-stage combustion and high-temperature plasma technology, and is capable of the treatment of industrial, medical and hazardous waste and ensuring the emission of flue gas, ash and wastewater up to or beyond EU emission standard.

城镇生活垃圾处理 >> Urban Domestic Waste Treatment

在城市生活垃圾处置领域，公司具有技术研发、装备制造、工程和资本能力，充分借鉴世界上一流的垃圾处理技术。垃圾焚烧法已为主流趋势，减量化效果显著，节省用地，还可消灭各种病原体，将有毒有害物质转化为无害物。公司集垃圾焚烧、固废资源化、综合处置、烟气处理、核心装备供应为一体，承接国内重大垃圾处理项目，是国内最早从事垃圾处理项目总承包的公司。

In urban domestic waste treatment field, Shanghai Electric grasps technology R&D, equipment manufacture, engineering and capital strength, and fully draws on the experience of world-class waste treatment technology. Waste incineration method has become a main method by its advantages of significant reduction effect, land conservation, elimination of various pathogens, and conversion of toxic and harmful matters into harmless matters. Shanghai Electric integrates waste incineration, solid waste recycling, general disposal, flue gas treatment, and core equipment supply, undertakes domestic major waste treatment projects, and is the earliest domestic company for EPC contracting for waste treatment projects.



浦东新区垃圾焚烧厂项目 >> Waste Incineration Plant Project in Pudong New Area

我国第一座现代化的千吨级生活垃圾焚烧厂，总投资6.7亿元人民币。该项目设置三条生活垃圾焚烧处理生产线及相应的烟气净化系统，配有2×8500KW汽轮机发电机组。建成后，满负荷运行，各项排放指标可达欧盟92年标准，是一座自动化程度相当高的绿色环保工厂。

年发电量：约为1.1亿度
日处理量：1000吨生活垃圾

Annual energy output: about 110,000,000kW-h
Daily capacity: 1,000t domestic waste

Waste Incineration Plant Project in Pudong New Area, with total investment of RMB 670,000,000, is the first modern 1,000t-level domestic waste incineration plant of China. The project is set with 3 domestic waste incineration lines and corresponding flue gas purification system, and is equipped with 2×8500kW turbo generator sets. The plant has been put in full-load operation upon completion, with emission indicators meeting EU standards in 1992, and now serves as a green and environmental-friendly plant with high automation degree.



上海江桥生活垃圾焚烧厂项目 >>

Domestic Waste Incineration Plant Project in Jiangqiao, Shanghai

国内日处理能力最大的现代化生活垃圾焚烧厂之一，总投资9.2亿元，日处理量达1500吨，配置三条日处理能力500吨垃圾焚烧线和两台额定功率为12MW的中压凝汽式汽轮发电机组。公司负责本项目进口设备、合作生产设备的成套和技术服务。

The plant, as one of the domestic modern domestic waste incineration plants with the highest daily capacity, has total investment of RMB 920,000,000 and daily capacity of 1,500t, and is equipped with 3 waste incineration lines with daily capacity of 500t and 2 medium-voltage condensing turbo generator sets with rated power of 12MW. Shanghai Electric is responsible for complete set and technical services for imported equipment and the equipment under cooperative production for the project.



上海电气南通垃圾焚烧热电联产项目 >>

Nantong Waste Incineration Heat and Power Co-generation Project of Shanghai Electric

该项目以BOT方式建设，位于如皋港经济开发区内，集中处理南通市区、如皋市、南通市以及靖江市的生活垃圾，日处理量1500吨，年处理量达54万吨，每小时可向周边工业企业供应蒸汽120吨，年供热达100万吨，年发电上网1.8亿千瓦时。

Under construction in BOT mode and located in Rugao Port Economic Development Zone, the project serves for centralized treatment of the domestic waste from urban area of Nantong City, Rugao City, Tongzhou City and Jingjiang City; the project has daily capacity of 1,500t, and annual capacity of 540,000t, and can provide peripheral industrial enterprises with steam of 120t/h, annual heat supply of 1,000,000t, and annual on-grid energy output of 180,000,000kWh.



工业固废和危险废弃物处理 >>

Industrial Solid Waste and Hazardous Waste Treatment



我国工业固废和危险废弃物的处理能力严重不足，市场发展空间很大。在工业固废和危险废弃物处理领域，为了实现污染物排放量最少、最大可能回收物资和能量的要求，引进并拥有欧洲先进的危险废弃物热氧化处理技术，处理对象涵盖国家危险废弃物名录中列明的46类危险废物，并回收热量和副产品。

China is severely lack of industrial solid waste and hazardous waste treatment capacity, indicating huge market potential. In industrial solid waste and hazardous waste treatment field, Shanghai Electric has introduced European advanced hazardous waste treatment technology by thermal oxidation for the treatment of 46 categories of hazardous waste in the national list of hazardous waste and the recycling of heat and by-products, thus to minimize pollutant emission and maximize material and energy recycling.

上海电气南通国海环保科技有限公司 >>

Shanghai Electric Nantong Guohai Environmental Technology Co., Ltd.

项目的回转窑焚烧炉及烟气处理技术采用瑞士CTU先进技术，各项排放指标可达欧盟2000标准。

CTU advanced technology of Switzerland is adopted for rotary kiln incinerator and flue gas treatment for the project, and emission indicators can meet EU standards in 2000.



服务区域：海安县及南通市区域

商业模式：BOO

年处理量：焚烧处理10000吨、稳定固化15000吨、安全填埋21000吨

Service region: Haian County and Nantong

Business mode: BOO

Annual capacity: incineration and treatment of 10,000t

Stabilization and solidification of 15,000t

Safe landfill of 21,000t



新能源发电 New Energy Power Generation

生物质能发电 >> Biomass Power Generation

生物质发电是利用农业、林业和工业废弃物、甚至城市垃圾为原料，采取直接燃烧或气化等方式发电，包括农林废弃物直接燃烧发电、农林废弃物气化发电、垃圾焚烧发电、垃圾填埋气发电、沼气发电。国际能源组织报告称，生物质能是世界第四大能源，是清洁能源的重要组成部分，占世界可再生能源消费量的78%，具有环保、可再生、分布广泛的特点。

生物质直燃发电技术是将生物质能源转化为电能的一种技术，将生物质原料从各个收购站点运送至生物质电厂，经破碎、分选等加工处理后存放到原料仓库，然后将其送入锅炉燃烧，将热能转化为高温、高压蒸汽，推动蒸汽轮机做功，最后带动发电机生产电能。当前，生物质直燃发电是生物质能规模化利用的主要方式，具有良好的社会效益和经济效益，已受到世界各国政府的高度重视。

Biomass power generation refers to the power generation by direct combustion or gasification with raw materials including agricultural, forestry and industrial waste or even urban waste, and includes power generation by direct combustion with agricultural and forestry waste, power generation by gasification with agricultural and forestry waste, waste incineration power generation, waste landfill power generation, and biogas power generation. It is shown from the report of International Energy Agency that biomass is the 4th largest energy of the world and an important part of clean energy, takes up 78% global consumption of renewable energy, and is characterized by environmental-friendly, renewable, and extensive distribution.

Biomass direct combustion power generation technology refers to a technology for converting biomass energy into electric energy; biomass materials are sent to biomass power plant from collection stations, and then stored in raw material warehouse upon crushing and sorting, and then sent into boiler for combustion to convert heat into high-temperature and high-pressure steam to drive steam turbine to act, and finally drive generator for power generation. Biomass direct combustion power generation, as the main method for large-scale biomass utilization, has been attached high importance to by the governments around the world because of its good social and economic benefits.

南方电网藤县生物质发电项目 >>

Teng County Biomass Power Generation Project of China Southern Power Grid

本项目位于广西壮族自治区梧州市藤县境内，利用农作物秸秆直接燃烧发电，解决了半径50Km范围内的秸秆燃烧问题，是集设计、采购、建造、调试运行等一体的交钥匙工程。项目建设汲取国际现代化电厂经验，采用模块标准化设计，厂区总平面布置紧凑、技术先进。项目建成后，实现秸秆综合利用，是国家大力提倡的循环经济的具体实践，同时对广西藤县负荷发展起到一定的积极作用。

The project, located in Teng County, Wuzhou City, Guangxi Zhuang Autonomous Region, settled straw incineration problem in the range of 50km through direct combustion power generation with agricultural straw, which is a turn-key project integrating design, procurement, construction, commissioning and operation. The experience of international modern power plant is learned for project construction, and modular standard design is adopted; plant area has compact layout plan, and the plant has advanced technology. The project has realized integrated utilization of straw upon completion, and embodies specific practice of recycling economy advocated by the state, and plays certain active role in load development of Teng County in Guangxi.

建设规模：

1×30MW抽汽凝汽式汽轮机发电机组，
配套1×130t/h循环流化床锅炉
燃料年消耗量：35.38万吨
年发电量：2.1×108KWh
全厂热效率：33%（纯凝工况）

Construction scale: 1×30MW steam-extraction turbo generator set, equipped with 1×130t/h circulating fluidized bed boiler

Annual fuel consumption: 353,800t

Annual energy output: 2.1×108kW·h

Overall thermal efficiency: 33%
(in straight-condensing conditions)



宁夏安能生物质热电联产项目 >>

Anneng biomass combined heat and power generation project in Ningxia

本项目位于宁夏石嘴山惠农区红果子工业园区内，由上海电气投资公司参股建设的第一个生物质热电联产项目。本工程燃料以玉米秸秆为主，红柳枝等林木剩余物为辅。燃料收购拟采用小型收购点→电厂的方式，由收购点到田间或农户收购，在收购点破碎、打包，用封闭式专用汽车运至燃料库或电厂。本工程的建设既可提高当地的集中供热普及率及污水处理率，又可提高当地农民的经济收入，推动宁夏回族自治区可再生能源建设的发展。

商业模式： 融资+总承包+运营

建设规模：

1×30MW抽凝式发电机组+1×130t/h高温超高压生物质锅炉

燃料年消耗量： 30万吨

年发电量： 1.8亿度

年供热量： 38万吉焦

This project is located in HongGuoZi industrial park, ShiZuiShan City, Ningxia Province. It is the first biomass combined heat and power generation project that is invested by Shanghai Electric. The fuel is mainly corn straw, supplemented by tree residues such as red willow branches. The fuel is acquired by adopting the method of "small collection spot to the power plant", which is procured from the collection spots to the field or farmers, broken up and packaged at the collection spots, and then transported to the fuel depot or power plant by a closed special vehicle. This project can not only improve the penetration rate of the local central heating and the sewage treatment rate, but also increase the local farmers' economic income, promote the development of renewable energy construction in Ningxia Hui Autonomous Region.

Business mode : F+EPC+O

Construction scale:

1x30MW extraction-condensing generator set

1x130t/h biomass boiler with high-temperature and ultra-high pressure

Annual fuel consumption: 300,000t

Annual power supply: 180 million KWh

Annual heat supply: 380,000 GJ



山西七一华富秸秆发电项目 >>

Qiyi Huafu Straw Power Generation Project in Shanxi Province



本项目位于山西省襄垣县，是我公司以EPC形式负责承建，于2014年建设安装，已处于正常运行。该项目充分利用生物质发电厂的场地和设施，采用“秸秆焚烧发电+分布式屋顶光伏发电”模式，打造循环经济模式。

The project is located in Xiangyuan County of Shanxi Province and is undertaken by Shanghai Electric through EPC contracting, and was commenced in 2014 and has been in normal operation. The site and facilities of biomass power plant are made full use of for the project, and the mode of "power generation by straw incineration and distributed roof PV power generation" is adopted to create recycling economy mode.

建设规模： 2×15MW纯凝式发电机组，配套2×65t/h锅炉
燃料年消耗量： 30万吨
年发电量： 2亿度

Construction scale: 2×15MW straight-condensing generator sets, equipped with 2×65t/h boilers
Annual fuel consumption: 300,000t
Annual energy output: 200,000,000kW-h

广西昌菱蔗渣热电联产项目 >>

Bagasse Combined Heat and Power Generation Project in Guangxi Province



本项目位于广西省防城港市上思县，是我公司以EPC形式负责承建，于2015年开始建设，已建设完毕。该项目主要采用糖厂生产附属产物—甘蔗渣和糖醛渣为燃料。

The project is located in Shangsi County, Guangxi Province, and is undertaken by Shanghai Electric through EPC contracting, and was commenced in 2015 and has been completed. The by-products from sugar refinery Furfural residue and Bagasse are mainly taken as fuel for the project.

建设规模： 1×25MW双抽汽凝汽式发电机组，
配套1×145t/h锅炉
燃料年消耗量： 28万吨
年发电量： 1.6亿度

Construction scale: 1×25MW double-steam-extraction condensing generator set, equipped with 1×145t/h boiler
Annual fuel consumption: 280,000t
Annual energy output: 160,000,000kW-h

光伏发电 >> PV Power Generation

光伏发电系统由光伏组件（阵列）及逆变器等核心设备组成。利用光伏组件（阵列）的光生伏特效应将太阳能转化为直流电能，通过逆变器将直流电转化为与电网同频同相的交流电后馈入电网，实现将太阳能转化成电能。伴随着国家对能源发展的变革，新能源领域的崛起，到2022年我国光伏累计装机容量将达141GW，未来光伏行业投资收益率将得到进一步的提升。

公司专业提供光伏发电项目的工程咨询、工程总承包、光伏发电系统成套设备供应、安装、调试及项目投融资等服务。公司有丰富的大型集中式光伏电站及中小型分布式光伏电站的建设经验，并依托上海电气金融产业集团的资金组织和融资能力的运作优势，结合项目业主具体需求，提供多种产融结合的一揽子项目解决方案。

PV power generation system is composed of the core equipment including PV module (array) and inverter. Solar energy is converted into DC electric energy through photovoltaic effect of PV modules (arrays), and inverter is used to convert DC current into the AC current in the same frequency and phase with power grid before the AC current is fed into power grid to realize the conversion of solar energy into electric energy. With the national reform of energy development and the rise of new energy field, cumulative PV installed capacity of China will reach 141GW in 2022, and the return on investment of PV industry will be further raised in the future.

Our company provides professional engineering consulting, EPC contracting for PV power generation projects, and the supply, installation, commissioning for complete equipment of PV power generation system, and project investment & financing services. Our company provides packaged project solutions in the combination of industry and finance according to the employer's specific demands by its rich construction experience in large-sized centralized PV power station and medium and small-sized distributed PV power station and the support of Shanghai Electric Economy Group by fund appropriation and financing advantages.

集中式光伏电站 >> Centralized PV Power Station

集中式大型并网光伏电站是利用荒地。集中建设大型光伏电站，发电直接并入公共电网，接入高压输电系统供给远距离负荷。

Centralized large-sized grid-connected PV power station refers to the large-sized PV power station in centralized construction on waste land, energy output is directly fed into public power grid and connected into high-voltage power transmission system for supply to long-distance load.



烽尚榆神30MWp光伏电站项目 >> Fengshang Yushen 30MWp PV Power Station Project

烽尚榆神电站项目是我司承建的一座大型光伏并网发电站，项目地点位于陕西省榆林市榆神工业园。本项目装机容量为30MWp，共安装118800块单位容量为270Wp的多晶光伏组件，以110kV接入大保当变电站低压侧。

Fengshang Yushen Power Station Project refers to a large-sized PV grid-connected power station undertaken by our company, and is located in Yushen Industrial Park in Yulin, Shaanxi Province. The project has installed capacity of 30MWp, and is installed with 118,800 pieces of polycrystal PV modules with unit capacity of 270Wp, and is connected with low-voltage side of Dabaodang Substation by voltage class of 100kV.

建设规模：30MWp
类型：地面集中式并网光伏发电系统
年发电小时数：1289.8小时
年平均发电量：4137.17万kWh

Construction scale: 30MWp
Type: surface centralized grid-connected PV power generation system
Annual operating hours: 1289.8h
Annual average energy output: 41,371,700kWh



分布式光伏电站 >> Distributed PV Power Station

用现场或靠近用电现场配置较小的光伏发电供电系统，运行方式多以用户侧自发自用，余电上网，且在配电系统平衡调节的特征的光伏发电设施。

Small-sized PV power generation & supply system is allocated on or near site, with operation mode mainly of self-generation and self-use at user side, and residual energy fed to the grid; and refers to the PV power generation facility with balance regulation in power distribution system.



阳信县40MWp分布式（户用） 光伏扶贫电站建设项目 >>

阳信光伏项目是我司承建的农村户用分布式光伏电站，项目位于山东省滨州市阳信县各村，利用县内建档立卡贫困户的院落或各村集中用地建设光伏发电系统及相应的配套设施，采用“全额上网”模式。

建设规模：40MWp
类型：分布式并网光伏发电系统
年发电小时数：约1200小时
年发电量：约4800万kWh

40MWp Distributed (For Household) PV Power Station Construction Project for Poverty Alleviation in Yangxin County

Yangxin PV Project refers to rural distributed PV power stations for household undertaken by our company; the project is located in the villages of Yangxin County, Binzhou, Shandong Province, and aims to build PV power generation system and corresponding supporting facilities in the yards of poverty-stricken households recorded in the county or centralized land of villages; "total grid connection" mode is adopted for the project.

Construction scale: 40MWp
Type: distributed grid-connected PV power generation system
Annual operating hours: about 1,200h
Annual energy output: about 48,000,000kWh



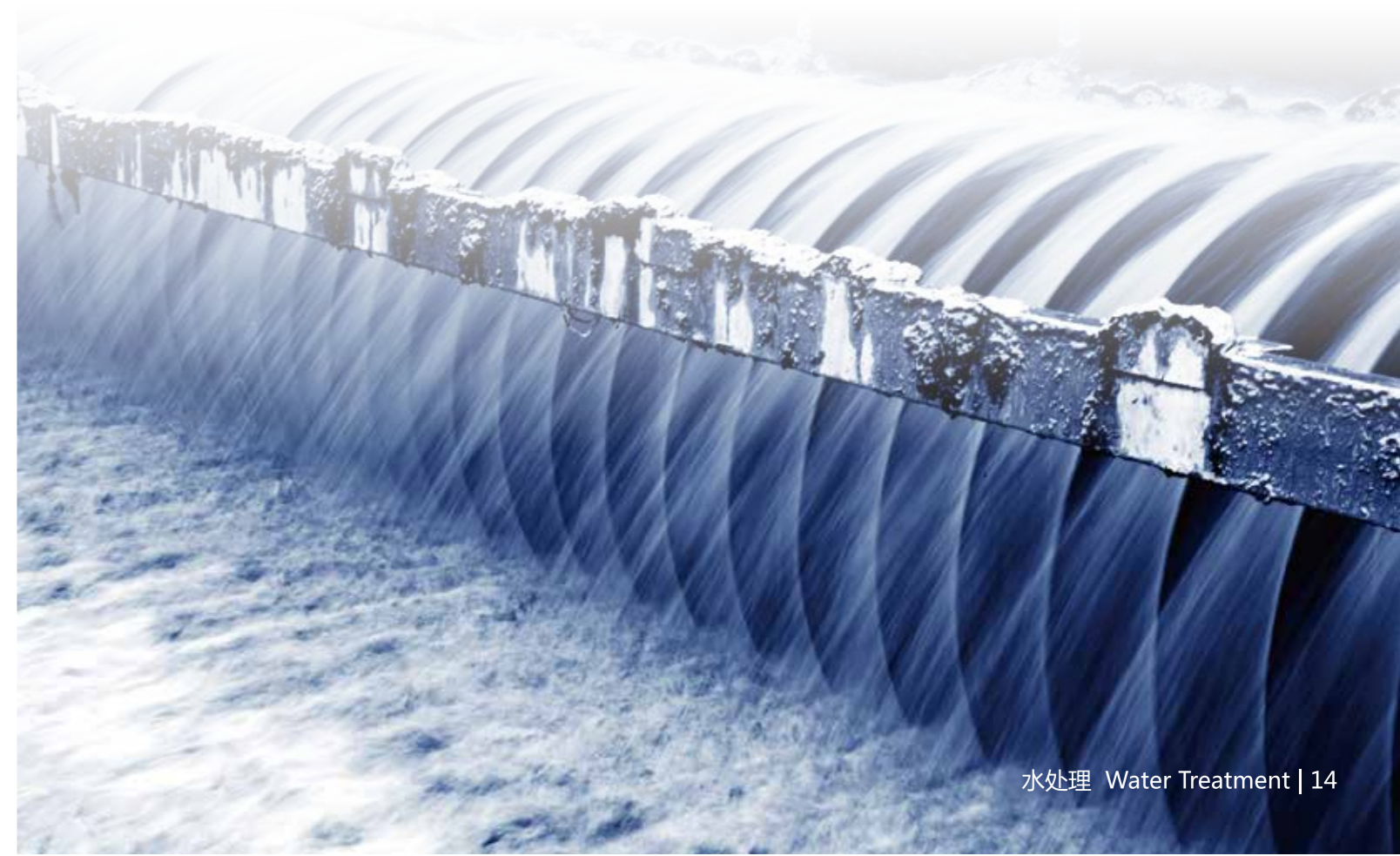
水处理 Water Treatment

随着人类文明的不断发展，自然资源和环境保护的危机刻不容缓。国家“十三五”规划等文件明确提出加大环保产业发展的政策支持力度，先后出台了水处理等环保领域的法律法规（如《水十条》、《中华人民共和国水污染防治法》等），也凸显出我国对水处理等环保产业的高度重视。

水处理技术主要采用物理、化学以及生物等工艺手段，去除水中一些对生产、生活中的有害物质，使得处理后的水质满足法律法规要求。公司在水处理装备和工艺领域已经具有三十多年的发展历史。在污水及污泥处理领域，具有丰富的工程技术服务经验及项目投融资实力，是集环保技术研发、装备研发与集成、作业服务、项目投融资于一体的环境治理企业。主要业务包括：市政污水处理、工业废水处理、农村污水处理和污泥处理等。

With continuous development of human civilization, the crisis of natural resources and environmental protection has become very urgent. It is clearly mentioned in the national "13th Five-Year" plan to strengthen the policy support for environmental protection industry, and the laws and regulations in water treatment and other environmental protection fields have been promulgated (such as the Action Plan for Water Pollution Prevention and Control and the Law of the People's Republic of China on Water Pollution Prevention and Control) to embody China's high importance attached to water treatment and other environmental protection industries.

Physical, chemical and biological process means are mainly adopted for water treatment technology to eliminate some matters in water harmful to production and life, thus to meet legal requirements for water quality upon treatment. Shanghai Electric, with more than 30 years' development history in water treatment equipment and process field, and rich engineering technical service experience and high project investment & financing strength in sewage and sludge treatment field, serves as an environmental treatment enterprise integrating environmental protection technology R&D, equipment R&D and integration, operation services, and project investment & financing. The main businesses include: municipal sewage treatment, industrial wastewater treatment, rural sewage treatment, and sludge treatment.



市政污水处理 >> Municipal Sewage Treatment

近几年，国内市政水务提标改造业务逐年增加，全面拉开市政水务建设及提标的攻坚战，推动城镇污水处理设施提标改造达到一级A或更高排放标准。

市政污水处理提标改造是将现有城镇污水厂排放的污水中COD、总氮、氨氮、总磷等排放指标提高，通常采用的工艺及技术包括：MBR膜工艺技术、MBBR工艺、生物滤池、反硝化深床滤池、高效沉淀池以及紫外消毒等。

公司在市政污水处理上有着丰富的工程业绩与经验。经过几十年的积累与沉淀，拥有多项水处理领域的专利技术，并组建了一支专业、高效的工程管理团队。

Municipal upgrading and renovation business for municipal water affairs has been in gradual increase in recent years to comprehensively develop the market in municipal water affairs construction and upgrading and promote urban sewage treatment facilities to reach level 1A or higher discharge standards.

The upgrading and renovation for municipal sewage treatment refer to the improvement of discharge indicators of COD, total nitrogen, ammonia nitrogen, and total phosphorus in the sewage discharged from urban sewage treatment plants, and the processes and technologies adopted generally include: MBR membrane process technology, MBBR process, bio filter, denitrification deep-bed filter, high-efficiency sedimentation tank, and ultraviolet disinfection.

Our company is rich in engineering performance and experience in municipal sewage treatment, and has been granted many patents in water treatment field and has set up a professional and efficient engineering management team through decades of accumulation and deposition.

合肥经济技术开发区污水处理厂三期工程 >> Phase-III Project for Sewage Treatment Plant in Hefei Economic & Technological Development Zone

合肥市经济技术开发区污水处理厂2016年建成，采用较为先进的污水处理工艺氧化沟，设计规模为10万m³/d，出水水质达到IV类水标准，领先于国内污水处理厂同类指标。该项目可有效减轻合肥市西南区域水环境及下游水体的污染，对改善巢湖水环境质量起到显著作用。

建设规模：10万m³/d

项目占地：139.6亩

工艺：Carrousel氧化沟+反硝化深床滤池

Construction scale: 100,000m³/d

Land area: 139.6mu

Process: Carrousel oxidation ditch + denitrification deep-bed filter

Sewage Treatment Plant in Hefei Economic & Technological Development Zone was commenced in 2016, and advanced sewage treatment process water treatment field and has set up a professional scale of 100,000m³/d, and effluent quality reaches category-IV water standard, which is ahead of similar indicators of domestic sewage treatment plants. The project can effectively mitigate the pollution to water environment in southwest Hefei and downstream water body, and can significantly improve water environment quality.



泰和污水处理厂工程项目 >>

Taihe Sewage Treatment Plant Project

泰和污水处理厂是目前国内建设标准最高、工程规模最大的全地下式污水处理厂之一，位于上海市宝山区。该污水厂出水水质在一级A标准的基础上，氨氮和总磷指标进一步提升至地表水IV类水标准。该项目服务于上海市北部的石洞口区域，建成后将能有效地缓解区域污水旱季溢流排江的状况，大大改善区域的环境质量。

建设规模：40万m³/d

项目占地：34.63公顷

工艺：A2O氧化沟+高效沉淀+反硝化深床滤池+紫外消毒

Construction scale: 400,000m³/d

Land area: 34.63ha

Process: A2O oxidation ditch + efficient sedimentation + denitrification deep-bed filter + ultraviolet disinfection

Taihe Sewage Treatment Plant, located in Baoshan District of Shanghai, is one of the full-underground sewage treatment plants with the highest construction standard and the largest project scale in China. The sewage treatment plant further improves ammonia nitrogen and total phosphorus indicators to category-IV standard for surface water on the basis of level-1A standard for effluent quality. The project serves for Shidongkou area in North Shanghai, and will effectively mitigate sewage overflow and discharge into the river in dry season in the area upon completion, thus to greatly improve environmental quality of the area.



天津青沅水务再生水总承包项目 >>

EPC Contracting Project for Reclaimed Water of Tianjin Qingyuan Water Affairs

该项目建设地址为天津大沽和临港两地，处理后的水质达到《天津市城镇污水处理厂污染物排放标准》DB12/599-2015中的A标准，可有效减少天津市自来水的用量，为绿化用水、部分工业用水开辟了一条新水源。符合循环经济、科学发展的要求，为滨海新区经济发展和环境改善提供有力的基础。



The project is located in Dagu and Lingang of Tianjin, water quality upon treatment can reach standard A in the Pollutant Discharge Standard for Urban Sewage Treatment Plants of Tianjin DB 12/599-2015, thus to effectively reduce tap water consumption of Tianjin and create a new water source for greening water and part of industrial water. The project meets the requirements for economical and scientific development, and provides strong foundation for economic development and environmental improvement of Binhai New Area.

处理水量：天津大沽（20万m³/天）、天津临港（10万m³/天）

工艺：超滤+活性炭+反渗透

特点：再生水回用

Water treatment capacity: Dagu of Tianjin (200,000m³/day)

Lingang of Tianjin (100,000m³/day)

Process: ultrafiltration + active carbon + reverse osmosis

Characteristics: water reclamation

工业废水处理 >>

Industrial Wastewater Treatment

《中华人民共和国环境保护税法》推动企业排污费向环保税进行转变，使企业排污税费收缴更为刚性和严格，为工业废水处理带来巨大的挑战和机会。众所周知，工业废水具有水质参数波动大、COD含量高、生化性较差以及系统稳定运行难等特点，故为了满足工业废水处理要求，此行业处理技术种类也较多，如厌氧/好氧生物技术、芬顿等化学加药处理技术以及其他利用物质本身的物理性质实现分离的技术等。

工业水处理是在水处理领域中的又一重要板块，涉及此领域的工业园区，钢铁厂以及医疗器械等行业。公司结合工业污水水质多样性、处理工艺多样化等特点，结合自身专利技术及设备，提供成套的解决方案以满足客户的需求。

The transition from enterprise pollutant charges to green tax is promoted by the Environmental Protection Law of the People's Republic of China, bringing about huge challenges and opportunities to industrial wastewater treatment. Industrial wastewater is characterized by high fluctuation of water quality parameters, high COD content, poor biodegradability, and difficulty in maintaining stable system operation, thus to meet the requirements for industrial wastewater treatment, anaerobic/aerobic biologic technology, Fenton and other chemical dosing treatment technologies as well as other technologies for realizing separation by physical properties of other matters are adopted.

Industrial water treatment is another important part in water treatment field, and is involved with industrial park, steel works, and medical equipment industries. The company provides complete solutions in combination with the diversified industrial sewage quality and treatment processes and in combination with its own patented technologies and equipment to meet customer demands.



邯钢中水深度处理工程 >> Reclaimed Water Advanced Treatment of Han-Steel

邯钢集团中水深度处理改造工程采用双膜法（GE超滤膜和美国海德能反渗透膜）工艺的软水站进行中水脱盐，满足中水回用中对脱盐水量及水质的要求，实现污水处理厂中水零排放。

The water softening station with double-membrane method (GE ultrafiltration membrane and reverse osmosis membrane of Hydranautics) is adopted for Renovation Project for Reclaimed Water Advanced Treatment of Han-Steel Group for demineralization of reclaimed water, thus to meet the requirements for demineralized water volume and quality in water reclamation and realize zero discharge of reclaimed water from sewage treatment plant.



产水规模：脱盐水1160t/h
工 艺：滤池+多介质过滤+超滤+反渗透
效 益：节约水资源，实现零排放

Water production capacity:
demineralized water of 1,160t/h
Process: filter + multi-medium filtration + ultrafiltration + reverse osmosis
Benefits: water resource saving, zero discharge



江苏易舜医疗器械公司污水处理项目 >> Sewage Treatment Project of Jiangsu Yishun Medical Equipment Co., Ltd.

本项目针对废水种类多、水量小、COD含量高、水质波动大、难以生物降解等特点，并要求满足工业污水管网排放的标准，我公司提供了一套具有知识产权的撬装化废水成套设备。该装置具有工艺简单、结构紧凑、操作人员免维护等特点，为中、小型工业生产企业产生的废水提供解决方案。

In regard of the characteristics of various wastewater types, low water volume, high COD content, high water quality fluctuation, and low biodegradability, and to meet the discharge standards for industrial sewage pipe network for the project, a complete set of skid-mounted chemical wastewater treatment unit with intellectual property rights is provided. The unit, characterized by simple process, compact structure, and maintenance-free, provides solutions against the wastewater from medium and small-sized industrial production enterprises.



处理规模：1吨/天
技术特点：设备模块化
工 艺：全自动高级氧化

Capacity: 1t/day
Technical characteristics: equipment modularization
Process: full-automatic advanced oxidation

大悟县21家医疗机构废水处理项目 >> Wastewater Treatment Project for 21 Medical Institutions of Dawu County

大悟县21家医疗机构废水处理项目采用全地埋式一体化设备，通过低成本、易操作、免维护的方式，实现对湖北孝感市大悟县21家医疗机构废水进行综合治理的目的，所有医疗废水出水水质满足《医疗机构水污染物排放标准》（GB 18466-2005）要求，有效防止医疗污水所引起的疫病扩散，改善该区域内水域的环境质量。

Full-buried integrated equipment is adopted for Wastewater Treatment Project for 21 Medical Institutions of Dawu County to realize integrated treatment of the wastewater from 21 medical institutions of Dawu County in Hubei Province in low-cost, easy-operation and maintenance-free mode. Effluent quality of all the medical wastewater complies with the Discharge Standard of Water Pollutants for Medical Organization (GB 18466-2005), thus to effectively prevent the spread of epidemic diseases by medical sewage, and improve environmental quality of water area in the region.



处理规模：60~100吨/天
技术特点：装置一体化
工 艺：厌氧+MBR工艺+紫外消毒

Capacity: 60~100t/day
Technical characteristics: integrated unit
Process: anaerobic + MBR process + ultraviolet disinfection

农村污水处理 >> Rural Sewage Treatment

近年来，在国家生态文明、美丽乡村建设等方面政策鼓励下，我国农村居民生活水平迅速提高，与此同时，农村生活污水的排放量也在不断增加。由于我国大部分农村分布较广，缺乏完善的排水渠道和污水处理系统，故对农村水环境治理的市场需求越来越大。农村污水处理技术主要包括氧化塘、生物滤池、人工湿地、一体化集成装置等。

公司紧扣世界级生态岛---崇明的发展机会，以处理崇明岛陈家镇农村污水项目为契机，积极开拓农村污水处理市场，将自动化程度高、可互联网远程操纵的一体化装置，应用在农村污水处理工程项目中，为其提供特色工程服务。

In regard of the characteristics of various wastewater types, low water volume, high COD content, high water quality fluctuation, and low biodegradability, and to meet the discharge standards for industrial sewage pipe network for the project, a complete set of skid-mounted chemical wastewater treatment unit with intellectual property rights is provided. The unit, characterized by simple process, compact structure, and maintenance-free, provides solutions against the wastewater from medium and small-sized industrial production enterprises.

Shanghai Electric seizes the development opportunity in global ecological island Chongming, and takes the rural sewage treatment project in Chenjiazhen Township of Chongming Island as a chance to actively expand rural sewage treatment market, apply the integrated unit with high automation degree and enabling remote control through the Internet to rural sewage treatment projects, and provide characteristic engineering services.

陈家镇农村生活污水处理工程 >> Rural Domestic Sewage Treatment Project in Chenjiazhen Township

该项目位于上海市崇明区陈家镇，结合我国农村污水处理的现状特点，采用分散式一体化处理技术。本项目对加快崇明区新农村建设的步伐，从根本上改善该区域内水域的环境质量，给该区域的经济发展创造良好的环境。

建设规模：688m³/d项目

项目特点：污水分布广且无人值守

设备特点：装置一体化、远程化

工艺：生物处理+过滤+吸附

Construction scale: 688m³/d

Project characteristics: extensive sewage distribution, unattended operation

Equipment characteristics: integrated unit in remote control

Process: biological treatment + filtration + adsorption

The project is located in Chenjiazhen Township, Chongming District, Shanghai, and is designed with distributed integrated treatment technology in combination with the current situation and characteristics of rural sewage treatment of China. The project accelerates new village construction of Chongming District, fundamentally improves environmental quality of water area of the region, and creates good environment for economic development of the region.



内蒙古包头市牧民新村生活污水处理站项目 >> Herdsman New Village Domestic Sewage Treatment Station Project in Baotou, Inner Mongolia

本工程位于包头市九原区阿嘎如泰苏木，项目水量是30m³/d，本污水处理工程处理对象以生活污水为主。本项目采用农村生活污水就地处理技术，节能型模块化分层生物滴滤池(Multilayer Combined Bio-trickling Filter, MCBF)属于生物膜法污水处理工艺范畴，主要由滤床(池体与滤料)、布水装置和排水系统等部分组成。

项目水量：30m³/d

处理效率：

复合滤料强化了系统的处理能力，有机物容积负荷可达2.0kgCOD/m³·d

处理标准：

组合式复合生物滤池 - 高负荷人工湿地工艺出水可达GB18918-2002一级B标准

复合厌氧 -

组合式复合生物滤池 - 高负荷人工湿地工艺出水可达GB18918-2002一级A标准

Project capacity: 30m³/d

Treatment capacity: system treatment capacity is strengthened by composite filter material to reach volumetric loading rate of organic matter of 2.0kgCOD/m³·d

Treatment standard: The effluent from combined composite biofilter-high-load artificial wetland process shall meet level-1B standard in GB 18918-2002

The effluent from Composite anaerobic-combined composite biofilter-high-load artificial wetland process shall meet level-1A standard in GB 18918-2002

The project is located in Agarutaisumu, Jiuyuan District, Baotou, and has capacity of 30m³/d and treatment object of mainly domestic sewage. Local treatment technology against rural domestic sewage is adopted for the project, energy-saving modular multilayer combined bio-trickling filter (MCBF) belongs to the sewage treatment process by biomembrane process, and is mainly composed of filter bed (filter body and filter material), water distribution unit and drainage system.



污泥处理 >> Sludge Treatment

随着我国由“重水轻泥”向“泥水并重”的改变，污泥作为城市/工业污水处理后的产物，如何得到有效合理的处置则至关重要。目前污泥处理的主要技术方向为消化和焚烧，最终实现污泥减量的目的。

上海环保工程成套有限公司参与了多个采用不同处理方式的污泥处置项目，如以污泥消化为主的白龙港城市污水处理厂污泥处理工程和以干化焚烧技术为主的竹园片区污泥处理处置扩建工程。

With the change of China from "emphasis on water rather than sludge" to "emphasis on both water and sludge", how to realize effective and reasonable treatment of sludge is significant. The project accelerates new village construction of age constllage constnology orientation of sludge treatment mainly includes digestion and incineration at present to finally reduce sludge.

Shanghai Environmental Protection Complete Engineering Co., Ltd. has participated in many sludge treatment projects with different treatment modes, such as Sludge Treatment Project for Bailonggang Urban Sewage Treatment Plant mainly in the mode of sludge digestion and Extension Project for Sludge Treatment & Disposal in Zhuyuan Area mainly in the mode of drying incineration technology.

竹园污泥项目 >> Zhuyuan Sludge Project

该项目采用EPC承包模式，服务对象为竹园污水处理厂提标改造后220万m³/d 污水处理产生的脱水污泥。工程内容主要包含污泥接收干化系统相关的土建单体以及污泥接收、储存、干化及相关配套设施的设计、供货、建造、安装、调试、性能测试、验收、指导运行。该工程被列入上海市2017年重大工程计划实施。

The project is in EPC contracting mode, and has service object of dewatered sludge generated from 2,200,000m³/d sewage treatment of Zhuyuan Sewage Treatment Plant upon upgrading and renovation. Project contents mainly include individual civil works related to sludge receiving & drying system, and the design, supply, construction, installation, commissioning, performance test, acceptance, and operation guidance of the supporting facilities related to sludge receiving, storage, and drying. The project is listed into major project plan of Shanghai in 2017.



占地面积：1.59公顷
建设规模：223tDS/d
工艺：脱水污泥干化+电厂掺烧技术
功能：减量化、稳定化、无害化

Land area: 1.59 ha.
Construction scale: 223tDS/d
Process: drying + mixing-firing technology in power plant for dewatered sludge
Functions: reduction, stabilization, harmless treatment

上海白龙港污泥处理工程 >> Bailonggang Sludge Treatment Project in Shanghai

该工程是上海城市环境项目APL二期城市污水管理子项目（世界银行贷款项目），该项目采用污泥厌氧消化，同时产生的沼气用于干化，而污泥干化所回收的热量又作为附加能源用于加热消化污泥，由此确保污泥干化实现能源自给。在污泥稳定化、无害化、减量化的处理过程中最大限度地利用污泥自身蕴涵的能量，做到节能减排。

The project refers to a sub-project of urban sewage management of APL Phase-II Urban Environment Project of Shanghai (project of the World Bank); anaerobic sludge digestion is adopted for the project, and generated biogas is used for drying, and the heat recycled from sludge drying is taken as additional energy for heating digested sludge, thus to ensure energy self-sufficiency for sludge drying. The energy of sludge is utilized to the greatest extent during sludge stabilization, reduction and harmless treatment to realize energy conservation and emission reduction.

处理规模：按污泥量268 t Ds/d设计
工艺：污泥浓缩后中温厌氧消化+脱水+部分脱水污泥干化
功能：减量化、无害化、资源化

Treatment capacity: designed as sludge treatment capacity of 268 t Ds/d
Process: mesophilic anaerobic digestion upon sludge concentration + dewatering + drying of local dewatered sludge
Functions: reduction, harmless treatment, reclamation





机电设备成套

Complete Mechanical & Electrical Equipment

中小型发电设备成套 >>

Complete Medium and Small-sized Power Generation Equipment

山西晋城寺河120MW煤层气发电工程是目前世界上最大的煤层气资源综合利用示范工程，亚洲开发银行贷款建设。该项目总装机容量120MW，组成燃气-蒸汽联合循环发电形式，60台1.8MW的煤层气内燃发电机组、12台出力大于16.8t/h的余热锅炉配汽轮发电机组，4台3MW冷凝式汽轮发电机组。本公司承担了该项目的设备成套供应及安装工程。

Sihe 120MW Coalbed Methane Power Generation Project in Jincheng, Shanxi Province is the model project with the largest scale of integrated utilization of coalbed methane resources in the world and under construction with loan from the Asian Development Bank. The project has total installed capacity of 120MW and is in the form of fuel-steam combined cycle power generation, and is composed of sixty 1.8MW coalbed methane internal combusting generator sets, twelve HRSGs with output of above 16.8t/h for turbo generator sets, and four 3MW condensing turbo generator sets. Our company undertook complete equipment supply and installation works for the project.



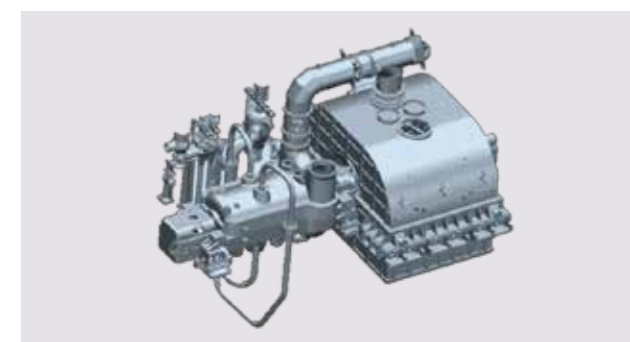
上海电气锅炉



Boiler of Shanghai Electric



上海电气汽轮机



Turbine of Shanghai Electric



上海电气发电机



Generator of Shanghai Electric



上海电气风机

Wind Turbine of Shanghai Electric

烟气脱硫脱硝设备成套 >> Complete Flue Gas Desulfurization & Denitration Equipment

青岛3×75t锅炉超低排放改造项目 >>

本项目建设#1、#2、#3炉脱硫、脱硝、除尘超低排放系统，新建石灰石-石膏湿法脱硫装置(简称FGD)、湿式静电除尘器，并改造原有的低氮燃烧系统和SNCR，以满足环保排放要求。最终排放指标分别满足 $SO_2 \leq 35 \text{ mg/Nm}^3$, $NO_x \leq 100 \text{ mg/Nm}^3$, 烟尘 $\leq 5 \text{ mg/Nm}^3$ 。

3×75t Boiler Ultra-low Emission Renovation Project in Qingdao

The project includes construction for desulfurization, denitration, dedusting and ultra-low emission system for #1, #2 and #3 furnaces, new construction for limestone-gypsum wet desulfurization unit (FGD), wet-type electrostatic precipitator, and renovation for the original low-nitrogen combustion system and SNCR to meet the requirements for environmental-friendly emission. Final emission indicators respectively meet the requirements as follows: $SO_2 \leq 35 \text{ mg/Nm}^3$, $NO_x \leq 100 \text{ mg/Nm}^3$, dust $\leq 5 \text{ mg/Nm}^3$.

上海电气脱硫装置 >> Desulfurization Unit of Shanghai Electric

基于长期专业的电站设备制造商背景，充分考虑烟气量和设计条件，目前公司主要采用的脱硫技术包括石灰石-石膏法，镁法、氨法、钠法、海水法。

Based on the background of long-term professional power station equipment manufacturer, flue gas volume and design conditions are taken into full consideration. The desulfurization technologies adopted by Shanghai Electric mainly include limestone-gypsum process, magnesium process, ammonia process, sodium process, and seawater process.



上海电气脱硝装置 >> Denitration Unit of Shanghai Electric

目前公司主要采用的脱硝技术包括：低氮燃烧、SNCR、SCR，以及以上各脱硝技术的优化组合。

The denitration technologies adopted by Shanghai Electric mainly include: low-nitrogen combustion, SNCR, SCR, and optimal combination of the above denitration technologies.



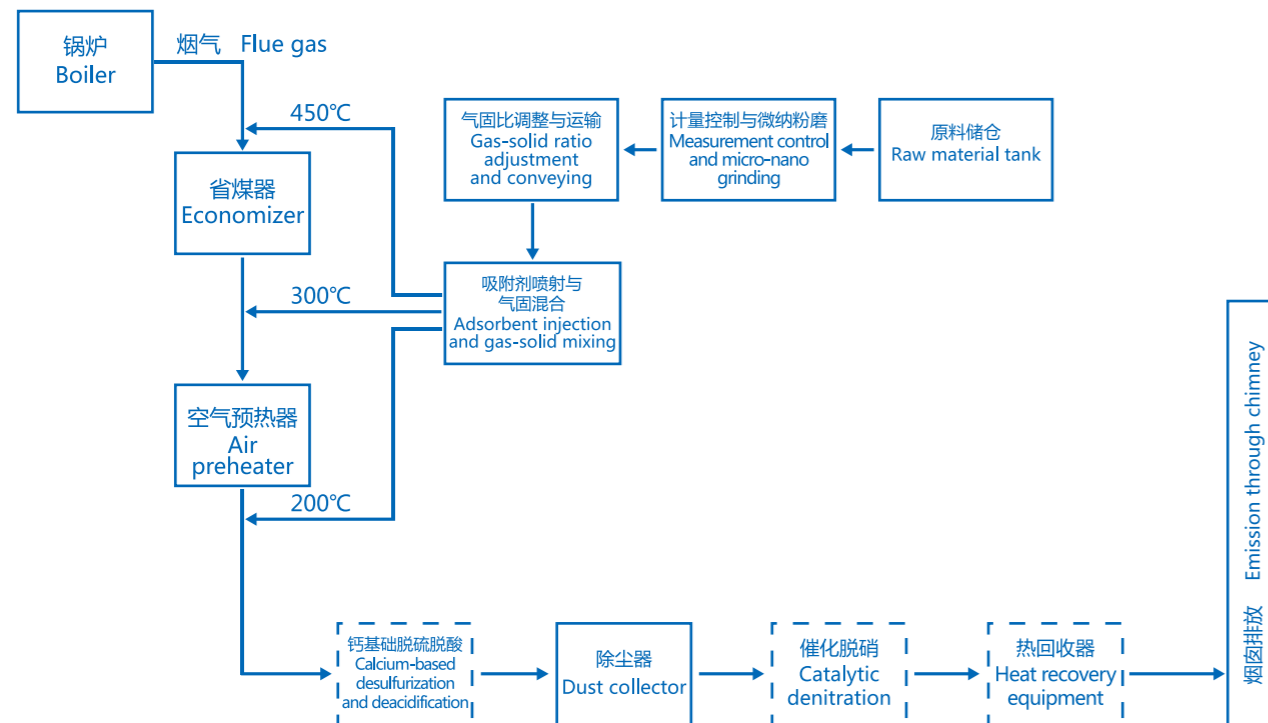
专栏介绍： 超净排放技术 Special Column: Ultra-clean Emission Technology

目前公司正致力于研究干法脱硫及抑制二噁英技术，目的在于提高烟道气净化功能。焚烧技术作为固废处理的方法逐步被认可和采用，此过程中烟道气内含有诸如二氧化硫、氯化氢、氟化氢等酸性气体，特别是含氯酸性气体，是形成二噁英的主要因素。公司与中科院共同开发的烟道气干法脱酸技术，通过高温段的气、固全混反应，实现抑制烟气中二噁英生成的同时，可有效去除其他酸性气体的目的，为我国粉煤掺烧、污泥以及垃圾焚烧等新燃料焚烧及烟气处理提供有力保障。

Our company is now devoting itself to the research of dry-type desulfurization and dioxin suppression technologies for the purpose of improving flue gas purification function. Incineration technology is gradually being recognized and adopted as a solid waste treatment method, and acidic gas, including sulfur dioxide, hydrogen chloride, and hydrogen fluoride, in particular chloride-bearing acidic gas in flue gas, is the main factors for generating dioxin. The flue gas dry-type deacidification technology jointly developed by Shanghai Electric and Chinese Academy of Science not only realizes the suppression of dioxin generation in flue gas through gas and solid fully-mixed reaction in high-temperature section, but also effectively eliminated other acidic gas, and provides strong support for mixing-firing of pulverized coal, sludge and waste incineration and other new fuel incineration and flue gas treatment of China.



系统工艺流程图 System Process Flow Diagram



楼宇机电设备成套 >> Complete Mechanical & Electrical Equipment for Buildings

江苏南通市民服务中心(南通市政府中心)一期工程是住房和城乡建设部、江苏省建筑节能——可再生能源建筑应用示范和低能耗建筑示范项目，总建筑面积855500㎡。公司承揽了南通市民服务中心机电设备成套供货及污水源热泵空调系统的设计、安装和节能运行维护。



Phase-I Project of Jiangsu Nantong Citizen Service Center (Nantong Government Affairs Center), with total building area of 855,500 m², refers to a demonstration project for building energy conservation-renewable energy buildings and low-energy-consumption buildings of the Ministry of Housing and Urban-Rural Development and Jiangsu Province. Our company undertook the supply of complete mechanical & electrical equipment of Nantong Citizen Service Center and the design, installation, and energy-saving operation & maintenance of sewage source, heat pump, and air conditioning system.



轨道交通设备成套 >> Complete Rail Transit Equipment

上海轨道交通明珠线东宝兴路站是全线中央控制中心，采用中央空调系统对控制室、站厅进行空气调节。公司签订了整个系统设备供货和安全调试的总承包合同，同时还承接了上海火车站的中央空调系统。



Dongbaoxing Road Section of Mingzhu Line of Shanghai Rail Transit is central control center of this line, and central air conditioning system is adopted for air conditioning for control room and station hall. Our company has signed EPC contract for equipment supply and safety commissioning for the entire system, and has undertaken central air conditioning system of Shanghai Railway Station.

SA SERVICE SCOPE AND ADVANTAGE

服务范围及优势



工程建设服务 >> Project Construction Service

专业从事固废处理、水处理等环保及清洁能源发电项目工程建设服务，公司主要拥有电力工程总承包三级和机电设备安装工程专业一级资质，能够为客户提供前期项目咨询规划、设计、采购、施工管理、培训及运维等全过程一体化服务。为了增加客户满意度，公司考虑业主的不同需求及专业管理能力，提供多种合作模式，如 EPC、EPCM、PMC、F+EPC、BT、BOT 等。

Specialized in construction service for environmental protection and clean energy power generation projects including solid waste treatment and water treatment; our company mainly has grade-III qualification for EPC contracting for power projects and grade-I qualification for mechanical & electrical equipment installation projects, and is capable of providing customers with preliminary project consulting, planning, design, procurement, construction management, training, operation & maintenance and other whole-process integrated services. To enhance customer satisfaction, Shanghai Electric provides various cooperation modes upon consideration of different demands and specialized management capability of the employers, including EPC, EPCM, PMC, F+EPC, BT and BOT.



投融资服务 >> Investment & Financing Service

依托母公司麾下的上海电气金融产业集团，公司作为投融资渠道突破口，为客户提供金融服务协助，配合制作融资方案，此外公司与各大国有银行及金融投资机构（如中电投、国电投等）有密切合作，通过产融结合，为低成本融资提供全方位服务。

Based on Shanghai Electric Economy Group under parent company, the company is taken as the breakthrough of investment & financing channel to provide customers with financial service assistance and coordination in the preparation of financing plan; besides, the company is in close cooperation with the major state-owned banks and financial investment institutions (such as China Power Investment Corporation and State Power Investment Corporation Limited), and is capable of providing all-round services for low-cost financing through industry-financing combination.

技术咨询服务 >> Technical Consulting Service

上海环保工程成套有限公司拥有技术人员占职工总数 80% 以上，中高级职称人员占 60% 以上，并引进多位教授级高级工程师和数十位各类注册工程师高级人才，获得 10 多项国家专利和资质荣誉。公司长期致力于多项成套技术研究，拥有水处理技术在内的多项专利，在应用成熟的生物质直燃技术基础上，引进其它先进的技术工艺并与国内外著名企业及院校合作开发现代新能源发电成套技术。

Shanghai Environmental Protection Complete Engineering Co., Ltd. possesses more than 80% employees as technicians, with the employees with intermediate and senior professional titles of more than 60%, and has introduced many professor-level senior engineers and dozens of registered engineers, and has been granted more than 10 national patents, qualifications and honors. The company devotes itself to the research of several packaged technologies for a long time, and owns many patents including water treatment technology; the company introduces advanced technological processes and has developed packaged technology of modern new energy power generation upon cooperation with domestic and overseas famous enterprises on the basis of the application of mature biomass direct combustion technology.

运维管理服务 >> Operation & Maintenance Management Service

电力运维工程系指用电信息采集系统运维、营配贯通系统运维、用电信息数据清理、用电采集设备安装与调试等工程项目。公司拥有运维管理经验，配备专业技术工种，优化维护人员组织架构，以“高标准、高质量、高效率”为宗旨，保证电厂满负荷运行。

Power operation & maintenance engineering refers to the operation & maintenance of power information acquisition system, operation & maintenance of marketing & distribution synchronization system, power information and data cleaning, power acquisition equipment installation and commissioning. Shanghai Electric has operation & maintenance experience, and ensures full-load operation of power plant through the allocation of special technicians, optimization of maintainer organization, and under the tenet of "high standard, high quality, and high efficiency".

Qualification & Honor

资质荣誉

资质证书 Qualification Certificates

安全生产许可证	Safety production permit
ISO9001 质量管理体系认证证书	IISO 9001 quality management system certificate
ISO14001 环境管理体系认证证书	ISO 14001 environmental management system certificate
OHSAS18001 职业健康安全体系认证证书	OHSAS 18001 occupational health and safety system certificate
国家机电设备安装工程专业承包一级	National grade-I qualification for specialized contracting for mechanical & electrical equipment installation projects
电力施工总承包三级	Grade-III qualification for EPC contracting for power construction
市政公用工程施工总承包三级	Grade-III qualification for EPC contracting for municipal public engineering
输变电工程专业承包三级	Grade-III qualification for specialized contracting for power transmission & transformation projects
环保工程专业承包三级	Grade-III qualification for specialized contracting for environmental protection projects
防腐保温工程专业承包三级	Grade-III qualification for specialized contracting for corrosion prevention & insulation projects
消防设施工程专业承包二级等资质	Grade-II qualification for specialized contracting for fire-fighting equipment projects
中华人民共和国对外承包工程经营资格	Business qualification of the People's Republic of China for foreign project contracting
中华人民共和国进出口企业资格	Qualification of import & export enterprise of the People's Republic of China
机电、环保领域的科技经营证书	Technological & scientific business certificate for mechanical & electrical and environmental protection fields
环境污染治理设施运行资质 (水、大气污染监测)	Qualification for the operation of environmental pollution treatment facilities (water and atmospheric pollution monitoring)

荣誉证书 Certificates of Honor

中国环境保护骨干企业	Backbone enterprise of China for environmental protection
上海市高新技术企业	Shanghai High Technology Enterprise
思南公馆、瑞虹新城项目获“上海市建设工程白玉兰奖”	"Magnolia Award for Construction Projects of Shanghai" for Sinan Mansions and Ruihong New City
南通体育会展中心项目获“中国建筑鲁班奖”	"Luban Prize for Construction Projects of China" for Nantong Sports Meeting and Exhibition Center Project
上海 SA 泵站项目获“上海市政工程金奖”	"Gold Award for Municipal Projects of Shanghai" for Shanghai SA Pump Station Project
2001-2003 年、2009-2013 年上海市重大工程立功竞赛设备赛区优秀企业	Excellent Enterprise in Equipment Field of Major Project Competition of Shanghai in 2001-2003 and 2009-2013 periods

研发 Research and Development

发明专利 Patents for Invention

全自动智能加药系统	Full-Automatic Intelligent Dosing System
污泥堆肥实验设备和方法	Sludge Composting Experiment Equipment and Method
利用填埋场稳定化污泥焚烧残渣固化新鲜污泥的深度脱水方法	Deep Dehydration Method for Solidifying Fresh Sludge through Landfill Stabilized Sludge Incineration Residue

实用新型 Patents for Utility Model

干式变压器组合配电装置	Dry-type Transformer Combined Distribution Unit
智能加药成套设备	Complete Intelligent Dosing Equipment
补水定压装置	Water Supplementing and Pressure Stabilizing Device
螺压式浓缩机脱水系统	Dehydrating System of Screw Pressure-type Thickener
污泥堆肥实验设备	Sludge Composting Experiment Equipment
炉前给料系统	Stokehold Feed System
紫外消毒系统	Ultraviolet Disinfection System
给水及炉水化学加药系统	Chemical Dosing System for Feed Water and Boiler Water
网板式阶梯格栅除污机	Screen-type Cascade Grid Trash Remover
循环加药系统	Circulating Dosing System



CORPORATE CULTURE

企业文化

企业使命：

构筑遵从自然、绿色发展的生态环境

企业愿景：

成为国内一流的环境综合服务商

企业精神：

忠诚、创新、共赢

Mission:

Building eco-environment complying with natural and green development

Vision:

Becoming the first-class environmental integrated service provider

Spirit:

Loyalty, Innovation and Win-win

上海环保工程成套有限公司紧紧依托集团，围绕综合能源、环保两大领域，打造成为一个能为客户提供项目全生命周期解决方案的系统集成商。

Shanghai Environmental Protection Complete Engineering Co., Ltd. closely relies on Shanghai Electric Group to build a system integrator that can provide customers with project life-cycle solutions around the comprehensive energy and the environmental protection.