



Responsibility



Innovation



Excellence



中国电建集团中南勘测设计研究院有限公司
POWERCHINA ZHONGNAN ENGINEERING CORPORATION LIMITED

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ABOUT US

- ⦿ Powerchina Zhongnan Engineering Corporation Limited (hereinafter referred to as “Powerchina Zhongnan”) provides services for clean energy development, water environment treatment and infrastructure construction.
- ⦿ Powerchina Zhongnan takes the lead in the energy industry while boosting the social development.

CORPORATE PROFILE



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Powerchina Zhongnan Engineering Corporation Limited (hereinafter referred to as “Powerchina Zhongnan”) is a subsidiary of Power Construction Corporation of China (hereinafter referred to as “POWERCHINA”), which is a Fortune Global 500 company and has been awarded as ENR Top 10 Firms in 2017 and 2018. Powerchina Zhongnan is an important member of POWERCHINA.

Powerchina Zhongnan is headquartered in Changsha and has branch offices in Sichuan, Chongqing, Yunnan, Xinjiang, Hubei, Jiangxi, Guangdong, Shandong, Jiangxi, Tibet, Guizhou, Hainan, Hebei, Shenzhen, etc.

Besides, it also has resident offices in more than ten countries, such as Thailand, Vietnam, Pakistan, Colombia and Ghana.

It is one of the Top 80 Chinese contractors and boasts Class A qualifications in both survey and design. Powerchina Zhongnan is also a national high-tech enterprise and ranks among Top 100 China Survey and Design Firms.

After 70 years of trials and hardships, Powerchina Zhongnan has left its footprints all over the world and participated in the building of a number of clean energy and infrastructure projects at home and abroad. In the days to come, Powerchina Zhongnan will continue to draw on its advantages of a good understanding about water and electricity, strength in planning and design, capability of project contracting and intelligence in investment and operation. Meanwhile, it will also focus on internationalization development, diversified business, specialized service and informatization management and make great efforts to become a first-class quality and efficiency-oriented international engineering firm with its technology and management as its core competence.



The survey and design for more than 200 hydropower stations.



The total installed capacity of hydropower projects reached 60,000 MW.



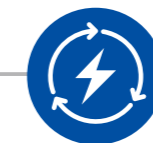
The total installed capacity of wind power projects reached 20,000MW. The total installed capacity of solar power projects reached 3,000 MW.



Currently Powerchina Zhongnan has 2,480 employees, 60% of whom have the professional title of engineer or above.

Three major business fields to enhance overall competitiveness

Powerchina Zhongnan is engaged in three major business fields, namely energy and electric power, water affairs and environmental protection, and infrastructure, in its domestic and international markets. A diversified business structure featuring “inclusive civil works and structures” has been developed, with water resources and electric power survey and design and project contracting as its core and involving the integrated development in highway, railway, municipal works, building, water environment treatment, etc.



Energy and electric power



Water resources and environmental protection



Infrastructure

Whole process service for project implementation

Powerchina Zhongnan is an integrated engineering firm that provides technical service (including planning, survey, design, scientific research, consultation, supervision, testing, monitoring, hydrological measuring and forecasting, and bidding agency), undertakes project contracting (including EPC, complete equipment supply and geotechnical construction), and engages in investment and operation.

SCOPE OF BUSINESS

The domestic business of Powerchina Zhongnan has found its way into almost the whole China. Meanwhile, it has got involved in more than 200 overseas projects in more than 40 countries around the world, establishing an excellent brand image and reputation in the market.

Business Integration and Diversification

Planning, survey, design, EPC contracting, investment and operation



ENERGY AND ELECTRIC POWER

Hydropower and water conservancy, power grid, wind power, solar power, biomass energy, garbage incineration for power generation and electric power construction



WATER RESOURCES AND ENVIRONMENTAL PROTECTION

Integrated utilization of water resources, water supply and sewage treatment, water environment restoration and treatment, harbor and navigation, seawater desalination, solid waste treatment, soil treatment and other environmental treatment projects



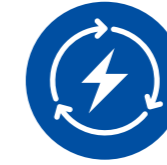
INFRASTRUCTURE

Municipal works, road traffic, rail traffic, urban and infrastructure facilities, utility tunnels and urban underground space



2

TYPICAL PROJECTS



Energy and electric power

- Conventional hydropower
- Pumped storage hydropower
- Wind power
- Solar power
- Power transmission and transformation



Water resources and environmental protection

- Water supply and water treatment
- Integrated water environment governance
- Soil remediation and solid waste treatment



Infrastructure

- Traffic engineering
- Architecture and municipal works
- Integrated planning

CONVENTIONAL HYDROPOWER

Powerchina Zhongnan has undertaken the survey, planning and design on the hydropower resources for more than 20 large rivers and over 180 main streams and tributaries. We have planned a total of 200 or more hydropower stations, with a total installed capacity exceeding 70,000 MW, and completed survey and design for over 160 hydropower and water conservancy projects, with a total installed capacity of more than 60,000 MW.

Longtan Hydropower Station on Hongshui River, China

Longtan Hydropower Station is located in Tian'e County of Guangxi Zhuang Autonomous Region. Being China's fourth largest hydropower station, it has a dam height of 216.5 m and a total installed capacity of 6,300 MW. Its dam is a roller-compacted concrete gravity dam. The height of its roller compacted concrete gravity dam, the scale of its underground headrace and power generation system, the lifting height of its vertical ship lift and the unit capacity of its full air-cooled turbine-generator units all ranked first in the world then.

- **Service rendered:** survey, design and supervision
- **Award:** the International Milestone RCC Project Award and FIDIC Centenary Award



Xiangjiaba Hydropower Station on Jinsha River, China

◎ **Project scale/feature:** located in Yibin County of Sichuan Province and Shuifu County of Yunnan Province with an installed capacity of 6,400 MW. It ranks third in China and sixth in the world.

◎ **Service rendered:** survey and design



Wuqiangxi Hydropower Station on Yuan River, China

◎ **Project scale/feature:** located in Yuanling County of Hunan Province, with an installed capacity of 1,200 MW.

◎ **Service rendered:** survey, design and supervision

◎ **Award:** the Gold Prize for Engineering Design



Sanbanxi Hydropower Station on Yuan River, China

◎ **Project scale/feature:** located in Jinping County of Guizhou Province. Its dam is a concrete faced rockfill dam, with a dam height of 185.5 m. The project has a total installed capacity of 1,000 MW.

◎ **Service rendered:** survey, design and supervision



Dongjiang Hydropower Station on Lei River

- ◎ **Project scale/feature:** located in Chenzhou City of Hunan Province. Its dam is a concrete double-curvature arch dam, with a dam height of 157 m and a reservoir storage of 8.12 billion m³. The project has a total installed capacity of 500 MW.
- ◎ **Service rendered:** survey and design
- ◎ **Award:** the Gold Prize for Survey and Design



Rudbar Lorestan Hydropower Station, Iran

- ◎ **Project scale/feature:** located in Lorestan Province, Iran, with a total installed capacity of 450 MW.
- ◎ **Service rendered:** survey and design



Youchou Hydropower Station, Chongqing, China

- ◎ **Project scale/feature:** the project has a total installed capacity of 120 MW.
- ◎ **Service rendered:** EPC
- ◎ **Award:** the third prize of excellent EPC project of the first session in the electric power survey and design industry



Genale Dawa -3 Hydropower Station, Ethiopia

- ◎ **Project scale/feature:** located about 400 km slightly east of Addis Ababa, the capital of Ethiopia, with a total installed capacity of 254 MW.
- ◎ **Service rendered:** survey, design and supervision



Paklay Hydropower Station, Laos

- ◎ **Project scale/feature:** located in Paklay County of Xayaburi Province, Laos, with a total installed capacity of 770 MW.
- ◎ **Service rendered:** survey and design



Finchaa-Amerti-Neshe Hydropower Station, Ethiopia

- ◎ **Project scale/feature:** located on NESH River 250 km northwest of Addis Ababa, the capital of Ethiopia, with a total installed capacity of 97 MW.
- ◎ **Service rendered:** survey and design



Moragahakanda Reservoir Project, Sri Lanka

- Project scale/feature: the project is developed for irrigation, water supply and power generation. It has a reservoir storage of 600 million m³. The main dam is a clay-core rockfill dam, its No. 1 saddle dam is a RCC gravity dam and its No. 2 saddle dam is a homogeneous earth dam. Its max. dam height is 61.3 m and its installed capacity is 25 MW.
- Service rendered: design



Son La Hydropower Station, Vietnam

- Project scale/feature: the project is the largest hydropower station in Vietnam with the biggest scale and most advanced technology. The installed capacity is 2400 MW.
- Service rendered: E&M design and supply



Kalu Ganga Reservoir Project, Sri Lanka

- Project scale/feature: the project is developed for irrigation and water supply. It has a reservoir storage of 250 million m³. The main and saddle dams are clay-core embankment dams with a max. dam height of about 76 m.
- Service rendered: design



Lai Chau Hydropower Station, Vietnam

- Project scale/feature: the project is located in MuongTe County of Lai Chau, Vietnam. It is installed with three 400 MW Francis turbine-generator units, with a total installed capacity of 1,200 MW. It is the second largest hydropower station in Vietnam.
- Service rendered: E&M design and supply



PUMPED STORAGE HYDROPOWER

Powerchina Zhongnan has rich experience in the survey and design for pumped storage power stations. A total of 27 pumped storage power stations were planned by us with a total installed capacity of 30,000 MW. What's more, we have completed the survey and design for 20 pumped storage hydropower stations, with a total installed capacity of more than 20,000 MW.

Heimifeng Pumped Storage Power Station, China

- Project scale/feature: the project is located in Wangcheng County of Hunan Province. It has a total installed capacity of 1,200 MW.
- Service rendered: survey, design and supervision
- Award: China Construction Engineering Luban Prize



Liyang Pumped Storage Power Station, China

- Project scale/feature: the project is located in Liyang City of Jiangsu Province, with a total installed capacity of 1,500 MW.
- Service rendered: survey and design



Bailianhe Pumped Storage Power Station, China

- Project scale/feature: the project is located in Luotian County of Hubei Province, with a total installed capacity of 1,200 MW.
- Service rendered: survey and design
- Award: National Prime - Quality Project Award



WIND POWER

Powerchina Zhongnan has undertaken the planning for wind power projects with a combined installed capacity of more than 80,000 MW, completed the survey and design for over 210 wind farms, with a total installed capacity of more than 30,000 MW, and undertaken the design for more than 50 solar PV power projects, with a capacity of 3,000 MW in service.

Donggangling Wind Farm in Hunan Province, China

- Project scale/feature: it has an installed capacity of 50 MW.
- Service rendered: EPC
- Award: the prize for high-quality project (product) of POWERCHINA



Huitengliang Wind Farm in Inner Mongolia Autonomous Region, China

- Project scale/feature: it has an installed capacity of 300 MW.
- Service rendered: survey and design



Yangchajie Wind Farm on Yuanjiang River in Yunnan Province, China

- Project scale/feature: it has an installed capacity of 200 MW.
- Service rendered: survey and design



Dongling Phase I Wind Farm in Jiangsu Province, China

- Project scale/feature: it has an installed capacity of 70 MW.
- Service rendered: EPC
- Award: the second prize of excellent EPC project of the first session in the electric power survey and design industry and the Bronze Key Prize for Excellent EPC Project of the 7th session in National Survey and Design Industry



GNP Wind Farm, Thailand

- Project scale/feature: it has an installed capacity of 67.5 MW. 33 sets of 2.0 MW/2.1 MW wind turbines are installed and the hub height is 153 m. It was then the onshore wind farm with the world's highest hub.
- Service rendered: EPC



WED Wind Farm, Thailand

- Project scale/feature: it has an installed capacity of 60 MW. 30 sets of 2.0 MW wind turbines are installed and the hub height is 125 m.
- Service rendered: EPC



KWE Wind Farm, Thailand

- Project scale/feature: it has an installed capacity of 52.5 MW. 20 sets of 2.625 MW wind turbines are installed and the hub height is 137 m. It was then the first wind farm to use the 2.625 MW wind turbines in Asia.
- Service rendered: EPC



SOLAR POWER

233 MW Solar PV Station, Algeria

- **Project scale/feature:** it has a total installed capacity of 233 MW. It is in the Sahara Desert with a number of plant sites featured by different geological conditions. It was then the solar PV power project with the biggest scale and the highest investment amount in a single time in Africa.
- **Service rendered:** survey and design



ESL Solar PV Station, Thailand

- **Project scale/feature:** it has a total installed capacity of 128 MW. It is the biggest ground-type tracking solar PV station in Southeast Asia.
- **Service rendered:** EPC



SUPER I – VI Solar Power Projects, Thailand

- **Project scale/feature:** the project is constructed in 6 phases, with a total installed capacity of 630 MW.
- **Service rendered:** EPC



Solar PV Station, Morocco

- **Project scale/feature:** the project has a total installed capacity of 120 MW. It is in the Sahara Desert and has three plant sites with different geological and meteorological conditions, each having an installed capacity of 40 MW. It is currently the solar PV station with the biggest installed capacity in Morocco.
- **Service rendered:** EPC



Ningbian Solar PV Station in Yunnan Province, China

- **Project scale/feature:** the project has a total installed capacity of 20 MW.
- **Service rendered:** EPC
- **Award:** the prize for high-quality project (product) of POWERCHINA.



Longan Solar PV Station, Vietnam

- **Project scale/feature:** the project has a total installed capacity of 50 MW. It has four plant sites. It is the first large-scale ground-type EPC solar PV project Powerchina Zhongnan undertakes in Vietnam market.
- **Service rendered:** EPC



Jiliuxiu Solar PV Station, China

- **Project scale/feature:** the project has a total installed capacity of 30 MW at an altitude of 3,500 m to 3,700 m. It is a solar PV station in mountainous area.
- **Service rendered:** survey and design



POWER TRANSMISSION AND TRANSFORMATION

Rural power grid upgrading project in Sichuan Province, China

- ◎ **Project scale/feature:** four 110 kV substations with 5 main transformers and 57.7 km-long transmission lines; four 35 kV substations with 5 main transformers and 101.07 km-long transmission lines.
- ◎ **Service rendered:** EPC



Xingfa Power Transmission Project for Power Plant Efficiency-Improving and Capacity-Expanding Program under the 13th Five-Year Plan, China

- ◎ **Project scale/feature:** 156 km HV transmission lines. This is the first time that Powerchina Zhongnan has undertaken the survey and design for a transmission line with certain scale.
- ◎ **Service rendered:** survey and design



Dedicated Substation for Shenzhen International Airport, China

- ◎ **Project scale/feature:** the design of the third circuit 110 kV power supply for the dedicated substation for Shenzhen International Airport. This is the first time for Powerchina Zhongnan to make its way into Shenzhen's 110 kV power transmission market.
- ◎ **Service rendered:** survey and design



Angren North Power Transmission Project in Shigatse City of Tibet, China

- ◎ **Project scale/feature:** a 110 kV power transmission project. It is a project with the highest altitude in Tibet for Powerchina Zhongnan and a key project under the targeted poverty relief program of Angren County, Shigatse City of Tibet. The transmission line is built at an altitude above 4,200 m and reaches the substation by way of Zhongla Mountain (at an altitude of 5,664 m). The substation is at an altitude of around 5,200 m.
- ◎ **Service rendered:** EPC



500kV Switch Station of Tuoba Multi-Purpose Hydropower Project, China

- ◎ **Project scale/feature:** a 500 kV switch station project, which is one of the power transmission projects with the highest voltage level undertaken by Powerchina Zhongnan.
- ◎ **Service rendered:** survey and design



WATER SUPPLY AND WATER TREATMENT

Production Water Supply Plant for Anning Industrial Park in Yunnan Province, China

- **Project scale/feature:** 250,000 m³ day. The contaminated raw water will be treated and then used for industrial purpose.
- **Service rendered:** survey and design, BOT



Guiyang County Municipal Sewage Treatment Plant in Hunan Province, China

- **Project scale/feature:** 60,000 m³/day, oxidation ditch process.
- **Service rendered:** survey and design, BOT



Ambatale Water Treatment Plant Reconstruction Project, Sri Lanka

- **Project scale/feature:** four lifting pump stations and water intakes in the Ambatale Water Treatment Plant (550,000 ton/day) in Colombo, the capital of Sri Lanka, are reconstructed for the purpose of energy saving, and a new backwashing water and sludge treatment system, a central control building and an automatic control system in the plant area, and a dormitory building are built.
- **Service rendered:** EPC

Powerchina Zhongnan has built and invested projects in the fields of domestic sewage treatment, industrial wastewater treatment, urban water supply and reuse of recycled water on BOT, TOT or PPP basis, with a combined amount exceeding RMB 1.5 billion.

Water Supply Plant for Yujia Industrial Park in Shaanxi Province, China

- **Project scale/feature:** 60,000 m³/day, oxidation ditch process.
- **Service rendered:** survey and design, BOT



Zhejiang Pingyang Kunao Sewage Treatment Plant

- **Project scale/feature:** 90,000 m³/day. For Phase I, the capacity is 60,000 m³ /day.
- **Service rendered:** survey and design, TOT



INTEGRATED WATER ENVIRONMENT GOVERNANCE

East Lake Side Integrated Treatment in Boyang County, China

- **Project scale/feature:** this project consists of East Lake integrated water environment treatment project, the lakeside traffic works and lakeside landscape improvement project.
- **Service rendered:** EPC



Integrated Black and Odorous Water Body Treatment in the Urban Area of Jiangmen City, China

- **Project scale/feature:** the total length of integrated treatment is 31.216 km.
- **Service rendered:** EPC



Guoli River Integrated Treatment in Longshan County, China

- **Project scale/feature:** the total length of integrated treatment is 14.5 km.
- **Service rendered:** EPC



SOIL REMEDIATION AND SOLID WASTE TREATMENT

Heavy Metal Treatment for Xintianling Mining Area in Xiangjiang River Basin, China

- Project scale/feature: treatment of slags containing lead and zinc from six mining areas.
- Service rendered: EPC



Heavy Metal Pollution Treatment of Yiyang Non-ferrous Metals Industrial Park, China

- Project scale/feature: to treat the slags of the industrial park and build a landfill and its ancillary facilities
- Service rendered: EPC
- Award: the first prize for excellent survey and design



Safe and Concentrated Disposal of Industrial Solid Waste in Luliang County, China

- Project scale/feature: to treat the industrial waste.
- Service rendered: EPC



Integrated Pollution Treatment of Zhubu Port Industrial Park in Xiangtan, China

- Project scale/feature: to treat the solid waste of the industrial park.
- Service rendered: EPC



Can Tho Garbage Incineration Power Generation Project, Vietnam

- Project scale/feature: it is located in Can Tho in south Vietnam. The design daily domestic garbage treatment capacity is 400 t. A 7.5 MW steam turbine generator unit is installed. This is the first garbage incineration power generation project in Vietnam.
- Service rendered: EPC



TRAFFIC ENGINEERING

Zhongshan – Kaiping Expressway in Guangdong Province, China

- Project scale/feature: an expressway with a design speed of 120 km/h. The subgrade is 20 m wide and about 30 km long.
- Service rendered: survey and design



Data – Pingshan Highway in Sichuan Province, China

- Project scale/feature: Class II highway with a design speed of 80 km/h. The subgrade is 12 m wide and about 12 km long.
- Service rendered: survey and design



Yibin – Pingshan Fast Track in Sichuan Province, China

- Project scale/feature: Class I highway with a design speed of 60 km/h. The subgrade is 20 m wide and about 4 km long.
- Service rendered: survey and design



Dike Road at Zhongkai Section of Jiangnan Road in Guangdong Province, China

- Project scale/feature: municipal arterial road with a design speed of 60 km/h. The road is 48 m~62 m wide and about 16 km long.
- Service rendered: survey and design



Xialao Expressway from Du'an to Tian'e in Guangxi Province, China

- Project scale/feature: a highway with a design speed of 80 km/h. The subgrade is 24.5 m wide and about 188 km long.
- Service rendered: planning



Hubei Road PPP Project in Shandong Province, China

- Project scale/feature: this project is located in Linyi City of Shandong Province. It is the integrated upgrading and reconstruction for the 8.1 km-long road as well as the construction of a utility tunnel.
- Service rendered: survey and design



Ganzhou Port – Airport Highway Connecting Line in Jiangxi Province, China

- Project scale/feature: municipal express way/arterial road with a design speed of 60 km/h to 80 km/h. The road is 60 m wide and about 7 km long.
- Service rendered: survey and design



Yunnan Dawenxi Super-large Bridge in Yunnan Province, China

- Project scale/feature: the bridge is a pre-stressed concrete cable-stayed highway bridge with a main span of 250 m. The bridge is 20.5 m in deck width and 580 m in total length.
- Service rendered: survey and design



Nan'an Jinshajiang Super-large Bridge in Yunnan Province, China

- Project scale/feature: the bridge is a super-large pre-stressed concrete continuous rigid frame highway bridge with a main span of 200 m. The bridge is 11.5 m in deck width and 539 m in total length.
- Service rendered: survey and design



Guangxi Tian'e Fourth Bridge in Guangxi Province, China

- Project scale/feature: the bridge is a super-large double-tower (with different heights) triple-span single-plane cable-stayed municipal bridge with a main span of 200 m. The bridge is 24 m in deck width and 374 m in total length.
- Service rendered: survey and design



Minjiang Super-large Bridge in Sichuan Province, China

- Project scale/feature: the bridge is a super-large pre-stressed concrete continuous rigid frame highway bridge with a main span of 235 m. The bridge deck is 16 m in total width and 804 m in total length.
- Service rendered: survey and design



Culture, Tourism and Railway Traffic Planning of Liuyang River in Changsha City, China

- Project scale/feature: comprehensive planning for the integration of road, water transport, public traffic, subway and light rail along the 235 km long Liuyang River.
- Service rendered: planning



Changsha Rail Transport Line No. 1, China

- Project scale/feature: the project is 23.55 km in total length.
- Service rendered: civil works design



Changsha Rail Transport Line No. 3, China

- Project scale/feature: the project is 36.415 km long and the estimate cost for Phase I project is RMB 23.814 billion.
- Service rendered: testing



Changsha Rail Transport Line No. 6, China

- Project scale/feature: the project is 48 km long.
- Service rendered: system design



Guangzhou Subway Line No. 2, China

- Project scale/feature: the project is 31.8 km long.
- Service rendered: supervision
- Award: the Tien-yow Jeme Civil Engineering Prize



Changsha Rail Transport Line No. 2, China

- Project scale/feature: the project is 21.926 km in total length.
- Service rendered: supervision



Changsha Rail Transport Line No. 4, China

- Project scale/feature: the project is 33.5 km long.
- Service rendered: testing, monitoring and supervision



Guangzhou Subway Line No. 1, China

- Project scale/feature: the project is 18.479 km long.
- Service rendered: supervision



Chengdu Rail Transport Line No. 18, China

- Project scale/feature: it is the new airport line and the project is about 66.71 km long.
- Service rendered: monitoring



Wuqiangxi Hydropower Station Shiplock, China

- Project scale/feature: the shiplock is of Grade IV. It is a three-stage continuous shiplock and the effective dimensions are 120 m × 12 m × 2.5 m (length × width × water depth above the sill).
- Service rendered: survey and design
- Award: the Gold Prize for National Survey and Design



Three Gorges Hydropower Station Ship Lock, China

- Project scale/feature: it is a 6,442 m long double-line five-stage continuous ship lock. It is reputed as the project of the century and one of the greatest projects in the world. The ship lock is the world's currently most advanced ship lock with the largest scale on an inland river.
- Service rendered: supervision
- Award: the Tien-yow Jeme Civil Engineering Prize



Xiangjiaba Hydropower Station Shiplift, China

- Project scale/feature: the navigation channel is of Level IV provided with a Class I ship lift and the lifting height is 114.7 m. The size of ship chamber is 120 m × 12 m × 2.5 m (length × width × water depth above the sill) and the annual passing capacity is 1.12 million tons. The project is distinctive for the biggest single-stage lifting height of its ship lift in the world.
- Service rendered: survey and design



Xiangjiaba Wharf for Large and Heavy Pieces, China

- Project scale/feature: one 1000 t quay berth for large and heavy pieces. The wharf is used concurrently for the berthing of 3,000 t roll-on-roll-off ship. It is a vertical type long piled wharf and uses a mast for ship lifting and unloading.
- Service rendered: survey and design



ARCHITECTURE AND MUNICIPAL WORKS

Powerchina Zhongnan mainly engages in architectural projects, urban and town planning, municipal works and landscaping. The total area of the architectural projects we have undertaken reached over 20 million m² and the area of urban and town planning reached 2,500 hectares.

No. 1 Junior Middle School in Zhushan County of Hubei Province, China

- Project scale/feature: the project is located in Zhushan County of Shiyan City in Hubei Province. It has a total floor area of 90,869 m².
- Service rendered: architectural design
- Award: the first prize of excellent survey and design by POWERCHINA



Road Infrastructure Construction for Modern E-commerce Industrial Park in Yuhua District of Changsha City, China

- Project scale/feature: the total project cost is RMB 2.01 billion. It is the biggest municipal infrastructure project undertaken by Powerchina Zhongnan and also the first PPP project on a PPP+EPC basis under POWERCHINA headed by a design institute.
- Service rendered: EPC



Tianxin International Business Street in Hunan Province, China

- Project scale/feature: the project is located in Tianxin District of Changsha, Hunan Province. It has a total floor area of 186,352 m².
- Service rendered: architectural design



Teaching and Experimental Training Building of Economy and Management Department in Hunan Business College, China

- Project scale/feature: the project is located on Tongzipo Road of Yuelu District in Changsha, Hunan Province. It has a total floor area of 63,036 m².
- Service rendered: architectural design



Detailed Regulatory Plan for Suijiang County, China

- Project scale/feature: the project is located in Suijiang County of Zhaotong City in Yunnan Province, with a land area of 2070.80 hectares.
- Service rendered: urban and town planning



Detailed Construction Planning for Baihua Lake of Luozhuang District in Linyi City, China

- Project scale/feature: the project is located in Luozhuang District of Linyi City in Shandong Province, with a land area of 470 hectares.
- Service rendered: urban and rural planning



Underground Pipeline Detection in Suijiang County, China

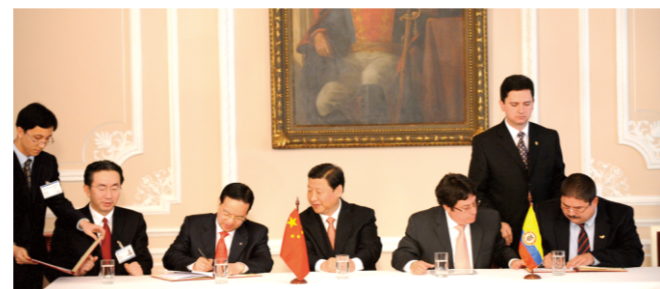
- Project scale/feature: the project is located in the built-up area in Suijiang County with an area of around 10 km². The pipeline detected is 1,000 km long in total.
- Service rendered: survey and design



INTEGRATED PLANNING

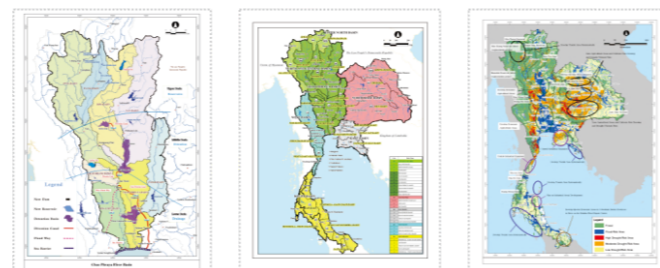
Magdalena River Master Planning, Colombia

- Project scale/feature: the Magdalena River is the longest river in Colombia and is 1,538 km in total length. There is 80% of the nation's population residing within the river basin and this river contributes 85% of the country's annual gross domestic product. This river is known as the River of Life of Colombia. Mr. Xi Jinping, the then vice president of China, and Mr. Francisco Santos Calderón, the then vice president of Colombia, attended the signing ceremony.
- Service rendered: planning



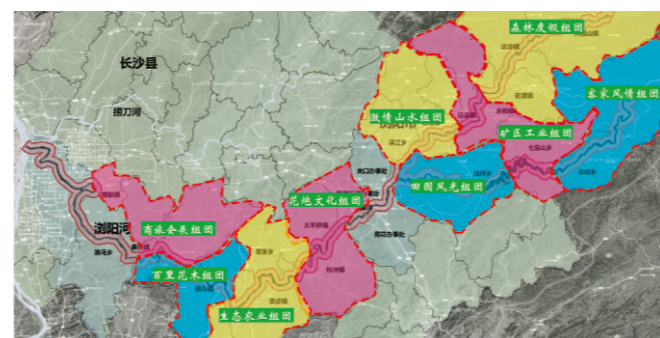
Thailand Flood Control Planning

- Project scale/feature: the MOU on Cooperation on Thailand Flood Control and Drought Relief was signed between the Ministry of Commerce of China and the Ministry of Science & Technology of Thailand, and its signing ceremony was attended by Chinese Premier Wen Jiabao and Thailand's Prime Minister Yingluck Shinawatra.



Infrastructure Planning for the Culture and Tourism Industrial Belt along Liuyang River

- The mainstream of Liuyang River is 234.8 km long, with a catchment area of 4,665 km². The planning covers 5 major systems; water environment conservation, integrated traffic, ecological landscape, unique village and town, and municipal facilities. It also includes the planning on the infrastructure construction standard system and the study on the investment and financing system and mechanism. It focuses on creating "two cores, one belt, nine bays and nine groups", aiming to bring the cultural connotation of Liuyang River into full play and to make it a product of cultural tourism with high quality.



Shenzhen River-Bay Watershed Integrated Management and Planning, China

- The project is located in the south of Shenzhen. Shenzhen River is the boundary river between Hong Kong and Shenzhen and is about 37 km long. Guided by the principle of saving water, balancing special distribution of water, governing water systematically and strengthening roles of both government and market in water governance, Shenzhen River-Bay Watershed Integrated Management takes sewage treatment, waterlogging prevention and water supply guarantee as the master concept and fully implements the idea of integrating water resources, water security, water environment, water ecology and water culture as a whole. What's more, it follows the overall strategy of "managing the river basins as a whole, combining governance and construction, making decisions based on efficiency and giving consideration to both water management and development".



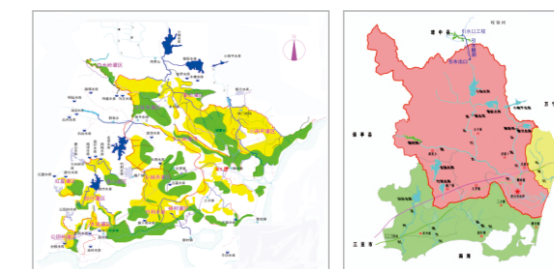
Xiangjiang River New District Water Resource Protection and Integrated Utilization Planning in Hunan Province, China

- This project is located in the central area of the 12th national level new district –Xiangjiang River New District. The planning covers an area of 612 km² of the central area and includes the building of a sponge city, connection of water systems, utilization of water resources, flood control and disaster relief, pollution treatment, water environment protection and water landscape improvement. It is planned that by 2025 a demonstration area of water eco-civilization will be fully built.



Lingshui River Integrated Governance and Planning in Hainan Province, China

- This project covers four major systems, which are the water eco-civilization system, the ecological tourism system, the integrated traffic system and municipal facility system. It aims to bring the culture of Lingshui River into full play and create a product of cultural tourism with high quality.



EXPANSION AND INNOVATION FOR SUSTAINABILITY

- With good faith and being trustworthy, we will pass down our fine tradition formed over the last 70 years;
- With sharp wit and being diligent and prudent, we dare to undertake formidable tasks while breaking the convention;
- With stringency about our work and in pursuit of perfection, we are determined to maintain the high quality of our projects as an old-established company.