

杭温铁路混合所有制改革试点及PPP示范项目

Hangzhou-Wenzhou Railway Mixed-Ownership

Reform Pilot Project and PPP Demonstration Project



杭温铁路项目的重要意义 Significance of Hangzhou-Wenzhou Railway Project

GROUP



杭温铁路是连接杭州都市圈、金义都市圈、温州都市圈的骨干城际轨道交通线，对打造浙江省“**一小时**”交通，加快温金台城市群融入长江经济带和“一带一路”国家发展战略、带动区域经济协调发展和沿线旅游资源开发具有重要意义。

Hangzhou-Wenzhou Railway is the backbone intercity rail transit line connecting Hangzhou, Jinyi and Wenzhou Metropolitan Areas. It is significant in building Zhejiang "one-hour" traffic, accelerating the integration of Wenzhou, Taizhou and Jinhua's agglomeration into the Yangtze River Economic Belt, following national development strategies of "the Belt and Road", promoting coordinated development of regional economies and the development of tourism resources along the line.

浙江省大通道建设十大重点工程

One of the ten key projects for the great routes construction in Zhejiang Province

推进项目

Promoted Project

国家和浙江省铁路网规划

Programmed by National and Zhejiang Province Railway Network

重点项目

Key Project

350km/h

设计目标速度

Designed Target Speed

一期（义乌至温州段）新建线路里程

Mileage for First Phase (Yiwu - Wenzhou)

201KM

杭州至温州（全线约267KM）运行时间

Travel Time from Hangzhou to Wenzhou (267KM)

1小时

1 Hour

“混改”与PPP双示范，承载着艰巨的改革创新任务

Mixed-Ownership Reform and PPP Dual Demonstration, Carrying an Arduous Task of Reform and Innovation

国务院第一批混合所有制改革试点

The first batch of the State Council **mixed ownership reform pilot project**

集产权制度改革创新和投融资改革创新融合试点为一体，对于培育发展铁路领域混合所有制企业，提高铁路资产配置、运行效率和经营效益，进一步鼓励和扩大社会资本对我国铁路事业的投资和参与，拓宽铁路投融资渠道，完善铁路投资环境，打通社会资本投资建设铁路“最后一公里”，促进铁路行业市场化改革、铁路体制的深化改革与铁路事业加快发展具有重要意义。

Integrating property right system and investment and financing system reform innovations is significant to foster mixed ownership enterprises in railway industry, improve railway assets allocation, operational and operational efficiency, further encourage and expand the investment and participation of social capital in China's railway industry, broaden railway investment and financing channels, and improve the environment of railway investments, open up the "last mile" of social capital investment in railway construction, promote market-oriented reform of railway industry, deepen reform of railway system and accelerate development of railway cause.

国家发改委推出的首批8个社会资本投资铁路示范项目之一

First 8 social capital investment Railway demonstration projects launched by The National Development and Reform Commission

浙江改革创新要求：民营资本绝对控股

Zhejiang Province's demand of innovation reform: **majority holding of private capital**

合作范围与合作期限 Cooperation Scope and Term



项目总投资 Total Project Investment

384.17亿元，其中静态投资337.89亿元
CNY 38.417 billion, among which static investment CNY 33.789 billion .

扣除

Deduction

- ✓ 温州南动车所及走行线工程静态投资32.12亿元
Wenzhounan bullet train post and running track project is CNY 3.2 billion
- ✓ 综合开发征地费17.71亿元
Comprehensive development land requisition fee is CNY 1.7 billion
- ✓ 机车车辆（动车组）购置费24.00亿元
Acquisition expenses for locomotives (bullet train) are CNY 2.4 billion



合作期限 Cooperation Term

34年，建设期4年，运营期30年
34 years, among which construction period 4 years, operation period 30 years.



PPP范围投资 PPP Investment

310.09亿元，静态投资288.05亿元
CNY 31 billion, among which static investment CNY 28.805 billion .

项目特许经营运作方式 Franchise Mode of the Project

项目采用BOOT (建设-拥有-运营-移交) 模式：

The project adopts the boot (Build-Own-Operate-Transfer) mode:

社会资本方 Social Capital

- 与政府方指定出资机构合资组建项目公司
Establish a joint venture project company with a government designated investment institution
- 项目公司负责投融资、建设、运营管理，并拥有项目设施所有权
The project company has ownership of the project facility and is responsible for investment, financing, construction, operation Management
- 合作期满将项目资产无偿移交给政府方
Upon expiration of the cooperation, the project assets shall be transferred to the government without compensation

政府方 Government

- 项目监管
Project supervise
- 项目绩效考核
Project performance appraisal
- 提供配套支持与可行性缺口补助
Provide coordinative supports and Viability Gap Funding
- 优先支持沿线综合开发
Provide priority support for comprehensive development along the route

项目公司
Project company

项目法人主体
Project Legal Entity

- 自主决策
Independent Decision-making
- 自主建设
Independent Constructing
- 自主管理
Independent Managing
- 自负盈亏
Self-sustaining

项目投融资方案 Investment and Financing Scheme

2 投资结构 Investment Structure

政府方股东 Local Government

- 省、市政府按**4:6**入股项目公司，省政府占股13.6%，温州占股10.2%，金华和台州合计占股10.2%
The provincial and municipal governments invest in the project company at a rate of 4:6, with the provincial government accounting for 13.6 percent of the shares, wenzhou accounting for 10.2 percent and jinhua and taizhou accounting for 10.2 percent
- 省交投代表省政府出资，温州市、金华市、台州市各指定一家出资代表
Zhejiang communication investment Group invest on the behalf of provincial government. Wenzhou, Jinhua, Taizhou each designate a capital representative
- **不参与分红**，充分支持民营社会资本
Do not participate in dividends, fully support social capitals

中国铁路总公司 China Railway

- 按照以往投资惯例入股项目公司，占股15%
- According to the previous investment practices, investment in project companies and account for 15% shares
- 体现PPP“风险共担，收益共享”原则，**与民营社会资本同股同权**
- Reflects the PPP principle of "sharing risks and benefits" and shares the same rights with private social capital



民营社会资本 private social capital

- **绝对控股**51%
Majority shareholding of 51%
- 发挥浙江民营资本与市场经济发达优势
Take advantages of zhejiang prosperous private capital and market economy
- 打破约束民营资本投资的玻璃门
Break the constraints of private capital investment

PPP范围总投资 310亿元
Total PPP Investment
CNY 31 Billion

资本金 98亿元
Capital Fund
CNY 9.8 Billion

债务资金 212亿元
Debt Capital
CNY 21.2 Billion

项目公司注册资本30亿元，多余部分通过**资本公积**注入项目公司
The registered capital of the project company is cny 3 billion, and the surplus is injected into the project company as capital reserves

项目公司作为融资主体，民营社会资本提供融资支持
Project company is financing entity, private social capital provides financing support

建设方案 Construction scheme

建设管理模式

Construction management model

- 根据铁总发布的《关于规范非控股合资铁路建设项目管理的指导意见》，项目公司根据需要**自主依法决策项目建设管理方式**
- **充分激发社会资本创新铁路建设管理模式**
- According to the “Guidance on Regulating the Management of Non-controlling Joint Venture Railway Construction Projects” issued by China Railway, the project company shall **decide the project construction management method independently** according to the law based on actual need
- **Fully stimulate social capital innovation railway construction management mode**

建设要求

Construction Requirement

- 严格按照概算、施工图组织建设
- **变更程序**应按浙江省、国家铁路管理部门、中国铁路总公司以及PPP项目合同的有关规定进行
- 建设工程发包、施工、监理、审价达到《招标投标法》等规定必须招标的规模与标准，项目公司依法依规进行**公开招标**
- Strictly follows the budget estimates, construction drawings
- The **modification procedure** shall be carried out in accordance with the relevant provisions of Zhejiang, the State Railway Administration, China Railway and the PPP project contract.
- The project contracting, construction, supervision, and trial price shall reach the scale and standard of the tenders required by the “Tendering and Bidding Law”, and the project company shall conduct **public bidding** according to the law.

建设监督及安全

Construction supervision and safety

- 聘请审计机构对工程建设进行**投资控制与全过程跟踪审计**
- 按照国家高速铁路竣工验收的法律法规和标准规范，**现场监督**工程验收、专项验收、执行验收
- 制定**安全生产**标准化达标目标、**安全管理体系及安全事故责任制度**
- Hire an audit institution to carry out **investment control and whole process tracking audit of engineering construction**
- **On-site supervision** of project acceptance, special acceptance, implementation of acceptance in accordance with the laws, regulations and standards of the national high-speed railway completion acceptance
- Establish **safety** production standardization target, **safety** management system and **safety** accident liability system

项目建设、运营与移交方案 Project construction, Operation and Transfer Scheme

运营方案 Operation scheme

运输管理模式

Transportation Management Mode

- 项目公司在坚持统一调度指挥的前提下依法**自主决策运输管理方式**，可以委托铁路运输企业进行运输管理，也可以由项目公司自管自营
- 近期委托中铁总开展运输管理**
- 未来积极探索复合型运输管理机制与清算机制改革**
- Project company may **decide the transportation management method independently** according to the law under the premise of insisting unified dispatching and commanding. It can entrust the railway transportation enterprise to carry out transportation management, or it can be self-managed by the project company
- Entrusted China Railway to carry out transportation management recently**
- Actively explore compound transportation management mechanism and liquidation mechanism reform in the future**

运营要求

Operation Requirements

- 制定不低于国家铁路主管部门和铁总有关运营质量、安全和服务的**标准和规范的服务标准**
- 制定杭温**铁路运营规范和标准**，对项目设施及时进行维修、维护、更新、改造及追加投资
- 项目公司根据有关法律法规和标准负责**运营安全**
- Establish **service standards** that are not lower than the standards and specifications of the national railway authorities and China Railway regarding operational quality, safety and service
- Establish Hangzhou-Wenzhou Railway **operation specifications and standards**, and repair, maintain, update, renovate and increase investment in project facilities timely
- The project company is responsible for **safety operation** in accordance with relevant laws and regulations

政府支持

Government Support

- 鼓励项目公司在运营期内积极争取、创造条件进行**自管自营**，增加效益自主享有
- 激发项目公司**自主定价**、完善铁路运价形成机制、推动清算机制改革
- 积极支持项目公司探索铁路**沿线土地综合开发**，项目公司在同等市场竞争条件下优先获得开发权
- Encourage project company to actively strive for and create conditions for **self-management and self-operation** during the operation period, increase efficiency and return
- Stimulate self-pricing of project company, improve the formation mechanism of railway freight rates, and promote the reform of clearing mechanism
- Actively support the project company to explore the comprehensive development of land along the railway line, and the project company will give priority to the development rights under the same market competition conditions

项目建设、运营与移交方案 Project construction, Operation and Transfer Scheme

移交方案 Transfer scheme

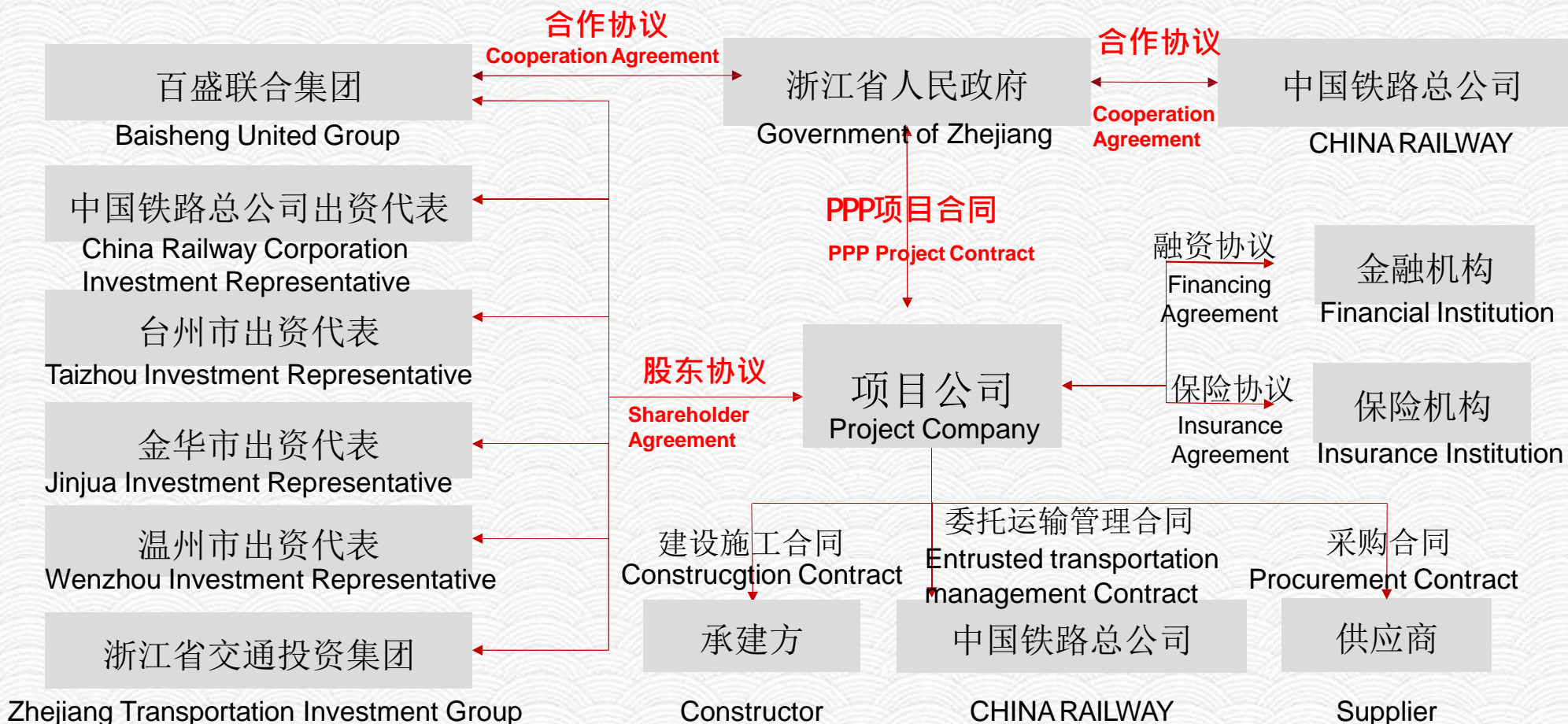
无偿移交 Free Transfer

- 合作期满后项目公司向政府指定的机构进行**无偿移交**
- 遵循**合理避税**原则，协商一致选择股权移交或其他方式，实现社会资本无偿移交项目
- After the expiration of the cooperation period, the project company will transfer to the government-designated institution **free of charge**
- Following the principle of **reasonable tax avoidance**, enterprise may choose equity transfer or other means by consensus, and realize the free transfer of social capital

移交要求 Transfer Requirement

- 政府方和项目公司应共同成立**移交委员会**，商定移交详细程序、移交清单、移交方式、培训计划、验收计划、质量保证
- 项目公司应确保移交的项目设施/股权不存在任何抵押、质押等担保权益或所有权约束，亦不得存在任何种类和性质的索赔权
- The government and the project company shall jointly establish a transfer committee to agree on the detailed handover procedures, handover list, handover method, training plan, acceptance plan, and quality assurance.
- The project company shall ensure that there are no security interests or ownership restrictions such as mortgages or pledges on the transferred project facilities/equity, nor any claims of any kind and nature.

项目合同结构 Contractual Structure



项目绩效考核 Project Performance Assessment

- 项目资金
Project Fund
- 工程进度
Progress
- 工程质量
Project Quality
- 环境保护
Environmental Conservation
- 安全管理
Safety Management
- 内部制度
Internal Rules
- 公众满意度
Public Satisfaction
-

建设期 考核

Performance
Assesment During
Construction
Period



运营期 考核

Performance
Assesment During
Operational
Period

- 设备设施维护
Equipment and Facilities Maintenance
- 车站服务
Station Service
- 应急与安全管理
Emergency and Safety Management
- 运营管理
Operation Management
- 内部制度
Internal Rules
- 公众满意度
Public Satisfaction
-

绩效考核结果与可行性缺口补助直接挂钩，严厉杜绝固化政府支出责任情形

The performance assessment results are directly linked to the feasibility gap subsidy, and curing government expenditures is rigorously eliminated.

项目监管架构 Framework of Project Supervision

监管体系

Supervision System

- | | | | |
|------------------------------------|---|---------------------------------|---|
| 合同监管
Contract Supervision | 1 | 股东监管
Shareholder Supervision | 2 |
| 行政监管
Administrative Supervision | 3 | 公众监督
Public Supervision | 4 |



监管内容

Contents of Supervision

- | | | | |
|--|---|--|---|
| 财务监督管理
Financial Supervision and Management | 1 | 建设与运营质量管理
Construction and Operation Quality Management | 2 |
| 安全管理
Safety Management | 3 | 多元经营开发管理
Diversified Operation Development Management | 4 |

建立多层次监管体系，全方位、有效地监管项目公司经营活动，保证项目社会效益和公众利益，约束与规范项目各参与方的行为，形成政府、市场和社会共同参与项目监管的局面

Establish a multi-level supervision system, comprehensively and effectively supervise the project company's business activities, ensure the project's social benefits and public interests, constrain and standardize the behavior of project participants, and form a situation in which the government, the market and the society are all involved in the supervision of the project.

项目合作邀请 invitation for cooperation

杭温铁路公司将抱着开放的态度欢迎欧洲投资银行和欧洲有实力的企业参与本项目的融资和进口材料供应、建设中来，并愿将部分站房及附属工程等项目内容纳入国际招标范围，吸纳欧洲企业投资、建设本项目。同时，杭温铁路希望能得到国家发改委、欧盟DG Trade和DG GROW的大力支持，批准和推动欧洲投资银行对本项目进行建设资金贷款。

Hangzhou-Wenzhou Railway Company will welcome the European Investment Bank and European powerful enterprises to participate in the financing and import materials supply and construction of this project with an open attitude. It is also willing to incorporate some of the station buildings and ancillary projects into the scope of international bidding and absorb investment from European enterprises to build this project. At the same time, Hangzhou-Wenzhou Railway hopes to get the strong support of the National Development and Reform Commission, the European Union DG Trade and DG GROW, which approve and promote the European investment bank's capital loan for the project.

**新建北京至天津滨海新区铁路宝坻至滨海新区段
情况介绍**
**Beijing-Binhai Intercity Railway
(from Baodi to Binhai Section)**

京滨城际铁路有限公司 Jingbin Intercity Railway Co.,Ltd.

2018年11月 | Nov. 2018

一、项目背景 (Project background)

- 国家战略：京津冀协同发展战略
National strategy: The coordinated development strategy of Jing-Jin-Ji Region.
- 重点领域：交通一体化率先取得突破
Key areas: A breakthrough in traffic integration has been realized.
- 建设京津冀城市群+城际轨道交通连通
Construction of urban agglomeration and intercity rail transit in Jing-Jin-Ji Region.



一、项目背景 (Project background)

京津冀城际铁路网规划 (Intercity railway network planning of Beijing-Tianjin-HeBei Region)

规划提出：到2020年前实施北京至霸州铁路、北京至唐山铁路、北京至天津滨海新区铁路等项目，总里程约1100公里，初步估算投资约2470亿元。

The plan proposed: the project of Beijing to Bazhou railway, Beijing to Tangshan railway and Beijing to Tianjin Binhai New Area Railway will be construction implementation by the year of 2020. At the scheduled time, the total mileage will achieve 1100 kilometers, and the initial estimated investment will be around 247 billion yuan.



一、项目背景 (Project background)

北京至天津滨海新区铁路是京津冀地区城际铁路网的重要组成部分，主要服务于京津冀地区，项目建成后主要承担京津冀都市圈内部城际客流，是北京至天津机场、滨海新区等重要联系通道，与北京至天津城际铁路一并为京津两市提供便捷、快速的轨道交通客运服务。项目建成后，将有效提高该区域的高速铁路网的系统运输能力，完善路网功能，带动相关产业的发展，对京津冀协同发展有着举足轻重的作用。

Beijing-Tianjin Binhai New Area Railway is an important part of Intercity railway network planning of Beijing-Tianjin-HeBei Region , an indispensable passage link between Tianjin airport and Binhai new area, which will provide convenient and fast intercity passenger service between Beijing and Tianjin, together with the existing Beijing -Tianjin intercity railway. the project will mainly service for intercity passenger flow within Jing-Jin-Ji region after the project is completed. This railway project will have a strong influence to increase the transportation capacity of the high-speed railway network in this district , to supplement the network capacity, to help developing related industries.

一、项目背景 (Project background)

- 京、津两大城市间又一高速铁路通道，提供公交化、快速客运服务
Another high-speed railway between the two cities of Beijing and Tianjin, providing public transportation and rapid passenger service.
- 北京至天津宝坻、北辰、天津机场、滨海新区等地间的重要联系通道，带动外围南北地区和新城开发建设的城市快线。
An important link among Beijing, Tianjin Baodi, Beichen, Tianjin airport, Binhai New Area and another areas which drives the development and construction of the southern and northern regions and the new towns.
- 完善路网结构，带动区域产业发展。
Improving the railway network structure and promoting the development of regional industries.
- 串联天津滨海新区、滨海机场、武清北部开发区等高新技术研发与产业密集区，形成一条京津科技产业轴。
Linking up high -tech development and industrial intensive areas in Tianjin Binhai New Area, Binhai airport and Northern Wuqing Development Zone, forming a Beijing-Tianjin Science and Technology Industrial axe

二、项目概况 (Project overview)

(一) 基本情况(Base situation)

线路全长：97.63km，其中桥梁76.813km，
地下工程14.425km，路基6.396km。

Total length of mainline: 97.63km; while
76.813km for culvert, 14.425km for
underground engineering; 6.396km for
subgrade.

车站设置：共计5座车站，宝坻南站（与京唐
铁路共站）、宝坻周良站、北辰站、滨海国际机
场东站和滨海站（津秦高铁既有站）。

Station distribution: 5 stations, including
Baodi south station(sharing station with Beijing-
tangshan railway), Baodi Zhouliang station,
Beichen station, Binhai international airport
East station and Binhai station(existing station
of Tianjin-Qinhuangdao high-speed railway).



二、项目概况 (Project overview)

(一) 基本情况(Base situation)

速度目标值：宝坻至北辰站：250 km/h，基础设施预留进一步提速至350 km/h；北辰站至滨海站：250km/h，其中机场地下段限速120km/h。

Velocity target data: Baodi station to Beichen station: 250km/h, infrastructure reserved the capacity of 350km/h; Beichen station to Binhai station: 250km/h, among it, the velocity of the underground section of airport is limited in 120km/h.

- 铁路等级：高速铁路。

Railway classification : high speed railway .

- 建设工期：4年。

Engineering duration : 4 years.

二、项目概况 (Project overview)

(二) 项目业主(Project owner)

京津冀城际铁路投资有限公司 (以下简称 “京津冀铁投”) : 注册资本为100亿元, 负责京津冀城际铁路项目的规划、资金筹措、建设实施、生产经营、债务偿还和资产保值增值。

Jing Jin Ji Intercity Rapid Railway Investment Co.,Ltd. : The company is in charge of planning , funding, constructing, operating, paying debt and increasing value of Jing Jin Ji intercity rapid railway , whose registered capital is 10 billion RMB.

京滨城际铁路有限公司 (以下简称 “京滨城际”) : 为京津冀铁投的全资子公司, 主要负责京滨铁路建设、铁路运输服务、物业管理服务、广告业务。

Beijing-Binhai intercity Railway Company Ltd. (JBCJTL) : The company is wholly-owned subsidiary of Jing Jin Ji Intercity Rapid Railway Investment Co.,Ltd. , and is responsible for Beijing-Binhai railway's constructing 、 railway transport service、 property management service and advertisement business.

三、项目投融资情况 (Project situation of investment and financing)

项目预计总投资约238亿元 (主体工程建设费用约195亿元, 征地拆迁约28亿元, 车辆购置费用及信号灯系统费用约15亿元)。目前项目资本金占工程总投资50%, 其余资金通过银行贷款等方式解决, 京津冀铁投作为投融资建设者, 当前的投资方包括天津市人民政府、国家开发银行等。

The estimated total investment of the project is about 23.8 billion yuan (main project construction cost is about 19.5 billion yuan, land acquisition and demolition is about 2.8 billion yuan, vehicle purchase cost and signal light system cost is about 1.5 billion yuan). At present, the project capital accounts for 50% of the total project investment, and the rest of the funds are solved through bank loans. Jing Jin Ji Intercity Rapid Railway Investment Co.,Ltd. is the investment and financing builder. The current investors include Tianjin Municipal People's Government and China Development Bank.

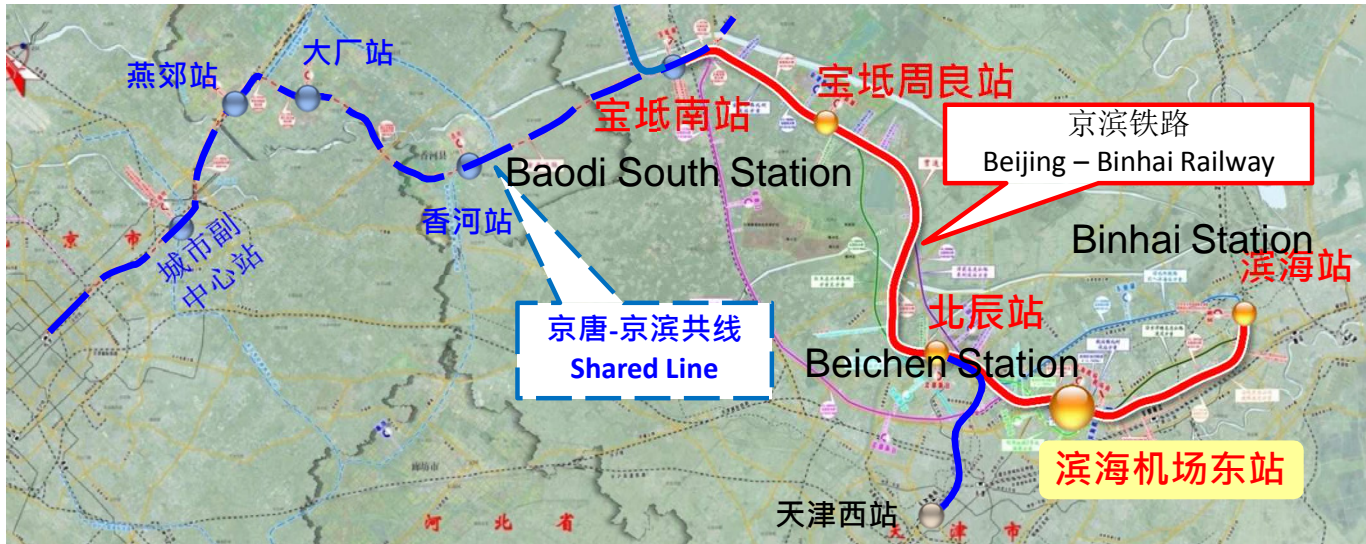
正在考虑通过PPP方式, 多元化筹措解决项目建设资金问题, 积极吸引社会各方参与投资, 包括吸引民间资本和国际资本。

The project may use the PPP model to diversify project construction funds, and attract social capital involved in the investment, including private capital and global capital.

四、项目进展情况 (Progress of the project)

京滨铁路宝坻至北辰段站前工程2017年12月已经开工建设，至2018年10月底累计完成投资19.7亿元。

The pre-station project of Beijing-Binhai intercity railway from Baodi to Beichen has been constructed since December 2017, which has been invested ¥ 1.97 billion as of the end of October 2018.



四、潜在合作模式(Potential Cooperation Mode)

- 作为社会投资人，与京津冀铁投共同投资京滨城际铁路项目，合作双方共担风险，共享收益
As investor, cooperates with the Jing Jin Ji Intercity Rapid Railway Investment Co.,Ltd. to invest in the Beijing-Tianjin Binhai new area Inter-city Railway Project, with the two parties share risks and revenue.
- 提供长期低息贷款金额15亿欧元(京滨贷款规模为119亿元人民币，相当于15亿欧元)；贷款利率：不高于欧盟同类项目的贷款利率；
Long-term loans of 1.5 billion Euros (Beijing-Tianjin Binhai new area railway loan is 11.9 billion yuan, equivalent to 1.5 billion euros), with interest rate not higher than the interest rate of similar projects in the EU.

The end!
Thankyou!



建设轨道上的京津冀





新疆维吾尔自治区精河至阿拉山口公路 Jinghe-Alataw Pass Highway in the Xinjiang Uygur Autonomous Region

2018年11月 | Nov. 2018

一、项目概况 Project Instruction



- 新疆作为丝绸之路经济带的核心区，是中国西部地区经济增长的重要支点。精河至阿拉山口高速公路位于丝绸之路大通道，终点阿拉山口口岸为国家一类口岸，是中国最大的陆路口岸，是中国通向中、西亚地区的重要通道。
Xinjiang is the key zone of Silk Road Economic Belt and is important for the economic growth in China's western region. The destination, Alataw Pass is China's largest inland channel, and is also the Important channel from China to the middle and western Asia.

一、项目概况 Project Instruction



- 本项目起点位于精河县黑山头东侧，终点位于阿拉山口规划城区南侧，路线全长68.731km。项目采用高速公路双向四车道标准建设，设计速度100km/h。估算总投资34.64亿元
This project started at the Jinghe County, and ended at the south side of the planned urban area of Alataw Pass, with total length of 68.731KM. The project is schemed as a 4-lane motorway with designed speed of 100Km/h. The estimated total investment is 3.464 billion yuan

二、项目建设意义 Significance of Project

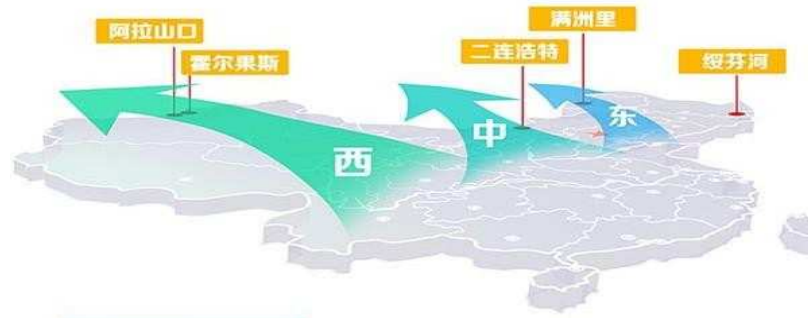
- 加快建设国际大通道，打造向西开放的桥头堡，促进经济发展；
Accelerate the construction of international major channels, build a window open to the west, and promote economic development;
- 完善国家高速公路网，加快新疆高速公路建设；
Improve the national highway network and speed up the construction of highways in Xinjiang;
- 改善区域交通环境，促进沿线区域经济发展；
Improve the regional traffic environment and promote regional economic development along the Belt and Road;
- 加快旅游资源开发，促进地方旅游特色经济发展。
Accelerate the development of tourism



二、项目建设意义 Significance of Project

“三条通道” “五个口岸” 畅通中欧班列

中欧班列是指中国开往欧洲的快速货物班列，适合装运集装箱的货运编组列车。目前铺划了西、中、东3条通道中欧班列运行线：**西部通道**由我国中西部经阿拉山口（霍尔果斯）出境，**中部通道**由我国华北地区经二连浩特出境，**东部通道**由我国东南部沿海地区经满洲里（绥芬河）出境。



(二) 对中、欧互联互通的意义

The significance of the connectivity between China and Europe

- 阿拉山口口岸是中欧班列重要的集结中心之一，本项目提升了公路服务能力，促进了区域的综合运输体系构建
Alataw is an important hub for China-Europe Freight Train. This highway improved road connection to the train and further enhance the construction of regional comprehensive transportation system.

三、项目投融资情况 Investment and Financing Condition

(一)运作方式 Mode of operation

- 本项目属于准经营性项目，建议本项目选用PPP模式下的BOT（建设-运营-移交）运作方式。
As this Project belongs to a quasi-operational project, it is recommended that the BOT (Construction-Operation-Transfer) under PPP model should be selected for this Project.

(二)合作期限 Term of cooperation

- 项目确定特许经营期限为30年（其中：建设期3年，运营期27年）。
The project has a franchise period of 30 years (including 3 years for construction and 27 years for operation).

(三)期满处置 Disposition upon expiration

- 在特许经营期满时，项目公司无偿将全部项目设施及相关权益，按照PPP合同约定的机制、流程和资产范围移交给项目实施机构。
At the expiration of the franchise period, the project company will hand over all project facilities and related rights and interests to the project implementation organization free of charge in accordance with the mechanism, process and asset scope agreed in the PPP contract.

(四)投资构成 Composition of investment

- 本项目估算总投资31.25亿元（不含建设期利息）。拟选择PPP模式，引入社会资本进行特许经营合作，成立项目公司负责筹集资金完成建设，并负责项目的整体运营与管理。
The estimated total investment of this Project is RMB 3,125 million (excluding interest during the construction period). It is proposed to choose the PPP model to introduce social capital for franchise cooperation and set up a project company responsible for raising funds to complete the construction and for the overall operation and management of the Project.

三、项目投融资情况 Investment and Financing Condition

- **中国交通运输部已将该项目列入“十三五”期规划，进入行业审查意见和初步设计批复工作阶段。
China's Ministry of Transport has included the Project into the 13th Five-Year Plan. This project is currently under industry review and waiting for preliminary design approval.**

一、沈阳机场简介 Introduction of Shenyang Airport

沈阳是中华人民共和国辽宁省省会，位于中国东北地区南部，经济体量占辽宁省经济总量的1/4，占东北地区经济总量的13%左右。

Shenyang, the capital city of Liaoning province, is located in the south of Northeast China. It accounts for 1/4 of economic aggregate in Liaoning and about 13% in Northeast China.

沈阳机场位于沈阳市浑南区，距市中心18.5公里。机场于1989年4月正式启用通航，为多市共用机场。在以沈阳为中心的150公里半径范围内，有8座拥有百万以上人口的城市，构成以沈阳为核心的拥有2400万人口的世界罕见的城市群。

Shenyang Airport is located in Hunnan district of this city, 18.5 kilometers from downtown. In Apr., 1989, the airport was opened to traffic, shared by many cities. Within a radius of 150 kilometers, centered in Shenyang, there are eight cities with a population of more than one million, which form a rare city cluster worldwide with a population of 24 million.

沈阳机场飞行区等级为4E，现有一条3200X45米的跑道、一条平行滑行道，可起降B747-400及以下机型；拥有三座航站楼，总建筑面积为33.15万平方米；拥有停机位79个。

The airport has 4E-class flight area with a runway of 3200 meters long and 45 meters wide and a parallel taxiway, which can guarantee aircrafts of types not larger than B747-400. The airport has 3 terminals with a total building area of 331,500m² and 79 aircraft stands.

一、沈阳机场简介 Introduction of Shenyang Airport

近年来，沈阳机场发展态势良好。实施沈阳机场第二跑道项目，将为沈阳以及辽宁中部城市群的地方经济社会发展发挥更加显著的助力作用。

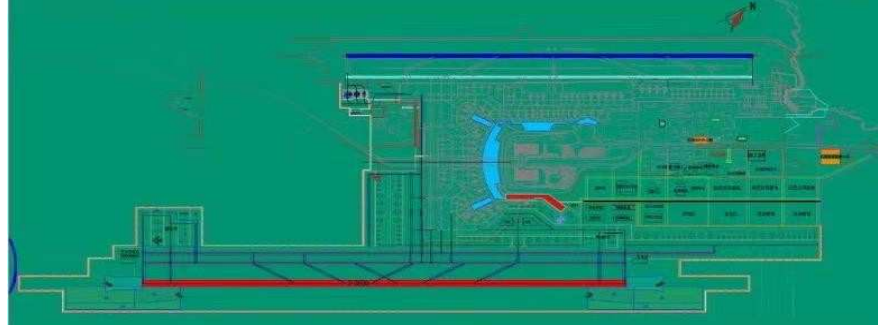
In recent years, Shenyang Airport has been developing well. The implementation of the Second Runway Project of Shenyang Airport will play a more significant role in promoting the economic and social development of Shenyang and Mid Cities in Liaoning.

	旅客吞吐量 (人次) Passenger Throughput (people)	货邮吞吐量 (吨) Cargo Throughput (people)	运输起降 (架次) Take-off & Landing (people)
2015年	12,680,000	142,000	99,000
2016年	14,970,000	156,000	114,000
2017年	17,340,000	159,000	127,000
2018年 (预计) (Expected)	19,100,000	—	—

二、项目概况 Project Overview

本项目建设以2030年为建设目标年，满足旅客吞吐量5000万人次、货邮吞吐量34万吨的使用需求。

机场工程包括：建设一条3800X60米的跑道及配套的飞行区设施；新建远机位、除冰坪、货机位、货运仓库、消防站及相应配套设施。机场工程新增用地面积约为5.3平方公里。



The Second Runway Project at Shenyang Airport, constructed for target year 2030, is designed to meet the requirements of a passenger throughput of 50 million, a cargo throughput of 340,000 tons.

The Airport Project is to build a runway of 3800 meters long and 60 meters wide and the supporting facilities of flight area, and also to build remote aircraft stands, de-icing apron, cargo aircraft stands, cargo warehouse, fire-fighting house and other supporting facilities. The extra land for this project is about 5.3 km².

二、项目概况 Project Overview

本项目机场工程项目法人为辽宁机场集团，负责筹措建设资金；同步建设的空管、供油、航空公司基地等其它配套工程投资由其项目法人自行筹措。

Liaoning Airport Management Group will be responsible for raising construction funds. Other supporting projects such as air traffic control, oil supply and airline bases, will be invested by their own legal persons.

三、工作进展情况 Work Progress

沈阳机场第二跑道项目处于上报预可研报告前期准备阶段。

The Second Runway Project of Shenyang Airport is presently at the preliminary stage of preparing for submitting pre-feasibility study report.

四、项目资金来源 Project Funds Source

本项目资金计划来源包括：
政府财政性资金无偿投入、引入战略投资者、项目法人贷款等方式。

The construction funds of the Airport Project are to be raised from free investment of government' s financial funds, introduction of strategic investors, loans of project legal person, etc.

五、建议合作模式 Proposed Cooperation Mode

根据第二跑道项目各项目法人分工，辽宁机场集团作为机场工程项目法人，会同上级政府部门筹集项目所需资金。初步建议通过提供部分长期低息贷款方式参与本项目。

For the Second Runway Project, Liaoning Airport Group is in charge of raising the construction funds together with relevant government departments.

The preliminary proposal to participate is by offering long-term, low-interest loan for some of the construction funds.



成都轨道交通18号线工 程 Chengdu Rail Transit Line 18

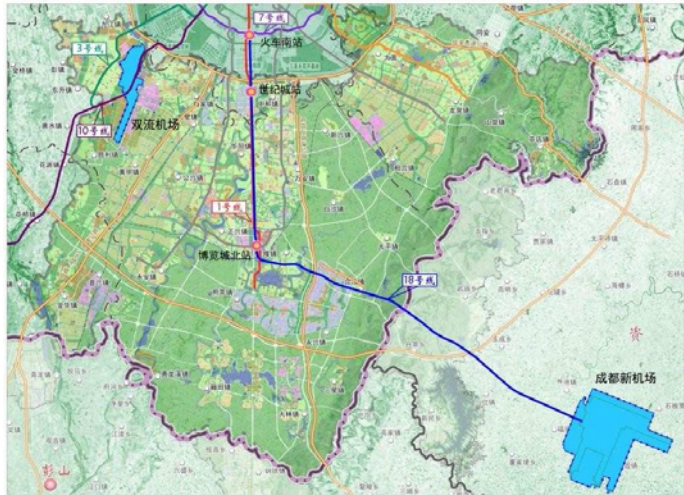


成都轨道交通18号线工程 Chengdu Rail Transit Line 18

□ 项目概况 Project Overview

◆ 随着2013年初中国成都新机场选址的确定，在中国国家发展与改革委员会“成都新机场前期规划研究中，必须同步完成机场轨道交通的规划方案”的明确要求下，成都相关部门开展了连接中心城区至新机场轨道交通的前期规划。

As the location of the new airport of Chengdu was determined in early 2013 and according to clear requirements of "Planning scheme of airport rail transit must be completed in parallel with the preliminary planning and study of new airport in Chengdu" proposed by National Development and Reform Commission of the People's Republic of China, relevant departments of Chengdu have carried out the preliminary planning of the rail transit connecting the central urban area to the new airport.



◆ 在这一形势下，成都轨道交通18号线应运而生，这是一条连接成都中心城区、天府新区和新机场的市域快速轨道交通。

In this situation, Chengdu Rail Transit Line 18 has been initiated. It is a metropolitan rapid rail transit connecting Chengdu's central urban area, Tianfu New Area and the new airport.

成都轨道交通18号线工程 Chengdu Rail Transit Line 18

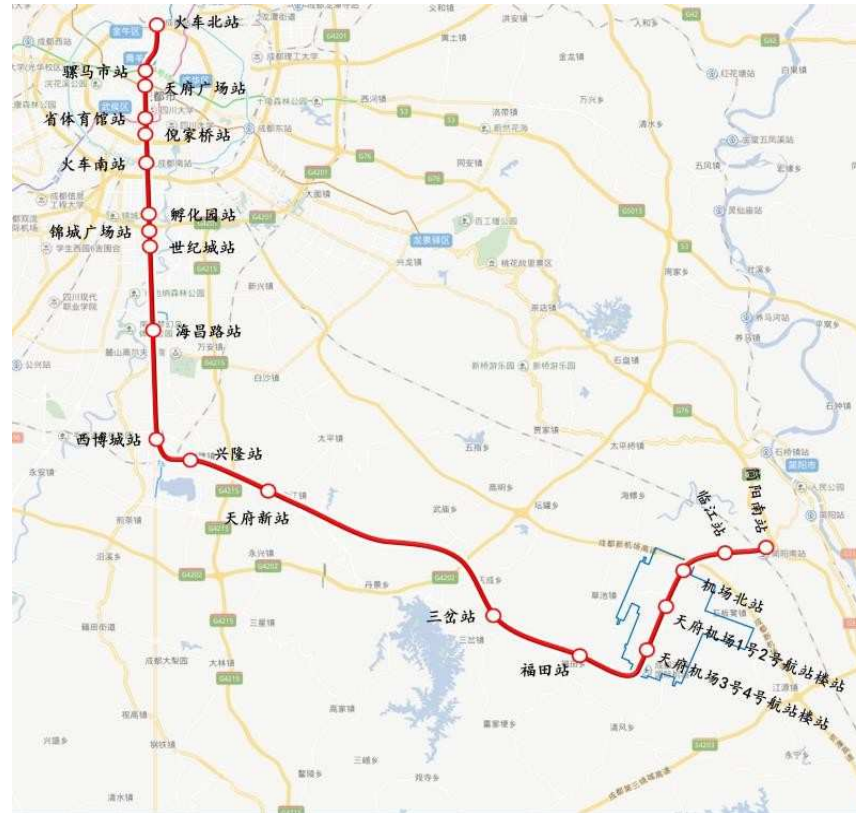
项目概况 Project Overview

◆成都轨道交通18号线全长约86.7km，共设车站20座，全线设车辆综合基地一处，停车场一处，主变电所五座，采用速度目标值140km/h的地铁A型车8辆编组，交流25kV架空悬挂接触网供电制式。

The total length of Chengdu Rail Transit Line 18 is about 86.7 km , There are 20 stations , A comprehensive depot, a stabling yard and five main substations are designed along the whole line. Type A metro vehicle with 8-car formation and with a speed target of 140 km/h will run under the AC 25 kV OCS power supply system.

◆首期工程为火车南站~新机场段，全长69.1km，设车站13座。

The Phase I works extends from the South Railway Station to the new airport , with a total length of 69.1 km , there are 13 stations.



成都轨道交通18号线工程 Chengdu Rail Transit Line 18

□ 项目意义 Project Significance

- ◆ 实现了连接成都主城区、天府新区至新机场的机场快线功能

Realize the function of airport express connecting Chengdu 's main urban area and Tianfu New Area to the new airport

- ◆ 加强了成都市中心南北向运输能力，缓解了客运供需矛盾

Strengthen the north-south transport capacity of central urban area of Chengdu and alleviate the conflict between supply and demand of passenger transport

- ◆ 完善了天府新区轨道线网结构，实现了新老城市空间布局结构和连接功能

Improve the track network structure of Tianfu New Area and realize the spatial layout structure and connection function of the new and old city areas

成都轨道交通18号线工程 Chengdu Rail Transit Line 18

□ 项目特点 Project Characteristics

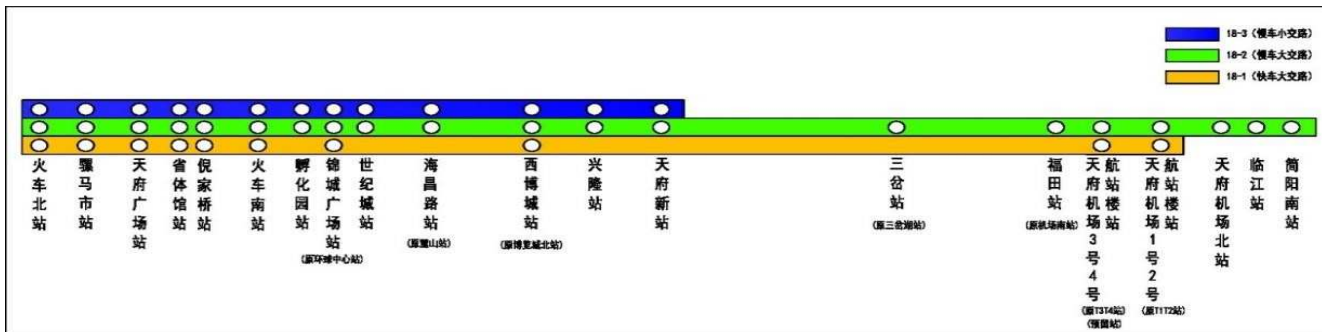
轨道交通18号线的设计亮点主要包括： The design highlights of Rail Transit Line 18 mainly include:

- ◆ 列车最高运行速度达到140km/h，属目前国内地铁最高速，并妥善解决列车高速运行带来的供电技术、通信传输、隧道压力波等系列技术难题

The train 's maximum running speed reaches 140 km/h, which is of the highest metro speed in China at present, for which a series of technical problems have been properly solved, such as power supply technology, communication transmission, tunnel pressure wave, etc

- ◆ 快慢车组合的行车组织方式，机场功能使用大站快车，城市通勤功能使用站站停慢车，运输组织模式属行业领先水平

The train operation organization mode in a combination of local train and express train is adopted. For the airport function, the mode of express trains stopping at major stations while local train stopping at all stations for city commuter function is designed. The transportation organization mode reaches the industry leading level



成都轨道交通18号线工程 Chengdu Rail Transit Line 18

□ 项目特点 Project Characteristics

◆ 土建工程解决了在成都地区特有的砂卵石及中风化泥岩等复合地层中的大规模换乘站的实施、区间工程采用8.3m大洞径盾构掘进、以及轨道交通工程首次穿越高瓦斯隧道等多项技术难题

For the civil works, several technical problems have been solved, such as the implementation of large-scale transfer stations in compound stratum such as sandy pebbles and moderately weathered mudstone in Chengdu, application of 8.3 m large-diameter shield tunneling for section works and the first crossing of high gas tunnel of rail transit project

◆ 采用有别于中国传统铁路的AC25kV牵引供电制式，增大了牵引供电半径，有效解决了线路穿越龙泉山隧道的长大区间的牵引供电问题；取消了直流牵引变电所设置，节约了供电系统的投资，这在中国轨道交通范畴尚属首次尝试

The AC 25kV traction feeding system different from the traditional railway in China is adopted, which increases the radius of traction feeding and effectively solves the traction feeding problem of the line crossing the long and large section of Longquanshan Tunnel; the DC traction substation is canceled to reduce investment of power supply system, which is the first attempt in the scope of rail transit in China

成都轨道交通18号线工程 Chengdu Rail Transit Line 18

□ 项目特点 Project Characteristics

◆通过对AC25kV电磁环境下弱电系统电磁兼容性研究，对车外电磁环境、车内电磁环境、弓网离线脉冲、牵引回流等进行测试、分析和研究，提出通信、信号系统与AC25kV交流牵引的电磁兼容、抗干扰措施及设备选型的结论和建议

The electromagnetic environment outside the vehicle, the electromagnetic environment inside the vehicle, pantograph-catenary off-line pulse and traction return current were tested, analyzed and studied via study of electromagnetic compatibility of weak current system under AC 25kV electromagnetic environment, and conclusions and suggestions on electromagnetic compatibility, anti-interference measures and equipment selection for communication, signal system and AC 25kV AC traction were put forward

成都轨道交通18号线工程 Chengdu Rail Transit Line 18

□ 项目特点 Project Characteristics

◆完成160km/h时速下城市轨道交通车地无线通信试验及测试，是目前中国满足CBTC信号系统所能达到的最高速度，达到中国轨道交通先进水平

Vehicle-ground wireless communication test and testing of urban rail transit under a speed of 160 km/h were completed. It is the maximum speed in China to meet the CBTC signal system at present and it reaches the advanced level of rail transit in China

◆ 穿越龙泉山脉长达9.7km的高瓦斯山岭隧道，在中国城市轨道交通中首次实施的长大山岭瓦斯隧道，建立了油气田区高瓦斯隧道设计、施工和运营成套技术方案

It crosses the high gas mountain tunnel with a length of 9.7 km of Longquan Mountains, for the first time in the urban rail transit systems in China. A complete set of technical proposals for the design, construction and operation of high gas tunnels in oil and gas zone was established