



Green Municipal Finance

绿色市政投融资

How to mobilize capital for urban development

如何调动资本投入城市发展

2019 Xuzhou International Forum on Urban Green Development

2019年徐州城市绿色发展国际论坛

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中欧生态城项目核心专家



Introduction - 项目概况



项目执行期 **Duration:**

后经两次延期至2020年9月 - Extended till September 2020

合作方 **Beneficiary:** 中国住房和城乡建设部 MoHURD

资助方 **Funding:** 欧盟 EU – DG DEVCO

项目管理办公室 **Project Task Force:** 中国城市科学研究会 CSUS

技术援助专家组 **Technical Assistance Team:** 德国国际合作机构 GIZ

官方网站 **Website:** <http://www.eclink.org/>



Changzhou
Changzhou is located in the south of



Guilin
Guilin is a prefecture-level city in the



Hefei
Hefei, capital city of Anhui province, is



Liuzhou
Liuzhou is a prefecture-level city in



Luoyang
Luoyang is a city located in the



Qingdao
Qingdao is a major city in the east



Weihai
Weihai is a city in the eastern side of



Xixian
Xixian New Area is located on the



Zhuhai
Zhuhai is a prefecture-level city on the



Zhuzhou
Zhuzhou is the second largest



EU-CHINA

Introduction - 项目概况



Europe-China Eco-Cities Link
中欧低碳生态城市合作项目



Compact Urban Development
紧凑城市/城市更新



Green Building
绿色建筑



Water Management
水管理



Green Transport
绿色交通



Clean Energy
清洁能源



Solid Waste Management
固体废弃物管理



Green Municipal Finance
绿色投融资



Introduction - 项目概况





Green Municipal Finance

绿色市政投融资



- China's activities to create eco-cities must be seen as part of its contributions to low-carbon development with aim to mitigate climate change
中国积极打造生态城市，是其为减缓气候变化而低碳化发展的一部分
- Municipal finance is about the revenue and expenditure decisions by municipal governments
市政投融资与城市政府所做的收支决策息息相关
- Municipal Finance creates the opportunity to achieving environmental objectives
市政投融资为实现环境目标创造机会



Financial schemes – 金融体系



Green Finance for Municipalities 用于市政的绿色投融资	Sectors covered by Municipal Finance 市政投融资覆盖的行业领域
International Financial Institutions & Agencies 国际金融机构	Green/Low carbon/Public transport 绿色/低碳/公共交通
Green bonds 绿色债券	Green Buildings 绿色建筑
Climate funds 气候基金	Clean Energy 清洁能源
Emission trading schemes 排放交易体系	Sponge city/Water supply/Waste water 海绵城市/水供给/污水
City government funds 城市政府基金	Drainage/Flood Control 排水系统/洪涝控制
Equity capital 权益资本	Municipal waste management 市政废弃物管理



Operational Challenges – 运营挑战



PROJECT DEVELOPMENT RESOURCES

项目开发资源

ASSESSMENT CRITERIA – HOW GREEN?

评估标准 – 什么程度是“绿色”？

INCENTIVE TO MAXIMISE GREEN

激励绿色最大化

EFFICIENT BLENDING MECHANISMS

高效的混合机制

DEMAND SIDE CAPACITY

需求侧能力

CAPITAL MARKET STRUCTURES

资本市场结构



Institutional Challenges – 机构挑战



TECHNOLOGY IS EXPENSIVE
技术昂贵

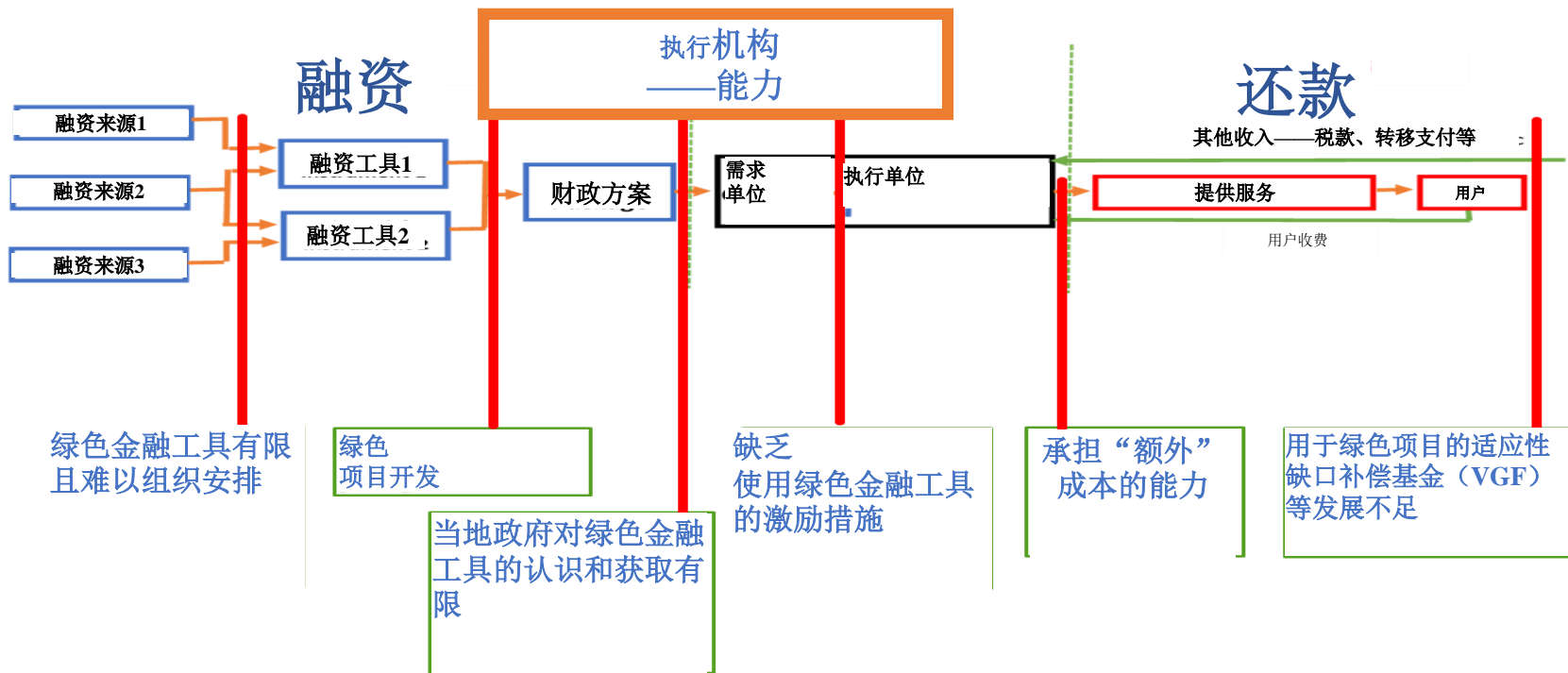
MONITORING & ENFORCEMENT
SYSTEMS
监控和执行系统

HUGE FINANCE NEEDS
资金需求巨大

GREEN BENEFITS *versus* REVENUES
绿色效益 对比 收入

RETURNS ARE CRUCIAL FOR COMMERCIAL FINANCE
回报率对商业资金来说至关重要

约束条件总览





Overcome Green Challenges 克服绿色挑战



BANKABILITY IS THE KEY FOR PROJECTS

对于项目而言，可融资性是关键所在

COORDINATED INSTITUTIONAL MARKET

协同配合的机构市场

ATTRACT PRIVATE FINANCING

吸引私人融资

SUPPORT PRIVATE SECTOR

支持私营部门

SUPPORT TECHNOLOGIES &
INNOVATION

支持技术和创新

MATCHING of FINANCING SOURCES

融资来源匹配



EU-CHINA



Europe-China Eco-Cities Link
中欧低碳生态城市合作项目

欧盟绿色金融体系

国家
级别

拨款基金（海绵城市等）> 缺乏“挑战”结构

项目发展基金 > 只有发展合作

知识 - 技术和金融 > 只有技术和金融，非GMF - 例如中国节能协会/人民大学发展合作)

杠杆

私有债务和股权（OEM、基金等）> 有，但规避风险/很少有高质量项目储备

债务窗口 > 当前没有 - 亚洲开发银行（ADB）绿色金融催化机制（GFCF）进行中

执行实体（公用事业、发展公司等）> 有，但能力各异，很少与绿色金融/资金有关

地方
级别

特殊目的工具（如适用）> 有，但经验各异

绿色投资



EC-Link supporting GMF 中欧生态城支持的绿色市政投融资



Case 1: Qingdao Green Public Transportation system demonstration project 案例1：青岛绿色公共交通系统示范项目

- The project is designed to be implemented in terms of developing low carbon and green traffic.
实施该项目旨在发展低碳和绿色交通。
- The project comprising 11 sub-projects, which includes the optimization of design on public transport network.
该项目由11个子项目组成，其中包括优化公共交通网络的设计。
- It includes the optimization of design on public transport network, bus lane planning in three major urban areas, bus ticket pricing system research.
包括优化公共交通网络设计、三大主要城市区域的公交线路规划、公交车票定价系统研究等。



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Case 2: Energy-saving Transformation for Existing Public Buildings

案例2：为现有的公共建筑进行节能改造

- The Project is designed to retrofit public buildings and residential buildings, for the purpose of reducing energy consumption and improving the energy efficiency for existing buildings.
该项目对公共及住宅建筑进行改造，为现有建筑降低能耗，提高能源效率。
- It will screen out public buildings (with the floor area of 2 million square meters) for energy conservation transformation.
将选出公共建筑（建筑面积达200万平方米）进行节能改造。
- The building retrofitting will meet government criteria on energy savings and conservation, as well as, green building technologies will be applied to the project.
建筑改造将达到政府的节能要求，项目中还将应用绿色建筑技术。



Conclusion – 结论



- China is giving great importance to Green Municipal Finance Sector
中国非常重视绿色市政投融资领域
- Chinese local governments play a fundamental role in the development of “green” projects
中国地方政府在“绿色”项目开发方面发挥着基础性的重要作用
- Demand-side structuring of the “green” projects is the key for municipalities’ sustainable development
“绿色”项目的需求侧结构是市政可持续发展的关键所在
- “Top to Down” plus “Down to Top” Approach
“自上而下”与“自下而上”相结合的方法
- Private Capital & Private Sector are essential in developing resourceful “green” projects
要发展资源充足的“绿色”项目，私人资本和私营部门必不可少



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THANKS 谢谢



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