

一.北京水泥厂纯低温余热利用电站工程  
Electrical Power station with Pure low temperature & waste heat in Beijing cement Ltd.

二.北苑家园地热供暖项目  
Geothermal heating supply in BeiYuan Uptown

北京市能源投资公司  
Beijing energy investment company (BEIC)



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## 北京市能源投资公司简介 Introduction of BEIC



北京市能源公司是北京市综合投资公司的全资子公司。  
Beijing Energy Investment Company is the subsidiary company of Beijing Comprehensive Investment company.

我公司主要业务是经营、管理北京市节能计措经营性资金及能源有关的其他资金。

BEIC mainly undertakes the operation and management of energy-saving technological transformation commercial funds and other funds concerned with energy for Beijing government.

## 北京市能源投资公司简介（续） Introduction of BEIC (cont.)



公司业绩：

公司成立11年来，先后帮助100多家企业成功实施了节能技术改造项目，在落实节能环保产业化发展战略的过程中，以高新技术为先导与国内外商家共同成立了多家公司。

Achievement:

Since 11 years of the founding of the company, the company has helped more than 100 enterprises carry out development strategy of energy-saving technological transformation projects; In the process of carrying out development strategy of energy-saving and environment protection industry, BEIC focus on the development of high technology and has co-established many companies with domestic and international enterprises.

## 北京市能源投资公司简介（续） Introduction about BEIC (cont.)



经营范围：

涵盖了节能环保供热设备、输配电关键设备的研发、生产销售及清洁能源供应、高新技术项目研发等。

Managements:

include energy-saving and environment protection and heating equipments, research and development of key equipments for electricity transmission and distribution, manufacture and sales, supply of clean energy, research and development of high technical projects etc.

公司资产：

到2001年年底，公司拥有总资产6.2亿元，净资产2.5亿元。

Assets:

By the end of 2001, the total assets of the company reach RMB 0.62 billion yuan, the net assets reach RMB 0.25 billion yuan.

## 项目介绍——北苑家园地热供暖项目



### Project 1. Geothermal heating supply in BeiYuan Uptown

## 项目简介: Project introduction:

●该项目是全国最大的地热综合利用工程之一，它将提供实现80万平方米(800,000 m<sup>2</sup>)住宅的地热供暖和生活用热水保障。

It is the biggest ground geothermal energy comprehensive utilization project in China. It will provide heating supply and residential hot water for acreage of 800,000 m<sup>2</sup>.

●该项目设计热负荷为46.4MW，实际运行符合负荷约为18.56MW，每采暖季耗热量为 $2.0 \times 10^{11}$ KJ。

- Heating Capacity:46.4MW;
- Operating Capacity:18.56MW;
- Caloric Value annual:  $2.0 \times 10^{11}$ KJ

●总投资: 16511万元

Total Investment: RMB 165.11 Million yuan



## 项目CDM相关信息(地热)

### CDM information of geothermal energy

- 基准线方法学 Baseline Methodology: 新 New
- 基准线 Baseline: 替代燃煤热水锅炉 Replace of coal-fired heating boiler
- 年减排量(估算) Total Annual Emission Reduction (evaluation): 2.5万吨CO<sub>2</sub>-e (25000 tons CO<sub>2</sub>-e)
- 减排计入期(crediting life): 2005-2014
- 项目额外性分析 Additionality analysis: 见下一页 See next page



## 项目额外性分析(Additionality analysis)

- 经济额外性: 由于项目现在运行很大难度，初期投资成本很难收回，因此需要额外资金注入使得项目正常运行;  
Financial Additionality: The operation of the project have many obstacles, and the return of the investment has little, so the aid of additional finance is crucial to the project.
- 技术额外性: 本地热项目在国内以及北京市还没有大范围推广，技术的推广难度较大，因此需要外部力量支持来推广本项目技术;  
Technological Additionality: the geothermal technology is not mature in China and Beijing. So there are huge technological risks to implement the geothermal technology, exterior technological support can provide the project.
- 减排额外性: 如果本项目不存在的话，小区的热水供应则可能由燃煤热水锅炉来提供，而地热供暖属于可再生能源供暖，项目自身排放为零，因此本项目满足清洁发展机制项目的基本要求。

Emission reduction Additionality: if the project is not existed, the heating demand in Beiyuan uptown will be supplied by coal-fired boiler. Geothermal belongs to renewable energy, the emission of the project is zero, So the emission reduction satisfied the quantifications of CDM project.



## 项目介绍——

### 北京水泥厂纯低温余热利用电站工程

#### Project 2. Electrical Power station with Pure low temperature & waste heat in Beijing cement Ltd.



## 项目简介 Project introduction:

●窑炉尾气纯低温余热发电项目是对北京水泥厂有限责任公司的2400T/D水泥熟料生产线及外置城市工业废弃物示范工程线(3200T/D)窑炉尾气进行综合利用的项目。

The Pure low temperature & waste heat power generation project is the comprehensive utilization of kiln flue gas of 2400T/D and 3200T/D.

●项目建设一座装机容量为6MW(现可能7.5MW)的低温余热发电站。  
Total capacity: 6MW (now about 7.5MW)

●项目总投资4743万元，其中北京能源投资公司3320万元，占70%。  
Total Investment: 47.43 Million yuan, in which 70% is BEIC investment 33.20 Million yuan .



## 项目CDM相关信息(余热发电)

### CDM information of residual heat power generation

- 基准线方法学 Baseline Methodology : ACM0003或ACM0004 (ACM0003 or ACM0004)
- 基准线 Baseline: 华北电网排放 North China electricity net
- 年减排量(估算) Total Annual Emission Reduction (evaluation): 6万吨CO<sub>2</sub>-e (60000 tons CO<sub>2</sub>-e)
- 减排计入期(crediting life): 2007-2016
- 项目额外性分析 Additionality analysis: 见下一页 See next page



## 项目额外性分析(Additionality analysis)



- **经济额外性:** 由于项目投资较大, 内部收益率不是很好, 项目的经济吸引力不是很强, 因此需要额外资金投入使得项目正常建设运行

Financial Additionality: because the investment of the project is huge, and IRR is not attractive to the investor, the additional capital is urgent to build and operate the project.

- **技术额外性:** 由于中国的余热发电技术还处于起步阶段, 因此余热发电同常规发电相比还很不成熟, 满足技术额外性要求

Technological Additionality: the technology of waste heat to power generation is in the stage of developing and demonstration. To contrast with fossil generation, it is not mature. So it is qualified to CDM.

- **减排额外性:** 项目处于示范项目, 如果没有本项目的存在, 项目提供的这部分电力将采用华北电网所提供的电力, 而本项目自身的温室气体排放可以忽略, 因此项目满足减排额外性要求

Emission reduction Additionality: The project belongs to demonstrating project. If it is not taking account of the proposal project, the demand of electric power will be provided by north-China grid. Meanwhile the GHGs emission of the project can be ignored, so the project is satisfied with the additionality of CDM.

# 非常感谢!

## Thank you for your kind attention!



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