

SFG1344 v3

China

Hebei Clean District Heating Project

**Xingtai Industrial Waste Heat Central Heating Project**

**Abbreviated Resettlement Action Plan**

**Xingtai Xuyang Anneng Heating Co., Ltd. (XXAH)**

**August 2015**

**Abbreviations**

AAOV	-	Average Annual Output Value
AH	-	Affected Household
AP	-	Affected Person
HCCRC	-	Hebei China Coal Xuyang Coking Co., Ltd.
HD	-	House Demolition
LA	-	Land Acquisition
M&E	-	Monitoring and Evaluation
MLS	-	Minimum Living Security
RAP	-	Resettlement Action Plan
XXAH	-	Xingtai Xuyang Anneng Heating Co., Ltd.
XXCC	-	Xingtai Xuyang Coal Chemical Co., Ltd.

**Units**

Currency unit	=	Yuan (RMB)
\$1.00	=	CNY6.15
1 hectare	=	15 mu

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## 1. Overview

The World Bank-financed Xingtai Industrial Waste Heat Central Heating Project (hereinafter, the “Subproject”) is one of the 4 subprojects of the Hebei Clean Heating Project. The implementing agency of the Subproject is XXAH, which is a joint venture between Hebei China Coal Xuyang Coking Co., Ltd. (HCCRC) and Shijiazhuang Advanced Energy Technology Co., Ltd. founded in July 2014. In the Subproject, industrial waste heat from HCCRC will be utilized to supply heat to residential communities and public buildings with a total building area of 8.0163 million m<sup>2</sup> within a land area of 23 km<sup>2</sup> in the northwest of Xingtai City centrally, including a total building area of existing residential communities of 2.151 million m<sup>2</sup>, a total building area of existing public buildings of 146,000 m<sup>2</sup>, a total building area of newly constructed residential communities of 200,000 m<sup>2</sup>, a total building area of residential communities under construction of 5.6486 million m<sup>2</sup>, and a total building area of public buildings under construction of 70,800 m<sup>2</sup>.

The scope of construction of the Subproject is: circulating water pipeline from the primary cooler in the plant of China Coal Xuyang to the first heating station, circulating water pipeline from the dry quenching waste heat boiler power station to the first heating station, steam and condensate pipelines from the plant to the first heating station, first heating station, urban primary pipelines and heating stations. The Subproject will be constructed in two phases, in which Phase 1 will be constructed in 2015 and Phase 2 (funded by the Bank) during 2016-2019.

The heating source is Hebei China Coal Xuyang Coking Co., Ltd., and the backup heating sources are Xingtai Xuyang Coal Chemical Co., Ltd. (XXCC) and Hebei Jinniu Xuyang Chemical Co., Ltd. All these 3 companies are affiliated to Xuyang Group and located in Xingtai Xuyang Industrial Park. The park is located in Yanjiatun Town in southeastern Xingtai County, with a planned land area of 14.5 km<sup>2</sup>. All the three companies have received land use certificates from the Xingtai County Land and Resources Bureau, involving neither LA nor HD. See Appendix 1 for the due diligence reports of these 3 companies.



Figure 1 Locations of Xingtai County and Xingtai City



**Figure 2 Location of the heating source in Xingtai Xuyang Industrial Park and Xingtai City**

The first heating station of the Subproject has a total land area of 50 mu, which is part of the 148.9 mu of construction land obtained by XXCC from Shixiang Village, Yanjiatun Town, Xingtai County in 2009. XXCC has promised to offer this plot for use by the Subproject. See Chapter 11 “Relevant documents” for the letter of commitment. See Appendix 2 for the due diligence report of this plot.



**Figure 3 Locations of HCCRC and XRCC relative to Shixiang Village, Yanjiatun Town**

The heat exchange station under the Subproject will occupy 39.06 mu of state-owned land, which land located in residential communities, reserved for heating by real estate developers gratuitously as required by the government. Pipeline construction will occupy 428.78 mu of land temporarily, including plant roads and urban roads, involving neither LA nor HD.

## 2. Background of the Subproject

### 2.1 Socioeconomic profile of the subproject area

Xingtai City is located in southern Hebei, with a land area of 12,486 km<sup>2</sup>, governing two districts (Qiaodong and Qiaoxi), an economic development zone and an administrative zone, 15 counties, 191 townships, 19 sub-district offices, 335 communities and 5,190 villages. At the end of 2013, the city's resident population was 7.2169 million. In 2013, the city's GDP was 160.46 billion yuan, fiscal revenue 16.71 billion yuan, urban residents' per capita disposable income 20,634 yuan, and farmers' per capita net income 7,477 yuan.

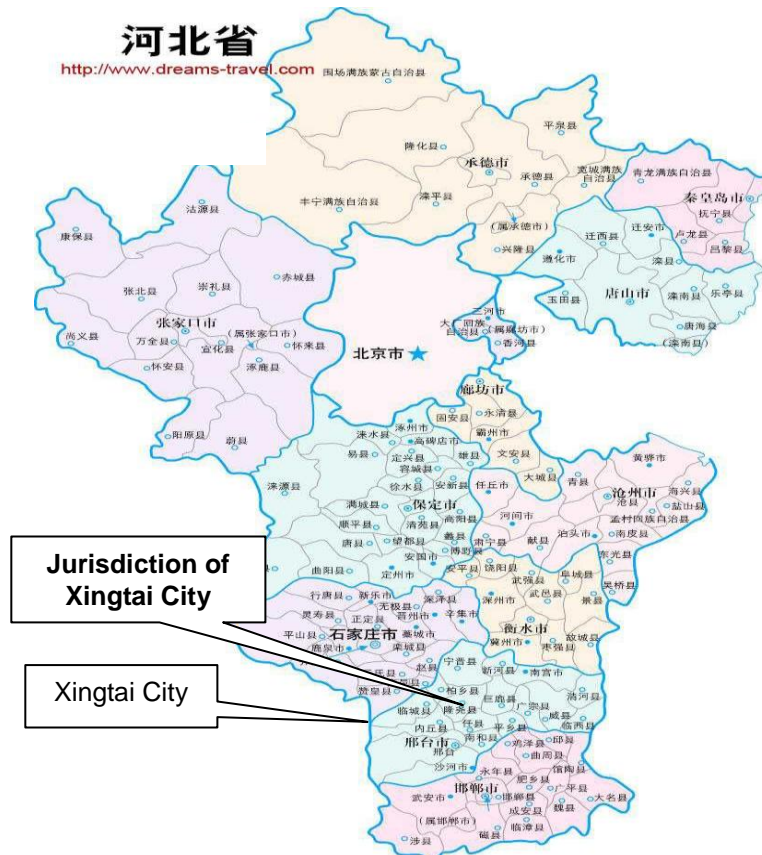


Figure 4 Location of Xingtai City in Hebei Province

### 2.2 Background and significance of the Subproject

In the urban area of Xingtai City, the main heating modes are central heating from thermal power plants and scattered heating by small gas-fired boilers. In addition, some residential communities are heated by ground source heat pumps and wall-mounted gas boilers, and some public buildings are heated by air-conditioners. Scattered gas-fired boilers feature low efficiency, high energy consumption and high cost (about 35 yuan/m<sup>2</sup>), for which a subsidy of 15 yuan/m<sup>2</sup> is granted from municipal finance, with a total amount of over 20 million yuan per annum. Even so, the heating quality of most communities is not guaranteed, and some residents have to purchase additional heating equipment, increasing their financial burden. The Subproject will improve energy utilization efficiency, reduce coal and natural gas consumption for heating, save costs, reduce pollution, and promote sustainable economic development. The Subproject will provide a source of central heating in the northwestern part of the urban area of Xingtai City, and reduce energy consumption and heating costs, playing a significant role in developing Xingtai into a

resource-saving and environment-friendly city.

The heating range of the Subproject is south of Provincial Highway S221, east of Binjiang Road, north of Quanbei Street (west of the railway); and Dongguan Street (east of the railway), east of Kaiyuan Road, and west of Xiangdu Road, in the northwestern part of the urban area of Xingtai City. The Subproject has a gross heating area of 8.0163 million m<sup>2</sup>, including an existing building area of 2.0971 million m<sup>2</sup>; and a newly completed or under-construction building area of 5.9194 million m<sup>2</sup>. Among existing residential buildings, 22 existing communities with a total building area of 1.4015 million m<sup>2</sup> are heated by natural gas boilers, one existing community with a building area of 399,500 m<sup>2</sup> is heated by wall-mounted gas boilers, one existing community with a building area of 150,000 m<sup>2</sup> and a newly completed community with a total building area of 200,000 m<sup>2</sup> is heated by ground source heat pumps, and public buildings with a total building area of 146,000 m<sup>2</sup> are heated by central air-conditioners. In order to accelerate the implementation of the Subproject, the owner plans to complete central heating for the residential communities heated by gas-fired boilers with a total building area of 1.2115 million m<sup>2</sup> in Qiaodong District in 2015 to replace 20 gas-fired boilers, and complete central heating for the remaining residential communities and public buildings with a total building area of 6.8048 million m<sup>2</sup> during 2016-2019.

### **2.3 Components**

The Subproject will be constructed in two phases. The scope of construction in 2015 (Phase 1) is as follows:

- 1) Circulating water pipeline from the primary cooler to the first heating station: diameter DN500-DN450, 9,700m long;
- 2) Steam and condensate pipelines from the Xuyang plant to the first heating station: steam pipeline diameter DN300, 1,000m long; condensate pipeline diameter DN50, 2,000m long;
- 3) A plate heat exchange station, a dispatching complex, a warehouse and repair shop, and an engineering garage in the first heating station;
- 4) Urban primary pipelines: 24,326m long, diameter DN1200-DN80;
- 5) 27 heating stations

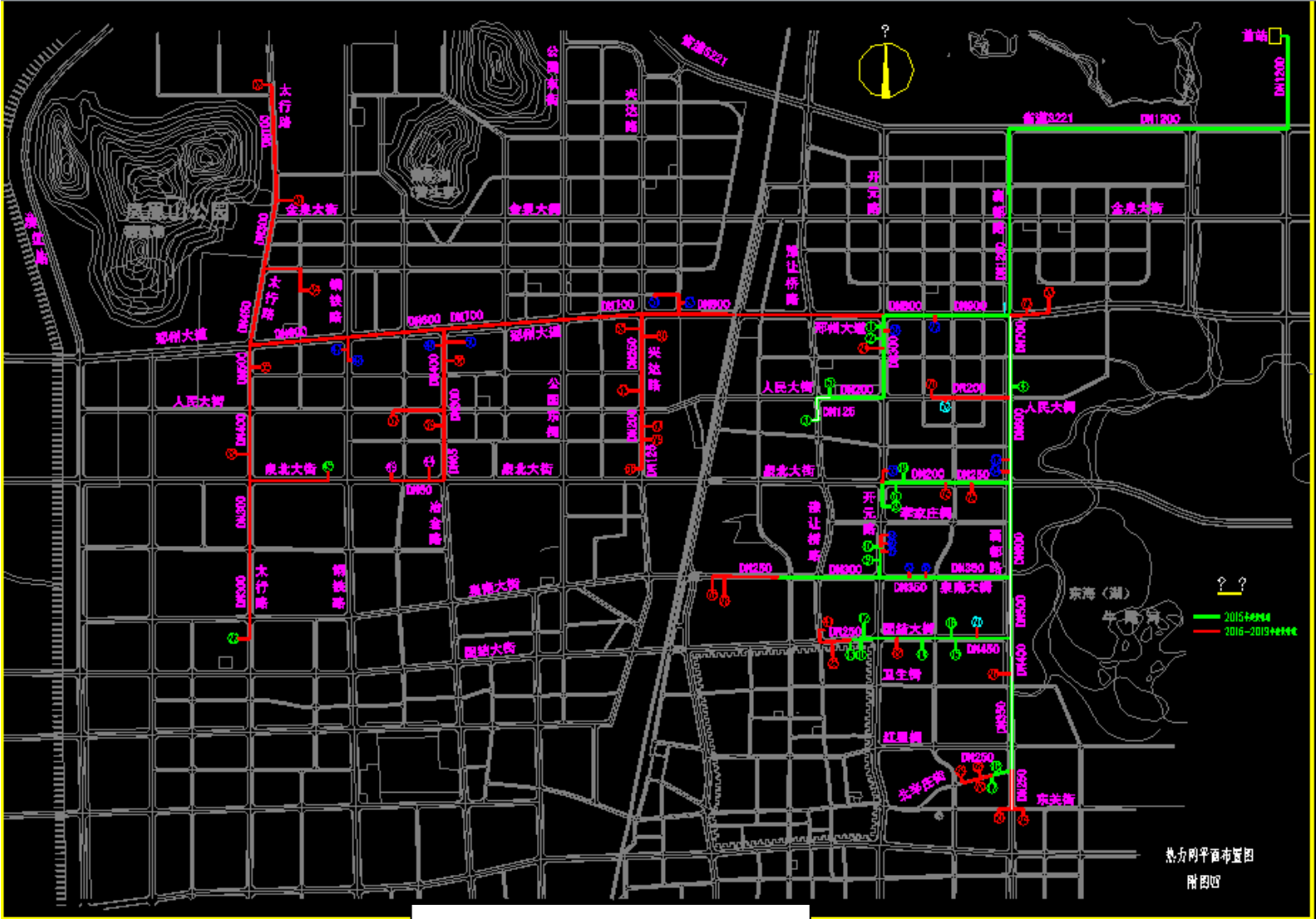
The construction investment in 2015 is 352.1755 million yuan.

The scope of construction in 2016-2019 (Phase 2) is as follows:

- 1) Circulating water pipeline from the dry quenching waste heat boiler power station in the plant to the first heating station: diameter DN400, 1,900m long;
- 2) Circulating water pipeline from the phthalic anhydride project to the first heating station: diameter DN800, 1,000m long;
- 3) Steam pipeline from the plant to the first heating station: construction of a DN600, 1,000m long pipeline in 2016; demolition of the DN300, and construction of a DN800, 1,000m long pipeline at its former position in 2018;
- 4) Two heat pump rooms of the first heating station;
- 5) Urban primary pipelines: 27,860m long, diameter DN700-DN50;
- 6) 117 heating stations: including 14 building heating stations, mainly including plate heat exchangers, water softeners, water softening tanks and automatic control systems

See Figure 5.





**Figure 5 Pipeline routing plan**

Table 2-1 Statistics of Heating Stations Constructed in 2015

N o.	Communit y	Name	Building area (0,000 m <sup>2</sup> )	Heat supply (W/m <sup>2</sup> )	Heating load (MW)	Station capacity	Numbe r	Remar ks
1	1#	Fengchao Garden (North Zone)	5.20	38	1.98	2MW	1	
2	2#	Fengchao Garden	20.10	58	11.66	3MW	4	
3	3#	Yihai Garden	3.10	58	1.80	2MW	1	
4	4#	Gaojiatun Community	7.97	38	3.03	3MW	1	
5	5#	Yuzhu Garden	6.40	38	2.43	3MW	1	
6	6#	Beiguozechuang	3.65	38	1.39	2MW	1	
7	7#	Quanbeiquan	2.63	38	1.00	1MW	1	
8	8#	Residential quarter of No.3 High School	0.79	58	0.46	1MW	1	
9	9#	Residential quarter of the Xingtai County State Administration Bureau	1.26	58	0.73	1MW	1	
10	10#	Residential quarter of the Xingtai County Health Supervision Bureau	2.80	58	1.62	2MW	1	
11	11#	Fangyuan Life north zone	3.26	80	2.61	3MW	1	
12	12#	Waterfront Garden	10.38	38	3.94	2MW	2	
13	13#	Fangyuan Life west zone	3.57	80	2.86	3MW	1	
14	14#	Tuanjie Garden	1.26	38	0.48	1MW	1	
15	15#	Tuanjie Garden west zone	2.10	38	0.80	1MW	1	
16	16#	Yi'an Garden	6.86	38	2.61	3MW	1	
17	17#	Oriental Granvia	13.00	38	4.94	3MW	2	
18	18#	Nature Town Phase 2	10.83	38	4.12	2MW	2	
19	19#	Quandu Town	4.50	38	1.71	2MW	1	
20	20#	Tangning No.10	11.50	38	4.37	2MW	2	
		Total					27	

**ARAP of the World Bank-financed Xingtai Industrial Waste Heat Central Heating Project**

**Table 2-2 Statistics of Heating Stations Constructed during 2016-2019**

No.	Community	Name	Building area (0,000 m <sup>2</sup> )	Heat supply (W/m <sup>2</sup> )	Heating load (MW)	Station capacity	Number	Remarks
1	21#	Nature Town	15	38	5.70	3MW	2	
2	22#	Kongfu Garden	15	38	5.70	3MW	2	
3	23#	Qinglin Garden	15.3	38	5.81	0.4MW	14	Building heating station
4	24#	Suli Garden	22.73	38	8.64	3MW	3	
5	25#	Kaiyuan Guantang	16	38	6.08	3MW	2	
6	26#	Tianhe Garden	21.46	38	8.15	3MW	3	
7	28#	Kaiyuan Renjia	5.41	38	2.06	2MW	2	
8	29#	Jinjiang Garden	4.7	38	1.79	2MW	1	
9	30#	New Century Yijing Garden	14.8	38	5.62	3MW	1	
10	31#	Evergrande Damingdu	33	38	12.54	3MW	2	
11	32#	Fire-fighting command center	2	38	0.76	1MW	1	
12	33#	Haide Garden	16.12	38	6.13	3MW	2	
13	34#	Xiangyin City Plaza	50	38	19.00	3MW	6	
14	35#	Yongkang Garden	75.67	38	28.75	3MW	10	
15	36#	Jinxu Garden	54.12	38	20.57	3MW	7	
16	37#	Yonghui Paris	11.64	38	4.42	2MW	2	
17	38#	Lingshi Garden	35	38	13.30	3MW	4	
18	39#	Central Mansion	44.96	38	19.00	3MW	6	
19	41#	Evergrande Town	20	38	7.6	2MW	4	
20	44#	Technical supervision bureau	0.3	65	0.20	1MW	1	
21	49#	Criminal police detachment	0.25	65	0.16			
22	45#	Hebei Electromechanical College	4	38	1.52	2MW	1	
23	46#	Qiaoxi District Procuratorate	0.5	65	0.33	1MW	1	
24	50#	Xingtai Broadcast & TV Center	1	65	0.65			
25	47#	Xingtai Administration for Industry and Commerce	0.5	65	0.33	1MW	1	
26	48#	Xingtai Disease Control Center	0.5	65	0.33			
27	51#	China Mobile	0.6	65	0.39	3MW	1	
28	63#	Xingtai Central Hospital	4.28	65	2.78			
29	52#	Oasis New Town indemnificatory housing	20	38	7.60	2MW	4	
30	53#	Century Garden (Phases 1 and 2)	39.95	38	15.18	3MW	5	

**ARAP of the World Bank-financed Xingtai Industrial Waste Heat Central Heating Project**

No.	Community	Name	Building area (0,000 m <sup>2</sup> )	Heat supply (W/m <sup>2</sup> )	Heating load (MW)	Station capacity	Number	Remarks
31	54#	Ophthalmic hospital	2	65	1.30	2MW	1	
32	62#	Urban administration bureau	0.2	65	0.13			
33	55#	Hanting Hotel	1	65	0.65	1MW	1	
34	56#	Unicom Building	0.6	65	0.39			
35	57#	5 <sup>th</sup> traffic police brigade	0.12	65	0.08	1MW	1	
36	58#	Community health center	0.4	65	0.26			
37	59#	Labor and social security bureau	0.3	65	0.20	1MW	1	
38	60#	State taxation bureau	0.2	65	0.13			
39	61#	Xingtai County traffic police brigade	0.35	65	0.23			
40	65#	Huangjia Garden (Phase 5)	5	38	1.90	2MW	1	
41	66#	Longfu Garden	4.5	38	1.71	2MW	1	
42	67#	Yuetantai Old-age Community	4	38	1.52	2MW	1	
43	68#	Shangpin International Garden	20.9	38	7.94	3MW	3	
45	70#	Haide Garden	6.24	38	2.37	3MW	1	
46	71#	Xingtai Psychiatric Hospital	1.08	38	0.70	1MW	1	
47	72#	Xingtai Tobacco Company	1.5	65	0.98	1MW	1	
48	73#	Building No.19 of Quanbeiquan	2.4	65	0.91	1MW	1	
50	74#	Evergrande Dijing Garden	10	38	3.80	2MW	2	
51	75#	Quandu Garden – Yuefu	18.7	38	7.11	2MW	4	
52	76#	Huadu Xiangyu Garden	29	38	11.02	3MW	4	
53	77#	Century Garden – Linyu No.1	3.6	38	1.37	2MW	1	
54	78#	Yuquan Garden	8	38	3.04	3MW	1	
55	79#	Sanyi Garden	9.6	38	3.65	2MW	2	
56	80#	Baihe Culture Plaza	6	38	2.28	3MW	1	
	Total						117	

## 2.4 Investment

The Subproject has a gross investment of 696.2877 million yuan, in which the construction investment in 2015 is 352.1755 million yuan, the construction investment during 2016-2019 318.1138 million yuan, financial expenses during the construction stage 23.6123 million yuan, and initial working capital 2.3861 million yuan. The investment during 2016-2019 includes a Bank loan of USD33.5 million, equivalent to 206.025 million yuan, accounting for 64.76% of gross investment.

## 2.5 Key technical and economic indicators

See Table 2-1.

**Table 2-1 Key technical and economic indicators**

No.	Item	Unit	Qty.
1	Heating area	0,000 m <sup>2</sup>	801.63
1.1	Heating area in 2015	0,000 m <sup>2</sup>	121.15
1.2	Heating area during 2016-2020	0,000 m <sup>2</sup>	680.48
2	Heating load	MW	317.04
3	Pipelines		
3.1	Circulating water pipeline in the plant	m	11600
3.2	Steam pipeline in the plant	m	3000
3.3	Condensate pipeline in the plant	m	2000
3.4	Circulating water pipeline from the phthalic anhydride project to the first heating station	m	550
3.5	Urban primary pipelines	m	52186
4	Maximum diameter	mm	1200
5	Minimum diameter	mm	40
6	Heating stations	/	144
6.1	Conventional heating stations	/	130
6.2	Building heating stations	/	14
5	Staffing	/	60
6	Gross investment	0,000 yuan	69628.77
6.1	Investment in 2015	0,000 yuan	35217.55
6.2	Investment in 2016-2019	0,000 yuan	31811.38
7	Annual operating revenue (including tax)	0,000 yuan	13076.61
8	Annual costs	0,000 yuan	9517.69
9	Annual profit	0,000 yuan	3558.93
10	Annual income tax	0,000 yuan	779.72
11	Financial internal rate of return (after-tax)	%	10.53
12	Financial net present value (Ic=8%) (after-tax)	0,000 yuan	7046
13	Static payback period (after-tax)	Year	9.7

## 3. Construction schedule

The Subproject will be constructed during 2015-2019. The preliminary schedule is as follows:

March 2015 – June 2015: completion of the feasibility study report;

June 2015 – July 2015: completion of the preliminary design of Phase 1;

July - August 2015: completion of the design of construction drawings of Phase 1;

August - November 2015: completion of the bidding and construction of Phase 1;

July – October 2015: completion of the preliminary design of Phase 2;

November 2015 – January 2016: completion of the design of construction drawings of Phase 2;

February – March 2016: completion of the bidding of Phase 2;

April 2016 – October 2017: construction of a heat pump room, installation of 4 heat pumps, 4 circulating water pumps for primary cooler and two condensing water pumps; installation of a peak-load heater; installation of a DN600 steam pipeline of 1,000m from the plant of China Coal

Xuyang to the first heating station, a DN800 water circulating pipeline of 500m from the phthalic anhydride project to the first heating station, and primary pipelines of 15,066m; construction of 34 heating stations

April 2017 – October 2017: installation of primary pipelines of 6,571m; construction of 26 heating stations

April – October 2018: installation of a water circulating pump for primary pipelines, a peak load heater and an oxygen extractor; construction of a heat pump room, and installation of two heat pumps, two circulating water pumps for primary cooler and two condensing water pumps; installation of a DN700 steam pipeline of 1,000m from the plant of China Coal Xuyang to the first heating station; installation of primary pipelines of 1,453m; construction of 26 heating stations

April – October 2019: installation of 3 heat pumps, two dry quenching circulating water pumps, and a DN400 dry quenching circulating water pipeline of 1,900m; installation of primary pipelines of 4,770m; construction of 31 heating stations

## 4. Impacts of the Subproject

The Subproject involves neither the acquisition of rural collective land nor HD. The first heating station and other heating stations will occupy 89.06 mu of land permanently, and pipeline construction will occupy 428.78 mu of land temporarily, including plant roads of 89.06 mu and urban roads of 339.48 mu. Permanent and temporary land occupation will involve state-owned land only.

### 4.1 Permanent land occupation

The first heating station will occupy 50 mu of land, and the 142 heating stations will occupy 39.06 mu of land, all being state-owned land in residential communities and reserved for heating. See Table 4-1.

**Table 4-1 Summary of permanently occupied land**

Item	Qty.	Permanently occupied land (mu)		
		State-owned	Collective	Total
First heating station	1	50	0	50
Heating stations	130 (local)	39	0	39
	14 (building)	0.06	0	0.06
	Subtotal	39.06	0	39.06
Total		89.06	0	89.06

### 4.2 Temporary land occupation

In the Subproject, 428.78 mu of land will be occupied temporarily during pipeline construction, involving neither LA nor HD. See Table 4-2.

**Table 4-2 Summary of temporarily occupied land**

No.	Road	Dia.	Length (m)	Width (m)	Type	Area (mu)
Plant pipelines						
1	Plant pipelines	Circulating water pipeline				
		DN400-DN500	11600	4.9	Driveway	85.26
2		Steam pipeline				
		DN700	3000	0	Overhead	0
3		Condensate pipeline				
		DN250	2000	0	Overhead	0
4		Circulating water pipeline from the phthalic anhydride project to the first heating station				
		DN800	550	4.9		4.04

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Subtotal			17150		Motor vehicle lane	89.3
<b>Urban primary pipelines</b>						
<b>2015</b>						
1	Xuyang Avenue	DN1200	2990	6.3	Driveway	28.26
2	Provincial Highway s221	DN 1200	2382	6.3	Driveway	22.51
3	Xiangdu Road	DN 1200	1628	6.3	Driveway	15.38
4	Xingzhou Avenue	DN800	1966	5.5	Driveway	16.22
5	Kaiyuan Road	DN400-DN200	702	4.7	Driveway	4.95
6	Renmin Street	DN 200	563	4.2	Driveway	3.55
7	Xiangdu Road	DN 700	2283	5.3	Driveway	18.15
8	Xiangdu Road	DN 600	610	5.1	Driveway	4.67
9	Xiangdu Road	DN400- DN350	1065	4.7	Driveway	7.51
10	Quanbei Street	DN300- DN200	1079	4.4	Driveway	7.12
11	Quannan Street	DN 350	1985	4.6	Driveway	13.70
12	Tuanjie Street	DN500- DN350	1570	4.9	Driveway	11.54
13	Beixinzhuang Street	DN 350	175	4.6	Driveway	1.21
14	Primary pipelines of 20 communities	≤DN 200	6000	4.2	Community road	37.80
Subtotal			24326	6.3		192.55
<b>2016-2019</b>						
1	Xingzhou Avenue	DN 700	2647	5.3	Driveway	21.04
2	Xingzhou Avenue	DN 600	1874	5.1	Driveway	14.34
3	Renmin Street	DN 150	672	4.1	Driveway	4.13
4	Quannan Street	DN 250	561	4.1	Driveway	3.45
5	Xiangdu Road	DN 200	336	4.2	Driveway	2.12
6	Beixinzhuang Street	DN 200	260	4.2	Driveway	1.64
7	Taihang Road	DN 100	781	4	Driveway	4.69
8	Taihang Road	DN 300	611	4.3	Driveway	3.94
9	Taihang Road	DN 400	898	4.7	Driveway	6.33
10	Taihang Road	DN 500	92	4.9	Driveway	0.68
11	Taihang Road	DN 450	756	4.8	Driveway	5.44
12	Taihang Road	DN 400	232	4.7	Driveway	1.64
13	Taihang Road	DN 350	1376	4.6	Driveway	9.49
14	Yejin Road	DN 400	1320	4.7	Driveway	9.31
15	Xingda Road	DN250-DN100	1349	4.1	Driveway	8.30
16	Primary pipelines of 40 communities	≤DN200	8000	4.2	Community road	50.40
Subtotal			27860			146.93
Total			52186			428.78

### 4.3 Measures to mitigate impacts

The heating pipelines under the Subproject will be constructed on driveways and sidewalks, which will have negative impacts on pedestrians and motor vehicles. In order to minimize negative impacts of construction, the construction agency will take the following measures: conducting construction in stages and in a semi-enclosed manner to allow for the passage of pedestrians, bicycles and vehicles, erecting access roads and bridges, taking safety measures, indicating construction sites visually, preventing flying dust by sprinkling and coverage, and storing construction materials orderly and removing waste materials timely to reduce land occupation.

## 5. Compensation for road occupation and excavation

According to the Administrative Measures for the Collection of Urban Road Occupation and Excavation Fees promulgated by the Ministry of Construction and Ministry of Finance, excavation

repair fees (including ditch filling fees) and road occupation fees should be paid for urban road occupation during pipeline construction in the Subproject. Excavation repair fees and road occupation fees are included in the construction budget of the Subproject, and are estimated to be 55.4065 million yuan.

## 5.1 Applicable policies and regulations

- Regulations on the Administration of Urban Roads (Decree [1996] No.198 of the State Council)
- Administrative Measures for the Collection of Urban Road Occupation and Excavation Fees (JC [1993] No.410)
- Notice of the Hebei Provincial Construction Commission on Forwarding the Administrative Measures for the Collection of Urban Road Occupation and Excavation Fees (HPCC [1994] No.6)
- Notice of the Hebei Provincial Construction Commission on Adjusting Rates of Urban Road Excavation and Restoration (HPCC [1997] No.175)

## 5.2 Applicable provisions

### 1. Applicable provisions in the Regulations on the Administration of Urban Roads

Article 29 Only with the approval of the administrative department for municipal engineering may pipes, lines or pole lines be built attaching to urban roads.

Article 31 When there is a need to temporarily occupy any urban road due to some special reasons, an approval must be obtained from the administrative department for municipal engineering and the department for the administration of public security and communications.

Article 33 Those who are to dig urban roads for some engineering operation shall go through the procedures for examination and approval with the administrative department for municipal engineering and the department for the administration of public security and communications by producing the approval documents issued by the city planning department and relevant design papers.

Article 35 Those approved to dig urban roads shall put clear signs and set up protective walls on the operation sites and, after the completion of the operation, immediately clean up the sites and notify the administrative department for municipal engineering for inspection.

Article 36 Those approved to occupy or dig urban roads shall make the occupation or digging at the approved location and within the approved area and period. When there is a need to change the location or extend the area or period, they shall go through in advance the procedures for approving the changes.

Article 37 Those occupying or digging urban roads under the administration of the administrative department for municipal engineering shall pay fees for the occupation or renovation-after-digging of urban roads to the said department.

Fee rates for occupation of urban roads shall be drawn up by the administrative department for construction of the people's government of province or autonomous region or by the administrative department for municipal engineering of the people's government of municipality directly under the central government, and submitted to the departments of finance and price control at the same level for ratification.

### 2. Applicable provisions in the Administrative Measures for the Collection of Urban Road Occupation and Excavation Fees

Article 2 Urban roads referred to herein mean roads within urban planning areas (including road land). All organizations and individuals occupying or excavating roads within urban planning areas must observe these measures.

Article 3 Urban construction departments of local governments at or above county level shall be



responsible for the collection of road occupation and excavation fees.

Article 4 Organizations and individuals occupying roads temporarily for construction, storage, parking, marking or other special purposes must pay road occupation fees.

Organizations and individuals excavating roads for construction, repair or other special purposes must pay excavation repair fees.

Article 5 Road occupation fees shall be based on road grade, type of occupation (operating or else), use, etc.

Excavation repair fees shall be based on road structure, age, material cost, etc.

**3. Applicable provisions in the Notice of the Hebei Provincial Construction Commission on Forwarding the Administrative Measures for the Collection of Urban Road Occupation and Excavation Fees (HPCC [1994] No.6), and the Notice of the Hebei Provincial Construction Commission on Adjusting Rates of Urban Road Excavation and Restoration (HPCC [1997] No.175)**

Road occupation and excavation fees shall include road excavation fees, ditch filling fees and road occupation fees. Their rates are set out in Tables 5-1, 5-2 and 5-3.

**Table 5-1 Road excavation rates**

No.	Former rates (1994)		Adjusted rates (1997)	
	Item	Rate (yuan/m <sup>2</sup> )	Item	Rate (yuan/m <sup>2</sup> )
1	Concrete pavement	150	Concrete pavement repair	230
2	Asphalt pavement	120	Asphalt pavement repair	180
3	Ordinary tile sidewalk	70	Ordinary tile sidewalk repair	100
4	Square concrete tile sidewalk	150	Square concrete tile sidewalk repair	150
5	Color tile sidewalk	120	Color tile sidewalk repair	210
6	Concrete curbstone	30	Concrete curbstone repair	45
7	Earth road	20		

**Table 5-2 Ditch filling rates**

No.	Former rates (1994)		Adjusted rates (1997)	
	Item	Rate (yuan/m <sup>2</sup> )	Item	Rate (yuan/m <sup>2</sup> )
1	<1m deep	30	Sand filling to depth of 0-1m	90
2	1-2m deep	33	Sand filling to depth of 1-2m	140
3	Over 2m deep	43	Sand filling to depth of over 2m	230
4			Sand filling to depth of 0-1m	60
5			Sand filling to depth of 1-2m	70
6			Sand filling to depth of over 2m	100

**Table 5-3 Road occupation rates (yuan/m<sup>2</sup> per day)**

Item	Primary trunk roads	Secondary trunk roads	Branch trunk roads	Alleys
Shed	1.5	1	0.8	0.5
Stall	1	0.5	0.3	0.2
Construction	0.3	0.2	0.15	0.1
Vehicle parking	0.4	0.3	0.2	0.1
Bicycle parking	0.2	0.15	0.1	0.05
Marketplace			0.2	0.1

### 5.3 Fee rates

The local regulations of Xingtai City stipulate that if pavement is to be excavated for municipal construction purposes, the construction agency shall first file an application with the planning authority for approval, and then go through the excavation formalities with the municipal urban

administration bureau; excavated pavements shall be restored at the expense of the construction agency. It is learned that the excavation repair rate of the Subproject is 360 yuan/m<sup>2</sup>, including ditch filling fees.

#### 5.4 Excavation repair fees

For pipeline construction under the Subproject, excavation repair fees of 55.4065 million yuan will be paid, including 33.1528 million yuan in 2015 and 22.2538 million yuan during 2016-2019.

**Table 5-7 Excavation repair fees**

No.	Road	Diameter	Length (m)	Width (m)	Area (m <sup>2</sup> )	Excavation repair fees (0,000 yuan)
<b>2015</b>						
1	Xuyang Avenue	DN1200	2990	5	14950	538.2
2	Provincial Highway s221	DN 1200	2382	5	11910	428.76
3	Xiangdu Road	DN 1200	1628	5	8140	293.04
4	Xingzhou Avenue	DN800	1966	5	9830	353.88
5	Kaiyuan Road	DN400-DN200	702	4	2808	101.088
6	Renmin Street	DN 200	563	3	1689	60.804
7	Xiangdu Road	DN 700	2283	4	9132	328.752
8	Xiangdu Road	DN 600	610	4	2440	87.84
9	Xiangdu Road	DN400- DN350	1065	3	3195	115.02
10	Quanbei Street	DN300- DN200	1079	3	3237	116.532
11	Quannan Street	DN 350	1985	3	5955	214.38
12	Tuanjie Street	DN500- DN350	1570	4	6280	226.08
13	Beixinzhuang Street	DN 350	175	3	525	18.9
14	Primary pipelines of 20 communities	≤DN 200	6000	2	12000	432
Subtotal			24326		92091	3315.28
<b>2016-2019</b>						
1	Xingzhou Avenue	DN 700	2647	4	10588	381.17
2	Xingzhou Avenue	DN 600	1874	4	7496	269.86
3	Renmin Street	DN 150	672	3	2016	72.58
4	Quannan Street	DN 250	561	3	1683	60.59
5	Xiangdu Road	DN 200	336	3	1008	36.29
6	Beixinzhuang Street	DN 200	260	3	780	28.08
7	Taihang Road	DN 100	781	3	2343	84.35
8	Taihang Road	DN 300	611	3	1833	65.99
9	Taihang Road	DN 400	898	3	2694	96.98
10	Taihang Road	DN 500	92	3	276	9.94
11	Taihang Road	DN 450	756	3	2268	81.65
12	Taihang Road	DN 400	232	3	696	25.06
13	Taihang Road	DN 350	1376	3	4128	148.61
14	Yejin Road	DN 400	1320	3	3960	142.56
15	Xingda Road	DN250-DN100	1349	3	4047	145.69
16	Primary pipelines of 40 communities	≤DN200	8000	2	16000	576.00
Subtotal			27860		61816	2225.38
Total			52186		153907	5540.65

## 6. Impacts of closedown of scattered natural gas boiler rooms and resettlement of workers

After the completion of the Subproject, 22 natural gas boiler rooms will be replaced, including 4

run by entities, two by village committees, 13 run by property management companies and 3 by proprietors' committees. The 20 boiler rooms in Qiaodong District will be replaced in 2015, and the two in Qiaoxi District replaced during 2016-2019. These boiler rooms mostly run in deficit due to high costs, and their operators may assume risks of gas leakage and boiler explosion. Therefore, the closedown of these boiler rooms will not affect their operators, but will affect livelihoods of their workers.

### **6.1 Overview of affected boiler rooms and workers**

The 22 natural gas boiler rooms to be replaced under the Subproject have 40 boilers in total, with a total heating area of 1.4015 million m<sup>2</sup>. In heating year 2014-2015, these boiler rooms have 81 boiler workers in total, mainly including stokers and repairers, all being seasonal workers. See Table 6-1.

Table 6-1 Summary of affected boiler rooms and workers, and resettlement modes of boiler workers

No.	Community	Operator	Heating area (0,000 m <sup>2</sup> )	# of boilers	Boiler capacity (ton/hour)	Workforce	When closed down	Resettlement mode	
								Employment by XXAH	Employment by current PMC
1	Fengchao Garden (North Zone)	PMC	5.2	2	4 4	4	2015	4	0
2	Fengchao Garden	PMC	20.1	2	10 10	9	2015	8	1
3	Yihai Garden	Proprietors' committee	3.1	1	6	2	2015	2	0
4	Gaojiatun new area	Village committee	7.97	2	6 4	4	2015	4	0
5	Yuzhu Garden	PMC	6.4	2	3 3	4	2015	2	2
6	Beiguoazhuang	Village committee	3.65	1	6	2	2015	2	0
7	Quanbeiquan	PMC	2.63	1	2	2	2015	2	0
8	Residential quarter of No.3 High School	Entity	0.79	1	1	2	2015	2	0
9	Residential quarter of the Xingtai County State Administration Bureau	Entity	1.26	1	2	1	2015	1	0
10	Residential quarter of the Xingtai County Health Supervision Bureau	Entity	2.8	1	4	1	2015	1	0
11	Fangyuan Life north zone	Proprietors' committee	3.26	1	6	2	2015	2	0
12	Waterfront Garden	PMC	10.38	2	6 6	5	2015	4	1
13	Fangyuan Life west zone	Proprietors' committee	3.57	1	6	2	2015	2	0
14	Tuanjie Garden	PMC	1.26	1	2	1	2015	1	
15	Tuanjie Garden west zone	PMC	2.1	1	3	1	2015	1	0
16	Yi'an Garden	PMC	6.86	5	1 1 1 1 1	7	2015	6	1

**ARAP of the World Bank-financed Xingtai Industrial Waste Heat Central Heating Project**

17	Oriental Granvia	PMC	13	4	6	9	2015	7	2
					4				
					3				
					3				
18	Nature Town Phase 2	PMC	10.83	2	4	4	2015	4	0
					8				
19	Quandu Town	PMC	4.5	1	3	2	2015	2	0
20	Tangning No.10	PMC	11.5	2	4	4	2015	4	0
					6				
21	Kongfu Garden	PMC	15	4	4	9	2016-2019	8	1
					4				
					4				
					4				
22	Technical college	Entity	4	2	2	4	2016-2019	4	0
					2				
Total			140.15	40		81		73	8

Note: PMC = property management company

## 6.2 Impact analysis

### 1. Impacts of closedown on operators

Currently, there is a preferential heating policy for MLS households in Xingtai City, namely 13 yuan/m<sup>2</sup> for a building area of not more than 50 m<sup>2</sup> and 18 yuan/m<sup>2</sup> for any excess area per household.

Although the government grants subsidies, the operators still regard boiler rooms as a burden and think that the Subproject will be beneficial to them.

### 2. Impacts of closedown on boiler workers

22 gas-fired boiler rooms will be closed down after the completion of the Subproject, affecting 81 boiler workers, all being seasonal workers, mostly from nearby rural areas, aged 40-55 years, paid 2,000-2,500 yuan per month. In the 4-month heating period, their per capita income is within the range of 8,000-10,000 yuan, which is an important source of household income. They are mostly elder and short of other labor skills, so they will have difficulty in reemployment after the shutdown of boiler rooms.

In order to learn impacts in detail, the task force chose 3 boiler rooms randomly and interviewed 9 boiler workers:

- 1) Relatively old age: The 9 respondents range from 43 to 54 years, averaging 49 years.
- 2) Low educational levels: Among the 9 respondents, 6 have received junior high school education, accounting for 66.6%; two have received primary school education, accounting for 22.2%; and only one has received senior high school education, accounting for 11.1%.
- 3) Lack of other skills: Among the 9 respondents, two have been boiler workers for 3-5 years, accounting for 22.2%, 6 have worked for 5-8 years, accounting for 66.7%, and one has worked for 8-10 years, accounting for 11.1%. All of them are certified. 6 do farm work at home in the non-heating period, accounting for 66.7%, and the other 3 do odd jobs, accounting for 33.3%.
- 4) Lack of other income sources: The monthly wages of the 9 boiler workers are within the range of 2,000-2,500 yuan, averaging 2,200 yuan, and their per capita income in the 4-month heating period is about 9,000 yuan. For one respondent, boiler room income accounts for over 40% of household income; for 5 respondents, boiler room income accounts for over 30-40% of household income, and for 3 respondents, boiler room income accounts for less than 30% of household income.

## 6.3 Affected workers' attitudes to and needs for the Subproject

All the 9 respondents support the Subproject, and still expect to do jobs related to heating because they have difficulty in finding other jobs. For workers unable to do jobs related to heating, the owner should offer employment information and training opportunities to them in consultation with them.

## 6.4 Resettlement of affected workers

XXAH, boiler room operators and the Qiaodong District Government have decided to resettle laid-off boiler workers by the following means through consultation with them:

- 1) 8 boiler workers will continue to work at their current property management companies.
- 2) The other 73 boiler workers will continue to be employed by XXAH. After the completion of the Subproject, about 60 jobs of inspection, repair, maintenance, security, etc. for the heating network and heating stations will be generated, and about 40 inspectors for the heating stations will be needed in winter. These jobs will be first made available to former boiler workers because they are experienced. Therefore, XXAH will employ all boiler workers who are willing to stay and train them before they go to work. The owner promises that wages of all retained workers will not be reduced.

Through the above measures, all boiler workers will be resettled properly. See Table 6-1.

## 7. Resettlement costs

The resettlement budget of the Subproject is 70.6065 million yuan, including land occupation compensation for the first heating station of 15 million yuan, excavation repair fees of 55.4065 million yuan, training costs of 50,000 yuan and external monitoring costs of 150,000 yuan. See Table 7-1.

**Table 7-1 Resettlement costs**

Item	Amount (0,000 yuan)	Remarks
Land occupation for first heating station	1500.00	Paid to XXCC
Excavation repair fees	5540.65	Paid to the Xingtai Municipal Urban Administration Bureau
Training costs	5.00	Borne by XXAH
External monitoring costs	15.00	Paid to the external M&E agency
Total	7060.65	

## 8. Public participation and grievance redress

From September to December 2014, the staff of XXAH conducted extensive consultation with local officials and residents while conducting the impact survey to collect their comments and suggestions on the Subproject and the RAP, and communicate the grievance redress procedure.

The grievance redress procedure of the Subproject is as follows:

Stage 1: If any AP is dissatisfied with the RAP or its implementation, he/she may file an oral or written appeal with the community/village committee or XXAH. In case of an oral appeal, the community/village committee should prepare written records. A disposition should be made within one week.

Stage 2: If the appellant is dissatisfied with the disposition of Stage 1, he/she may file an appeal with the sub-district office, which should make a disposition within two weeks.

Stage 3: If the appellant is dissatisfied with the disposition of Stage 2, he/she may apply for administrative arbitration with the Xingtai Municipal Housing and Urban-Rural Development Bureau, which should make an award within ten days.

Stage 4: If the appellant is dissatisfied with the arbitration award, he/she may bring a suit in a civil court in accordance with the Civil Procedure Law.

## 9. Organizational setup

The Foreign Loan Management Center, Hebei Provincial Finance Department is the province-level leading organization of the Subproject, the Xingtai Municipal Government the executing agency, and XXAH the implementing agency.

The Xingtai Municipal Government has established the subproject leading group, which is headed by the deputy county head in charge, and composed of chief leaders of the county departments concerned, including finance, land and resources, audit, price control, etc. The group is responsible for the unified leadership of the Subproject, coordinating the county departments concerned, and solving major issues in subproject preparation and implementation.

The implementing agency XXAH is responsible for: 1) organizing subproject preparation and design; 2) organizing subproject implementation, including bidding and contracting; 3) supervising construction and equipment installation, and conducting on-site inspection; 4) organizing and

supervising the implementation of the Environmental Management Plan and the RAP; 5) raising counterpart funds and repaying the Bank loan; and 6) operating and maintaining facilities constructed under the Subproject.

## **10. M&E**

The subproject owner will appoint an independent M&E agency to conduct external M&E on the implementation of the RAP.

The external M&E agency will conduct regular M&E on LA compensation and resettlement to see if the resettlement objectives are met, give suggestions on the production and livelihood restoration of the APs, and provide a feedback channel.

The external M&E agency will submit two M&E reports to the Bank annually at the construction stage, and a summary report after the completion of construction and construction.

## **11. Relevant documents**

Certification of XXCC: On November 29, 2014, XXCC certified that it approved XXAH to construct the first heating station on 50 mu out of its 150 mu of land (XCLRB [2013] No.064).



## 证 明

邢台旭阳煤化工有限公司同意邢台旭阳安能热力有限公司使用 150 亩土地（邢县国用【2013】第 064 号）上的 50 亩土地建设供热首站。

特此证明

邢台旭阳煤化工有限公司

2014 年 11 月 29 日



## Appendix 1: Due Diligence Report on Land Occupation for HCCRC

### 1. Overview of HCCRC

HCCRC, located in Xingtai Xuyang Industrial Park, founded in November 2003, which is a joint venture between Xingtai Xuyang Trading Co., Ltd., China Coal Coke Holdings Ltd. and Delong Steel Co., Ltd., with equity shares of 45%, 45% and 10%. Its staple products include metallurgical coke, coal tar, crude benzene, ammonium sulfate, coke oven gas, etc. The company has a floor area of 1681 mu and a workforce of over 1,800, being the largest coking enterprise of China and also the first manufacturing enterprise in the park. Its assets are 3.471 billion yuan, annual sales revenue 6.5 billion yuan and annual profit 400 million yuan.

### 2. Land occupation

On February 28, 2006, HCCRC received a land use certificate (No.008) from the Xingtai County Government. The land is west of Shixiang Village, Yanjiatun Town, 471,235 m<sup>2</sup> in size. See Figure 6.

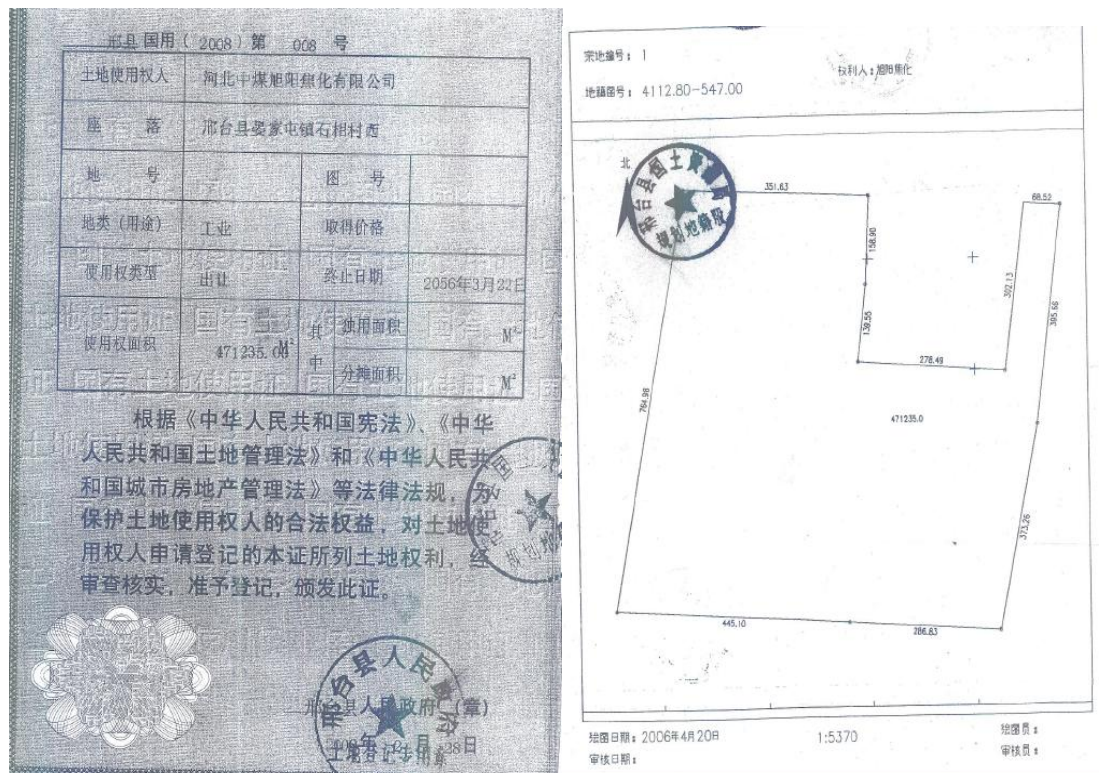


Figure 6 Land use certificate of HCCRC (No.008)

On February 28, 2007, HCCRC received a land use certificate (No.049) from the Xingtai County Government. The land is west of Shixiang Village, Yanjiatun Town, 8.4794 hectares in size. See Figure 7.

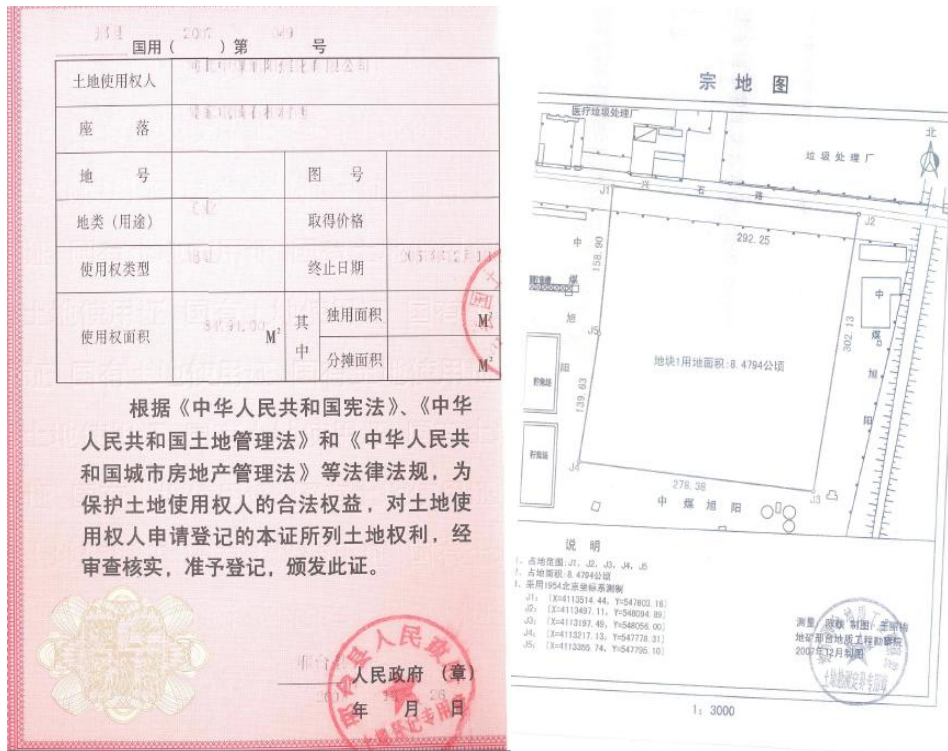


Figure 7 Land use certificate of HCCRC (No.049)

## Appendix 2: Due Diligence Report on Land Occupation for XXCC

### 1. Overview of XXCC

XXCC, founded in April 2006, located in Chengjie Village, Yanjiatun Town, Xingtai County, is a wholly-funded subsidiary of Xuyang Group, and a company specializing in the production of coal coking products and fine chemicals, with a floor area of 600 mu and a workforce of 500. Its staple products include asphalt, industrial naphthalene, crude phenol, light oil, pure benzene, etc. Its assets are 3.648 billion yuan, annual sales revenue 3.2 billion yuan and annual profit 200 million yuan.

### 2. Land occupation

On November 6, 2006 and February 28, 2007, XXCC received land use certificates (No.027, No.028, No.029, No.030 and No.031) from the Xingtai County Government. The land is west of Shixiang Village, Yanjiatun Town, 79,993 m<sup>2</sup>, 80,018 m<sup>2</sup>, 79,984 m<sup>2</sup>, 79,993 m<sup>2</sup> and 80,012 m<sup>2</sup> in size, totaling 400,000 m<sup>2</sup>. See Figure 8.





Figure 8 Land use certificates of XXCC

## Appendix 3: Due Diligence Report on Land Occupation for HJRC

### 1. Overview of HJRC

HJRC, founded in March 2008, located east of Pangma Village, Yanjiatun Town, is a 50:50 joint venture between Xuyang Group and Jizhong Energy Resources Co., Ltd., with a floor area of 192 mu and a workforce of 200. Its staple products include methanol, crude alcohol, steam, etc. Its assets are 596 million yuan, annual sales revenue 473 million yuan and annual profit 54 million yuan.

### 2. Land occupation

On July 31, 2009, HJRC received a land use certificate (No.037) from the Xingtai County Government. The land is east of Pangma Village, Yanjiatun Town, 128,002 m<sup>2</sup> in size. See Figure 9.

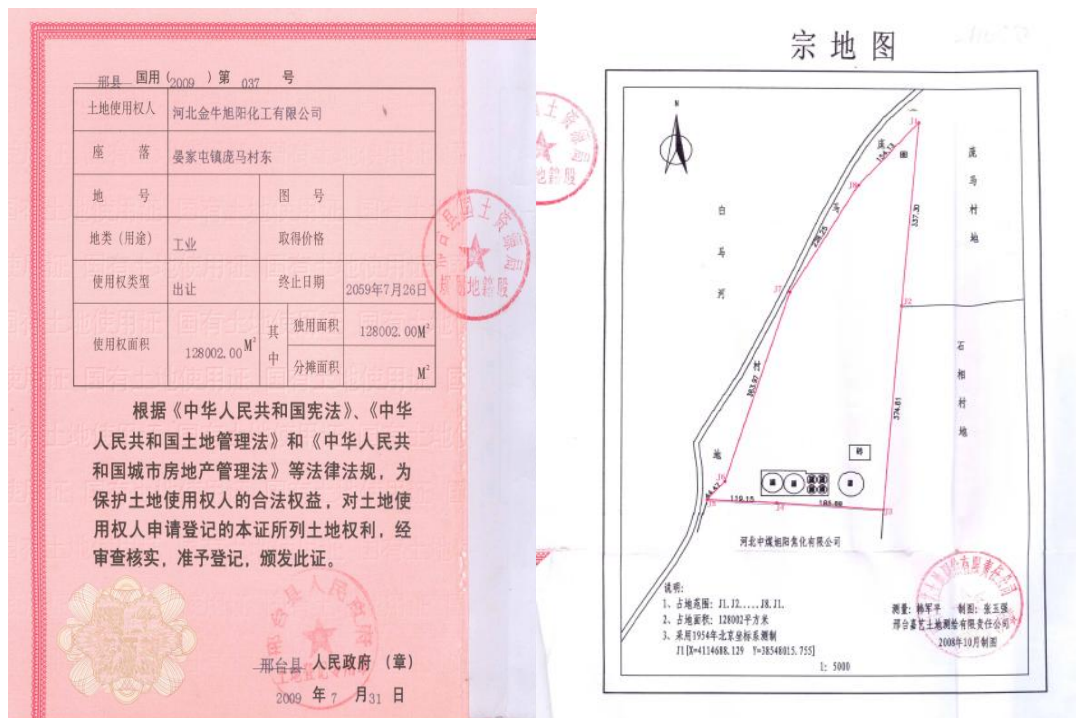


Figure 9 Land use certificate of HJRC (No.037)

## Appendix 4: Due Diligence Report on Land Occupation for the First Heating Station

### 1. Overview of the station

The first heating station of the Subproject is located east of the HCCRC plant, with a floor area of 50 mu, which is part of the 148.9 mu of construction land obtained by XXCC from Shixiang Village, Yanjiatun Town, Xingtai County in 2009.

In 2012, XXCC acquired 148.9 mu of collective land in Shixiang Village through the Xingtai County Government in order to construct the phthalic anhydride project. In January 2013, land compensation was paid to Shixiang Village. In April 2013, the Shixiang Village Committee entered into LA compensation agreements with the AHs and paid compensation to the AHs. In December 2013, Xingtai Xuyang Coking Co., Ltd. received a land use certificate from the Xingtai County Government.



## 2. Overview of the project area

Shixiang Village is affiliated to Yanjiatun Town, Xingtai County.

Xingtai County is located in southern Hebei Province, and governs 16 townships and 519 villages, with a land area of 1,839 km<sup>2</sup> and a population of 347,000. Xingtai County boasts an advantaged geographic location, convenient traffic and developed industry.

Yanjiatun Town has a land area of 62.6 km<sup>2</sup> and a population of 30,400, and governs 24 villages. Xingtai Xuyang Industrial Park is located in Yanjiatun Town.

Shixiang Village has over 1,000 households with over 4,000 persons, and a cultivated area of over 4,000. The main crops are peanut, corn and wheat, and the main income sources of villagers are crop cultivation and employment. Since the village is close to the urban area of Xingtai City and Xingtai Xuyang Industrial Park, most villagers work at nearby enterprises. In 2013, villagers' per capita net income was 9,600 yuan. The village is developed in education and medical care.

## 3. Impacts of the project

### 3.1 Impacts of permanent LA

148.9 mu of collective land in Shixiang Village has been acquired for the XXCC phthalic anhydride project, all being irrigated land, affecting 87 households with 318 persons. No HD is involved.

Table 3-1 LA impacts of the XXCC phthalic anhydride project

LA amount and type			Affected	
Irrigated land	Non-irrigated land	Total	HHs	Population
148.9	0	148.9	87	318

### 3.2 Ground attachments

In addition to young crops, there is a well and two simple vegetable greenhouses on the acquired land.

## 4. Impact analysis

HD for the XXCC phthalic anhydride project has reduced the cultivated area of Shixiang Village, and affected the production and living quality of the AHs to some extent.

The 87 AHs formerly had 413.4 mu of land (1.3 mu per capita) before LA, and has 264.5 mu of land (0.83 mu per capita) after LA, reducing per capita cultivated area by 0.47 mu or 36%. In general, the AHs are affected heavily by LA.

No AH has lost all its land. 4% of the AHs have a land loss rate of 58%, 26% have a land loss rate of 50%, 37% have a land loss rate of 29%, and 23% have a land loss rate of 18%. See Table 4-1.

Table 4-1 Land losses of AHs

HHs	Population	Percentage to affected population	Land loss (mu)	Per capita land loss (mu)	Per capita land loss rate
12	44	14%	32.90	0.75	58%
23	84	26%	54.64	0.65	50%
32	117	37%	44.45	0.38	29%
20	73	23%	16.89	0.23	18%
87	318	100%	148.88	0.47	

## **5. Resettlement policy framework**

### **5.1 Applicable policies and regulations**

The laws and policies applicable to the XXCC phthalic anhydride project include:

- Land Administration Law of the People's Republic of China (adopted in June 1986, amended in 2004)
- Decision of the State Council on Deepening the Reform and Rigidly Enforcing Land Administration (SC [2004] No.28)
- Notice of the Ministry of Land and Resources on Developing Uniform AAOV Rates and Location-based Land Prices for Land Acquisition (MLR [2005] No.114)
- Land Regulations of Hebei Province (amended in May 2005)
- Notice of the Hebei Provincial Government on Practicing Location-based Land Prices for Land Acquisition (HPG [2008] No.132, December 31, 2008)
- Notice of the Hebei Provincial Government on Amending Location-based Land Prices for Land Acquisition (HPG [2011] No.141, December 31, 2011)

### **5.2 Applicable provisions**

#### **1. Applicable provisions in the Land Administration Law of the People's Republic of China**

**Article 2** The state may acquire collectively owned land for public benefits.

#### **2. Applicable provisions in the Guidelines on Improving Compensation and Resettlement Systems for Land Acquisition**

③ Fixation of location-based composite land prices for LA. Where conditions permit, the province-level land and resources authority may fix composite land prices for LA for different counties and cities in the province together with other competent authorities, and report such prices to the province-level government for approval, disclosure and implementation. Such prices shall be fixed in consideration of land type, output value, geographic location, farmland rating, per capita arable area, land supply-demand relationship, local economic level and minimum living security level of urban residents, etc.

#### **3. Applicable provisions in the Notice of the Hebei Provincial Government on Practicing Location-based Land Prices for Land Acquisition**

20% of land compensation fees shall belong to the collective economic organization, and 80% to holders of the land use right or land contractors; if any acquired land has no holder of the land use right and has not been contracted by the collective economic organization, land compensation fees shall belong completely to the collective economic organization for distribution or use. Land compensation fees shall be paid timely and fully, and shall not be withheld or embezzled by any organization or individual.

Attachments and young crops on acquired land shall be otherwise compensated for.

#### **4. Applicable provisions in the Notice of the Hebei Provincial Government on Amending Location-based Land Prices for Land Acquisition**

The location-based land prices for land acquisition in the Notice of the Hebei Provincial Government on Practicing Location-based Land Prices for Land Acquisition (HPG [2008] No.132) have been amended in order to improve compensation for land acquisition, protect farmers' lawful rights and interests, and ensure the availability of construction land. These prices shall come into effect from January 1, 2012.

Table 5-1 Location-based land prices of Xingtai City (yuan/mu)

Division	Average location-based land price	Tier-1 area	Tier-2 area	Tier-3 area	Tier-4 area	Tier-5 area	Tier-6 area
Xingtai City	41049						
Xingtai County	43305	100000	65000	45000	37350		

Shixiang Village is a Tier-2 area in Xingtai County, where location-based land price is 65,000 yuan/mu.

### 5.3 LA compensation policy for the XXCC phthalic anhydride project

#### 5.3.1 Permanent LA

The compensation rate for permanent LA of this project is 80,000 yuan/mu, including young crops but excluding ground attachments. This rate is higher than the local location-based composite land price by 15,000 yuan/mu.

#### 5.3.2 Ground wells

Wells: 10,000 yuan each

Greenhouses: 2,000 yuan each

## 6. Resettlement measures

### 6.1 Resettlement policy

The Shixiang Village Committee has developed two resettlement options – one-time cash compensation at 80,000 yuan/mu (fully paid to the AHs) and equal-size land replacement. Through consultation, all AHs have chosen one-time cash compensation.

### 6.2 Effectiveness of resettlement

In April 2013, all 87 AHs entered into LA compensation agreements with the village committee, and received land compensation within 3 days.

All APs are satisfied with the compensation rate. Since Shixiang Village has relatively more land (3-4 mu per household) and most young villagers work at nearby enterprises, household income does not rely on land. In some households, land is even laid idle. For this reason, all AHs prefer cash compensation. There is no outstanding issue from LA in this project.

## 7. Sample compensation agreements

Compensation agreement 1: LA compensation agreement between the Shixiang Village Committee and villager Chen Shufen

LA area: 1.17 mu; amount of compensation: 93,600 yuan; date: April 2, 2013



## 土地征收协议

甲方：晏家屯石相村村民委员会

乙方：陈书芬

因项目建设需要，甲方征收乙方承包土地，经甲乙双方协商，达成如下协议：

- 一、该地块位于石相村西南方向，共计 1.7 亩。
- 二、甲方一次性支付给乙方包括土地补偿金、生活安置、附着物等全部补偿金 93600 元（大写：玖万叁仟陆佰元整）。
- 三、协议签订三日后，乙方自行清理该地块上所有附着物，逾期视为自动放弃。
- 四、协议签订后，该块土地的使用权归甲方所有，乙方不得以任何理由妨碍该地块的正常使用。
- 五、乙方不得以任何理由干扰阻碍施工，否则承担因此影响项目的一切经济损失和相应法律责任。
- 六、本协议一式三份，甲乙双方各执一份，镇政府留存一份，双方签字盖章后生效。

甲方：晏家屯镇石相村委会



乙方：陈书芬



2013 年 4 月 2 日

Compensation agreement 2: LA compensation agreement between the Shixiang Village Committee and villager Liang Hongzhen

LA area: 2.34 mu; amount of compensation: 187,200 yuan; date: April 2, 2013

## 土地征收协议

甲方：晏家屯石相村村民委员会

乙方：梁红振

因项目建设需要，甲方征收乙方承包土地，经甲乙双方协商同意，达成如下协议：

一、该地块位于石相村西南方向，共计 234 亩。

二、甲方一次性支付给乙方包括土地补偿金、生活安置、附着物等全部补偿金 187200 元（大写：壹拾捌万柒仟贰佰元整）。

三、协议签订三日后，乙方自行清理该地块上所有附着物，逾期视为自动放弃。

四、协议签订后，该块土地的使用权归甲方所有，乙方不得以任何理由妨碍该地块的正常使用。

五、乙方不得以任何理由干扰阻碍施工，否则承担因此影响项目的一切经济损失和相应法律责任。

六、本协议一式三份，甲乙双方各执一份，镇政府留存一份，双方签字盖章后生效。

甲方：晏家屯镇石相村委会



村民委员会

乙方：梁红振

2013 年 4 月 2 日

Compensation agreement 3: LA compensation agreement between the Shixiang Village Committee and villager Shi Quanshu

LA area: 1.54 mu; amount of compensation: 123,200 yuan; date: April 2, 2013

## 土地征收协议

甲方：晏家屯石相村民委员会

乙方：石合书

因项目建设需要，甲方征收乙方承包土地，经甲乙双方协商同意，达成如下协议：

- 一、该地块位于石相村西南方向，共计 1.54 亩。
- 二、甲方一次性支付给乙方包括土地补偿金、生活安置、附着物等全部补偿金 123200 元（大写：壹拾贰万叁仟贰佰元整）。
- 三、协议签订三日后，乙方自行清理该地块上所有附着物，逾期视为自动放弃。
- 四、协议签订后，该块土地的使用权归甲方所有，乙方不得以任何理由妨碍该地块的正常使用。
- 五、乙方不得以任何理由干扰阻碍施工，否则承担因此影响项目的一切经济损失和相应法律责任。
- 六、本协议一式三份，甲乙双方各执一份，镇政府留存一份，双方签字盖章后生效。

甲方：晏家屯镇石相村委会



乙方：石合书

2013 年 4 月 2 日